Final
Remedial Investigation Report
CC RVAAP-68 Electric Substations (East, West, No. 3)

Revision 0

Former Ravenna Army Ammunition Plant
Portage and Trumbull Counties, Ohio

July 31, 2015

Contract No. W912QR-04-D-0039
Delivery Order: 0004

Prepared for:



US Army Corps of Engineers®

United States Army Corps of Engineers
Louisville District
600 Martin Luther King Jr. Place
Louisville, Kentucky 40202-2267

Prepared by:

Environmental Chemical Corporation
33 Boston Post Road West
Suite 420
Marlborough, Massachusetts 01752

AMEC Environment & Infrastructure, Inc.
46850 Magellan Drive
Suite 190
Novi, Michigan 48377

This page intentionally left blank

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Washington Headquarters Service, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188) Washington, DC 20503.
PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS.

1. REPORT DATE *(DD-MM-YYYY)*	2. REPORT TYPE	3. DATES COVERED *(From - To)*
31-07-2015	Technical	December 2011 - July 2015

4. TITLE AND SUBTITLE
Final
Remedial Investigation Report
CC RVAAP-68 Electric Substations (East, West, No. 3)
Revison 0
Former Ravenna Army Ammunition Plant
Portage and Trumbull Counties, Ohio

5a. CONTRACT NUMBER
W912QR-04-D-0039

5b. GRANT NUMBER
Not applicable

5c. PROGRAM ELEMENT NUMBER
Not applicable

6. AUTHOR(S)
Baker, Bruce (AMEC); Foti, Pam (ECC)

5d. PROJECT NUMBER
Delivery Order No. 0004

5e. TASK NUMBER
Not applicable

5f. WORK UNIT NUMBER
Not applicable

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)

ECC
33 Boston Post Road West
Suite 420
Marlborough, Massachusetts 01752

AMEC Environmental & Infrastructure, Inc.
46850 Magellan Crive
Suite 190
Novi, Michigan 48377

8. PERFORMING ORGANIZATION REPORT NUMBER
Not applicable

9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)
U.S. Army Corps of Engineers - Louisville District
600 Martin Luther King Jr. Place
Louisville, Kentucky 40202-0059

10. SPONSOR/MONITOR'S ACRONYM(S)
USACE

11. SPONSORING/MONITORING AGENCY REPORT NUMBER
Not applicable

12. DISTRIBUTION AVAILABILITY STATEMENT
Reference distribution page.

13. SUPPLEMENTARY NOTES
None.

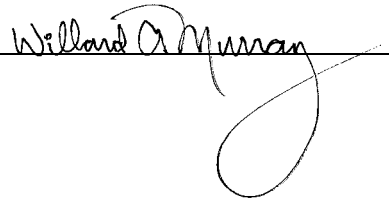
14. ABSTRACT
This Remedial Investigation (RI) Report presents the investigation activities completed at CC RVAAP-68 Electric Substations (East, West, No. 3) at the former Ravenna Army Ammunition Plant in Portage and Trumbull counties, Ohio. This report presents the field activities completed to characterize the nature and extent of contamination, a risk assessment, and an evaluation of the results in a pathway analysis.The results of this RI indicate that No Further Action (NFA) is required at CC RVAAP-68 Electric Substations (East, West, No. 3) Area of Concern (AOC). The horizontal and vertical extent of contamination has been delineated. Conclusions of the soil screening evaluation are that all site-related chemicals (SRCs) in soil are currently eliminated as potential risks to groundwater.

15. SUBJECT TERMS
Remedial Investigation, No Further Action, electric substations.

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT	b. ABSTRACT	c. THIS PAGE	SAR	40,825	Eric Cheng
U	U	U			19b. TELEPONE NUMBER *(Include area code)* (502) 315-7443

CONTRACTOR'S STATEMENT OF INDEPENDENT TECHNICAL REVIEW

Environmental Chemical Corporation has completed the *Final Remedial Investigation Report for CC RVAAP-68 Electric Substations (East, West, No. 3), Revision 0 at the Former Ravenna Army Ammunition Plant, Portage and Trumbull Counties, Ohio*. Notice is hereby given that an independent technical review has been conducted that is appropriate to the level of risk and complexity inherent in the project. During the independent technical review, compliance with established policy principals and procedures, utilizing justified and valid assumptions, was verified. This included review of data quality objectives; technical assumptions; methods, procedures, and materials to be used; the appropriateness of data used and level of data obtained; and reasonableness of the results, including whether the product meets the customer's needs consistent with law and existing United States Army Corps of Engineers policy.

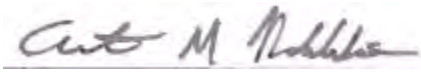


July 22, 2015
Date

ıtion



July 17, 2015
Anita Emery-DeVisser — Date
Senior Principal
AMEC Environment & Infrastructure, Inc.



July 15, 2015
Antony M. Rodolakis — Date
Associate Risk Assessor
AMEC Environment & Infrastructure, Inc.



July 20, 2015
Bruce Baker, CPG — Date
Project Manager
AMEC Environment & Infrastructure, Inc.

This page intentionally left blank

OhioEPA

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Craig W. Butler, Director

August 18, 2015

Re: US Army Ravenna Ammunition Plt RVAAP Assessment
Remedial Response
Portage County
267000859221

Mr. Mark Leeper, P.G., MBA
Restoration/Cleanup Program Manager
ARNG Directorate
111 S. George Mason Dr.
Arlington, VA 22204

Subject: Ohio EPA's Review of Final Remedial Investigation Report, CC-RVAAP-68, Electrical Substations (East, West, No. 3), Project No. 267-000859-221

Dear Mr. Leeper:

The Ohio Environmental Protection Agency (Ohio EPA) has reviewed the Final Remedial Inspection Report for CC-RVAAP-68, submitted as a response to Ohio EPA's comment letter dated July 13, 2015. The report was received by this office on July 31, 2015.

Ohio EPA's comments have been adequately addressed and incorporated into the document. The document is approved.

If you have any questions or concerns related to this review or would like to schedule a meeting or conference call, please free feel to contact me at (330) 963-1170.

Sincerely,

Edward D'Amato
Project Coordinator
Ohio EPA - Division of Environmental Response and Revitalization

ED/nvr

ec: Bob Princic, Supervisor, DERRNEDO
Rod Beals, Manager, DERR, NEDO
Al Muller, DDAGW, NEDO
Justin Burke, DERR-CO
Katie Tait, OHARNG RTLS
Kevin Sedlak, ARNG
Gregory F. Moore, USACE
Mark Nichter, USACE
Rebecca Haney/Gail Harris, Vista Sciences Corp.

Northeast District Office • 2110 East Aurora Road • Twinsburg, OH 44087-1924
www.epa.ohio.gov • (330) 963-1200 • (330) 487-0769 (fax)

RECEIVED 08-21-2015

This page intentionally left blank.

Final
Remedial Investigation Report
CC RVAAP-68 Electric Substations (East, West, and No. 3)

Revision 0

Former Ravenna Army Ammunition Plant
Portage and Trumbull Counties, Ohio

July 31, 2015

Contract No. W912QR-04-D-0039
Delivery Order: 0004

Prepared for:

United States Army Corps of Engineers
Louisville District
600 Martin Luther King Jr. Place
Louisville, Kentucky 40202-2267

Prepared by:

Environmental Chemical Corporation
33 Boston Post Road West
Suite 420
Marlborough, Massachusetts 01752

AMEC Environment and Infrastructure, Inc.
46850 Magellan Drive
Suite 190
Novi, Michigan 48377

This page intentionally left blank

Document Distribution
for the
Final Remedial Investigation Report
CC RVAAP-68 Electric Substations (East, West, No. 3)
Revision 0
Former Ravenna Army Ammunition Plant
Portage and Trumbull Counties, Ohio

Name	Organization	Number of Printed Copies	Number of Electronic Copies
Bob Princic	Ohio Environmental Protection Agency – Northeast District Office	Transmittal letter only	
Rod Beals	Ohio Environmental Protection Agency – Northeast District Office	Transmittal letter only	
Justin Burke	Ohio Environmental Protection Agency – Central District Office	0	1
Ed D'Amato	Ohio Environmental Protection Agency – Northeast District Office	1	2
Mark Leeper	Army National Guard	0	1
Eric Cheng	United States Army Corps of Engineers– Louisville District	2	2
Administrative Record Manager	Vista Sciences	2	2
Ravenna Environmental Information Management System		0	1
Pam Foti	Environmental Chemical Corporation	1	1

This page intentionally left blank

TABLE OF CONTENTS

Page

LIST OF TABLES vi
LIST OF FIGURES ix
LIST OF APPENDICES xii
LIST OF ACRONYMS AND ABBREVIATIONS xiii
EXECUTIVE SUMMARY ES-1
1.0 INTRODUCTION 1-1

1.1 PURPOSE 1-1
1.2 SCOPE 1-2
1.3 REPORT ORGANIZATION 1-3

2.0 BACKGROUND 2-1

2.1 FACILITY-WIDE BACKGROUND 2-1

2.1.1 Facility Description 2-1
2.1.2 Demography and Land Use 2-1
2.1.3 Environmental Setting 2-1

2.1.3.1 Physiographic Setting 2-1
2.1.3.2 Surface Features and Topography 2-2
2.1.3.3 Geology and Soil 2-2

2.1.3.3.1 Bedrock Geology 2-2
2.1.3.3.2 Soil and Glacial Deposits 2-3
2.1.3.4 Hydrogeology 2-3

2.1.3.4.1 Regional Hydrogeology 2-3
2.1.3.4.2 Groundwater Usage and Domestic Water Supply 2-5
2.1.3.4.3 Regional Surface Water 2-6
2.1.3.5 Climate 2-7

2.2 SITE DESCRIPTION 2-7

2.2.1 Operational History 2-8
2.2.2 Land Use and Ownership History 2-9
2.2.3 Physical Property Characteristics 2-9
2.2.4 Chronological Property Summary 2-10
2.2.5 Military Operations 2-10
2.2.6 Previous Investigations 2-10

3.0 ENVIRONMENTAL SETTING 3-1

3.1 SURFACE FEATURES AND TOPOGRAPHY 3-1

3.2 SOIL AND GEOLOGY 3-2
3.3 HYDROGEOLOGY 3-3
3.4 SURFACE WATER 3-4
3.5 POTENTIAL RECEPTORS 3-4

3.5.1 Human Receptors 3-5
3.5.2 Biological Resources 3-5

3.6 CONCEPTUAL SITE MODEL 3-6

3.6.1 Contaminant Sources 3-6
3.6.2 Soils 3-6
3.6.3 Sediment/Surface Water 3-6
3.6.4 Groundwater 3-7
3.6.5 Migration Pathways 3-7

4.0 REMEDIAL INVESTIGATION ACTIVITIES 4-1

4.1 DATA QUALITY OBJECTIVES 4-1
4.2 SAMPLING RATIONALE 4-1
4.3 PRE-MOBILIZATION ACTIVITIES 4-3
4.4 FIELD SAMPLING 4-7

4.4.1 Surface Soil Incremental Sampling Methodology Sampling 4-8
4.4.2 Subsurface Soil Incremental Sampling Methodology Sampling 4-8
4.4.3 Wet Sediment and Surface Water Sampling 4-9

4.5 DEVIATIONS FROM WORK PLAN 4-9
4.6 SURVEYING 4-10
4.7 INVESTIGATION-DERIVED WASTE 4-10

4.7.1 Collection and Containerization 4-10
4.7.2 Characterization and Disposal 4-10

5.0 NATURE AND EXTENT OF CONTAMINATION 5-1

5.1 DATA EVALUATION METHOD 5-1

5.1.1 Definition of Aggregates 5-1
5.1.2 Data Verification 5-2
5.1.3 Data Validation 5-3
5.1.4 Data Reduction 5-4
5.1.5 Data Screening 5-4
5.1.6 Data Presentation 5-7
5.1.7 Data Evaluation 5-7

5.2 CONTAMINANT NATURE AND EXTENT 5-8

5.2.1 Surface Soil 5-8

5.2.1.1 East Substation (DU01 through DU03) 5-9
5.2.1.2 West Substation (DU01 through DU03) 5-10
5.2.1.3 Substation No. 3 (DU01) 5-12

5.2.2 Subsurface Soil 5-13

5.2.2.1 East Substation (DU01 through DU02) 5-13

5.2.2.1.1 Horizontal Extent 5-13
5.2.2.1.2 Vertical Extent 5-14
5.2.2.2 West Substation (DU01 through DU02) 5-15

5.2.2.2.1 Horizontal Extent 5-15
5.2.2.2.2 Vertical Extent 5-16
5.2.2.3 Substation No. 3 (DU01) 5-17

5.2.2.3.1 Horizontal Extent 5-17
5.2.2.3.2 Vertical Extent 5-18
5.2.2.3.3 Wet Sediment and Surface Water 5-18
5.2.3 Summary of Contaminant Nature and Extent 5-20

6.0 CONTAMINANT FATE AND TRANSPORT 6-1

6.1 PHYSICAL AND CHEMICAL PROPERTIES OF SITE-RELATED CONTAMINANTS 6-1

6.1.1 Chemical Factors Affecting Fate and Transport 6-2
6.1.2 Biodegradation 6-7
6.1.3 Inorganic Chemicals 6-7
6.1.4 Organic Chemicals 6-8

6.2 CONCEPTUAL MODEL FOR FATE AND TRANSPORT 6-8

6.2.1 Contaminant Sources 6-8
6.2.2 Hydrogeology 6-9
6.2.3 Contaminant Release Mechanisms and Migration Pathways 6-10
6.2.4 Water Budget 6-11

6.3 SOIL SCREENING ANALYSIS 6-12

6.3.1 Soil Screening Analysis 6-13
6.3.2 Fate and Transport Modeling 6-22
6.3.3 Limitations and Assumptions of Soil Screening Analysis 6-23

6.4 FATE AND TRANSPORT SUMMARY AND CONCLUSIONS 6-23

7.0 RISK ASSESSMENT 7-1

7.1 HUMAN HEALTH RISK ASSESSMENT 7-1

7.1.1 Human Health Risk Assessment Methodology 7-1
7.1.2 Data Used in the Human Health Risk Assessment 7-3
7.1.3 Chemical of Potential Concern Identification 7-3

7.1.3.1 Chemicals of Potential Concern in Surface Soils 7-25
7.1.3.2 Chemicals of Potential Concern in Subsurface Soils 7-25
7.1.3.3 Chemicals of Potential Concern in Wet Sediment 7-26

7.1.4 Receptor Evaluation 7-26
7.1.5 Exposure Point Concentration Development 7-28
7.1.6 Identification of Chemicals of Concern: Resident Receptor 7-28
7.1.7 Identification of Chemicals of Concern: National Guard Trainee 7-30
7.1.8 Risk Characterization 7-31
7.1.9 Uncertainty 7-32
7.1.10 Human Health Risk Assessment Conclusions 7-33

7.2 SCREENING LEVEL ECOLOGICAL RISK ASSESSMENT 7-34

7.2.1 Level I: Scoping Level Ecological Risk Assessment 7-35

7.2.1.1 Evidence of Historic Chemical Contamination 7-35
7.2.1.2 Ecological Significance 7-36
7.2.1.3 Summary and Recommendations of Scoping Level Ecological Risk Assessment 7-47

7.2.2 Level II: Screening Level Ecological Risk Assessment 7-47

7.2.2.1 Habitats and Species (Including Generic Receptors) 7-49
7.2.2.2 Procedure to Identify Chemical of Potential Ecological Concerns 7-49
7.2.2.3 Soil Chemical of Potential Ecological Concerns 7-53
7.2.2.4 Sediment Chemical of Potential Ecological Concerns 7-53
7.2.2.5 Surface Water Chemical of Potential Ecological Concerns 7-54
7.2.2.6 Step 3A: Refinement of Chemical of Potential Ecological Concerns 7-65
7.2.2.7 Consideration of Human Health Driven Remediation 7-67
7.2.2.8 Uncertainties and Mitigations 7-67
7.2.2.9 Summary and Recommendations of Screening Level Ecological Risk Assessment 7-68

7.2.3 Conclusions 7-68

8.0 REMEDIAL INVESTIGATION CONCLUSIONS AND RECOMMENDATIONS 8-1

8.1 SUMMARY OF DATA IN REMEDIAL INVESTIGATION 8-1

8.2 SUMMARY OF NATURE AND EXTENT 8-1
8.3 SUMMARY OF CONTAMINANT FATE AND TRANSPORT 8-3
8.4 SUMMARY AND CONCLUSIONS OF THE RISK ASSESSMENTS 8-4
8.5 RECOMMENDATION OF THE REMEDIAL INVESTIGATION 8-5

9.0 REFERENCES 9-1

LIST OF TABLES

Table 3-1 Camp Ravenna Rare Species List (Februay 28, 2014) 3-9

Table 4-1 Sample Summary and Rationale 4-3

Table 4-2 Sample Summary and Analyses 4-5

Table 5-1 Site-Related Chemicals Summary for Surface Soil Aggregate 5-23

Table 5-2 Site-Related Chemicals Summary for Subsurface Soil Aggregate 5-29

Table 5-3 Site-Related Chemicals Summary for Sediment – Substation No. 3 5-37

Table 5-4 Site-Related Chemicals Summary for Surface Water – Substation No. 3 5-41

Table 6-1 Physical and Chemical Properties of Organic and Inorganic Site-Related Chemicals for the Subsurface Soil 6-5

Table 6-2 Climatic Data for Hydrologic Evaluation of Landfill Performance Model 6-12

Table 6-3 Initial Contaminant Migration Chemicals of Potential Concern Based on Comparison of Maximum Concentrations of Site-Related Chemicals to Generic Soil Screening Levels 6-14

Table 6-4 Initial Contaminant Migration Chemicals of Potential Concern Based on Comparison of Maximum Concentrations of Site-Related Chemicals to Site Soil Screening Levels 6-15

Table 6-5 Parameters for Determination of Dilution Attenuation Factor 6-16

Table 6-6 Leaching Zone Thickness Determination 6-17

Table 6-7 Initial Contaminant Migration Chemicals of Potential Concern Based on Arrival Time to Groundwater Table in Less Than or Equal to 1,000 Years 6-18

Table 6-8 Parameters for Contaminant Migration Chemicals of Potential Concern Based on Arrival Time to Nearest Downgradient Receptor 6-20

Table 6-9 Contaminant Migration Chemicals of Potential Concern Based on Groundwater Travel Time to Nearest Groundwater Receptor 6-22

Table 7-1 Samples Included in the Human Health Risk Assessment 7-4

Table 7-2 Chemicals of Potential Concern, East Substation – Surface Soil Samples 7-7

LIST OF TABLES (continued)

Table 7-3 Chemicals of Potential Concern, East Substation – Subsurface Soil Samples 7-9

Table 7-4 Chemicals of Potential Concern, West Substation – Surface Soil Samples 7-13

Table 7-5 Chemicals of Potential Concern, West Substation – Subsurface Soil Samples ... 7-15

Table 7-6 Chemicals of Potential Concern, Substation No. 3 – Surface Soil Samples..... 7-19

Table 7-7 Chemicals of Potential Concern, Substation No. 3 – Subsurface Soil Samples ... 7-21

Table 7-8 Chemicals of Potential Concern, Substation No. 3 – Sediment Samples 7-23

Table 7-9 Summary of Chemicals of Potential Concern in Surface Soil 7-25

Table 7-10 Summary of Chemicals of Potential Concern in Subsurface Soil 7-26

Table 7-11 Summary of Chemicals of Potential Concern in Wet Sediment 7-26

Table 7-12 Facility-Wide Cleanup Goals Corresponding to a Hazard Quotient of 1.0 and Target Risk of 10^{-5} for Determination of Chemicals of Concern in Surface Soil 7-27

Table 7-13 Facility-Wide Cleanup Goals Corresponding to a Hazard Quotient of 1.0 and Target Risk of 10^{-5} for Determination of Chemicals of Concern in Subsurface Soil..... 7-27

Table 7-14 Facility-Wide Cleanup Goals Corresponding to a Hazard Quotient of 1.0 and Target Risk of 10^{-5} for Determination of Chemicals of Concern in Sediment 7-28

Table 7-15 Summary of Carcinogenic Risk Values for the Chemicals of Concern Identified in the Human Health Risk Assessment 7-32

Table 7-16 Final Checklist of Important Ecological Places and Resources..... 7-36

Table 7-17 Rare Species Observed at the Facility 7-43

Table 7-18 Samples Used in the Ecological Risk Assessment 7-50

Table 7-19 Chemicals of Potential Ecological Concern Selection – Surface Soil 7-55

LIST OF TABLES (continued)

Table 7-20 Chemicals of Potential Ecological Concern Selection – Sediment 7-59

Table 7-21 Chemicals of Potential Ecological Concern Selection – Surface Water 7-63

Table 7-22 Chemicals of Potential Ecological Concern Refinement – Surface Soil 7-66

LIST OF FIGURES

Figure 1-1 General Location and Orientation of Former RVAAP 1-5

Figure 1-2 Location of Compliance Restoration Sites 1-7

Figure 1-3 Location of CC RVAAP-68 Electric Substations (East, West, No. 3) 1-9

Figure 2-1 Geologic Bedrock Map and Stratigraphic Description of Units 2-13

Figure 2-2 Geologic Map of Unconsolidated Deposits 2-15

Figure 2-3a Soils Map 2-17

Figure 2-3b Description of Soil Mapping Units 2-19

Figure 2-4 Potentiometric Surface of Unconsolidated Aquifer 2-21

Figure 2-5 Potentiometric Surface of Homewood Aquifer 2-23

Figure 2-6 Potentiometric Surface of Sharon Sandstone Aquifer 2-25

Figure 2-7 Potentiometric Surface of Lower Sharon Conglomerate Aquifer 2-27

Figure 3-1a Topography at East Substation 3-11

Figure 3-1b Topography at West Substation 3-13

Figure 3-1c Topography at Substation No. 3 3-15

Figure 3-2a Soils Map – East Substation 3-17

Figure 3-2b Soils Map – West Substation 3-19

Figure 3-2c Soils Map –Substation No. 3 3-21

Figure 3-3a Surface Water Features and Surveyed Wetlands – East Substation 3-23

Figure 3-3b Surface Water Features and Surveyed Wetlands – West Substation 3-25

Figure 3-3c Surface Water Features and Surveyed Wetlands – Substation No. 3 3-27

Figure 4-1a Decision Units at East Substation 4-13

Figure 4-1b Decision Units at West Substation 4-15

LIST OF FIGURES (continued)

Figure 4-1c Decision Unit at Substation No. 3 4-17

Figure 5-1 Process to Identify Chemicals of Potential Concern 5-5

Figure 5-2 Inorganic SRCs in Surface Soil at East Substation 5-45

Figure 5-3 Organic SRCs in Surface Soil at East Substation 5-47

Figure 5-4 Inorganic SRCs in Subsurface Soil at East Substation – DU01 5-49

Figure 5-5 Organic SRCs in Subsurface Soil at East Substation – DU01 5-51

Figure 5-6 Inorganic SRCs in Subsurface Soil at East Substation – DU02 5-53

Figure 5-7 Organic SRCs in Subsurface Soil at East Substation – DU02 5-55

Figure 5-8 Inorganic SRCs in Surface Soil at West Substation 5-57

Figure 5-9 Organic SRCs and COPCs in Surface Soil at West Substation 5-59

Figure 5-10 Inorganic SRCs in Subsurface Soil at West Substation – DU01 5-61

Figure 5-11 Organic SRCs in Subsurface Soil at West Substation – DU01 5-63

Figure 5-12 Inorganic SRCs in Subsurface Soil at West Substation – DU02 5-65

Figure 5-13 Organic SRCs in Subsurface Soil at West Substation – DU02 5-67

Figure 5-14 Inorganic SRCs in Surface Soil at Substation No. 3 5-69

Figure 5-15 Organic SRCs in Surface Soil at Substation No. 3 5-71

Figure 5-16 Inorganic SRCs in Subsurface Soil at Substation No. 3 5-73

Figure 5-17 Organic SRCs in Subsurface Soil at Substation No. 3 5-75

Figure 5-18 Inorganic SRCs in Sediment at Substation No. 3 5-77

Figure 5-19 Organic SRCs in Sediment at Substation No. 3 5-79

Figure 5-20 Inorganic SRCs in Surface Water at Substation No. 3 5-81

Figure 5-21 Organic SRCs in Surface Water at Substation No. 3 5-83

LIST OF FIGURES (continued)

Figure 6-1 Contaminant Migration Conceptual Site Model 6-25

Figure 7-1 FDGC Plant Communities 7-69

Figure 7-2 Ecological Conceptual Site Model 7-71

LIST OF APPENDICES

Appendix A Boring Logs
Appendix B Data Verification Report
Appendix C Field Activity Forms
Appendix D Site Photographs
Appendix E Survey Data
Appendix F IDW Disposal Letter Reports
Appendix G Laboratory Analytical Results, Laboratory Data, and Chain of Custody Forms
Appendix H Data Validation Report
Appendix I Human Health Risk Assessment Tables
Appendix J Regulatory Correspondence and Comment Response Table

LIST OF ACRONYMS AND ABBREVIATIONS

°C	Degree Celsius
°F	Degree Fahrenheit
µg/kg	Microgram(s) per kilogram
µg/L	Microgram(s) per liter
AMEC	AMEC Environment & Infrastructure, Inc.
amsl	Above mean sea level
AOC	Area of concern
ARNG	Army National Guard
atm-m^3/mol	Atmospheres relative to cubic meters per mol
bgs	Below ground surface
BSV	Background screening value
C	Carbon or composite sample
CAS	Chemical Abstract Service
CC	Army Environmental Compliance-Related Cleanup Program
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
cm	Centimeter
cm^2/sec	Square centimeter per second
CMCOPC	Contaminant migration chemical of potential concern
COC	Chemical of concern
COPC	Chemical of potential concern
COPEC	Chemical of potential ecological concern
CPG	Certified Professional Geologist
CSM	Conceptual site model
CSWAB	Citizens for Safe Water Around Badger
D	Discrete sample
DAF	Dilution attenuation factor
DERR	Division of Environmental Response and Revitalization
DLA	Defense Logistics Agency
DNAP	Division of Natural Areas and Preserves
DoD	Department of Defense
DQO	Data quality objective
DRO	Diesel range organics
DSB	Deep soil boring
DU	Decision Unit
ECC	Environmental Chemical Corporation
ELCR	Excess lifetime cancer risk
EPC	Exposure point concentration
EQM	Environmental Quality Management
ERA	Ecological Risk Assessment

LIST OF ACRONYMS AND ABBREVIATIONS (continued)

ESL	Ecological Screening Level
ESSE	East Substation
ESSW	West Substation
FD	Field duplicate
FGDC	Federal Geographic Data Committee
ft	Feet(foot)
ft^2	Square feet(foot)
FWCUG	Facility-Wide Cleanup Goal
FWERAWP	Facility-Wide Ecological Risk Assessment Work Plan
FWSAP	Facility-Wide Sampling and Analysis Plan
g/cm^3	Grams per cubic centimeter
gpm	Gallon per minute
HELP	Hydrologic Evaluations of Landfill Performance
HQ	Hazard Quotient
HHRA	Human Health Risk Assessment
HRR	Historical Records Review
HLC	Henry's Law Constant
ID	Identification
IDW	Investigation-derived waste
IS	Incremental sample
ISM	Incremental sampling methodology
J	Estimated
K_d	Sorption coefficient
km	Kilometer(s)
km^2	Square kilometer(s)
K_{oc}	Water/organic carbon partition coefficient
K_{ow}	Octanol-water partition coefficient
LOD	Limit of Detection
LOQ	Limit of Quantitation
m	Meter
MCL	Maximum Contaminant Level
MDC	Maximum detected concentration
mg/kg	Milligrams per kilogram
mg/L	Milligrams per liter
mi	Mile(s)
mi^2	Square mile(s)

LIST OF ACRONYMS AND ABBREVIATIONS (continued)

MS	Matrix spike
MSD	Matrix spike duplicate
N&E	Nature and extent
NA	Not available
NB	No background
NC	Not calculated
ND	Not detected
NGT	National Guard Trainee
NOAEL	No observed adverse effects level
NR	Not reported
OBG	O'Brien and Gere Engineers, Inc.
ODNR	Ohio Division of Natural Resources
OHARNG	Ohio Army National Guard
Ohio EPA	Ohio Environmental Protection Agency
ORNL	Oak Ridge National Laboratory
PAH	Polycyclic aromatic hydrocarbon
PBT	Persistent, bioaccumulative, and toxic
PCB	Polychlorinated biphenyl
P.E.	Professional Engineer
Ph.D.	Doctor of Philosophy
PID	Photoionization detector
PPE	Personal protective equipment
ppm	Part(s) per million
PRG	Preliminary Remediation Goal
QA	Quality assurance
QC	Quality control
RA	Risk assessment
RfD	Reference dose
RI	Remedial Investigation
RSL	Regional Screening Level
RVAAP	Ravenna Army Ammunition Plant
SAIC	Science Applications International Corporation
SB	Subsurface soil boring
SD	Wet sediment
SESOIL	Seasonal Soil Compartment
SI	Site Inspection
SOR	Sum of ratio
SRC	Site-related chemical

LIST OF ACRONYMS AND ABBREVIATIONS (continued)

SRV	Sediment reference value
SS	Surface soil
SSL	Soil Screening Level
SVOC	Semivolatile organic compound
SW	Surface water
TAL	Target Analyte List
TB	Trip blank
TEC	Threshold Effects Concentration
TR	Target risk
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USGS	U.S. Geological Survey
VOC	Volatile organic compound

EXECUTIVE SUMMARY

Environmental Chemical Corporation (ECC) was contracted by the United States Army Corps of Engineers (USACE)–Louisville District to complete a Remedial Investigation (RI) at the Compliance Restoration site CC (Army Environmental Compliance-Related Cleanup Program) RVAAP-68 Electric Substations (East, West, No. 3) at the former Ravenna Army Ammunition Plant (RVAAP), in Portage and Trumbull counties, Ohio. This RI was completed under Contract Number W912QR-04-D-0039, Delivery Order Number 0004.

Planning and performance of all elements of this contract are in accordance with the requirements of the Ohio Environmental Protection Agency (Ohio EPA) Director's Final Findings and Orders for Camp Ravenna (former RVAAP, the facility), dated June 10, 2004 (Ohio EPA 2004). The Director's Final Findings and Orders requires conformance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the National Contingency Plan to complete the environmental work (i.e., RIs or activities) at the facility under the Installation Restoration Program, which began in 1989 with 32 environmental Areas of Concern (AOCs).

This AOC, CC RVAAP-68 Electric Substations (East, West, No. 3) consists of the following three separate inactive properties located throughout the facility:

- East Substation
- West Substation
- Substation No. 3

The former East and West Substations were located adjacent to brick operational support buildings. The former East Substation is located adjacent to Building 25-27, the former West Substation is located near Building 28-28, and former Substation No. 3 did not have an association with an operational support structure. Each former substation is inactive, and all equipment associated with operation, including transformers and capacitors, has been removed.

The Historical Records Review, completed for CC RVAAP-68 Electric Substations (East, West, No. 3) in 2011, recommended these three electric substations as candidates for further investigation due to potential contamination from unreported spills or leaks from electrical equipment or lead acid batteries that may represent a direct exposure pathway for human receptors under current and future land use. This report specifically addresses RI efforts for the three electric substations.

The results of this RI indicate that No Further Action is obtained at CC RVAAP-68 Electric Substations (East, West, No. 3). The horizontal and vertical extent of contamination has been delineated. Fate and transport soil screening analysis indicates that contaminant migration chemicals of potential concern (COPCs) are not likely to leach from the soil to the groundwater in significant concentrations, and site-related chemicals (SRCs) in soil are eliminated as potential risks to any downgradient receptors based on RI data. In addition, the Human Health Risk Assessment (HHRA) did not identify any chemicals of concern (COCs) for soil for the Resident Receptor under current or possible future use scenarios, with the exceptions of benzo(a)pyrene,

benzo(b)fluoranthene, and dibenz(a,h)anthracene in surface soil for West Substation and arsenic in surface soil for the Substation No. 3. However, the carcinogenic risk for the COCs in surface soil at the West Substation does not exceed the Ohio EPA risk limit of 10^{-5} or the USEPA acceptable risk range of 10^{-6} to 10^{-4}, and these chemicals are not present at concentrations above their respective Resident Receptor Facility-Wide Cleanup Goal (FWCUG). Therefore, surface and subsurface soils are acceptable for Unrestricted Land Use.

Remedial Investigation Objectives

The following are the CC RVAAP-68 Electric Substations (East, West, No. 3) RI objectives:

- Conduct a field investigation to collect site-related data to delineate the nature and extent of contamination related to operations at the AOC.

- Provide sufficient Quality Assurance (QA)/Quality Control (QC) sampling to evaluate the overall quality of both the field and laboratory sampling procedures.

- Perform AOC-specific screening of the sample analytical results to determine if a chemical is a SRC based on applicable background screening values (BSVs).

- Perform a risk-based screening of the identified SRCs by comparing the maximum detected concentrations (MDCs) to the FWCUGs to identify COPCs.

- Perform an HHRA to identify final COCs and identify the presence of any COCs that may pose a risk to the applicable receptors (i.e., Resident Receptor and National Guard Trainee [NGT]) at the AOC.

- Provide recommendations as to whether remedial actions at the AOC are warranted or whether Unrestricted (Residential) Land Use is achieved and No Further Action is necessary.

Area of Concern Background

The three former substations were key distribution points for electrical power throughout the facility. Electricity for the facility was purchased from the Ohio Edison Company and was supplied from Newton Falls and Garrettsville, Ohio. Distribution of electricity occurred through the substations, each at approximately 24,000 volts.

The use of several hazardous and regulated materials was documented during the operation of the three former substations, including petroleum products (fuels and oils), polychlorinated biphenyls (PCBs), and lead acid batteries. Annual PCB inventory inspections were conducted on a facility-wide basis to document quantities of PCB oil located throughout the facility. The results of the inspections were documented in annual PCB inventory reports, which listed all PCB-containing items, including transformers, capacitors, contaminated soil, and hydraulic equipment containing contaminated oil.

East Substation

The former East Substation was in use from the 1940s through 1993, servicing Load Lines 1, 2, 3, 4, and 12, as well as providing power for miscellaneous facilities on the eastern side of the facility. While in use, the East Substation consisted of a brick Switch House (Building 25-27) of approximately 1,170 square feet (ft^2), constructed of a 6-inch thick reinforced concrete floor. The interior of the building was divided into a general area for the switch gear panel and a smaller room used for storing lead acid batteries for backup power. In August 1993, the transformers were drained and moved to Building 854 for disposal.

West Substation

The former West Substation serviced the Fuze and Booster Hill area, including Load Lines 5 through 11, the Administration Area, and George Road Area. The layout of the West Substation was similar to the former East Substation with a 964 ft^2 brick building (Building 28-28) with a switch gear panel room and battery storage room (currently in use by the Ohio Army National Guard [OHARNG]), with two pad-mounted transformers, and other Electric equipment, surrounded by a metal fence. Equipment was removed from service in 1993.

Substation No. 3

There was no building associated with former Substation No. 3. Transformers and other electrical equipment were used to service the western portion of the facility including the Depot Area.

Remedial Investigation Activities

The media sampled as part of the RI for this AOC included surface soil, subsurface soil, wet sediment, and surface water. Sample results were used to define the nature and extent of contamination, conduct fate and transport soil screening analyses, and support human health and ecological risk assessments. Investigative samples were collected using incremental sampling methodology (ISM), discrete, and composite methods. All samples were analyzed for Target Analyte List (TAL) metals including mercury, semivolatile organic compounds (SVOCs), and PCBs. In addition, one surface soil and three subsurface soil samples were also analyzed for the full suite of analyses (i.e., TAL metals, SVOCs, PCBs, organochlorine pesticides, volatile organic compounds [VOCs], and explosives/propellants). No groundwater samples were collected as part of this RI as groundwater is being addressed under a separate facility-wide groundwater investigation (RVAAP-66 Facility-Wide Groundwater).

Decision Units (DUs) were established to encompass the historical operational areas at each substation including an additional 30 feet (ft) in all directions (30-ft perimeter ring around the historical operational areas). ISM was used to investigate each DU both vertically and horizontally to 7 ft below ground surface (bgs) to assess human health and ecological risk to surface and subsurface soil at CC RVAAP-68 Electric Substations (East, West, No. 3). In addition, two vertical composite samples were collected from 7 to 13 ft bgs to supplement the HHRA and characterize the soils to 13 ft bgs.

Site-Related Chemical Screening Process

After data were reviewed for QA/QC purposes, SRCs were retained for CC RVAAP-68 Electric Substations (East, West, No. 3) if the concentrations of detected chemicals were above the facility BSVs or when no BSVs were established. All detected organic compounds were considered to be SRCs because BSVs are not established for organic compounds at the facility, except for those dismissed based on frequency of detection or weight-of-evidence screening.

Site-Related Chemicals Identified in Media

The datasets (consisting of investigative and field duplicates) for each media sampled are as follows:

- Surface soil: 8 ISM samples from 0 to 1 ft bgs.
- Subsurface soil: 35 ISM samples from 1 to 4 ft bgs and from 4 to 7 ft bgs and 2 composite samples from 7 to 13 ft bgs.
- Wet sediment: 4 discrete samples from 0 to 1 ft bgs from Substation No. 3 only. Wet sediment is not present at the East and West Substations.
- Surface water: 4 discrete samples from Substation No. 3 only. Surface water is not present at the East and West Substations.

East Substation

SRCs identified in surface soil are:

- Ten inorganics: barium, beryllium, cadmium, chromium, copper, lead, nickel, silver, thallium, and zinc
- Twenty-one SVOCs: 1,4 dichlorobenzene; 2-methylnaphthalene; acenaphthene; acenaphthylene; anthracene; benzo(a)anthracene, benzo(a)pyrene; benzo(b)fluoranthene; benzo(g,h,i)perylene; benzo(k)fluoranthene; carbazole; chrysene; dibenz(a,h)anthracene; dibenzofuran; fluoranthene; fluorene; indeno(1,2,3-c,d)pyrene; isophorone; naphthalene; phenanthrene; and pyrene

SRCs identified in subsurface soil are:

- Three inorganics: cadmium, silver, and mercury
- One VOC: carbon disulfide
- Seven SVOCs: 2-methylnaphthalene; benzo(a)pyrene; benzo(b)fluoranthene; fluoranthene; naphthalene; phenanthrene; and pyrene.

- One propellant: nitrocellulose

West Substation

SRCs identified in surface soil are:

- Twelve inorganics: barium, beryllium, cadmium, chromium, cobalt, copper, lead, nickel, silver, thallium, zinc, and mercury
- Two VOCs: carbon disulfide and styrene
- Twenty-one SVOCs: 2-methylnaphthalene; acenaphthene; acenaphthylene; anthracene; benzo(a)anthracene, benzo(a)pyrene; benzo(b)fluoranthene; benzo(g,h,i)perylene; benzo(k)fluoranthene; carbazole; chrysene; dibenz(a,h)anthracene; dibenzofuran; diethyl phthalate; fluoranthene; fluorene; indeno(1,2,3-c,d)pyrene; isophorone; naphthalene; phenanthrene; and pyrene
- One propellant: nitrocellulose

SRCs identified in subsurface soil are:

- Three inorganics: cadmium, silver, and mercury
- Fourteen SVOCs: 2-methylnaphthalene; acenaphthylene; anthracene; benzo(a)anthracene, benzo(a)pyrene; benzo(b)fluoranthene; benzo(g,h,i)perylene; benzo(k)fluoranthene; chrysene; fluoranthene; indeno(1,2,3-c,d)pyrene; naphthalene; phenanthrene; and pyrene
- One propellant: nitrocellulose

Substation No. 3

SRCs identified in surface soil are:

- Six inorganics: arsenic, cadmium, chromium, silver, thallium, and zinc
- Eighteen SVOCs: 2-methylnaphthalene; acenaphthene; acenaphthylene; anthracene; benzo(a)anthracene, benzo(a)pyrene; benzo(b)fluoranthene; benzo(g,h,i)perylene; benzo(k)fluoranthene; chrysene; dibenzofuran; diethyl phthalate; fluoranthene; fluorene; indeno(1,2,3-c,d)pyrene; naphthalene; phenanthrene; and pyrene

SRCs identified in subsurface soil are:

- Two inorganics: cadmium and silver

- Six SVOCs: 2-methylnaphthalene; dibenzofuran; fluorene; naphthalene; phenanthrene; and pyrene

SRCs identified in wet sediment are:

- Three inorganics: cadmium, chromium, and silver

  Fifteen SVOCs: 2-methylnaphthalene; anthracene; benzo(a)anthracene, benzo(a)pyrene; benzo(b)fluoranthene; benzo(g,h,i)perylene; benzo(k)fluoranthene; chrysene; dibenzofuran; fluoranthene; fluorene; indeno(1,2,3-c,d)pyrene; naphthalene; phenanthrene; and pyrene

No SRCs were identified in surface water.

Nature and Extent of Contamination in Soil

To delineate the nature and extent of contamination at the three substations, SRCs were compared to the most stringent Resident Receptor FWCUG at a target risk of 1×10^{-6} and HQ of 0.1. The concentrations of the SRCs did not exceed their respective FWCUG, with the following few exceptions:

Surface Soil
- Chromium, benzo(a)anthracene, benzo(b)pyrene, benzo(b)fluoranthene, and dibenz(a,h)anthracene at the East Substation
- Chromium, cobalt, benzo(a)anthracene, benzo(b)pyrene, benzo(b)fluoranthene, and dibenz(a,h)anthracene at the West Substation
- Arsenic and chromium at Substation No. 3

Subsurface Soil
- Benzo(a)pyrene at the East Substation
- Benzo(a)pyrene at the West Substation

Wet Sediment
- Chromium and benzo(a)pyrene downgradient of Substation No. 3

The concentrations of these chemicals were only slightly greater than their respective FWCUG. In addition, there is no known use of these chemicals at the electric substations of this AOC. The horizontal and vertical extent of these chemicals has been defined at each substation.

Fate and Transport Soil Screening Analysis

To identify potential risks to groundwater beneath CC RVAAP-68 Electric Substations (East, West, No. 3), a multi-step soil screening analysis was applied to each substation separately using available site-specific values and assumptions. The first step was to identify SRCs in subsurface soil as defined in nature and extent evaluation (Chapter 5.0). In the second step, the MDCs of the SRCs were then compared with the generic Soil Screening Levels (SSLs) to develop the

initial contaminant migration COPCs. During the third step, the MDCs of the initial contaminant migration COPCs were compared with dilution attenuation factor (DAF)-based site-specific SSLs to further refine the initial contaminant migration COPCs. After the third step, only four SVOCs were retained as initial contaminant migration COPCs because their reported concentrations in subsurface soil exceeded the Site SSLs: benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and naphthalene.

The fourth step involved further evaluation of the initial contaminant migration COPCs whereby those that required more than 1,000 years to leach through the unsaturated zone before reaching the water table were eliminated from further consideration. After this fourth step, only naphthalene was retained as an initial contaminant migration COPC for all three substations.

The fifth screening step was then performed to evaluate and potentially eliminate an initial contaminant migration COPC from further consideration should the calculation indicate that more than 1,000 years is required for the chemical to reach the assumed downgradient receptor (i.e., nearest surface water body to which groundwater is likely to discharge). After the fifth step, naphthalene was retained as an initial contaminant migration COPC only at the Substation No. 3 because calculations indicate that transport in groundwater may take less than 1,000 years. This is due in large part to the chemical properties of naphthalene, the physical properties of the aquifer, and the fact that the nearest surface water body (a wetland) is approximately 100 ft downgradient of Substation No. 3.

The last two steps of the fate and transport evaluation process usually include modeling to predict soil concentrations after leaching and groundwater concentrations at the groundwater-surface water interface. Analytes are then further screened out if the concentrations are below the FWCUGs; however, for this RI, the naphthalene concentrations were already well below the most stringent FWCUG. Therefore, fate and transport modeling was not necessary and was not included as part of this RI at this AOC. Although the travel time of naphthalene to the wetland is likely less than 1,000 years, naphthalene currently poses no risk to human health or the environment. In addition, naphthalene was not detected in the three surface water samples collected in the tributary to Sand Creek (to which the wetland flows) during this RI.

Conclusions of the soil screening evaluation are that all of the identified SRCs at this AOC in soil were eliminated as current risks to groundwater. However, it is recommended that naphthalene in the vicinity of the Substation No. 3 be investigated as part of the groundwater AOC at the facility (i.e., RVAAP-66 Facility Wide Groundwater) to evaluate future potential risks to surface water.

Human Health Risk Assessment Screening Process

As a first step of the HHRA, SRCs were screened by comparing the MDCs to the chemical-specific FWCUGs at a target cancer risk level of 10^{-6} and non-carcinogenic target HQ of 0.1 to identify risk-based COPCs. COPCs were then screened to identify COCs and identify the presence of those that may pose a risk to the applicable receptors at the AOC. The OHARNG-projected future land use for CC RVAAP-68 Electric Substations (East, West, No. 3) is for military training. Unrestricted (Residential) Land Use is included to evaluate COCs at the AOC

as to determine if the site conditions meet Unrestricted (Residential) Land Use. The Resident Receptor is the applicable receptor for Unrestricted Land Use, and the NGT is the applicable receptor for Military Training Land Use. The Resident Receptor is evaluated as a first step and, if COCs are identified, then the NGT is evaluated to refine potential risks. If no COCs are identified for the Resident Receptor, the NGT is not evaluated because the exposure scenario for the Resident Receptor is the more conservative (i.e., protective) than that of the NGT.

Human Health Risk Assessment Results

For the Resident Receptor, COCs were identified as follows:

- Surface soils:
  - East Substation – No COCs identified
  - West Substation – benzo(a)pyrene, benzo(b)fluoranthene, and dibenz(a,h)anthracene for the Resident Receptor
  - Substation No. 3 – Arsenic for the Resident Receptor
- No COCs were identified in subsurface soils for any of the three substations
- No COCs were identified in sediment near the Substation No. 3
- The Excess Lifetime Cancer Risks (ELCRs) indicate that carcinogenic risk for COCs for the Resident Receptor for the West Substation surface soil does not exceed the Ohio EPA risk limit of 10^{-5} or the USEPA (CERCLA) acceptable risk range of 10^{-6} to 10^{-4}
- The ELCRs indicate that carcinogenic risk for COCs (arsenic) for the Resident Receptor for surface soil at the Substation No. 3 exceeds the Ohio EPA cancer risk limit of 10^{-5}, but is within the USEPA acceptable risk range of 10^{-6} to 10^{-4}

For the NGT receptor, COCs were identified as follows:

- No COCs were identified in surface soils for any of the three substations
- No COCs were identified in subsurface soils for any of the three substations
- No COCs were identified in sediment near Substation No. 3

For the Resident Receptor, the total cancer risk and the total HQ are below the Ohio EPA and USEPA risk limits for exposure to surface soil and subsurface soil at the East Substation, surface soil and subsurface soil at the West Substation, subsurface soil at the Substation No. 3, and sediment at the Substation No. 3. Therefore, No Further Action is required for those exposure areas for the protection of human health. Surface water downgradient of Substation No. 3 was not evaluated in the HHRA because no SRCs were identified in that medium. No Further Action is required for surface water downgradient of Substation No. 3 for the protection of human health.

The total cancer risk for the Resident Receptor is greater than the Ohio EPA risk limit, but within the USEPA acceptable risk range for surface soil at Substation No. 3. Arsenic is the only parameter identified as a COC that contributes to the total cancer risk. However, based on the uncertainty analysis, the arsenic EPC for surface soil is essentially equal to the BSV for arsenic. Since the arsenic concentration in surface soil is consistent with background, arsenic is elminated as a COC. In addition, arsenic was not identified as a COC in surface soil at Substation No. 3 for the NGT. Therefore, No Further Action is recommended for surface soil at Substation No. 3 for the protection of human health.

Ecological Risk Assessment Results

The Ecological Risk Assessment (ERA) was conducted to evaluate the potential for chemical constituents detected in surface soil, sediment, and surface water to adversely affect ecological receptors. MDCs were compared to BSVs and to conservative ecological screening benchmarks for generic receptors to identify chemicals of potential ecological concern (COPECs). The list of COPECs was subsequently refined on a COPEC-by-COPEC basis. Considering site-specific factors, and taking into account mitigating uncertainties, it is not likely that exposure to surface soil would adversely affect communities or populations of common ecological receptors or individuals of State-listed species in CC RVAAP-68 Electric Substations (East, West, No. 3).

- No further investigation (e.g., Level III Baseline ERA) or removal action is considered necessary for environmental media in CC RVAAP-68 Electric Substations (East, West, No. 3) for the protection of ecological receptors.

Remedial Investigation Conclusions

The results of this RI indicate that No Further Action is required at CC RVAAP-68 Electric Substations (East, West, No. 3). The horizontal and vertical extent of contamination has been delineated. Conclusions of the soil screening evaluation are that all SRCs in soil are currently eliminated as potential risks to groundwater. There is no current or future exposure risk to human or ecological receptors from contact with AOC soil, surface water, sediment, or surface water.

The RI conducted at CC RVAAP-68 Electric Substations (East, West, No. 3) has adequately characterized surface and subsurface soil contained within the three substation areas, which comprise the operational areas of this AOC, and sediment and surface water downgradient of Substation No. 3. The conclusions of this RI are as follows:

- COCs (benzo[a]pyrene, benzo[b]fluoranthene, and dibenz[a,h]anthracene) were identified in surface soil for West Substation for the Resident Receptor; however, the ELCRs indicate that carcinogenic risks do not exceed the Ohio EPA risk limit of 10^{-5} or the USEPA acceptable risk range of 10^{-6} to 10^{-4} for the Resident Receptor exposure to surface soil and these chemicals are not present at actionable concentrations for the Resident Receptor.

- Arsenic was identified as a COC in surface soil for Substation No. 3 for the Resident Receptor, and the ELCRs indicate that carcinogenic risk exceeds the Ohio EPA risk limit of 10^{-5} for exposure to surface soil. However, the ELCR for the Resident Receptor for surface soil at Substation No. 3 is within the USEPA acceptable risk range of 10^{-6} to 10^{-4}. The arsenic EPC for surface soil is essentially equal to the BSV for arsenic. Because the arsenic concentration in surface soil is consistent with background, arsenic is eliminated as a COC. Therefore, No Further Action is recommended for surface soil at Substation No. 3.

- No COCs were identified in surface soil at the East Substation for the Resident Receptor. In addition, no COCs were identified in subsurface soil at any of the three substations or in wet sediment at Substation No. 3 for the Resident Receptor. Wet sediment is not present at the other two substations.

- No COCs were identified in surface or subsurface soil for East Substation, West Substation, or Substation No. 3 or in wet sediment at Substation No. 3 for the NGT receptor.

- No further investigation (e.g., Level III Baseline ERA) or removal action is required for surface and subsurface soil, sediment, or surface water present at CC RVAAP-68 Electric Substations (East, West, No. 3) for the protection of ecological receptors.

1.0 INTRODUCTION

Environmental Chemical Corporation (ECC) was contracted by the U.S. Army Corps of Engineers (USACE)–Louisville District to complete a Remedial Investigation (RI) at the Compliance Restoration site CC (Army Environmental Compliance-Related Cleanup Program) RVAAP-68 Electric Substations (East, West, No. 3) at the former Ravenna Army Ammunition Plant (RVAAP), in Portage and Trumbull counties, Ohio. This document was prepared under Multiple Award Remediation Contract Number W912QR-04-D-0039, Delivery Order Number 0004.

The facility, previously known as the RVAAP, consists of 21,683 acres and is located in northeastern Ohio within Portage and Trumbull counties, approximately 4.8 kilometers (km) (3 miles [mi]) east/northeast of the city of Ravenna and approximately 1.6 km (1 mi) northwest of the city of Newton Falls. The facility was formerly used as a load, assemble, and pack facility for munitions production. As of September 2013, administrative accountability for the entire acreage of the facility has been transferred to the U.S. Property and Fiscal Office for Ohio and subsequently licensed to the Ohio Army National Guard (OHARNG) for use as a military training site (Camp Ravenna). References in this document to the former RVAAP relate to previous activities at the facility as related to former munitions production activities or to activities being conducted under the restoration/cleanup program.

This report specifically addresses RI efforts at one Area of Concern (AOC), CC RVAAP-68 Electric Substations (East, West, No. 3), which consists of three substations at the facility listed below:

- East Substation
- West Substation
- Substation No. 3

Planning and performance of all elements of this contract are in accordance with the requirements of the Ohio Environmental Protection Agency (Ohio EPA) Director's Final Findings and Orders for the facility, dated June 10, 2004 (Ohio EPA 2004). The Director's Final Findings and Orders require conformance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the National Contingency Plan to complete the RI for multiple AOCs, including CC RVAAP-68 Electric Substations (East, West, No. 3). The work described in this RI Report was conducted in accordance with the Final Site Inspection and Remedial Investigation Work Plan at Compliance Restoration Sites (Revision 0) (Final Site Inspection [SI]/RI Work Plan) (ECC 2012).

1.1 PURPOSE

ECC is submitting this RI to the USACE–Louisville District in accordance with the Performance Work Statement, Contract Number W912QR-04-D-0039, Delivery Order Number 0004 under a firm-fixed price Performance-Based Acquisition to provide environmental investigation and remediation services at 14 Compliance Restoration sites at the facility (Figures 1-1 and 1-2). The Delivery Order was issued by the USACE–Louisville District on August 15, 2011.

Environmental work (i.e., RI or activities) at the facility under the Installation Restoration Program began in 1989, with 32 environmental AOCs. The U.S. Army Center for Health Promotion and Preventive Medicine (now the U.S. Army Public Health Command) collected samples at each of the AOCs and performed a Relative Risk Site Evaluation, which prioritized each AOC into three groups: low, medium, and high priorities. Restoration work has proceeded primarily by addressing the highest priority sites first. In 1998, the number of AOCs was increased from 32 to 51. Again, relative risk rankings were performed to prioritize those additional AOCs. Compliance Restoration sites were added in 2010. This RI discusses one of these AOCs, CC RVAAP-68 Electric Substations (East, West, No. 3) (Figure 1-3).

The following are the CC RVAAP-68 Electric Substations (East, West, No. 3) RI objectives:

- Conduct a field investigation to collect site-related data to delineate the nature and extent of contamination in operational areas of the AOC

- Provide sufficient quality assurance (QA)/quality control (QC) sampling to evaluate the overall quality of both the field and laboratory sampling procedures

- Perform AOC-specific screening of the sample analytical results to determine if a chemical is a site-related chemical (SRC) based on applicable background screening values (BSVs)

- Perform a risk-based screening of the identified SRCs by comparing the maximum detected concentrations (MDCs) to the Facility-Wide Cleanup Goals (FWCUGs) to identify chemicals of potential concern (COPCs)

- Perform a Human Health Risk Assessment (HHRA) to identify chemicals of concern (COCs) and identify the presence of any COCs that may pose a risk to the applicable receptors (i.e., Resident Receptor and National Guard Trainee [NGT]) at the AOC

- Provide recommendations as to whether remedial actions at the AOC are warranted or whether Unrestricted (Residential) Land Use is achieved and No Further Action is necessary

1.2 SCOPE

The RI conducted for this AOC was based on findings of the historical records review (HRR) presented in the HRR Report for the 2010 Phase I RI Services at Compliance Restoration Sites (9 AOCs) Revision 0, dated 22 December, 2011 (Science Applications International Corporation [SAIC] 2011a). The HRR identified the East Substation, West Substation, and Substation No. 3 (all part of CC RVAAP-68 Electric Substations) as needing further evaluation.

The RI consisted of surface and subsurface soil sampling using incremental sampling methodology (ISM) and composite sampling methods. In addition, wet sediment and surface water sampling was conducted at one of the substations (Substation No. 3) using discrete sampling methods. Wet sediment and surface water are not present at the East and West

Substations. Following data validation and QA/QC, the dataset was refined and aggregated to identify SRCs and COPCs. The COPCs were then screened for identification of COCs for fate and transport and risk assessment purposes.

1.3 REPORT ORGANIZATION

The RI report is organized into the following nine sections:

- ***Chapter 1 (Introduction)***—Provides an overview of the purpose and scope of this RI.

- ***Chapter 2 (Background)***—Describes the installation's location, operational history, demography, land use, as well as the AOC site description, operational history, and previous investigations.

- ***Chapter 3 (Environmental Setting)***—This section describes the environmental setting at the facility including geology, hydrogeology, climate, potential human and ecological receptors, and the conceptual site model (CSM).

- ***Chapter 4 (RI Activities)***—Describes the scope of work completed and the procedures followed during the RI, including a discussion of the sampling rationale for placement of environmental media sampling locations, field activity procedures, laboratory methods, and protocols. Included in this section are the pre-mobilization activities, field sampling methodologies, and any deviations from the work plan. In addition, this section details site surveying and the collection and characterization of the investigation-derived wastes (IDW) generation and management.

- ***Chapter 5 (Nature and Extent of Contamination)***—Describes the data generated during the RI and discusses the occurrence and distribution of chemicals at CC RVAAP-68 Electric Substations (East, West, No. 3).

- ***Chapter 6 (Contaminant Fate and Transport)***—Describes the media and fate and transport mechanisms associated with the contaminants present.

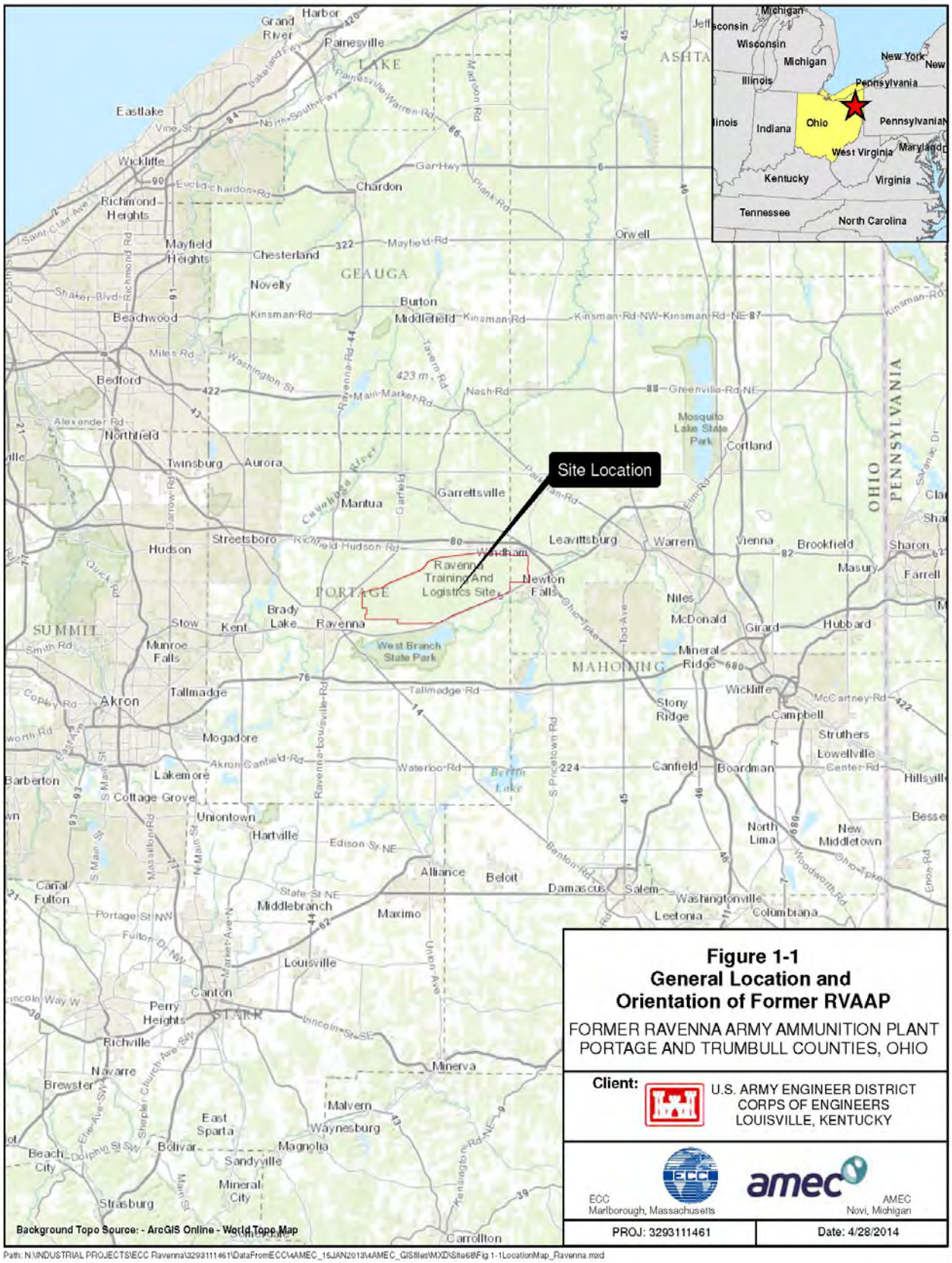
- ***Chapter 7 (Risk Assessment)***—Presents a qualitative assessment of the appropriate analytical data collected to evaluate the potential risks to human health and ecological receptors.

- ***Chapter 8 (RI Conclusions and Recommendations)***—Presents the summary, conclusions, and recommendations for CC RVAAP-68 Electric Substations (East, West, No. 3) based on the results of the RI.

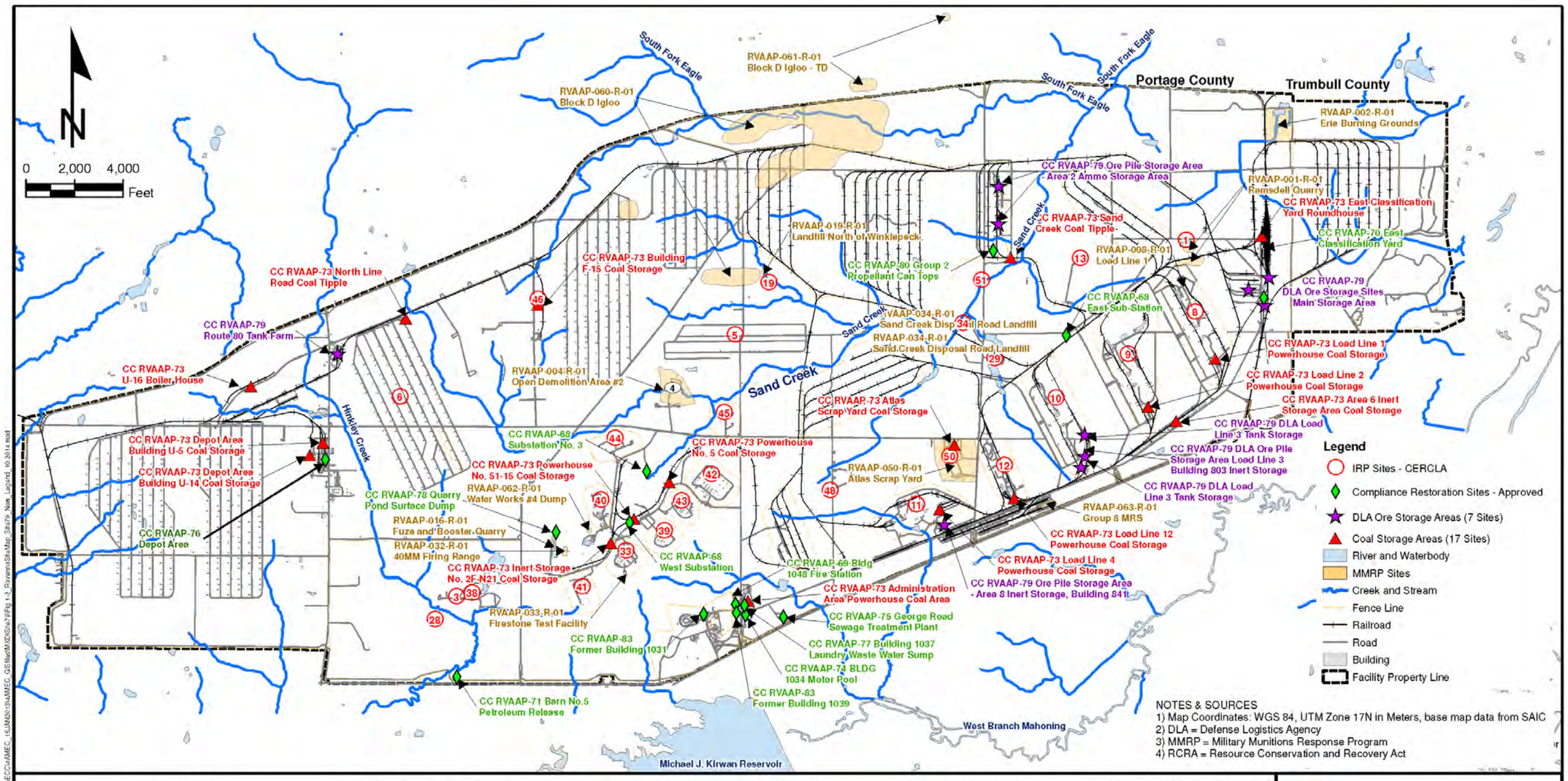
- ***Chapter 9 (References)***—Lists references for this document.

The appendices to this document contain the summarized investigation data, including:

- Appendix A – Boring Logs
- Appendix B – Data Verification Report
- Appendix C – Field Activity Forms
- Appendix D – Site Photographs
- Appendix E – Survey Data
- Appendix F – IDW Disposal Letter Reports
- Appendix G – Laboratory Analytical Results, Laboratory Data, and Chain of Custody Forms
- Appendix H – Data Validation Report
- Appendix I – Human Health Risk Assessment Tables
- Appendix J – Regulatory Correspondence and Comment Response Table


Site Location
Ravenna Training And Logistics Site
Michigan
Wisconsin
Illinois
Indiana
Ohio
Pennsylvania
New York
West Virginia
Kentucky
Virginia
Tennessee
North Carolina
Maryland
Background Topo Source: - ArcGIS Online - World Topo Map
Figure 1-1
General Location and
Orientation of Former RVAAP
FORMER RAVENNA ARMY AMMUNITION PLANT
PORTAGE AND TRUMBULL COUNTIES, OHIO
Client:
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY
ECC
Marlborough, Massachusetts
AMEC
Novi, Michigan
PROJ: 3293111461
Date: 4/28/2014
Path: N:\INDUSTRIAL PROJECTS\ECC Ravenna\3293111461\DataFromECC\4AMEC_15JAN2013\4AMEC_GISfiles\MXD\Site68Fig 1-1LocationMap_Ravenna.mxd

This page intentionally left blank



	IRP SITES - CERCLA	
1	RVAAP-1	Ramsdell Quarry Landfill
3	RVAAP-3	Open Demolition Area #1
5	RVAAP-5	Winklepeck Burning Grounds
6	RVAAP-6	C Block Quarry
8	RVAAP-8	Load Line 1
9	RVAAP-9	Load Line 2
10	RVAAP-10	Load Line 3
11	RVAAP-11	Load Line 4
12	RVAAP-12	Load Line 12
13	RVAAP-13	Building 1200 - Dilution Settling Pond
19	RVAAP-19	Landfill North of Winklepeck Burning Grounds
28	RVAAP-28	Mustard Agent Burial Site
29	RVAAP-29	Upper and Lower Cobbs Ponds
33	RVAAP-33	Load Line 6
34	RVAAP-34	Sand Creek Disposal Road Landfill
38	RVAAP-38	NACA Test Area
39	RVAAP-39	Load Line 5
40	RVAAP-40	Load Line 7
41	RVAAP-41	Load Line 8
42	RVAAP-42	Load Line 9
43	RVAAP-43	Load Line 10
44	RVAAP-44	Load Line 11
45	RVAAP-45	Wet Storage Area
46	RVAAP-46	Building F-15 and F-16
48	RVAAP-48	Anchor Test Area
50	RVAAP-50	Atlas Scrap Yard
51	RVAAP-51	Dump Along Paris Windham Rd.
	RVAAP-66	Facility-Wide Groundwater
	RVAAP-67	Facility-Wide Sewer

COMPLIANCE RESTORATION SITES(14 SITES)	
CC RVAAP-68	Electronic Substations (E, W, No. 3)
CC RVAAP-69	Former Building 1048 Fire Station
CC RVAAP-70	East Classfiication Yard
CC RVAAP-71	Barn No. 5 Petroleum Release
CC RVAAP-72	Facility-Wide UST's (45 Sites)
CC RVAAP-73	Facility-Wide Coal Storage
CC RVAAP-74	Building 1034 Motor Pool Hydraulic Lift
CC RVAAP-75	George Road Sewage Treatment Plant
CC RVAAP-76	Depot Area
CC RVAAP-77	Building 1037 - Laundry Waste Water Sump
CC RVAAP-78	Quarry Pond Surface Dump
CC RVAAP-79	DLA Ore Storage Sites
CC RVAAP-80	Group 2 Propelant Can Tops
CC RVAAP-83	Former Building 1031 and 1039

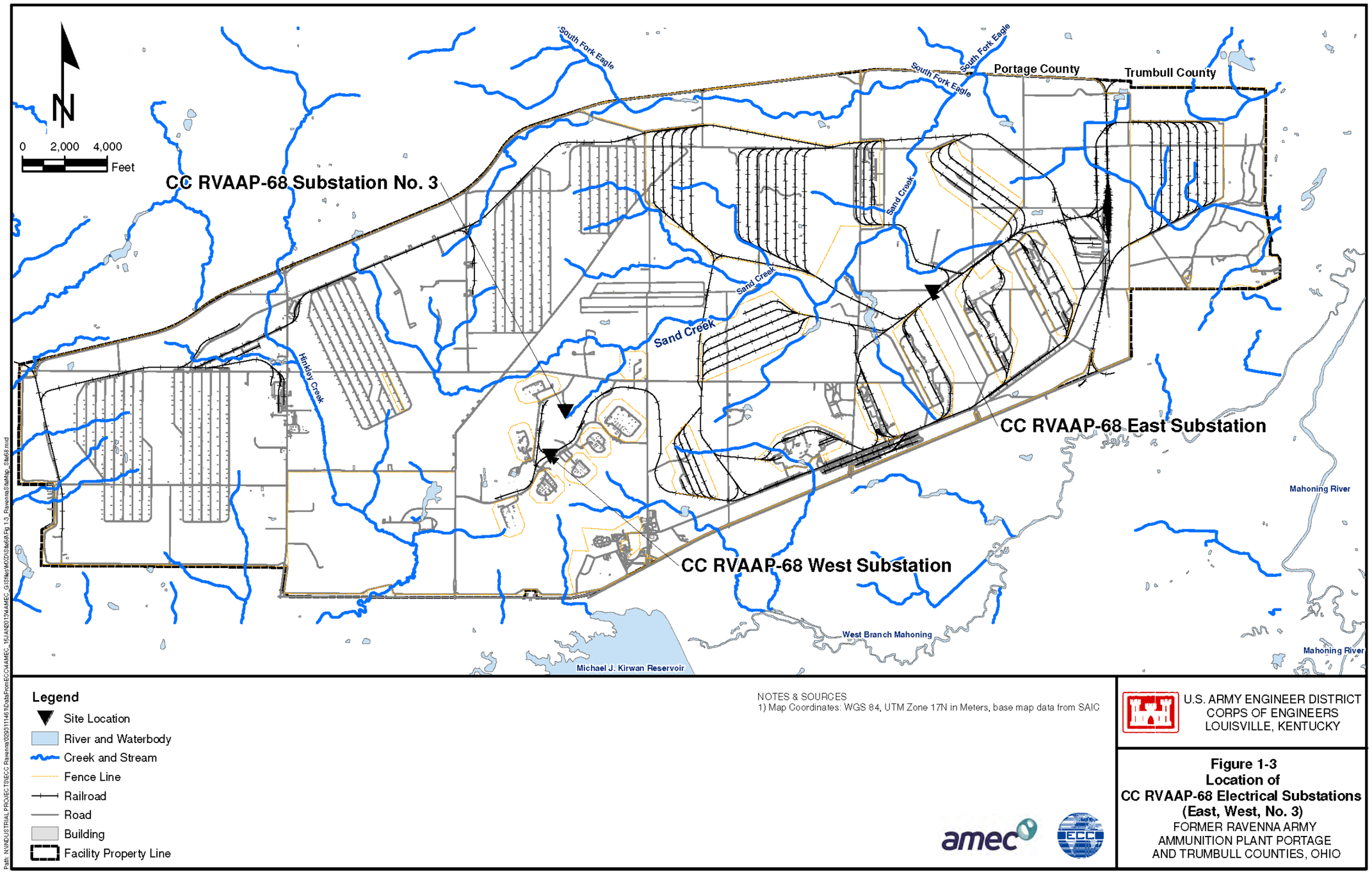
MMRP SITES (14 SITES)	
RVAAP-001-R-01	DLA Ore Storage Sites
RVAAP-002-R-01	Erie Burning Grounds MRS
RVAAP-004-R-01	Open Demolition Area #2 MRS
RVAAP-008-R-01	Load Line 1 MRS
RVAAP-016-R-01	Fuze and Booster Quarry MRS
RVAAP-019-R-01	Landfill North of Winklepeck MRS
RVAAP-032-R-01	40 mm Firing Range MRS
RVAAP-033-R-01	Firestone Test Facility MRS
RVAAP-034-R-01	Sand Creek Dump MRS
RVAAP-050-R-01	Atlas Scrap Yard MRS
RVAAP-060-R-01	Block D Igloo MRS
RVAAP-061-R-01	Block D Igloo - TD MRS
RVAAP-062-R-01	Water Works #4 Dump MRS
RVAAP-063-R-01	Group 8

OTHER REGULATORY - RCRA
CC RVAAP-04 Open Demolition Area #2

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

Figure 1-2
Location of
Compliance Restoration Sites
FORMER RAVENNA ARMY
AMMUNITION PLANT PORTAGE
AND TRUMBULL COUNTIES, OHIO

This page intentionally left blank


N
0 2,000 4,000
Feet
CC RVAAP-68 Substation No. 3
CC RVAAP-68 East Substation
CC RVAAP-68 West Substation
South Fork Eagle
South Fork Eagle
South Fork Eagle
Portage County
Trumbull County
Sand Creek
Sand Creek
Sand Creek
Hinkley Creek
Mahoning River
West Branch Mahoning
Mahoning River
Michael J. Kirwan Reservoir
Legend
Site Location
River and Waterbody
Creek and Stream
Fence Line
Railroad
Road
Building
Facility Property Line
NOTES & SOURCES
1) Map Coordinates: WGS 84, UTM Zone 17N in Meters, base map data from SAIC
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY
Figure 1-3
Location of
CC RVAAP-68 Electrical Substations
(East, West, No. 3)
FORMER RAVENNA ARMY
AMMUNITION PLANT PORTAGE
AND TRUMBULL COUNTIES, OHIO
amec
ECC

This page intentionally left blank

2.0 BACKGROUND

2.1 FACILITY-WIDE BACKGROUND

2.1.1 Facility Description

The facility, previously known as the RVAAP, consists of 21,683 acres and is located in northeastern Ohio within Portage and Trumbull counties, approximately 4.8 km (3 mi) east/northeast of the city of Ravenna and approximately 1.6 km (1 mi) northwest of the city of Newton Falls.

2.1.2 Demography and Land Use

The 2010 Census reports that the populations of Portage and Trumbull counties are 161,413 and 210,312, respectively. Population centers closest to the facility are Ravenna, with a population of 11,724, and Newton Falls, with a population of 4,795.

The facility is located in a rural area and is not close to any major industrial or commercial areas. Approximately 55 percent of Portage County, where the majority of the facility is located, consists of either woodland or farmland acreage. The closest major recreational area, the Michael J. Kirwan Reservoir (also known as West Branch Reservoir), is south of the facility.

Administrative accountability for the entire 21,683-acre facility has been transferred to the United States Property and Fiscal Office for Ohio, and the property was subsequently licensed to the OHARNG for use as a military training site. Training and related activities at the facility include field operations and bivouac training, convoy training, equipment maintenance, C-130 aircraft drop zone operations, helicopter operations, and storage of heavy equipment.

2.1.3 Environmental Setting

This section describes the physical features, topography, geology, hydrogeology, and environmental characteristics of the facility. The environmental setting specific to CC RVAAP-68 Electric Substations (East, West, No. 3) is included in Chapter 3.0.

2.1.3.1 Physiographic Setting

The facility is located within the Southern New York Section of the Appalachian Plateaus physiographic province (U.S. Geological Survey [USGS] 1968). This province is characterized by elevated uplands underlain primarily by Mississippian and Pennsylvanian age bedrock units that are horizontal or gently dipping. The province is characterized by its rolling topography with incised streams having dendritic drainage patterns. The Southern New York Section has been modified by glaciation, which rounded ridges, filled major valleys, and blanketed many areas with glacially-derived unconsolidated deposits (e.g., sand, gravel and finer-grained outwash deposits). As a result of glacial activity in this section, old stream drainage patterns were disrupted in many locales, and extensive wetland areas developed.

2.1.3.2 Surface Features and Topography

The topography of the facility is gently undulating with an overall decrease in ground elevation from a topographic high of approximately 1,220 feet (ft) above mean sea level (amsl) in the far western portion of the facility to low areas at approximately 930 ft amsl in the far eastern portion of the facility.

USACE mapped the facility topography in February 1998 using a 2-ft (60.1-centimeter [cm]) contour interval with an accuracy of 0.02 ft (0.61 cm). USACE based the topographic information on aerial photographs taken during Spring 1997. The USACE survey is the basis for the topographical information illustrated in figures included in this report.

2.1.3.3 Geology and Soil

The regional geology at the facility consists of horizontal to gently dipping bedrock strata of Mississippian and Pennsylvanian age overlain by varying thicknesses of unconsolidated glacial deposits. The bedrock and unconsolidated geology at the facility are presented in the following subsections and shown on Figures 2-1 and 2-2.

2.1.3.3.1 *Bedrock Geology*

The bedrock geology has been inferred from the data presented in the Environmental Quality Management (EQM) Facility-Wide Groundwater Monitoring Annual Report for 2012 (EQM 2013) and shown on Figure 2-1. Additional bedrock monitoring wells have been installed at the site since the January 2010 data by SAIC that served as the previous interpretation of site bedrock (SAIC 2011a). Areas that differ significantly are noted on Figure 2-1.

The Sharon Sandstone Member of the Pennsylvanian Pottsville Formation is the primary bedrock beneath the facility (Figure 2-1). The lower portion of the Sharon Sandstone Member is informally referred to as the Sharon Conglomerate. In the western portion of the facility, the upper members of the Pottsville Formation, including the Sharon Shale, Connoquenessing Sandstone (also known as the Massillon Sandstone), Mercer Shale, and uppermost Homewood Sandstone, have been found. The regional dip of the Pottsville Formation measured in the west portion of the facility is between 5 and 11.5 ft per mi (1.5-3.5 meters [m] per 1.6 km) to the south. The Sharon Sandstone Member, the lowest unit of the Pottsville Formation, is a highly porous, loosely cemented, permeable, cross-bedded, frequently fractured and weathered, orthoquartzite sandstone, which is locally conglomeratic. Thin shale lenses occur in the upper portion of the unit (Winslow and White 1966). The Sharon Shale is a gray to black sandy to micaceous shale containing thin coal, underclay, and sandstone lenses. The Mercer Member of the Pottsville Formation consists of silty to carbonaceous shale with abundant thin, discontinuous sandstone lenses in the upper portion. Regionally, the Mercer Member also has been noted to contain interbeds of coal. The Homewood Sandstone Member is the uppermost unit of the Pottsville Formation. It typically occurs as a caprock on bedrock highs in the subsurface, and ranges from well-sorted, coarse-grained, white quartzose sandstone to a tan, poorly sorted, clay-bonded, micaceous, medium- to fine-grained sandstone. Thin shale layers are prevalent in the Homewood Member as indicated by a darker gray shade of color.

As shown on Figure 2-1, two small areas of Berea Sandstone were identified as the uppermost bedrock present. The Berea sandstone is a medium- to fine-grained clay-bonded quartz sandstone. The upper 20-30 ft of the Berea is thinly-bedded; however, the beds of the lower Berea are more massive with distinctive cross-bedding (USGS 1954).

2.1.3.3.2 *Soil and Glacial Deposits*

Bedrock at the facility is overlain by deposits of the Wisconsin-age Lavery Till in the western portion of the facility and the younger Hiram Till and associated outwash deposits in the eastern two-thirds of the facility (Figure 2-2). Unconsolidated glacial deposits vary considerably in their character and thickness across the facility, from zero in some of the eastern portions of the facility to an estimated 150 ft (46 m) in the south-central portion.

Thin coverings of glacial material have been completely removed as a consequence of human activities at locations such as Ramsdell Quarry. Bedrock is present at or near the ground surface in locations such as at Load Line 1 and the Erie Burning Grounds (USACE 2001b). Where this glacial material is still present, their distribution and character indicate their origin as ground moraine. These tills consist of laterally discontinuous assemblages of yellow-brown, brown, and gray silty clays to clayey silts, with sand and rock fragments. Lacustrine sediment from bodies of glacial-age standing water has also been encountered in the form of deposits of uniform light gray silt greater than 50 ft thick in some areas (USACE 2001b).

Soil at the facility is generally derived from the Wisconsin-age silty clay glacial till. Distributions of soil types are discussed and mapped in the Soil Survey of Portage County, Ohio, which describes soil as nearly level to gently sloping and poor to moderately well drained (U.S. Department of Agriculture [USDA] 1978, 2010). Much of the native soil at the facility was disturbed during construction activities in former production and operational areas of the facility. Several soil types are present at the facility, as shown on Figures 2-3a and 2-3b.

2.1.3.4 Hydrogeology

2.1.3.4.1 *Regional Hydrogeology*

Sand and gravel aquifers are present in the buried-valley and outwash deposits in Portage County, as described in the Phase I RI Report for High Priority AOCs (USACE 1998). Generally, these saturated zones are too thin and localized to provide large quantities of water for industrial or public water supplies; however, yields are sufficient for residential water supplies. Lateral continuity of these aquifers is unknown. Recharge of these units comes from surface water infiltration of precipitation and surface streams. Specific groundwater recharge and discharge areas at the facility have not been delineated.

The potentiometric surfaces at the facility for unconsolidated deposits and bedrock are based on the facility-wide July 2012 groundwater monitoring event (EQM 2013). The groundwater elevations of the unconsolidated deposits are shown in Figure 2-4. The potentiometric surface of the Homewood Sandstone Member (uppermost aquifer of the Pottsville Formation) is presented in Figure 2-5, the potentiometric surface of the upper Sharon Sandstone Member (intermediate

aquifer of the Pottsville Formation) is presented in Figure 2-6, and the potentiometric surface of the Sharon Conglomerate (deepest aquifer of the Pottsville Formation) is presented in Figure 2-7.

The groundwater table occurs within the unconsolidated zone in many areas of the facility. The thickness of the unconsolidated interval at the facility ranges from thin to absent in the eastern and northeastern portion of the facility to an estimated 150 ft (46 m) in the central portion of the facility. Because of the heterogeneous nature of the unconsolidated glacial material, groundwater flow patterns are difficult to determine with a high degree of accuracy. Vertical recharge from precipitation occurs via infiltration along root zones, desiccation cracks, and partings within the soil column. Laterally, most shallow groundwater flow follows topographic contours and stream drainage patterns, with preferential flow along pathways (e.g., sand seams, channel deposits, or other stratigraphic discontinuities) having higher permeabilities than surrounding clay or silt-rich material.

As shown in Figure 2-4, groundwater in the unconsolidated aquifer predominantly flows in an eastward direction; however, the unconsolidated zone shows numerous local flow variations influenced by topography and drainage patterns. The local variations in flow direction suggest: (1) groundwater in the unconsolidated deposits is generally in direct hydraulic communication with surface water; and (2) surface water drainage ways may also act as groundwater discharge locations. In addition, topographic ridges between surface water drainage features act as groundwater divides in the unconsolidated deposits, as inferred near the western facility boundary.

Within bedrock units at the facility, the principal water-bearing aquifer is the Sharon Conglomerate of the Pottsville Formation. Depending on the existence and depth of overburden, the Sharon Conglomerate ranges from an unconfined to a leaky artesian aquifer. Water yields from onsite water supply wells completed in the Sharon Conglomerate ranged from 30 to 400 gallons per minute (gpm) (U.S. Army Toxic and Hazardous Materials Agency 1978). Well yields of 5-200 gpm were reported for onsite bedrock wells completed in the Sharon Conglomerate (Kammer 1982). At the facility, the upper portion of the Sharon Conglomerate (Sharon Sandstone Member) is apparently hydraulically separate from the lower Sharon Conglomerate (EQM 2013).

The Sharon bedrock potentiometric gradient is a more uniform and regional eastward flow direction than the unconsolidated zone and is not as affected by local surface topography. As shown in Figure 2-6, the regional groundwater flow direction of the upper Sharon Sandstone is to the east; however, there is a notable mounding of groundwater in the south-eastern portion of the site where groundwater within this aquifer is radial. As shown in Figure 2-7, the groundwater flow direction in the lower Sharon Conglomerate is also to the east.

Other local bedrock units capable of producing water include the Homewood Sandstone, which is generally thinner and only capable of well yields less than 10 gpm, and the Connoquenessing Sandstone. Wells completed in the Connoquenessing Sandstone in Portage County have yields ranging from 5 to 100 gpm, but are typically less productive than the Sharon Conglomerate due to lower permeabilities. None of the monitoring wells at the facility are identified as screened in the Connoquenessing (EQM 2013). As shown in Figure 2-5, the groundwater flow within the

Homewood Sandstone at the facility is radial due to the sandstone's presence as a localized cap rock.

For much of the eastern half of the facility, bedrock potentiometric elevations are higher than the overlying unconsolidated potentiometric elevations, indicating an upward hydraulic gradient. This evidence suggests there is a confining layer that separates the two aquifers. However, in the far eastern area, the two potentiometric surfaces are at approximately the same elevation, suggesting that hydraulic communication between the two aquifers is occurring. Due to the lack of well data in the western portion of the facility, generalized hydraulic gradients and flow patterns are difficult to discern.

2.1.3.4.2 *Groundwater Usage and Domestic Water Supply*

The facility historically used groundwater for both domestic and industrial supplies. Groundwater utilized at the facility during past operations was obtained from production wells located throughout the facility, with the majority of wells screened in the Sharon Conglomerate. The Army discontinued use of most of the groundwater production wells prior to 1993, when the facility was placed in modified caretaker status. Currently, one of the four remaining original groundwater production wells remains in use by the Army. This well, located in the Administration Area, is not used as a potable water source of supply, but supplies sanitary water for active-use buildings in that area.

In addition, as of 2011, OHARNG has installed two bedrock aquifer production wells at the facility for use as a groundwater supply. These two OHARNG groundwater supply wells are installed in the Sharon Conglomerate aquifer and are located near Buildings 1067 and 1068 within the Administration Area. There is also one inactive non-potable groundwater supply well just south of Winklepeck Burning Grounds along the west side of George Road, which was formerly used to supply water for environmental restoration activities. This groundwater supply well is used solely for onsite activities and is not used for public distribution, livestock, or commercial groundwater potable supply.

The closest population center to the facility, the city of Newton Falls, obtains municipal water supplies from the east branch of the Mahoning River. Currently, the majority of residential groundwater use in the area surrounding the facility is primarily for domestic and livestock supply, with the Sharon Conglomerate acting as the major producing aquifer in the area. The Connoquenessing and Homewood sandstones also provide limited groundwater resources, primarily surrounding the western half of the facility. Unconsolidated deposits can also be an important source of groundwater, as many of the domestic wells and small public water supplies located near the facility obtain sustainable quantities of water from wells completed in unconsolidated deposits.

Local groundwater within and surrounding the facility contains proportionately high levels of iron, manganese, and carbonate compounds. As such, it is classified as "hard" water. Hard water has an associated metallic taste that can be unpalatable if not properly treated for human consumption.

2.1.3.4.3 *Regional Surface Water*

The facility resides within the Mahoning River watershed, which is part of the Ohio River basin. The west branch of the Mahoning River is the main surface stream in the area. The west branch flows adjacent to the west end of the facility, generally in a north to south direction, before flowing into the Michael J. Kirwan Reservoir, which is located to the south of State Route 5 (Figure 1-1). The west branch flows out of the reservoir and parallels the southern the facility boundary before joining the Mahoning River east of the facility. The western and northern portions of the facility display low hills and a dendritic surface drainage pattern. The eastern and southern portions are characterized by an undulating to moderately level surface, with less dissection of the surface drainage. The facility is marked with marshy areas and flowing and intermittent streams whose headwaters are located in the upland areas of the facility.

As shown in Figure 1-2, the three primary watercourses that drain the facility are:

- South fork of Eagle Creek
- Sand Creek
- Hinkley Creek

All of these watercourses have many associated tributaries. Sand Creek, with a drainage area of 13.9 square miles (36 square km [km²]), flows generally in a northeast direction to its confluence with the south fork of Eagle Creek. In turn, the south fork of Eagle Creek continues in a northerly direction for 2.7 mi (4.3 km) to its confluence with Eagle Creek. The drainage area of the south fork of Eagle Creek is 26.2 square mi (mi^2) (67.8 km²), including the area drained by Sand Creek. Hinkley Creek originates just southeast of the intersection between State Route 88 and State Route 303 to the north of the facility. Hinkley Creek, with a drainage area of 11.0 mi^2 (28.5 km²), flows in a southerly direction through the facility, and converges with the west branch of the Mahoning River south of the facility (USACE 2001a).

Approximately one-third of the facility meets the regulatory definition of a wetland, with the majority of the wetland areas located in the eastern portion of the facility. Wetland areas at the facility include seasonal wetlands, wet fields, and forested wetlands. Many of the wetland areas are the result of natural drainage or beaver activity; however, some wetland areas are associated with anthropogenic settling ponds and drainage areas.

Approximately 50 ponds are scattered throughout the facility. Many were constructed within natural drainage ways to function as settling ponds or basins for process effluent and runoff. Others are natural in origin, resulting from glacial action or beaver activity. Water bodies at the facility could support aquatic vegetation and biota. Stormwater runoff is controlled primarily by natural drainage, except in former operations areas where an extensive storm sewer network helps to direct runoff to drainage ditches and settling ponds. Additionally, the storm sewer system was one of the primary drainage mechanisms for process effluent during the period that production facilities were in operation.

2.1.3.5 Climate

The general climate of the facility area is continental and is characterized by moderately warm and humid summers, reasonably cold and cloudy winters, and wide variations in precipitation from year to year. Climate data for the facility area presented below were obtained from available National Weather Service records for the 16-year period of record from 1996 to 2012 at the Youngstown Regional Airport, Ohio (http://www.nws.noaa.gov/climate/xmacis.php?wfo=cle). Wind speed data for Youngstown, Ohio, are from the National Climatic Data Center (http://www.ncdc.noaa.gov/data-access/quick-linksa#wind) for the available 53-year period of record from 1950 through 2002.

Average annual rainfall in the facility area is 41.2 inches (104.65 cm), with the highest monthly average occurring in May (4.35 inches or 11.05 cm) and the lowest monthly average occurring in February (2.50 inches or 6.35 cm). For the period of 1971-2000, the average annual snowfall for the Youngstown Area totals approximately 55.0 inches (139.7 cm), with the highest monthly average occurring in January (14.3 inches or 36.32 cm). Due to the influence of lake effect snowfall events associated with Lake Erie (located approximately 35 mi [56.3 km] northwest of the facility), snowfall totals vary widely throughout northeastern Ohio.

The average annual daily temperature in the facility area is 49.6 degrees Fahrenheit (ºF), with an average daily high temperature of 70.7ºF and an average daily low temperature of 26.5ºF. The record high temperature of 103ºF occurred in July 1936, and the record low temperature of -22ºF occurred in January 1994. The prevailing wind direction at the facility is from the west-southwest, with the highest average wind speed occurring in January (12.0 mi [19.31 km] per hour) and the lowest average wind speed occurring in August (7.04 mi [11.27 km] per hour). Thunderstorms occur on approximately 35 days per year and are most abundant from April through August. The facility area is susceptible to tornadoes; minor structural damage to several buildings on facility property occurred as the result of a tornado in 1985.

2.2 SITE DESCRIPTION

The three separate, inactive, electric substations that together comprise the CC RVAAP-68 Electric Substations (East, West, No. 3) AOC are all located within the facility. The West Substation and Substation No. 3 are located relatively close to each other in the south-central portion of the facility, near several load lines. The West Substation is located northwest of Load Line 5 on Fuze and Booster Road in the central portion of the facility. Former Substation No. 3 is located in the Fuze and Booster Service Area southeast of Fuze and Booster Spur Road between Load Lines 10 and 11. The East substation is located several miles to the east of the other two former substations, in the east-central portion of the facility along the south side of Remalia Road, approximately 325 ft southwest of the intersection with Load Line No. 2 Road.

The former East and West substations are located adjacent to former operational support buildings. The former East Substation is located adjacent to Building 25-27, the former West Substation is located near Building 28-28, and former Substation No. 3 did not have an association with an operational support structure. Figures 1-2 and 1-3 depict the location of this AOC. Figures showing details of each substation are presented in Chapter 3.0.

East Substation—The East Substation comprises an area of approximately 12,300 square ft (ft^2). The only remaining structure at the East Substation is the former switch house building (Building 25-27). This building is not included as part of this RI. Land adjacent to the East Substation is mainly gravel and an open field that is regularly maintained by mowing. There are aboveground electrical lines that run to the south of the East Substation, paralleling the rail line. A ditch is located along the northern boundary of the East Substation, paralleling Remalia Rd.

West Substation—The West Substation comprises an area of approximately 3,000 ft^2. The West Substation is located immediately southwest of former Power House No. 52-15. The former power house was demolished in 2010, and that plot of land is currently an open field. The only remaining structure at the West Substation is Building 28-28. This building is not included as part of this RI and is currently used by the OHARNG for military training exercises. The area immediately north of the West Substation is mainly a wooded area with rail lines. Part of the exterior area of the former substation is now gravel and grass with a small ditch that runs parallel to the southwest side of the building and along the southeast boundary parallel to Fuze and Booster Road.

Substation No. 3—Substation No. 3 comprises an area of approximately 10,000 ft^2. There was no building associated with Substation No. 3. The only structures that remain at the former Substation No. 3 include the concrete foundations for the transformers, other electrical equipment, and stumps from former utility poles.

2.2.1 Operational History

The three former substations were key distribution points for electrical power throughout the facility. Electricity for the facility was purchased from the Ohio Edison Company and was supplied from Newton Falls and Garrettsville, Ohio. Distribution of electricity occurred through the substations, each at approximately 24,000 volts.

The use of several hazardous and regulated materials was documented during the operation of the three former substations, including petroleum products (fuels and oils), polychlorinated biphenyls (PCBs), and lead acid batteries. The facility's disposal practices for PCBs were documented in the facility standard operating procedure, and inventories of PCB material were maintained on the annual PCB inventory logs. Annual PCB inventory inspections were conducted on a facility-wide basis to document quantities of PCB oil located throughout the facility. The results of the inspections were documented in annual PCB inventory reports. These reports documented all PCB-containing items, including transformers, capacitors, contaminated soil, and hydraulic equipment containing contaminated oil. As part of ongoing operation and maintenance activities, oil in the transformers from all three substations was analyzed in 1993; results of that analysis are unknown. In August 1993, the transformers were drained and moved to Building 854 for disposal.

East Substation—The former East Substation was in use from the 1940s through 1993, servicing Load Lines 1, 2, 3, 4, and 12, as well as providing power for miscellaneous buildings and operations on the eastern side of the facility. While in use, the East Substation consisted of

a brick Switch House (Building 25-27) of approximately 1,170 ft^2, constructed on a 6-inch thick reinforced concrete floor. The interior of the building was divided into a general area for the switch gear panel and a smaller room used for storing lead acid batteries for backup power. The switch gear panel was connected to two pad-mounted 3,000 kilovolt-ampere transformers and 36 high voltage capacitors located outside the building. A metal fence surrounded the building and exterior equipment.

West Substation—The former West Substation serviced the Fuze and Booster Hill area, including Load Lines 5 through 11, the Administration Area, and George Road Area. The layout of the West Substation was similar to the former East Substation with a 964 ft^2 brick building (Building 28-28) with a switch gear panel room and battery storage room (currently in use by OHARNG), with two pad-mounted transformers, and other electrical equipment, surrounded by a metal fence. Equipment was removed from service in 1993. Salvage operations including removal of the fence occurred in 1997.

Substation No. 3—There was no building associated with former Substation No. 3. Transformers and other electrical equipment located here were used to service the western portion of the facility including Depot Area.

2.2.2 Land Use and Ownership History

CC RVAAP-68 Electric Substations (East, West, No. 3) is on property located within the boundaries of the facility. The facility is federally owned; however, administrative accountability for the entire 21,683-acre facility has been transferred to the United States Property and Fiscal Office for Ohio, and the property was subsequently licensed to the OHARNG for use as a military training site.

2.2.3 Physical Property Characteristics

East Substation—The East Substation comprises an area of approximately 12,300 ft^2. The only remaining structure at the East Substation is the former switch house building (Building 25-27). Land adjacent to the East Substation is mainly gravel and an open field that is regularly maintained by mowing. There are aboveground electrical lines that run to the south of the East Substation, paralleling a rail line. A ditch is located along the northern boundary of the East Substation, paralleling Remalia Road. The larger area surrounding the East Substation is mostly wooded.

West Substation—The West Substation comprises an area of approximately 3,000 ft^2. It is located near Substation No. 3, coal storage areas, and load lines in a localized topographic high. The West Substation is located immediately southwest of former Power House No. 52-15. The former power house was demolished in 2010, and that plot of land is currently an open field. The only remaining structure at the West Substation is Building 28-28. The area immediately north of the West Substation is mainly a wooded area with rail lines. Part of the exterior area of the former substation is now gravel and grass with a small ditch that runs parallel to the southwest side of the building and along the southeast boundary parallel to Fuze and Booster Road.

Substation No. 3—Substation No. 3 comprises an area of approximately 10,000 ft^2. It is located near West Substation, coal storage areas, and load lines in a localized topographic high. There was no building associated with Substation No. 3. The only structures that remain at the former Substation No. 3 include the concrete foundations for the transformers, other electrical equipment, and stumps from former utility poles. Land adjacent to Substation No. 3 is mainly gravel. The former substation is located just north of a wetland and northwest of an unnamed tributary to Sand Creek.

2.2.4 Chronological Property Summary

The design drawings of the three substations suggest the substations were built in the early 1940s. When the equipment was taken out of service during 1992 and 1993, as part of the modified caretaker status build down, the transformers were sampled, tested for PCBs, drained to drums, and moved to Building 854 for disposal.

2.2.5 Military Operations

No documented evidence of historical military operations being performed in the immediate vicinity of the substations was found during the HRR.

2.2.6 Previous Investigations

In the HRR, the following items were noted with respect to hazardous, toxic, or radioactive waste activities at CR RVAAP-68:

- Transformer oil containing PCBs
- Historical spill/leak at the former West Substation
- Lead acid batteries in the building at the former East and West Substations
- 55-gallon drums observed during the property visit/perimeter survey at Building 25-27 at the former East Substation

Transformers and other oil-containing equipment at the former substations typically contained PCBs prior to the 1990s when PCB-containing transformer oil was replaced with non-PCB oil. The facility maintained detailed records regarding equipment containing PCB oil, which were reported in their annual PCB inventory report. According to the annual PCB inventory reports found during HRR, samples collected from the former East, West, and No. 3 Substations did not contain PCBs greater than 50 parts per million (ppm).

No documentation was found during the completion of the HRR to describe the disposal practices of the transformer oil. There is no documented evidence of aboveground storage tanks or underground storage tanks being present at the substations (SAIC 2011a).

East Substation—Building 25-27 at the East Substation contained a bank of lead acid batteries to provide backup power to the switch gear. The number of lead acid batteries stored at Building 25-27 is unknown; however, in the HRR, interviewees recalled approximately 80 batteries stored at the location at any one time. No documented evidence of a release from the batteries was found during the completion of the HRR.
Further investigation was recommended at the East Substation due to the potential for unreported spills/leaks from the electrical equipment at the substation. The target analytes recommended were Target Analyte List (TAL) metals, PCBs, and semivolatile organic compounds (SVOCs) for the surface and subsurface soils and dry sediment along the drainage ditches (SAIC 2011a).

During the property visit at the former East Substation, four rusted 55-gallon drums were observed. Based on historical information, the empty drums were used for salvage operations by the salvage contractors and left (empty) in the building following their use. They were not known to contain chemicals or hazardous materials while onsite. Empty drums are also used along this road as part of training operations along the Improvised Explosive Device lane. The presence of these rusted drums does not constitute a potential release (SAIC 2011a).

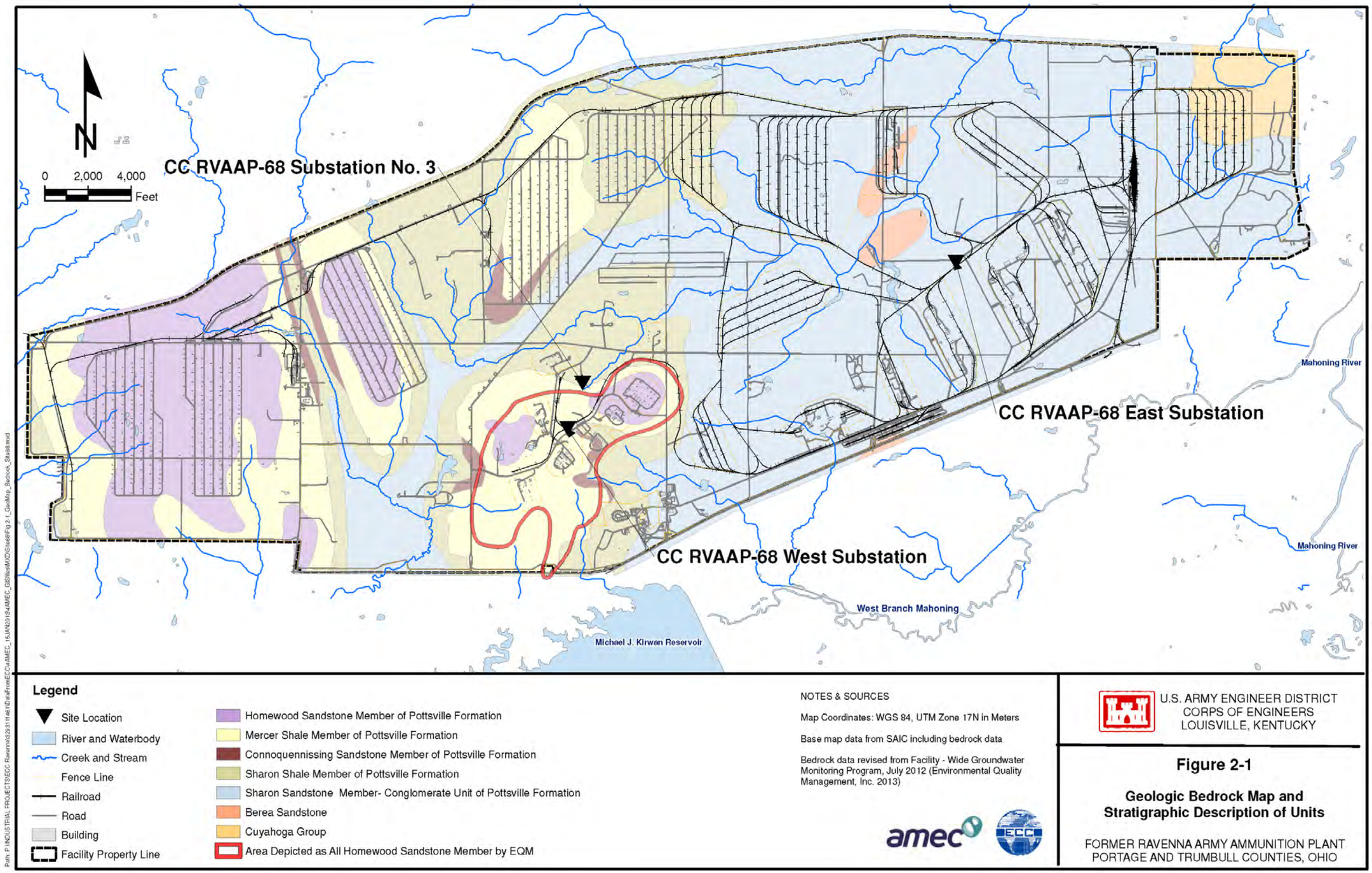
West Substation—In 1997, approximately 1,500 gallons of transformer oil was spilled during salvage operations at the former West Substation. During salvaging activities, a large transformer tipped when lifted off the concrete pad and one or more cooling fins cracked when the transformer impacted the building. Due to a concern that the oil could reach the surface water, the facility conducted a voluntary cleanup of the spill under the oversight of the Ohio EPA. Approximately 449 tons of soil was excavated and transported to a soil remediation plant in Lowellville, Ohio (SAIC 2011a). Samples were collected and results were compared against the State of Ohio's Bureau of Underground Storage Tank Regulations. Sample results were below Bureau of Underground Storage Tank Regulations action levels and remediation was complete. However, no documentation of approval from Ohio EPA was discovered during the completion of the HRR. According to the historical annual PCB inventory reports, the transformer oil from the former West Substation was tested for PCBs and determined to be non-PCB containing oil.

According the HRR, a former facility employee indicated that an old transformer at the former West Substation began leaking in the early 1980s. The employee recalled that the soil in and around the leak was remediated, and the soil was tested. However, no documentation was found with respect to the remediation or testing of the soil (SAIC 2011a).

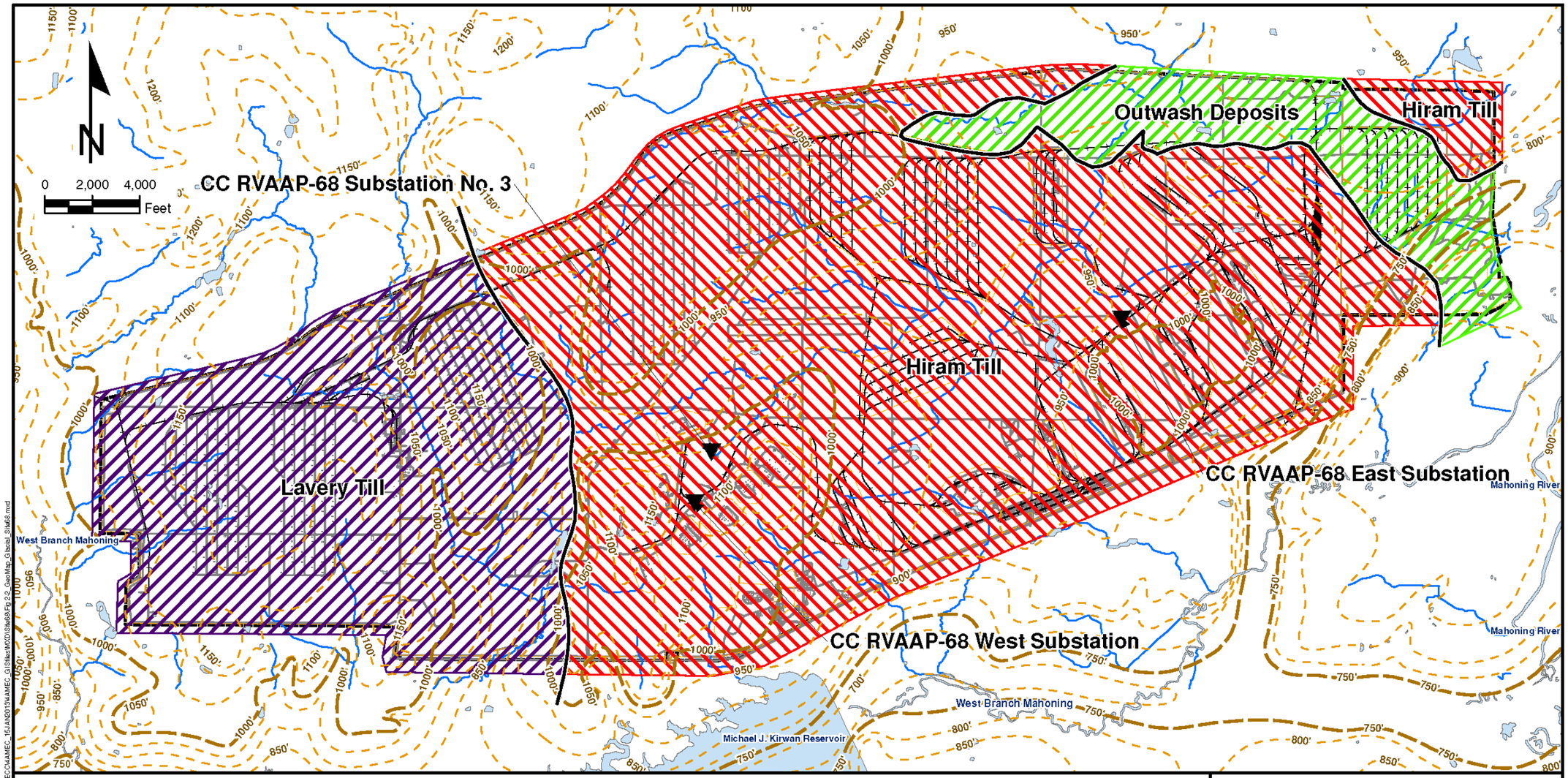
Further investigation was recommended at this substation (SAIC 2011a). Based on the findings of the HRR, additional sampling of surface and subsurface soils around the transformer pads and dry sediment within the drainage swales was recommended to be analyzed for TAL metals, PCBs, and SVOCs.

Substation No. 3—No documented evidence of a release at Substation No. 3 was discovered during the HRR or during the property visit. Surface soil around the transformer and equipment pads and wet sediment and surface water within the wetland and Sand Creek tributary were recommended to be sampled and analyzed for TAL metals, PCBs, and SVOCs (SAIC 2011a).

This page intentionally left blank


N
0 2,000 4,000
Feet
CC RVAAP-68 Substation No. 3
CC RVAAP-68 East Substation
CC RVAAP-68 West Substation
Mahoning River
Mahoning River
West Branch Mahoning
Michael J. Kirwan Reservoir
Legend
Site Location
River and Waterbody
Creek and Stream
Fence Line
Railroad
Road
Building
Facility Property Line
Homewood Sandstone Member of Pottsville Formation
Mercer Shale Member of Pottsville Formation
Connoquennissing Sandstone Member of Pottsville Formation
Sharon Shale Member of Pottsville Formation
Sharon Sandstone Member- Conglomerate Unit of Pottsville Formation
Berea Sandstone
Cuyahoga Group
Area Depicted as All Homewood Sandstone Member by EQM
NOTES & SOURCES
Map Coordinates: WGS 84, UTM Zone 17N in Meters
Base map data from SAIC including bedrock data
Bedrock data revised from Facility - Wide Groundwater Monitoring Program, July 2012 (Environmental Quality Management, Inc. 2013)
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY
Figure 2-1
Geologic Bedrock Map and Stratigraphic Description of Units
FORMER RAVENNA ARMY AMMUNITION PLANT
PORTAGE AND TRUMBULL COUNTIES, OHIO

This page intentionally left blank



Legend

- Site Location
- River and Waterbody
- Creek and Stream
- Fence Line
- Railroad
- Road
- Building
- Facility Property Line
- Bedrock Surface Contour (50 ft interval)
- Bedrock Surface Contour (250 ft interval)
- Unconsolidated Deposits Approximate Boundary
- Lavery Till
- Hiram Till
- Outwash Deposits

NOTES & SOURCES

Map Coordinates: WGS 84, UTM Zone 17N in Meters
Base map data from SAIC

ft= feet

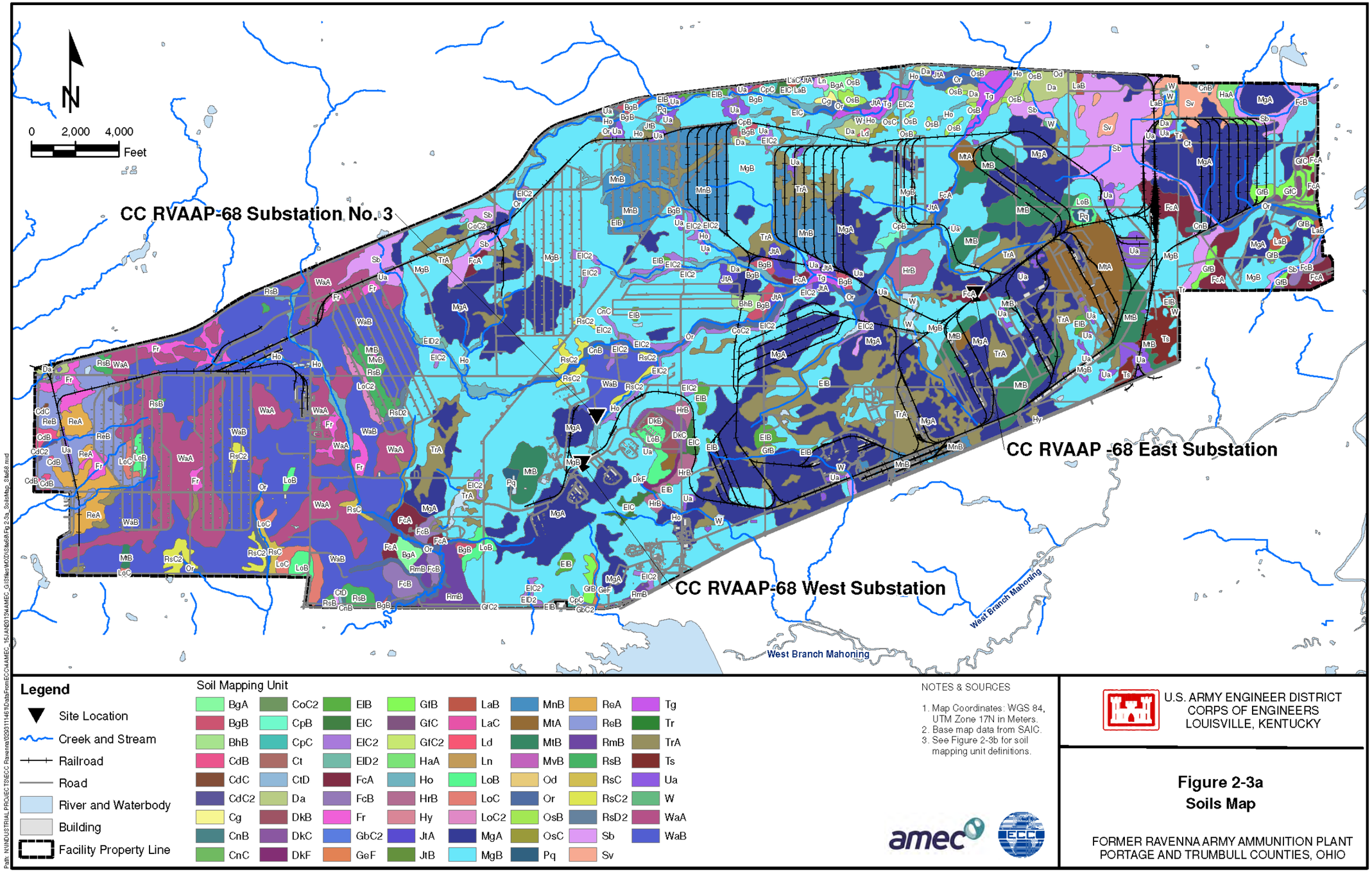
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

Figure 2-2

Geologic Map of Unconsolidated Deposits

FORMER RAVENNA ARMY AMMUNITION PLANT
PORTAGE AND TRUMBULL COUNTIES, OHIO

This page intentionally left blank


N
0 2,000 4,000
Feet
CC RVAAP-68 Substation No. 3
CC RVAAP -68 East Substation
CC RVAAP-68 West Substation
West Branch Mahoning
West Branch Mahoning
Legend
Site Location
Creek and Stream
Railroad
Road
River and Waterbody
Building
Facility Property Line
Soil Mapping Unit
BgA BgB BhB CdB CdC CdC2 Cg CnB CnC CoC2 CpB CpC Ct CtD Da DkB DkC DkF ElB ElC ElC2 ElD2 FcA FcB Fr GbC2 GeF GfB GfC GfC2 HaA Ho HrB Hy JtA JtB LaB LaC Ld Ln LoB LoC LoC2 MgA MgB MnB MtA MtB MvB Od OsB OsC Pq ReA ReB RmB RsB RsC RsC2 RsD2 Sb Sv Tg Tr TrA Ts Ua W WaA WaB
NOTES & SOURCES
1. Map Coordinates: WGS 84, UTM Zone 17N in Meters.
2. Base map data from SAIC.
3. See Figure 2-3b for soil mapping unit definitions.
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY
Figure 2-3a
Soils Map
FORMER RAVENNA ARMY AMMUNITION PLANT
PORTAGE AND TRUMBULL COUNTIES, OHIO
amec
ECC

This page intentionally left blank

Legend

Soil Mapping Unit

- BgA, Bogart silt loam, 0 to 2% slopes
- BgB, Bogart silt loam, 2 to 6% slopes
- BhB, Bogart-Haskins complex, 2 to 6% slopes
- CdB, Canfield silt loam, 2 to 6% slopes
- CdC, Canfield silt loam, 6 to 12% slopes
- CdC2, Canfield silt loam, 6 to 12% slopes, moderately eroded
- Cg, Carlisle muck
- CnB, Chili loam, 2 to 6% slopes
- CnC, Chili loam, 6 to 12% slopes
- CoC2, Chili gravelly loam, 6 to 12% slopes, moderately eroded
- CpB, Chili silt loam, 2 to 6% slopes
- CpC, Chili silt loam, 6 to 12% slopes
- Ct, Chili-Oshtemo complex
- CtD, Chili-Oshtemo complex, 12 to 18% slopes
- Da, Damascus loam
- DkB, Dekalb channery loam, 2 to 6% slopes
- DkC, Dekalb channery loam, 6 to 12% slopes
- DkF, Dekalb channery loam, 25 to 70% slopes
- ElB, Ellsworth silt loam, 2 to 6% slopes
- ElC, Ellsworth silt loam, 6 to 12% slopes
- ElC2, Ellsworth silt loam, 6 to 12% slopes, moderately eroded
- ElD2, Ellsworth silt loam, 12 to 18% slopes, moderately eroded
- FcA, Fitchville silt loam, 0 to 2% slopes
- FcB, Fitchville silt loam, 2 to 6% slopes
- Fr, Frenchtown silt loam
- GbC2, Geeburg silt loam, 6 to 12% slopes, moderately eroded
- GeF, Geeburg and Glenford silt loams, steep
- GfB, Glenford silt loam, 2 to 6% slopes
- GfC, Glenford silt loam, 6 to 12% slopes
- GfC2, Glenford silt loam, 6 to 12% slopes, moderately eroded
- HaA, Haskins loam, 0 to 2% slopes
- Ho, Holly silt loam
- HrB, Hornell silt loam, 3 to 8% slopes
- Hy, Holly silt loam, frequently flooded
- JtA, Jimtown loam, 0 to 2% slopes
- JtB, Jimtown loam, 2 to 6% slopes
- LaB, Lakin loamy sand, 2 to 6% slopes
- LaC, Lakin loamy sand, 6 to 12% slopes
- Ld, Linwood muck
- Ln, Lorain silty clay loam
- LoB, Loudonville silt loam, 2 to 6% slopes
- LoC, Loudonville silt loam, 6 to 12% slopes
- LoC2, Loudonville silt loam, 6 to 12% slopes, moderately eroded
- MgA, Mahoning silt loam, 0 to 2% slopes
- MgB, Mahoning silt loam, 2 to 6% slopes
- MnB, Mahoning-Urban land complex, undulating
- MtA, Mitiwanga silt loam, 0 to 2% slopes
- MtB, Mitiwanga silt loam, 2 to 6% slopes
- MvB, Mitiwanga silt loam, 2 to 6% slopes, moderately well drained variant
- Od, Olmsted loam
- Or, Orrville silt loam
- OsB, Oshtemo sandy loam, 2 to 6% slopes
- OsC, Oshtemo sandy loam, 6 to 12% slopes
- Pq, Pits, quarries
- ReA, Ravenna silt loam, 0 to 2% slopes
- ReB, Ravenna silt loam, 2 to 6% slopes
- RmB, Remsen silt loam, 2 to 6% slopes
- RsB, Rittman silt loam, 2 to 6% slopes
- RsC, Rittman silt loam, 6 to 12% slopes
- RsC2, Rittman silt loam, 6 to 12% slopes, moderately eroded
- RsD2, Rittman silt loam, 12 to 18% slopes, moderately eroded
- Sb, Sebring slit loam
- Sv, Sebring silt loam, dark surface variant
- Tg, Tioga loam
- Tr, Trumbull silt loam
- TrA, Trumbull silt loam, 0 to 2% slopes
- Ts, Trumbull silty clay loam
- Ua, Udorthents
- W, Water
- WaA, Wadsworth silt loam, 0 to 2% slopes
- WaB, Wadsworth silt loam, 2 to 6% slopes

NOTES & SOURCES

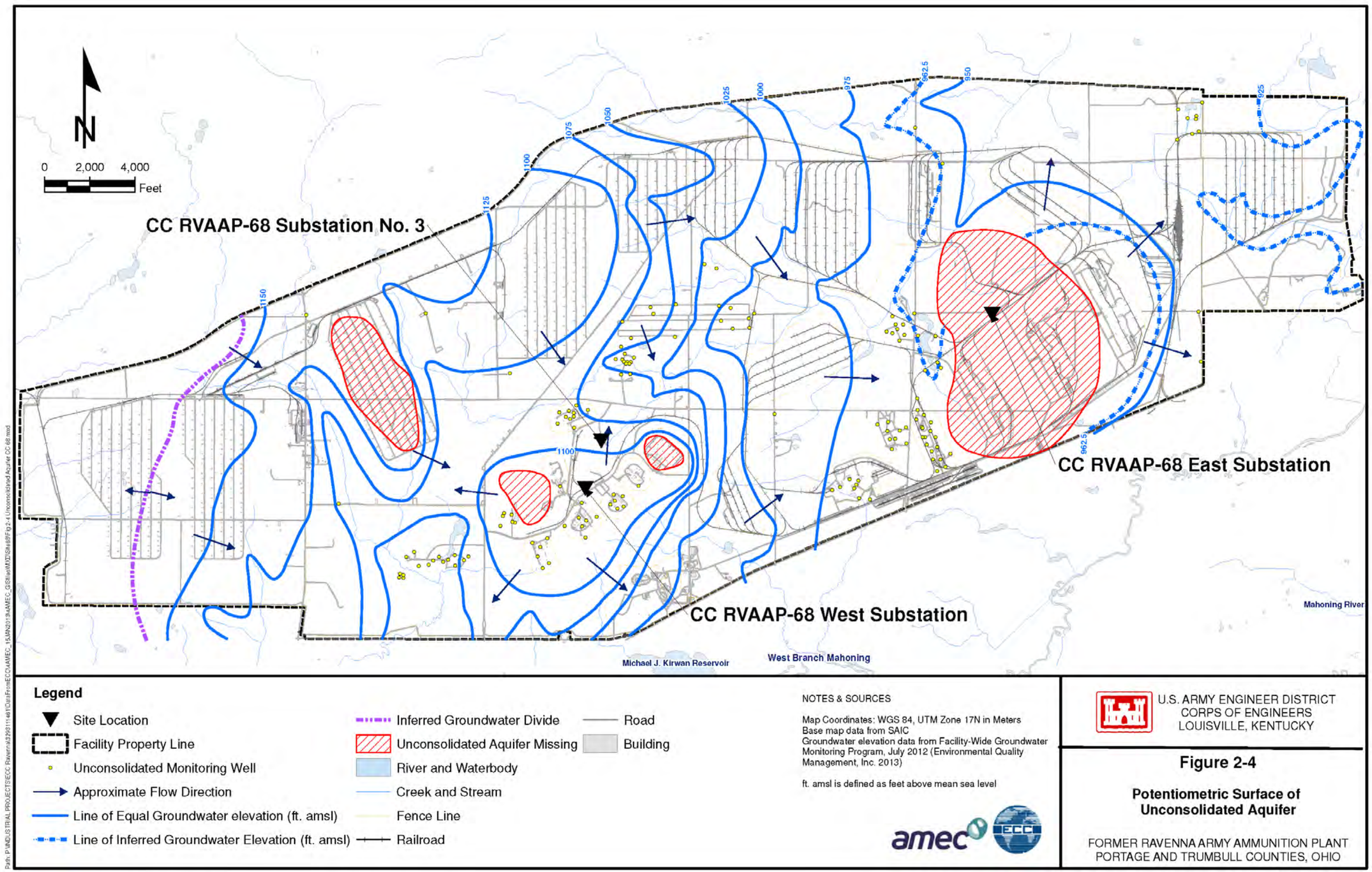
1. Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online at http://websoilsurvey.nrcs.usda.gov/. Accessed 12/28/2012.
2. See Figure 2-3a for soils map.

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

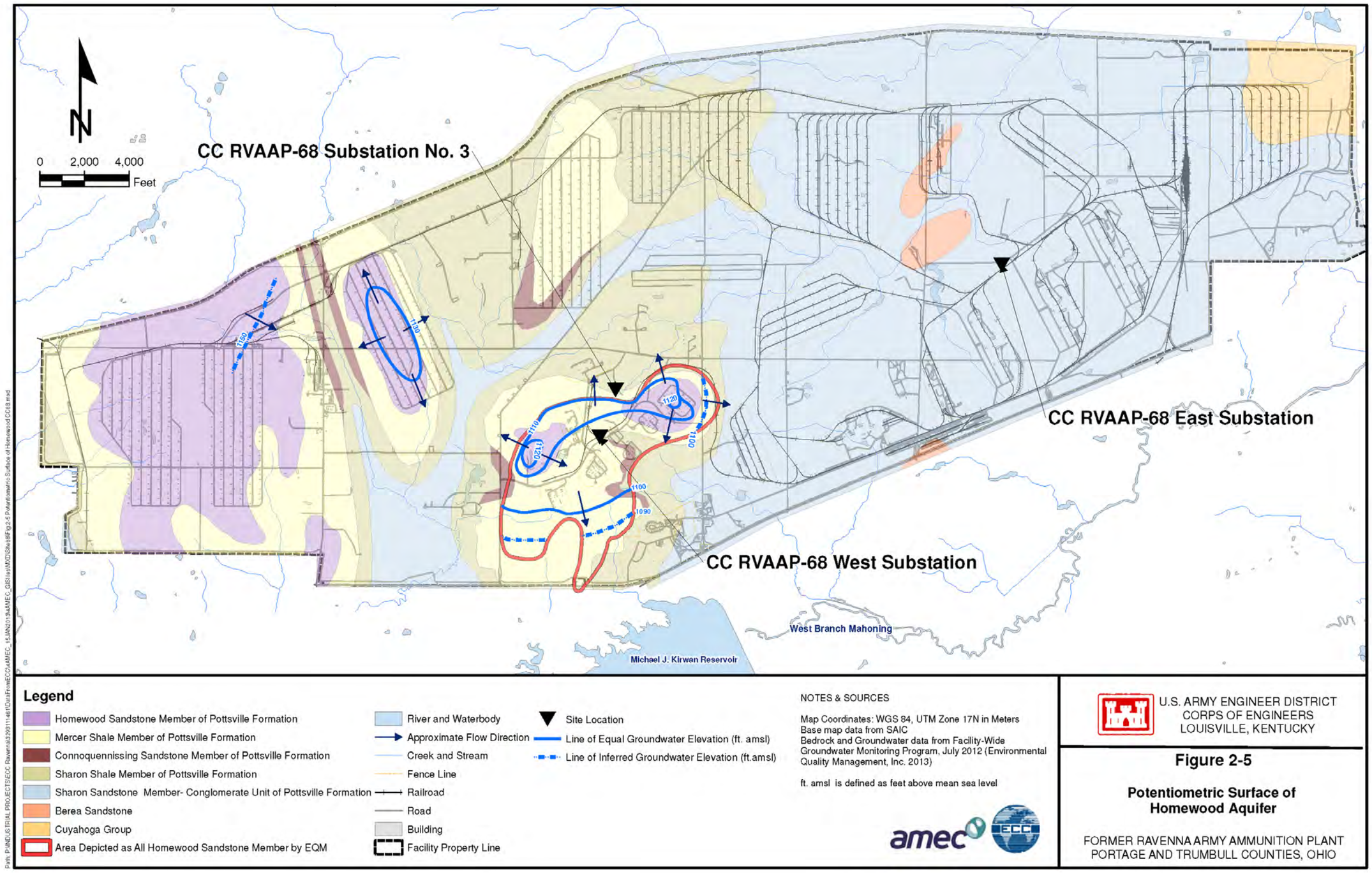
Figure 2-3b
Description of Soil Mapping Units
FORMER RAVENNA ARMY AMMUNITION PLANT
PORTAGE AND TRUMBULL COUNTIES, OHIO

Path: N:\INDUSTRIAL PROJECTS\CCC Ravenna\260311\451\Data\Fig\CC24AMEC_GIS\Mxd\MXD\Sep14\Fig 2-3b_SoilMapUnit.mxd

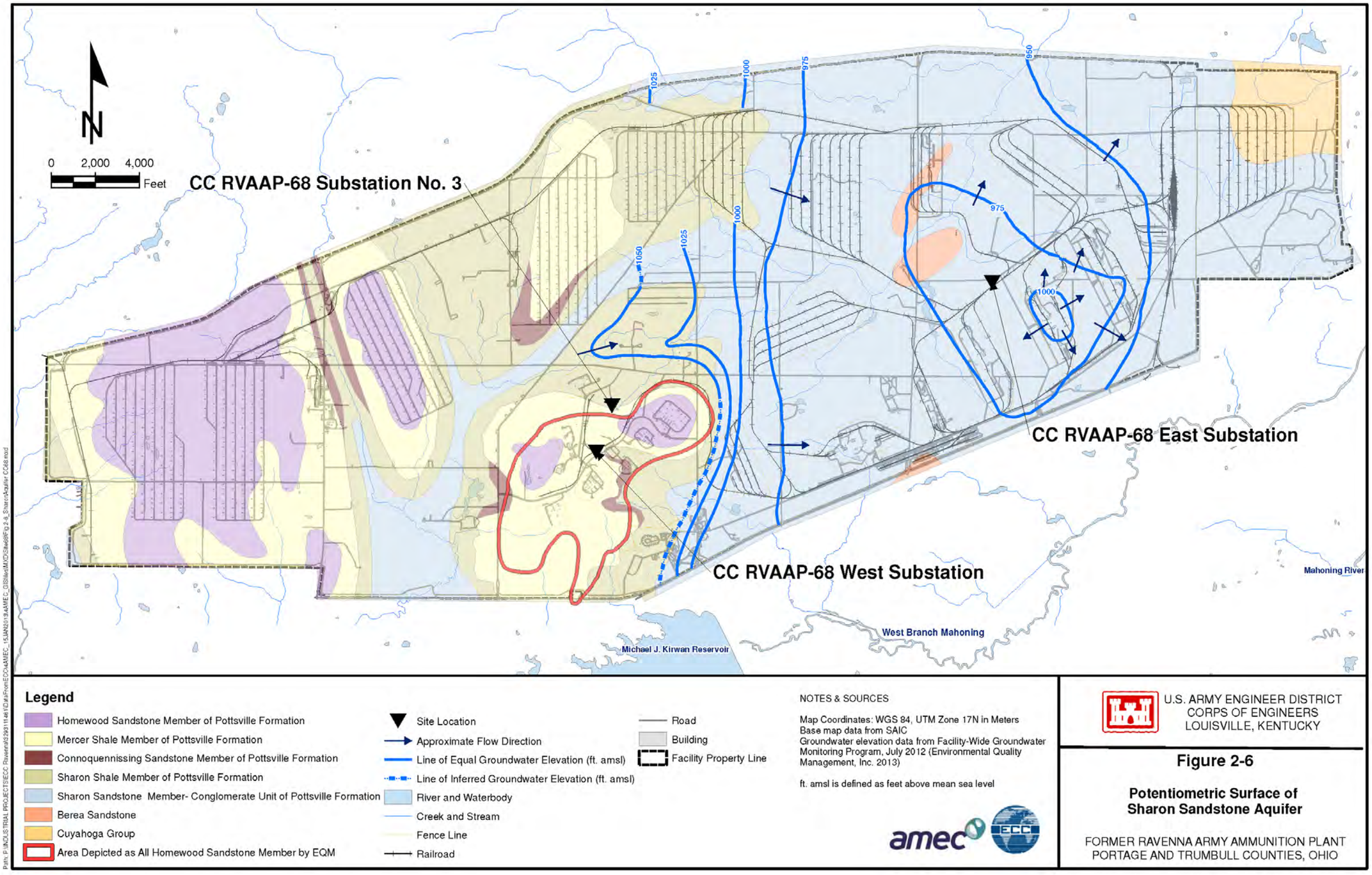
This page intentionally left blank


N
0 2,000 4,000
Feet
CC RVAAP-68 Substation No. 3
CC RVAAP-68 East Substation
CC RVAAP-68 West Substation
Michael J. Kirwan Reservoir
West Branch Mahoning
Mahoning River
1150
1125
1100
1075
1050
1025
1000
975
962.5
950
925
Legend
Site Location
Facility Property Line
Unconsolidated Monitoring Well
Approximate Flow Direction
Line of Equal Groundwater elevation (ft. amsl)
Line of Inferred Groundwater Elevation (ft. amsl)
Inferred Groundwater Divide
Unconsolidated Aquifer Missing
River and Waterbody
Creek and Stream
Fence Line
Railroad
Road
Building
NOTES & SOURCES
Map Coordinates: WGS 84, UTM Zone 17N in Meters
Base map data from SAIC
Groundwater elevation data from Facility-Wide Groundwater Monitoring Program, July 2012 (Environmental Quality Management, Inc. 2013)
ft. amsl is defined as feet above mean sea level
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY
Figure 2-4
Potentiometric Surface of Unconsolidated Aquifer
FORMER RAVENNA ARMY AMMUNITION PLANT
PORTAGE AND TRUMBULL COUNTIES, OHIO

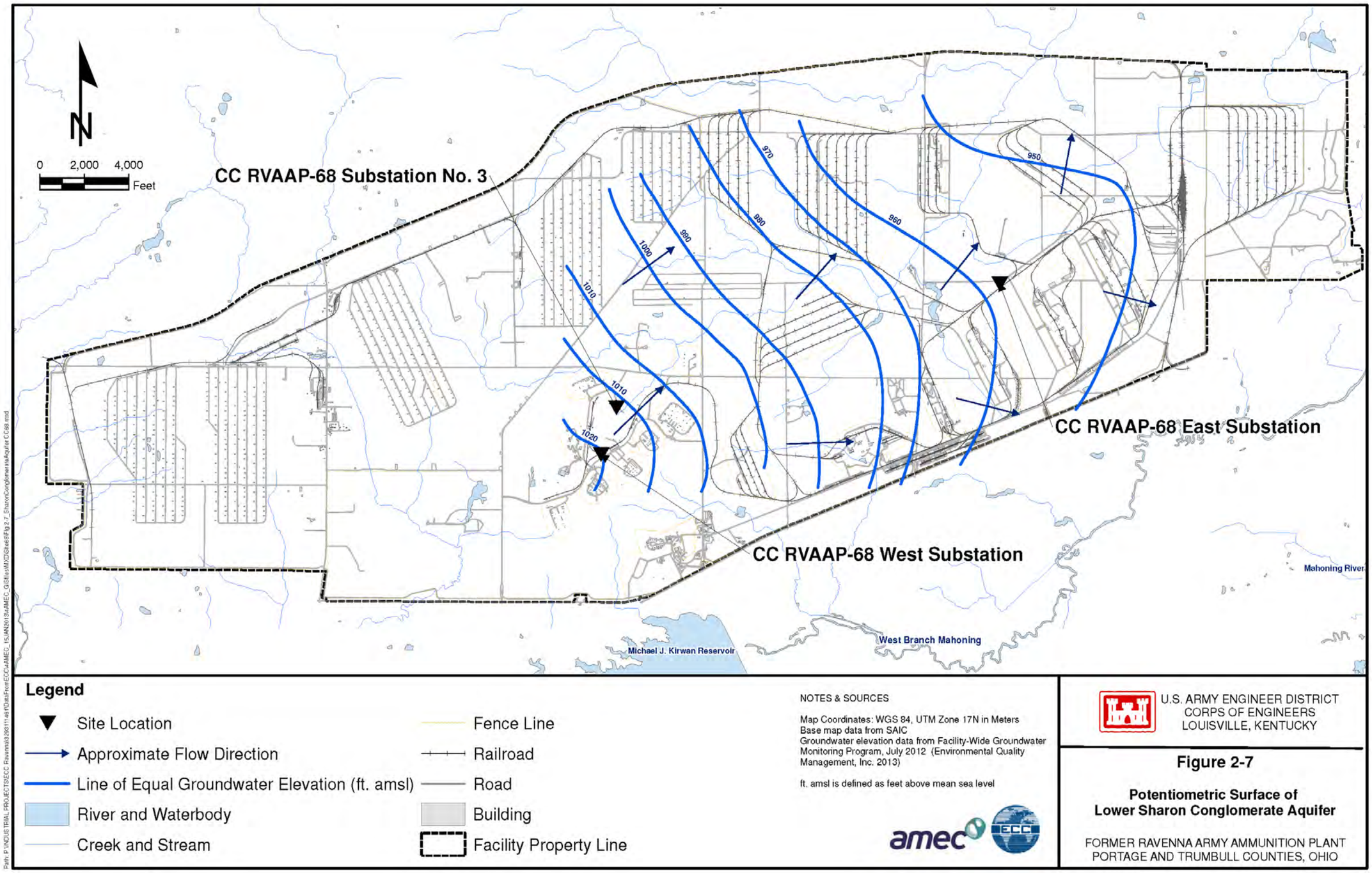
This page intentionally left blank


N
0 2,000 4,000
Feet
CC RVAAP-68 Substation No. 3
CC RVAAP-68 East Substation
CC RVAAP-68 West Substation
West Branch Mahoning
Michael J. Kirwan Reservoir
1130
1130
1120
1110
1100
1120
1100
1090
Legend
Homewood Sandstone Member of Pottsville Formation
Mercer Shale Member of Pottsville Formation
Connoquennissing Sandstone Member of Pottsville Formation
Sharon Shale Member of Pottsville Formation
Sharon Sandstone Member- Conglomerate Unit of Pottsville Formation
Berea Sandstone
Cuyahoga Group
Area Depicted as All Homewood Sandstone Member by EQM
River and Waterbody
Approximate Flow Direction
Creek and Stream
Fence Line
Railroad
Road
Building
Facility Property Line
Site Location
Line of Equal Groundwater Elevation (ft. amsl)
Line of Inferred Groundwater Elevation (ft.amsl)
NOTES & SOURCES
Map Coordinates: WGS 84, UTM Zone 17N in Meters
Base map data from SAIC
Bedrock and Groundwater data from Facility-Wide Groundwater Monitoring Program, July 2012 (Environmental Quality Management, Inc. 2013)
ft. amsl is defined as feet above mean sea level
amec
ECC
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY
Figure 2-5
Potentiometric Surface of Homewood Aquifer
FORMER RAVENNA ARMY AMMUNITION PLANT
PORTAGE AND TRUMBULL COUNTIES, OHIO

This page intentionally left blank


N
0 2,000 4,000
Feet
CC RVAAP-68 Substation No. 3
CC RVAAP-68 East Substation
CC RVAAP-68 West Substation
Mahoning River
West Branch Mahoning
Michael J. Kirwan Reservoir
1025
1000
975
950
1050
Legend
Homewood Sandstone Member of Pottsville Formation
Mercer Shale Member of Pottsville Formation
Connoquennissing Sandstone Member of Pottsville Formation
Sharon Shale Member of Pottsville Formation
Sharon Sandstone Member- Conglomerate Unit of Pottsville Formation
Berea Sandstone
Cuyahoga Group
Area Depicted as All Homewood Sandstone Member by EQM
Site Location
Approximate Flow Direction
Line of Equal Groundwater Elevation (ft. amsl)
Line of Inferred Groundwater Elevation (ft. amsl)
River and Waterbody
Creek and Stream
Fence Line
Railroad
Road
Building
Facility Property Line
NOTES & SOURCES
Map Coordinates: WGS 84, UTM Zone 17N in Meters
Base map data from SAIC
Groundwater elevation data from Facility-Wide Groundwater Monitoring Program, July 2012 (Environmental Quality Management, Inc. 2013)
ft. amsl is defined as feet above mean sea level
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY
Figure 2-6
Potentiometric Surface of
Sharon Sandstone Aquifer
FORMER RAVENNA ARMY AMMUNITION PLANT
PORTAGE AND TRUMBULL COUNTIES, OHIO

This page intentionally left blank


N
0 2,000 4,000
Feet
CC RVAAP-68 Substation No. 3
CC RVAAP-68 East Substation
CC RVAAP-68 West Substation
970
980
990
1000
1010
1020
960
950
1010
Mahoning River
West Branch Mahoning
Michael J. Kirwan Reservoir
Legend
Site Location
Approximate Flow Direction
Line of Equal Groundwater Elevation (ft. amsl)
River and Waterbody
Creek and Stream
Fence Line
Railroad
Road
Building
Facility Property Line
NOTES & SOURCES
Map Coordinates: WGS 84, UTM Zone 17N in Meters
Base map data from SAIC
Groundwater elevation data from Facility-Wide Groundwater Monitoring Program, July 2012 (Environmental Quality Management, Inc. 2013)
ft. amsl is defined as feet above mean sea level
amec
ECC
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY
Figure 2-7
Potentiometric Surface of
Lower Sharon Conglomerate Aquifer
FORMER RAVENNA ARMY AMMUNITION PLANT
PORTAGE AND TRUMBULL COUNTIES, OHIO

This page intentionally left blank

3.0 ENVIRONMENTAL SETTING

This chapter describes the physical features of CC RVAAP-68 Electric Substations (East, West, No. 3) including surface features and topography, geology, and hydrogeology. Potential receptors are also discussed based on environmental setting factors.

3.1 SURFACE FEATURES AND TOPOGRAPHY

The surface features present at CC RVAAP-68 Electric Substations (East, West, No. 3) are generally similar to the rest of the facility, with mildly undulating topography. Figures 3-1a through 3-1c show the site features and topography of the three former electric substations. The substation areas are generally clear of large shrubs or trees, but, at a distance, surrounded by wooded areas. Railroad spurs and/or roads are located immediately adjacent to each area.

The West Substation and Substation No. 3 are both located on a topographic high elevation due to the presence of the upper members of the Pottsville Formation in this area.

East Substation—The topography at the former East Substation is generally flat with a slight grade to the north-northwest, such that the area drains toward the roadside ditch along Remalia Road (Figure 3-1a). The approximate surface elevation of the site is 994 ft amsl.

The area comprises approximately 12,300 ft^2 and is covered with grass and some low-growing shrubs. The gravel pad adjacent to Building 25-27, where the former transformers were located, was present during the 2013 field sampling event. Building 25-27 was a brick building on a concrete slab foundation and was approximately 47 × 28 ft.

West Substation—The topography at the former West Substation is generally flat, with an approximate surface elevation of 1,115 ft amsl. While the larger area surrounding the West Substation drains generally to the north, the localized AOC area reportedly drains to the south to the small ditch that runs parallel to the southwest side of the building and along the southeast boundary parallel to Fuze and Booster Road (SAIC 2011a).

The former substation comprised an area of approximately 3,000 ft^2. Grass surrounds the area where the transformers were located and around Building 28-28. In addition, there is a gravel area west of Building 28-28 used for parking by OHARNG personnel. The concrete foundations for the transformers still exist at the AOC (Figure 3-1b).

Substation No. 3—The topography at the former Substation No. 3 is generally flat with an approximate surface elevation of 1,093 ft amsl. This AOC drains to the southeast toward a large wetland and an unnamed tributary to Sand Creek. The substation comprised an area of approximately 10,000 ft^2. There is an approximately 12-inch culvert metal corrugated pipe located along the driveway to the northeast. The AOC is located in an open field and is surrounded by wooded areas. No building existed at former Substation No. 3. The concrete foundations used to support the transformers still remain at the AOC (Figure 3-1c).

3.2 SOIL AND GEOLOGY

Figures 3-2a and 3-2c show areas of original soil types at the former electric substations that the native soil types have been disturbed to a degree that the original soil type at these locations can no longer be definitively identified. Soils were observed and documented during the RI conducted in the three areas of CC RVAAP-68 Electric Substations (East, West, No. 3) and typically matched those descriptions provided by USDA for the upper portion at each boring location. Boring logs are presented in Appendix A.

Borings at the three CC RVAAP-68 Electric Substations (East, West, No. 3) substations have not been advanced to bedrock. The bedrock geology below has been inferred from the data presented in the Facility-Wide Groundwater Monitoring Annual Report for 2012 (EQM 2013).

East Substation—The native soil at the East Substation was mapped by the USDA as Fitchville silt loam (0-2 percent slopes) (Figure 3-2a). Boring logs from the area indicate 1 ft of sandy gravel at the surface of the site. Soils below that are generally silty sands and clays, which are assumed to be Hiram Till glacial deposits or fill material from site construction.

Although borings at the site have not been advanced to the top of bedrock, the bedrock beneath the site is assumed to be the Sharon Sandstone Member of the Pennsylvanian Pottsville Formation (EQM 2013).

West Substation—The native soil at the West Substation was mapped by the USDA as Mahoning silt loam (2-6 percent slopes) (Figure 3-2b). Boring logs from the area indicate approximately 0.5 ft of sandy gravel at the surface of the site. Soils below that are generally silty clays with a few thin layers of sand or gravel. These soils are assumed to be Hiram Till or fill material (slag noted at 4 ft bgs in one boring).

Although borings at the site have not been advanced to the top of bedrock, the bedrock beneath the site is assumed to be the Mercer Shale Member of the Pennsylvanian Pottsville Formation. The Mercer Shale consists of silty to carbonaceous shale with abundant thin, discontinuous sandstone lenses in the upper portion. Regionally, the Mercer Shale has been noted to also contain interbeds of coal.

Substation No. 3—The native soil at Substation No. 3 was mapped by the USDA as Wadsworth silt loam (2-6 percent slopes) (Figure 3-2c). Boring logs from the area indicate approximately 0.5 ft of sandy gravel at the surface of the site. Soils below that are generally silty clays with a few thin layers of silty sand. These soils are assumed to be Hiram Till or fill material.

The native soil in the area of the sediment and surface water sampling at this AOC was mapped as the Holly silt loam. It is unclear whether this area has been disturbed by site activity.

Although borings at the site have not been advanced to the top of bedrock, the bedrock beneath the site is assumed to be the Mercer Shale Member of the Pennsylvanian Pottsville Formation or the underlying Sharon Shale Member (based on bedrock borings in the vicinity surrounding the site). The Mercer Shale consists of silty to carbonaceous shale with abundant thin, discontinuous

sandstone lenses in the upper portion. Regionally, the Mercer Shale has been noted to also contain interbeds of coal. The Sharon Shale is a gray to black sandy to micaceous shale containing thin coal, underclay, and sandstone lenses.

3.3 HYDROGEOLOGY

The hydrogeology for CC RVAAP-68 Electric Substations (East, West, No. 3) is based on data presented in the EQM Facility-Wide Groundwater Monitoring Program 2012 Annual Report (EQM 2013).

East Substation—No facility-wide groundwater monitoring wells are located at the former East Substation. The nearest facility-wide groundwater monitoring well is LL2mw-270, located approximately 1,750 ft to the southeast within the Load Line 2 AOC. This well is screened from 9.8-19.8 ft bgs in the Sharon Sandstone aquifer. The boring logs (Appendix A) from the East Substation suggest that silty clay is predominantly present beneath the area to at least 7 ft bgs. The deep soil boring (DSB) log indicates that dry clay is present from 7 to 13 ft bgs. As shown on Figure 2-5, the East Substation is located within an area that is mapped as having no unconsolidated aquifer; the first aquifer encountered is likely in the Sharon Sandstone at depths greater than 13 ft bgs. As shown on Figure 2-6, the East Substation is located near a presumed localized groundwater high within the Sharon Sandstone Member, with a relatively flat gradient. While the direction of groundwater flow beneath the East Substation is difficult to predict, the overall direction of groundwater flow within the Sharon Sandstone is to the east.

West Substation—No facility-wide groundwater monitoring wells are located at the West Substation. The HRR identifies the nearest facility-wide groundwater monitoring well as SCFmw-001, located approximately 150 ft southwest of the West Substation. This well is screened from 201-211 ft bgs in the Sharon Conglomerate aquifer. The closest unconsolidated groundwater monitoring well, LL6mw-001, is located approximately 640 ft southwest of the former West Substation. The boring logs from the West Substation (Appendix A) indicate that, in some places, there may be a thin, perched wet zone on top of moist silty clay at approximately 4 ft bgs. The log from the DSB suggests that the silty clay is present to at least 13 ft bgs with no indication that groundwater was encountered. As shown on Figure 2-5, the West Substation is located in an area of localized high groundwater levels (mounded) with a relatively flat gradient. Therefore, groundwater flow direction beneath the West Substation could vary in the unconsolidated aquifer; however, based on the topographic map (Figure 3-1b), it likely flows northeast.

The elevation of the potentiometric surface in bedrock beneath the West Substation is estimated to be 1,107 ft amsl within the Homewood Sandstone Member, which is based on monitoring well SCFmw-001. The regional bedrock groundwater flow direction in the vicinity of the former West Substation is to the southeast.

Substation No. 3—No facility-wide groundwater monitoring wells are located at the Substation No. 3 AOC. The nearest facility-wide groundwater monitoring well is LL11mw-001, approximately 1,350 ft northwest of the Substation No. 3. This well is screened from 11.4 to 21.4 within the unconsolidated aquifer. The borings logs from Substation No. 3 indicate that a

wet, silty sand layer may exist at approximately 5 ft bgs. In one of the borings, a moist silty clay is present below the silty sand layer at approximately 6 ft bgs, and in another boring, the silty sand layer was not encountered. This suggests that the wet layer is likely small in lateral extent and thin in vertical extent. The unconsolidated groundwater beneath Substation No. 3 likely flows east-southeast.

The closest bedrock groundwater monitoring well to former Substation No. 3 is LL9mw-002 approximately 2,000 ft to the east. The elevation of the potentiometric surface within the bedrock aquifer is estimated to be greater than 1,110 ft amsl, based on the generalized potentiometric surface of the bedrock aquifer (Figure 2-6).

3.4 SURFACE WATER

Surface water at the substations occurs intermittently as stormwater runoff overland and through constructed roadside ditches. Sediment within nearby roadside conveyances appears to be dry sediment, as defined by RVAAP guidance, and is not typically inundated for more than 7 days at a time. Surface water flow is a primary migration pathway for any potential contamination at the three substations, flowing through ditches or surface water drainage features towards tributaries to the area creeks. Figures 3-3a through 3-3c show surface water features and locations of surveyed wetlands in each of the three CC RVAAP-68 Electric Substations (East, West, No. 3).

East Substation—As shown on Figure 3-3a, there are no wetlands, creeks, streams, or other water bodies within the East Substation Area. The only surface water feature within the East Substation area is a ditch that parallels Remalia Road along the site's northern boundary. Based on the topography map of the site (Figure 3-1a), the ditch flows from east to west only during periods of sustained precipitation. The nearest wetland downgradient of this ditch is located approximately 0.25 mi to the west.

West Substation—As shown on Figure 3-3b, there are no wetlands, creeks, streams, or other water bodies within the West Substation Area. The only surface water feature within the West Substation area is an artificial ditch that parallels the southwest boundary of the site and joins the ditch located along Fuze and Booster Road, along the site's southeastern boundary. Based on the topography map of the site (Figure 3-1b), this ditch flows from the site to the northeast along Fuze and Booster Road only during periods of sustained precipitation. The nearest wetland downgradient of this ditch is located approximately 800 ft to the northeast.

Substation No. 3—As shown on Figure 3-3c, there are no wetlands, creeks, streams, or other water bodies within the Substation No. 3 Area. However, a wetland and associated aquatic habitat are located just beyond the southeast site boundary. Based on the topography map of the site (Figure 3-1c), runoff from the site flows toward this wetland. The wetland flows northeast into an unnamed tributary of Sand Creek.

3.5 POTENTIAL RECEPTORS

Current and future human and ecological receptors are discussed in the following sections. Current and future land use includes the potential for human receptor exposure and terrestrial and

aquatic receptors at CC RVAAP-68 Electric Substations (East, West, No. 3). Therefore, an HHRA and Ecological Risk Assessment (ERA) were conducted as part of the RI and the results are presented in Section 7.0.

3.5.1 Human Receptors

CC RVAAP-68 Electric Substations (East, West, No. 3) were historically used to supply electrical power to various areas of the facility. Electric equipment was also stored at the three substations. Electrical operations no longer occur at this AOC. The OHARNG-projected future land use for CC RVAAP-68 Electric Substations (East, West, No. 3) is for military training. The representative receptor for these areas is the NGT. The representative receptor is the Resident Receptor for Unrestricted (Residential) Land Use. Residential land use, specifically the Resident Receptor scenario, has been used in the risk evaluation included this RI to identify COCs for unrestricted land use at CC RVAAP-68 Electric Substations (East, West, No. 3).

The NGT and Resident Receptor could be exposed to groundwater beneath the AOC. Groundwater in the vicinity of CC RVAAP-68 Electric Substations (East, West, No. 3) is not currently used for potable purposes. The nearest groundwater supply wells utilized by the OHARNG within the facility are located in the Administration Area, which is approximately 1.5 miles southwest of the West Substation (Figure 2-5). Groundwater beneath this AOC is being evaluated separately under RVAAP-66 Facility Wide Groundwater.

3.5.2 Biological Resources

The facility has a diverse range of vegetation and habitat resources. Habitats present within the facility include large tracts of closed-canopy hardwood forest, scrub/shrub open areas, grasslands, wetlands, open-water ponds and lakes, and semi-improved administration areas (OHARNG 2008).

Vegetation at the facility can be grouped into three categories: herb-dominated, shrub-dominated, and tree-dominated. Approximately 60 percent of the facility is covered by forest or tree-dominated vegetation. The facility has seven forest formations, four shrub formations, eight herbaceous formations and one non-vegetated formation (OHARNG 2008).

Surface water features within the facility include a variety of streams, ponds, floodplains, and wetlands. Numerous streams drain the facility, including approximately 19 mi of perennial streams. Approximately 153 acres of ponds are found on the facility. These ponds provide valuable habitat and support to wood ducks, hooded mergansers, mallards, Canada geese, and other birds and wildlife species. Some ponds have been stocked with fish and are used for fishing and hunting (OHARNG 2008). Wetlands are abundant and prevalent throughout the facility. These wetland areas include seasonal wetlands, wet fields, and forested wetlands. Most of the wetland areas on the facility are the result of natural drainage and beaver activity; however, some wetland areas are associated with anthropogenic settling ponds and drainage areas.

An abundance of wildlife is present on the facility; 35 species of land mammals, 214 species of birds, 41 species of fish, and 34 species of amphibians and reptiles have been identified. No federally-listed species are known to reside at the facility, and no critical habitat occurs (OHARNG 2008). Ohio State-listed plant and animal species have been identified through confirmed sightings and/or biological inventories at the facility and are presented in Table 3-1.

CC RVAAP-68 Electric Substations (East, West, No. 3) contains wetlands, wooded areas, and scrub-shrub habitat. No detailed ecological study has been performed within CC RVAAP-68 Electric Substations (East, West, No. 3). Wildlife inhabiting CC RVAAP-68 Electric Substations (East, West, No. 3) would be potential receptors to contamination in soil, sediment, and/or surface water.

3.6 CONCEPTUAL SITE MODEL

The CSM summarized below describes primary and secondary contaminant sources at the three former electric substations of CC RVAAP-68 Electric Substations (East, West, No. 3). Primary sources would be point sources that can be traced back to an operation, discharge point, or other specific location. Secondary sources would be contaminated media, such as soil or groundwater.

3.6.1 Contaminant Sources

Primary contaminant sources (from former electrical equipment and lead acid batteries) have been removed from the substations at CC RVAAP-68 Electric Substations (East, West, No. 3). Secondary sources (contaminated media) identified in this RI are described in the following sections.

3.6.2 Soils

Historical data indicate that soil at the three substations may have been potentially impacted by former operations (SAIC 2011a). Surface and subsurface soil sampling was conducted during this RI to define the nature and extent of any potential contamination.

Open ditches leave the East and West Substations, thereby providing area-wide drainage during precipitation events. Historical information indicates that dry sediment in the ditches at the East and West Substations may have been impacted by former operations (SAIC 2011a). Therefore, dry sediment (i.e, surface soil) sampling was conducted in these ditches to define the nature and extent of any potential contamination during this RI.

3.6.3 Sediment/Surface Water

Wet sediment exists in the wetland adjacent to Substation No. 3. This medium was sampled to define the extent of any potential contamination from Substation No. 3. Wet sediment is not present within or near the East and West Substation areas.

No surface water bodies are present in the former electric substation areas of CC RVAAP-68 Electric Substations (East, West, No. 3). However, an aquatic habitat exists within the wetland

area adjacent to Substation No. 3. Therefore, surface water from this area was sampled to assess whether the aquatic habitat has been impacted by former operations at Substation No. 3.

3.6.4 Groundwater

Groundwater at the facility is being evaluated on a facility-wide basis under RVAAP-66 Facility-Wide Groundwater. Potential leaching of soil contaminants to groundwater is evaluated through fate and transport modeling and is presented in Chapter 6.0. The NGT and Resident Receptors could be exposed to groundwater beneath the AOC.

3.6.5 Migration Pathways

Contaminants in surface soil may migrate to surface water via drainage ditches in the dissolved phase following a storm event, or as particulates in stormwater run-off. Based on topographical elevations shown on Figure 3-1c, the wetland and associated aquatic habitat receive a portion of the stormwater runoff from Substation No. 3. Leaching of contaminants in soil to groundwater via vertical migration is also a potential migration pathway. Modeling of contaminant leaching from soil and transport via groundwater is included in this report; however, a full evaluation of facility-wide groundwater will be evaluated under a separate report.

This page intentionally left blank

Table 3-1: Camp Ravenna Rare Species List (February 28, 2014)

Listed Plant & Wildlife Species known to exist within Camp Ravenna		
Status	Common Name	Scientific Name
Federal Endangered	-	-
State Endangered	American bittern	*Botaurus lentiginosus*
	Black Bear	*Ursus americanus*
	Brush-tipped emerald	*Somatochlora walshii*
	Graceful underwing	*Catocala gracilis*
	Handsome sedge	*Carex formosa*
	Mountain brook lamprey	*Ichthyomyzon greeleyi*
	Narrow-necked Pohl's moss	*Pohlia elongata* var. *elongata*
	Northern harrier	*Circus cyaneus*
	Philadelphia panic-grass	*Panicum philadelphicum*
	Sandhill crane	*Grus canadensis*
	Tufted Moisture-loving moss	*Philonotis fontana* var. *caespitosa*
	Variegated scouring-rush	*Equisetum variegatum*
State Threatened	Barn owl	*Tyto alba*
	Bobcat	*Felis rufus*
	Caddisfly	*Psilotreta indecisa*
	Hobble-bush	*Viburnum alnifolium*
	Least bittern	*Ixobrychus exilis*
	Lurking leskea	*Plagiothecium latebricola*
	Simple willow-herb	*Epilobium strictum*
	Trumpeter swan	*Cygnus buccinator*
	Strict blue-eyed grass	*Sisyrinchium montanum*
State Potentially Threatened	Arborvitae*	*Thuja occidentalis*
	False hop sedge	*Carex lupuliformis*
	Greenwhite sedge	*Carex albolutescens*
	Long beech fern	*Phegopteris connectilis*
	Pale sedge	*Carex pallescens*
	Sharp-glumed manna-grass	*Glyceria acutifolia*
	Shinning ladies-tresses	*Spiranthes lucida*
	Straw sedge	*Carex straminea*
	Water avens	*Geum rivale*
	Woodland horsetail	*Equisetum sylvaticum*
Federal Species of Concern	Bald eagle	*Haliaetus leucocephalus*
	Butternut	*Juglans cinerea*
	Handsome sedge	*Carex formosa*
State Species of Concern	Big brown bat	*Eptesicus fuscus*
	Bobolink	*Dolichonyx oryzivorus*
	Cerulean warbler	*Dendroica cerulea*
	Common moorhen	*Gallinula chloropus*
	Creek heelsplitter	*Lasmigona compressa*
	Deer mouse	*Peromyscus maniculatus*
	Eastern box turtle	*Terrapene carolina*
	Eastern garter snake	*Thamnophis sirtalis*
	Eastern red bat	*Lasiurus borealis*

Table 3-1: Camp Ravenna Rare Species List (February 28, 2014) (continued)

Listed Plant & Wildlife Species known to exist within Camp Ravenna		
Status	Common Name	Scientific Name
State Species of Concern (con't)	Eastern sand darter	*Ammocrypta pellucida*
	Four-toed salamander	*Hemidactylium scutatum*
	Great egret	*Ardea alba*
	Henslow's sparrow	*Ammodramus henslowii*
	Hoary bat	*Lasiurus cinereus*
	Little brown bat	*Myotis lucifugus*
	Marsh wren	*Cistothorus palustris*
	Mayfly	*Stenonema ithica*
	Moth	*Apamea mixta*
	Moth	*Brachylomia algens*
	Northern bobwhite	*Colinus virginianus*
	Northern long-eared bat	*Myotis septentrionalis*
	Prothonotary warbler	*Protonotaria citrea*
	Pygmy shrew	*Sorex hovi*
	Scurfy quaker	*Homorthodes furfurata*
	Sedge wren	*Cistothorus platensis*
	Sharp-shinned hawk	*Accipiter striatus*
	Smooth green snake	*Opheodrys vernalis*
	Sora rail	*Porzana carolina*
	Southern Bog Lemming	*Synaptomys cooperi*
	Star-nosed mole	*Condylura cristata*
	Tri-colored bat	*Perimyotis subflavus*
	Virginia rail	*Rallus limicola*
	Woodland jumping mouse	*Napaeozapus insignis*
	Yellow-bellied sapsucker	*Sphyrapicus varius*
State Species of Interest	American Black Duck	*Anas rubripes*
	Blackburnian warbler	*Dendroica fusca*
	Black-throated blue warbler	*Dendroica caerulescens*
	Brown creeper	*Certhia americana*
	Canada warbler	*Wilsonia canadensis*
	Dark-eyed junco	*Junco hyemalis*
	Gadwall	*Anas strepera*
	Golden-crowned kinglet	*Regulus satrapa*
	Green-winged teal	*Anas crecca*
	Hermit thrush	*Catharus guttatus*
	Least flycatcher	*Empidonax minimus*
	Magnolia warbler	*Dendroica magnolia*
	Mourning warbler	*Oporornis philadelphia*
	Northern shoveler	*Anas clypeata*
	Northern waterthrush	*Seiurus noveboracensis*
	Pine siskit	*Carduelis pinus*
	Purple finch	*Carpodacus purpureus*
	Red-breasted nuthatch	*Sitta canadensis*
	Redhead duck	*Aythya americana*
	Ruddy duck	*Oxyura jamaicensis*
	Subflava sedge borer moth	*Archanara subflava*
	Wilson's Snipe	*Gallinago delicata*
	Winter wren	*Troglodytes troglodytes*
State Extirpated	Golden-winged warbler	*Vermivora chrysoptera*

Source: USFWS, 2013; DNAP, 2014; ODOW, 2012; BHE, 2012
**Arborvitae was planted on site and does not occur naturally within the facility.*



LEGEND

- Site Location
- 10-foot Topographic Contour Line
- Existing Structure
- Road
- Railroad
- Ditch

NOTES & SOURCES

1. Map Coordinates: NAD 83, UTM Zone 17N, 2009 Orthoimagery from USGS.

TITLE

Topography at East Substation

CC RVAAP-68 Electrical Substations (East, West, No.3)

FORMER RAVENNA ARMY AMMUNITION PLANT PORTAGE AND TRUMBULL COUNTIES, OHIO

0 100 200 Feet

N

AMEC
Novi, Michigan

ECC
Marlborough, Massachusetts

PROJ: 3293111461
Date: April 2014

FIGURE
3-1a

Path: N:\INDUSTRIAL PROJECTS\ECC Ravenna\3293111461\DataFromECC\4AMEC_15JAN2013\4AMEC_GISfiles\MXD\Site68\Fig 3-1a_Site68_Topo_East.mxd

This page intentionally left blank



Path: N:\INDUSTRIAL PROJECTS\ECC Ravenna\3293111461\DataFromECC\4AMEC_15JAN2013\4AMEC_GISfiles\MXD\Site68\Fig 3-1b_Site68__Topo_West.mxd

LEGEND

- Site Location
- 10-foot Topographic Contour Line
- Existing Structure
- Road
- Former Structure
- Railroad
- Ditch

NOTES & SOURCES

1. Map Coordinates: NAD 83, UTM Zone 17N, 2009 Orthoimagery from USGS.

TITLE

Topography at West Substation

CC RVAAP-68 Electrical Substations (East, West, No.3)
FORMER RAVENNA ARMY AMMUNITION PLANT PORTAGE AND TRUMBULL COUNTIES, OHIO

0 100 200 Feet

AMEC
Novi, Michigan

ECC
Marlborough, Massachusetts

PROJ: 3293111461
Date: April 2014

FIGURE
3-1b

This page intentionally left blank



Path: N:\INDUSTRIAL PROJECTS\ECC Ravenna\3293111461\DataFromECC\4AMEC_15JAN2013\4AMEC_GISfiles\MXD\Site68\Fig 3-1c_Site68_Topo_No3.mxd

LEGEND

- Site Location
- 10-foot Topographic Contour Line
- Road
- Former Electrical Storage Area

NOTES & SOURCES

1. Map Coordinates: NAD 83, UTM Zone 17N, 2009 Orthoimagery from USGS.

TITLE

Topography at Substation No.3

CC RVAAP-68
Electrical Substations
(East, West, No. 3)
FORMER RAVENNA ARMY AMMUNITION PLANT PORTAGE AND TRUMBULL COUNTIES, OHIO

0 100 200 Feet

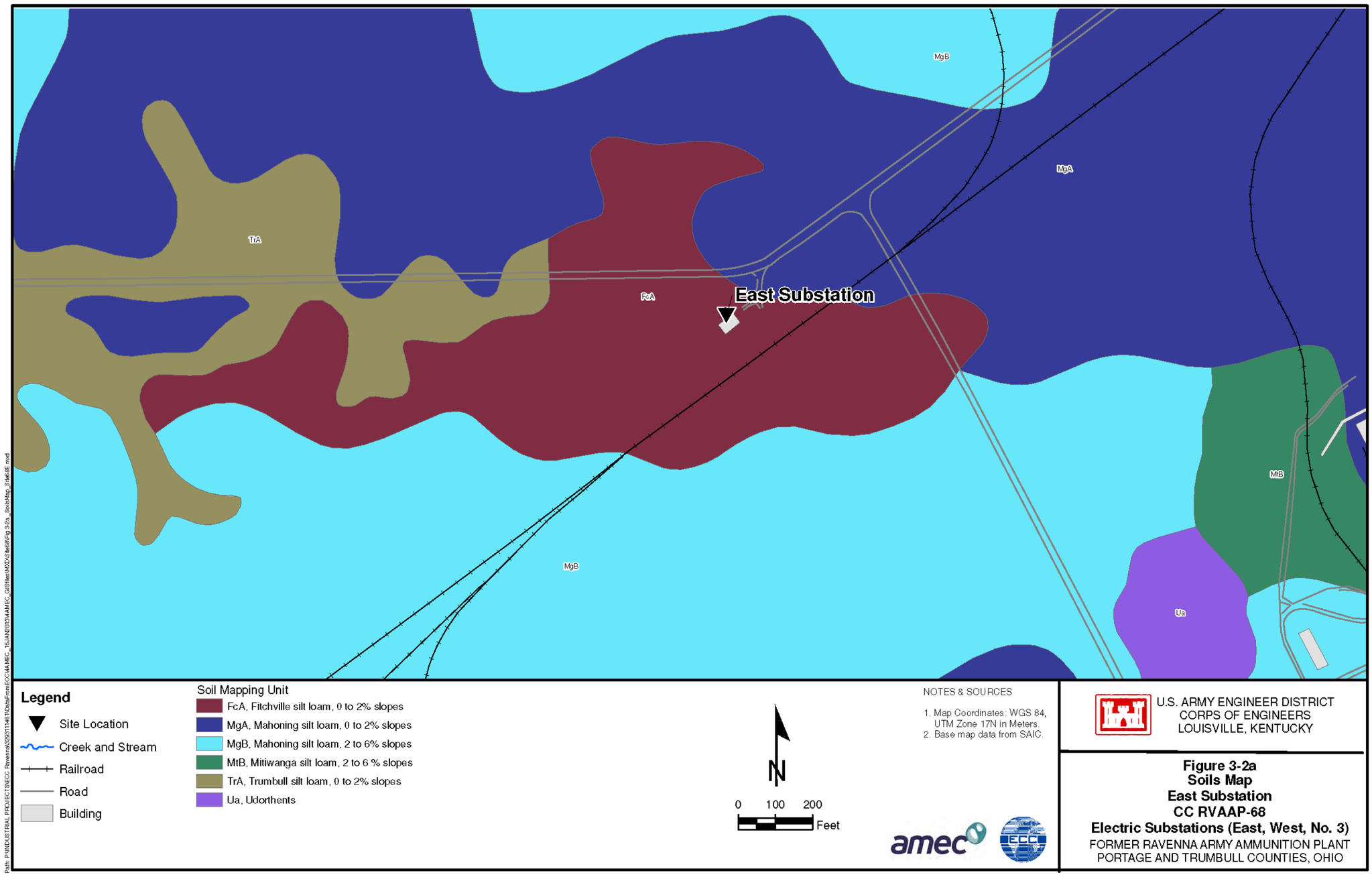
AMEC
Novi, Michigan

ECC
Marlborough, Massachusetts

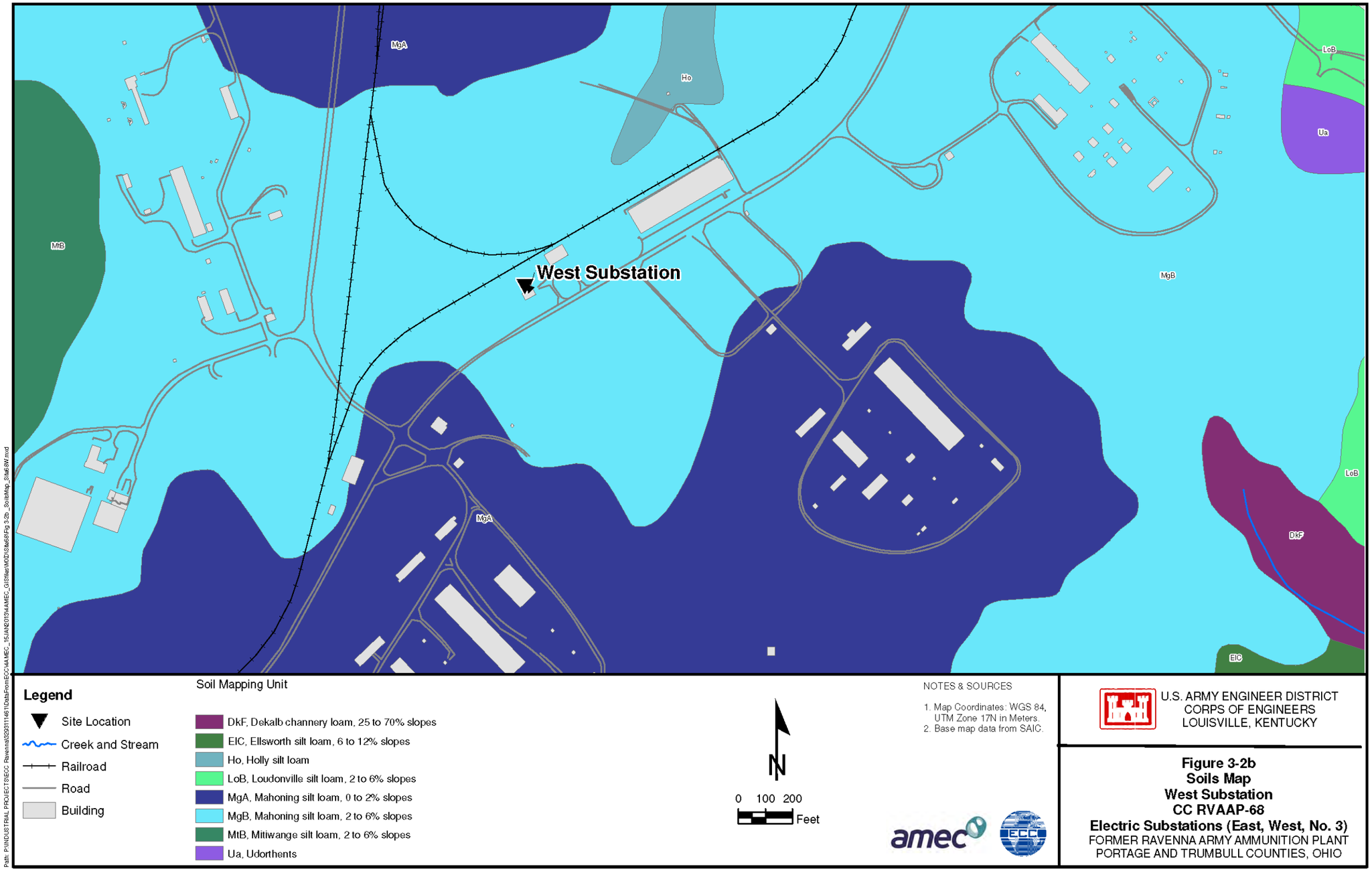
PROJ: 3293111461
Date: April 2014

FIGURE
3-1c

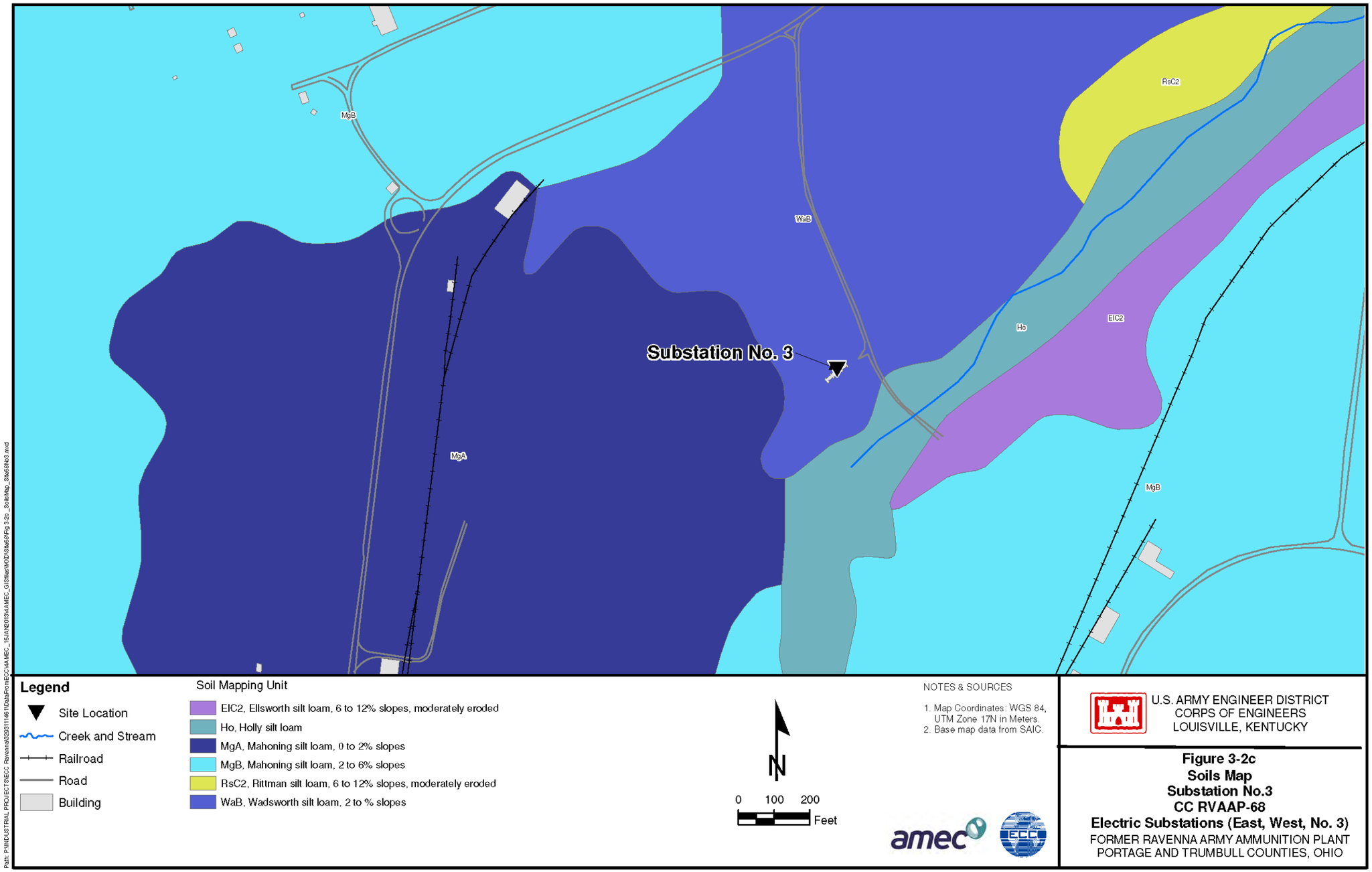
This page intentionally left blank


MgB
MgA
TrA
FcA
East Substation
MtB
MgB
Ua
Path: P:\NDL\STRAL PROJECT\ECC Ravenna\20931114610\Data\From ECC\44AMEC_15JAN2015\44AMEC_GIS\ReMXD\Rpt 3-2a_SoilsMap_81to65E.mxd
Legend
Site Location
Creek and Stream
Railroad
Road
Building
Soil Mapping Unit
FcA, Fitchville silt loam, 0 to 2% slopes
MgA, Mahoning silt loam, 0 to 2% slopes
MgB, Mahoning silt loam, 2 to 6% slopes
MtB, Mitiwanga silt loam, 2 to 6 % slopes
TrA, Trumbull silt loam, 0 to 2% slopes
Ua, Udorthents
N
0 100 200
Feet
NOTES & SOURCES
1. Map Coordinates: WGS 84, UTM Zone 17N in Meters.
2. Base map data from SAIC.
amec
ECC
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY
Figure 3-2a
Soils Map
East Substation
CC RVAAP-68
Electric Substations (East, West, No. 3)
FORMER RAVENNA ARMY AMMUNITION PLANT
PORTAGE AND TRUMBULL COUNTIES, OHIO

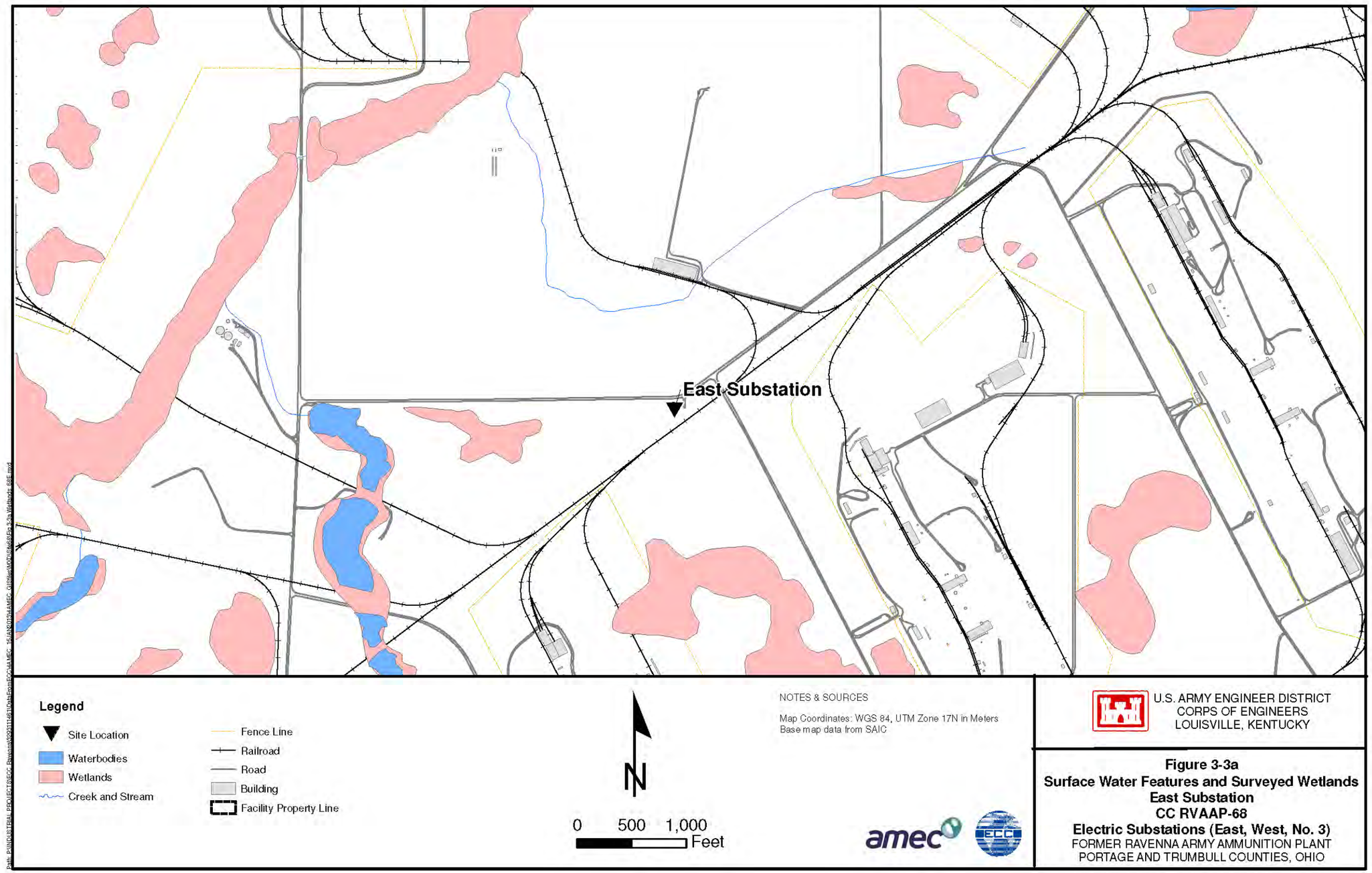
This page intentionally left blank


MgA
Ho
LoB
Ua
MtB
West Substation
MgB
MgA
LoB
DkF
EIC
Path: P:\NDU\STRAL PROJECTS\ECC Ravenna\332931114611\Data\From ECC\4A MEC_ 15JAN2013\4A MEC_GIS files\MXD\Site68 Fig 3-2b _SoilsMap_81st68W.mxd
Legend
Site Location
Creek and Stream
Railroad
Road
Building
Soil Mapping Unit
DkF, Dekalb channery loam, 25 to 70% slopes
EIC, Ellsworth silt loam, 6 to 12% slopes
Ho, Holly silt loam
LoB, Loudonville silt loam, 2 to 6% slopes
MgA, Mahoning silt loam, 0 to 2% slopes
MgB, Mahoning silt loam, 2 to 6% slopes
MtB, Mitiwange silt loam, 2 to 6% slopes
Ua, Udorthents
N
0 100 200
Feet
NOTES & SOURCES
1. Map Coordinates: WGS 84, UTM Zone 17N in Meters.
2. Base map data from SAIC.
amec
ECC
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY
Figure 3-2b
Soils Map
West Substation
CC RVAAP-68
Electric Substations (East, West, No. 3)
FORMER RAVENNA ARMY AMMUNITION PLANT
PORTAGE AND TRUMBULL COUNTIES, OHIO

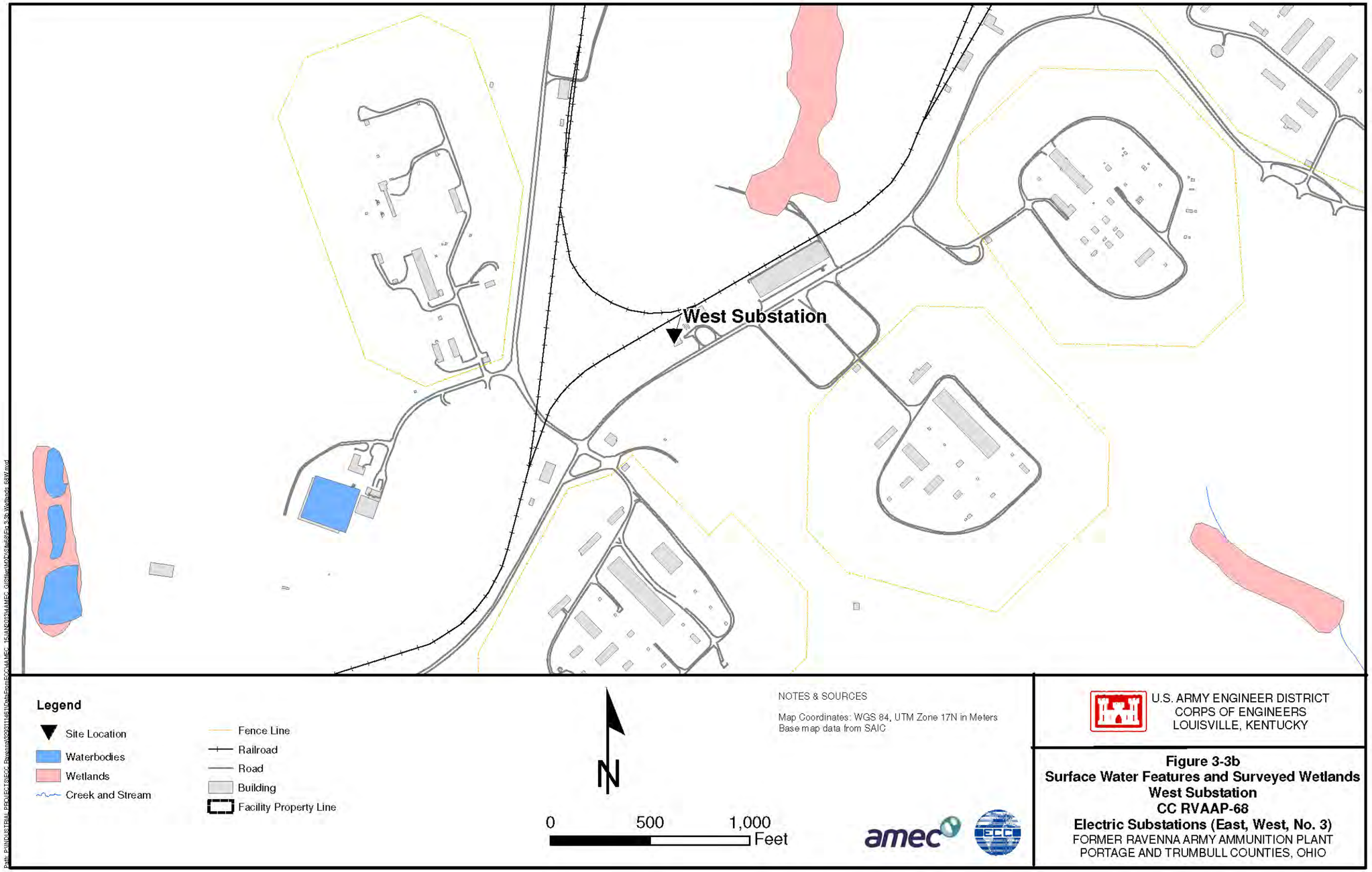
This page intentionally left blank


MgB
WaB
RsC2
Substation No. 3
Ho
EIC2
MgA
MgB
Legend
Site Location
Creek and Stream
Railroad
Road
Building
Soil Mapping Unit
EIC2, Ellsworth silt loam, 6 to 12% slopes, moderately eroded
Ho, Holly silt loam
MgA, Mahoning silt loam, 0 to 2% slopes
MgB, Mahoning silt loam, 2 to 6% slopes
RsC2, Rittman silt loam, 6 to 12% slopes, moderately eroded
WaB, Wadsworth silt loam, 2 to % slopes
N
0 100 200
Feet
NOTES & SOURCES
1. Map Coordinates: WGS 84, UTM Zone 17N in Meters.
2. Base map data from SAIC.
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY
Figure 3-2c
Soils Map
Substation No.3
CC RVAAP-68
Electric Substations (East, West, No. 3)
FORMER RAVENNA ARMY AMMUNITION PLANT
PORTAGE AND TRUMBULL COUNTIES, OHIO
Path: P:\INDUSTRIAL PROJECTS\ECC Ravenna\320931114611\Data\From ECC\44 AMEC_15JAN2013\44 AMEC_GIS\MapMXD\S3\fig3-2c_SoilsMap_S3e69N3.mxd

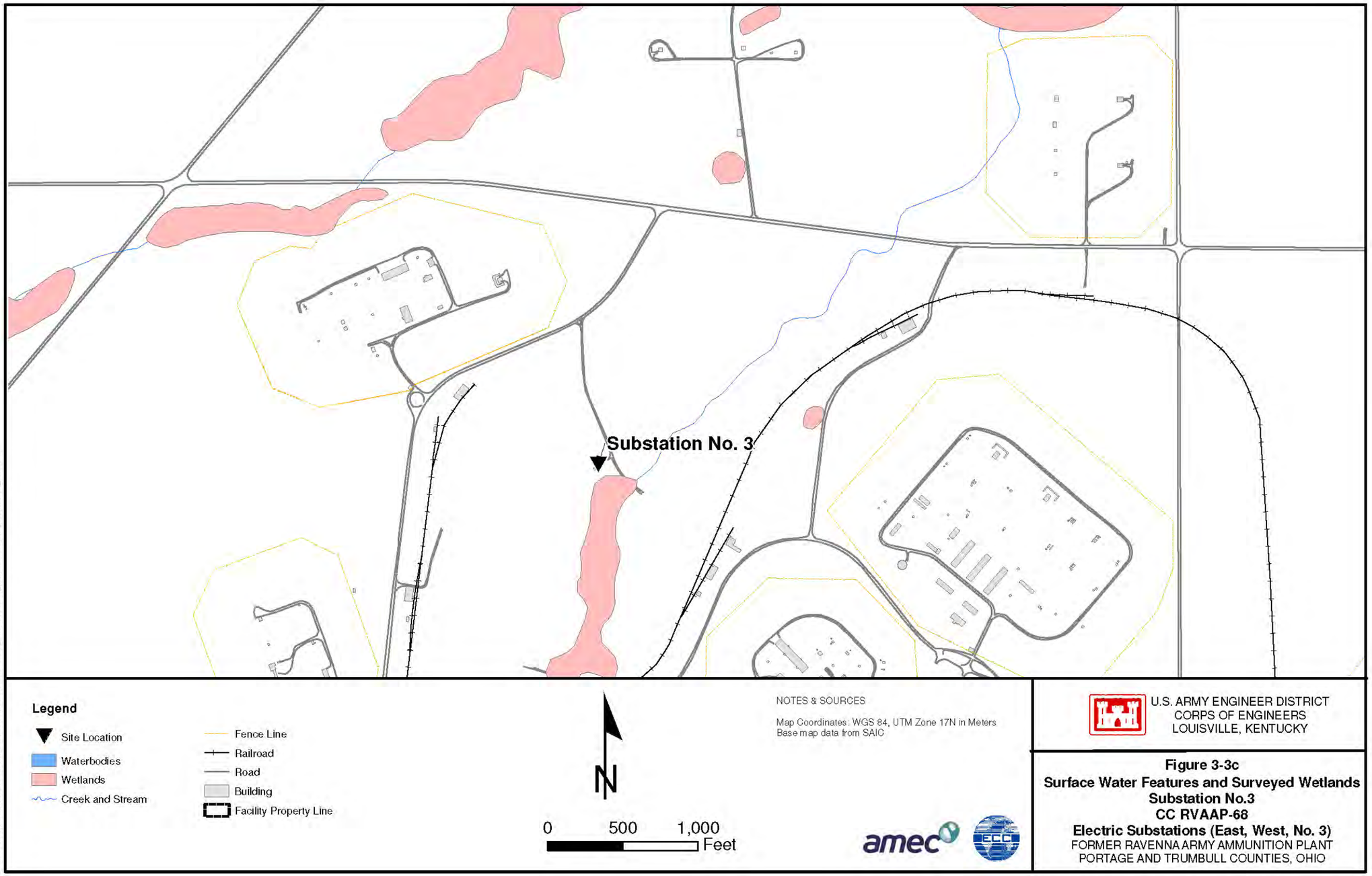
This page intentionally left blank


East Substation
Legend
Site Location
Waterbodies
Wetlands
Creek and Stream
Fence Line
Railroad
Road
Building
Facility Property Line
N
0 500 1,000
Feet
NOTES & SOURCES
Map Coordinates: WGS 84, UTM Zone 17N in Meters
Base map data from SAIC
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY
Figure 3-3a
Surface Water Features and Surveyed Wetlands
East Substation
CC RVAAP-68
Electric Substations (East, West, No. 3)
FORMER RAVENNA ARMY AMMUNITION PLANT
PORTAGE AND TRUMBULL COUNTIES, OHIO

This page intentionally left blank


West Substation
Legend
Site Location
Waterbodies
Wetlands
Creek and Stream
Fence Line
Railroad
Road
Building
Facility Property Line
N
0
500
1,000
Feet
NOTES & SOURCES
Map Coordinates: WGS 84, UTM Zone 17N in Meters
Base map data from SAIC
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY
Figure 3-3b
Surface Water Features and Surveyed Wetlands
West Substation
CC RVAAP-68
Electric Substations (East, West, No. 3)
FORMER RAVENNA ARMY AMMUNITION PLANT
PORTAGE AND TRUMBULL COUNTIES, OHIO

This page intentionally left blank


Substation No. 3
Legend
Site Location
Waterbodies
Wetlands
Creek and Stream
Fence Line
Railroad
Road
Building
Facility Property Line
N
0
500
1,000
Feet
NOTES & SOURCES
Map Coordinates: WGS 84, UTM Zone 17N in Meters
Base map data from SAIC
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY
Figure 3-3c
Surface Water Features and Surveyed Wetlands
Substation No.3
CC RVAAP-68
Electric Substations (East, West, No. 3)
FORMER RAVENNA ARMY AMMUNITION PLANT
PORTAGE AND TRUMBULL COUNTIES, OHIO
amec
ECC

This page intentionally left blank

4.0 REMEDIAL INVESTIGATION ACTIVITIES

Work conducted for this investigation was performed as specified in the Final SI/RI Work Plan (ECC 2012) and the Facility-Wide Sampling and Analysis Plan (FWSAP) for Environmental Investigations, dated February 24, 2011 (SAIC 2011b), unless specifically noted, herein (Section 4.5). These documents were prepared in accordance with USACE and U.S. Environmental Protection Agency (USEPA) guidance.

4.1 DATA QUALITY OBJECTIVES

The overall project data quality objective (DQO) is to provide representative, repeatable, high quality data to address the primary project objectives identified in Section 4.1 of the FWSAP. The FWSAP and Final SI/RI Work Plan provide the organization, objectives, intended data uses, and QA/QC activities to perform in order to achieve the desired DQOs for maintaining the defensibility of the data. Project DQOs were established in accordance with USEPA Region 5 guidance. Requirements for sample collection, handling, analysis criteria, target analytes, laboratory criteria, and data verification criteria for the RI are consistent with USEPA and U.S. Department of Defense (DoD) requirements. DQOs for this project include analytical precision, accuracy, representativeness, completeness, comparability, and sensitivity for the measurement data. Appendix B presents the data verification performed in accordance with the project-specific DQOs.

Problem Definition

The RI conducted for this AOC was based on findings of the HRR. The background historical review presented in the HRR identified the following CC RVAAP-68 Electric Substations (East, West, No. 3) that require further evaluation:

- East Substation
- West Substation
- Substation No. 3

This RI was conducted to define the nature and extent of contamination at concentrations greater than applicable FWCUGs in surface and subsurface soil around former transformer and equipment pads. At the East and West Substations, the RI included investigating dry sediment (surface soil) along drainage ditches that receive runoff from the substations. In addition, this RI included investigating the wet sediment and surface water in the wetland and Sand Creek tributary southeast of Substation No. 3. Wet sediment and surface water are not present near the East and West Substations.

4.2 SAMPLING RATIONALE

ISM, composite, and discrete sampling methods were employed at CC RVAAP-68 Electric Substations (East, West, No. 3) to investigate surface and subsurface soils, wet sediment, and surface water to characterize the nature and extent of contamination related to historical activities that occurred at the AOC. Details on the sampling methods are presented in Section 4.4.

Decision Units (DUs) were created to represent the maximum extent of operational areas for each electric substation area where storage or staging activities could have impacted surrounding media. Therefore, the DUs include the area that is the known or suspected operational extent (Figures 4-1a through 4-1c) plus another 30 ft in all directions. A detailed description of the sampling activities conducted at CC RVAAP-68 Electric Substations (East, West, No. 3) is provided below and is summarized in Tables 4-1 and 4-2.

Soil, wet sediment, and surface water samples were analyzed for TAL metals, SVOCs, and PCBs. In addition to these analytes, 1 surface soil sample (plus a field duplicate) and 4 subsurface soil samples were also analyzed for the full suite of analytes (organochlorine pesticides, volatile organic compounds [VOCs], and explosives/propellants). Dry sediment samples are treated as surface soil samples in this RI.

East Substation—This area was divided into three DUs as shown in Figure 4-1a. DU01 covers an area of approximately 6,129 ft^2 surrounding a former concrete pad and two transformer pads northwest of Building 25-27. DU02 covers an area of approximately 4,691 ft^2 surrounding Building 25-27. DU03 is approximately 4,637 ft^2 and covers the ditch area along the site's northern boundary (along the south side of Remalia Road). Based on findings of the HRR, the building is not included as part of this RI.

ISM sampling of surface and subsurface soils was conducted in DU01 and DU02. In each DU, five soil borings were drilled to 7 ft bgs using direct-push methods, and the soil was vertically profiled and logged by a field geologist. Surface soil was collected using ISM from 0 to 1 ft bgs. Subsurface soil was collected using ISM from intervals of 1-4, 4-7, and 1-7 ft bgs. A vertical composite soil sample was collected from one DSB (7 to 13 ft bgs) in DU02. In DU03, dry sediment samples were collected using ISM from 0 to 1 ft bgs.

West Substation—This area was divided into three DUs as shown in Figure 4-1b. DU01 covers an area of approximately 2,868 ft^2 surrounding two former transformer pads northwest of Building 28-28. DU02 covers an area of approximately 3,545 ft^2 surrounding Building 28-28. DU03 is approximately 2,138 ft^2 and covers the ditch area along the area's southwestern and southeastern boundaries (the southeastern portion parallels the north side of Fuze and Booster Road). Based on findings of the HRR, the building is not included as part of this RI.

ISM sampling of surface and subsurface soils was conducted in DU01 and DU02. Within each DU, five soil borings were drilled to 7 ft bgs using direct push methods, and the soil was logged by a field geologist. Surface soils were collected using ISM from 0 to 1 ft bgs. Subsurface soils were collected using ISM from intervals of 1-4 ft bgs, 4-7 ft bgs, and 1-7 ft bgs. A vertical composite soil sample was collected from one DSB (7 to 13 ft bgs) in DU02. In DU03, dry sediment samples using ISM were collected from 0 to 1 ft bgs.

Substation No. 3 (10,000 ft^2)—One DU (DU01) covers the area surrounding the location of former electrical equipment. DU01 is approximately 6,717 ft^2 as shown in Figure 4-1c.

ISM sampling of surface and subsurface soils was conducted in DU01. Five soil borings were drilled to 7 ft bgs using direct-push methods, and the soil was logged by a field geologist. Surface soils were collected using ISM from 0 to 1 ft bgs. Subsurface soils were collected using ISM from intervals of 1-4, 4-7, and 1-7 ft bgs. Within the wetland area, three discrete wet sediment samples were collected. In addition, three discrete surface water samples were collected from the associated aquatic habitat area.

4.3 PRE-MOBILIZATION ACTIVITIES

Prior to the field investigation, a series of pre-mobilization activities was undertaken to ensure that all applicable requirements were met. These included obtaining any necessary notifications to the facility Manager, Ohio EPA, the operating contractor, and other stakeholders. ECC personnel mobilized to the facility on November 6, 2012 to conduct a site walk and pre-mark the DUs and on March 18, 2013 to mark the direct-push boring locations in CC RVAAP-68 Electric Substations (East, West, No. 3).

Table 4-1: Sample Summary and Rationale

Sample Location Identification	Interval (ft bgs)	Date	Type	Purpose
068SB-0017M-0001-SO	1-4	3/29/2013	IS	N & E, RA
068SB-0018M-0001-SO	4-7	3/29/2013	IS	N & E, RA
068SB-0019M-0001-SO	1-7	3/29/2013	IS	N & E, RA
068SB-0020M-0001-SO	1-7	3/29/2013	IS	N & E, RA
068SB-0021M-0001-SO	1-7	3/29/2013	IS	QA
068SB-0022M-0001-SO	1-7	3/29/2013	IS	QC FD
068SB-0023M-0001-SO	1-4	3/29/2013	IS	N & E, RA
068SB-0024M-0001-SO	1-7	3/29/2013	IS	N & E, RA
068SB-0025M-0001-SO	1-7	3/29/2013	IS	N & E, RA
068SB-0027M-0001-SO	1-4	3/29/2013	IS	N & E, RA
068SB-0028M-0001-SO	4-7	3/29/2013	IS	N & E, RA
068SB-0030M-0001-SO	1-7	3/29/2013	IS	N & E, RA
068SB-0031M-0001-SO	1-7	3/29/2013	IS	N & E, RA
068SB-0032-0001-SO	7-13	3/29/2013	C	N & E, RA
068SB-0033M-0001-SO	1-4	3/29/2013	IS	N & E, RA
068SB-0034M-0001-SO	4-7	3/29/2013	IS	N & E, RA
068SB-0035M-0001-SO	1-7	3/29/2013	IS	N & E, RA
068SB-0036M-0001-SO	1-7	3/29/2013	IS	QC FD
068SB-0037M-0001-SO	1-7	3/29/2013	IS	QA
068SB-0038M-0001-SO	1-7	3/29/2013	IS	N & E, RA
068SB-0039M-0001-SO	1-7	3/29/2013	IS	N & E, RA
068SB-0040M-0001-SO	1-7	3/29/2013	IS	N & E, RA
068SB-0041M-0001-SO	1-7	3/29/2013	IS	N & E, RA
068SB-0042-0001-SO	7-13	3/29/2013	C	N & E, RA
068SB-0044M-0001-SO	1-4	3/29/2013	IS	N & E, RA
068SB-0045M-0001-SO	4-7	3/29/2013	IS	N & E, RA
068SB-0046M-0001-SO	1-7	3/29/2013	IS	N & E, RA
068SB-0047M-0001-SO	1-7	3/29/2013	IS	N & E, RA
068SB-0048M-0001-SO	1-7	3/29/2013	IS	N & E, RA
068SB-0050M-0001-SO	1-4	3/29/2013	IS	N & E, RA
068SB-0051M-0001-SO	4-7	3/29/2013	IS	N & E, RA

Table 4-1: Sample Summary and Rationale

Sample Location Identification	Interval (ft bgs)	Date	Type	Purpose
068SB-0052M-0001-SO	1-7	3/29/2013	IS	N & E, RA
068SB-0053M-0001-SO	1-7	3/29/2013	IS	N & E, RA
068SB-0054M-0001-SO	1-7	3/29/2013	IS	QC FD
068SB-0055M-0001-SO	1-7	3/29/2013	IS	QA
068SB-0056M-0001-SO	1-7	3/29/2013	IS	N & E, RA
068SB-0057M-0001-SO	1-7	3/29/2013	IS	N & E, RA
068SB-0059M-0001-SO	1-7	3/29/2013	IS	N & E, RA
068SB-0060M-0001-SO	1-7	4/4/2013	IS	N & E, RA
068SB-0060M-0002-SO	1-7	4/4/2013	IS	QA MS/MSD
068SB-0061M-0001-SO	1-7	4/4/2013	IS	QC FD
068SD-0009-0001-SD	0-1	11/8/2012	D	N & E, RA
068SD-0009-0002-SD	0-1	11/8/2012	D	QA MS/MSD
068SD-00010-0001-SD	0-1	11/8/2012	D	QC FD
068SD-00011-0001-SD	0-1	11/8/2012	D	N & E, RA
068SD-00012-0001-SD	0-1	11/8/2012	D	N & E, RA
068SS-0001M-0001-SO	0-1	11/6/2012	IS	N & E, RA
068SS-0002M-0001-SO	0-1	11/6/2012	IS	N & E, RA
068SS-0003M-0001-SO	0-1	11/6/2012	IS	N & E, RA
068SS-0003M-0002-SO	0-1	11/6/2012	IS	QA MS/MSD
068SS-0004M-0001-SO	0-1	11/6/2012	IS	QC FD
068SS-0005M-0001-SO	0-1	11/6/2012	IS	N & E, RA
068SS-0006M-0001-SO	0-1	11/6/2012	IS	N & E, RA
068SS-0007M-0001-SO	0-1	11/6/2012	IS	N & E, RA
068SS-0008M-0001-SO	0-1	11/6/2012	IS	N & E, RA
068SW-0013-0001-SW	0-1	11/8/2012	D	N & E, RA
068SW-0014-0001-SW	0-1	11/8/2012	D	QC FD
068SW-0015-0001-SW	0-1	11/8/2012	D	N & E, RA
068SW-0016-0001-SW	0-1	11/8/2012	D	N & E, RA
068SW-0016-0002-SW	0-1	11/8/2012	D	QA MS/MSD
068SB-0026-0001-TB	NA	4/1/2013	D	QC TB
068SB-0058-0001-TB	NA	4/1/2013	D	QA TB
073SW-0057-0001-TB	NA	3/29/2013	D	QC TB

Notes:
bgs = Below ground surface.
C = Vertical composite sample.
D = Discrete sample.
ft = Feet (foot).
IS = Incremental sample.
MS = Matrix spike.
MSD = Matrix spike duplicate.
N&E = Nature and extent.
NA = Not applicable.
QA = Quality assurance.
QC = Quality control.
RA = Risk assessment.
TB = Trip blank.

Table 4-2: Sample Summary and Analyses

Sampling Media and Interval		Sample Type			Number of Samples Collected			Analysis					
Media	Interval (ft bgs)	IS	C	D	East Substation	West Substation	Substation No. 3	VOCs	SVOCs	TAL Metals	PCBs	Explosives/ Propellants	Organochlorine Pesticides
SB	1-4; 1-7; 4-7	X			7	17	7	3	31	31	31	3	3
SS	0-1	X			3	3	1	1	7	7	7	1	1
DSB	7-13		X		1	1			1	1	1		
SW	NA			X			3		3	3	3		
SD	0-1			X			3		3	3	3		

Notes: Sample numbers do not include field duplicates or other quality control samples.

bgs = Below ground surface.
C = Composite sample.
D = Discrete sample.
DSB = Deep soil boring.
ft = Feet (foot).
IS = Incremental sample.
NA = Not applicable.
PCB = Polychlorinated biphenyl.
SB = Subsurface soil.
SD = Wet sediment.
SS = Surface soil.
SVOC = Semivolatile organic compound.
SW = Surface water.
TAL = Target Analyte List.
VOC = Volatile organic compound.

This page intentionally left blank

4.4 FIELD SAMPLING

At CC RVAAP-68 Electric Substations (East, West, No. 3), soil and dry sediment ISM samples were collected as well as discrete wet sediment and surface water samples. Two vertical composite soil samples were also collected. Soil boring logs are provided in Appendix A, and field sampling forms are provided in Appendix C. Photographs of RI activities are provided in Appendix D.

Below is a summary regarding the number and assignment of DUs to each area in CC RVAAP-68 Electric Substations (East, West, No. 3):

- DU01-DU03: East Substation
- DU01-DU03: West Substation
- DU01: Substation No. 3

Figures 4-1a through 4-1c depict the location, size, and layout of each DU. Surface soil ISM sampling (0-1 ft bgs) was conducted on November 6, 2012 within DU01 and DU 02 at the East and West Substations and at DU01 at Substation No. 3. In addition, dry sediment sampling was conducted that day within DU03 at the East and West Substations. On November 8, 2012, discrete wet sediment and surface water samples were collected from the wetland and associated aquatic habitat area southeast of Substation No. 3. On March 29 and April 4, 2013, subsurface soil ISM (1-4 ft, 4-7 ft [horizontal ISM], and 1-7 ft [vertical ISM] bgs) samples were collected within DU01 and DU02 of the East and West Substations and DU01 of Substation No. 3.

Sampling locations, methods, numbers, and analyses were followed as stated in FWSAP and Final SI/RI Work Plan. Table 4-1 presents a summary of sample identifications, sample collection methods (type), and the rationale for the sampling activities conducted at each area of CC RVAAP-68 Electric Substations (East, West, No. 3). Table 4-2 presents a summary of the medium sampled, the number of samples collected, and chemical analyses. Matrix spike (MS)/matrix spike duplicate (MSD) samples were collected at a frequency of 5 percent, and field duplicate samples were collected at a frequency of 10 percent (4 for subsurface soil, 1 for surface soil, 1 for wet sediment, and 1 for surface water). All samples were analyzed for TAL metals including mercury, PCBs, and SVOCs. In addition to the investigative analyses shown in Table 4-2, 4 subsurface soil samples and 1 surface soil sample (plus field duplicate) were also analyzed for the full suite of analytes (VOCs, explosives/propellants, and organochlorine pesticides).

VOC soil samples were collected as discrete soil samples using a Terracore sampler. For surface soil DUs, a soil sampling location was selected at the center of the DU for VOC sample collection. For subsurface VOC samples, the sampling liner was cut open and screened with a photoionization detector (PID). The interval with the maximum PID reading was collected as the discrete VOC sample. If no PID readings were recorded, then the discrete VOC sample was collected from the mid-point of the sampling interval.

4.4.1 Surface Soil Incremental Sampling Methodology Sampling

A total of 8 surface soil ISM samples (one from each DU and duplicate) were collected. The surface soil samples were collected from 0 to 1 ft bgs using ISM. Included in this dataset are dry sediment samples collected from 0 to 1 ft bgs using ISM within DU03 at the East and West Substations. The dry sediment samples are treated as surface soil samples in this RI.

The surface soil ISM samples were collected using the step probe and trowel/spoon method as described in Sections 5.6.2.1.1 and 5.6.2.1.2, respectively, of the FWSAP. The step probe consisted of a hollow stainless steel rod approximately 0.75 inches in diameter and 4 ft in length with a "T" handle attached to the top. A 12-inch section at the tip of the sampler was cut away to facilitate collecting the sample. The sampler had a foot peg attached 12 inches from the bottom tip which was used to advance the sampler to 1 ft bgs. The sampler was advanced to 1 ft bgs, and then withdrawn. The soil sample was collected from within the cut away section using stainless steel scoopula.

Surface soil ISM samples were created by combining 30 aliquots collected from 30 discrete soil aliquots collected over the surface of the DU. If refusal was encountered before 1 ft bgs, the sample location was moved within an approximate 2-ft radius of the original location and sampling was re-attempted. Surface soil sampling was planned to extend from 0 to 1 ft bgs; however, if rock or gravel was encountered at depths less than 1 ft, samples were collected from the accessible portion of the 0- to 10-ft interval. Samples were collected to assess contaminant occurrence and distribution in surface soils. Tables 4-1 and 4-2 present a summary of the medium sampled, sample collection methods, the number of samples collected, and the rationale for the sampling activities conducted at each area of interest at CC RVAAP-68 Electric Substations (East, West, No. 3).

Surface soil samples were analyzed for TAL metals (including mercury), PCBs, and SVOCs. In addition, 1 sample also analyzed for organochlorine pesticides, VOCs, and explosives/propellants. MS/MSD samples were collected at a frequency of 5 percent. Field duplicate samples were collected at a frequency of 10 percent.

4.4.2 Subsurface Soil Incremental Sampling Methodology Sampling

Each horizontal ISM subsurface soil sample was comprised of two separate intervals: 1-4 ft bgs and 4-7 ft bgs. Subsamples from the same interval (1-4 or 4-7 ft bgs) from the five borings in each DU were composited to create the depth-specific horizontal ISM subsurface soil samples. Subsurface soil samples were collected using a Geoprobe® Model 6620DT direct-push drill rig. The procedures for hydraulic direct-push sampling were performed in accordance with the FWSAP. Samples were collected using 5-ft long stainless steel sampling rods lined with acetate Microcore® samplers. Each sample was collected using a dedicated liner specific for that interval. The sampler was advanced to the desired depth. The sample was then retrieved from the desired depth and the liner removed. The liner was cut open length-wise and field screened with a 10.6-electrovolt MiniRae PID. The soil characteristics for each interval were logged on a soil boring log. All sample containers were labeled and placed in a cooler with ice following collection.

At Substation No. 3, a vertical ISM sample was collected at each boring location from the 1- to 7-ft interval. At the East and West Substations, a vertical ISM sample was collected at each boring location from DU01. For DU02 at the East and West Substations, a vertical ISM sample was only collected from three of the five borings. No vertical ISM samples were collected within DU03 at the East and West Substations (i.e., the ditch areas). Vertical ISM samples were collected from 1 to 7 ft bgs. The 5-ft stainless steel sampler was advanced twice at each boring location to reach the final depth of 7 ft. A sample was collected by cutting open the acetate liner length-wise and running a stainless steel scoopula along the length of the sample from 1 to 5 ft and from 5 to 7 ft to collect a representative ISM vertical sample from that boring composed of 30 or more aliquots of soil along the length of the exposed core. Where applicable, discrete VOC samples were collected immediately after the liner was opened and screened with the PID. Samples were labeled and placed in a cooler with ice following collection.

Within West Substation, attempts were made to drill the vertical ISM sample to 7 ft bgs using direct-push methods in SB3 of DU01; however, drilling refusal was encountered at 4 ft bgs, thereby preventing drilling and sampling to the targeted depth. The vertical ISM from this boring was from 1 to 4 ft bgs only.

In addition, one vertical composite sample was collected from DU01 at both the East and West Substations from the 7- to 13-ft interval (from the DSB) for risk assessment purposes. To collect each composite sample, an equal quantity of soil was collected by running a trowel or other disposable sampling device up the collected soil coring and placed into a decontaminated or dedicated stainless steel bowl. The soil placed into the bowl was initially split into quarters, and each quarter was mixed thoroughly in the center in the bowl using a stainless steel spoon. All four quarters were then mixed together until the single composite sample had a consistent physical appearance. The sample was then divided in half, and the containers were filled by scooping sample material alternately from each half.

Samples were shipped to the laboratory (TestAmerica Laboratories) for sample processing. Each ISM sample mass was at least 1 kilogram of soil. All ISM samples were ground and sieved by the laboratory (TestAmerica Laboratories) using a No. 10 sieve (minimum 2 millimeters).

4.4.3 Wet Sediment and Surface Water Sampling

Within the wetland and associated aquatic habitat area southeast of Substation No. 3, 3 discrete wet sediment samples were collected and three discrete surface water samples were collected. The sediment samples were collected using the trowel/spoon method as described in the FWSAP. The surface water samples were collected using the Hand-Held Bottle Method described in the FWSAP.

4.5 DEVIATIONS FROM WORK PLAN

Work performed for the RI of CC RVAAP-68 Electric Substations (East, West, No. 3) was conducted in accordance with the Final SI/RI Work Plan.

Table B.1-1 of the Work Plan indicates that two discrete surface water samples were to be collected at Substation No. 3; however, 3 samples are shown in the Work Plan Figure B.1-6 and 3 samples were collected during this RI.

4.6 SURVEYING

Campbell and Associates, Inc. of Cuyahoga Falls, Ohio was subcontracted by ECC to survey all soil boring locations within CC RVAAP-68 Electric Substations (East, West, No. 3). Campbell and Associates, Inc. is a licensed surveyor in the state of Ohio. All the survey data were reported in North American Datum 1983 Universal Transverse Mercator Zone 17N datum. Survey coordinates are provided in Appendix E.

4.7 INVESTIGATION-DERIVED WASTE

IDW materials generated in the field were comprised of soil cuttings from subsurface soil sampling; personal protective equipment (PPE); used, empty acetate liners; used Terracore® samplers; and general non-environmental trash. The soil cuttings were primarily collected in plastic garbage liners placed inside 5-gallon buckets. Additional soil materials were collected on the clear 6-mil-thick plastic sheeting placed on the ground at the end of the cutting table and below the two 5-gallon buckets used for collecting soil cuttings. A large garbage bag was used to contain the used nitrile gloves, the used Terracore® samplers, and cut-up pieces of acetate liners. A long-handled steel lopper was used to cut the acetate liners into 12- to 18-inch-long pieces for ease of disposal. Finally, a large garbage bag was used to collect general non-environmental waste. The buckets for soil cuttings were brought to Building 1036 and placed in appropriately labeled, 55-gallon open-headed drums.

4.7.1 Collection and Containerization

All IDW, including soil cuttings, PPE, disposable sampling equipment, and decontamination fluids, was properly handled, labeled, characterized, and managed in accordance with Chapter 8.0 of the FWSAP, federal and state of Ohio large-quantity generator requirements, and the facility's Installation Hazardous Waste Management Plan.

4.7.2 Characterization and Disposal

IDW disposal characterization samples were collected by ECC personnel on April 3, 2013 and December 12 and 21, 2012. Samples were comprised of liquid IDW consisting of decontamination fluids, and solid IDW consisting of drill cuttings. IDW analyses included both liquid and solid full Toxicity Characteristic Leaching Procedure, and Reactivity, Corrosivity and Ignitability analyses by TestAmerica Laboratories. The IDW letter reports are presented in Appendix F).

On March 15, 2013 and June 5, 2013, Ohio EPA approved the IDW letter reports for the transport and disposal of the accumulated IDW as a result of executed RI tasks. The Ohio EPA approval letters for the IDW are provided in Appendix F. On April 5, 2013 and August 5, 2013,

the drummed IDW was transported under a non-hazardous waste manifest by Emerald Environmental Services, Inc. for disposal at Vexor Technology in Medina, Ohio.

This page intentionally left blank



Path: P:\INDUSTRIAL PROJECTS\ECC Ravenna\3293111461\DataFromECC\4AMEC_15JAN2013\4AMEC_GISfiles\MXD\Site68\Fig 4-1a CC68_E.mxd

LEGEND

- Existing Structure
- Decision Unit Sediment (Dry)
- Decision Unit
- Former Fence
- Former Concrete Pad
- Former Transformer Pad
- Ditch
- Railroad
- Road

NOTES & SOURCES

1. Map Coordinates: NAD 83, UTM Zone 17N, 2009 Orthoimagery from USGS.
2. ft^2 = square feet
3. According to the facility database, the East Substation has been demolished.

TITLE

Decision Units at East Substation

CC RVAAP-68 Electric Substations (East, West, No. 3)

FORMER RAVENNA ARMY AMMUNITION PLANT PORTAGE AND TRUMBULL COUNTIES, OHIO

0 30 60 Feet

N

amec

US Army Corps of Engineers

ECC

AMEC
Novi, Michigan

ECC
Marlborough, Massachusetts

PROJ: 3293111461
Date: May 2014

FIGURE
4-1a

This page intentionally left blank



Path: P:\INDUSTRIAL_PROJECTS\ECC Ravenna\3293111461\DataFromECC\4AMEC_15JAN2013\4AMEC_GISfiles\MXD\Site68\Fig 4-1b CC68W.mxd

LEGEND

- Existing Structure
- Former Structure
- Decision Unit Sediment (Dry)
- Decision Unit
- Former Transformer Pad
- Ditch
- Railroad
- Road

NOTES & SOURCES

1. Map Coordinates: NAD 83, UTM Zone 17N, 2009 Orthoimagery from USGS.
2. ft^2 = square feet
3. If the status of a structure is unknown it is portrayed as existing.

TITLE

Decision Units at West Substation

CC RVAAP-68 Electric Substations (East, West, No. 3)

FORMER RAVENNA ARMY AMMUNITION PLANT PORTAGE AND TRUMBULL COUNTIES, OHIO

0 30 60 Feet

N

amec | US Army Corps of Engineers | ECC

AMEC
Novi, Michigan

ECC
Marlborough, Massachusetts

PROJ: 3293111461
Date: May 2014

FIGURE
4-1b

This page intentionally left blank



LEGEND

- Decision Unit
- Surface Water Flow Direction
- Stream
- Jurisdictional Wetland
- Former Fence
- Railroad
- Road
- Former Electrical Storage Area

NOTES & SOURCES

1. Map Coordinates: NAD 83, UTM Zone 17N, 2009 Orthoimagery from USGS.
2. ft^2 = square feet

TITLE

Decision Unit at Substation No. 3

CC RVAAP-68 Electric Substations (East, West, No. 3)

FORMER RAVENNA ARMY AMMUNITION PLANT PORTAGE AND TRUMBULL COUNTIES, OHIO

0 30 60 Feet

N

amec

US Army Corps of Engineers

ECC

AMEC
Novi, Michigan

ECC
Marlborough, Massachusetts

PROJ: 3293111461
Date: May 2014

FIGURE
4-1c

Path: P:\INDUSTRIAL PROJECTS\ECC Ravenna\3293111461\DataFromECC\4AMEC_15JAN2013\4AMEC_GISfiles\MXD\Site68\Fig 4-1c CC68No3.mxd

This page intentionally left blank

5.0 NATURE AND EXTENT OF CONTAMINATION

This chapter presents results of the RI data screening process to identify SRCs associated with impacts from previous CC RVAAP-68 Electric Substations (East, West, No. 3) operations and to evaluate occurrence and distribution of SRCs in environmental media. DUs were intentionally established to incorporate operational areas at each substation plus an additional 30 ft in all directions (30-ft perimeter ring around the historical operational areas). ISM was used to investigate each DU both vertically and horizontally to assess human health and ecological risk to surface and subsurface soil at CC RVAAP-68 Electric Substations (East, West, No. 3). In addition, two vertical composite samples were collected from 7 to 13 ft bgs to supplement the HHRA and characterize the soils to 13 ft bgs.

Section 5.1 presents the data reduction and screening process, which describes statistical methods and facility-wide background screening criteria used to distinguish constituents present at ambient concentrations from those present at concentrations that indicate potential impacts related to historical operations within CC RVAAP-68 Electric Substations (East, West, No. 3). Sections 5.2 through 5.5 present the nature and extent of identified SRCs within each environmental media and spatial data aggregates (surface soil and subsurface soil) established for this RI Report. Summary analytical results are presented in tabular formats at the end of this section. Analytical results are provided in Appendix G.

5.1 DATA EVALUATION METHOD

The RI data collected were verified and validated in accordance with the procedures outlined in the FWSAP. The processes used to evaluate the analytical data involved three general steps: (1) defining data aggregates; 2) verifying, reducing, and screening data; and (3) presenting data. The completed Data Verification Report is included in Appendix B, and the Data Validation Report is in Appendix H. The data reporting convention used is consistent with past data reporting practices to ensure comparability. Non-detect data are reported as not detected at the Limit of Quantitation (LOQ) in Chapter 5.0 tables and in Appendix B (Data Verification Report) and at the Limit of Detection (LOD) in Appendix H (Data Validation Report).

5.1.1 Definition of Aggregates

Data aggregates are comprised of all the analytical data for each sampled medium within an AOC (i.e., across all DUs). The RI process for data aggregates is established to evaluate the nature and extent of contamination at each AOC. Most AOCs at the facility are comprised of only one area (or a larger area with smaller sub-areas) of the facility. It should be noted that, while data aggregates were created and evaluated for CC RVAAP-68 Electric Substations (East, West, No. 3), this particular AOC is actually comprised of three separate areas of the facility with similar operational histories. The data aggregates for CC RVAAP-68 Electric Substations (East, West, No. 3) are as follows:

- Surface Soil (0-1ft bgs): This medium was evaluated as an aggregate from all seven DUs within all three AOC sub-areas (i.e., East Substation, West Substation, and Substation No. 3) using ISM samples.

- Subsurface Soil (1-13 ft bgs): This medium is evaluated as an aggregate from five DUs within all three AOC sub-areas, on the same basis as surface soil. Subsurface soil samples were collected using horizontal and vertical ISM and vertical composite sampling.

- Wet Sediment: No aggregate for this medium was evaluated because the sediment samples were collected from only one AOC sub-area (Substation No. 3) using discrete methods.

- Surface Water: No aggregate for this medium was evaluated because the surface water samples were collected from only one AOC sub-area (Substation No. 3) using discrete methods.

5.1.2 Data Verification

Data verification was performed on 8 surface soil, 37 subsurface soil, 4 wet sediment, and 4 surface water samples (all investigative and field duplicates) collected during the RI field activities to ensure that the precision and accuracy of the analytical data were adequate for their intended use. The review constituted comprehensive verification of 100 percent of the primary dataset.

Analytical results were reported by the laboratory in electronic format and issued to ECC on compact disc. Data verification was performed to ensure all requested data were received and complete. Data use qualifiers were assigned to each result based on the criteria provided in the DoD Quality Systems Manual for Environmental Laboratories, Version 4.2 (DoD 2009).

Results were qualified as follows:

- ***"U"*** – Analyte was not detected and reported less than the LOQ.

- ***"UJ"*** – Analyte was not detected and the reported limit is estimated.

- ***"J"*** – The reported result was positively identified; however, the associated numerical value is an approximate concentration of the analyte in the sample, or one or more QC criteria failed (e.g., laboratory control sample, surrogate spike recovery, or continued calibration verification). This qualifier is also used to report detections between the LOQ and the detection limit.

In addition to assigning qualifiers, the verification process also selected the appropriate result to use when re-analyses or dilutions were performed. Where laboratory surrogate recovery data or laboratory QC samples were outside of analytical method specifications, the verification chemist determined whether laboratory re-analysis should be used in place of an original reported result. If the laboratory reported results for both diluted and undiluted samples, diluted sample results were used for those analytes whose concentrations were greater than the calibration range of the undiluted sample. A complete presentation of the verification process results is contained in the Data Verification Report (Appendix B).

5.1.3 Data Validation

Independent, third-party validation of 10 percent of the RI laboratory data was performed by North Wind Services and MECx in August 2014. The report is provided as Appendix H. For CC RVAAP-68 Electric Substations (East, West, No. 3), the following samples were validated:

- 068SS-0003M-0001-SO, which is a surface soil sample that was analyzed for the full suite of analytes
- 068SD-0009-0001-SO, which is a wet sediment sample that was analyzed for TAL metals, PCBs and SVOCs
- 068SW-0016-0001-SO, which is a surface water sample that was analyzed for TAL metals, PCBs and SVOCs
- 068SB-0053M-0001-SO, which is a subsurface soil sample that was analyzed for TAL metals, PCBs and SVOCs

The changes to the data based on validation are discussed in Appendix H. In general, the data validation performed for CC RVAAP-68 Electric Substations (East, West, No. 3) indicates that no false negatives or false positives were identified, and the results are usable for their intended purposes, with the following notable changes:

- Because tetryl was detected in the method blank, tetryl reported originally as detected in sample 068SS-0003M-0001-SO was qualified as non-detected ("U") at the LOD. This same qualifier was applied to the field duplicate sample 068SS-0004M-0001-SO.
- Dibenz(a,h)anthracene in 068SS-0003M-0001-SO and benzo(g,h,i)perylene and indeno(1,2,3-cd)pyrene in 068SD-0009-0001-SO were qualified as "J" because the method reporting limit standard recoveries had a control limit greater than 30 percent. This same qualifier was applied to their respective field duplicate samples 068SS-0004M-0001-SO and 068SD-0010-0001-SO.
- Bis(2-ethylhexyl)phthalate was detected in several soil method blanks; therefore, this compound was qualified as non-detected ("U") at the levels of contamination in 068SS-0003M-0001-SO, 068SD-0009-0001-SO, and 068SB-0053M-0001-SO. This same qualifier was applied to their respective field duplicates (068SS-0004M-0001-SO, 068SD-0010-0001-SO, and 068SB-0054M-0001-SO).
- Sodium was detected in the source water field blank and in the equipment rinsate associated with 068SS-0003M-0001-SO; therefore, sodium detected was qualified as non-detected ("U") at the level of contamination. This same qualifier was applied to the field duplicate 068SS-0004M-0001-SO.

5.1.4 Data Reduction

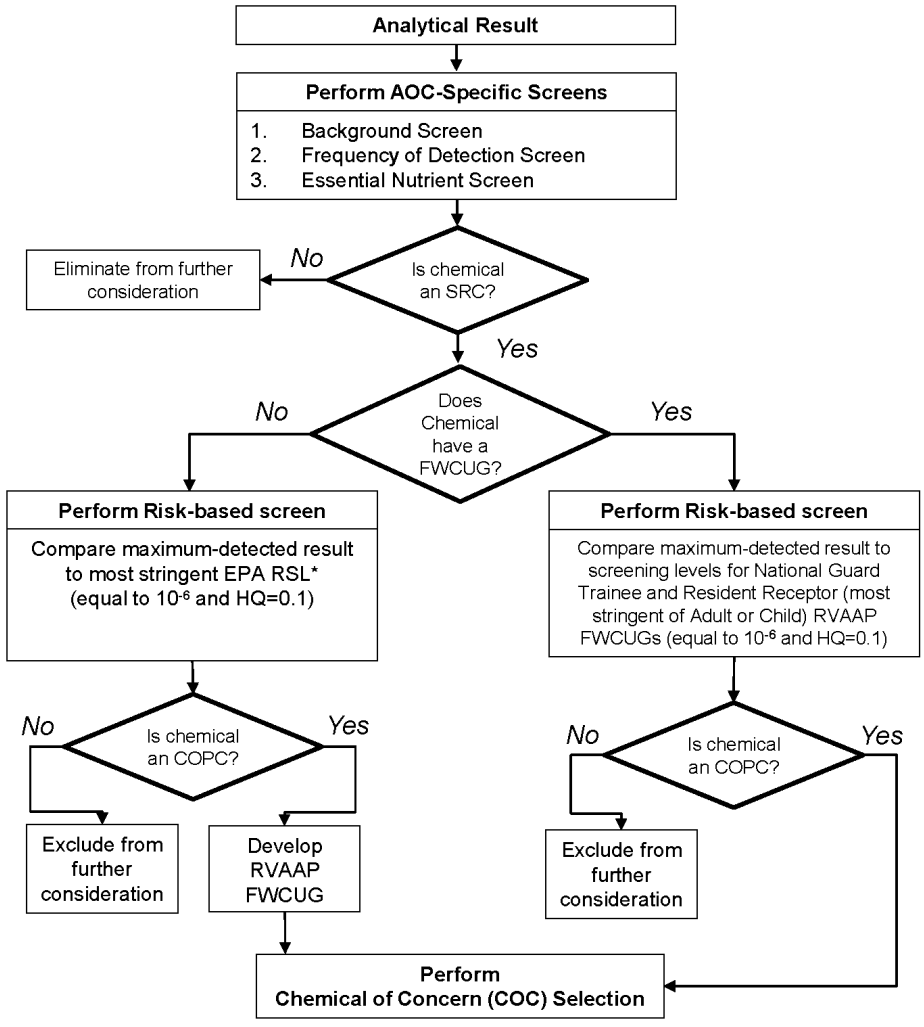
Data reduction was not completed for this RI. Due to the limited number of samples collected for the RI, statistical analysis of the data collected at the AOC was not necessary in the data evaluation process.

5.1.5 Data Screening

RI analytical results comprised the dataset for screening. The dataset did not include QC samples or rejected results. Analytes having at least one detected value were included in the data screening process. Summary statistics calculated for the data aggregate included the minimum, maximum, and average (mean) detected values and the proportion of detected results to the total number of samples collected. For averaging, non-detected results were included by using one-half of the reported LOQ as a surrogate value during calculation of the mean result for each detected compound.

The data were screened to identify SRCs using the processes outlined below. Figure 5-1 illustrates the screening process to identify SRCs and COPCs in accordance with the Final Facility-Wide Human Health Cleanup Goals for RVAAP (USACE 2010a) and modified using the Position Paper for the Application and Use of Facility-Wide Human Health Cleanup Goals (USACE 2012). All chemicals not eliminated during the screening steps were retained as SRCs.

Figure 5-1: Process to Identify Chemicals of Potential Concern



The steps involved in the SRC screening are summarized below:

- ***Data Quality Assessment***—Data were produced, reviewed, and reported by the laboratory in accordance with specifications in the FWSAP.

- ***Background Screening***—The detected concentrations of inorganic chemicals were compared to the facility BSVs, where established. If a chemical concentration was

greater than the BSVs (or detected for those inorganics with no BSVs), the respective inorganic chemicals were retained as SRCs. All detected organic compounds were considered to be SRCs because BSVs are not established for organic compounds at the facility, except for those dismissed based on frequency of detection or weight-of-evidence screening as described below.

- ***Screening of Essential Human Nutrients***—Chemicals that are considered essential nutrients (e.g., calcium, chloride, iodine, iron, magnesium, potassium, phosphorous, and sodium) are an integral part of the human food supply and are often added to foods as supplements. USEPA recommends these chemicals not be evaluated unless they are grossly elevated relative to background concentrations or would exhibit toxicity at the observed concentrations (USEPA 1989, SAIC 2010). The chemicals included in this RI that are essential nutrients are calcium, iron, magnesium, potassium, and sodium. While these essential nutrients were detected above BSVs in surface soil, concentrations are not at levels that would exhibit toxicity; therefore, essential nutrients were not retained as SRCs.

- ***Frequency of Detection/Weight-of-Evidence Screening***—Chemicals that were not detected in a given medium were eliminated as SRCs. A weight-of-evidence approach was used to determine if chemicals with a low detection frequency (i.e., 5 percent or less where a chemical was analyzed in more than 20 samples) were AOC-related. If the detected results for a chemical showed no clustering, concentrations were not substantially elevated relative to the LOD, and no source was evident, the results were considered spurious and the chemical was eliminated from further consideration. Frequency-of-detection screening was applied to the CC RVAAP-68 Electric Substations (East, West, No. 3) subsurface soil dataset because the dataset is comprised of more than 20 samples and one SVOC was detected at a frequency less than 5 percent; 1,4-dichlorobenzene was only detected in 1 of 37 subsurface soil samples. In addition, this compound is not likely a constituent of products used in historical operations at the electric substations. Therefore, 1,4-dichlorobenzene was not retained as an SRC. In addition, bis(2-ethylhexyl)phthalate and di-n-butyl-phthalate compounds were detected in soil; however, these two compounds are recognized as being commonly attributed to sampling and analysis artifacts. As shown in Appendix B (Data Verification Report), these two phthalates were commonly detected in associated method blank QC samples; this suggests that they are artifacts of the sampling process and not site related. The Facility-Wide Human Health Risk Assessor Manual (USACE 2005c) states that common laboratory contaminants are not to be carried through the process if they are not considered to be site related. Therefore, these two compounds were not retained as SRCs.

A summary of the samples collected for this RI are provided in Tables 5-1 through 5-4 at the end of this chapter.

5.1.6 Data Presentation

A summary of statistics, analytical results, and determination of SRCs in surface and subsurface soil, wet sediment, and surface water at CC RVAAP-68 Electric Substations (East, West, No. 3) are presented in Tables 5-1 through 5-4, respectively. The distribution of SRCs by location is shown on Figures 5-2 through 5-21. The complete laboratory analytical data packages are included in Appendix G as well as laboratory analytical results tables with final qualifiers.

5.1.7 Data Evaluation

The subsurface soil sample data were evaluated as part of this RI and used to perform the AOC-specific screens and data evaluations. No previous data were used in the evaluation process. Groundwater is currently being investigated under a separate program under RVAAP-66 Facility-Wide Groundwater and was, therefore, not sampled as part of this RI.

Analytical results of sampling conducted as part of this RI were initially evaluated to determine whether the chemical was an SRC by performing the AOC-specific screening described above in Section 5.1.5. The reported results were used to (1) compare the reported concentrations to the background level (where established), (2) determine the frequency of detection and weight-of-evidence, and (3) determine whether the chemical was an essential nutrient. Analytical data collected during this RI were also compared to the media-specific (soil, wet sediment, and surface water) and depth interval-specific (subsurface soil [greater than 1 ft bgs]) FWCUGs as well as to background levels, if established.

For risk assessment purposes, the FWCUG receptor criteria used for data comparison were the Resident Receptor and NGT receptors. The Resident Receptor is the most stringent value of either the adult or child criteria. If no FWCUG value has been established for either receptor, detected concentrations were compared to USEPA Regional Screening Levels (RSLs) for Residential soil (USEPA 2013). Analytical results were compared to the media-specific (soil, sediment, and surface water) and depth interval-specific (subsurface soil) FWCUGs at the 10^{-6} cancer risk level. The cancer risk level is the excess risk of cancer from exposure to a chemical. Results were also compared to the non-carcinogenic risk hazard quotient (HQ) using the 0.1 risk value.

Detected metals were considered COPCs in the event that the reported concentrations exceeded established their respective BSVs and FWCUGs. For organic compounds, the detected concentrations were compared to the FWCUGs. The USEPA Residential RSLs (USEPA 2013) were used for comparison when there are no FWCUGs established for either the Resident Receptor or the NGT.

After the analytical results were compared to the FWCUGs (or USEPA Residential RSL if used), the chemicals were considered for further screening as COPCs in the subsurface soil when the following conditions apply:

- The chemical is site-related

- The chemical was assigned an FWCUG
- The concentration of the chemical exceeds the FWCUG (equal to 10^{-6} and/or HQ = 0.1) for either the Resident Receptor or NGT

5.2 CONTAMINANT NATURE AND EXTENT

This section evaluates the analytical results of the RI samples collected at CC RVAAP-68 Electric Substations (East, West, No. 3). Figures 5-2 and 5-17 graphically present the distribution and concentrations of inorganic and organic SRCs occurring in surface and subsurface soil within each DU. Figures 5-18 through 5-21 present the distribution and concentrations of inorganic and organic chemicals in wet sediment and surface water near Substation No. 3. The SRCs retained for each media are listed in Tables 5-1 through 5-4. To delineate the horizontal and vertical extent of contamination, those SRCs identified in surface and subsurface soil were compared with the most stringent of the Resident Receptor FWCUGs at a target risk of 1×10^{-6} and HQ of 0.1 for organic compounds. For inorganic compounds, the SRCs were compared with the BSVs, except for those without BSVs (e.g., cadmium and silver), in which case the SRCs were compared with the most stringent Residential FWCUGs for each chemical. The analytical results are provided in Appendix G, along with complete copies of all analytical data packages.

5.2.1 Surface Soil

The dataset for surface soils consists of ISM samples only. Seven DUs from three former electric substations were used to represent the surface soil aggregate. Table 5-1 presents the results of the SRC screening for the surface soil aggregate. Figures 5-2, 5-3, 5-8, 5-9, 5-14, and 5-15 graphically present the distribution and concentrations of inorganic and organic SRCs occurring in the surface soil at CC RVAAP-68 Electric Substations (East, West, No. 3).

For the surface soil aggregate (0-1 ft bgs from all sub-areas), the following analytes were retained as SRCs:

- Thirteen inorganics: arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, nickel, silver, thallium, zinc, and mercury

- Two VOCs: carbon disulfide and styrene

- Twenty-two SVOCs: 1,4-dichlorobenzene; 2-methylnaphthalene; acenaphthene; acenaphthylene; anthracene; benzo(a)anthracene, benzo(a)pyrene; benzo(b)fluoranthene; benzo(g,h,i)perylene; benzo(k)fluoranthene; carbazole; chrysene; dibenz(a,h)anthracene; dibenzofuran; diethyl phthalate; fluoranthene; fluorene; indeno(1,2,3-c,d)pyrene; isophorone; naphthalene; phenanthrene; and pyrene

- One propellant: nitrocellulose

For each of the three sub-areas in CC RVAAP-68 Electric Substations (East, West, No. 3), the SRCs and nature and extent of contaminants in surface soils are discussed in the following subsections.

5.2.1.1 East Substation (DU01 through DU03)

Inorganics

As shown on Figure 5-2, 10 metals were retained as SRCs in surface soil at the East Substation: barium, beryllium, cadmium, chromium, copper, lead, nickel, silver, thallium, and zinc. However, the concentrations of these metals do not exceed their respective FWCUGs, with the exception of chromium at 18 milligrams per kilograms (mg/kg) from DU01 and 21 mg/kg from DU03. While these concentrations are for total chromium, it is likely that the majority of chromium exists as trivalent chromium (Cr-III) and only a small percentage of the total chromium exists as hexavalent chromium (Cr[VI]). Chromium speciation was conducted as part of the Load Line 10 (RVAAP-43) RI, and the percentage of hexavalent chromium varied between 4.7 and 8.1 percent (SAIC 2013). No BSV has been established for hexavalent chromium. Chromium concentrations at the East Substation are only slightly greater than the chromium (as Cr-III) BSV of 17.4 mg/kg. However, these concentrations significantly less than the most stringent FWCUG for chromium (as Cr-III) of 8,147 mg/kg. In addition, hexavalent chromium is not used to make transformers or used in transformer oils (Bentum et al 2012), and typically, hexavalent chromium at Army ammunition plants is associated with such activities/operations as burning of explosives/propellants, live firing, and evaporation/percolation ponds (Citizens for Safe Water around Badger [CSWAB] 2013); none of which occurred at this AOC. Therefore, the extent of metals in surface soil at the East Substation has been defined.

Semivolatile Organic Compounds

As shown on Figure 5-3, 21 SVOCs were retained as SRCs in surface soil at the East Substation: 1,4 dichlorobenzene; 2-methylnaphthalene; acenaphthene; acenaphthylene; anthracene; benzo(a)anthracene, benzo(a)pyrene; benzo(b)fluoranthene; benzo(g,h,i)perylene; benzo(k)fluoranthene; carbazole; chrysene; dibenz(a,h)anthracene; dibenzofuran; fluoranthene; fluorene; indeno(1,2,3-c,d)pyrene; isophorone; naphthalene; phenanthrene; and pyrene.

Benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and dibenz(a,h)anthracene are the only SVOC SRCs that exceed their respective FWCUG. The MDCs are all from DU03, which represents dry sediment in the ditch that parallels the road north of the substation. Benzo(a)pyrene was detected in the surface soil surrounding the substation from DU02, but only at a concentration (0.03 mg/kg) slightly greater than the FWCUG of 0.022 mg/kg.

Benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and dibenz(a,h)anthracene are polycyclic aromatic hydrocarbons (PAHs), and their presence in surface soil is not considered to be associated with the historical use of transformer oil and storage of electrical equipment at the substations. Literature studies indicate the concentrations reported are indicative of a release from common anthropogenic sources such as road dust, vehicle exhaust, tire wear particles, pavement, and slag used as fill (ATSDR 1995; Bradley et. al. 1994; IEPA 2005; MassDEP 2002; Teaf et. al.

2008). Various lines of evidence listed below were used to support that PAHs are not related solely to the historical operations at the East Substation:

(1) There is no known use of, or burning of, PAHs or PAH-containing materials at the substations. Transformer oils that were used at the substations were mineral-based, and therefore, PAHs are unlikely to be constituents in potential releases from electrical equipment at the AOC.

(2) The surface soil sampling location with the greatest PAH exceedances (i.e., MDCs) is the ditch (ISM from DU03), which is nearest and adjacent to Remalia Road (i.e., nearest to road dust, vehicle exhaust, tire wear particles, and asphalt pavement).

(3) These four PAHs were not detected in the four horizontal subsurface soil ISM samples collected at the East Substation, and benzo(a)pyrene was detected in only one vertical ISM sample from one boring (SB4) within DU01 at a concentration (0.039 mg/kg) (Figures 5-5 and 5-7), which only slightly exceeds the 0.022 mg/kg FWCUG. This finding further supports a probable surficial source for the chemical.

Based on these lines of evidence, the horizontal extent of SVOCs in surface soil at the East Substation has been defined.

Polychlorinated Biphenyls

PCBs were not detected in surface soil at the East Substation and, therefore, were not retained as SRCs.

Other Analytes

Surface soil samples in this area were not analyzed for organochlorine pesticides, VOCs, and explosives/propellants.

5.2.1.2 West Substation (DU01 through DU03)

Inorganics

As shown on Figure 5-8, 12 metals were retained as SRCs in surface soil at the West Substation: barium, beryllium, cadmium, chromium, cobalt, copper, lead, nickel, silver, thallium, zinc, and mercury. However, the concentrations of these metals do not exceed their respective FWCUG, with the exceptions of chromium and cobalt. Chromium was detected at 21 mg/kg from DU01, 18 mg/kg from DU02, and 22 mg/kg from DU03 (with a field duplicate concentration of 24 mg/kg). These concentrations are only slightly greater than the chromium (as Cr-3) BSV of 17.4 mg/kg. As discussed above in Section 5.2.1.1, the majority of chromium likely exists as trivalent chromium, and the concentrations of chromium at the West Substation are significantly less than the most stringent FWCUG for chromium (as Cr-3) of 8,147 mg/kg. Cobalt was detected at 13 mg/kg from the investigative sample and 11 mg/kg from the field duplicate at DU03 only. These cobalt concentrations are only slightly greater than the cobalt BSV of 10.4 mg/kg. In addition, cobalt is not used to make transformers or in transformer oil (Bentum et al 2012) and, therefore,

is likely not associated with historic operations at the substation. Therefore, the horizontal extent of inorganics in surface soil at the West Substation has been delineated.

Semivolatile Organic Compounds

As shown on Figure 5-9, 21 SVOCs were retained as SRCs in surface soil of the West Substation: 2-methylnaphthalene; acenaphthene; acenaphthylene; anthracene; benzo(a)anthracene, benzo(a)pyrene; benzo(b)fluoranthene; benzo(g,h,i)perylene; benzo(k)fluoranthene; carbazole; chrysene; dibenz(a,h)anthracene; dibenzofuran; diethyl phthalate; fluoranthene; fluorene; indeno(1,2,3-c,d)pyrene; isophorone; naphthalene; phenanthrene; and pyrene.

Benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and dibenz(a,h)anthracene are the only SVOC SRCs that exceed their respective FWCUG. The MDCs of these four SVOCs are all from from DU03, which represents dry sediment in the ditch that parallels the road southeast of the substation. Only benzo(b)fluoranthene and dibenz(a,h)anthracene were detected in the surface soil surrounding the substation from DU01 and DU02 at a concentrations only slightly greater than their respective FWCUG.

As discussed above in Section 5.2.1.1 for the East Substation, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and dibenz(a,h)anthracene are PAHs, and their presence in surface soil is not considered to be associated with the historical use of transformer oil and storage of electrical equipment at the West Substation,. The same lines of evidence listed above for the East Substation apply to support that PAHs are not unlikely to be related to the historical operations at the West Substation. Based on these lines of evidence, the horizontal extent of PAHs in surface soil at the West Substation has been defined.

Polychlorinated Biphenyls

PCBs were not detected in surface soil at the West Substation and, therefore, were not retained as SRCs.

Volatile Organic Compounds

As shown on Figure 5-9, two VOCs were retained as SRCs in surface soil at the West Substation: carbon disulfide and styrene. While the VOCs detected in surface soil at the West Substation were retained as SRCs, there is no record of VOCs having been used or released within the area. The concentrations of these two VOCs do not exceed their respective FWCUGs. Therefore, the extent of VOCs in surface soil at the West Substation has been delineated.

Explosives/Propellants

Explosives were not detected in surface soil at the substation and, therefore, were not retained as SRCs. As shown on Figure 5-9, one propellant (nitrocellulose) was retained as an SRC in surface soil at the West Substation. However, the concentrationsof this compound does not

exceed its FWCUG; therefore, the extent of propellants in surface soil at the West Substation has been delineated.

Other Analytes

Organochlorine pesticides were not detected in surface soil at the West Substation and, therefore, were not retained as SRCs.

5.2.1.3 Substation No. 3 (DU01)

Inorganics

As shown on Figure 5-14, 6 metals were retained as SRCs in surface soil at Substation No. 3: arsenic, cadmium, chromium, silver, thallium, and zinc. Only two of these metals had concentrations that only slightly exceed their respective BSV or FWCUG (i.e., for cadmium, silver, and thallium for which no BSVs are established): arsenic at 16 mg/kg (with a BSV of 15.4 mg/kg) and chromium at 18 mg/kg (with a BSV of 17.4 mg/kg). As discussed above in Section 5.2.1.1, the majority of chromium likely exists as trivalent chromium, and the concentration of chromium at Substation No. 3 is significantly less than the most stringent FWCUG for chromium (as Cr-3) of 8,147 mg/kg. Arsenic is not used to make transformers or in transformer oils (Bentun et al. 2012), and therefore, its presence is unlikely to be associated with historic operations at the substation. Discrete wet sediment and surface water samples were collected in the area downgradient of the Substation No. 3 to evaluate the nature and extent of SRCs from the former substation. Arsenic was not detected in any of the wet sediment samples (Figure 5-18) nor was arsenic detected in any of the surface water samples (Figure 5-20); therefore, the horizontal extent of inorganics in surface soil at the Substation No. 3 has been delineated.

Semivolatile Organic Compounds

As shown on Figure 5-15, 18 SVOCs were retained as SRCs in surface soil at Substation No. 3: 2-methylnaphthalene; acenaphthene; acenaphthylene; anthracene; benzo(a)anthracene, benzo(a)pyrene; benzo(b)fluoranthene; benzo(g,h,i)perylene; benzo(k)fluoranthene; chrysene; dibenzofuran; diethyl phthalate; fluoranthene; fluorene; indeno(1,2,3-c,d)pyrene; naphthalene; phenanthrene; and pyrene. However, the concentrations of these SVOCs do not exceed their respective FWCUGs; therefore, the extent of SVOCs in surface soil at the Substation No. 3 has been delineated.

Polychlorinated Biphenyls

PCBs were not detected in surface soil at Substation No. 3 and, therefore, were not retained as SRCs.

Other Analytes

Surface soil samples in this area were not analyzed for organochlorine pesticides, VOCs, and explosives/propellants.

5.2.2 Subsurface Soil

The dataset for subsurface soil consists of 37 ISM and composite samples (investigative and field duplicates). Table 5-2 presents the results of the SRC screening for the subsurface soil data aggregate. Figures 5-4 through 5-7, 5-10 through 5-13, 5-16, and 5-17 graphically present the distribution and concentrations of inorganic and organic SRCs occurring in the subsurface soil.

For the subsurface soil aggregate (1-4, 4-7, 1-7, and 7-13 ft bgs from three former electric substations), the following analytes were retained as SRCs:

- Three inorganics: cadmium, silver, and mercury
- One VOC: carbon disulfide
- Sixteen 17 SVOCs: 2-methylnaphthalene; acenaphthylene; anthracene; benzo(a)anthracene, benzo(a)pyrene; benzo(b)fluoranthene; benzo(g,h,i)perylene; benzo(k)fluoranthene; chrysene; dibenzofuran; fluoranthene; fluorene; indeno(1,2,3-c,d)pyrene; naphthalene; phenanthrene; and pyrene
- One propellant: nitrocellulose

For each of the three former electric substations in CC RVAAP-68 Electric Substations (East, West, No. 3), the distribution of SRCs in subsurface soils is as follows:

5.2.2.1 East Substation (DU01 through DU02)

5.2.2.1.1 Horizontal Extent

Inorganics

As shown on Figures 5-4 (DU01) and 5-6 (DU02), 3 metals were retained as SRCs in subsurface soil of the East Substation: cadmium, silver, and mercury. However, the concentrations of these metals do not exceed their respective FWCUG; therefore, the horizontal extent of inorganics at the East Substation has been defined.

Semivolatile Organic Compounds

As shown on Figures 5-5 (DU01) and 5-7 (DU02), 7 SVOCs were retained as SRCs in subsurface soil at the East Substation: 2-methylnaphthalene; benzo(a)pyrene; benzo(b)fluoranthene; fluoranthene; naphthalene; phenanthrene; and pyrene. However, the concentration of only one of these SVOCs slightly exceeds its FWCUG-: benzo(a)pyrene at

0.039 mg/kg (with a FWCUG of 0.022 mg/kg). This detection of benzo(a)pyrene was from only one soil boring (SB4) from one DU (DU01). Benzo(a)pyrene was not detected in the soil borings that surround the detected location. In addition, as discussed in Section 5.2.1.1, it is unlikely that the presence of PAHs is related to historic operations at the substations. Therefore, the horizontal extent of SVOCs in subsurface soil at the East Substation has been defined.

Polychlorinated Biphenyls

PCBs were not detected in subsurface soil in this area and, therefore, were not identified as SRCs.

Volatile Organic Compounds

As shown on Figure 5-5, one VOC was retained as an SRC in subsurface soil at the East Substation; carbon disulfide at 0.0031 mg/kg (estimated). However, this concentration does not exceed the FWCUG; therefore, the horizontal extent of VOCs in subsurface soil at the East Substation has been defined. In addition, there is no record of VOCs/carbon disulfide having been used or released within the area.

Explosives/Propellants

Explosives were not detected in subsurface soil at the East Substation and, therefore, were not retained as SRCs. As shown on Figure 5-5, one propellant was retained as an SRC in subsurface soil at the East Substation: nitrocellulose at 0.87 mg/kg (estimated). However, this concentration does not exceed the FWCUG; therefore, the horizontal extent of propellants in subsurface soil at the East Substation has been defined. In addition, there is no record of propellants/nitrocellulose having been used or released within the area.

Other Analytes

Organochlorine pesticides were not detected in subsurface soil in this area and, therefore, were not identified as SRCs.

5.2.2.1.2 Vertical Extent

Inorganics

Because the concentrations of metal SRCs in subsurface soil do not exceed their respective FWCUG, the vertical extent of inorganics at the East Substation has been defined.

Semivolatile Organic Compounds

Only one SVOC slightly exceeds its FWCUG in subsurface soil at the East Substation: benzo(a)pyrene at 0.039 mg/kg (with a FWCUG of 0.022 mg/kg). This detection of benzo(a)pyrene was from the vertical ISM sample at only one soil boring (SB4 from DU01) from 1-7 ft bgs. Benzo(a)pyrene was not detected in the soil borings that surround the detected

location from the same depth, nor was it detected in the 7-13 ft bgs sample at a nearby downgradient location (i.e., SB1 from DU01) (Figure 5-5). In addition, as previously discussed, it is unlikely that the presence of PAHs is related to historic operations at the substations. Therefore, the vertical extent of SVOCs has been defined at the East Substation.

Volatile Organic Compounds

Only one VOC was detected in subsurface soil at the East Substation (carbon disulfide), and its concentration does not exceed the FWCUG; therefore, the vertical extent of VOCs in subsurface soil at the East Substation has been defined. In addition, there is no record of VOCs/carbon disulfide having been used or released within the area.

Polychlorinated Biphenyls

PCBs were not detected in subsurface soil in this area and, therefore, were not identified as SRCs.

Explosives/Propellants

Explosives were not detected in subsurface soil in this area. Only one propellant (nitrocellulose) was detected in subsurface soil at the East Substation, and its concentration does not exceed its FWCUG; therefore, the vertical extent of propellants in subsurface soil at the East Substation has been defined. In addition, there is no record of explosives or propellants having been used or released within the area.

Other Analytes

Organochlorine pesticides were not detected in subsurface soil in this area and, therefore, were not identified as SRCs.

5.2.2.2 West Substation (DU01 through DU02)

5.2.2.2.1 Horizontal Extent

Inorganics

As shown on Figures 5-10 and 5-12, 3 metals were retained as SRCs in subsurface soil at the West Substation: cadmium, silver, and mercury. However, the concentrations of these metals do not exceed their respective FWCUG; therefore, the horizontal extent of inorganics in subsurface soil at the West Substation has been defined.

Semivolatile Organic Compounds

As shown on Figures 5-11 (DU01) and 5-13 (DU02), 14 SVOCs were retained as SRCs in subsurface soil at the West Substation: 2-methylnaphthalene; acenaphthylene; anthracene; benzo(a)anthracene, benzo(a)pyrene; benzo(b)fluoranthene; benzo(g,h,i)perylene;

benzo(k)fluoranthene; chrysene; fluoranthene; indeno(1,2,3-c,d)pyrene; naphthalene; phenanthrene; and pyrene. However, the concentrations of only one of these SVOCs slightly exceed its FWCUG-: benzo(a)pyrene ranging from 0.044 to 0.094 mg/kg (with a FWCUG of 0.022 mg/kg). These detections of benzo(a)pyrene were from three soil borings (vertical ISMs) and the horizontal ISM sample from one DU (DU01). As previously discussed, it is unlikely that the presence of PAHs is related to historic operations at the substations. Therefore, the horizontal extent of SVOCs in subsurface soil at the West Substation has been delineated.

Polychlorinated Biphenyls

PCBs were not detected in subsurface soil in this area and, therefore, were not identified as SRCs.

Explosives/Propellants

Explosives were not detected in subsurface soil at the West Substation and, therefore, were not retained as SRCs. As shown on Figure 5-13, one propellant was retained as an SRC in subsurface soil at the East Substation: nitrocellulose at 0.88 mg/kg. However, the concentration of this propellant is less than its FWCUG; therefore, the horizontal extent of propellants in subsurface soil at the East Substation has been defined. In addition, there is no record of propellants/nitrocellulose having been used or released within the area.

Other Analytes

Organochlorine pesticides and VOCs were not detected in subsurface soil in this area and, therefore, were not identified as SRCs.

5.2.2.2.2 Vertical Extent

Inorganics

No concentrations of the metals in subsurface soil exceed their respective FWCUG; therefore, the vertical extent of inorganics in subsurface soil at the West Substation has been defined.

Semivolatile Organic Compounds

Only one SVOC slightly exceeds its FWCUG in subsurface soil at the West Substation: benzo(a)pyrene at ranging from 0.044 to 0.094 mg/kg (with a FWCUG of 0.022 mg/kg). These detections of benzo(a)pyrene were from three vertical ISMs from 1-7 ft bgs and the horizontal ISM sample from 1-4 ft bgs. As shown on Figure 5-11, benzo(a)pyrene was not detected in the horizontal ISM from 4-7 ft bgs, nor was it detected in the 7-13 ft bgs sample at a nearby location (i.e., SB1 from DU01). In addition, as previously discussed, it is unlikely that the presence of PAHs is related to historic operations at the substations. Therefore, the vertical extent of SVOCs has been defined at the West Substation.

Polychlorinated Biphenyls

PCBs were not detected in subsurface soil in this area and, therefore, were not identified as SRCs.

Explosives/Propellants

Explosives were not detected in subsurface soil at the West Substation. The concentration of the one propellant SRC (nitrocellulose) is below the FWCUG, therefore, the vertical extent of explosives/propellants in subsurface soil at the West Substation has been defined. In addition, there is no record of propellants/nitrocellulose having been used or released within the area.

Other Analytes

Organochlorine pesticides and VOCs were not detected in subsurface soil in this area and, therefore, were not identified as SRCs.

5.2.2.3 Substation No. 3 (DU01)

5.2.2.3.1 Horizontal Extent

Inorganics

As shown on Figure 5-16, 2 metals (cadmium and silver) were retained as SRCs in subsurface soil at the Substation No. 3. However, the concentrations of these metals do not exceed their respective FWCUGs; therefore, the horizontal extent of inorganics in subsurface soil at the Substation No. 3 has been defined.

Semivolatile Organic Compounds

As shown in Figure 5-17, 6 SVOCs were retained as SRCs in subsurface soil at the Substation No. 3: 2-methylnaphthalene; dibenzofuran; fluorene; naphthalene; phenanthrene; and pyrene. However, the concentrations of these SVOCs do not exceed their respective FWCUGs; therefore, the horizontal extent of SVOCs in subsurface soil at the Substation No. 3 has been defined.

Polychlorinated Biphenyls

PCBs were not detected in subsurface soil in this area and, therefore, were not identified as SRCs.

Other Analytes

Organochlorine pesticides, VOCs, and explosives/propellants were not detected in subsurface soil in this area and, therefore, were not identified as SRCs.

5.2.2.3.2 Vertical Extent

Inorganics

The concentrations of the metals in subsurface soil do not exceed their respective FWCUGs; therefore, the vertical extent of inorganics in subsurface soil at the Substation No. 3 has been defined.

Semivolatile Organic Compounds

The concentrations of SVOCs in subsurface soil do not exceed their respective FWCUGs; therefore, the horizontal extent of SVOCs in subsurface soil at the Substation No. 3 has been delineated.

Polychlorinated Biphenyls

PCBs were not detected in subsurface soil in this area and, therefore, were not identified as SRCs.

Other Analytes

Organochlorine pesticides, VOCs, and explosives/propellants were not detected in subsurface soil in this area and, therefore, were not identified as SRCs.

5.2.2.3.3 Wet Sediment and Surface Water

Four wet sediment samples and 4 surface water samples (investigative and field duplicates) were collected from the tributary to Sand Creek and associated wetland adjacent to (southeast of) Substation No. 3 using discrete sampling methods. These sample locations are outside the known or suspected operational area of Substation No. 3, but were sampled for nature and extent purposes to assess if former operations may have impacted the adjacent wetland and tributary. Tables 5-3 and 5-4 present the results of the SRC screening for wet sediment and surface water samples, respectively. Figures 5-18 through 5-21 graphically present the distribution and concentrations of inorganic and organic SRCs occurring in the sediment and surface water near Substation No. 3.

Inorganics in Wet Sediment

Eight inorganics exceeded their respective BSVs in wet sediment near Substation No. 3: antimony, beryllium, cadmium, chromium, cobalt, copper, nickel, and silver. Although there is no known use of cadmium, chromium, or silver at Substation No. 3, the occurrence of the cadmium, chromium, and silver in sediment may be attributed to soil contamination at Substation No. 3 because these metals were retained as SRCs in surface soil at the substation. Therefore, cadmium, chromium, and silver were retained as SRCs in wet sediment, as shown on Figure 5-18. However, the other metals detected in sediment (antimony, beryllium, cobalt, copper, and nickel) were not detected in soils at Substation No. 3, and therefore, their presence in

wet sediment is not attributed to contamination at Substation No. 3. Antimony, beryllium, cobalt, copper, and nickel were not retained as SRCs in wet sediment near Substation No. 3.

Of the three metal SRCs in wet sediment, only one had concentrations that exceeded the FWCUG: chromium varying from 20 to 22 mg/kg Chromium was not detected in the wet sediment sample location closest to the tributary (furthest from the substation). As previously discussed in Section 5.2.1.1, these chromium concentrations likely represent chromium in the trivalent state rather than hexavalent. These concentrations are only slightly greater than the chromium (as Cr-III) BSV of 18.1 mg/kg for sediment and are significantly less than the most stringent chromium (as Cr-III) FWCUG of 8,147 mg/kg. This supports the conclusion that the nature and extent of inorganic contamination has been defined at Substation No. 3 because the wetland is downgradient of Substation No. 3.

Semivolatile Organic Compounds in Wet Sediment

Seventeen SVOCs were detected in wet sediment near Substation No. 3: 1,4-dichlorobenzene; 2-methylnaphthalene; anthracene; benzo(a)anthracene, benzo(a)pyrene; benzo(b)fluoranthene; benzo(g,h,i)perylene; benzo(k)fluoranthene; chrysene; dibenzofuran; fluoranthene; fluorene; indeno(1,2,3-c,d)pyrene; isophorone; naphthalene; phenanthrene; and pyrene. Although there is no known use of these SVOCs at the substation, the occurrence of most of these SVOCs may be attributed to soil contamination at Substation No. 3 because they were also retained as SRCs in surface soil at the substation. However, the presence of 1,4-dichlorobenzene and isophorone in sediment is not attributed to contamination at Substation No. 3 because they were not detected in soils of Substation No. 3. Therefore, 1,4-dichlorobenze and isophorone were not retained as SRCs in wet sediment near Substation No. 3, as shown on Figure 5-19.

Of the 15 SVOC SRCs, only one had concentrations that only slightly exceed its FWCUG: benzo(a)pyrene at 0.026 mg/kg and 0.027 mg/kg from the field duplicate at the same location (with a FWCUG of 0.022 mg/kg). Benzo(a)pyrene was at or below the FWCUG at the two wet sediment sampling locations closest to the tributary (furthest from the substation). As previously discussed, it is unlikely that benzo(a)pyrene was used in historic operations at the substation. This supports the conclusion that the nature and extent of organic contamination has been defined at Substation No. 3.

Polychlorinated Biphenyls in Wet Sediment

PCBs were not detected in wet sediment at Substation No. 3 and, therefore, were not retained as SRCs.

Other Analytes in Wet Sediment

Wet sediment samples in this area were not analyzed for organochlorine pesticides, VOCs, and explosives/propellants.

Inorganics in Surface Water

Four metals had concentrations that exceeded their respective BSVs in surface water near Substation No. 3: antimony, manganese, nickel, and vanadium. However, none of these metals were detected in either surface soil or subsurface soil at the Substation No. 3; therefore, they were not retained as SRCs in surface water near the substation, as shown on Figure 5-20. This further supports that the nature and extent of inorganic contamination has been defined at Substation No. 3.

Semivolatile Organic Compounds in Surface Water

SVOCs were not detected in surface water near Substation No. 3 and, therefore, were not retained as SRCs. This further supports that the nature and extent of organic contamination has been defined at the Substation No. 3.

Polychlorinated Biphenyls in Surface Water

PCBs were not detected in surface water near Substation No. 3 and, therefore, were not retained as SRCs.

Other Analytes in Surface Water

Surface water samples in this area were not analyzed for organochlorine pesticides, VOCs, and explosives/propellants.

5.2.3 Summary of Contaminant Nature and Extent

SRCs were identified in surface soil, subsurface soil, and wet sediment at CC RVAAP-68 Electric Substations (East, West, No. 3). SRCs were not identified in surface water.
The majority of SRCs identified were SVOCs and metals; however, the concentrations of these SRCs did not exceed their respective FWCUGs (most stringent of Resident Receptor for target risk of 1×10^{-6} and HQ of 0.1), with the following few exceptions:

Surface Soil
- Chromium, benzo(a)anthracene, benzo(b)pyrene, benzo(b)fluoranthene, and dibenz(a,h)anthracene at the East Substation
- Chromium, cobalt, benzo(a)anthracene, benzo(b)pyrene, benzo(b)fluoranthene, and dibenz(a,h)anthracene at the West Substation
- Arsenic and chromium at Substation No. 3

Subsurface Soil
- Benzo(a)pyrene at the East Substation
- Benzo(a)pyrene at the West Substation

Wet Sediment
- Chromium and benzo(a)pyrene

The concentrations of these chemicals were only slightly above their respective FWCUG. In addition, there is no known use of these chemicals at the electric substations of this AOC. The horizontal and vertical extent of these chemicals has been defined at each substation.

This page intentionally left blank

Table 5-1: Site-Related Chemicals Summary for Surface Soil Aggregate

Chemical	Units	Results > Detection Level	Average Result[(1)]	Minimum Detect	Maximum Detect	Site Background Criteria[(2)]	Site Related?	SRC Justification
Metals								
Aluminum	mg/kg	8/8	12,375	10,000	16,000	17,700	No	Below Background
Antimony	mg/kg	5/8	0.23	0.088	0.22	0.96	No	Below Background
Arsenic	mg/kg	8/8	12	9.3	16	15.4	Yes	Exceeds Background
Barium	mg/kg	8/8	84	73	95	88.4	Yes	Exceeds Background
Beryllium	mg/kg	8/8	1	0.62	1	0.88	Yes	Exceeds Background
Cadmium	mg/kg	8/8	0.2	0.1	0.29	0	Yes	Exceeds Background
Calcium	mg/kg	8/8	13,975	3,900	35,000	15,800	No	Essential Nutrient
Chromium	mg/kg	8/8	20	17	24	17.4	Yes	Exceeds Background
Cobalt	mg/kg	8/8	9	7.4	13	10.4	Yes	Exceeds Background
Copper	mg/kg	8/8	17	11	24	17.7	Yes	Exceeds Background
Iron	mg/kg	8/8	23,850	20,000	29,800	23,100	No	Essential Nutrient
Lead	mg/kg	8/8	19	12	28	26.1	Yes	Exceeds Background
Magnesium	mg/kg	8/8	3,575	2,500	4,700	3,030	No	Essential Nutrient
Manganese	mg/kg	8/8	776	280	1,300	1,450	No	Below Background
Nickel	mg/kg	8/8	23	16	33	21.1	Yes	Exceeds Background
Potassium	mg/kg	8/8	1,031	750	1,600	927	No	Essential Nutrient
Selenium	mg/kg	8/8	0.6	0.53	0.9	1.4	No	Below Background
Silver	mg/kg	8/8	0.033	0.025	0.044	0	Yes	Exceeds Background
Sodium	mg/kg	8/8	67	42	96	123	No	Below Background
Thallium	mg/kg	6/8	0.23	0.14	0.26	0	Yes	Exceeds Background
Vanadium	mg/kg	8/8	20	16	24	31.1	No	Below Background
Zinc	mg/kg	8/8	99	53	210	61.8	Yes	Exceeds Background
Mercury	mg/kg	2/8	0.07	0.13	0.13	0.036	Yes	Exceeds Background

Table 5-1: Site-Related Chemicals Summary for Surface Soil Aggregate (continued)

Chemical	Units	Results > Detection Level	Average Result[(1)]	Minimum Detect	Maximum Detect	Site Background Criteria[(2)]	Site Related?	SRC Justification
Organochlorine Pesticides (Gas Chromatograph)								
Aldrin	µg/kg	0/2	20	None	None	NB	No	Not Detected
alpha-BHC (alpha-Hexachlorocyclohexane)	µg/kg	0/2	12.5	None	None	NB	No	Not Detected
alpha-Chlordane	µg/kg	0/2	15	None	None	NB	No	Not Detected
alpha-Endosulfan	µg/kg	0/2	8.5	None	None	NB	No	Not Detected
beta-BHC (beta-Hexachlorocyclohexane)	µg/kg	0/2	17.5	None	None	NB	No	Not Detected
beta-Endosulfan	µg/kg	0/2	12.5	None	None	NB	No	Not Detected
delta-BHC (delta-Hexachlorocyclohexane)	µg/kg	0/2	20	None	None	NB	No	Not Detected
Dieldrin	µg/kg	0/2	8.5	None	None	NB	No	Not Detected
Endosulfan Sulfate	µg/kg	0/2	15	None	None	NB	No	Not Detected
Endrin	µg/kg	0/2	8.5	None	None	NB	No	Not Detected
Endrin Aldehyde	µg/kg	0/2	15	None	None	NB	No	Not Detected
Endrin Ketone	µg/kg	0/2	10	None	None	NB	No	Not Detected
gamma-BHC (Lindane)	µg/kg	0/2	12.5	None	None	NB	No	Not Detected
gamma-Chlordane	µg/kg	0/2	8.5	None	None	NB	No	Not Detected
Heptachlor	µg/kg	0/2	17.5	None	None	NB	No	Not Detected
Heptachlor Epoxide	µg/kg	0/2	12.5	None	None	NB	No	Not Detected
Methoxychlor	µg/kg	0/2	25	None	None	NB	No	Not Detected
p,p'-DDD	µg/kg	0/2	10	None	None	NB	No	Not Detected
p,p'-DDE	µg/kg	0/2	8.5	None	None	NB	No	Not Detected
p,p'-DDT	µg/kg	0/2	10	None	None	NB	No	Not Detected
Toxaphene	µg/kg	0/2	335	None	None	NB	No	Not Detected
Polychlorinated Biphenyls								
PCB-1016 (Arochlor 1016)	µg/kg	0/8	32.5	None	None	NB	No	Not Detected
PCB-1221 (Arochlor 1221)	µg/kg	0/8	25.125	None	None	NB	No	Not Detected
PCB-1232 (Arochlor 1232)	µg/kg	0/8	22.625	None	None	NB	No	Not Detected
PCB-1242 (Arochlor 1242)	µg/kg	0/8	20.125	None	None	NB	No	Not Detected
PCB-1248 (Arochlor 1248)	µg/kg	0/8	27.625	None	None	NB	No	Not Detected
PCB-1254 (Arochlor 1254)	µg/kg	0/8	27.625	None	None	NB	No	Not Detected
PCB-1260 (Arochlor 1260)	µg/kg	0/8	27.625	None	None	NB	No	Not Detected

Table 5-1: Site-Related Chemicals Summary for Surface Soil Aggregate (continued)

Chemical	Units	Results > Detection Level	Average Result[(1)]	Minimum Detect	Maximum Detect	Site Background Criteria[(2)]	Site Related?	SRC Justification
Volatile Organic Compounds								
1,1,1-Trichloroethane	µg/kg	0/2	1.925	None	None	NB	No	Not Detected
1,1,2,2-Tetrachloroethane	µg/kg	0/2	1.925	None	None	NB	No	Not Detected
1,1,2-Trichloroethane	µg/kg	0/2	1.925	None	None	NB	No	Not Detected
1,1-Dichloroethane	µg/kg	0/2	1.925	None	None	NB	No	Not Detected
1,1-Dichloroethene	µg/kg	0/2	1.925	None	None	NB	No	Not Detected
1,2-Dibromoethane (EDB)	µg/kg	0/2	1.925	None	None	NB	No	Not Detected
1,2-Dichloroethane	µg/kg	0/2	1.925	None	None	NB	No	Not Detected
1,2-Dichloroethene	µg/kg	0/2	3.825	None	None	NB	No	Not Detected
1,2-Dichloropropane	µg/kg	0/2	1.925	None	None	NB	No	Not Detected
2-Butanone (MEK)	µg/kg	0/2	7.75	None	None	NB	No	Not Detected
2-Hexanone	µg/kg	0/2	7.75	None	None	NB	No	Not Detected
4-Methyl-2-pentanone (MIBK)	µg/kg	0/2	7.75	None	None	NB	No	Not Detected
Acetone	µg/kg	0/2	7.75	None	None	NB	No	Not Detected
Benzene	µg/kg	0/2	1.925	None	None	NB	No	Not Detected
Bromochloromethane	µg/kg	0/2	1.925	None	None	NB	No	Not Detected
Bromodichloromethane	µg/kg	0/2	1.925	None	None	NB	No	Not Detected
Bromoform	µg/kg	0/2	1.925	None	None	NB	No	Not Detected
Bromomethane	µg/kg	0/2	1.925	None	None	NB	No	Not Detected
Carbon Disulfide	µg/kg	2/2	0.68	0.66	0.69	NB	Yes	Above Detection Limit
Carbon Tetrachloride	µg/kg	0/2	1.925	None	None	NB	No	Not Detected
Chlorobenzene	µg/kg	0/2	1.925	None	None	NB	No	Not Detected
Chloroethane	µg/kg	0/2	1.925	None	None	NB	No	Not Detected
Chloroform	µg/kg	0/2	1.925	None	None	NB	No	Not Detected
Chloromethane	µg/kg	0/2	1.925	None	None	NB	No	Not Detected
cis-1,3-Dichloropropene	µg/kg	0/2	1.925	None	None	NB	No	Not Detected
Dibromochloromethane	µg/kg	0/2	1.925	None	None	NB	No	Not Detected
Ethylbenzene	µg/kg	0/2	1.925	None	None	NB	No	Not Detected
Methylene Chloride	µg/kg	0/2	1.925	None	None	NB	No	Not Detected
Styrene	µg/kg	1/2	1.07	0.14	0.14	NB	Yes	Above Detection Limit
Tetrachloroethene (PCE)	µg/kg	0/2	1.925	None	None	NB	No	Not Detected
Toluene	µg/kg	0/2	1.925	None	None	NB	No	Not Detected
trans-1,3-Dichloropropene	µg/kg	0/2	1.925	None	None	NB	No	Not Detected

Table 5-1: Site-Related Chemicals Summary for Surface Soil Aggregate (continued)

Chemical	Units	Results > Detection Level	Average Result[1]	Minimum Detect	Maximum Detect	Site Background Criteria[2]	Site Related?	SRC Justification
Trichloroethene (TCE)	µg/kg	0/2	1.925	None	None	NB	No	Not Detected
Vinyl Chloride	µg/kg	0/2	1.925	None	None	NB	No	Not Detected
Xylenes, Total	µg/kg	0/2	3.825	None	None	NB	No	Not Detected
Semivolatile Organic Compounds								
1,2,4-Trichlorobenzene	µg/kg	0/8	37.375	None	None	NB	No	Not Detected
1,2-Dichlorobenzene	µg/kg	0/8	37.375	None	None	NB	No	Not Detected
1,3-Dichlorobenzene	µg/kg	0/8	37.375	None	None	NB	No	Not Detected
1,4-Dichlorobenzene	µg/kg	1/8	37	21	21	NB	Yes	Above Detection Limit
2,4,5-Trichlorophenol	µg/kg	0/8	111.875	None	None	NB	No	Not Detected
2,4,6-Trichlorophenol	µg/kg	0/8	111.875	None	None	NB	No	Not Detected
2,4-Dichlorophenol	µg/kg	0/8	111.875	None	None	NB	No	Not Detected
2,4-Dimethylphenol	µg/kg	0/8	111.875	None	None	NB	No	Not Detected
2,4-Dinitrophenol	µg/kg	0/8	244.375	None	None	NB	No	Not Detected
2,4-Dinitrotoluene	µg/kg	0/8	149.375	None	None	NB	No	Not Detected
2,6-Dinitrotoluene	µg/kg	0/8	149.375	None	None	NB	No	Not Detected
2-Chloronaphthalene	µg/kg	0/8	37.375	None	None	NB	No	Not Detected
2-Chlorophenol	µg/kg	0/8	37.375	None	None	NB	No	Not Detected
2-Methylnaphthalene	µg/kg	8/8	27.85	9.8	81	NB	Yes	Above Detection Limit
2-Methylphenol (o-Cresol)	µg/kg	0/8	149.375	None	None	NB	No	Not Detected
2-Nitroaniline	µg/kg	0/8	149.375	None	None	NB	No	Not Detected
2-Nitrophenol	µg/kg	0/8	37.375	None	None	NB	No	Not Detected
3,3'-Dichlorobenzidine	µg/kg	0/7	78.357143	None	None	NB	No	Not Detected
3-Nitroaniline	µg/kg	0/8	149.375	None	None	NB	No	Not Detected
4,6-Dinitro-2-Methylphenol	µg/kg	0/8	111.875	None	None	NB	No	Not Detected
4-Bromophenyl phenyl ether	µg/kg	0/8	37.375	None	None	NB	No	Not Detected
4-Chloro-3-Methylphenol	µg/kg	0/8	111.875	None	None	NB	No	Not Detected
4-Chloroaniline	µg/kg	0/7	117.143	None	None	NB	No	Not Detected
4-Chlorophenyl Phenyl Ether	µg/kg	0/8	37.375	None	None	NB	No	Not Detected
4-Nitroaniline	µg/kg	0/8	149.375	None	None	NB	No	Not Detected
4-Nitrophenol	µg/kg	0/8	244.375	None	None	NB	No	Not Detected
Acenaphthene	µg/kg	6/8	11	5.6	21	NB	Yes	Above Detection Limit
Acenaphthylene	µg/kg	6/8	13	4.1	28	NB	Yes	Above Detection Limit
Anthracene	µg/kg	8/8	32	7	67	NB	Yes	Above Detection Limit

Table 5-1: Site-Related Chemicals Summary for Surface Soil Aggregate (continued)

Chemical	Units	Results > Detection Level	Average Result[1]	Minimum Detect	Maximum Detect	Site Background Criteria[2]	Site Related?	SRC Justification
Benzo(a)anthracene	µg/kg	8/8	141	10	270	NB	Yes	Above Detection Limit
Benzo(a)pyrene	µg/kg	8/8	155	10	330	NB	Yes	Above Detection Limit
Benzo(b)fluoranthene	µg/kg	8/8	270	13	520	NB	Yes	Above Detection Limit
Benzo(g,h,i)perylene	µg/kg	8/8	100	11	260	NB	Yes	Above Detection Limit
Benzo(k)fluoranthene	µg/kg	8/8	94	10	180	NB	Yes	Above Detection Limit
Benzyl alcohol	µg/kg	0/8	225	None	None	NB	Yes	Not Detected
Benzyl butyl phthalate	µg/kg	0/8	37.375	None	None	NB	No	Not Detected
bis(2-Chloroethoxy) Methane	µg/kg	0/8	74.813	None	None	NB	No	Not Detected
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	µg/kg	0/8	74.813	None	None	NB	No	Not Detected
bis(2-Chloroisopropyl) Ether	µg/kg	0/8	74.813	None	None	NB	No	Not Detected
bis(2-Ethylhexyl) Phthalate	µg/kg	4/8	49	29	75	NB	No	Weight of Evidence
Carbazole	µg/kg	3/8	43	29	46	NB	Yes	Above Detection Limit
Chrysene	µg/kg	8/8	178	14	340	NB	Yes	Above Detection Limit
Cresols, m & p	µg/kg	0/8	298.75	None	None	NB	No	Not Detected
Dibenz(a,h)anthracene	µg/kg	4/8	25	32	57	NB	Yes	Above Detection Limit
Dibenzofuran	µg/kg	6/8	30	7.9	29	NB	Yes	Above Detection Limit
Diethyl Phthalate	µg/kg	4/8	36	17	26	NB	Yes	Above Detection Limit
Dimethyl Phthalate	µg/kg	0/8	37.375	None	None	NB	No	Not Detected
Di-n-Butyl Phthalate	µg/kg	5/8	37	15	40	NB	No	Weight of Evidence
Di-n-Octylphthalate	µg/kg	0/8	37.375	None	None	NB	No	Not Detected
Fluoranthene	µg/kg	8/8	296	14	650	NB	Yes	Above Detection Limit
Fluorene	µg/kg	6/8	12	7.9	27	NB	Yes	Above Detection Limit
Hexachlorobenzene	µg/kg	0/8	4.969	None	None	NB	No	Not Detected
Hexachlorobutadiene	µg/kg	0/8	37.375	None	None	NB	No	Not Detected
Hexachlorocyclopentadiene	µg/kg	0/8	244.375	None	None	NB	No	Not Detected
Hexachloroethane	µg/kg	0/8	37.375	None	None	NB	No	Not Detected
Indeno(1,2,3-c,d)pyrene	µg/kg	8/8	91.6	9.2	220	NB	Yes	Above Detection Limit
Isophorone	µg/kg	5/8	32.9	13	22	NB	Yes	Above Detection Limit
Naphthalene	µg/kg	7/8	21.8	9.7	62	NB	Yes	Above Detection Limit
Nitrobenzene	µg/kg	0/8	74.813	None	None	NB	No	Not Detected
n-Nitrosodi-n-propylamine	µg/kg	0/8	37.375	None	None	NB	No	Not Detected
n-Nitrosodiphenylamine	µg/kg	0/4	24.875	None	None	NB	No	Not Detected

Table 5-1: Site-Related Chemicals Summary for Surface Soil Aggregate (continued)

Chemical	Units	Results > Detection Level	Average Result[1]	Minimum Detect	Maximum Detect	Site Background Criteria[2]	Site Related?	SRC Justification
Pentachlorophenol	µg/kg	0/8	111.875	None	None	NB	No	Not Detected
Phenanthrene	µg/kg	8/8	122	15	280	NB	Yes	Above Detection Limit
Phenol	µg/kg	0/8	37.375	None	None	NB	No	Not Detected
Pyrene	µg/kg	8/8	227	13	500	NB	Yes	Above Detection Limit
Explosives								
1,3,5-Trinitrobenzene	mg/kg	0/2	0.125	None	None	NB	No	Not Detected
1,3-Dinitrobenzene	mg/kg	0/2	0.125	None	None	NB	No	Not Detected
2,4,6-Trinitrotoluene	mg/kg	0/2	0.125	None	None	NB	No	Not Detected
2,4-Dinitrotoluene	mg/kg	0/2	0.125	None	None	NB	No	Not Detected
2,6-Dinitrotoluene	mg/kg	0/2	0.125	None	None	NB	No	Not Detected
2-Amino-4,6-dinitrotoluene	mg/kg	0/2	0.125	None	None	NB	No	Not Detected
2-Nitrotoluene	mg/kg	0/2	0.125	None	None	NB	No	Not Detected
3-Nitrotoluene	mg/kg	0/2	0.125	None	None	NB	No	Not Detected
4-Amino-2,6-Dinitrotoluene	mg/kg	0/2	0.125	None	None	NB	No	Not Detected
4-Nitrotoluene	mg/kg	0/2	0.125	None	None	NB	No	Not Detected
Hexahydro-1,3,5-Trinitro-1,3,5-Triazine (RDX)	mg/kg	0/2	0.125	None	None	NB	No	Not Detected
Nitrobenzene	mg/kg	0/2	0.125	None	None	NB	No	Not Detected
Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine (HMX)	mg/kg	0/2	0.125	None	None	NB	No	Not Detected
Pentaerythritol Tetranitrate	mg/kg	0/2	0.25	None	None	NB	No	Not Detected
Tetryl	mg/kg	0/2	0.125	None	None	NB	No	Not Detected
Propellants								
Nitrocellulose	mg/kg	1/2	1.69	0.88	0.88	NB	Yes	Above Detection Limit
Nitroglycerin	mg/kg	0/2	0.25	None	None	NB	No	Not Detected
Nitroguanidine	mg/kg	0/2	0.125	None	None	NB	No	Not Detected

Notes:
1. Average result was calculated by using one-half of the reported Limit of Quantitation as a surrogate value for each non-detected chemical.
2. Background concentrations are published in the Phase II Remedial Investigation Report for Winklepeck Burning Grounds (U.S. Army Corps of Engineers 2001b).

Yellow highlight indicates analyte is an SRC.
µg/kg = Microgram per kilogram.
mg/kg = Milligram per kilogram.
NB = No background.
SRC = Site-related chemical.

Table 5-2: Site-Related Chemicals Summary for Subsurface Soil Aggregate

Chemical	Units	Results > Detection Level	Average Result[(1)]	Minimum Detection	Maximum Detection	Site Background Criteria[(2)]	SRC - Yes/No	Site Justification
Metals								
Aluminum	mg/kg	37/37	10,178	6,500	13,000	19,500	No	Below Background
Antimony	mg/kg	6/37	0.09	0.042	0.15	0.96	No	Below Background
Arsenic	mg/kg	37/37	11	6.5	16	19.8	No	Below Background
Barium	mg/kg	37/37	58	31	81	124	No	Below Background
Beryllium	mg/kg	37/37	0.51	0.32	0.66	0.88	No	Below Background
Cadmium	mg/kg	37/37	0.2	0.1	0.28	0	Yes	Exceeds Background
Calcium	mg/kg	37/37	11,473	760	35,000	35,500	No	Below Background
Chromium	mg/kg	37/37	14	8.5	19	27.2	No	Below Background
Cobalt	mg/kg	37/37	10	5.9	16	23.2	No	Below Background
Copper	mg/kg	37/37	18	13	24	32.3	No	Below Background
Iron	mg/kg	37/37	23,243	16000	27000	35,200	No	Below Background
Lead	mg/kg	37/37	12	8.4	16	19.1	No	Below Background
Magnesium	mg/kg	37/37	4,541	2,100	7,900	8,790	No	Below Background
Manganese	mg/kg	37/37	377	220	620	3,030	No	Below Background
Nickel	mg/kg	37/37	23	14	31	60.7	No	Below Background
Potassium	mg/kg	37/37	1,192	770	1,700	3,350	No	Below Background
Selenium	mg/kg	31/37	0.3	0.16	0.4	1.5	No	Below Background
Silver	mg/kg	37/37	0.030	0.014	0.041	0	Yes	Exceeds Background
Sodium	mg/kg	37/37	63	31	130	145	No	Below Background
Thallium	mg/kg	37/37	0.14	0.096	0.18	0.91	No	Below Background
Vanadium	mg/kg	37/37	16	9.7	20	37.6	No	Below Background
Zinc	mg/kg	37/37	48	32	77	93.3	No	Below Background
Mercury	mg/kg	19/37	0.04	0.014	0.21	0.044	Yes	Exceeds Background

Table 5-2: Site-Related Chemicals Summary for Subsurface Soil Aggregate (continued)

Chemical	Units	Results > Detection Level	Average Result[(1)]	Minimum Detection	Maximum Detection	Site Background Criteria[(2)]	SRC - Yes/No	Site Justification
Organochlorine Pesticides (Gas Chromatograph)								
Aldrin	µg/kg	0/3	2.0	None	None	NB	No	Not Detected
alpha-BHC (alpha-Hexachlorocyclohexane)	µg/kg	0/3	1.25	None	None	NB	No	Not Detected
alpha-Endosulfan	µg/kg	0/3	0.85	None	None	NB	No	Not Detected
beta-BHC (beta-Hexachlorocyclohexane)	µg/kg	0/3	1.75	None	None	NB	No	Not Detected
delta-BHC (delta-Hexachlorocyclohexane)	µg/kg	0/3	2.0	None	None	NB	No	Not Detected
Dieldrin	µg/kg	0/3	0.85	None	None	NB	No	Not Detected
Endosulfan Sulfate	µg/kg	0/3	1.5	None	None	NB	No	Not Detected
Endrin	µg/kg	0/3	0.85	None	None	NB	No	Not Detected
Endrin Aldehyde	µg/kg	0/3	1.5	None	None	NB	No	Not Detected
Endrin Ketone	µg/kg	0/3	1.0	None	None	NB	No	Not Detected
gamma-BHC (Lindane)	µg/kg	0/3	1.25	None	None	NB	No	Not Detected
gamma-Chlordane	µg/kg	0/3	0.85	None	None	NB	No	Not Detected
Heptachlor	µg/kg	0/3	1.75	None	None	NB	No	Not Detected
Heptachlor Epoxide	µg/kg	0/3	1.25	None	None	NB	No	Not Detected
Methoxychlor	µg/kg	0/3	2.5	None	None	NB	No	Not Detected
p,p'-DDD	µg/kg	0/3	1.0	None	None	NB	No	Not Detected
p,p'-DDE	µg/kg	0/3	0.85	None	None	NB	No	Not Detected
p,p'-DDT	µg/kg	0/3	1.0	None	None	NB	No	Not Detected
Toxaphene	µg/kg	0/3	33.50	None	None	NB	No	Not Detected
Polychlorinated Biphenyls								
PCB-1016 (Arochlor 1016)	µg/kg	0/37	32.73	None	None	NB	No	Not Detected
PCB-1221 (Arochlor 1221)	µg/kg	0/37	25.16	None	None	NB	No	Not Detected
PCB-1232 (Arochlor 1232)	µg/kg	0/37	22.65	None	None	NB	No	Not Detected
PCB-1242 (Arochlor 1242)	µg/kg	0/37	20.15	None	None	NB	No	Not Detected
PCB-1248 (Arochlor 1248)	µg/kg	0/37	27.65	None	None	NB	No	Not Detected
PCB-1254 (Arochlor 1254)	µg/kg	0/37	27.65	None	None	NB	No	Not Detected

Table 5-2: Site-Related Chemicals Summary for Subsurface Soil Aggregate (continued)

Chemical	Units	Results > Detection Level	Average Result[(1)]	Minimum Detection	Maximum Detection	Site Background Criteria[(2)]	SRC Yes/No	Site Justification
PCB-1260 (Arochlor 1260)	µg/kg	0/37	27.65	None	None	NB	No	Not Detected
Volatile Organic Compounds								
1,1,1-Trichloroethane	µg/kg	0/4	2.53	None	None	NB	No	Not Detected
1,1,2,2-Tetrachloroethane	µg/kg	0/4	2.53	None	None	NB	No	Not Detected
1,1,2-Trichloroethane	µg/kg	0/4	2.53	None	None	NB	No	Not Detected
1,1-Dichloroethane	µg/kg	0/4	2.53	None	None	NB	No	Not Detected
1,1-Dichloroethene	µg/kg	0/4	2.53	None	None	NB	No	Not Detected
1,2-Dibromoethane (EDB)	µg/kg	0/4	2.53	None	None	NB	No	Not Detected
1,2-Dichloroethane	µg/kg	0/4	2.53	None	None	NB	No	Not Detected
1,2-Dichloroethene	µg/kg	0/4	4.96	None	None	NB	No	Not Detected
1,2-Dichloropropane	µg/kg	0/4	2.53	None	None	NB	No	Not Detected
2-Butanone (MEK)	µg/kg	0/4	10.13	None	None	NB	No	Not Detected
2-Hexanone	µg/kg	0/4	10.13	None	None	NB	No	Not Detected
Acetone	µg/kg	0/4	10.13	None	None	NB	No	Not Detected
Benzene	µg/kg	0/4	2.53	None	None	NB	No	Not Detected
Bromoform	µg/kg	0/4	2.53	None	None	NB	No	Not Detected
Bromomethane	µg/kg	0/4	2.53	None	None	NB	No	Not Detected
Carbon Disulfide	µg/kg	1/4	2.70	3.100	3.100	NB	Yes	Above Detection Limit
Carbon Tetrachloride	µg/kg	0/4	2.53	None	None	NB	No	Not Detected
Chlorobenzene	µg/kg	0/4	2.53	None	None	NB	No	Not Detected
Chloroethane	µg/kg	0/4	2.5	None	None	NB	No	Not Detected
Chloroform	µg/kg	0/4	2.53	None	None	NB	No	Not Detected
Chloromethane	µg/kg	0/4	2.53	None	None	NB	No	Not Detected
cis-1,3-Dichloropropene	µg/kg	0/4	2.53	None	None	NB	No	Not Detected
Dibromochloromethane	µg/kg	0/4	2.53	None	None	NB	No	Not Detected
Methylene Chloride	µg/kg	0/4	2.53	None	None	NB	No	Not Detected
Styrene	µg/kg	0/4	2.53	None	None	NB	No	Not Detected
Tetrachloroethene (PCE)	µg/kg	0/4	2.53	None	None	NB	No	Not Detected
trans-1,3-Dichloropropene	µg/kg	0/4	2.53	None	None	NB	No	Not Detected
Trichloroethene (TCE)	µg/kg	0/4	2.53	None	None	NB	No	Not Detected

Table 5-2: Site-Related Chemicals Summary for Subsurface Soil Aggregate (continued)

Chemical	Units	Results > Detection Level	Average Result[(1)]	Minimum Detection	Maximum Detection	Site Background Criteria[(2)]	SRC Yes/No	Site Justification
Vinyl Chloride	µg/kg	0/4	2.53	None	None	NB	No	Not Detected
Xylenes, Total	µg/kg	0/4	4.96	None	None	NB	No	Not Detected
Semivolatile Organic Compounds								
1,2,4-Trichlorobenzene	µg/kg	0/37	54.18	None	None	NB	No	Not Detected
1,2-Dichlorobenzene	µg/kg	0/37	54.18	None	None	NB	No	Not Detected
1,3-Dichlorobenzene	µg/kg	0/37	54.18	None	None	NB	No	Not Detected
1,4-Dichlorobenzene	µg/kg	1/37	54	20	20	NB	No	Weight of Evidence
2,4,5-Trichlorophenol	µg/kg	0/37	162.43	None	None	NB	No	Not Detected
2,4,6-Trichlorophenol	µg/kg	0/37	162.43	None	None	NB	No	Not Detected
2,4-Dichlorophenol	µg/kg	0/37	162.43	None	None	NB	No	Not Detected
2,4-Dimethylphenol	µg/kg	0/37	162.43	None	None	NB	No	Not Detected
2,4-Dinitrophenol	µg/kg	0/37	359	None	None	NB	No	Not Detected
2,4-Dinitrotoluene	µg/kg	0/37	216.35	None	None	NB	No	Not Detected
2,6-Dinitrotoluene	µg/kg	0/37	216.35	None	None	NB	No	Not Detected
2-Chloronaphthalene	µg/kg	0/37	54.18	None	None	NB	No	Not Detected
2-Chlorophenol	µg/kg	0/37	54.18	None	None	NB	No	Not Detected
2-Methylnaphthalene	µg/kg	24/37	10	4.1	14	NB	Yes	Above Detection Limit
2-Methylphenol (o-Cresol)	µg/kg	0/36	208.61	None	None	NB	No	Not Detected
2-Nitroaniline	µg/kg	0/37	216.35	None	None	NB	No	Not Detected
2-Nitrophenol	µg/kg	0/37	54.18	None	None	NB	No	Not Detected
3,3'-Dichlorobenzidine	µg/kg	0/37	108.15	None	None	NB	No	Not Detected
3-Nitroaniline	µg/kg	0/37	216.35	None	None	NB	No	Not Detected
4,6-Dinitro-2-Methylphenol	µg/kg	0/37	162.43	None	None	NB	No	Not Detected
4-Bromophenyl phenyl ether	µg/kg	0/37	54.18	None	None	NB	No	Not Detected
4-Chloro-3-Methylphenol	µg/kg	0/37	162.43	None	None	NB	No	Not Detected
4-Chloroaniline	µg/kg	0/37	162.43	None	None	NB	No	Not Detected
4-Chlorophenyl Phenyl Ether	µg/kg	0/37	54.18	None	None	NB	No	Not Detected
4-Nitroaniline	µg/kg	0/37	216.35	None	None	NB	No	Not Detected
4-Nitrophenol	µg/kg	0/36	346.39	None	None	NB	No	Not Detected
Acenaphthene	µg/kg	0/37	7.22	None	None	NB	No	Not Detected

Table 5-2: Site-Related Chemicals Summary for Subsurface Soil Aggregate (continued)

Chemical	Units	Results > Detection Level	Average Result[(1)]	Minimum Detection	Maximum Detection	Site Background Criteria[(2)]	SRC - Yes/No	Site Justification
Acenaphthylene	µg/kg	2/37	7	19	22	NB	Yes	Above Detection Limit
Anthracene	µg/kg	3/37	9	20	52	NB	Yes	Above Detection Limit
Benzo(a)anthracene	µg/kg	6/37	16	5.5	120	NB	Yes	Above Detection Limit
Benzo(a)pyrene	µg/kg	7/37	14	4.3	94	NB	Yes	Above Detection Limit
Benzo(b)fluoranthene	µg/kg	9/37	22	5.1	200	NB	Yes	Above Detection Limit
Benzo(g,h,i)perylene	µg/kg	5/37	13	12	89	NB	Yes	Above Detection Limit
Benzo(k)fluoranthene	µg/kg	6/37	11	6.8	56	NB	Yes	Above Detection Limit
Benzoic acid	µg/kg	0/20	444.50	None	None	NB	No	Not Detected
Benzyl alcohol	µg/kg	0/37	343	None	None	NB	No	Not Detected
Benzyl butyl phthalate	µg/kg	0/37	75.85	None	None	NB	No	Not Detected
bis(2-Chloroethoxy) Methane	µg/kg	0/37	108.15	None	None	NB	No	Not Detected
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	µg/kg	0/37	108.15	None	None	NB	No	Not Detected
bis(2-Chloroisopropyl) Ether	µg/kg	0/37	108.15	None	None	NB	No	Not Detected
bis(2-Ethylhexyl) Phthalate	µg/kg	11/37	87	33	140	NB	No	Weight of Evidence
Carbazole	µg/kg	0/37	54.18	None	None	NB	No	Not Detected
Chrysene	µg/kg	6/37	19	11	150	NB	Yes	Above Detection Limit
Cresols, m & p	µg/kg	0/37	433.38	None	None	NB	No	Not Detected
Dibenz(a,h)anthracene	µg/kg	0/37	7.22	None	None	NB	No	Not Detected
Dibenzofuran	µg/kg	2/37	54	17	17	NB	Yes	Above Detection Limit
Diethyl Phthalate	µg/kg	0/37	75.85	None	None	NB	No	Not Detected
Dimethyl Phthalate	µg/kg	0/37	75.85	None	None	NB	No	Not Detected
Di-n-Butyl Phthalate	µg/kg	3/37	73	22	130	NB	No	Weight of Evidence
Di-n-Octylphthalate	µg/kg	0/37	75.85	None	None	NB	No	Not Detected
Fluoranthene	µg/kg	12/37	27	3.5	270	NB	Yes	Above Detection Limit
Fluorene	µg/kg	2/37	8	13	13	NB	Yes	Above Detection Limit
Hexachlorobenzene	µg/kg	0/37	7.22	None	None	NB	No	Not Detected
Hexachlorobutadiene	µg/kg	0/37	54.18	None	None	NB	No	Not Detected
Hexachlorocyclopentadiene	µg/kg	0/37	358.65	None	None	NB	No	Not Detected
Hexachloroethane	µg/kg	0/37	54.18	None	None	NB	No	Not Detected

Table 5-2: Site-Related Chemicals Summary for Subsurface Soil Aggregate (continued)

Chemical	Units	Results > Detection Level	Average Result[(1)]	Minimum Detection	Maximum Detection	Site Background Criteria[(2)]	SRC Yes/No	Site Justification
Indeno(1,2,3-c,d)pyrene	µg/kg	5/37	12	8.4	72	NB	Yes	Above Detection Limit
Isophorone	µg/kg	0/37	54.18	None	None	NB	No	Not Detected
Naphthalene	µg/kg	23/37	11	4.9	17	NB	Yes	Above Detection Limit
Nitrobenzene	µg/kg	0/37	108.15	None	None	NB	No	Not Detected
n-Nitrosodi-n-propylamine	µg/kg	0/37	54.18	None	None	NB	No	Not Detected
n-Nitrosodiphenylamine	µg/kg	0/37	54.18	None	None	NB	No	Not Detected
Pentachlorophenol	µg/kg	0/37	162.43	None	None	NB	No	Not Detected
Phenanthrene	µg/kg	18/37	17	4.3	180	NB	Yes	Above Detection Limit
Phenol	µg/kg	0/37	54.18	None	None	NB	No	Not Detected
Pyrene	µg/kg	9/37	23	3.4	220	NB	Yes	Above Detection Limit
Explosives								
1,3,5-Trinitrobenzene	mg/kg	0/3	0.125	None	None	NB	No	Not Detected
1,3-Dinitrobenzene	mg/kg	0/3	0.125	None	None	NB	No	Not Detected
2,4,6-Trinitrotoluene	mg/kg	0/3	0.125	None	None	NB	No	Not Detected
2,4-Dinitrotoluene	mg/kg	0/3	0.125	None	None	NB	No	Not Detected
2,6-Dinitrotoluene	mg/kg	0/3	0.125	None	None	NB	No	Not Detected
2-Amino-4,6-dinitrotoluene	mg/kg	0/3	0.125	None	None	NB	No	Not Detected
2-Nitrotoluene	mg/kg	0/3	0.125	None	None	NB	No	Not Detected
3-Nitrotoluene	mg/kg	0/3	0.125	None	None	NB	No	Not Detected
4-Amino-2,6-Dinitrotoluene	mg/kg	0/3	0.125	None	None	NB	No	Not Detected
4-Nitrotoluene	mg/kg	0/3	0.125	None	None	NB	No	Not Detected
Hexahydro-1,3,5-Trinitro-1,3,5 Triazine (RDX)	mg/kg	0/3	0.125	None	None	NB	No	Not Detected
Nitrobenzene	mg/kg	0/3	0.125	None	None	NB	No	Not Detected
Octahydro-1,3,5,7-Tetranitro-1,3,5,7 Tetrazocine (HMX)	mg/kg	0/3	0.125	None	None	NB	No	Not Detected
Pentaerythritol Tetranitrate	mg/kg	0/3	0.250	None	None	NB	No	Not Detected
Tetryl	mg/kg	0/3	0.125	None	None	NB	No	Not Detected
Propellants								
Nitrocellulose	mg/kg	2/3	1.4	0.87	0.88	NB	Yes	Above Detection Limit

Table 5-2: Site-Related Chemicals Summary for Subsurface Soil Aggregate (continued)

Chemical	Units	Results > Detection Level	Average Result[1]	Minimum Detection	Maximum Detection	Site Background Criteria[2]	SRC - Yes/No	Site Justification
Nitroglycerin	mg/kg	0/3	0.250	None	None	NB	No	Not Detected
Nitroguanidine	mg/kg	0/3	0.123	None	None	NB	No	Not Detected

Notes:
1. Average result was calculated by using one-half of the reported Limit of Quantitation as a surrogate value for each non-detected chemical.
2. Background concentrations are published in the Phase II Remedial Investigation Report for Winklepeck Burning Grounds (U.S. Army Corps of Engineers 2001b).

Yellow highlight indicates analyte is an SRC.
µg/kg = Microgram per kilogram.
mg/kg = Milligram per kilogram.
NB = No background.
SRC = Site-related chemical.

This page intentionally left blank

Table 5-3: Site-Related Chemicals Summary for Sediment – Substation No. 3

Chemical	Units	Results > Detection Level	Average Result[(1)]	Minimum Detection	Maximum Detection	Site Background Criteria[(2)]	SRC - Yes/No	SRC Justification
Metals								
Aluminum	mg/kg	4/4	11,075	8,300	13,000	13,900	No	Below Background
Antimony	mg/kg	4/4	0.12	0.099	0.13	0	No	Weight of Evidence
Arsenic	mg/kg	4/4	13	8.8	16	19.5	No	Below Background
Barium	mg/kg	4/4	72	57	78	123	No	Below Background
Beryllium	mg/kg	4/4	0.62	0.49	0.76	0.38	No	Weight of Evidence
Cadmium	mg/kg	4/4	0.36	0.089	0.61	0	Yes	Exceeds Background
Calcium	mg/kg	4/4	1,275	1,100	1,500	5,510	No	Below Background
Chromium	mg/kg	4/4	19	12	22	18.1	Yes	Exceeds Background
Cobalt	mg/kg	4/4	10	7.2	12	9.1	No	Weight of Evidence
Copper	mg/kg	4/4	21	12	30	27.6	No	Weight of Evidence
Iron	mg/kg	4/4	24,750	21,000	30,000	28,200	No	Essential Nutrient
Lead	mg/kg	4/4	21	18	23	27.4	No	Below Background
Magnesium	mg/kg	4/4	2,125	1,600	2,400	2,760	No	Below Background
Manganese	mg/kg	4/4	610	300	1,200	1,950	No	Below Background
Nickel	mg/kg	4/4	20	14	25	17.7	No	Weight of Evidence
Potassium	mg/kg	4/4	688	500	790	1,950	No	Below Background
Selenium	mg/kg	4/4	0.7	0.5	0.8	1.7	No	Below Background
Silver	mg/kg	4/4	0.046	0.033	0.056	0	Yes	Exceeds Background
Sodium	mg/kg	4/4	45	38	53	174	No	Below Background
Thallium	mg/kg	4/4	0.20	0.17	0.23	0.89	No	Below Background
Vanadium	mg/kg	4/4	18	15	20	26.1	No	Below Background
Zinc	mg/kg	4/4	98	44	160	532	No	Below Background
Mercury	mg/kg	0/4	0.049	None	None	0.059	No	Not Detected

Table 5-3: Site-Related Chemicals Summary for Sediment – Substation No. 3 (continued)

Chemical	Units	Results > Detection Level	Average Result[(1)]	Minimum Detection	Maximum Detection	Site Background Criteria[(2)]	SRC - Yes/No	SRC Justification
Polychlorinated Biphenyls								
PCB-1016 (Arochlor 1016)	µg/kg	0/4	32.38	None	None	NB	No	Not Detected
PCB-1221 (Arochlor 1221)	µg/kg	0/4	24.88	None	None	NB	No	Not Detected
PCB-1232 (Arochlor 1232)	µg/kg	0/4	22.38	None	None	NB	No	Not Detected
PCB-1242 (Arochlor 1242)	µg/kg	0/4	19.88	None	None	NB	No	Not Detected
PCB-1248 (Arochlor 1248)	µg/kg	0/4	27.38	None	None	NB	No	Not Detected
PCB-1254 (Arochlor 1254)	µg/kg	0/4	27.38	None	None	NB	No	Not Detected
PCB-1260 (Arochlor 1260)	µg/kg	0/4	27.38	None	None	NB	No	Not Detected
Semivolatile Organic Compounds								
1,2,4-Trichlorobenzene	µg/kg	0/4	25	None	None	NB	No	Not Detected
1,2-Dichlorobenzene	µg/kg	0/4	25	None	None	NB	No	Not Detected
1,3-Dichlorobenzene	µg/kg	0/4	25	None	None	NB	No	Not Detected
1,4-Dichlorobenzene	µg/kg	1/4	24	20	20	NB	No	Weight of Evidence
2,4,5-Trichlorophenol	µg/kg	0/4	75	None	None	NB	No	Not Detected
2,4,6-Trichlorophenol	µg/kg	0/4	75	None	None	NB	No	Not Detected
2,4-Dichlorophenol	µg/kg	0/4	75	None	None	NB	No	Not Detected
2,4-Dimethylphenol	µg/kg	0/4	75	None	None	NB	No	Not Detected
2,4-Dinitrophenol	µg/kg	0/4	166.25	None	None	NB	No	Not Detected
2,4-Dinitrotoluene	µg/kg	0/4	100	None	None	NB	No	Not Detected
2,6-Dinitrotoluene	µg/kg	0/4	100	None	None	NB	No	Not Detected
2-Chloronaphthalene	µg/kg	0/4	25	None	None	NB	No	Not Detected
2-Chlorophenol	µg/kg	0/4	25	None	None	NB	No	Not Detected
2-Methylnaphthalene	µg/kg	4/4	12	7.7	14	NB	Yes	Above Detection Limit
2-Methylphenol (o-Cresol)	µg/kg	0/4	100	None	None	NB	No	Not Detected
2-Nitroaniline	µg/kg	0/4	100	None	None	NB	No	Not Detected
2-Nitrophenol	µg/kg	0/4	25	None	None	NB	No	Not Detected
3,3'-Dichlorobenzidine	µg/kg	0/3	50	None	None	NB	No	Not Detected
3-Nitroaniline	µg/kg	0/3	100	None	None	NB	No	Not Detected
4,6-Dinitro-2-Methylphenol	µg/kg	0/4	75	None	None	NB	No	Not Detected
4-Bromophenyl phenyl ether	µg/kg	0/4	25	None	None	NB	No	Not Detected

Table 5-3: Site-Related Chemicals Summary for Sediment – Substation No. 3 (continued)

Chemical	Units	Results > Detection Level	Average Result[(1)]	Minimum Detection	Maximum Detection	Site Background Criteria[(2)]	SRC - Yes/No	SRC Justification
4-Chloro-3-Methylphenol	µg/kg	0/4	75	None	None	NB	No	Not Detected
4-Chloroaniline	µg/kg	0/3	75	None	None	NB	No	Not Detected
4-Chlorophenyl Phenyl Ether	µg/kg	0/4	25	None	None	NB	No	Not Detected
4-Nitroaniline	µg/kg	0/4	100	None	None	NB	No	Not Detected
4-Nitrophenol	µg/kg	0/4	166.25	None	None	NB	No	Not Detected
Acenaphthene	µg/kg	0/4	3.35	None	None	NB	No	Not Detected
Acenaphthylene	µg/kg	0/4	3.35	None	None	NB	No	Not Detected
Anthracene	µg/kg	3/4	3.8	3.3	4.9	NB	Yes	Above Detection Limit
Benzo(a)anthracene	µg/kg	4/4	15	12	18	NB	Yes	Above Detection Limit
Benzo(a)pyrene	µg/kg	4/4	24	20	27	NB	Yes	Above Detection Limit
Benzo(b)fluoranthene	µg/kg	4/4	38	25	51	NB	Yes	Above Detection Limit
Benzo(g,h,i)perylene	µg/kg	3/4	10	5.7	16	NB	Yes	Above Detection Limit
Benzo(k)fluoranthene	µg/kg	4/4	9	6.4	12	NB	Yes	Above Detection Limit
Benzyl alcohol	µg/kg	0/4	166.25	None	None	NB	No	Not Detected
Benzyl butyl phthalate	µg/kg	0/4	25	None	None	NB	No	Not Detected
bis(2-Chloroethoxy) Methane	µg/kg	0/4	49.88	None	None	NB	No	Not Detected
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	µg/kg	0/4	49.88	None	None	NB	No	Not Detected
bis(2-Chloroisopropyl) Ether	µg/kg	0/4	49.88	None	None	NB	No	Not Detected
bis(2-Ethylhexyl) Phthalate	µg/kg	0/4	25	None	None	NB	No	Not Detected
Carbazole	µg/kg	0/4	25	None	None	NB	No	Not Detected
Chrysene	µg/kg	4/4	25	17	36	NB	Yes	Above Detection Limit
Cresols, m & p	µg/kg	0/4	201.25	None	None	NB	No	Not Detected
Dibenz(a,h)anthracene	µg/kg	0/4	3.35	None	None	NB	No	Not Detected
Dibenzofuran	µg/kg	1/4	19.9	4.7	4.7	NB	Yes	Above Detection Limit
Diethyl Phthalate	µg/kg	0/4	25	None	None	NB	No	Not Detected
Dimethyl Phthalate	µg/kg	0/4	25	None	None	NB	No	Not Detected
Di-n-Butyl Phthalate	µg/kg	0/4	25	None	None	NB	No	Not Detected
Di-n-Octylphthalate	µg/kg	0/4	25	None	None	NB	No	Not Detected
Fluoranthene	µg/kg	4/4	38	30	50	NB	Yes	Above Detection Limit

Table 5-3: Site-Related Chemicals Summary for Sediment – Substation No. 3 (continued)

Chemical	Units	Results > Detection Level	Average Result[1]	Minimum Detection	Maximum Detection	Site Background Criteria[2]	SRC - Yes/No	SRC Justification
Fluorene	µg/kg	2/4	4.1	3.8	5.8	NB	Yes	Above Detection Limit
Hexachlorobenzene	µg/kg	0/4	3.35	None	None	NB	No	Not Detected
Hexachlorobutadiene	µg/kg	0/4	25	None	None	NB	No	Not Detected
Hexachlorocyclopentadiene	µg/kg	0/4	166.25	None	None	NB	No	Not Detected
Hexachloroethane	µg/kg	0/4	25	None	None	NB	No	Not Detected
Indeno(1,2,3-c,d)pyrene	µg/kg	3/4	13	10	20	NB	Yes	Above Detection Limit
Isophorone	µg/kg	1/4	22	14	14	NB	No	Weight of Evidence
Naphthalene	µg/kg	4/4	12	8.4	15	NB	Yes	Above Detection Limit
Nitrobenzene	µg/kg	0/4	49.88	None	None	NB	No	Not Detected
n-Nitrosodi-n-propylamine	µg/kg	0/4	25	None	None	NB	No	Not Detected
n-Nitrosodiphenylamine	µg/kg	0/4	25	None	None	NB	No	Not Detected
Pentachlorophenol	µg/kg	0/4	75	None	None	NB	No	Not Detected
Phenanthrene	µg/kg	4/4	24	18	29	NB	Yes	Above Detection Limit
Phenol	µg/kg	0/4	25	None	None	NB	No	Not Detected
Pyrene	µg/kg	4/4	27	21	35	NB	Yes	Above Detection Limit

Notes:
1. Average result was calculated by using one-half of the reported Limit of Quantitation as a surrogate value for each non-detected chemical.
2. Background concentrations are published in the Phase II Remedial Investigation Report for Winklepeck Burning Grounds (U.S. Army Corps of Engineers 2001b).

Yellow highlight indicates analyte is an SRC.
µg/kg = Microgram per kilogram.
mg/kg = Milligram per kilogram.
NB = No background.
SRC = Site-related chemical.

Table 5-4: Site-Related Chemicals Summary for Surface Water – Substation No. 3

Chemical	Units	Results > Detection Level	Average Result[(1)]	Minimum Detection	Maximum Detection	Site Background Criteria[(2)]	SRC - Yes/No	SRC Justification
Metals								
Aluminum	µg/L	4/4	166	38	320	3,370	No	Below Background
Antimony	µg/L	1/4	1	1	1	0	No	Weight of Evidence
Arsenic	µg/L	3/4	1.16	0.64	0.78	3.2	No	Below Background
Barium	µg/L	4/4	31	27	34	47.5	No	Below Background
Beryllium	µg/L	0/4	0.5	None	None	0	No	Not Detected
Cadmium	µg/L	0/4	1	None	None	0	No	Not Detected
Calcium	µg/L	4/4	32,250	31,000	33,000	41,400	No	Below Background
Chromium	µg/L	0/4	1	None	None	0	No	Not Detected
Cobalt	µg/L	0/4	0.5	None	None	0	No	Not Detected
Copper	µg/L	1/4	1.9	1.6	1.6	7.9	No	Below Background
Iron	µg/L	4/4	1,080	620	1,400	2,560	No	Below Background
Lead	µg/L	0/4	0.5	None	None	0	No	Not Detected
Magnesium	µg/L	4/4	8,900	8,300	9,400	10,800	No	Below Background
Manganese	µg/L	4/4	345	190	620	391	No	Weight of Evidence
Nickel	µg/L	2/4	1.7	0.74	0.9	0	No	Weight of Evidence
Potassium	µg/L	4/4	1,850	1,700	2,000	3,170	No	Below Background
Selenium	µg/L	0/4	2.5	None	None	0	No	Not Detected
Silver	µg/L	0/4	0.5	None	None	0	No	Not Detected
Sodium	µg/L	4/4	4,125	3,900	4,300	21,300	No	Below Background
Thallium	µg/L	0/4	1	None	None	0	No	Not Detected
Vanadium	µg/L	2/4	1.57	0.55	0.72	0	No	Weight of Evidence
Zinc	µg/L	0/4	20	None	None	42	No	Not Detected
Mercury	µg/L	0/4	0.1	None	None	0	No	Not Detected

Table 5-4: Site-Related Chemicals Summary for Surface Water – Substation No. 3 (continued)

Chemical	Units	Results > Detection Level	Average Result[(1)]	Minimum Detection	Maximum Detection	Site Background Criteria[(2)]	SRC - Yes/No	SRC Justification
Polychlorinated Biphenyls								
PCB-1016 (Arochlor 1016)	µg/L	0/4	0.24	None	None	NB	No	Not Detected
PCB-1221 (Arochlor 1221)	µg/L	0/4	0.24	None	None	NB	No	Not Detected
PCB-1232 (Arochlor 1232)	µg/L	0/4	0.24	None	None	NB	No	Not Detected
PCB-1242 (Arochlor 1242)	µg/L	0/4	0.24	None	None	NB	No	Not Detected
PCB-1248 (Arochlor 1248)	µg/L	0/4	0.24	None	None	NB	No	Not Detected
PCB-1254 (Arochlor 1254)	µg/L	0/4	0.24	None	None	NB	No	Not Detected
PCB-1260 (Arochlor 1260)	µg/L	0/4	0.24	None	None	NB	No	Not Detected
Semivolatile Organic Compounds								
1,2,4-Trichlorobenzene	µg/L	0/4	0.475	None	None	NB	No	Not Detected
1,2-Dichlorobenzene	µg/L	0/4	0.475	None	None	NB	No	Not Detected
1,3-Dichlorobenzene	µg/L	0/4	0.475	None	None	NB	No	Not Detected
1,4-Dichlorobenzene	µg/L	0/4	0.475	None	None	NB	No	Not Detected
2,4,5-Trichlorophenol	µg/L	0/4	2.4	None	None	NB	No	Not Detected
2,4,6-Trichlorophenol	µg/L	0/4	2.4	None	None	NB	No	Not Detected
2,4-Dichlorophenol	µg/L	0/4	0.95	None	None	NB	No	Not Detected
2,4-Dimethylphenol	µg/L	0/4	0.95	None	None	NB	No	Not Detected
2,4-Dinitrophenol	µg/L	0/4	2.4	None	None	NB	No	Not Detected
2,4-Dinitrotoluene	µg/L	0/4	2.4	None	None	NB	No	Not Detected
2,6-Dinitrotoluene	µg/L	0/4	2.4	None	None	NB	No	Not Detected
2-Chloronaphthalene	µg/L	0/4	0.475	None	None	NB	No	Not Detected
2-Chlorophenol	µg/L	0/4	0.475	None	None	NB	No	Not Detected
2-Methylnaphthalene	µg/L	0/4	0.095	None	None	NB	No	Not Detected
2-Methylphenol (o-Cresol)	µg/L	0/4	0.475	None	None	NB	No	Not Detected
2-Nitroaniline	µg/L	0/4	0.95	None	None	NB	No	Not Detected
2-Nitrophenol	µg/L	0/4	0.95	None	None	NB	No	Not Detected
3,3'-Dichlorobenzidine	µg/L	0/3	2.4	None	None	NB	No	Not Detected
3-Nitroaniline	µg/L	0/4	0.95	None	None	NB	No	Not Detected
4,6-Dinitro-2-Methylphenol	µg/L	0/4	2.4	None	None	NB	No	Not Detected
4-Bromophenyl phenyl ether	µg/L	0/4	0.95	None	None	NB	No	Not Detected

Table 5-4: Site-Related Chemicals Summary for Surface Water – Substation No. 3 (continued)

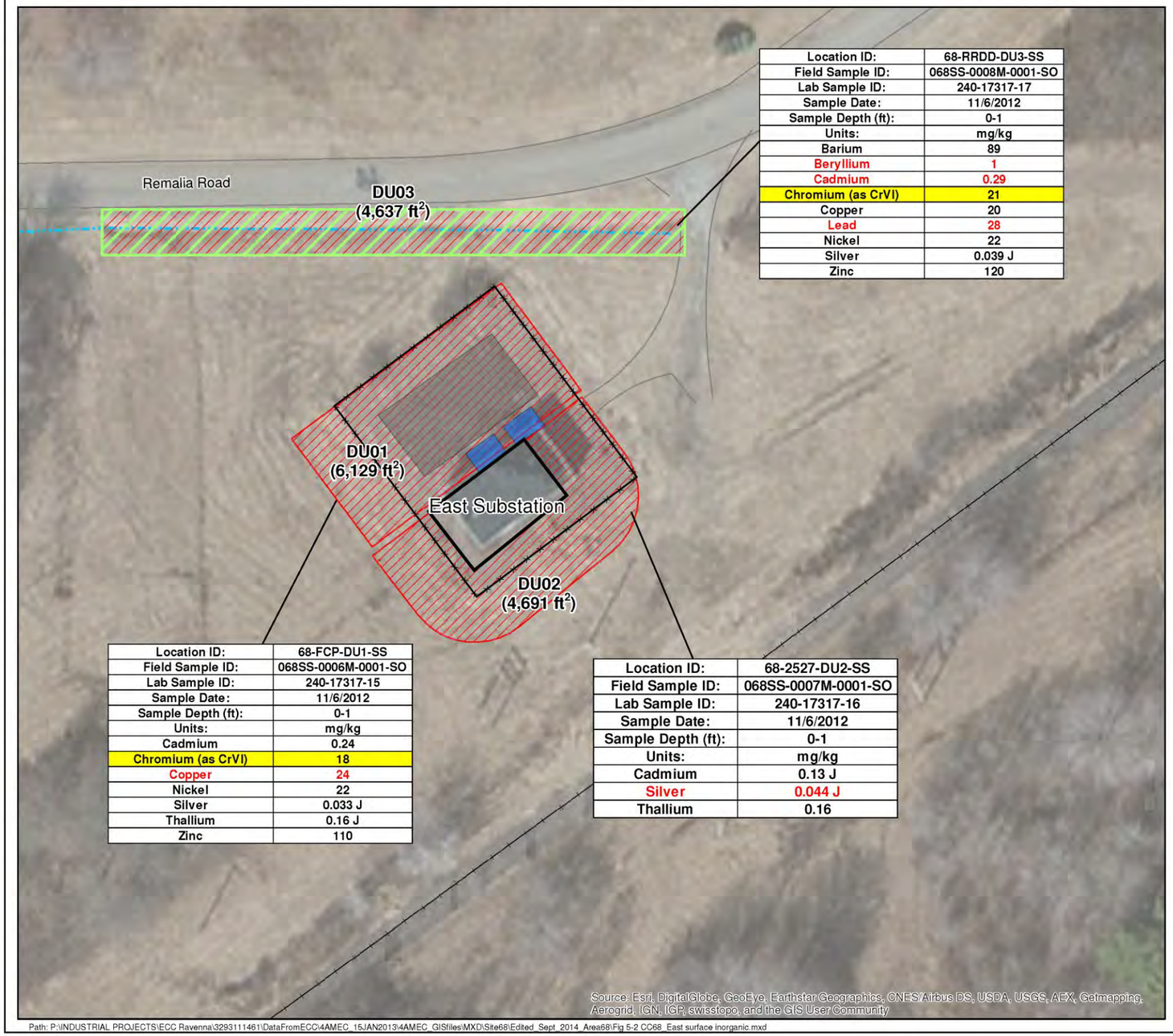
Chemical	Units	Results > Detection Level	Average Result[(1)]	Minimum Detection	Maximum Detection	Site Background Criteria[(2)]	SRC Yes/No	SRC Justification
4-Chloro-3-Methylphenol	µg/L	0/4	0.95	None	None	NB	No	Not Detected
4-Chloroaniline	µg/L	0/4	0.95	None	None	NB	No	Not Detected
4-Chlorophenyl Phenyl Ether	µg/L	0/4	0.95	None	None	NB	No	Not Detected
4-Nitroaniline	µg/L	0/4	0.95	None	None	NB	No	Not Detected
4-Nitrophenol	µg/L	0/4	2.4	None	None	NB	No	Not Detected
Acenaphthene	µg/L	0/4	0.095	None	None	NB	No	Not Detected
Acenaphthylene	µg/L	0/4	0.095	None	None	NB	No	Not Detected
Anthracene	µg/L	0/4	0.095	None	None	NB	No	Not Detected
Benzo(a)anthracene	µg/L	0/4	0.095	None	None	NB	No	Not Detected
Benzo(a)pyrene	µg/L	0/4	0.095	None	None	NB	No	Not Detected
Benzo(b)fluoranthene	µg/L	0/4	0.095	None	None	NB	No	Not Detected
Benzo(g,h,i)perylene	µg/L	0/4	0.095	None	None	NB	No	Not Detected
Benzo(k)fluoranthene	µg/L	0/4	0.095	None	None	NB	No	Not Detected
Benzoic acid	µg/L	0/4	12	None	None	NB	No	Not Detected
Benzyl alcohol	µg/L	0/4	2.4	None	None	NB	No	Not Detected
Benzyl butyl phthalate	µg/L	0/4	0.475	None	None	NB	No	Not Detected
bis(2-Chloroethoxy) Methane	µg/L	0/4	0.475	None	None	NB	No	Not Detected
bis(2-Chloroethyl) Ether (2 Chloroethyl Ether)	µg/L	0/4	0.475	None	None	NB	No	Not Detected
bis(2-Chloroisopropyl) Ether	µg/L	0/4	0.475	None	None	NB	No	Not Detected
bis(2-Ethylhexyl) Phthalate	µg/L	3/4	7	1.7	23	NB	No	Weight of Evidence
Carbazole	µg/L	0/4	0.475	None	None	NB	No	Not Detected
Chrysene	µg/L	0/4	0.095	None	None	NB	No	Not Detected
Cresols, m & p	µg/L	0/4	0.95	None	None	NB	No	Not Detected
Dibenz(a,h)anthracene	µg/L	0/4	0.095	None	None	NB	No	Not Detected
Dibenzofuran	µg/L	0/4	0.475	None	None	NB	No	Not Detected
Diethyl Phthalate	µg/L	0/4	0.475	None	None	NB	No	Not Detected
Dimethyl Phthalate	µg/L	0/4	0.475	None	None	NB	No	Not Detected
Di-n-Butyl Phthalate	µg/L	0/4	0.475	None	None	NB	No	Not Detected
Di-n-Octylphthalate	µg/L	0/4	0.475	None	None	NB	No	Not Detected

Table 5-4: Site-Related Chemicals Summary for Surface Water – Substation No. 3 (continued)

Chemical	Units	Results > Detection Level	Average Result[(1)]	Minimum Detection	Maximum Detection	Site Background Criteria[(2)]	SRC - Yes/No	SRC Justification
Fluoranthene	µg/L	0/4	0.095	None	None	NB	No	Not Detected
Fluorene	µg/L	0/4	0.095	None	None	NB	No	Not Detected
Hexachlorobenzene	µg/L	0/4	0.095	None	None	NB	No	Not Detected
Hexachlorobutadiene	µg/L	0/4	0.475	None	None	NB	No	Not Detected
Hexachlorocyclopentadiene	µg/L	0/4	4.75	None	None	NB	No	Not Detected
Hexachloroethane	µg/L	0/4	0.475	None	None	NB	No	Not Detected
Indeno(1,2,3-c,d)pyrene	µg/L	0/4	0.095	None	None	NB	No	Not Detected
Isophorone	µg/L	0/4	0.475	None	None	NB	No	Not Detected
Naphthalene	µg/L	0/4	0.095	None	None	NB	No	Not Detected
Nitrobenzene	µg/L	0/4	0.475	None	None	NB	No	Not Detected
n-Nitrosodi-n-propylamine	µg/L	0/4	0.475	None	None	NB	No	Not Detected
n-Nitrosodiphenylamine	µg/L	0/4	0.475	None	None	NB	No	Not Detected
Pentachlorophenol	µg/L	0/4	2.4	None	None	NB	No	Not Detected
Phenanthrene	µg/L	0/4	0.095	None	None	NB	No	Not Detected
Phenol	µg/L	0/4	0.475	None	None	NB	No	Not Detected
Pyrene	µg/L	0/4	0.095	None	None	NB	No	Not Detected

Notes:
1. Average result was calculated by using one-half of the reported Limit of Quantitation as a surrogate value for each non-detected chemical.
2. Background concentrations are published in the Phase II Remedial Investigation Report for Winklepeck Burning Grounds (U.S. Army Corps of Engineers 2001b).

µg/L = Microgram per liter.
mg/kg = Milligram per kilogram.
NB = No background.
SRC = Site-related chemical.



Path: P:\INDUSTRIAL PROJECTS\ECC Ravenna\3293111461\DataFromECC\4AMEC_15JAN2013\4AMEC_GISfiles\MXD\Site68\Edited_Sept_2014_Area68\Fig 5-2 CC68_East surface inorganic.mxd

LEGEND

- Existing Structure
- Former Fence
- Former Concrete Pad
- Former Transformer Pad
- Sediment (Dry)
- Decision Unit
- Ditch
- Railroad
- Road
- Analyte — SRC and Maximum Concentration Detected
- Analyte — SRC
- Analyte — SRC Concentration Exceeds most stringent FWCUG (HQ=0.1/ Target Cancer Risk = 10^{-6})

NOTES & SOURCES

1. Map Coordinates: NAD 83, UTM Zone 17N, 2009 Orthoimagery from USGS.
2. ft^2 = square feet
3. SRC = Site-Related Chemical
4. mg/kg = milligrams per kilogram
5. J = estimated
6. If the status of the structure is unknown, the structure is displayed as an existing structure.
7. ft = feet
8. BSV = Background Screening Value
9. Concentrations shown are for SRCs at each sample location

TITLE

Inorganic SRCs in Surface Soil at East Substation

CC RVAAP-68
Electric Substations
(East, West, No. 3)
FORMER RAVENNA ARMY AMMUNITION PLANT
PORTAGE AND TRUMBULL COUNTIES, OHIO

0 30 60 Feet

N

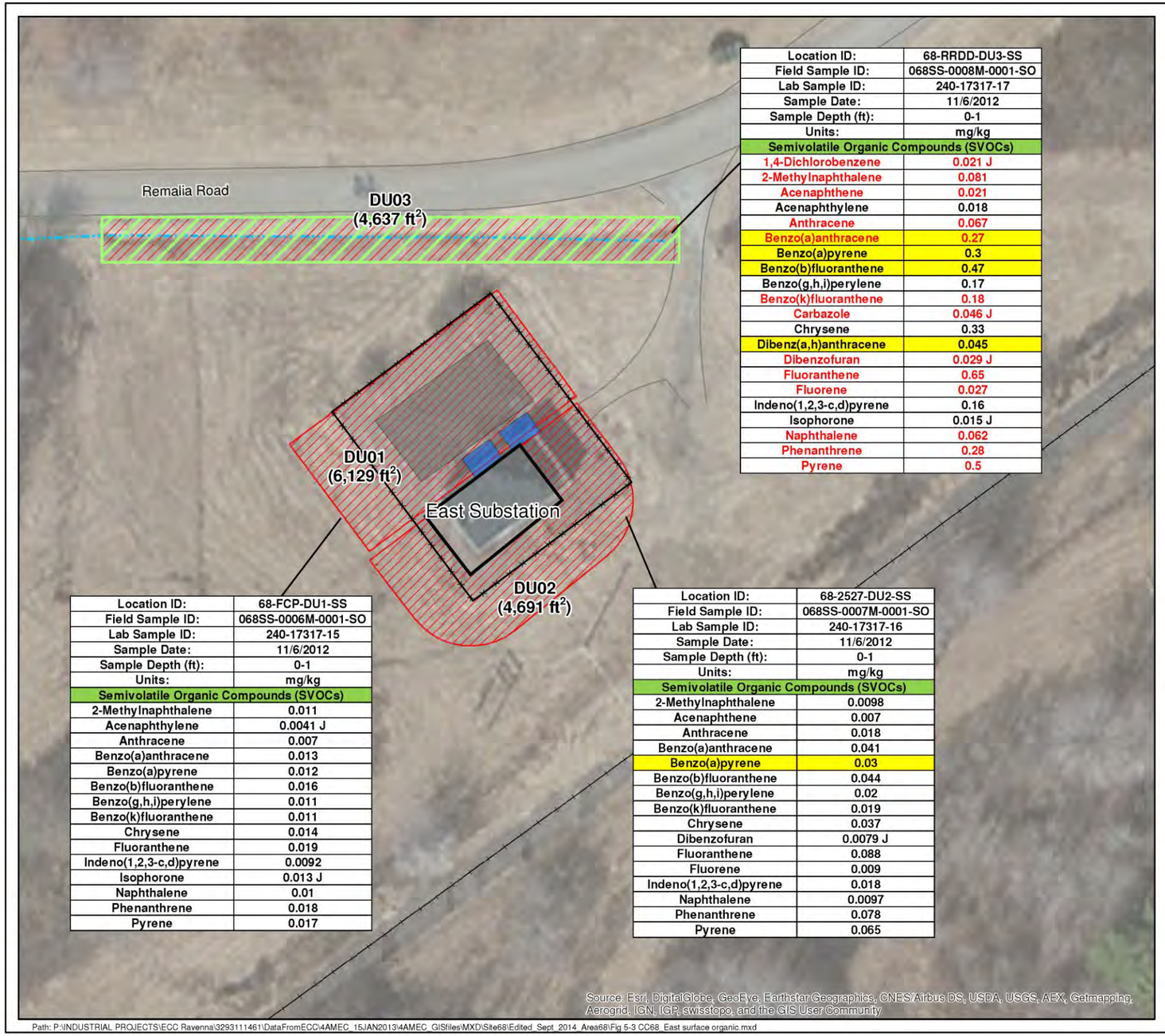
AMEC
Novi, Michigan

ECC
Marlborough, Massachusetts

PROJ: 3293111461
Date: May 2014

FIGURE
5-2

This page intentionally left blank



Location ID:	68-RRDD-DU3-SS
Field Sample ID:	068SS-0008M-0001-SO
Lab Sample ID:	240-17317-17
Sample Date:	11/6/2012
Sample Depth (ft):	0-1
Units:	mg/kg
Semivolatile Organic Compounds (SVOCs)	
1,4-Dichlorobenzene	0.021 J
2-Methylnaphthalene	0.081
Acenaphthene	0.021
Acenaphthylene	0.018
Anthracene	0.067
Benzo(a)anthracene	0.27
Benzo(a)pyrene	0.3
Benzo(b)fluoranthene	0.47
Benzo(g,h,i)perylene	0.17
Benzo(k)fluoranthene	0.18
Carbazole	0.046 J
Chrysene	0.33
Dibenz(a,h)anthracene	0.045
Dibenzofuran	0.029 J
Fluoranthene	0.65
Fluorene	0.027
Indeno(1,2,3-c,d)pyrene	0.16
Isophorone	0.015 J
Naphthalene	0.062
Phenanthrene	0.28
Pyrene	0.5

Location ID:	68-FCP-DU1-SS
Field Sample ID:	068SS-0006M-0001-SO
Lab Sample ID:	240-17317-15
Sample Date:	11/6/2012
Sample Depth (ft):	0-1
Units:	mg/kg
Semivolatile Organic Compounds (SVOCs)	
2-Methylnaphthalene	0.011
Acenaphthylene	0.0041 J
Anthracene	0.007
Benzo(a)anthracene	0.013
Benzo(a)pyrene	0.012
Benzo(b)fluoranthene	0.016
Benzo(g,h,i)perylene	0.011
Benzo(k)fluoranthene	0.011
Chrysene	0.014
Fluoranthene	0.019
Indeno(1,2,3-c,d)pyrene	0.0092
Isophorone	0.013 J
Naphthalene	0.01
Phenanthrene	0.018
Pyrene	0.017

Location ID:	68-2527-DU2-SS
Field Sample ID:	068SS-0007M-0001-SO
Lab Sample ID:	240-17317-16
Sample Date:	11/6/2012
Sample Depth (ft):	0-1
Units:	mg/kg
Semivolatile Organic Compounds (SVOCs)	
2-Methylnaphthalene	0.0098
Acenaphthene	0.007
Anthracene	0.018
Benzo(a)anthracene	0.041
Benzo(a)pyrene	0.03
Benzo(b)fluoranthene	0.044
Benzo(g,h,i)perylene	0.02
Benzo(k)fluoranthene	0.019
Chrysene	0.037
Dibenzofuran	0.0079 J
Fluoranthene	0.088
Fluorene	0.009
Indeno(1,2,3-c,d)pyrene	0.018
Naphthalene	0.0097
Phenanthrene	0.078
Pyrene	0.065

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Path: P:\INDUSTRIAL_PROJECTS\ECC Ravenna\3293111461\DataFromECC\4AMEC_15JAN2013\4AMEC_GISfiles\MXD\Site68\Edited_Sept_2014_Area68\Fig 5-3 CC68_East surface organic.mxd

LEGEND

- Existing Structure
- Former Fence
- Former Concrete Pad
- Former Transformer Pad
- Sediment (Dry)
- Decision Unit
- Ditch
- Railroad
- Road
- Analyte — SRC and Maximum Concentration Detected
- Analyte — SRC
- Analyte — SRC Concentration Exceeds Most Stringent FWCUG (HQ=0.1/Target Cancer Risk =10^{-6})

NOTES & SOURCES

1. Map Coordinates: NAD 83, UTM Zone 17N, 2009 Orthoimagery from USGS.
2. ft^2 = square feet
3. SRC = Site-Related Chemical
4. mg/kg = milligrams per kilogram
5. J = estimated
6. If the status of the structure is unknown, the structure is displayed as an existing structure.
7. ft = feet
8. FWCUG = Facility-Wide Cleanup Goal
9. HQ = Hazard Quotient
10. Concentrations shown are for SRCs at each sample location

TITLE

Organic SRCs in Surface Soil at East Substation

CC RVAAP-68
Electric Substations
(East, West, No. 3)
FORMER RAVENNA ARMY AMMUNITION PLANT
PORTAGE AND TRUMBULL COUNTIES, OHIO

0 30 60 Feet

N

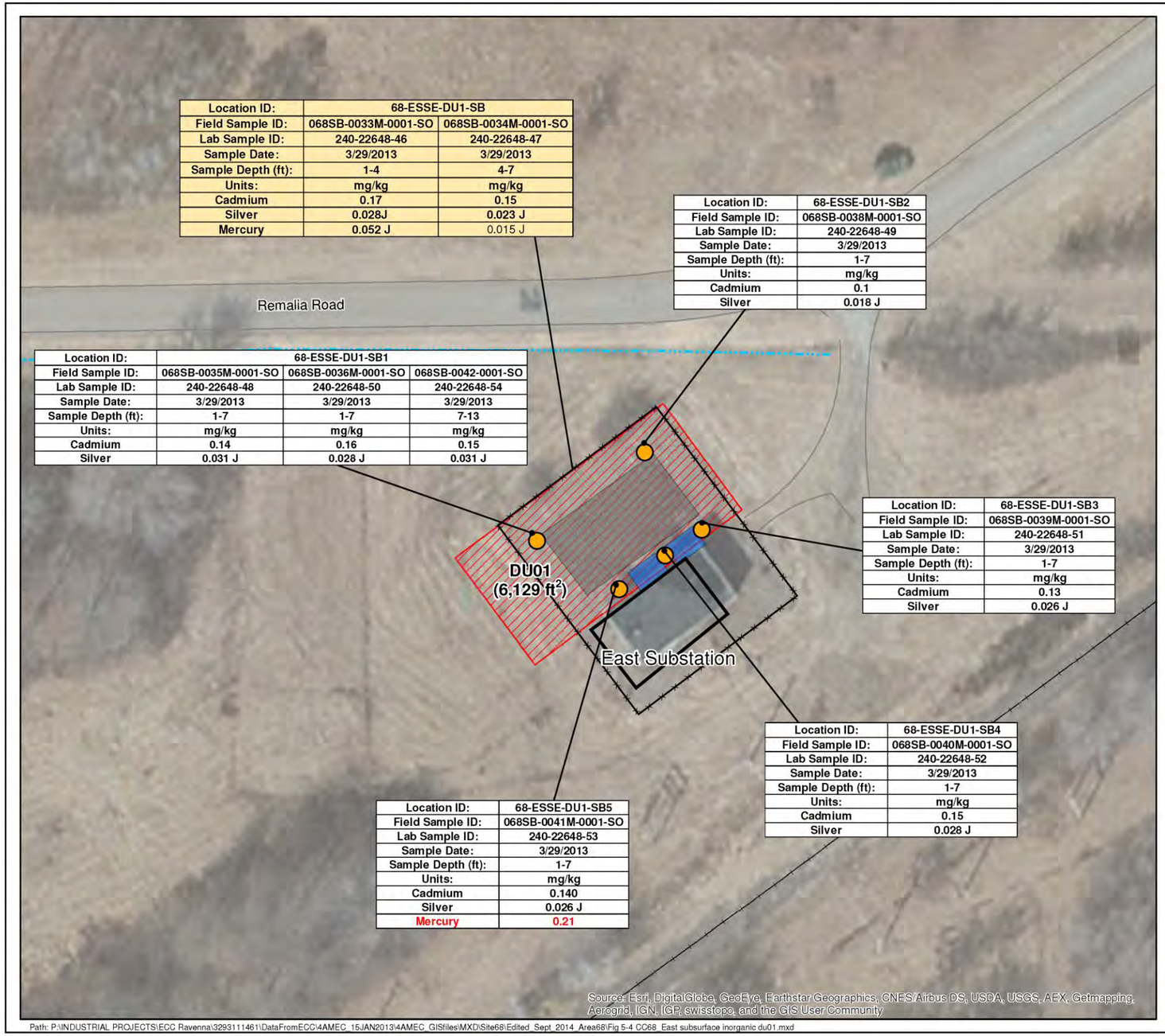
AMEC
Novi, Michigan

ECC
Marlborough, Massachusetts

PROJ: 3293111461
Date: May 2014

FIGURE
5-3

This page intentionally left blank



Location ID:	68-ESSE-DU1-SB	
Field Sample ID:	068SB-0033M-0001-SO	068SB-0034M-0001-SO
Lab Sample ID:	240-22648-46	240-22648-47
Sample Date:	3/29/2013	3/29/2013
Sample Depth (ft):	1-4	4-7
Units:	mg/kg	mg/kg
Cadmium	0.17	0.15
Silver	0.028J	0.023 J
Mercury	0.052 J	0.015 J

Location ID:	68-ESSE-DU1-SB2
Field Sample ID:	068SB-0038M-0001-SO
Lab Sample ID:	240-22648-49
Sample Date:	3/29/2013
Sample Depth (ft):	1-7
Units:	mg/kg
Cadmium	0.1
Silver	0.018 J

Location ID:	68-ESSE-DU1-SB1		
Field Sample ID:	068SB-0035M-0001-SO	068SB-0036M-0001-SO	068SB-0042-0001-SO
Lab Sample ID:	240-22648-48	240-22648-50	240-22648-54
Sample Date:	3/29/2013	3/29/2013	3/29/2013
Sample Depth (ft):	1-7	1-7	7-13
Units:	mg/kg	mg/kg	mg/kg
Cadmium	0.14	0.16	0.15
Silver	0.031 J	0.028 J	0.031 J

Location ID:	68-ESSE-DU1-SB3
Field Sample ID:	068SB-0039M-0001-SO
Lab Sample ID:	240-22648-51
Sample Date:	3/29/2013
Sample Depth (ft):	1-7
Units:	mg/kg
Cadmium	0.13
Silver	0.026 J

Location ID:	68-ESSE-DU1-SB4
Field Sample ID:	068SB-0040M-0001-SO
Lab Sample ID:	240-22648-52
Sample Date:	3/29/2013
Sample Depth (ft):	1-7
Units:	mg/kg
Cadmium	0.15
Silver	0.028 J

Location ID:	68-ESSE-DU1-SB5
Field Sample ID:	068SB-0041M-0001-SO
Lab Sample ID:	240-22648-53
Sample Date:	3/29/2013
Sample Depth (ft):	1-7
Units:	mg/kg
Cadmium	0.140
Silver	0.026 J
Mercury	0.21

LEGEND

- Direct-Push Boring Location
- Decision Unit
- Existing Structure
- Ditch
- Former Fence
- Railroad
- Former Concrete Pad
- Road
- Former Transformer Pad
- Analyte — SRC and Maximum Concentration Detected
- Analyte — SRC
- ISM Horizontal Sample for Decision Unit
- 0.21 — Analyte Is Not an SRC at This Depth

NOTES & SOURCES

1. Map Coordinates: NAD 83, UTM Zone 17N, 2009 Orthoimagery from USGS.
2. ft^2 = square feet
3. SRC = Site-Related Chemical
4. mg/kg= milligrams per kilogram
5. J= estimated
6. If the status of the structure is unknown, the structure is displayed as an existing structure.
7. ft= feet

TITLE

Inorganic SRCs in Subsurface Soil at East Substation - DU01

CC RVAAP-68
Electric Substations
(East, West, No. 3)
FORMER RAVENNA ARMY AMMUNITION PLANT
PORTAGE AND TRUMBULL COUNTIES, OHIO

0 30 60 Feet

N

AMEC
Novi, Michigan

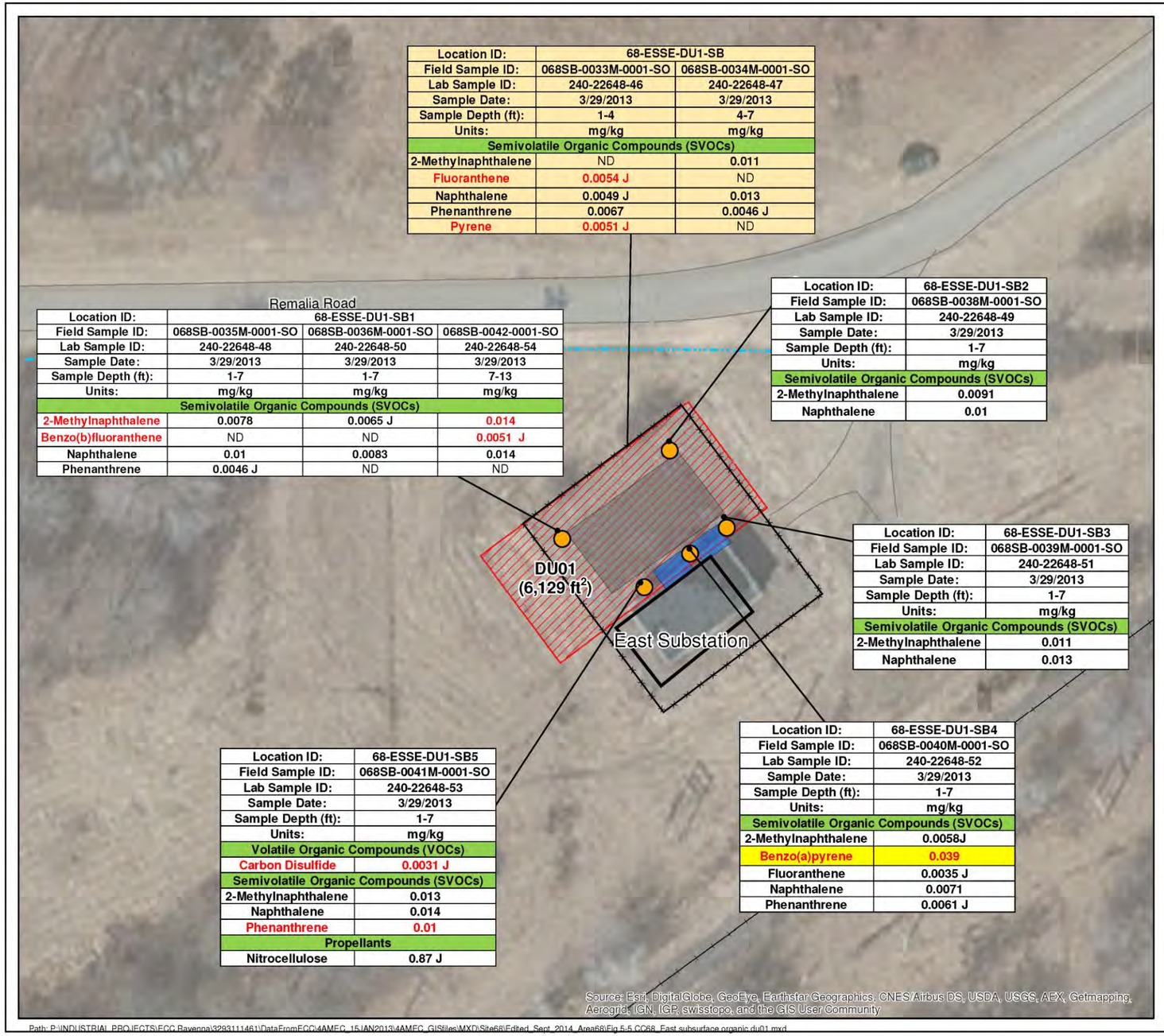
ECC
Marlborough, Massachusetts

PROJ: 3293111461
Date: May 2014

FIGURE
5-4

Path: P:\INDUSTRIAL PROJECTS\ECC Ravenna\3293111461\DataFromECC\4AMEC_15JAN2013\4AMEC_GISfiles\MXD\Site68\Edited_Sept_2014_Area68\Fig 5-4 CC68_East subsurface inorganic du01.mxd

This page intentionally left blank



Location ID:	68-ESSE-DU1-SB	
Field Sample ID:	068SB-0033M-0001-SO	068SB-0034M-0001-SO
Lab Sample ID:	240-22648-46	240-22648-47
Sample Date:	3/29/2013	3/29/2013
Sample Depth (ft):	1-4	4-7
Units:	mg/kg	mg/kg
Semivolatile Organic Compounds (SVOCs)		
2-Methylnaphthalene	ND	0.011
Fluoranthene	0.0054 J	ND
Naphthalene	0.0049 J	0.013
Phenanthrene	0.0067	0.0046 J
Pyrene	0.0051 J	ND

Location ID:	68-ESSE-DU1-SB1		
Field Sample ID:	068SB-0035M-0001-SO	068SB-0036M-0001-SO	068SB-0042-0001-SO
Lab Sample ID:	240-22648-48	240-22648-50	240-22648-54
Sample Date:	3/29/2013	3/29/2013	3/29/2013
Sample Depth (ft):	1-7	1-7	7-13
Units:	mg/kg	mg/kg	mg/kg
Semivolatile Organic Compounds (SVOCs)			
2-Methylnaphthalene	0.0078	0.0065 J	0.014
Benzo(b)fluoranthene	ND	ND	0.0051 J
Naphthalene	0.01	0.0083	0.014
Phenanthrene	0.0046 J	ND	ND

Location ID:	68-ESSE-DU1-SB2
Field Sample ID:	068SB-0038M-0001-SO
Lab Sample ID:	240-22648-49
Sample Date:	3/29/2013
Sample Depth (ft):	1-7
Units:	mg/kg
Semivolatile Organic Compounds (SVOCs)	
2-Methylnaphthalene	0.0091
Naphthalene	0.01

Location ID:	68-ESSE-DU1-SB3
Field Sample ID:	068SB-0039M-0001-SO
Lab Sample ID:	240-22648-51
Sample Date:	3/29/2013
Sample Depth (ft):	1-7
Units:	mg/kg
Semivolatile Organic Compounds (SVOCs)	
2-Methylnaphthalene	0.011
Naphthalene	0.013

Location ID:	68-ESSE-DU1-SB4
Field Sample ID:	068SB-0040M-0001-SO
Lab Sample ID:	240-22648-52
Sample Date:	3/29/2013
Sample Depth (ft):	1-7
Units:	mg/kg
Semivolatile Organic Compounds (SVOCs)	
2-Methylnaphthalene	0.0058J
Benzo(a)pyrene	0.039
Fluoranthene	0.0035 J
Naphthalene	0.0071
Phenanthrene	0.0061 J

Location ID:	68-ESSE-DU1-SB5
Field Sample ID:	068SB-0041M-0001-SO
Lab Sample ID:	240-22648-53
Sample Date:	3/29/2013
Sample Depth (ft):	1-7
Units:	mg/kg
Volatile Organic Compounds (VOCs)	
Carbon Disulfide	0.0031 J
Semivolatile Organic Compounds (SVOCs)	
2-Methylnaphthalene	0.013
Naphthalene	0.014
Phenanthrene	0.01
Propellants	
Nitrocellulose	0.87 J

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Path: P:\INDUSTRIAL PROJECTS\ECC Ravenna\3293111461\DataFromECC\4AMEC_15JAN2013\4AMEC_GISfiles\MXD\Site66\Edited_Sept_2014_Area66\Fig 5-5 CC68_East subsurface organic du01.mxd

LEGEND

- Direct-Push Boring Location
- Decision Unit
- Existing Structure
- Ditch
- Former Fence
- Railroad
- Former Concrete Pad
- Road
- Former Transformer Pad
- ISM Horizontal Sample for Decision Unit
- Analyte — SRC and Maximum Concentration Detected
- ND — Analyte Is Not Detected and Not an SRC at This Depth
- Analyte — SRC
- Analyte — SRC Concentration Exceeds Most Stringent FWCUG (HQ=0.1/Target Cancer Risk =10^{-6})

NOTES & SOURCES

1. Map Coordinates: NAD 83, UTM Zone 17N, 2009 Orthoimagery from USGS.
2. ft^2 = square feet
3. SRC = Site-Related Chemical
4. mg/kg = milligrams per kilogram
5. J = estimated
6. If the status of the structure is unknown, the structure is displayed as an existing structure.
7. ft = feet
8. ND = Not Detected
9. FWCUG = Facility-Wide Cleanup Goal
10. HQ = Hazard Quotient
11. Concentrations shown are for SRCs at each sample location

TITLE

Organic SRCs in Subsurface Soil at East Substation - DU01

CC RVAAP-68
Electric Substations
(East, West, No. 3)
FORMER RAVENNA ARMY AMMUNITION PLANT
PORTAGE AND TRUMBULL COUNTIES, OHIO

0 30 60 Feet

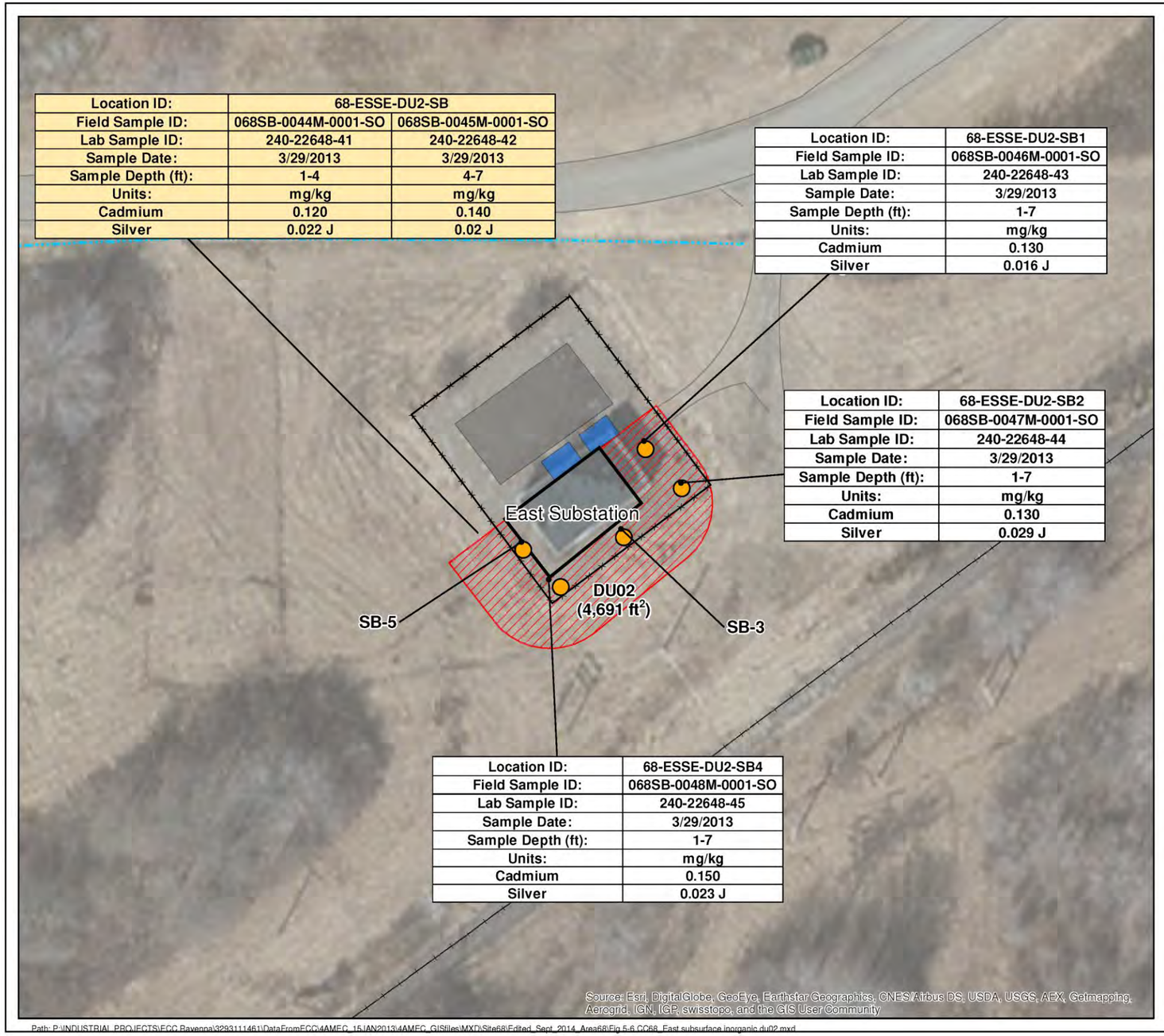
AMEC
Novi, Michigan

ECC
Marlborough, Massachusetts

PROJ: 3293111461
Date: May 2014

FIGURE
5-5

This page intentionally left blank



Location ID:	68-ESSE-DU2-SB	
Field Sample ID:	068SB-0044M-0001-SO	068SB-0045M-0001-SO
Lab Sample ID:	240-22648-41	240-22648-42
Sample Date:	3/29/2013	3/29/2013
Sample Depth (ft):	1-4	4-7
Units:	mg/kg	mg/kg
Cadmium	0.120	0.140
Silver	0.022 J	0.02 J

Location ID:	68-ESSE-DU2-SB1
Field Sample ID:	068SB-0046M-0001-SO
Lab Sample ID:	240-22648-43
Sample Date:	3/29/2013
Sample Depth (ft):	1-7
Units:	mg/kg
Cadmium	0.130
Silver	0.016 J

Location ID:	68-ESSE-DU2-SB2
Field Sample ID:	068SB-0047M-0001-SO
Lab Sample ID:	240-22648-44
Sample Date:	3/29/2013
Sample Depth (ft):	1-7
Units:	mg/kg
Cadmium	0.130
Silver	0.029 J

Location ID:	68-ESSE-DU2-SB4
Field Sample ID:	068SB-0048M-0001-SO
Lab Sample ID:	240-22648-45
Sample Date:	3/29/2013
Sample Depth (ft):	1-7
Units:	mg/kg
Cadmium	0.150
Silver	0.023 J

LEGEND

- Direct-Push Boring Location
- Ditch
- Existing Structure
- Railroad
- Former Fence
- Road
- Former Concrete Pad
- Former Transformer Pad
- Analyte SRC
- ISM Horizontal Sample for Decision Unit

NOTES & SOURCES

1. Map Coordinates: NAD 83, UTM Zone 17N, 2009 Orthoimagery from USGS.
2. ft^2 = square feet
3. SRC = Site-Related Chemical
4. mg/kg= milligrams per kilogram
5. J= estimated
6. If the status of the structure is unknown, the structure is displayed as an existing structure.
7. ft= feet

TITLE

Inorganic SRCs in Subsurface Soil at East Substation - DU02

CC RVAAP-68
Electric Substations
(East, West, No. 3)
FORMER RAVENNA ARMY AMMUNITION PLANT
PORTAGE AND TRUMBULL COUNTIES, OHIO

0 30 60 Feet

N

AMEC
Novi, Michigan

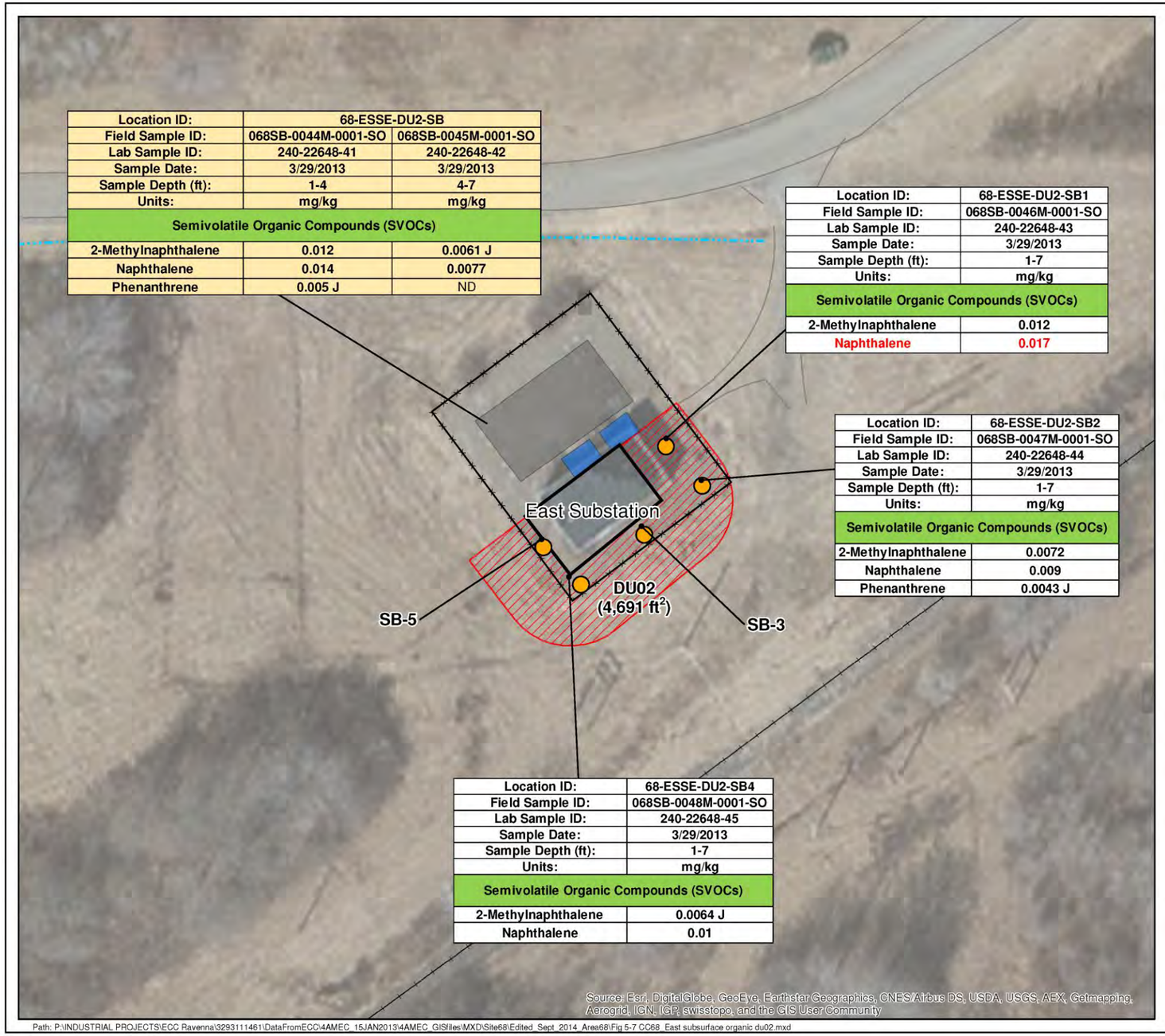
ECC
Marlborough, Massachusetts

PROJ: 3293111461
Date: May 2014

FIGURE
5-6

Path: P:\INDUSTRIAL_PROJECTS\ECC Ravenna\3293111461\DataFromECC\4AMEC_15JAN2013\4AMEC_GISfiles\MXD\Site68\Edited_Sept_2014_Area68\Fig 5-6 CC68_East subsurface inorganic du02.mxd

This page intentionally left blank



Location ID:	68-ESSE-DU2-SB	
Field Sample ID:	068SB-0044M-0001-SO	068SB-0045M-0001-SO
Lab Sample ID:	240-22648-41	240-22648-42
Sample Date:	3/29/2013	3/29/2013
Sample Depth (ft):	1-4	4-7
Units:	mg/kg	mg/kg
Semivolatile Organic Compounds (SVOCs)		
2-Methylnaphthalene	0.012	0.0061 J
Naphthalene	0.014	0.0077
Phenanthrene	0.005 J	ND

Location ID:	68-ESSE-DU2-SB1
Field Sample ID:	068SB-0046M-0001-SO
Lab Sample ID:	240-22648-43
Sample Date:	3/29/2013
Sample Depth (ft):	1-7
Units:	mg/kg
Semivolatile Organic Compounds (SVOCs)	
2-Methylnaphthalene	0.012
Naphthalene	0.017

Location ID:	68-ESSE-DU2-SB2
Field Sample ID:	068SB-0047M-0001-SO
Lab Sample ID:	240-22648-44
Sample Date:	3/29/2013
Sample Depth (ft):	1-7
Units:	mg/kg
Semivolatile Organic Compounds (SVOCs)	
2-Methylnaphthalene	0.0072
Naphthalene	0.009
Phenanthrene	0.0043 J

Location ID:	68-ESSE-DU2-SB4
Field Sample ID:	068SB-0048M-0001-SO
Lab Sample ID:	240-22648-45
Sample Date:	3/29/2013
Sample Depth (ft):	1-7
Units:	mg/kg
Semivolatile Organic Compounds (SVOCs)	
2-Methylnaphthalene	0.0064 J
Naphthalene	0.01

LEGEND

- Direct-Push Boring Location
- Ditch
- Existing Structure
- Railroad
- Former Fence
- Road
- Former Concrete Pad
- Former Transformer Pad
- Analyte — SRC and Maximum Concentration Detected
- Analyte — SRC
- ISM Horizontal Sample for Decision Unit
- ND — Analyte Is Not Detected and Not an SRC at This Depth

NOTES & SOURCES

1. Map Coordinates: NAD 83, UTM Zone 17N, 2009 Orthoimagery from USGS.
2. ft^2 = square feet
3. SRC = Site-Related Chemical
4. mg/kg= milligrams per kilogram
5. J= estimated
6. If the status of the structure is unknown, the structure is displayed as an existing structure.
7. ft= feet
8. ND= Not Detected

TITLE

Organic SRCs in Subsurface Soil at East Substation - DU02

CC RVAAP-68
Electric Substations
(East, West, No. 3)
FORMER RAVENNA ARMY AMMUNITION PLANT
PORTAGE AND TRUMBULL COUNTIES, OHIO

0 30 60 Feet

N

AMEC
Novi, Michigan

ECC
Marlborough, Massachusetts

PROJ: 3293111461
Date: May 2014

FIGURE
5-7

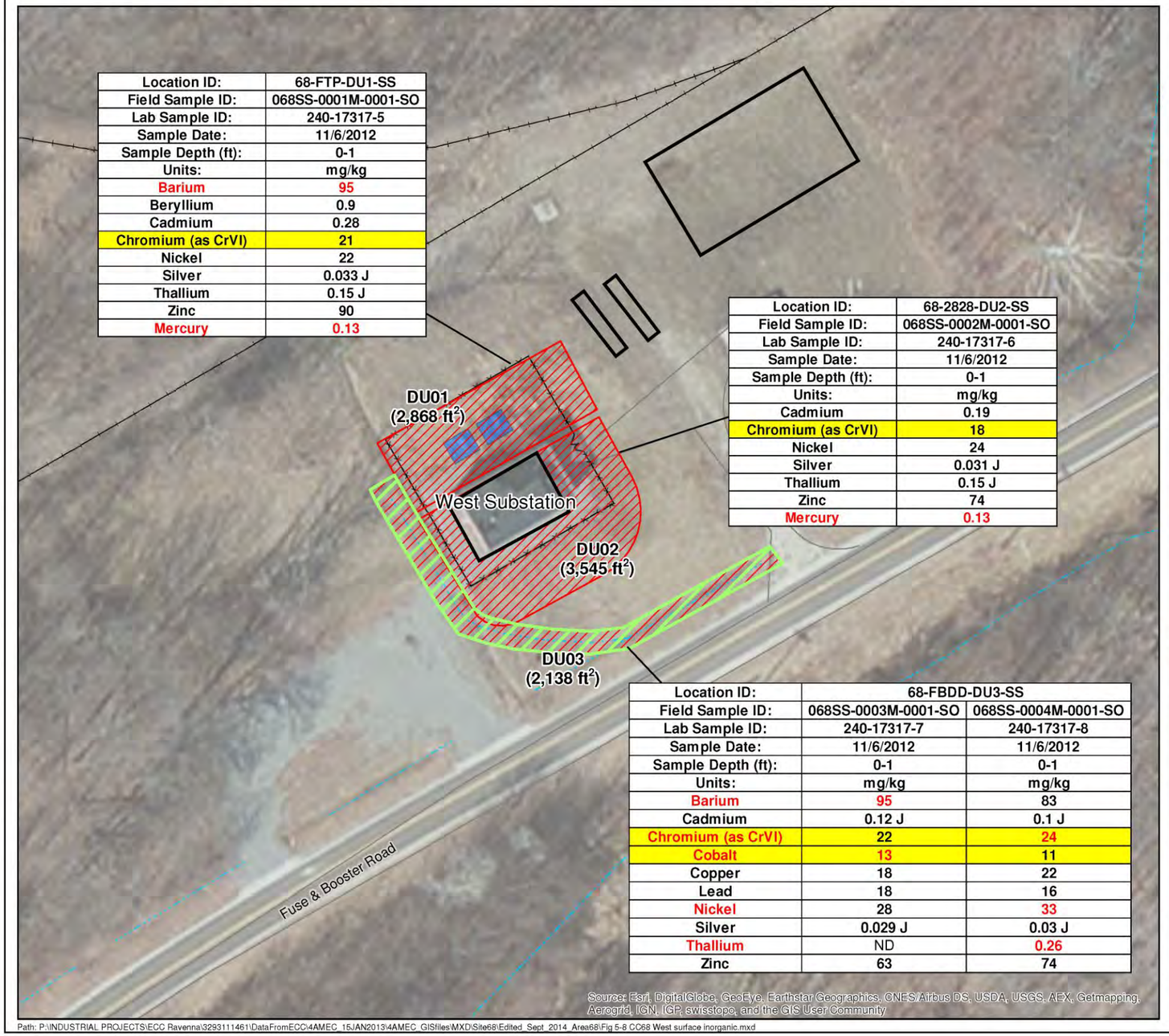
Path: P:\INDUSTRIAL PROJECTS\ECC Ravenna\3293111461\DataFromECC\4AMEC_15JAN2013\4AMEC_GISfiles\MXD\Site68\Edited_Sept_2014_Area68\Fig 5-7 CC68_East subsurface organic du02.mxd

This page intentionally left blank

Location ID:	68-FTP-DU1-SS
Field Sample ID:	068SS-0001M-0001-SO
Lab Sample ID:	240-17317-5
Sample Date:	11/6/2012
Sample Depth (ft):	0-1
Units:	mg/kg
Barium	95
Beryllium	0.9
Cadmium	0.28
Chromium (as CrVI)	21
Nickel	22
Silver	0.033 J
Thallium	0.15 J
Zinc	90
Mercury	0.13

Location ID:	68-2828-DU2-SS
Field Sample ID:	068SS-0002M-0001-SO
Lab Sample ID:	240-17317-6
Sample Date:	11/6/2012
Sample Depth (ft):	0-1
Units:	mg/kg
Cadmium	0.19
Chromium (as CrVI)	18
Nickel	24
Silver	0.031 J
Thallium	0.15 J
Zinc	74
Mercury	0.13

Location ID:	68-FBDD-DU3-SS	
Field Sample ID:	068SS-0003M-0001-SO	068SS-0004M-0001-SO
Lab Sample ID:	240-17317-7	240-17317-8
Sample Date:	11/6/2012	11/6/2012
Sample Depth (ft):	0-1	0-1
Units:	mg/kg	mg/kg
Barium	95	83
Cadmium	0.12 J	0.1 J
Chromium (as CrVI)	22	24
Cobalt	13	11
Copper	18	22
Lead	18	16
Nickel	28	33
Silver	0.029 J	0.03 J
Thallium	ND	0.26
Zinc	63	74



LEGEND

- Existing Structure
- Former Transformer Pad
- Former Structure
- Ditch
- Sediment (Dry)
- Railroad
- Decision Unit
- Road
- Analyte — SRC and Maximum Concentration Detected
- Analyte — SRC
- Analyte — SRC Concentration Exceeds BSV
- ND — Analyte Is Not Detected and Not an SRC at This Depth

NOTES & SOURCES

1. Map Coordinates: NAD 83, UTM Zone 17N, 2009 Orthoimagery from USGS.
2. ft^2 = square feet
3. SRC = Site-Related Chemical
4. mg/kg = milligrams per kilogram
5. J = estimated.
6. If the status of the structure is unknown, the structure is displayed as an existing structure.
7. ft = feet
8. ND = Not Detected
9. BSV = Background Screening Value
10. Concentrations shown are for SRCs at each sample location.

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Path: P:\INDUSTRIAL PROJECTS\ECC Ravenna\3293111461\DataFromECC\4AMEC_15JAN2013\4AMEC_GISfiles\MXD\Site68\Edited_Sept_2014_Area68\Fig 5-8 CC68 West surface inorganic.mxd

TITLE

Inorganic SRCs in Surface Soil at West Substation

CC RVAAP-68
Electric Substations
(East, West, No. 3)

FORMER RAVENNA ARMY AMMUNITION PLANT
PORTAGE AND TRUMBULL COUNTIES, OHIO

0 30 60 Feet

AMEC
Novi, Michigan

ECC
Marlborough, Massachusetts

PROJ: 3293111461
Date: May 2014

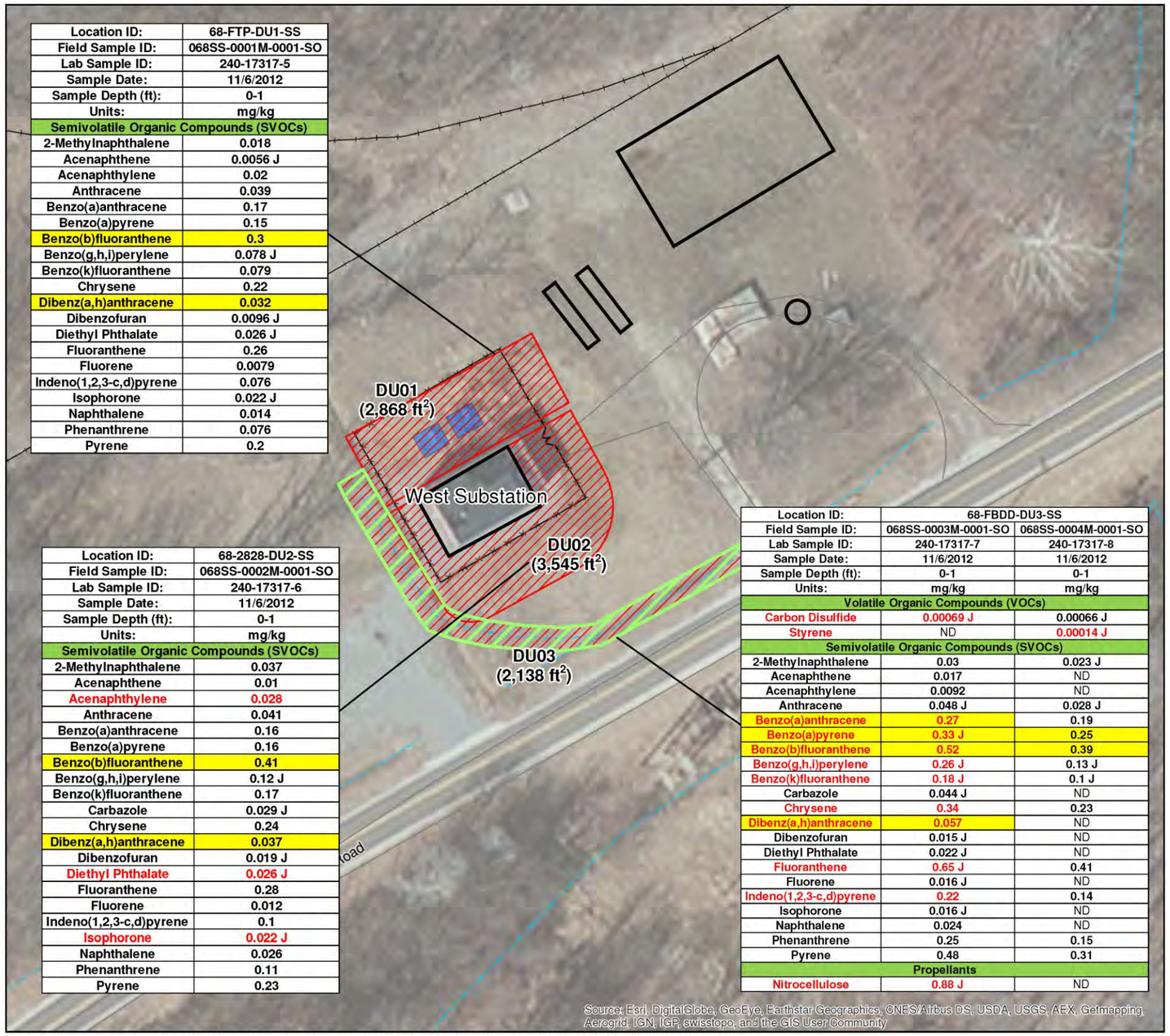
FIGURE
5-8

This page intentionally left blank

Location ID:	68-FTP-DU1-SS
Field Sample ID:	068SS-0001M-0001-SO
Lab Sample ID:	240-17317-5
Sample Date:	11/6/2012
Sample Depth (ft):	0-1
Units:	mg/kg
Semivolatile Organic Compounds (SVOCs)	
2-Methylnaphthalene	0.018
Acenaphthene	0.0056 J
Acenaphthylene	0.02
Anthracene	0.039
Benzo(a)anthracene	0.17
Benzo(a)pyrene	0.15
Benzo(b)fluoranthene	0.3
Benzo(g,h,i)perylene	0.078 J
Benzo(k)fluoranthene	0.079
Chrysene	0.22
Dibenz(a,h)anthracene	0.032
Dibenzofuran	0.0096 J
Diethyl Phthalate	0.026 J
Fluoranthene	0.26
Fluorene	0.0079
Indeno(1,2,3-c,d)pyrene	0.076
Isophorone	0.022 J
Naphthalene	0.014
Phenanthrene	0.076
Pyrene	0.2

Location ID:	68-2828-DU2-SS
Field Sample ID:	068SS-0002M-0001-SO
Lab Sample ID:	240-17317-6
Sample Date:	11/6/2012
Sample Depth (ft):	0-1
Units:	mg/kg
Semivolatile Organic Compounds (SVOCs)	
2-Methylnaphthalene	0.037
Acenaphthene	0.01
Acenaphthylene	0.028
Anthracene	0.041
Benzo(a)anthracene	0.16
Benzo(a)pyrene	0.16
Benzo(b)fluoranthene	0.41
Benzo(g,h,i)perylene	0.12 J
Benzo(k)fluoranthene	0.17
Carbazole	0.029 J
Chrysene	0.24
Dibenz(a,h)anthracene	0.037
Dibenzofuran	0.019 J
Diethyl Phthalate	0.026 J
Fluoranthene	0.28
Fluorene	0.012
Indeno(1,2,3-c,d)pyrene	0.1
Isophorone	0.022 J
Naphthalene	0.026
Phenanthrene	0.11
Pyrene	0.23

Location ID:	68-FBDD-DU3-SS	
Field Sample ID:	068SS-0003M-0001-SO	068SS-0004M-0001-SO
Lab Sample ID:	240-17317-7	240-17317-8
Sample Date:	11/6/2012	11/6/2012
Sample Depth (ft):	0-1	0-1
Units:	mg/kg	mg/kg
Volatile Organic Compounds (VOCs)		
Carbon Disulfide	0.00069 J	0.00066 J
Styrene	ND	0.00014 J
Semivolatile Organic Compounds (SVOCs)		
2-Methylnaphthalene	0.03	0.023 J
Acenaphthene	0.017	ND
Acenaphthylene	0.0092	ND
Anthracene	0.048 J	0.028 J
Benzo(a)anthracene	0.27	0.19
Benzo(a)pyrene	0.33 J	0.25
Benzo(b)fluoranthene	0.52	0.39
Benzo(g,h,i)perylene	0.26 J	0.13 J
Benzo(k)fluoranthene	0.18 J	0.1 J
Carbazole	0.044 J	ND
Chrysene	0.34	0.23
Dibenz(a,h)anthracene	0.057	ND
Dibenzofuran	0.015 J	ND
Diethyl Phthalate	0.022 J	ND
Fluoranthene	0.65 J	0.41
Fluorene	0.016 J	ND
Indeno(1,2,3-c,d)pyrene	0.22	0.14
Isophorone	0.016 J	ND
Naphthalene	0.024	ND
Phenanthrene	0.25	0.15
Pyrene	0.48	0.31
Propellants		
Nitrocellulose	0.88 J	ND



LEGEND

- Existing Structure
- Former Transformer Pad
- Former Structure
- Ditch
- Sediment (Dry)
- Railroad
- Decision Unit
- Road
- Analyte — SRC and Maximum Concentration Detected
- Analyte — SRC
- Analyte — SRC Concentration Exceeds Most Stringent FWCUG (HQ=0.1/Target Cancer Risk =10^{-6})
- ND — Analyte Is Not Detected and Not an SRC at This Depth

NOTES & SOURCES

1. Map Coordinates: NAD 83, UTM Zone 17N, 2009 Orthoimagery from USGS.
2. ft^2 = square feet
3. SRC = Site-Related Chemical
4. mg/kg = milligrams per kilogram
5. J = estimated
6. If the status of the structure is unknown, the structure is displayed as an existing structure.
7. ft = feet
8. ND = Not Detected
9. FWCUG = Facility-Wide Cleanup Goal
10. HQ = Hazard Quotient
11. Concentrations shown are for SRCs at each sample location.

TITLE

Organic SRCs in Surface Soil at West Substation

CC RVAAP-68 Electric Substations (East, West, No. 3)

FORMER RAVENNA ARMY AMMUNITION PLANT
PORTAGE AND TRUMBULL COUNTIES, OHIO

0 30 60 Feet

AMEC
Novi, Michigan

ECC
Marlborough, Massachusetts

PROJ: 3293111461
Date: May 2014

FIGURE
5-9

Path: P:\INDUSTRIAL PROJECTS\ECC Ravenna\3293111461\DataFromECC\4AMEC_15JAN2013\4AMEC_GISfiles\MXD\Site68\Edited_Sept_2014_Area68\Fig 5-9 CC68 West surface organic.mxd

This page intentionally left blank

Location ID:	68-ESSW-DU1-SB1		
Field Sample ID:	068SB-0019M-0001-SO	068SB-0022M-0001-SO	068SB-0032-0001-SO
Lab Sample ID:	240-22663-33	240-22663-34	240-22663-39
Sample Date:	3/29/2013	3/29/2013	3/29/2013
Sample Depth (ft):	1-7	1-7	7-13
Units:	mg/kg	mg/kg	mg/kg
Cadmium	0.23	0.19	0.14
Silver	0.04 J	0.037 J	0.029 J

Location ID:	68-ESSW-DU1-SB5
Field Sample ID:	068SB-0025M-0001-SO
Lab Sample ID:	240-22663-38
Sample Date:	3/29/2013
Sample Depth (ft):	1-7
Units:	mg/kg
Cadmium	0.28
Silver	0.041 J
Mercury	0.05 J

Location ID:	68-ESSW-DU1-SB2
Field Sample ID:	068SB-0020M-0001-SO
Lab Sample ID:	240-22663-35
Sample Date:	3/29/2013
Sample Depth (ft):	41646.00
Units:	mg/kg
Cadmium	0.19
Silver	0.034 J

DU01
(2,868 ft²)

West Substation

Fuse & Booster Road

Location ID:	68-ESSW-DU1-SB3
Field Sample ID:	068SB-0023M-0001-SO
Lab Sample ID:	240-22663-36
Sample Date:	3/29/2013
Sample Depth (ft):	1-4
Units:	mg/kg
Cadmium	0.27
Silver	0.036 J

Location ID:	68-ESSW-DU1-SB4
Field Sample ID:	068SB-0024M-0001-SO
Lab Sample ID:	240-22663-37
Sample Date:	3/29/2013
Sample Depth (ft):	1-7
Units:	mg/kg
Cadmium	0.21
Silver	0.04 J

Location ID:	68-ESSW-DU1-SB	
Field Sample ID:	068SB-0017M-0001-SO	068SB-0018M-0001-SO
Lab Sample ID:	240-22663-31	240-22663-32
Sample Date:	3/29/2013	3/29/2013
Sample Depth (ft):	1-4	4-7
Units:	mg/kg	mg/kg
Cadmium	0.26	0.17
Silver	0.036 J	0.034 J

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Path: P:\INDUSTRIAL PROJECTS\ECC Ravenna\3293111461\DataFromECC\4AMEC_15JAN2013\4AMEC_GISfiles\MXD\Site68\Edited_Sept_2014_Area68\Fig 5-10 CC68 West subsurface inorganic du01.mxd

LEGEND

- Direct-Push Boring Location
- Former Transformer Pad
- Existing Structure
- Ditch
- Former Structure
- Railroad
- Decision Unit
- Road
- Analyte — SRC and Maximum Concentration Detected
- Analyte — SRC
- ISM Horizontal Sample for Decision Unit

NOTES & SOURCES

1. Map Coordinates: NAD 83, UTM Zone 17N, 2009 Orthoimagery from USGS.
2. ft^2 = square feet
3. SRC = Site-Related Chemical
4. mg/kg= milligrams per kilogram
5. J= estimated
6. If the status of the structure is unknown, the structure is displayed as an existing structure.
7. ft= feet

TITLE

Inorganic SRCs in Subsurface Soil at West Substation - DU01

CC RVAAP-68
Electric Substations
(East, West, No. 3)

FORMER RAVENNA ARMY AMMUNITION PLANT
PORTAGE AND TRUMBULL COUNTIES, OHIO

0 30 60 Feet

N

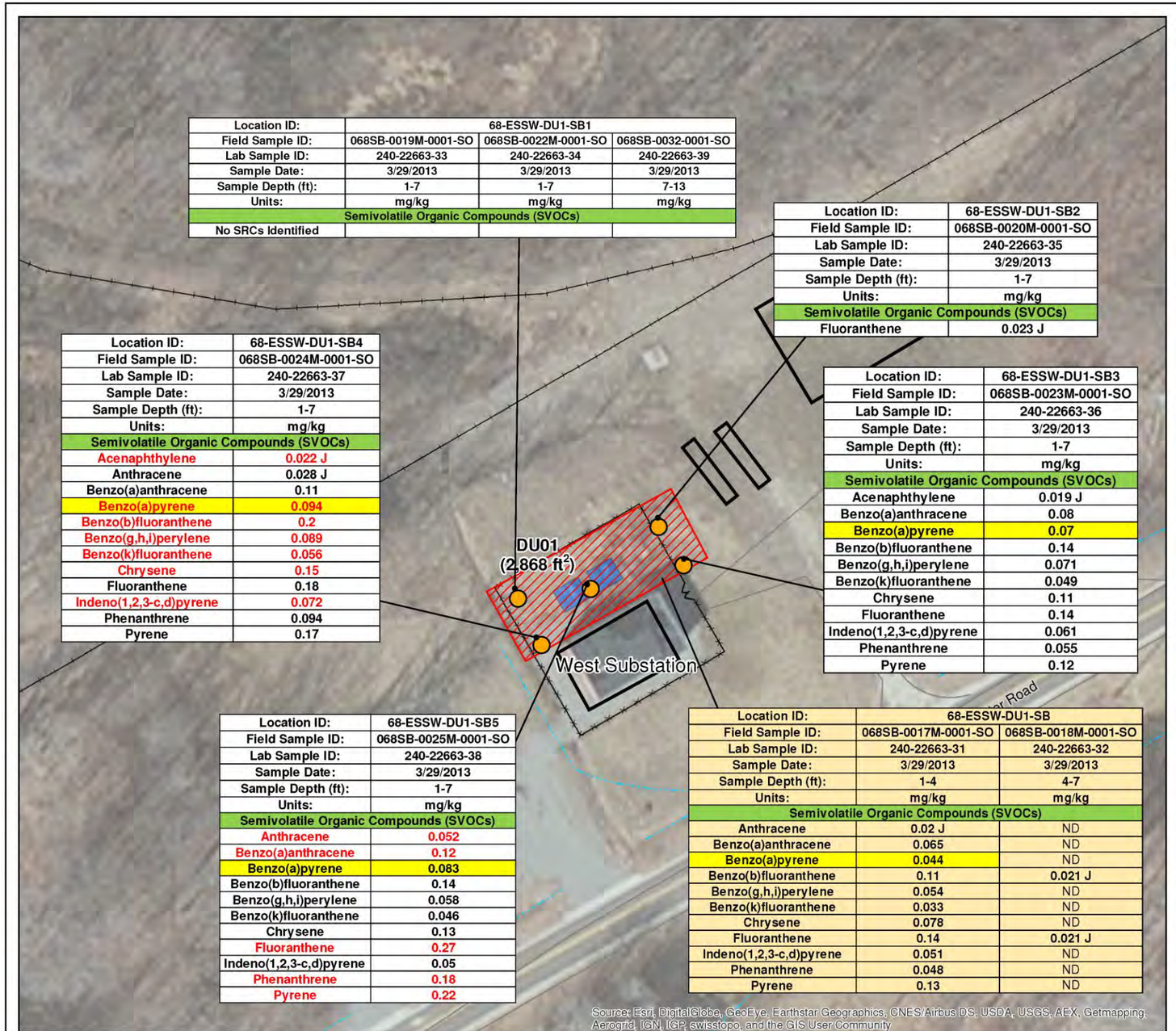
AMEC
Novi, Michigan

ECC
Marlborough, Massachusetts

PROJ: 3293111461
Date: May 2014

FIGURE
5-10

This page intentionally left blank



Location ID:	68-ESSW-DU1-SB1		
Field Sample ID:	068SB-0019M-0001-SO	068SB-0022M-0001-SO	068SB-0032-0001-SO
Lab Sample ID:	240-22663-33	240-22663-34	240-22663-39
Sample Date:	3/29/2013	3/29/2013	3/29/2013
Sample Depth (ft):	1-7	1-7	7-13
Units:	mg/kg	mg/kg	mg/kg
Semivolatile Organic Compounds (SVOCs)			
No SRCs Identified			

Location ID:	68-ESSW-DU1-SB2
Field Sample ID:	068SB-0020M-0001-SO
Lab Sample ID:	240-22663-35
Sample Date:	3/29/2013
Sample Depth (ft):	1-7
Units:	mg/kg
Semivolatile Organic Compounds (SVOCs)	
Fluoranthene	0.023 J

Location ID:	68-ESSW-DU1-SB4
Field Sample ID:	068SB-0024M-0001-SO
Lab Sample ID:	240-22663-37
Sample Date:	3/29/2013
Sample Depth (ft):	1-7
Units:	mg/kg
Semivolatile Organic Compounds (SVOCs)	
Acenaphthylene	0.022 J
Anthracene	0.028 J
Benzo(a)anthracene	0.11
Benzo(a)pyrene	0.094
Benzo(b)fluoranthene	0.2
Benzo(g,h,i)perylene	0.089
Benzo(k)fluoranthene	0.056
Chrysene	0.15
Fluoranthene	0.18
Indeno(1,2,3-c,d)pyrene	0.072
Phenanthrene	0.094
Pyrene	0.17

Location ID:	68-ESSW-DU1-SB3
Field Sample ID:	068SB-0023M-0001-SO
Lab Sample ID:	240-22663-36
Sample Date:	3/29/2013
Sample Depth (ft):	1-7
Units:	mg/kg
Semivolatile Organic Compounds (SVOCs)	
Acenaphthylene	0.019 J
Benzo(a)anthracene	0.08
Benzo(a)pyrene	0.07
Benzo(b)fluoranthene	0.14
Benzo(g,h,i)perylene	0.071
Benzo(k)fluoranthene	0.049
Chrysene	0.11
Fluoranthene	0.14
Indeno(1,2,3-c,d)pyrene	0.061
Phenanthrene	0.055
Pyrene	0.12

Location ID:	68-ESSW-DU1-SB5
Field Sample ID:	068SB-0025M-0001-SO
Lab Sample ID:	240-22663-38
Sample Date:	3/29/2013
Sample Depth (ft):	1-7
Units:	mg/kg
Semivolatile Organic Compounds (SVOCs)	
Anthracene	0.052
Benzo(a)anthracene	0.12
Benzo(a)pyrene	0.083
Benzo(b)fluoranthene	0.14
Benzo(g,h,i)perylene	0.058
Benzo(k)fluoranthene	0.046
Chrysene	0.13
Fluoranthene	0.27
Indeno(1,2,3-c,d)pyrene	0.05
Phenanthrene	0.18
Pyrene	0.22

Location ID:	68-ESSW-DU1-SB	
Field Sample ID:	068SB-0017M-0001-SO	068SB-0018M-0001-SO
Lab Sample ID:	240-22663-31	240-22663-32
Sample Date:	3/29/2013	3/29/2013
Sample Depth (ft):	1-4	4-7
Units:	mg/kg	mg/kg
Semivolatile Organic Compounds (SVOCs)		
Anthracene	0.02 J	ND
Benzo(a)anthracene	0.065	ND
Benzo(a)pyrene	0.044	ND
Benzo(b)fluoranthene	0.11	0.021 J
Benzo(g,h,i)perylene	0.054	ND
Benzo(k)fluoranthene	0.033	ND
Chrysene	0.078	ND
Fluoranthene	0.14	0.021 J
Indeno(1,2,3-c,d)pyrene	0.051	ND
Phenanthrene	0.048	ND
Pyrene	0.13	ND

LEGEND

- Direct-Push Boring Location
- Former Transformer Pad
- Existing Structure
- Ditch
- Former Structure
- Railroad
- Decision Unit
- Road
- Analyte — SRC and Maximum Concentration Detected
- ND — Analyte Is Not Detected and Not an SRC at This Depth
- Analyte — SRC
- ISM Horizontal Sample for Decision Unit
- Analyte — SRC Concentration Exceeds Most Stringent FWCUG (HQ=0.1/Target Cancer Risk =10^{-6})

NOTES & SOURCES

1. Map Coordinates: NAD 83, UTM Zone 17N, 2009 Orthoimagery from USGS.
2. ft^2 = square feet
3. SRC = Site-Related Chemical
4. mg/kg = milligrams per kilogram
5. J = estimated
6. If the status of the structure is unknown, the structure is displayed as an existing structure.
7. ft = feet
8. ND = Not Detected
9. FWCUG = Facility-Wide Cleanup Goal
10. HQ = Hazard Quotient
11. Concentrations shown are for SRCs at each sample location.

TITLE

Organic SRCs in Subsurface Soil at West Substation - DU01

CC RVAAP-68
Electric Substations
(East, West, No. 3)

FORMER RAVENNA ARMY AMMUNITION PLANT
PORTAGE AND TRUMBULL COUNTIES, OHIO

0 30 60 Feet

AMEC
Novi, Michigan

ECC
Marlborough, Massachusetts

PROJ: 3293111461
Date: May 2014

FIGURE
5-11

Path: P:\INDUSTRIAL_PROJECTS\ECC Ravenna\3293111461\DataFromECC\4AMEC_15JAN2013\4AMEC_GISfiles\MXD\Site68\Edited_Sept_2014_Area68\Fig 5-11 CC68 West subsurface organic du01.mxd

This page intentionally left blank

Location ID:	68-ESSW-DU2-SB1	
Field Sample ID:	068SB-0060M-0001-SO	068SB-0061M-0001-SO
Lab Sample ID:	240-22852-1	240-22852-2
Sample Date:	4/4/2013	4/4/2013
Sample Depth (ft):	1-7	1-7
Units:	mg/kg	mg/kg
Cadmium	0.22	0.17
Silver	0.037 J	0.027 J

Location ID:	68-ESSW-DU2-SB5
Field Sample ID:	068SB-0031M-0001-SO
Lab Sample ID:	240-22663-44
Sample Date:	3/29/2013
Sample Depth (ft):	1-7
Units:	mg/kg
Cadmium	0.18
Silver	0.038 J

Location ID:	68-ESSW-DU2-SB2
Field Sample ID:	068SB-0047M-0001-SO
Lab Sample ID:	240-22648-44
Sample Date:	3/29/2013
Sample Depth (ft):	1-7
Units:	mg/kg
Cadmium	0.13
Silver	0.029 J

Location ID:	68-ESSW-DU2-SB3
Field Sample ID:	068SB-0030M-0001-SO
Lab Sample ID:	240-22663-43
Sample Date:	3/29/2013
Sample Depth (ft):	1-7
Units:	mg/kg
Cadmium	0.21
Silver	0.041 J

Location ID:	68-ESSW-DU2-SB4
Field Sample ID:	068SB-0048M-0001-SO
Lab Sample ID:	240-22648-45
Sample Date:	3/29/2013
Sample Depth (ft):	1-7
Units:	mg/kg
Cadmium	0.15
Silver	0.023 J

Location ID:	68-ESSW-DU2-SB	
Field Sample ID:	068SB-0027M-0001-SO	068SB-0028M-0001-SO
Lab Sample ID:	240-22663-40	240-22663-41
Sample Date:	3/29/2013	3/29/2013
Sample Depth (ft):	1-4	4-7
Units:	mg/kg	mg/kg
Cadmium	0.21	0.17
Silver	0.036 J	0.035 J

West Substation

DU02
(3,545 ft²)

Fuse & Bo

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Path: P:\INDUSTRIAL PROJECTS\ECC Ravenna\3293111461\DataFromECC\4AMEC_15JAN2013\4AMEC_GISfiles\MXD\Site68\Edited_Sept_2014_Area68\Fig 5-12 CC68 West subsurface inorganic du02.mxd

LEGEND

- Direct-Push Boring Location
- Former Transformer Pad
- Existing Structure
- Ditch
- Former Structure
- Railroad
- Analyte — SRC and Maximum Concentration Detected
- Road
- Analyte — SRC
- ISM Horizontal Sample for Decision Unit

NOTES & SOURCES

1. Map Coordinates: NAD 83, UTM Zone 17N, 2009 Orthoimagery from USGS.
2. ft^2 = square feet
3. SRC = Site-Related Chemical
4. mg/kg= milligrams per kilogram
5. J= estimated
6. If the status of the structure is unknown, the structure is displayed as an existing structure.
7. ft= feet

TITLE

Inorganic SRCs in Subsurface Soil at West Substation - DU02

CC RVAAP-68
Electric Substations
(East, West, No. 3)

FORMER RAVENNA ARMY AMMUNITION PLANT
PORTAGE AND TRUMBULL COUNTIES, OHIO

0 30 60 Feet

N

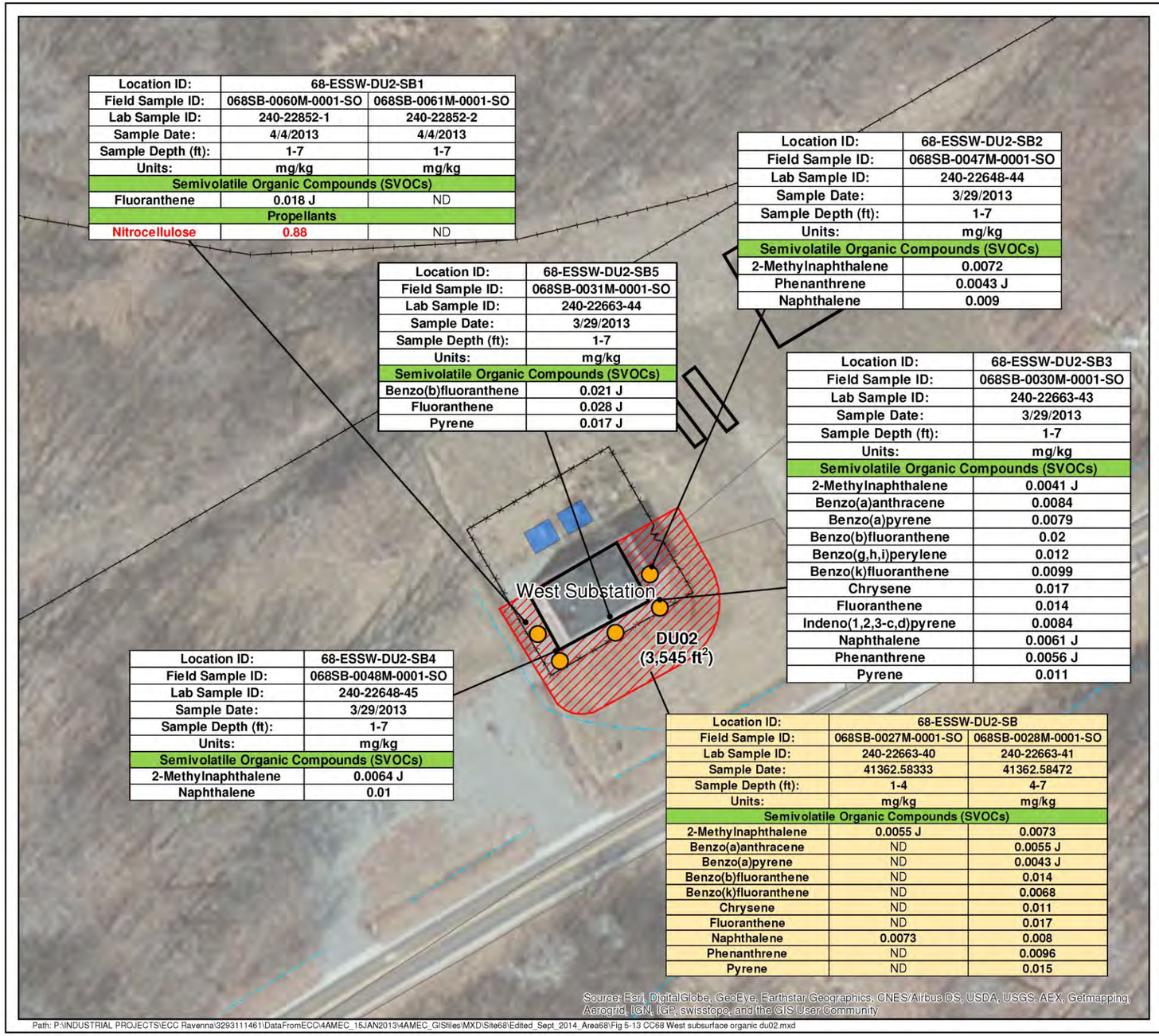
AMEC
Novi, Michigan

ECC
Marlborough, Massachusetts

PROJ: 3293111461
Date: May 2014

FIGURE
5-12

This page intentionally left blank



Location ID:	68-ESSW-DU2-SB1	
Field Sample ID:	068SB-0060M-0001-SO	068SB-0061M-0001-SO
Lab Sample ID:	240-22852-1	240-22852-2
Sample Date:	4/4/2013	4/4/2013
Sample Depth (ft):	1-7	1-7
Units:	mg/kg	mg/kg
Semivolatile Organic Compounds (SVOCs)		
Fluoranthene	0.018 J	ND
Propellants		
Nitrocellulose	0.88	ND

Location ID:	68-ESSW-DU2-SB2
Field Sample ID:	068SB-0047M-0001-SO
Lab Sample ID:	240-22648-44
Sample Date:	3/29/2013
Sample Depth (ft):	1-7
Units:	mg/kg
Semivolatile Organic Compounds (SVOCs)	
2-Methylnaphthalene	0.0072
Phenanthrene	0.0043 J
Naphthalene	0.009

Location ID:	68-ESSW-DU2-SB5
Field Sample ID:	068SB-0031M-0001-SO
Lab Sample ID:	240-22663-44
Sample Date:	3/29/2013
Sample Depth (ft):	1-7
Units:	mg/kg
Semivolatile Organic Compounds (SVOCs)	
Benzo(b)fluoranthene	0.021 J
Fluoranthene	0.028 J
Pyrene	0.017 J

Location ID:	68-ESSW-DU2-SB3
Field Sample ID:	068SB-0030M-0001-SO
Lab Sample ID:	240-22663-43
Sample Date:	3/29/2013
Sample Depth (ft):	1-7
Units:	mg/kg
Semivolatile Organic Compounds (SVOCs)	
2-Methylnaphthalene	0.0041 J
Benzo(a)anthracene	0.0084
Benzo(a)pyrene	0.0079
Benzo(b)fluoranthene	0.02
Benzo(g,h,i)perylene	0.012
Benzo(k)fluoranthene	0.0099
Chrysene	0.017
Fluoranthene	0.014
Indeno(1,2,3-c,d)pyrene	0.0084
Naphthalene	0.0061 J
Phenanthrene	0.0056 J
Pyrene	0.011

Location ID:	68-ESSW-DU2-SB4
Field Sample ID:	068SB-0048M-0001-SO
Lab Sample ID:	240-22648-45
Sample Date:	3/29/2013
Sample Depth (ft):	1-7
Units:	mg/kg
Semivolatile Organic Compounds (SVOCs)	
2-Methylnaphthalene	0.0064 J
Naphthalene	0.01

Location ID:	68-ESSW-DU2-SB	
Field Sample ID:	068SB-0027M-0001-SO	068SB-0028M-0001-SO
Lab Sample ID:	240-22663-40	240-22663-41
Sample Date:	41362.58333	41362.58472
Sample Depth (ft):	1-4	4-7
Units:	mg/kg	mg/kg
Semivolatile Organic Compounds (SVOCs)		
2-Methylnaphthalene	0.0055 J	0.0073
Benzo(a)anthracene	ND	0.0055 J
Benzo(a)pyrene	ND	0.0043 J
Benzo(b)fluoranthene	ND	0.014
Benzo(k)fluoranthene	ND	0.0068
Chrysene	ND	0.011
Fluoranthene	ND	0.017
Naphthalene	0.0073	0.008
Phenanthrene	ND	0.0096
Pyrene	ND	0.015

LEGEND

- Direct-Push Boring Location
- Former Transformer Pad
- Existing Structure
- Ditch
- Former Structure
- Railroad
- Analyte — SRC and Maximum Concentration Detected
- Road
- Analyte — SRC
- ISM Horizontal Sample for Decision Unit
- ND — Analyte Is Not Detected and Not an SRC at This Depth

NOTES & SOURCES

1. Map Coordinates: NAD 83, UTM Zone 17N, 2009 Orthoimagery from USGS.
2. ft^2 = square feet
3. SRC = Site-Related Chemical
4. mg/kg = milligrams per kilogram
5. J = estimated
6. If the status of the structure is unknown, the structure is displayed as an existing structure.
7. ft = feet
8. ND = Not Detected

TITLE

Organic SRCs in Subsurface Soil at West Substation - DU02

CC RVAAP-68
Electric Substations
(East, West, No. 3)

FORMER RAVENNA ARMY AMMUNITION PLANT
PORTAGE AND TRUMBULL COUNTIES, OHIO

0 30 60 Feet

N

AMEC
Novi, Michigan

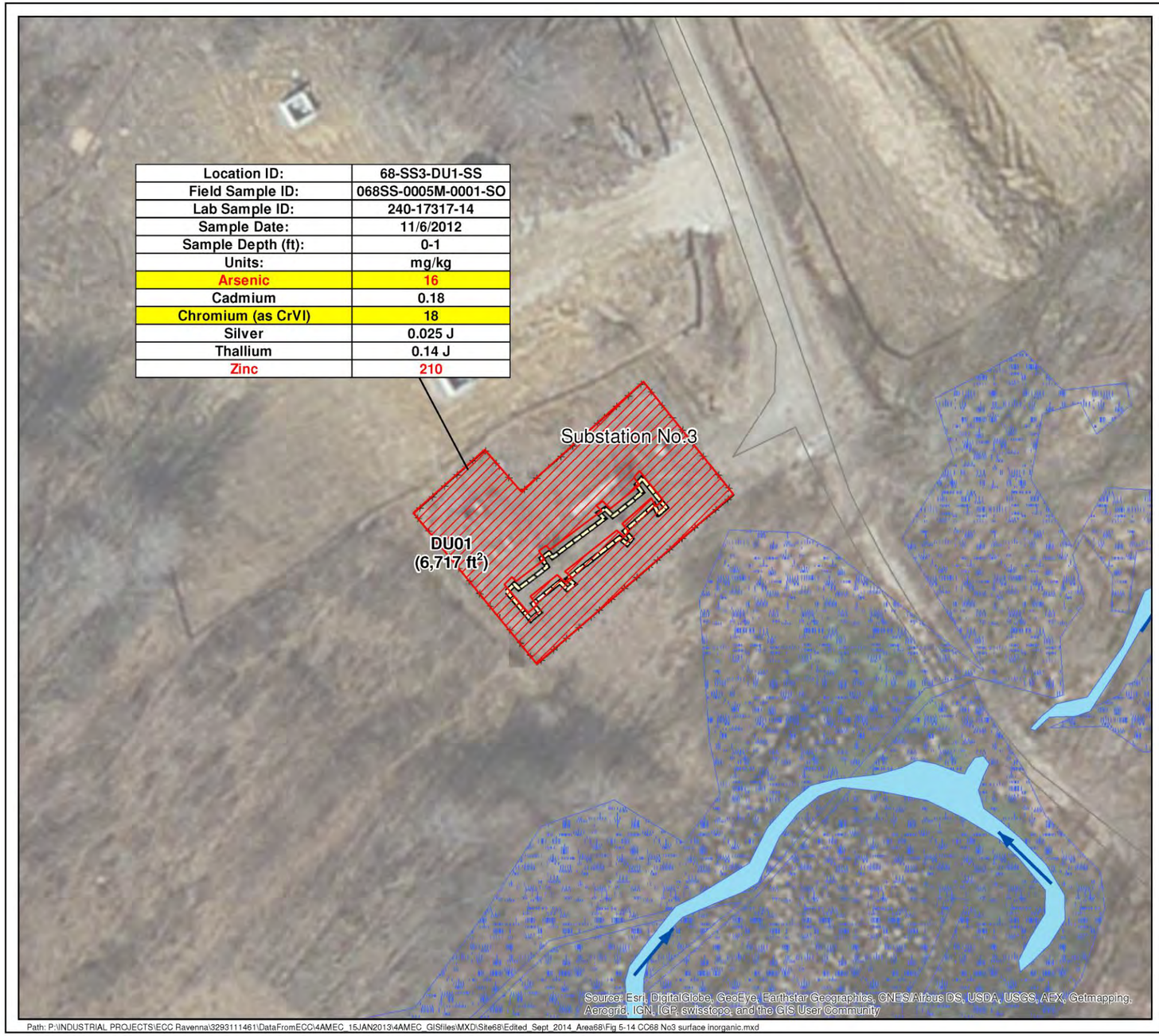
ECC
Marlborough, Massachusetts

PROJ: 3293111461
Date: May 2014

FIGURE
5-13

Path: P:\INDUSTRIAL PROJECTS\ECC Ravenna\3293111461\DataFromECC\4AMEC_15JAN2013\4AMEC_GISfiles\MXD\Site68\Edited_Sept_2014_Area68\Fig 5-13 CC68 West subsurface organic du02.mxd

This page intentionally left blank



Path: P:\INDUSTRIAL PROJECTS\ECC Ravenna\3293111461\DataFromECC\4AMEC_15JAN2013\4AMEC_GISfiles\MXD\Site68\Edited_Sept_2014_Area68\Fig 5-14 CC68 No3 surface inorganic.mxd

LEGEND

- Decision Unit
- Former Fence
- Surface Water Flow Direction
- Railroad
- Stream
- Road
- Jurisdictional Wetland
- Former Electrical Storage Area
- Analyte SRC
- Analyte SRC Concentration Exceeds BSV

NOTES & SOURCES

1. Map Coordinates: NAD 83, UTM Zone 17N, 2009 Orthoimagery from USGS.
2. ft^2 = square feet
3. SRC = Site-Related Chemical
4. mg/kg = milligrams per kilogram
5. J = estimated
6. If the status of the structure is unknown, the structure is displayed as an existing structure.
7. ft = feet
8. BSV = Background Screening Value
9. Concentrations shown are for SRCs at each sample location.

TITLE

Inorganic SRCs in Surface Soil at Substation No. 3

CC RVAAP-68
Electric Substations
(East, West, No. 3)

FORMER RAVENNA ARMY AMMUNITION PLANT
PORTAGE AND TRUMBULL COUNTIES, OHIO

0 30 60 Feet

N

AMEC
Novi, Michigan

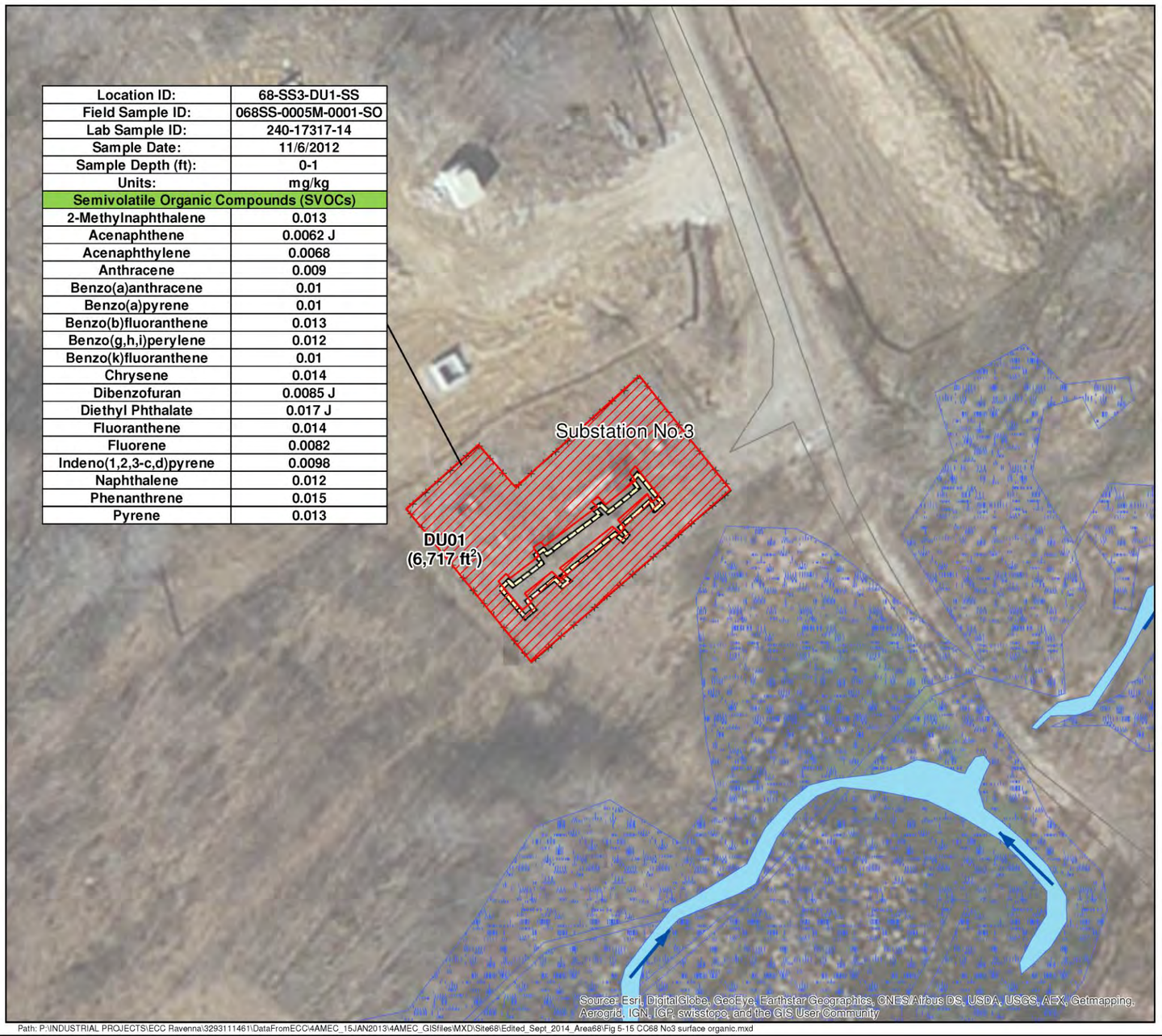
ECC
Marlborough, Massachusetts

PROJ: 3293111461
Date: May 2014

FIGURE
5-14

This page intentionally left blank

Location ID:	68-SS3-DU1-SS
Field Sample ID:	068SS-0005M-0001-SO
Lab Sample ID:	240-17317-14
Sample Date:	11/6/2012
Sample Depth (ft):	0-1
Units:	mg/kg
Semivolatile Organic Compounds (SVOCs)	
2-Methylnaphthalene	0.013
Acenaphthene	0.0062 J
Acenaphthylene	0.0068
Anthracene	0.009
Benzo(a)anthracene	0.01
Benzo(a)pyrene	0.01
Benzo(b)fluoranthene	0.013
Benzo(g,h,i)perylene	0.012
Benzo(k)fluoranthene	0.01
Chrysene	0.014
Dibenzofuran	0.0085 J
Diethyl Phthalate	0.017 J
Fluoranthene	0.014
Fluorene	0.0082
Indeno(1,2,3-c,d)pyrene	0.0098
Naphthalene	0.012
Phenanthrene	0.015
Pyrene	0.013



LEGEND

- Decision Unit
- Former Fence
- Surface Water Flow Direction
- Railroad
- Stream
- Road
- Jurisdictional Wetland
- Former Electrical Storage Area
- Analyte SRC

NOTES & SOURCES

1. Map Coordinates: NAD 83, UTM Zone 17N, 2009 Orthoimagery from USGS.
2. ft^2 = square feet
3. SRC = Site-Related Chemical
4. mg/kg= milligrams per kilogram
5. J= estimated
6. If the status of the structure is unknown, the structure is displayed as an existing structure.
7. ft= feet

TITLE

Organic SRCs in Surface Soil at Substation No. 3

CC RVAAP-68
Electric Substations
(East, West, No. 3)

FORMER RAVENNA ARMY AMMUNITION PLANT
PORTAGE AND TRUMBULL COUNTIES, OHIO

0 30 60 Feet

N

AMEC
Novi, Michigan

ECC
Marlborough, Massachusetts

PROJ: 3293111461
Date: May 2014

FIGURE
5-15

Path: P:\INDUSTRIAL PROJECTS\ECC Ravenna\3293111461\DataFromECC\4AMEC_15JAN2013\4AMEC_GISfiles\MXD\Site68\Edited_Sept_2014_Area68\Fig 5-15 CC68 No3 surface organic.mxd

This page intentionally left blank

Location ID:	68-SS3-DU1-SB1
Field Sample ID:	068SB-0052M-0001-SO
Lab Sample ID:	240-22648-57
Sample Date:	3/29/2013
Sample Depth (ft):	1-7
Units:	mg/kg
Cadmium	0.12
Silver	0.014 J

Location ID:	68-SS3-DU1-SB	
Field Sample ID:	068SB-0050M-0001-SO	068SB-0051M-0001-SO
Lab Sample ID:	240-22648-55	240-22648-56
Sample Date:	3/29/2013	3/29/2013
Sample Depth (ft):	1-4	4-7
Units:	mg/kg	mg/kg
Cadmium	0.11	0.1
Silver	0.023 J	0.019 J

Location ID:	68-SS3-DU1-SB2	
Field Sample ID:	068SB-0053M-0001-SO	068SB-0054M-0001-SO
Lab Sample ID:	240-22648-58	240-22648-59
Sample Date:	3/29/2013	3/29/2013
Sample Depth (ft):	1-7	1-7
Units:	mg/kg	mg/kg
Cadmium	0.12	0.13
Silver	0.028 J	0.028 J

Substation No.3

DU01
(6,717 ft^2)

Location ID:	68-SS3-DU1-SB3
Field Sample ID:	068SB-0056M-0001-SO
Lab Sample ID:	240-22648-60
Sample Date:	3/29/2013
Sample Depth (ft):	1-7
Units:	mg/kg
Cadmium	0.13
Silver	0.026 J

Location ID:	68-SS3-DU1-SB5
Field Sample ID:	068SB-0059M-0001-SO
Lab Sample ID:	240-22648-62
Sample Date:	3/29/2013
Sample Depth (ft):	1-7
Units:	mg/kg
Cadmium	0.13
Silver	0.031 J

Location ID:	68-SS3-DU1-SB4
Field Sample ID:	068SB-0057M-0001-SO
Lab Sample ID:	240-22648-61
Sample Date:	3/29/2013
Sample Depth (ft):	1-7
Units:	mg/kg
Cadmium	0.12
Silver	0.035 J

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Path: P:\INDUSTRIAL PROJECTS\ECC Ravenna\3293111461\DataFromECC\4AMEC_15JAN2013\4AMEC_GISfiles\MXD\Site68\Edited_Sept_2014_Area68\Fig 5-16 CC68 No3 subsurface inorganic.mxd

LEGEND

- Direct-Push Boring Location
- Former Fence
- Decision Unit
- Railroad
- Surface Water Flow Direction
- Road
- Stream
- Former Electrical Storage Area
- Jurisdictional Wetland
- Analyte SRC
- ISM Horizontal Sample for Decision Unit

NOTES & SOURCES

1. Map Coordinates: NAD 83, UTM Zone 17N, 2009 Orthoimagery from USGS.
2. ft^2 = square feet
3. SRC = Site-Related Chemical
4. mg/kg= milligrams per kilogram
5. J= estimated
6. If the status of the structure is unknown, the structure is displayed as an existing structure.
7. ft= feet

TITLE

Inorganic SRCs in Subsurface Soil at Substation No. 3

CC RVAAP-68
Electric Substations
(East, West, No. 3)

FORMER RAVENNA ARMY AMMUNITION PLANT
PORTAGE AND TRUMBULL COUNTIES, OHIO

0 30 60 Feet

N

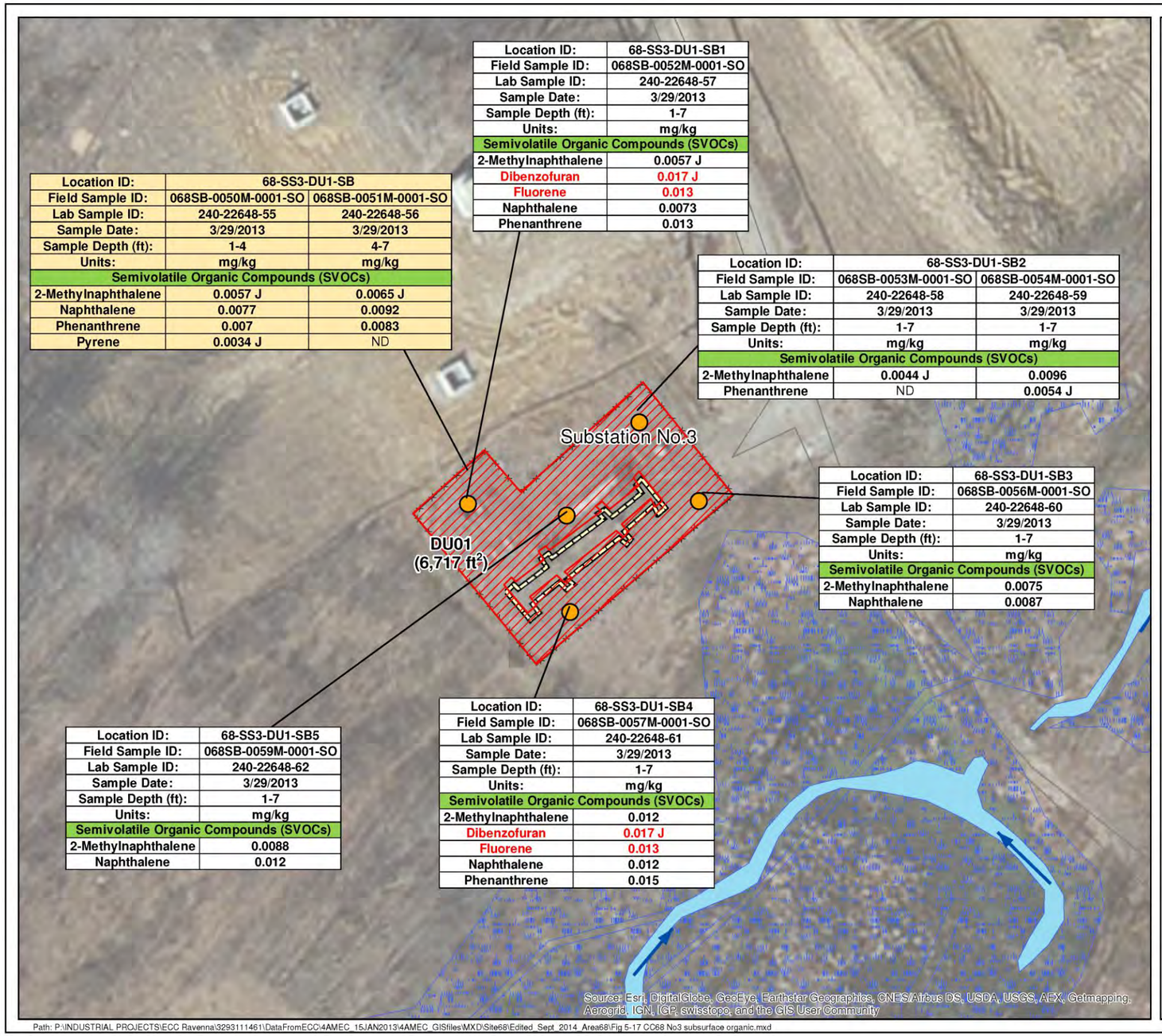
AMEC
Novi, Michigan

ECC
Marlborough, Massachusetts

PROJ: 3293111461
Date: May 2014

FIGURE
5-16

This page intentionally left blank



Location ID:	68-SS3-DU1-SB	
Field Sample ID:	068SB-0050M-0001-SO	068SB-0051M-0001-SO
Lab Sample ID:	240-22648-55	240-22648-56
Sample Date:	3/29/2013	3/29/2013
Sample Depth (ft):	1-4	4-7
Units:	mg/kg	mg/kg
Semivolatile Organic Compounds (SVOCs)		
2-Methylnaphthalene	0.0057 J	0.0065 J
Naphthalene	0.0077	0.0092
Phenanthrene	0.007	0.0083
Pyrene	0.0034 J	ND

Location ID:	68-SS3-DU1-SB1
Field Sample ID:	068SB-0052M-0001-SO
Lab Sample ID:	240-22648-57
Sample Date:	3/29/2013
Sample Depth (ft):	1-7
Units:	mg/kg
Semivolatile Organic Compounds (SVOCs)	
2-Methylnaphthalene	0.0057 J
Dibenzofuran	0.017 J
Fluorene	0.013
Naphthalene	0.0073
Phenanthrene	0.013

Location ID:	68-SS3-DU1-SB2	
Field Sample ID:	068SB-0053M-0001-SO	068SB-0054M-0001-SO
Lab Sample ID:	240-22648-58	240-22648-59
Sample Date:	3/29/2013	3/29/2013
Sample Depth (ft):	1-7	1-7
Units:	mg/kg	mg/kg
Semivolatile Organic Compounds (SVOCs)		
2-Methylnaphthalene	0.0044 J	0.0096
Phenanthrene	ND	0.0054 J

Location ID:	68-SS3-DU1-SB3
Field Sample ID:	068SB-0056M-0001-SO
Lab Sample ID:	240-22648-60
Sample Date:	3/29/2013
Sample Depth (ft):	1-7
Units:	mg/kg
Semivolatile Organic Compounds (SVOCs)	
2-Methylnaphthalene	0.0075
Naphthalene	0.0087

Location ID:	68-SS3-DU1-SB4
Field Sample ID:	068SB-0057M-0001-SO
Lab Sample ID:	240-22648-61
Sample Date:	3/29/2013
Sample Depth (ft):	1-7
Units:	mg/kg
Semivolatile Organic Compounds (SVOCs)	
2-Methylnaphthalene	0.012
Dibenzofuran	0.017 J
Fluorene	0.013
Naphthalene	0.012
Phenanthrene	0.015

Location ID:	68-SS3-DU1-SB5
Field Sample ID:	068SB-0059M-0001-SO
Lab Sample ID:	240-22648-62
Sample Date:	3/29/2013
Sample Depth (ft):	1-7
Units:	mg/kg
Semivolatile Organic Compounds (SVOCs)	
2-Methylnaphthalene	0.0088
Naphthalene	0.012

LEGEND

- Direct-Push Boring Location
- Former Fence
- Decision Unit
- Railroad
- Surface Water Flow Direction
- Road
- Stream
- Former Electrical Storage Area
- Jurisdictional Wetland
- Analyte: SRC and Maximum Concentration Detected
- Analyte: SRC
- ISM Horizontal Sample for Decision Unit
- ND: Analyte Is Not Detected and Not an SRC at This Depth

NOTES & SOURCES

1. Map Coordinates: NAD 83, UTM Zone 17N, 2009 Orthoimagery from USGS.
2. ft^2 = square feet
3. SRC = Site-Related Chemical
4. mg/kg= milligrams per kilogram
5. J= estimated
6. If the status of the structure is unknown, the structure is displayed as an existing structure.
7. ft= feet
8. ND= Not Detected

TITLE

Organic SRCs in Subsurface Soil at Substation No. 3

CC RVAAP-68 Electric Substations (East, West, No. 3)

FORMER RAVENNA ARMY AMMUNITION PLANT
PORTAGE AND TRUMBULL COUNTIES, OHIO

0 30 60 Feet

N

AMEC
Novi, Michigan

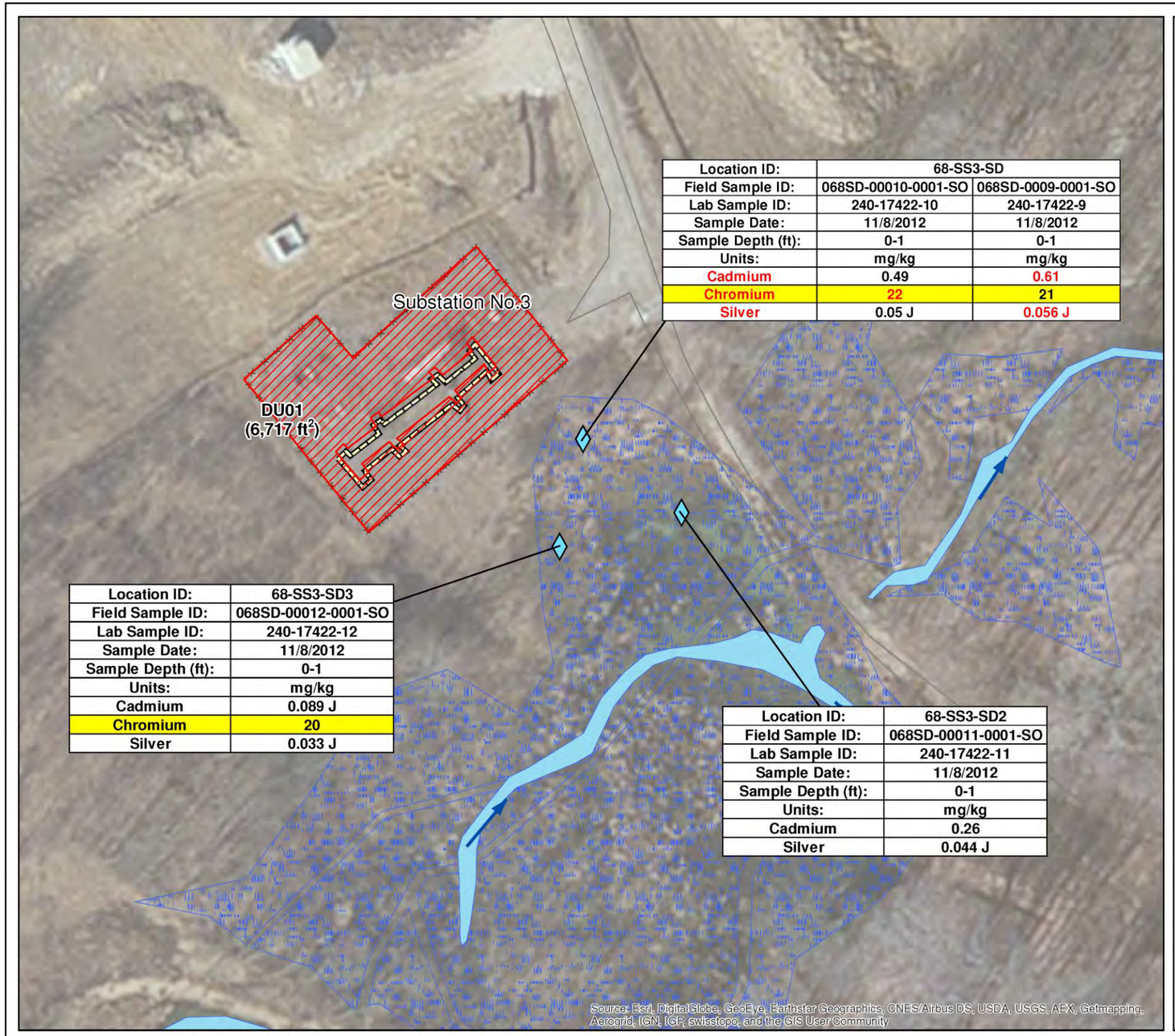
ECC
Marlborough, Massachusetts

PROJ: 3293111461
Date: May 2014

FIGURE
5-17

Path: P:\INDUSTRIAL PROJECTS\ECC Ravenna\3293111461\DataFromECC\4AMEC_15JAN2013\4AMEC_GISfiles\MXD\Site68\Edited_Sept_2014_Area68\Fig 5-17 CC68 No3 subsurface organic.mxd

This page intentionally left blank



LEGEND

- Wet Sediment (Discrete) Sampling Location
- Former Fence
- Railroad
- Decision Unit
- Road
- Surface Water Flow Direction
- Former Electrical Storage Area
- Stream
- Jurisdictional Wetland
- Analyte SRC and Maximum Concentration Detected
- Analyte SRC
- Analyte SRC Concentration Exceeds BSV

NOTES & SOURCES

1. Map Coordinates: NAD 83, UTM Zone 17N, 2009 Orthoimagery from USGS.
2. ft^2 = square feet
3. SRC = Site-Related Chemical
4. mg/kg = milligrams per kilogram
5. J = estimated
6. If the status of the structure is unknown, the structure is displayed as an existing structure.
7. ft = feet
8. BSV = Background Screening Value
9. Concentrations shown are for SRCs at each sample location.

TITLE

Inorganic SRCs in Sediment at Substation No. 3

CC RVAAP-68
Electric Substations
(East, West, No. 3)

FORMER RAVENNA ARMY AMMUNITION PLANT
PORTAGE AND TRUMBULL COUNTIES, OHIO

0 30 60 Feet

N

AMEC
Novi, Michigan

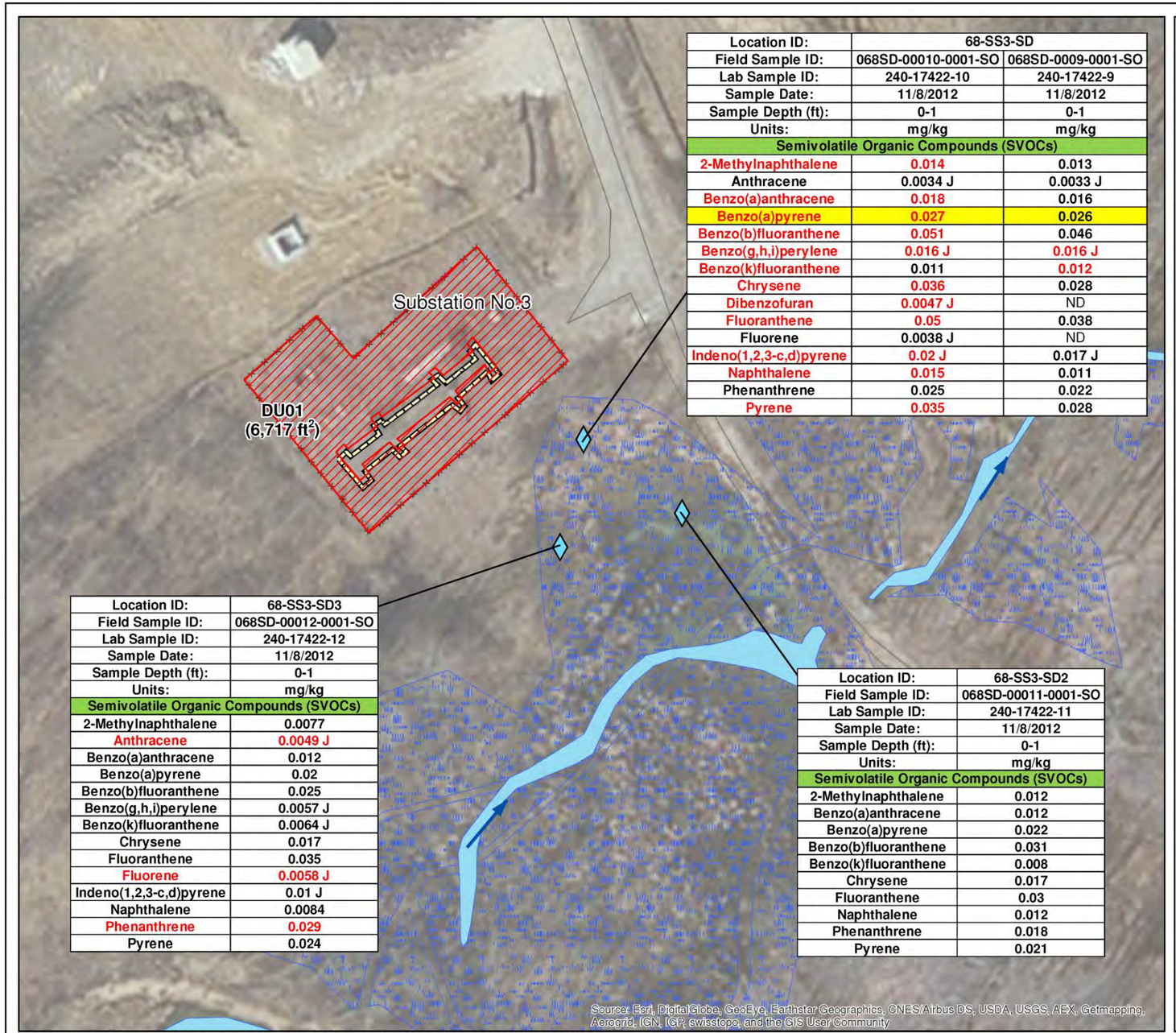
ECC
Marlborough, Massachusetts

PROJ: 3293111461
Date: May 2014

FIGURE
5-18

Path: P:\INDUSTRIAL PROJECTS\ECC Ravenna\3293111461\1\DataFromECC\4AMEC_16JAN2013\4AMEC_GIS\Ilac\MXD\Site68\Edited_Sept_2014_Area68\Fig 5_18 CC68 No3 sediment inorganic.mxd

This page intentionally left blank



Location ID:	68-SS3-SD	
Field Sample ID:	068SD-00010-0001-SO	068SD-0009-0001-SO
Lab Sample ID:	240-17422-10	240-17422-9
Sample Date:	11/8/2012	11/8/2012
Sample Depth (ft):	0-1	0-1
Units:	mg/kg	mg/kg
Semivolatile Organic Compounds (SVOCs)		
2-Methylnaphthalene	0.014	0.013
Anthracene	0.0034 J	0.0033 J
Benzo(a)anthracene	0.018	0.016
Benzo(a)pyrene	0.027	0.026
Benzo(b)fluoranthene	0.051	0.046
Benzo(g,h,i)perylene	0.016 J	0.016 J
Benzo(k)fluoranthene	0.011	0.012
Chrysene	0.036	0.028
Dibenzofuran	0.0047 J	ND
Fluoranthene	0.05	0.038
Fluorene	0.0038 J	ND
Indeno(1,2,3-c,d)pyrene	0.02 J	0.017 J
Naphthalene	0.015	0.011
Phenanthrene	0.025	0.022
Pyrene	0.035	0.028

Location ID:	68-SS3-SD3
Field Sample ID:	068SD-00012-0001-SO
Lab Sample ID:	240-17422-12
Sample Date:	11/8/2012
Sample Depth (ft):	0-1
Units:	mg/kg
Semivolatile Organic Compounds (SVOCs)	
2-Methylnaphthalene	0.0077
Anthracene	0.0049 J
Benzo(a)anthracene	0.012
Benzo(a)pyrene	0.02
Benzo(b)fluoranthene	0.025
Benzo(g,h,i)perylene	0.0057 J
Benzo(k)fluoranthene	0.0064 J
Chrysene	0.017
Fluoranthene	0.035
Fluorene	0.0058 J
Indeno(1,2,3-c,d)pyrene	0.01 J
Naphthalene	0.0084
Phenanthrene	0.029
Pyrene	0.024

Location ID:	68-SS3-SD2
Field Sample ID:	068SD-00011-0001-SO
Lab Sample ID:	240-17422-11
Sample Date:	11/8/2012
Sample Depth (ft):	0-1
Units:	mg/kg
Semivolatile Organic Compounds (SVOCs)	
2-Methylnaphthalene	0.012
Benzo(a)anthracene	0.012
Benzo(a)pyrene	0.022
Benzo(b)fluoranthene	0.031
Benzo(k)fluoranthene	0.008
Chrysene	0.017
Fluoranthene	0.03
Naphthalene	0.012
Phenanthrene	0.018
Pyrene	0.021

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Path: P:\INDUSTRIAL PROJECTS\ECC Ravenna\3293111461\DataFromECC\4AMEC_15JAN2013\4AMEC_GISfiles\MXD\Site68\Edited_Sept_2014_Area68\Fig 5-19 CC68 No3 sediment organic.mxd

LEGEND

- Wet Sediment (Discrete) Sampling Location
- Former Fence
- Railroad
- Decision Unit
- Road
- Surface Water Flow Direction
- Former Electrical Storage Area
- Stream
- ND — Analyte Is Not Detected and Not an SRC at This Depth
- Jurisdictional Wetland
- Analyte — SRC and Maximum Concentration Detected
- Analyte — SRC
- Analyte — SRC Concentration Exceeds Most Stringent FWCUG (HQ=0.1/Target Cancer Risk =10^{-6})

NOTES & SOURCES

1. Map Coordinates: NAD 83, UTM Zone 17N, 2009 Orthoimagery from USGS.
2. ft^2 = square feet
3. SRC = Site-Related Chemical
4. mg/kg = milligrams per kilogram
5. J = estimated
6. If the status of the structure is unknown, the structure is displayed as an existing structure.
7. ft = feet
8. ND = Not Detected
9. FWCUG = Facility-Wide Cleanup Goal
10. HQ = Hazard Quotient
11. Concentrations shown are for SRCs at each sample location.

TITLE

Organic SRCs in Sediment at Substation No. 3

CC RVAAP-68
Electric Substations
(East, West, No. 3)

FORMER RAVENNA ARMY AMMUNITION PLANT
PORTAGE AND TRUMBULL COUNTIES, OHIO

0 30 60 Feet

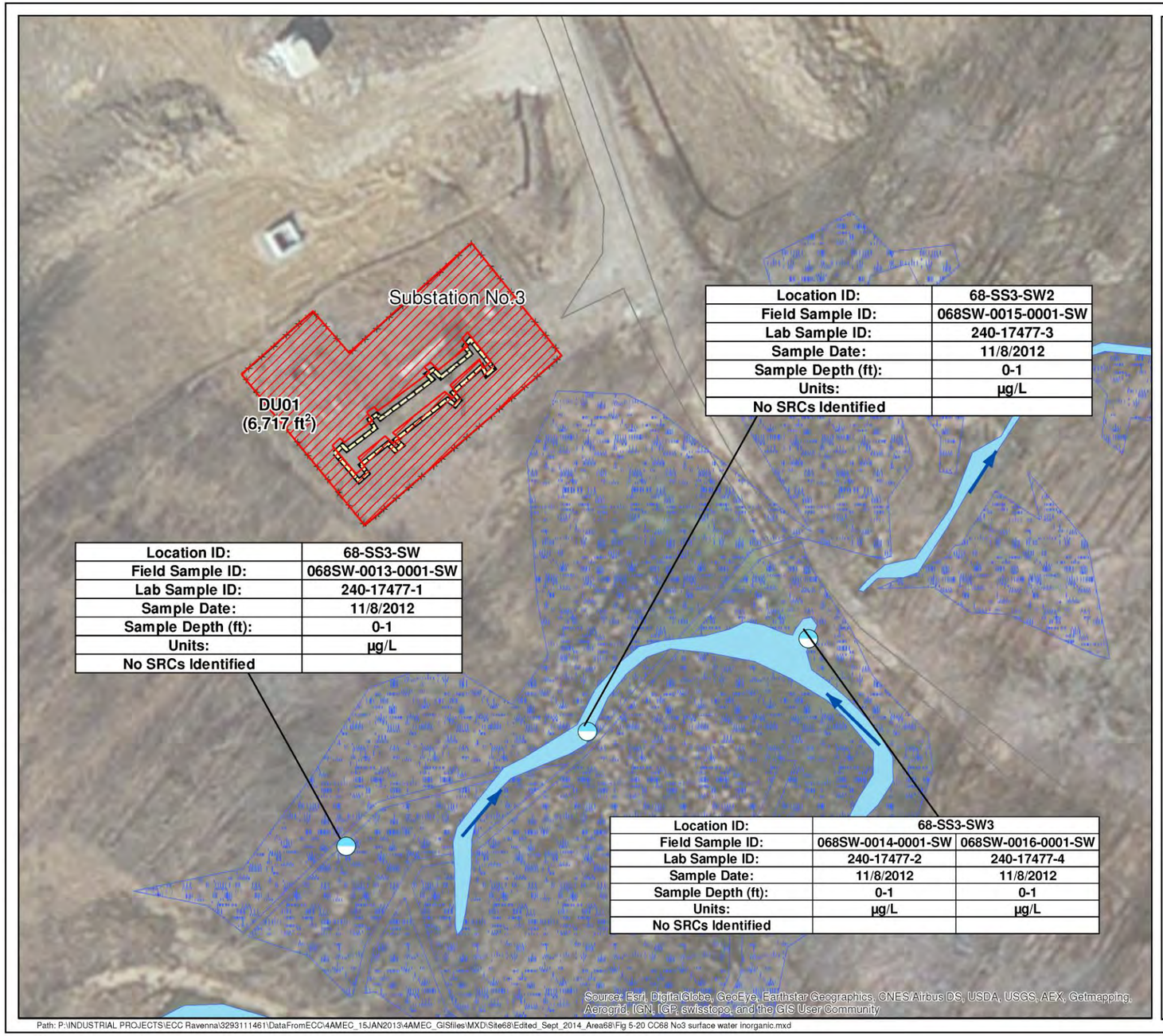
AMEC
Novi, Michigan

ECC
Marlborough, Massachusetts

PROJ: 3293111461
Date: May 2014

FIGURE
5-19

This page intentionally left blank



LEGEND

- Decision Unit
- Surface Water Discrete Sampling Location
- Former Electrical Storage Area
- Surface Water Flow Direction
- Stream
- Analyte SRC
- Jurisdictional Wetland
- Former Fence
- Railroad
- Road

NOTES & SOURCES

1. Map Coordinates: NAD 83, UTM Zone 17N, 2009 Orthoimagery from USGS.
2. ft^2 = square feet
3. SRC = Site-Related Chemical
4. µg/L = micrograms per liter
5. J= estimated
6. If the status of the structure is unknown, the structure is displayed as an existing structure.
7. ft= feet

TITLE

Inorganic SRCs in Surface Water at Substation No. 3

CC RVAAP-68 Electric Substations (East, West, No. 3)

FORMER RAVENNA ARMY AMMUNITION PLANT
PORTAGE AND TRUMBULL COUNTIES, OHIO

0 30 60 Feet

N

AMEC
Novi, Michigan

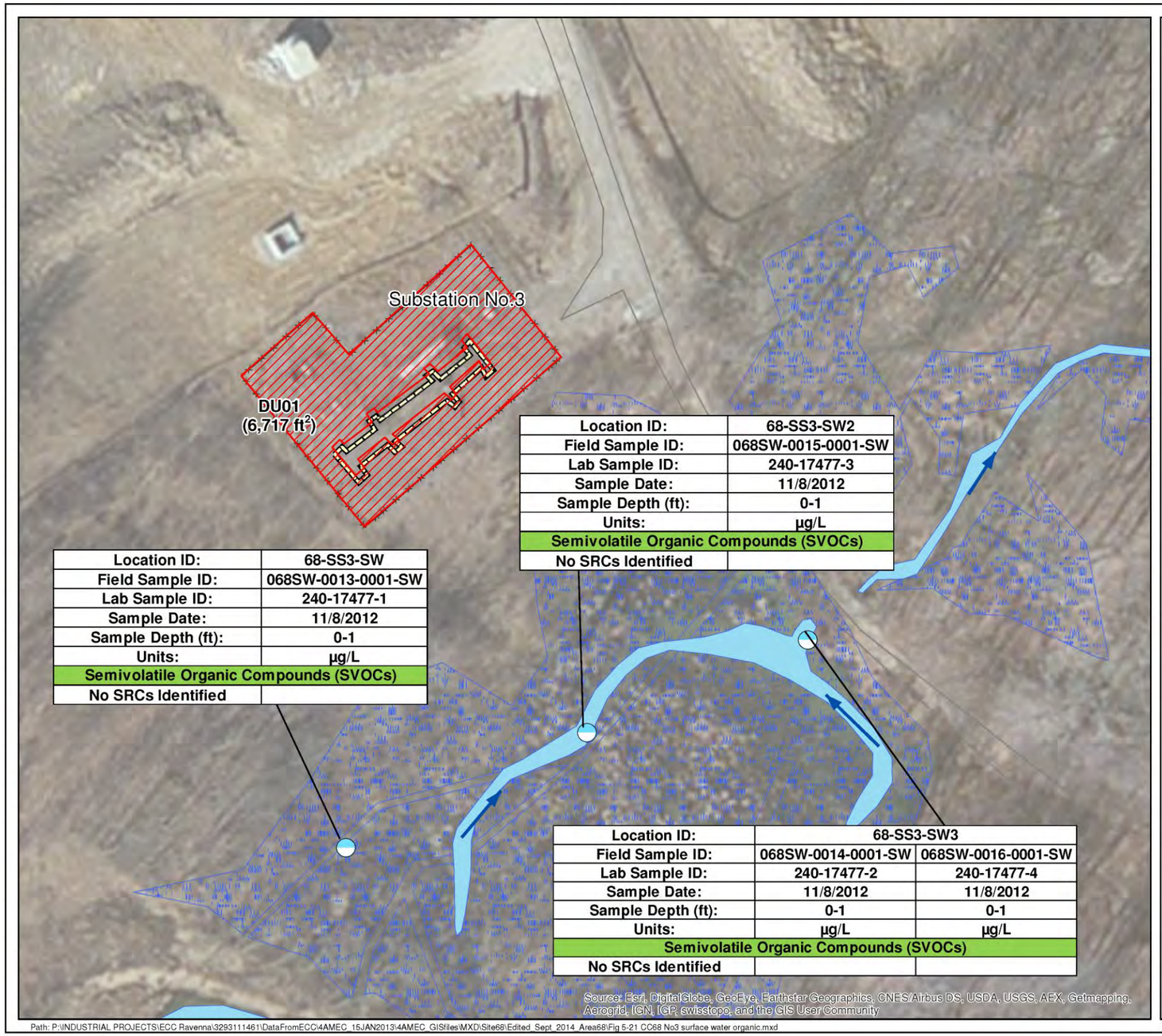
ECC
Marlborough, Massachusetts

PROJ: 3293111461
Date: May 2014

FIGURE
5-20

Path: P:\INDUSTRIAL PROJECTS\ECC Ravenna\3293111461\DataFromECC\4AMEC_15JAN2013\4AMEC_GISfiles\MXD\Site68\Edited_Sept_2014_Area68\Fig 5-20 CC68 No3 surface water inorganic.mxd

This page intentionally left blank



LEGEND

- Surface Water Discrete Sampling Location
- Decision Unit
- Surface Water Flow Direction
- Stream
- Jurisdictional Wetland
- Analyte SRC
- Former Fence
- Railroad
- Road
- Former Electrical Storage Area

NOTES & SOURCES

1. Map Coordinates: NAD 83, UTM Zone 17N, 2009 Orthoimagery from USGS.
2. ft^2 = square feet
3. SRC = Site-Related Chemical
4. µg/L = micrograms per liter
5. J= estimated
6. If the status of the structure is unknown, the structure is displayed as an existing structure.
7. ft= feet

TITLE

Organic SRCs in Surface Water at Substation No. 3

CC RVAAP-68
Electric Substations
(East, West, No. 3)

FORMER RAVENNA ARMY AMMUNITION PLANT
PORTAGE AND TRUMBULL COUNTIES, OHIO

0 30 60 Feet

N

AMEC
Novi, Michigan

ECC
Marlborough, Massachusetts

PROJ: 3293111461
Date: May 2014

FIGURE
5-21

Path: P:\INDUSTRIAL PROJECTS\ECC Ravenna\3293111461\DataFromECC\4AMEC_15JAN2013\4AMEC_GISfiles\MXD\Site68\Edited_Sept_2014_Area68\Fig 5-21 CC68 No3 surface water organic.mxd

This page intentionally left blank

6.0 CONTAMINANT FATE AND TRANSPORT

This chapter presents an evaluation of soil contaminant fate and transport to assess the potential for chemicals to leach from soil media at CC RVAAP-68 Electric Substations (East, West, No. 3) and impact underlying groundwater and downgradient receptor locations. This evaluation is included in the decision-making process to determine whether soil remedial actions may be necessary to protect groundwater resources. Only SRCs found in the soil are evaluated in the fate and transport assessment for CC RVAAP-68 Electric Substations (East, West, No. 3). A list of SRCs from this AOC is presented in Table 6-1. SRCs were developed in Chapter 5.0 for surface and subsurface soil.

Soil contaminant fate and transport analyses were performed to predict the rate of contaminant migration through the vadose zone soil to groundwater (i.e., transport media) and to conservatively estimate future contaminant concentrations beneath the source area. These analyses do not address contamination that may already be in the groundwater. Groundwater beneath this AOC is being addressed under a separate RI (RVAAP-66 Facility-Wide Groundwater).

Section 6.1 describes the physical and chemical properties of SRCs found in the soil at CC RVAAP-68 Electric Substations (East, West, No. 3). Section 6.2 presents a CSM for contaminant fate and transport. Section 6.3 describes the steps used for the soil contaminant fate and transport evaluation. The summary and conclusions of the soil fate and transport analyses are presented in Section 6.4.

6.1 PHYSICAL AND CHEMICAL PROPERTIES OF SITE-RELATED CONTAMINANTS

CC RVAAP-68 Electric Substations (East, West, No. 3) inorganic and organic SRCs are in continuous chemical and physical interaction with subsurface environments. The observed distributions of chemical concentrations in the environment are the result of these interactions. These interactions also determine the chemical fate of these compounds. Chemicals released into the environment are susceptible to several degradation pathways, including hydrolysis, oxidation, reduction, isomerization, photolysis, photo-oxidation, biotransformation, and biodegradation. Transformation daughter products resulting from these processes may behave differently in the environment than the parent chemical.

The migration of chemicals is governed by the physical and chemical properties of the chemicals and the surface and subsurface media through which the chemicals are transferred. In general, chemicals and structures with similar physical and chemical characteristics will show similar patterns of transformation, transport, or attenuation in the environment. Solubility, vapor pressure data, chemical partitioning coefficients, degradation rates, and Henry's Law Constant (HLC) provide information that can be used to evaluate contaminant mobility in the environment. Partitioning coefficients are used to assess the relative affinities of chemicals for solution or solid phase adsorption. However, the synergistic effects of multiple migrating chemicals and the complexity of soil/water interactions, including pH, oxidation-reduction potential, grain size, and clay mineral variability, are typically unknown.

The properties are used to assess the anticipated behavior of each chemical under environmental conditions and are used as input parameters to mathematical models for predicting contaminant mass transport in the environmental media.

6.1.1 Chemical Factors Affecting Fate and Transport

The water solubility of a chemical is a measure of the saturated concentration of the chemical in water at a given temperature and pressure. The tendency for a chemical to be transported by groundwater is directly related to its solubility and is inversely related to both its tendencies to adsorb to soil and to volatilize from water (O'Brien and Gere Engineers, Inc. [OGE] 1988). Chemicals with high water solubilities tend to desorb from soil, are less likely to volatilize from water, and are susceptible to biodegradation. The water solubility of a chemical varies with temperature, pH, and the presence of other dissolved chemicals (including organic carbon and humic acids). PAH SRCs are present at most DUs and have solubilities that ranges as low as 10^{-4} milligrams per liter (mg/L).

The octanol-water partition coefficient (K_{ow}) can be used to estimate the tendency for a chemical to partition between environmental phases of different polarities. The K_{ow} is a laboratory-determined ratio of the concentration of a chemical in the n-octanol phase of a two-phase system to the concentration in the water phase. Chemicals with log K_{ow} values that are less than 1 are highly soluble, while chemicals with log K_{ow} values greater than 4 will partition to soil particles (Lyman et al. 1990).

The water/organic carbon partition coefficient (K_{oc}) is a measure of the tendency of an organic chemical to partition between water and organic carbon in the soil. The K_{oc} is defined as the ratio of the absorbed chemical per unit weight of organic carbon to the aqueous solute concentration. This coefficient can be used to estimate the degree to which an organic chemical will adsorb to soil and, thus, not migrate with groundwater. The higher the K_{oc} value, the greater is the tendency of the chemical to partition into soil (OGE 1988). The sorption coefficient (K_d) is calculated by multiplying the K_{oc} value by the fraction of organic carbon in the soil. The PAH SRCs have higher K_{oc} than the VOC SRCs, tending to bind to the soil more readily than the VOCs.

Vapor pressure is a measure of the pressure at which a chemical and its vapor are in equilibrium. The value can be used to determine the extent to which a chemical would travel in air, as well as the rate of volatilization from soil and solution (OGE 1988). In general, chemicals with vapor pressures lower than 10^{-7} millimeters of mercury will not be present in the atmosphere or air spaces in soil in significant amounts, while chemicals with vapor pressures higher than 10^{-2} mm mercury will exist primarily in the air (Dragun 1988).

The HLC value for a chemical is a measure of the ratio of the chemical's vapor pressure to its aqueous solubility. The HLC value can be used to make general predictions about the chemical's tendency to volatilize from water. Substances with HLC values less than 10^{-7} atmospheres relative to cubic meters per mol (atm-m^3/mol) will generally volatilize slowly, while chemicals with an HLC greater than 10^{-3} atm-m^3/mol will volatilize rapidly (Lyman et al. 1990). CC

RVAAP-68 Electric Substations (East, West, No. 3) PAH SRCs have HLCs in the 10^{-7} atm-m^3/mol range and, therefore, do not easily volatize.

This page intentionally left blank

Table 6-1: Physical and Chemical Properties of Organic and Inorganic Site-Related Chemicals for the Subsurface Soil

SRCs	Site Background Criteria	Maximum Concentration (mg/kg)	SRC - Yes/No	K_d (L/kg) or K_{oc} (L/kg)	Reference	HLC (atm-m^3/mol)	Reference	Molecular Weight	Solubility (mg/L)	Reference	Diffusion Coefficient in Air (cm^2/sec)	Reference	Diffusion Coefficient in Water (cm^2/sec)	Reference	Generic SSL (mg/kg)	Reference
Metals																
Cadmium		0.28	Yes	75	b	NA	-	112	NA	-	NA	-	NA	-	0.38	d
Silver		0.041	Yes	8.3	b	NA	-	108	NA	-	NA	-	NA	-	1.6	d
Mercury		0.21	Yes	52	b	114	d	201	0.06	d	0.0307	d	0.0000063	d	10	d
Volatile Organic Compounds																
Carbon Disulfide	NB	0.0031	Yes	21.73	d	0.0144	d	76.13	2160	d	0.10645	d	0.000013	d	3710	d
Semivolatile Organic Compounds																
2-Methylnaphthalene	NB	0.014	Yes	2,480	d	0.000518	d	142	24.6	d	0.0524	d	0.00000778	d	0.75	d
Acenaphthylene (RSL use Acenaphthene)	NB	0.022	Yes	7,400	e	0.0000119	d	152	16.1	R	0.045	R	0.00000698	R	120	d
Anthracene	NB	0.052	Yes	16,400	d	0.0000556	d	178	0.0434	d	0.039	d	0.00000785	d	360	d
Benzo(a)anthracene	NB	0.12	Yes	177,000	d	0.000012	d	228	0.0094	d	0.0509	d	0.00000594	d	0.01	d
Benzo(a)pyrene	NB	0.094	Yes	587,000	d	0.000000457	d	252	0.00162	d	0.0476	d	0.00000556	d	0.024	d
Benzo(b)fluoranthene	NB	0.2	Yes	599,000	d	0.000000657	d	252	0.0015	d	0.0476	d	0.00000556	d	0.035	d
Benzo(g,h,i)perylene	NB	0.089	Yes	10,700,000	e	0.00000014	e	276	0.00026	R	NA	R	NA	R	120	d
Benzo(k)fluoranthene	NB	0.056	Yes	587,000	d	0.000000584	d	252	0.0008	d	0.0476	d	0.00000556	d	35	d
Chrysene	NB	0.15	Yes	181,000	d	0.00000523	d	228	0.002	d	0.0261	d	0.00000675	d	1.1	d
Dibenzofuran	NB	0.017	Yes	9,160	d	0.000213	d	168	3.1	d	0.041	d	0.00000738	d	0.68	d
Fluoranthene	NB	0.27	Yes	55,500	d	0.00000886	d	202	0.26	d	0.0276	d	0.00000718	d	160	d
Fluorene	NB	0.013	Yes	9,160	d	0.0000962	d	166	1.69	d	0.044	d	0.00000789	d	27	d
Indeno(1,2,3-c,d)Pyrene	NB	0.072	Yes	1,950,000	d	0.000000348	d	276	0.00019	d	0.0448	d	0.00000523	d	0.12	d
Naphthalene	NB	0.017	Yes	1,540	d	0.00044	d	128	31	d	0.0605	d	0.00000838	d	0.00047	d
Phenanthrene (used Regional Screening Level for Acenaphthene)	NB	0.18	Yes	18,200	e	0.0000393	e	178	1.15	R	0.0345	R	0.00000669	R	120	d
Pyrene	NB	0.22	Yes	54,300	d	0.0000119	d	202	0.14	d	0.0278	d	0.00000725	d	120	d
Propellants																
Nitrocellulose	NB	0.88	Yes	10	b	3.29×10^{-23}	b	387.30	1,000,000	b	0.0357593	b	0.00000418	b	1,000	b

Notes:

b U.S. Environmental Protection Agency (USEPA). 1996b. Soil Screening Guidance assuming a neutral pH: Technical Background Document. May.

c Sheppard and Thibault. 1990. Default soil/liquid partition coefficients, K_ds, for four major soil types: a compendium. Health Physics 59; 471-482.

d USEPA Regional Screening Level. 2010. Found at http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm. May.

e USEPA. 1994. Risk Reduction Engineering Laboratory Treatability Database, Ver. 5.0, Office of Research and Development, Cincinnati, Ohio.

atm-m^3/mol = Atmospheres relatives to cubic meter per mol.
cm^2/sec = Square centimeters per second.
cw = Target groundwater concentration (either Maximum Contaminant Level or Regional Screening Level).
HLC = Henry's Law Constant.
K_d = Distribution coefficient.
K_{oc} = Organic partition coefficient.
L/kg = Liters per kilogram.
mg/kg = Milligrams per kilogram.
mg/L = Milligrams per liter.
NA = Not available.
NB = No background.
R = Risk Assessment Information System.
SRC = Site-related chemical.
SSL = Site Screening Level.

This page intentionally left blank

6.1.2 Biodegradation

Organic chemicals with differing chemical structures will biodegrade at different rates. Primary biodegradation consists of any biologically-induced structural change in an organic chemical. Complete biodegradation is the biologically-mediated degradation of an organic chemical into carbon dioxide, water, oxygen, and other metabolic inorganic products (Dragun 1988). The biodegradation half-life is the time necessary for half of the chemical to degrade. The biodegradation rate of an organic chemical is generally dependent on the presence and population size of soil microorganisms that are capable of degrading the chemical. However, it should be noted that in order to develop conservative results with respect to groundwater impact, the fate and transport analyses for CC RVAAP-68 Electric Substations (East, West, No. 3) do not account for any loss due to biodegradation.

6.1.3 Inorganic Chemicals

Inorganic chemicals detected in soil samples are associated with both the aqueous phase and with leachable metal ions on soil particles. The transport of this material from unsaturated soil to the underlying water table is controlled by the physical processes of precipitation, percolation, chemical interaction with the soil, and downward transport of metal ions by continued percolation. The chemistry of inorganic interaction with percolating precipitation and varying soil conditions is complex and includes numerous chemical transformations that may result in altered oxidation states, ion exchange, adsorption, precipitation, or complexation. The chemical reactions, which are affected by environmental conditions (e.g., pH, oxidation/reduction conditions, type and amount of organic matter, clay content, and the presence of hydrous oxides) may act to enhance or reduce the mobility and toxicity of the metal ions. In general, these reactions are reversible and add to the variability commonly observed in distributions of inorganic chemicals in soil.

The chemical form of an inorganic chemical determines its solubility and mobility in the environment; however, chemical speciation is complex and difficult to delineate in routine laboratory analysis. Inorganic chemicals in soil are commonly found in several forms, including dissolved concentrations in soil pore water, metal ions occupying exchange sites on inorganic soil chemicals (adsorbed to inorganic soil chemicals), metal ions associated with insoluble organic matter, precipitated inorganic chemicals as pure or mixed solids, and metal ions present in the structure of primary or secondary minerals.

The dissolved (aqueous) fraction and its equilibrium sorbed fraction are of primary importance when considering the migration potential of metals through soil. Of the inorganic chemicals that are likely to form, chlorides, nitrates, and nitrites are commonly the most soluble. Sulfate, carbonate, and hydroxides generally have low to moderate solubility. Soluble chemicals are transported in aqueous form subject to attenuation, whereas less soluble chemicals remain as a precipitate and limit the overall dissolution of the metal ions. The solubility of the metal ions is also regulated by ambient chemical conditions, including pH and oxidation/reduction.

The attenuation of metal ions in the environment can be estimated numerically using the retardation factor (R), dispersion in higher flow systems (high conductivity environments), and

diffusion in low conductivity environments. The retardation factor defines the extent to which the velocity of the contaminant is slowed, which is largely derived from K_d.

Metal ion concentrations in the environment do not attenuate by natural or biological degradation because of the low volatility and solubility of the ions. Inorganic chemicals may be biotransformed or bioconcentrated through microbial activity.

6.1.4 Organic Chemicals

Organic chemicals, such as the CC RVAAP-68 Electric Substations (East, West, No. 3) SVOC or VOC SRCs, detected in soil may be transformed or degraded in the environment by various processes, including hydrolysis, oxidation/reduction, photolysis, volatilization, biodegradation, or biotransformation. The half-life of organic chemicals in the transport media can vary from minutes to years, depending on environmental conditions and the structures of the chemicals. Some types of organic chemicals are very stable, and degradation rates can be very slow (e.g., characterized by half-lives on the order of years). Organic degradation may either enhance (through the production of more toxic byproducts) or reduce (through concentration reduction) the toxicity of a chemical in the environment.

6.2 CONCEPTUAL MODEL FOR FATE AND TRANSPORT

The CSM, which defines the framework for fate and transport evaluation, describes conditions at CC RVAAP-68 Electric Substations (East, West, No. 3), including the contaminant sources, surface and subsurface hydrogeologic conditions, contaminant migration and pathways, and the contaminant release mechanisms.

Site conditions described in Chapters 2.0 through Section 5.0 include contaminant source information, the surrounding geologic and hydrologic conditions, and the magnitude of SRCs and their current spatial distribution. Information from the CSM presented in Section 3.6 and the nature and extent evaluation in Section 5.0 was used to develop the CSM for fate and transport modeling by identifying SRCs and migration pathways. Figure 6-1 shows the CSM for this AOC. The CSM is based on information and data collected from historical investigations, this RI report, and informed assumptions about CC RVAAP-68 Electric Substations (East, West, No. 3). Assumptions contained in the CSM are reiterated throughout this section. The better the information and the greater the accuracy of the assumptions, the more accurately the CSM describes CC RVAAP-68 Electric Substations (East, West, No. 3), and the more reliable the fate and transport evaluation predictions can be. The salient elements of the CSM that apply to fate and transport evaluation are summarized in Figure 6-1. Although the figure specifically shows Substation No. 3, the migration pathways are the same for the other two substations.

6.2.1 Contaminant Sources

No primary (continuing) contaminant sources are located in CC RVAAP-68 Electric Substations (East, West, No. 3). Secondary sources (contaminated media) were identified and characterized during this RI. Based on these characterizations, contaminated soil media may represent a

potential secondary source of contamination to groundwater (vertical migration) or surface water (lateral migration to the nearest surface water body).

6.2.2 Hydrogeology

A description of AOC-specific hydrogeology as applicable to soil media is provided in Section 3.2 and is briefly summarized here.

East Substation—No facility-wide groundwater monitoring wells are located at the former East Substation. The nearest facility-wide groundwater monitoring well is LL2mw-270, located approximately 1,750 ft to the southeast within the Load Line 2 AOC. This well is screened from 9.8 to 19.8 ft bgs in the Sharon Sandstone aquifer. The boring logs (Appendix A) from the East Substation suggest that silty clay is predominantly present beneath the area to at least 7 ft bgs. The DSB log (SB01 of DU01) indicates that dry clay is present from 7 to 13 ft bgs. As shown on Figure 2-5, the East Substation is located within an area that is mapped as having no unconsolidated aquifer; the first aquifer encountered is likely in the Sharon Sandstone at depths greater than 13 ft bgs. As shown on Figure 2-6, the East Substation is located near a presumed localized groundwater high within the Sharon Sandstone Member, with a relatively flat gradient. While the direction of groundwater flow beneath the East Substation is difficult to predict, the overall direction of groundwater flow within the Sharon Sandstone is to the east. The closest surface water body is a tributary to Sand Creek located approximately 1,000 ft to the north.

West Substation—No facility-wide groundwater monitoring wells are located at the West Substation. The HRR identifies the nearest facility-wide groundwater monitoring well as SCFmw-001, located approximately 150 ft southwest of the West Substation. This well is screened from 201 to 211 ft bgs in the Sharon Conglomerate aquifer. The closest unconsolidated groundwater monitoring well (LL6mw-001) is located approximately 640 ft southwest of the former West Substation. The boring logs from the West Substation (Appendix A) indicate that, in some places, there may be a thin, perched wet zone on top of moist silty clay at approximately 4 ft bgs. The log from the DSB suggests that the silty clay is present to at least 13 ft bgs with no indication that groundwater was encountered. As shown on Figure 2-5, the West Substation is located in an area of localized high groundwater levels (mounded) with a relatively flat gradient. Therefore, groundwater flow direction beneath the West Substation could vary in the unconsolidated aquifer; however, based on the topographic map (Figure 3-1b), it likely flows northeast. The nearest surface water body is a wetland located approximately 800 ft northeast.

Substation No. 3—No facility-wide groundwater monitoring wells are located at the Substation No. 3 AOC. The nearest facility-wide groundwater monitoring well is LL11mw-001, approximately 1,350 ft northwest of the Substation No. 3. This well is screened from 11.4 to 21.4 ft within the unconsolidated aquifer. The borings logs from Substation No. 3 indicate that a wet, silty sand layer may exist at approximately 5 ft bgs. In one of the borings, a moist silty clay is present below the silty sand layer at approximately 6 ft bgs; and in another boring, the silty sand layer was not encountered. This suggests that the wet layer is likely small in lateral extent and thin in vertical extent. The unconsolidated groundwater beneath Substation No. 3 likely flows southeast. The nearest surface water body is a wetland located approximately 100 ft southeast.

6.2.3 Contaminant Release Mechanisms and Migration Pathways

Based on the information above, the following contaminant release mechanism and migration pathways have been identified at CC RVAAP-68 Electric Substations (East, West, No. 3):

- Percolation of water through the unsaturated soil to the water table (i.e., vertical leaching of chemicals from soil into groundwater)

- Lateral transport of contaminants in groundwater to downgradient receptors (surface water bodies)

Precipitation that does not leave CC RVAAP-68 Electric Substations (East, West, No. 3) as surface runoff percolates into the subsurface. Some of the infiltrating water leaves this environment via evapotranspiration after little or no vertical migration. The remainder of the water percolates into the water table. The rate of percolation is controlled by soil cover, ground slope, saturated conductivity of the soil, and meteorological conditions.

After the contaminant leachate percolates through the soil and reaches the water table in unconsolidated deposits, it migrates with the local groundwater and potentially discharges to a downgradient surface water body. For the East Substation, contaminant leachate percolates through unsaturated silty clays to the bedrock (Sharon Sandstone) and then migrates within the bedrock to a tributary of Sand Creek located approximately 1,000 north. For the West Substation, contaminant leachate percolates through unsaturated silty clays to the unconsolidated aquifer and then migrates within the unconsolidated aquifer to a wetland located approximately 800 ft northeast. For the Substation No. 3, contaminant leachate percolates through unsaturated soil to the unconsolidated aquifer and then migrates within the unconsolidated aquifer to wetlands located approximately 100 ft southeast.

It should be noted that due to the very heterogeneous nature of the unconsolidated glacial material, groundwater flow patterns within the unconsolidated soil are difficult to predict. Groundwater flow likely occurs along preferential pathways (e.g., sand seams, channel deposits, or other stratigraphic discontinuities) having higher permeabilities. For inorganic chemicals, lateral migration through groundwater is very limited due to their high retardation (USACE 2003).

Additional factors that affect the leaching rate include a chemical's solubility, sorption capacity (expressed by the K_d), and the flux rate of percolation. Insoluble chemicals will precipitate out of solution in the subsurface or remain in insoluble forms with little leaching.

Another factor that affects whether a chemical will reach the water table through percolation of precipitation is the chemical's rate of decay. Most of the organic chemicals decay at characteristic rates that are proportional to the chemical's half-life. For a given percolation rate, those chemicals with long half-lives have a greater potential for contaminating groundwater than do those with shorter half-lives. For this analysis, the rate of decay/half-life was not considered.

Contaminant releases through gaseous emissions and airborne particulates are not significant for this media because of the subsurface nature of the media. Also, the areas are generally vegetated, located in a humid and temperate climate, and soil moisture content is typically high, which prevents dust-borne contaminant migration. Therefore, there is likely little to no gaseous emission, and contaminant levels in the air pathway are minor to nonexistent.

6.2.4 Water Budget

The potential for contaminant transport begins with precipitation. Percolation is the driving mechanism for leaching of soil chemicals to groundwater. The actual amount of rainwater available for flow and percolation to groundwater is highly variable and depends on soil type and climatic conditions. A water balance calculation can be used as a tool to quantitatively account for all components of the hydrologic cycle. The quantified elements of the water balance are used for inputs to the soil leaching and groundwater transport calculations discussed later. The components of a simple steady-state water balance model include precipitation, evapotranspiration, surface runoff, and groundwater recharge or percolation. These terms are defined as follows:

$$P = ET + Sr + q \qquad \text{(Equation 6-1)}$$

or

$$\text{Rainwater available for flow} = Sr + q = P - ET \qquad \text{(Equation 6-2)}$$

where

ET = Evapotranspiration.
p = Precipitation.
q = Groundwater recharge or percolation.
Sr = Surface runoff.

It is expected that loss of runoff also occurs in the form of evaporation. After runoff and evaporation, the remaining water is available for percolation, which includes loss to the atmosphere by evapotranspiration. The water balance estimations were developed using the Hydrologic Evaluation of Landfill Performance (HELP) model (USEPA 1994). See Table 6-2 for parameters used in the HELP model to develop the water budget estimates used in the evaluation. Calculations using precipitation and temperature data for a 100-year period were generated synthetically using coefficients for Youngstown, Ohio.

The annual average water balance estimates indicate an evapotranspiration of 28 percent (10.3 inches) of total precipitation (37 inches). The remaining 72 percent (27 inches) of rainwater is available for surface water runoff and percolation to groundwater. Of the 27 inches of water available for runoff or percolation, groundwater recharge (percolation) accounts for 13 percent (3.6 inches), and surface runoff (along topography to nearest surface water bodies) accounts for the remaining 87 percent (23.4 inches).

Table 6-2: Climatic Data for Hydrologic Evaluation of Landfill Performance Model

Month	Air Temp (^{o}C)	Cloud Cover	Humidity	Albedo	Evapotranspiration (cm/day)	Precipitation (cm)	Duration (days)	Storms per Month	Model Days in Month
October	12	0.60	0.70	0.17	0.00	6.46	0.42	5.33	30.4
November	5.22	0.70	0.75	0.24	0.00	7.4	0.53	6.67	30.4
December	-1.06	0.80	0.75	0.31	0.00	7.06	0.57	6.14	30.4
January	-2.94	0.80	0.80	0.3	0.00	7.06	0.61	5.69	30.4
February	-2.33	0.70	0.75	0.32	0.00	5.76	0.53	5.09	30.4
March	2.33	0.70	0.70	0.29	0.00	8.26	0.55	7.14	30.4
April	9.11	0.70	0.70	0.19	0.00	8.83	0.48	7.4	30.4
May	14.61	0.60	0.70	0.16	0.00	8.46	0.45	7.15	30.4
June	19.89	0.60	0.70	0.16	0.00	9.07	0.36	6.57	30.4
July	21.89	0.50	0.70	0.16	0.00	9.8	0.3	6.06	30.4
August	21.11	0.55	0.70	0.16	0.00	8.14	0.3	6.06	30.4
September	17.67	0.55	0.70	0.16	0.00	7.85	0.4	5.44	30.4

Notes:
1996 data from Youngstown, Ohio, Weather Service Office – Airport Station.
^{o}C = Celsius.
cm = Centimeter.

6.3 SOIL SCREENING ANALYSIS

Soil screening analyses are evaluations performed to identify those SRCs that are initial contaminant migration COPCs with the potential to leach to and migrate in groundwater. The soil leachability analysis is a five-step screening process. The steps of the screening analysis for each substation include the following:

1. Identify the SRCs for subsurface soil that are defined in the nature and extent evaluation for CC RVAAP-68 Electric Substations (East, West, No. 3).

2. Compare the maximum concentration of SRCs with generic Soil Screening Levels (SSLs) to develop initial contaminant migration COPCs.

3. Develop a site-specific dilution attenuation factor (DAF) applicable to CC RVAAP-68 Electric Substations (East, West, No. 3) using the Field Sampling and Selecting Onsite Analytical Methods for Explosives in Soil (USEPA 1996b) and compare the maximum concentration of initial contaminant migration COPCs with site-specific SSLs (Generic SSL multiplied by the site-specific DAF) to refine the initial contaminant migration COPCs.

4. Estimate the contaminant vertical migration travel time to reach the water table and eliminate the initial contaminant migration COPCs that take more than 1,000 years to migrate from the source area to the water table.

5. Estimate the contaminant lateral migration travel time to the downgradient receptor location and eliminate the remaining initial contaminant migration COPCs that take more than 1,000 years to migrate from the location in groundwater beneath the source area to the downgradient receptor location. The initial contaminant migration COPCs that have

lateral travel times less than 1,000 years require additional evaluation using fate and transport models that are discussed in Steps 6 and 7.

Steps 1 through 5 are considered Screen I and do not include any fate and transport modeling.

Fate and Transport Modeling

Two additional steps (Steps 6 and 7) involving contaminant fate and transport modeling (Screen II) are performed only if initial contaminant migration COPCs are identified in Step 5 that may reach the downgradient receptor in less than 1,000 years:

6. Conduct Seasonal Soil Compartment (SESOIL) modeling (General Sciences Corporation 1998) for all initial contaminant migration COPCs and compare the predicted maximum leachate concentrations with appropriate screening criteria to identify final contaminant migration COPCs.

7. Conduct Analytical Transient 1-, 2-, 3-Dimensional modeling (Department of Energy 1992) for all final contaminant migration COPCs and compare the predicted groundwater concentration beneath the source and at the downgradient receptor location with appropriate screening criteria to identify final contaminant migration COCs.

The contaminant migration COCs are defined as the chemicals with potential to leach to groundwater and migrate to downgradient receptor locations at a concentration exceeding the FWCUGs for the AOC-specific receptors, facility-wide background concentrations, and Maximum Contaminant Level (MCL)/RSL. If a predicted chemical concentration was lower than at least one of these three screening goals at the downgradient receptor locations, the chemical was not considered a contaminant migration COC.

6.3.1 Soil Screening Analysis

To identify potential contaminant migration COPCs, each substation was evaluated separately for this soil screening analysis. The first step of soil screening analysis was to develop SRCs. SRCs were identified in Chapter 5.0 for subsurface soil for each substation and are presented in Table 6-1.

The second step of the screening process compared the MDCs of the SRCs at each substation with MCL-based generic SSLs shown on Table 6-3. The generic SSLs were developed for Superfund sites for contaminant migration to groundwater (USEPA 1996a, 2010). The generic SSL is defined as the concentration of a constituent in soil that represents a level of contamination below which there is no concern for impacts to groundwater under CERCLA, provided conditions associated with SSLs are met. Generally, if contaminant concentrations in soil fall below the generic SSL, and there are no groundwater receptors of concern or anticipated exposures, no further study or action is warranted for that area. If the generic SSL for a chemical is not available, the USEPA risk-based (USEPA 2010) SSL for soil for groundwater migration was used. If neither the USEPA generic SSL nor the USEPA risk-based SSL for a chemical is available, no further evaluation of the chemical was performed, and it was eliminated from the list of the initial contaminant migration COPCs. However, some chemicals were assigned

surrogates by risk assessors because the chemical without an SSL is similar to another chemical with an SSL. As shown in Table 6-3 below, only four SRCs (all SVOCs) were retained as initial contaminant migration COPCs after Step 2 screening was completed.

Table 6-3: Initial Contaminant Migration Chemicals of Potential Concern Based on Comparison of Maximum Concentrations of Site-Related Chemicals to Generic Soil Screening Levels

SRCs		Maximum Concentration (mg/kg)	Generic SSL (mg/kg)	Contaminant Migration COPC? (Yes/No)	Contaminant Migration COPC Justification
Metals					
Cadmium	mg/kg	0.28	0.38	No	Below Generic SSL
Silver	mg/kg	0.041	1.6	No	Below Generic SSL
Mercury	mg/kg	0.21	10	No	Below Generic SSL
Volatile Organic Compounds					
Carbon Disulfide	mg/kg	0.0031	3,710	No	Below Generic SSL
Semivolatile Organic Compounds					
2-Methylnaphthalene	mg/kg	0.014	0.75	No	Below Generic SSL
Acenaphthylene (Regional Screening Level use Acenaphthene)	mg/kg	0.022	120	No	Below Generic SSL
Anthracene	mg/kg	0.052	360	No	Below Generic SSL
Benzo(a)anthracene	**mg/kg**	**0.12**	**0.01**	**Yes**	**Exceeds Generic SSL**
Benzo(a)pyrene	**mg/kg**	**0.094**	**0.024**	**Yes**	**Exceeds Generic SSL**
Benzo(b)fluoranthene	**mg/kg**	**0.2**	**0.035**	**Yes**	**Exceeds Generic SSL**
Benzo(g,h,i)perylene	mg/kg	0.089	120	No	Below Generic SSL
Benzo(k)fluoranthene	mg/kg	0.056	35	No	Below Generic SSL
Chrysene	mg/kg	0.15	1.1	No	Below Generic SSL
Dibenzofuran	mg/kg	0.017	0.68	No	Below Generic SSL
Fluoranthene	mg/kg	0.27	160	No	Below Generic SSL
Fluorene	mg/kg	0.013	27	No	Below Generic SSL
Indeno(1,2,3-c,d)Pyrene	**mg/kg**	0.072	0.12	No	Below Generic SSL
Naphthalene	**mg/kg**	**0.017**	**0.00047**	**Yes**	**Exceeds Generic SSL**
Phenanthrene (used Regional Screening Level for Acenaphthene)	mg/kg	0.18	120	No	Below Generic SSL
Pyrene	mg/kg	0.22	120	No	Below Generic SSL
Propellants					
Nitrocellulose	mg/kg	0.88	1,000	No	Below Generic SSL

Notes:
* Ohio EPA Voluntary Action Program Residential Standard.
Bold indicates initial contaminant migration COPC that exceeds Generic SSL.
COPC = Chemical of potential concern.
mg/kg = Milligrams per kilogram.
SRC = Site-related chemical.
SSL = Soil Screening Level.

The third step of the soil screening process compared the MDCs of the initial contaminant COPCs (i.e., the four SVOCs identified in Step 2) with the site SSLs shown in Table 6-4. The site SSL is defined as the generic SSL multiplied by the DU-specific DAF. In the derivation of the generic SSLs, direct partitioning was used, assuming groundwater is in contact with the chemicals in soil and the groundwater concentration is equal to the leachate concentration. However, as leachate moves through soil, contaminant concentrations are attenuated by adsorption and degradation. When the leachate reaches the water table, dilution by groundwater further reduces leachate concentrations. This reduction in concentration can be expressed by a DAF. The DAFs can vary based on DU-specific characteristics (e.g., hydrogeologic properties, contaminated source area, depth to contamination) (Table 6-5). Given the proximity of each substation DU and their relative size, an average source area was calculated for the DAF. As described in the Soil Screening Guidance: Technical Background Document (USEPA 1996a), contaminant dilution in groundwater was estimated from the DU-specific DAF. Dilution in groundwater was derived from a simple mixing zone equation (Equation 6-3) and relied upon estimation of the mixing zone depth (Equation 6-4). As shown in Table 6-4 below, the four SVOCs were retained as initial contaminant migration COPCs because their MDCs were greater than the site SSLs.

Table 6-4: Initial Contaminant Migration Chemicals of Potential Concern Based on Comparison of Maximum Concentrations of Site-Related Chemicals to Site Soil Screening Levels

Initial CMCOPCs	Maximum Detected Concentration (mg/kg)	Generic SSL (mg/kg)	DAF	Site SSL (DAF*Generic SSL) (mg/kg)	CMCOPC? (Maximum Concentration> Site SSL)	CMCOPC Justification
Semivolatile Organic Compounds						
Benzo(a)anthracene	**0.12**	**0.01**	**1.3**	**0.01**	**Yes**	**Exceeds Site SSL**
Benzo(a)pyrene	**0.09**	**0.024**	**1.3**	**0.03**	**Yes**	**Exceeds Site SSL**
Benzo(b)fluoranthene	**0.20**	**0.035**	**1.3**	**0.05**	**Yes**	**Exceeds Site SSL**
Naphthalene	**0.017**	**0.00047**	**1.3**	**0.0006**	**Yes**	**Exceeds Site SSL**

Notes:
BOLD - Initial Contmainant Migration COPC that exceeds Site SSL
SSL - Soil Screening Level
RSL - Regional Screening Level
mg/kg - milligrams per kilogram
SRC - Site-Related Chemical
DAF - Dilution Attenuation Factor (Calculated on Table 6-5)
CMCOPC - Contaminant migration chemical of potential concern
> = greater than

Table 6-5: Parameters for Determination of Dilution Attenuation Factor

Parameter	Symbol	Value	Unit	Note
Dilution attenuation factor	DAF	see below	unitless	Calculated from DAF equation below
Aquifer hydraulic conductivity (East Substation)	K	18	m/year	MKM Engineers, Inc. (2007) Sharon Sandstone
Aquifer hydraulic conductivity (West Substation)	K	41	m/year	MKM Engineers, Inc. (2007) unconsolidated deposits
Aquifer hydraulic conductivity (Substation No. 3)	K	41	m/year	MKM Engineers, Inc. (2007) unconsolidated deposits
Horizontal hydraulic gradient (East Substation)	i	0.0045	unitless	Determined from Figure 2.6 (EQM 2013)
Horizontal hydraulic gradient (West Substation and Substation No. 3)	i	0.0078	unitless	Determined from EQM 2013
Percolation rate	q	0.091	m/year	Developed from HELP Model using Youngstown, Ohio weather data
Source length parallel to groundwater flow	L	see below	m	Across each DU in downgradient direction (see below)
Mixing zone depth	d	see below	m	Calculated from d equation below
Aquifer thickness (East Substation)	da	10	m	Minimum thickness based on screened interval of LL2MW-270
Aquifer thickness (West Substation and Substation No. 3)	da	6	m	Facility-wide assumption for the unconsolidated aquifer presented in the Load Line 1 Investigation (USACE 2003)

$$DAF = 1+(K*i*d)/(q*L)$$

$$d = (0.0112*L^2)^{0.5} + da(1-\exp(((-L*q)/(K*i*da))$$

Source Length Parallel to Groundwater Flow (meters)	Source Area	Dilution Attenuation Factor (unitless)	Mixing Zone Depth (d) (ft)
30	East Substation DU01		
30	East Substation DU02		
67	East Substation DU03		
43	**Average for East Substation**	1.30	14
24	West Substation DU01		
24	West Substation DU02		
34	West Substation DU03		
27	**Average for West Substation**	1.93	7
30	**Substation No. 3 DU01**	1.90	8

Notes:
DAF = Dilution attenuation factor.
DU = Decision unit.
EQM = Environmental Quality Management.
HELP = Hydrologic Evaluations of Landfill Performance.
m = Meter.
USACE = U.S. Army Corps of Engineers.

$$DAF = 1+(K*i*d)/(q*L) \quad \text{(Equation 6-3)}$$

where

DAF = Dilution attenuation factor.
K = Aquifer hydraulic conductivity (m/year).
i = Horizontal hydraulic gradient (m/m).
q = Percolation rate (m/year).
L = Source length parallel to groundwater flow (m).
d = Mixing zone depth (m) (which is defined below).

$$d=(0.0112*L^2)^{0.5} + da(1-\exp((-L*q)/(K*i*da)) \quad \text{(Equation 6-4)}$$

where

da = Aquifer thickness (m).

As stated above, if the aquifer thickness was less than the calculated mixing zone depth, the aquifer thickness was used for "d" in the DAF calculation as shown in Table 6-5. It should be noted that the purpose of this screen is not to identify the contaminants that may pose risk at downgradient locations, but to target those contaminants that may pose the greatest problem if they migrate from CC RVAAP-68 Electric Substations (East, West, No. 3). If contaminant concentrations in soil fell below the site SSL, and there were no groundwater receptors of concern or anticipated exposures, no further study or action was warranted for that area.

Table 6-6: Leaching Zone Thickness Determination

Initial CMCOPCs	Maximum Concentration (mg/kg)	Deepest SRC Detection (ft bgs)	Average Depth to Water (ft bgs) Substation			Leaching Zone (ft) Substation			Sample Identification and Substation
			East Substation	West	No. 3	East Substation	West	No. 3	
Semivolatile Organic Compounds									
Benzo(a)-anthracene	0.12	7	13	13	5	6	6	0	068SB-0025M-0001-SO West DU01
Benzo(a)-pyrene	0.094	7	13	13	5	6	6	0	068SB-0024M-0001-SO West DU01
Benzo(b)-fluoranthene	0.20	7	13	13	5	6	6	0	068SB-0024M-0001-SO West DU01
Naphthalene	0.017	7	13	13	5	6	6	0	068SB-0046M-0001-SO East DU02

Notes:
> = Greater than.
bgs = Below ground surface.
CMCOPC = Contaminant migration chemical of potential concern.
SRC = Site-Related Chemical
ft = Feet (foot).
mg/kg = Milligrams per kilogram.

The fourth step of the soil screening process eliminated from further consideration those initial contaminant migration COPCs identified in Step 3 that required more than 1,000 years to leach through the unsaturated zone before reaching the water table, as shown in Table 6-7.

Table 6-7: Initial Contaminant Migration Chemicals of Potential Concern Based on Arrival Time to Groundwater Table in Less than or Equal to 1,000 Years

Initial CMCOPCs	Maximum Concentration (mg/kg)	Sample Identification	Sample Depth[(1)] (ft)	Lz[(b)] (ft)	K_{oc} (L/kg)	K_d (L/kg)	R	T (years)	T < 1,000? From Sample Depth to Groundwater Table (Yes/No)
East and West Substations									
Semivolatile Organic Compounds									
Benzo(a)-anthracene	0.12	068SB-0025M-0001-SO	1-7	6	177,000	177	1,220	6,137	No
Benzo(a)-pyrene	0.09	068SB-0024M-0001-SO	1-7	6	587,000	587	4,042	20,342	No
Benzo(b)-fluoranthene	0.20	068SB-0024M-0001-SO	1-7	6	599,000	599	4,125	20,757	No
Naphthalene	**0.017**	**068SB-0046M-0001-SO**	**4-7**	**6**	**1,540**	**2**	**11.6**	**58**	**Yes**
Substation No. 3									
Semivolatile Organic Compounds									
Benzo(a)-anthracene	**0.12**	**068SB-0025M-0001-SO**	**1-7**	**0**	**177,000**	**177**	**1,220**	**0**	**Yes**
Benzo(a)-pyrene	**0.09**	**068SB-0024M-0001-SO**	**1-7**	**0**	**587,000**	**587**	**4,042**	**0**	**Yes**
Benzo(b)-fluoranthene	**0.20**	**068SB-0024M-0001-SO**	**1-7**	**0**	**599,000**	**599**	**4,125**	**0**	**Yes**
Naphthalene	**0.017**	**068SB-0046M-0001-SO**	**4-7**	**0**	**1,540**	**2**	**11.6**	**0**	**Yes**

Notes:
1. The maximum depth of an initial contaminant migration chemical of potential concern (based on the maximum depth that an analyte is detected above facility-wide background.
2. Leaching zone thickness (Table 6-6).

Bold indicates initial CMCOPC with travel time <1,000 years.

< = Less than.
CMCOPC = Contaminant migration chemical of potential concern.
ft = Feet (foot).
Kd = Sorption coefficient.
Koc = Water/organic carbon partition coefficient.
L/kg = Liter per kilogram.
Lz = Leaching zone thickness.
mg/kg = Milligrams per kilogram.
NA = Not applicable.
R = Retardation factor.
T = Arrival time in years.

The time period of 1,000 years was conservatively selected to evaluate eventual migration of the contaminant front to the water table despite uncertainties in vadose zone hydraulic parameters and groundwater recharge over time. Additionally, USACE suggests a screening value of 1,000 years be used due to the high uncertainty associated with predicting conditions beyond that time

frame (USACE 2003). Therefore, the initial contaminant migration COPCs at the selected sources were screened against a travel time greater than 1,000 years. The travel time in this step is the time required for a contaminant migration COPC to migrate vertically from the base of the soil interval detected above its background concentration to the water table. This distance is the leaching zone, which varies for CC RVAAP-68 Electric Substations (East, West, No. 3) based on the varying depths of soil sample concentrations above the BSVs and the elevation of the water table. A conservative value for the leaching zone was always used, based on the minimum distance above the water table for each substation. The estimated travel time for each initial contaminant migration COPC to reach the water table was determined using the following equations:

$$T_{LC}=\frac{Lz \times R}{V_p}$$

(Equation 6-5)

where:

T_{LC} = Leachate travel time to the water table (year).
Lz = Thickness of attenuation zone (ft).
R = Retardation factor (dimensionless).
Vp = Pore water velocity (ft/year).

$$V_p=\frac{q}{\Theta_w}$$

(Equation 6-6)

where:

q = Percolation rate (ft/year).
θ_W = Fraction of total porosity that is filled by water.

If the travel time for a chemical from a source area to the water table exceeds 1,000 years, the chemical is eliminated from the list of initial contaminant migration COPCs. If the travel time for a chemical from a source area to the water table exceeded 1,000 years, the chemical was eliminated from the list of initial contaminant migration COPCs. See Table 6-8 for leaching and travel parameters. As shown in Table 6-7 above, the four SVOCs that were retained as initial contaminant migration COPCs after Step 3 remained as initial contaminant migration COPCs after Step 4 only at the Substation No. 3 because the travel time of vertical contaminant migration to the water table was less than 1,000 years. This is due to a lack of leaching zone at Substation No. 3 because the water table is above the lowest naphthalene detection. This vertical travel time through soil is independent of naphthalene concentration.

Table 6-8: Parameters for Contaminant Migration Chemicals of Potential Concern Based on Arrival Time to Nearest Downgradient Receptor

Parameter	Symbol	Value	Unit	Note
Percolation rate	q	0.31	ft/year	Developed from HELP model from Youngstown, Ohio, weather data
Soil-water distribution coefficient	Kd	chemical-specific	L/kg	See footnotes on Table 6.7 for references
Organic carbon distribution coefficient	Koc	chemical-specific	L/kg	See footnotes on Table 6.7 for references
Fraction organic carbon	foc	0.0010	unitless	Avg. from the PBA08 RI geotechnical samples F16SB-023-5425-SO and F16SB-023-5425-SO (SAIC 2011c)*
Water-filled soil porosity	θw	0.26	unitless	Avg. from the PBA08 RI geotechnical samples F16SB-023-5425-SO and F16SB-023-5425-SO (SAIC 2011c)*
Bulk density (dry)	ρb	1.79	g/cm^3	Avg. from the PBA08 RI geotechnical samples F16SB-023-5425-SO and F16SB-023-5425-SO (SAIC 2011c)*
Leaching zone (1)	Lz	0	ft	Distance from last layer of soil contamination > background concentration to top of water table
Retardation factor(2)	R	chemical-specific	unitless	Calculated by equation shown below
Arrival Time(3)	T	chemical-specific	year	Calculated by equation shown below

Notes:
* SAIC (Science Application International Corporation). 2011c. Remedial Investigation/Feasibility Study Report for RVAAP 67 Facility-Wide Sewers Science and Engineering Science and Engineering Associates, Inc. September.
1. See Leaching Zone Thickness Determinations Table 6-6.
2. $R = 1 + (Kd*\rho b)/\theta w$.
3. $T=Lz*\theta w*R/q$.

COPC = Chemical of potential concern.
ft = Feet (foot)
ft/year = Feet (foot) per year.
g/cm^3 = Grams per cubic centimeter.
HELP = Hydrologic Evaluation of Landfill Performance
L/kg = Liters per kilogram.
Lz = Leaching zone thickness.
RI = Remedial investigation.

The fifth step of the soil screening process involves eliminating from further consideration those initial contaminant migration COPCs identified in the site SSL and groundwater travel time evaluation that require more than 1,000 years to reach the downgradient receptor location. The estimated travel time for each initial contaminant migration COPC to reach the downgradient receptor location is determined using the following equation:

$$T_{RC} = \frac{x_{min}\ x\ R}{(V_s)}$$

(Equation 6-7)

where

T_{RC} = Groundwater travel time to receptor location (year).
x_{min} = Minimum distance to receptor location (ft).
R = Retardation factor (dimensionless).
V_S = Groundwater seepage velocity (ft/year).

As shown in Table 6-9 below, naphthalene was retained as an initial contaminant migration COPC at the Substation No. 3 because calculations indicate that lateral transport in groundwater may take less than 1,000 years. This is due in large part to the chemical properties of naphthalene (low retardation factor), the physical properties of the aquifer (moderate hydraulic conductivity), and the fact that the nearest surface water body (a wetland) is approximately 100 ft downgradient of the substation. The results of this step are independent of naphthalene concentration.

Table 6-9: Contaminant Migration Chemicals of Potential Concern Based on Groundwater Travel Time to Nearest Groundwater Receptor

Initial CMCOPC	Maximum Detection (mg/kg)	X_{min} (ft)	R	K (ft/ year)	i	θw	$T_{RC\ (yr)}$	Contaminant Migration COPC (Yes/No)	Contaminant Migration COPC Justification
East Substation									
Semivolatile Organic Compounds									
Naphthalene	0.017	1,000	11.6	59	0.0045	0.26	11,362	No	TRC > 1,000 years
West Substation									
Semivolatile Organic Compounds									
Naphthalene	0.017	800	11.6	134.5	0.0078	0.26	2,300	No	TRC > 1,000 years
Substation No. 3									
Semivolatile Organic Compounds									
Benzo(a)anthracene	0.12	100	1220	134.5	0.0078	0.26	30,225	No	TRC > 1,000 years
Benzo(a)pyrene	0.09	100	4042	134.5	0.0078	0.26	100,180	No	TRC > 1,000 years
Benzo(b)fluoranthene	0.20	100	4125	134.5	0.0078	0.26	102,228	No	TRC > 1,000 years
Naphthalene	**0.017**	**100**	**11.6**	**134.5**	**0.0077**	**0.26**	**291**	**Yes**	**TRC < 1,000 years**

Notes:
> = Greater than
< = Less than
CMCOPC = Contaminant migration chemical of potential concern.
COPC = Chemical of potential concern.
ft = Feet.
ft/year = Feet per year.
i = Hydraulic gradient.
K = Hydraulic conductivity.
mg/kg = Milligrams per kilogram.
R = Retardation factor = 1 + (Kd*ρb)/θw.
T_{RC} = Groundwater travel time to nearest receptor = Xmin * R / Vs (years).
Vs = Groundwater seepage velocity = K * i / θw (ft/year).
Θw = Water-filled soil porosity
X_{min} = Minimum distance to downgradient surface water body in southeast direction.
See Table 6-8 for assumptions and parameters used.

6.3.2 Fate and Transport Modeling

The last two steps of the fate and transport evaluation process (Steps 6 and 7) usually include modeling to predict soil concentrations after leaching (SESOIL model) and then groundwater concentrations downgradient at the groundwater-surface water interface (AT123D model). Contaminant migration COCs are then defined as the chemicals with potential to leach to groundwater and migrate to downgradient receptor locations at a concentration exceeding the FWCUGs for the AOC-specific receptors, BSVs, and MCL/RSLs. If a predicted chemical concentration is lower than at least one of these three screening goals at the downgradient receptor locations, the chemical was not considered a contaminant migration COC. Because naphthalene concentrations in soil at Substation No. 3 (0.012 mg/kg) are already well below the

most stringent FWCUG (122 mg/kg), fate and transport modeling was not necessary. Although the travel time of naphthalene to the wetland is less than 1,000 years, naphthalene currently poses no risk to human health or the environment. In addition, naphthalene was not detected in the three surface water samples collected in the tributary to Sand Creek (to which the wetland flows) during this RI.

6.3.3 Limitations and Assumptions of Soil Screening Analysis

Acceptable soil concentrations for individual chemicals are location-specific. The generic SSLs used in this screening are based on a number of default assumptions chosen to be protective of human health for most CC RVAAP-68 Electric Substations (East, West, No. 3) conditions (USEPA 1996a). These generic SSLs are expected to be more conservative than site SSLs based on area-specific conditions. The conservative assumptions included in this analysis are: (1) no adsorption in the unsaturated zone or in the aquifer; (2) no biological or chemical degradation in the soil or in the aquifer; and (3) contamination is uniformly distributed throughout the source. However, the generic SSL does not incorporate the existence of contamination already present within the aquifer.

6.4 FATE AND TRANSPORT SUMMARY AND CONCLUSIONS

No final contaminant migration COCs were identified at the three substations of CC RVAAP-68 Electric Substations (East, West, No. 3). SRCs at the East and West substations were screened out as initial contaminant migration COPCs during the soil screening analysis. At the Substation No. 3, naphthalene could not be screened out as an initial contaminant migration COPC during the soil screening analysis because the travel time calculation of naphthalene to the downgradient wetland is less than 1,000 years. However, naphthalene is not retained as a final contaminant migration COPC because its MDC (0.017 mg/kg) is well below the most stringent FWCUG of 122 mg/kg at a target cancer risk of 1×10^{-6} and an HQ of 0.1. In addition, naphthalene currently poses no risk to human health or the environment as discussed in Chapter 7.0. Furthermore, naphthalene was not detected in the three surface water samples collected in the tributary to Sand Creek (to which the wetland flows) during this RI.

Conclusions of the soil screening evaluation are that all SRCs in soil are currently eliminated as potential risks to groundwater.

This page intentionally left blank

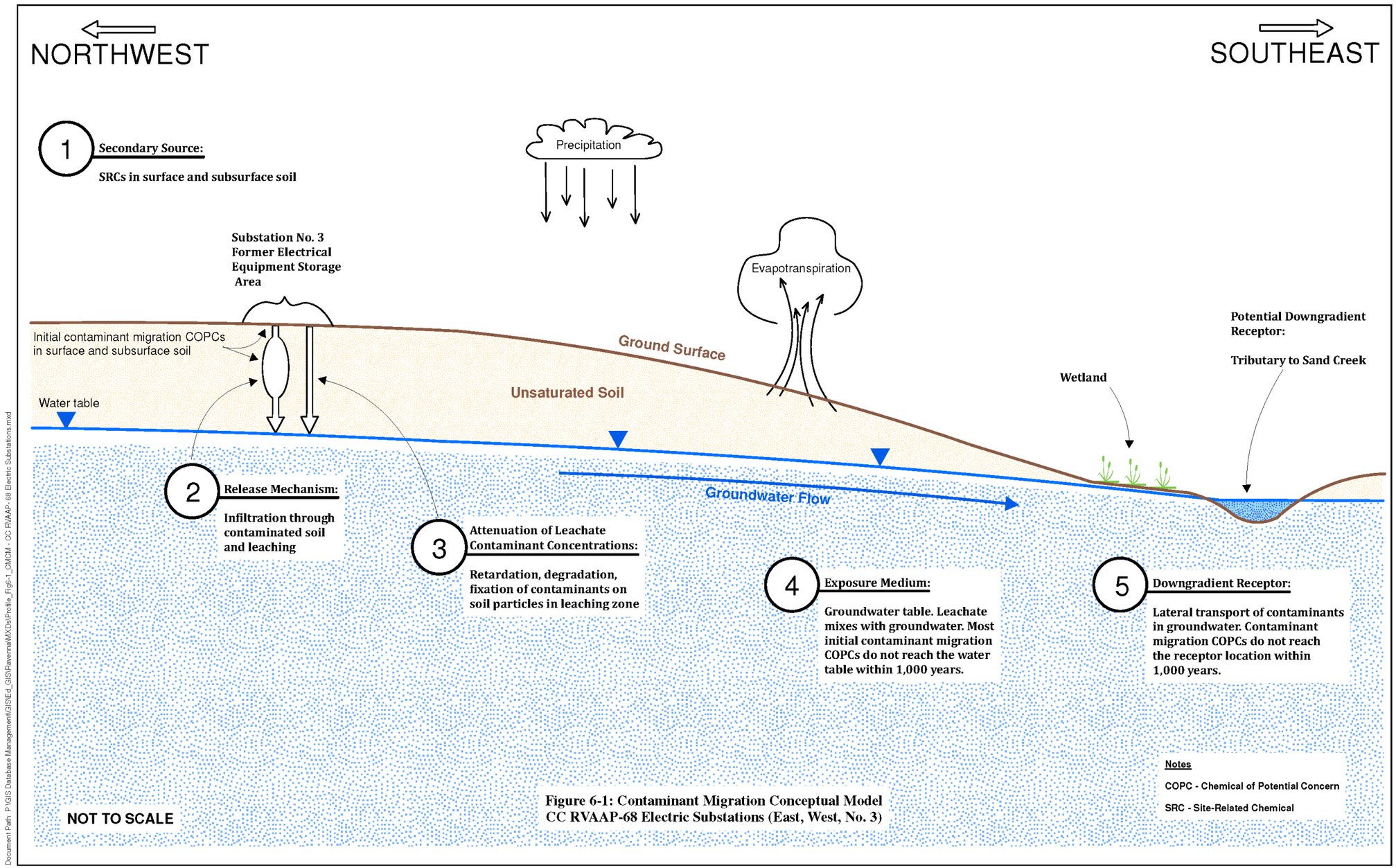


Figure 6-1: Contaminant Migration Conceptual Model
CC RVAAP-68 Electric Substations (East, West, No. 3)

This page intentionally left blank

7.0 RISK ASSESSMENT

In general, data evaluated for CC RVAAP-68 Electric Substations (East, West, No. 3) to identify SRCs were also used to identify COPCs and assess risks to humans and to ecological receptors. Exceptions are described in Section 7.1.2. Soil samples collected via ISM and composite sampling methods were used for the risk assessment. By using ISM, data variability is reduced and a reasonable estimate of the chemical's mean concentration for the volume of soil sampled (i.e., the DU) is produced. In addition, sediment samples collected using discrete sampling methods were used for the risk assessment. Surface water samples collected using discrete methods were not included in the risk assessment because no SRCs were identified in that medium.

Initially, soil data collected for CC RVAAP-68 Electric Substations (East, West, No. 3) were aggregated by medium, sample type, and depth interval (surface soil and subsurface soil). Subsequently, additional aggregation of datasets was performed in the risk assessment stage based on likely receptors (human and ecological) and is described, as relevant, in the following subsections.

7.1 HUMAN HEALTH RISK ASSESSMENT

The purpose of this HHRA is to document the presence and distribution of COPCs and evaluate whether COCs present in CC RVAAP-68 Electric Substations (East, West, No. 3) may pose health risks to current or future site receptors assuming the following Land Uses:

- Unrestricted (Residential) Land Use
- Military Training Land Use

7.1.1 Human Health Risk Assessment Methodology

CC RVAAP-68 Electric Substations (East, West, No. 3) is evaluated as three exposure areas for the HHRA: East Substation, West Substation, and Substation No. 3. Only SRCs, as selected in Chapter 5.0, are evaluated in the HHRA. This HHRA follows the programmatic risk assessment process as described in the FWHHRAM (USACE, 2005c), Position Paper (USACE 2012), and FWCUG Report (USACE 2010a).

A summary of the HHRA process for CC RVAAP-68 Electric Substations (East, West, No. 3) is presented below.

<u>COPC Selection</u>

- COPCs are selected by exposure area, medium, and depth: surface soil (0-1 ft bgs), subsurface soil (>1 ft bgs), sediment, and surface water (as available).

- An analyte is selected as a COPC (for a given exposure area, medium, and depth interval) if:

- If it is an SRC.

- The MDC exceeds the most stringent applicable FWCUG corresponding to a target cancer risk of 10^{-6} or, an HQ of 0.1 for the Resident Receptor or the NGT. When FWCUGs are not available, the residential RSLs are used as a screening value.

– The final result of the COPC selection process is a list of SRCs that exceed these initial risk or screening levels (i.e., COPCs). COPCs are identified by medium/depth (surface soil [0-1 ft bgs], subsurface soil [>1ft bgs], surface water, and sediment) for each exposure area. Compounds below these initial risk levels are eliminated from further review.

Exposure Point Concentration Calculations

– An exposure point concentration (EPC) is the concentration to which a receptor would be exposed.

– EPCs are calculated for each COPC by exposure scenario (area, medium, depth interval, and receptor combination):

  - For the Resident Receptor, the EPC is the average concentration of all DUs for surface soil samples (0-1 ft bgs) and the average concentration for subsurface soil samples (1-13 ft bgs).

  - For the NGT, the EPC is the average concentration of all DUs for surface soil samples (0-4 ft bgs) and the average concentration for subsurface soil samples (4-7 ft bgs).

  - For the NGT and the Resident Receptor, the maximum concentration in sediment and surface water is used as the EPC.

COC Selection

– To select COCs, EPCs are compared to FWCUGs corresponding to a target cancer risk of 10^{-5} or target HQ of 1.

  - Within each evaluation, the ratios of EPC/FWCUG are summed for all carcinogens to calculate a total cancer risk.

  - Within each evaluation, the ratios of EPC/FWCUG are summed for all non-carcinogens that affect similar target organs.

  - Analytes are selected as a COC if the ratio of the EPC to the FWCUG corresponding to a target cancer risk of 10^{-5} or a target HQ of 1 is greater than 1. Analytes are also selected as a COC if the ratio of the EPC to the FWCUG corresponding to a target

cancer risk of 10^{-5} or a target HQ of 1 is greater than 10 percent of the total sum of risks.

- This evaluation is completed for each medium and exposure scenario (where COPCs have been identified).

- A final list of COCs is compiled by exposure area, medium and depth interval.

Risk Characterization

- Risk characterization is performed by calculating the applicable HQs and Excess Lifetime Cancer Risks (ELCRs) associated with the COCs.
  - If the total cancer risk is less than the Ohio EPA acceptable risk limit of 10^{-5}, then no remedial actions are required.
  - If the total HQ to similar target organs does not exceed the USEPA threshold of 1, then no remedial actions are required.
- If either the total cancer risk or HQ is above the USEPA risk criteria, then remedial actions or further investigations may be required.

The HHRA identifies which chemicals are causing an exposure risk in the absence of any remediation.

7.1.2 Data Used in the Human Health Risk Assessment

Data used in the HHRA came from the RI field investigations conducted from November 2012 through April 2013 at CC RVAAP-68 Electric Substations (East, West, No. 3). Samples included in the risk assessment data sets are provided in Table 7-1.

The environmental media of concern for potential receptor exposure include surface soil (<1 ft bgs), subsurface soil (> 1 ft bgs), sediment, and surface water. Groundwater at the facility will be evaluated through the CERCLA process in a separate report. The details on the sampling rationale and methods are provided in Chapter 4.0. For soils, ISM and composite sampling results were used in the HHRA. For sediments, discrete sampling results were used.

7.1.3 Chemical of Potential Concern Identification

To identify the COPCs that would be carried through the risk assessment, the MDC of each SRC was screened against the chemical-specific FWCUG at a target cancer risk level of 10^{-6} and non-carcinogenic target HQ of 0.1 as specified in the FWSAP for each receptor. The HHRA considered all data collected for the AOC with the exception of the following: field duplicates and QA/QC samples.

Table 7-1: Samples Included in the Human Health Risk Assessment

Location Identification	Field Sample Identification	Sample Date	Sample Depth (ft bgs)	Exposure Area	Media
68-2527-DU2-SS	068SS-0007M-0001-SO	11/6/2012	0-1	ESSE	Surface Soil
68-2828-DU2-SS	068SS-0002M-0001-SO	11/6/2012	0-1	ESSW	Surface Soil
68-ESSE-DU1-SB	068SB-0033M-0001-SO	3/29/2013	1-4	ESSE	Subsurface Soil
68-ESSE-DU1-SB	068SB-0034M-0001-SO	3/29/2013	4-7	ESSE	Subsurface Soil
68-ESSE-DU1-SB1	068SB-0035M-0001-SO	3/29/2013	1-7	ESSE	Subsurface Soil
68-ESSE-DU1-SB1	068SB-0042-0001-SO	3/29/2013	7-13	ESSE	Subsurface Soil
68-ESSE-DU1-SB2	068SB-0038M-0001-SO	3/29/2013	1-7	ESSE	Subsurface Soil
68-ESSE-DU1-SB3	068SB-0039M-0001-SO	3/29/2013	1-7	ESSE	Subsurface Soil
68-ESSE-DU1-SB4	068SB-0040M-0001-SO	3/29/2013	1-7	ESSE	Subsurface Soil
68-ESSE-DU1-SB5	068SB-0041M-0001-SO	3/29/2013	1-7	ESSE	Subsurface Soil
68-ESSE-DU2-SB	068SB-0044M-0001-SO	3/29/2013	1-4	ESSE	Subsurface Soil
68-ESSE-DU2-SB	068SB-0045M-0001-SO	3/29/2013	4-7	ESSE	Subsurface Soil
68-ESSE-DU2-SB1	068SB-0046M-0001-SO	3/29/2013	1-7	ESSE	Subsurface Soil
68-ESSE-DU2-SB2	068SB-0047M-0001-SO	3/29/2013	1-7	ESSE	Subsurface Soil
68-ESSE-DU2-SB4	068SB-0048M-0001-SO	3/29/2013	1-7	ESSE	Subsurface Soil
68-ESSW-DU1-SB	068SB-0017M-0001-SO	3/29/2013	1-4	ESSW	Subsurface Soil
68-ESSW-DU1-SB	068SB-0018M-0001-SO	3/29/2013	4-7	ESSW	Subsurface Soil
68-ESSW-DU1-SB1	068SB-0019M-0001-SO	3/29/2013	1-7	ESSW	Subsurface Soil
68-ESSW-DU1-SB1	068SB-0032-0001-SO	3/29/2013	7-13	ESSW	Subsurface Soil
68-ESSW-DU1-SB2	068SB-0020M-0001-SO	3/29/2013	1-7	ESSW	Subsurface Soil
68-ESSW-DU1-SB3	068SB-0023M-0001-SO	3/29/2013	1-4	ESSW	Subsurface Soil
68-ESSW-DU1-SB4	068SB-0024M-0001-SO	3/29/2013	1-7	ESSW	Subsurface Soil
68-ESSW-DU1-SB5	068SB-0025M-0001-SO	3/29/2013	1-7	ESSW	Subsurface Soil
68-ESSW-DU2-SB	068SB-0027M-0001-SO	3/29/2013	1-4	ESSW	Subsurface Soil
68-ESSW-DU2-SB	068SB-0028M-0001-SO	3/29/2013	4-7	ESSW	Subsurface Soil
68-ESSW-DU2-SB1	068SB-0060M-0001-SO	4/4/2013	1-7	ESSW	Subsurface Soil
68-ESSW-DU2-SB3	068SB-0030M-0001-SO	3/29/2013	1-7	ESSW	Subsurface Soil
68-ESSW-DU2-SB5	068SB-0031M-0001-SO	3/29/2013	1-7	ESSW	Subsurface Soil
68-FBDD-DU3-SS	068SS-0003M-0001-SO	11/6/2012	0-1	ESSW	Surface Soil
68-FCP-DU1-SS	068SS-0006M-0001-SO	11/6/2012	0-1	ESSE	Surface Soil
68-FTP-DU1-SS	068SS-0001M-0001-SO	11/6/2012	0-1	ESSW	Surface Soil
68-RRDD-DU3-SS	068SS-0008M-0001-SO	11/6/2012	0-1	ESSE	Surface Soil
68-SS3-DU1-SB	068SB-0050M-0001-SO	3/29/2013	1-4	SS3	Subsurface Soil
68-SS3-DU1-SB	068SB-0051M-0001-SO	3/29/2013	4-7	SS3	Subsurface Soil
68-SS3-DU1-SB1	068SB-0052M-0001-SO	3/29/2013	1-7	SS3	Subsurface Soil
68-SS3-DU1-SB2	068SB-0053M-0001-SO	3/29/2013	1-7	SS3	Subsurface Soil
68-SS3-DU1-SB3	068SB-0056M-0001-SO	3/29/2013	1-7	SS3	Subsurface Soil
68-SS3-DU1-SB4	068SB-0057M-0001-SO	3/29/2013	1-7	SS3	Subsurface Soil
68-SS3-DU1-SB5	068SB-0059M-0001-SO	3/29/2013	1-7	SS3	Subsurface Soil
68-SS3-DU1-SS	068SS-0005M-0001-SO	11/6/2012	0-1	SS3	Surface Soil
68-SS3-SD	068SD-0009-0001-SO	11/8/2012	0-1	SS3	Wet Sediment
68-SS3-SD2	068SD-00011-0001-SO	11/8/2012	0-1	SS3	Wet Sediment
68-SS3-SD3	068SD-00012-0001-SO	11/8/2012	0-1	SS3	Wet Sediment

Notes:
bgs = Below ground surface.
ft = Feet (foot).
ESSE = East Substation/ESSW = West Substation.
SS3 = Substation No. 3.

COPC screening was performed by medium (e.g., soil), exposure area, and depth (i.e., surface versus subsurface soil). Each exposure area (i.e., substation) occurs in separate locations across the facility, but are grouped together for the risk assessment based on similar operational use. Each COPC screening table presents the analytical data considered in the COPC screening process, the SRC designation, the MDC, all carcinogenic and non-carcinogenic risk-based FWCUGs for each chemical, and a column indicating whether or not the analyte is a COPC.

SRCs were identified as COPCs if the MDC exceeds the most stringent FWCUG. No reference dose (RfD) or cancer potency factors are available for acenaphthylene, benzo(g,h,i)perlene and phenanthrene; therefore, the RSL for anthracene was used for acenaphthylene and phenanthrene and the FWCUG for pyrene was used for benzo(g,h,i)perylene (Nevada Division of Environmental Protection 2006). As part of the conservative screening approach for identifying COPCs, the FWCUG for hexavalent chromium (the more stringent or lower of the two chromium species evaluated) was used at this stage.

The COPCs identified for the media of concern for each exposure area within CC RVAAP-68 Electric Substations (East, West, No. 3) are presented in Tables 7-2 through 7-8 (COPCs are for both the Resident Receptor and the NGT) and summarized in Tables 7-9 through 7-12, and described in detail below.

This page intentionally left blank

Table 7-2: Chemicals of Potential Concern, East Substation – Surface Soil Samples

Location Identification:		Site Background Criteria	Screening Value[1]	Screening Value Source[2]	Maximum Detection	SRC - Yes/No	COPC - Yes/No	68-FCP-DU1-SS	68-2527-DU2-SS	68-RRDD-DU3-SS
Field Sample Identification:								068SS-0006M-0001-SO	068SS-0007M-0001-SO	068SS-0008M-0001-SO
Lab Sample Identification:								240-17317-15	240-17317-16	240-17317-17
Sample Date:								11/6/2012	11/6/2012	11/6/2012
Sample Depth:								0-1	0-1	0-1
Metals	**Units**									
Barium	mg/kg	88.4	351	NGT	95	Yes	No	73	79	89
Beryllium	mg/kg	0.88	16	RRSL	1	Yes	No	0.62	0.65	1
Cadmium	mg/kg	0	6.41	RR CN	0.29	Yes	No	0.24	0.13 J	0.29
Chromium (as CrVI)	mg/kg	17.4	1.64	NGT	24	Yes	Yes	18	17	21
Copper	mg/kg	17.7	311	RR CN	24	Yes	No	24	11	20
Lead	mg/kg	26.1	400	RRSL	28	Yes	No	15	14	28
Nickel	mg/kg	21.1	155	RR CN	33	Yes	No	22	16	22
Silver	mg/kg	0	38.6	RR CN	0.044	Yes	No	0.033 J	0.044 J	0.039
Thallium	mg/kg	0	0.612	RR CN	0.26	Yes	No	0.16 J	0.16	ND
Zinc	mg/kg	61.8	2321	RR CN	210	Yes	No	110	53	120
Semivolatile Organic Compounds										
1,4-Dichlorobenzene	mg/kg	NB	2.4	RRSL	0.021	Yes	No	ND	ND	0.021
2-Methylnaphthalene	mg/kg	NB	30.6	RR CN	0.081	Yes	No	0.011	0.0098	0.081
Acenaphthene	mg/kg	NB	340	RRSL	0.021	Yes	No	ND	0.007	0.021
Acenaphthylene	mg/kg	NB	1700	RRSL**	0.028	Yes	No	0.0041 J	ND	0.018
Anthracene	mg/kg	NB	1700	RRSL	0.067	Yes	No	0.007	0.018	0.067
Benzo(a)anthracene	mg/kg	NB	0.221	RR AC	0.27	Yes	Yes	0.013	0.041	0.27
Benzo(a)pyrene	mg/kg	NB	0.022	RR AC	0.33	Yes	Yes	0.012	0.03	0.3
Benzo(b)fluoranthene	mg/kg	NB	0.221	RR AC	0.52	Yes	Yes	0.016	0.044	0.47
Benzo(g,h,i)perylene	mg/kg	NB	122	RR CN*	0.26	Yes	No	0.011	0.02	0.17
Benzo(k)fluoranthene	mg/kg	NB	2.21	RR AC	0.18	Yes	No	0.011	0.019	0.18
Carbazole	mg/kg	NB	44.6	RR CC	0.046	Yes	No	ND	ND	0.046
Chrysene	mg/kg	NB	22.1	RR AC	0.34	Yes	No	0.014	0.037	0.33
Dibenz(a,h)anthracene	mg/kg	NB	0.022	RR AC	0.057	Yes	Yes	ND	ND	0.045
Dibenzofuran	mg/kg	NB	15.3	RR CN	0.029	Yes	No	ND	0.0079 J	0.029
Fluoranthene	mg/kg	NB	163	RR CN	0.65	Yes	No	0.019	0.088	0.65
Fluorene	mg/kg	NB	243	RR CN	0.027	Yes	No	ND	0.009	0.027
Indeno(1,2,3-c,d)pyrene	mg/kg	NB	0.221	RR AC	0.22	Yes	No	0.0092	0.018	0.16
Isophorone	mg/kg	NB	510	RRSL	0.022	Yes	No	0.013 J	ND	0.015
Naphthalene	mg/kg	NB	122	RR CN	0.062	Yes	No	0.01	0.0097	0.062
Phenanthrene	mg/kg	NB	1700	RRSL**	0.28	Yes	No	0.018	0.078	0.28
Pyrene	mg/kg	NB	122	RR CN	0.5	Yes	No	0.017	0.065	0.5

Notes:
1. Most stringent screening value from available sources
2. Source of Screening Values:
   NGT = National Guard Trainee (Lower of HQ = 0.1 and ELCR of 1 × 10-6).
   RR AC = Residential Receptor (Adult) (Cancer ELCR of 1 × 10-6).
   RR CC = Residential Receptor (Child) (Cancer ELCR of 1 × 10-6).
   RR CN = Residential Receptor (Child) (Non-cancer HQ = 0.1) (*) = Pyrene used as a surrogate.
   RRSL = Residential RSL (Lower of HQ = 0.1 and ELCR of 1 × 10-6) (**) = Anthracene was used as surrogate for acenaphthylene and phenanthrene.

Yellow highlight indicates analyte is a COPC.

COPC = Chemical of potential concern.
CrVI = Hexavalent chromium.
ELCR = Excess Lifetime Cancer Risk.
FWCUG = Facility-Wide Cleanup Goal.
HQ = Hazard quotient.
J = Estimated: the result reported between the Detection Limit and the Limit of Quantitation.
mg/kg = Milligrams per kilogram.
NB = No background.
ND = Not detected (valid to the Limit of Detection).
SRC = Site-related chemical.

This page intentionally left blank

Table 7-3: Chemicals of Potential Concern, East Substation – Subsurface Soil Samples

Location Identification:		Site Background Criteria	Screening Value[1]	Screening Value Source[2]	Maximum Detection	SRC - Yes/No	COPC - Yes/No	68-ESSE-DU1-SB		68-ESSE-DU1-SB1		
Field Sample Identification:								068SB-0033M-0001-SO	068SB-0034M-0001-SO	068SB-0035M-0001-SO	068SB-0036M-0001-SO	068SB-0042-0001-SO
Lab Sample Identification:								240-22648-46	240-22648-47	240-22648-48	240-22648-50	240-22648-54
Sample Date:								3/29/2013	3/29/2013	3/29/2013	3/29/2013	3/29/2013
Sample Depth:								1-4	4-7	1-7	1-7	7-13
Metals	**Units**											
Cadmium	mg/kg	0	6.41	RR CN	0.28	Yes	No	0.17	0.15	0.14	0.16	0.15
Silver	mg/kg	0	38.6	RR CN	0.041	Yes	No	0.028 J	0.023 J	0.031 J	0.028 J	0.031 J
Mercury	mg/kg	0.044	2.27	RR CN	0.21	Yes	No	0.052 J	0.015 J	0.015 J	0.019 J	ND
Volatile Organic Compounds												
Carbon Disulfide	mg/kg	NB	82	RRSL	0.0031	Yes	No	NR	NR	NR	NR	NR
Semivolatile Organic Compounds												
2-Methylnaphthalene	mg/kg	NB	30.6	RR CN	0.014	Yes	No	ND	0.011	0.0078	0.0065 J	0.014
Benzo(a)pyrene	mg/kg	NB	0.022	RR AC	0.094	Yes	Yes	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	mg/kg	NB	0.221	RR AC	0.2	Yes	No	ND	ND	ND	ND	0.0051 J
Fluoranthene	mg/kg	NB	163	RR CN	0.27	Yes	No	0.0054 J	ND	ND	ND	ND
Naphthalene	mg/kg	NB	122	RR CN	0.017	Yes	No	0.0049 J	0.013	0.010	0.0083	0.014
Phenanthrene	mg/kg	NB	1,700	RRSL**	0.18	Yes	No	0.0067	0.0046 J	0.0046 J	ND	ND
Pyrene	mg/kg	NB	122	RR CN	0.22	Yes	No	0.0051 J	ND	ND	ND	ND
Propellants												
Nitrocellulose	mg/kg	NB	18,000,000	RRSL	0.88	Yes	No	NR	NR	NR	NR	NR

Table 7-3: Chemicals of Potential Concern, East Substation – Subsurface Soil Samples (continued)

Location Identification:		Site Background Criteria	Screening Value[1]	Screening Value Source[2]	Maximum Detection	SRC - Yes/No	COPC - Yes/No	68-ESSE-DU1-SB2	68-ESSE-DU1-SB3	68-ESSE-DU1-SB4	68-ESSE-DU1-SB5
Field Sample Identification:								068SB-0038M-0001-SO	068SB-0039M-0001-SO	068SB-0040M-0001-SO	068SB-0041M-0001-SO
Lab Sample Identification:								240-22648-49	240-22648-51	240-22648-52	240-22648-53
Sample Date:								3/29/2013	3/29/2013	3/29/2013	3/29/2013
Sample Depth:								1-7	1-7	1-7	1-7
Metals	**Units**										
Cadmium	mg/kg	0	6.41	RR CN	0.28	Yes	No	0.10	0.13	0.15	0.14
Silver	mg/kg	0	38.6	RR CN	0.041	Yes	No	0.018 J	0.026 J	0.028 J	0.026 J
Mercury	mg/kg	0.044	2.27	RR CN	0.21	Yes	No	0.02 J	0.017 J	0.018 J	0.21
Volatile Organic Compounds											
Carbon Disulfide	mg/kg	NB	82	RRSL	0.0031	Yes	No	NR	NR	NR	0.0031 J
Semivolatile Organic Compounds											
2-Methylnaphthalene	mg/kg	NB	30.6	RR CN	0.014	Yes	No	0.0091	0.011	0.0058 J	0.013
Benzo(a)pyrene	mg/kg	NB	0.022	RR AC	0.094	Yes	Yes	ND	ND	0.039	ND
Benzo(b)fluoranthene	mg/kg	NB	0.221	RR AC	0.2	Yes	No	ND	ND	ND	ND
Fluoranthene	mg/kg	NB	163	RR CN	0.27	Yes	No	ND	ND	0.0035 J	ND
Naphthalene	mg/kg	NB	122	RR CN	0.017	Yes	No	0.010	0.013	0.0071	0.014
Phenanthrene	mg/kg	NB	1,700	RRSL**	0.18	Yes	No	ND	ND	0.0061 J	0.01
Pyrene	mg/kg	NB	122	RR CN	0.22	Yes	No	ND	ND	ND	ND
Propellants											
Nitrocellulose	mg/kg	NB	18,000,000	RRSL	0.88	Yes	No	NR	NR	NR	0.87 J

Table 7-3: Chemicals of Potential Concern, East Substation – Subsurface Soil Samples (continued)

Location Identification:		Site Background Criteria	Screening Value[1]	Screening Value Source[2]	Maximum Detection	SRC - Yes/No	COPC - Yes/No	68-ESSE-DU2-SB		68-ESSE-DU2-SB1	68-ESSE-DU2-SB2	- - - B4
Field Sample Identification:								068SB-0044M-0001-SO	068SB-0045M-0001-SO	068SB-0046M-0001-SO	068SB-0047M-0001-SO	- - 001-
Lab Sample Identification:								240-22648-41	240-22648-42	240-22648-43	240-22648-44	- -
Sample Date:								3/29/2013	3/29/2013	3/29/2013	3/29/2013	
Sample Depth:								1-4	4-7	1-7	1-7	-
Metals	**Units**											
Cadmium	mg/kg	0	6.41	RR CN	0.28	Yes	No	0.12	0.14	0.13	0.13	0.15
Silver	mg/kg	0	38.6	RR CN	0.041	Yes	No	0.022 J	0.02 J	0.016 J	0.029 J	0.023 J
Mercury	mg/kg	0.044	2.27	RR CN	0.21	Yes	No	0.019 J	ND	ND	ND	ND
Carbon Disulfide	mg/kg	NB	82	RRSL	0.0031	Yes	No	NR	NR	ND	NR	NR
2-Methylnaphthalene	mg/kg	NB	30.6	RR CN	0.014	Yes	No	0.012	0.0061 J	0.012	0.0072	0.0064 J
Benzo(a)pyrene	mg/kg	NB	0.022	RR AC	0.094	Yes	Yes	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	mg/kg	NB	0.221	RR AC	0.2	Yes	No	ND	ND	ND	ND	ND
Fluoranthene	mg/kg	NB	163	RR CN	0.27	Yes	No	ND	ND	ND	ND	ND
Naphthalene	mg/kg	NB	122	RR CN	0.017	Yes	No	0.014	0.0077	0.017	0.009	0.010
Phenanthrene	mg/kg	NB	1,700	RRSL**	0.18	Yes	No	0.005 J	ND	ND	0.0043 J	ND
Pyrene	mg/kg	NB	122	RR CN	0.22	Yes	No	ND	ND	ND	ND	ND
Nitrocellulose	mg/kg	NB	18,000,000	RRSL	0.88	Yes	No	NR	NR	ND	NR	NR

Notes:
1. Most stringent screening value from available sources
2. Source of Screening Values:
   RR AC = Residential Receptor (Adult) (Cancer ELCR of 1×10^{-6}).
   RR CN = Residential Receptor (Child) (Non-cancer HQ = 0.1).
   RRSL = Residential RSL (lower of HQ = 0.01 and ELCR 1×10^{-6}) (**) = Anthracene was used as surrogate for acenaphthylene and phenanthrene.

Yellow highlight indicates analyte is a COPC.
COPC = Chemical of potential concern.
ELCR = Excess Lifetime Cancer Risk.
HQ = Hazard quotient.
J = Estimated: The result reported between the Detection Limit and the Limit of Quantitation.
mg/kg = Milligrams per kilogram.
NB = No background.
ND = Not detected (valid to the Limit of Detection).
NR = Not reported.
SRC = Site-related chemical.

This page intentionally left blank

Table 7-4: Chemicals of Potential Concern, West Substation – Surface Soil Samples

Location Identification:		Site Background Criteria	Screening Value[1]	Screening Value Source[2]	Maximum Detection	SRC - Yes/No	COPC - Yes/No	68-2828-DU2-SS	68-FBDD-DU3-SS		68-FTP-DU1-SS
Field Sample Identification:								068SS-0002M-0001-SO	068SS-0003M-0001-SO	068SS-0004M-0001-SO	068SS-0001M-0001-SO
Lab Sample Identification:								240-17317-6	240-17317-7	240-17317-8	240-17317-5
Sample Date:								11/6/2012	11/6/2012	11/6/2012	11/6/2012
Sample Depth:								0-1	0-1	0-1	0-1
Metals	**Units**										
Barium	mg/kg	88.4	351	NGT N	95	Yes	No	84	90.5	83	95
Beryllium	mg/kg	0.88	16	RRSL	1	Yes	No	0.8	0.87	0.83	0.9
Cadmium	mg/kg	0	6.41	RR CN	0.29	Yes	No	0.19	0.12 J	0.1 J	0.28
Chromium (as CrVI)	mg/kg	17.4	1.64	NGT C	24	Yes	Yes	18	22	24	21
Cobalt	mg/kg	10.4	7.03	NGT C	13	Yes	Yes	7.4	13	11	7.8
Copper	mg/kg	17.7	311	RR CN	24	Yes	No	14	18	22	16
Lead	mg/kg	26.1	400	RRSL	28	Yes	No	17	26.3	16	21
Nickel	mg/kg	21.1	155	RR CN	33	Yes	No	24	28	33	22
Silver	mg/kg	0	38.6	RR CN	0.044	Yes	No	0.031 J	0.029 J	0.03 J	0.033 J
Thallium	mg/kg	0	0.612	RR CN	0.26	Yes	No	0.15 J	ND	0.26 J	0.15 J
Zinc	mg/kg	61.8	2,321	RR CN	210	Yes	No	74	63	74	90
Mercury	mg/kg	0.036	2.27	RR CN	0.13	Yes	No	0.13	ND	ND	0.13
Volatile Organic Compounds											
Carbon Disulfide	mg/kg	NB	82	RRSL	0.00069	Yes	No	NR	0.00069 J	0.00066 J	NR
Styrene	mg/kg	NB	630	RRSL	0.00014	Yes	No	NR	ND	0.00014 J	NR

Table 7-4: Chemicals of Potential Concern, West Substation – Surface Soil Samples (continued)

Location Identification:		Site Background Criteria	Screening Value[1]	Screening Value Source[2]	Maximum Detection	SRC - Yes/No	COPC - Yes/No	68-2828-DU2-SS	68-FBDD-DU3-SS		68-FTP-DU1-SS
Field Sample Identification:								068SS-0002M-0001-SO	068SS-0003M-0001-SO	068SS-0004M-0001-SO	068SS-0001M-0001-SO
Lab Sample Identification:								240-17317-6	240-17317-7	240-17317-8	240-17317-5
Sample Date:								11/6/2012	11/6/2012	11/6/2012	11/6/2012
Sample Depth:								0-1	0-1	0-1	0-1
Semivolatile Organic Compounds											
2-Methylnaphthalene	mg/kg	NB	30.6	RR CN	0.081	Yes	No	0.037	0.03	0.023 J	0.018
Acenaphthene	mg/kg	NB	340	RRSL	0.021	Yes	No	0.01	0.017	ND	0.0056 J
Acenaphthylene	mg/kg	NB	1,700	RRSL**	0.028	Yes	No	0.028	0.0092	ND	0.02
Anthracene	mg/kg	NB	1,700	RRSL	0.067	Yes	No	0.041	0.048 J	0.028 J	0.039
Benzo(a)anthracene	mg/kg	NB	0.221	RR AC	0.27	Yes	Yes	0.16	0.27	0.19	0.17
Benzo(a)pyrene	mg/kg	NB	0.022	RR AC	0.33	Yes	Yes	0.16	0.33 J	0.25	0.15
Benzo(b)fluoranthene	mg/kg	NB	0.221	RR AC	0.52	Yes	Yes	0.41	0.52	0.39	0.3
Benzo(g,h,i)perylene	mg/kg	NB	122	RR CN*	0.26	Yes	No	0.12 J	0.26 J	0.13 J	0.078 J
Benzo(k)fluoranthene	mg/kg	NB	2.21	RR AC	0.18	Yes	No	0.17	0.18 J	0.1 J	0.079
Carbazole	mg/kg	NB	44.6	RR CC	0.046	Yes	No	0.029 J	0.044 J	ND	ND
Chrysene	mg/kg	NB	22.1	RR AC	0.34	Yes	No	0.24	0.34	0.23	0.22
Dibenz(a,h)anthracene	mg/kg	NB	0.022	RR AC	0.057	Yes	Yes	0.037	0.057 J	ND	0.032
Dibenzofuran	mg/kg	NB	15.3	RR AC	0.029	Yes	No	0.019 J	0.015 J	ND	0.0096 J
Diethyl Phthalate	mg/kg	NB	4,900	RRSL	0.026	Yes	No	0.026 J	0.022 J	ND	0.026 J
Fluoranthene	mg/kg	NB	163	RR CN	0.65	Yes	No	0.28	0.65 J	0.41	0.26
Fluorene	mg/kg	NB	243	RR CN	0.027	Yes	No	0.012	0.016	ND	0.0079
Indeno(1,2,3-c,d)pyrene	mg/kg	NB	0.221	RR AC	0.22	Yes	No	0.1	0.22	0.14	0.076
Isophorone	mg/kg	NB	510	RRSL	0.022	Yes	No	0.022 J	0.016 J	ND	0.022 J
Naphthalene	mg/kg	NB	122	RR CN	0.062	Yes	No	0.026	0.024	ND	0.014
Phenanthrene	mg/kg	NB	1,700	RRSL**	0.28	Yes	No	0.11	0.25	0.15	0.076
Pyrene	mg/kg	NB	122	RR CN	0.5	Yes	No	0.23	0.48	0.31	0.2
Propellants											
Nitrocellulose	mg/kg	NB	18,000,000	RRSL	0.88	Yes	No	NR	0.88 J	ND	NR

Notes:

1. Most stringent screening value from available sources
2. Source of Screening Values:

NGT C - National Guard Trainee (Cancer ELCR of 1×10^{-6})
NGT N - National Guard Trainee (Non-cancer HQ = 0.1)
RR AC - Residential Receptor (Adult) (Cancer ELCR of 1×10^{-6})
RR CC - Residential Receptor (Child) (Cancer ELCR of 1 × 10-6)
RR CN - Residential Receptor (Child) (Non-cancer HQ = 0.1) (*) = Pyrene used as a surrogate
RRSL - Residential RSL (Lower of HQ = 0.1 and ELCR of 1×10^{-6}) (**) = Anthracene was used as surrogate for acenaphthylene and phenanthrene

Yellow highlight indicates analyte is a COPC.

COPC = Chemical of potential concern.
CrVI = Hexavalent chromium.
ELCR = Excess Lifetime Cancer Risk.
HQ = Hazard quotient.
J = Estimated: The result reported between the detection limit and the limit of quantitation. "J" means that the result is estimate with a potential low bias.
mg/kg = Milligrams per kilogram.
NB = No background.
ND = Not detected (valid to the limit of detection).
NR = No sample collected.
SRC = Site related chemical.

Table 7-5: Chemicals of Potential Concern, West Substation – Subsurface Soil Samples

Location Identification:		Site Background Criteria	Screening Value[1]	Screening Value Source[2]	Maximum Detection	SRC - Yes/No	COPC - Yes/No	68-ESSW-DU1-SB		68-ESSW-DU1-SB1		
Field Sample Identification:								068SB-0017M-0001-SO	068SB-0018M-0001-SO	068SB-0019M-0001-SO	068SB-0022M-0001-SO	068SB-0032-0001-SO
Lab Sample Identification:								240-22663-31	240-22663-32	240-22663-33	240-22663-34	240-22663-39
Sample Date:								3/29/2013	3/29/2013	3/29/2013	3/29/2013	3/29/2013
Sample Depth:								1-4	4-7	1-7	1-7	7-13
Metals	**Units**											
Cadmium	mg/kg	0	6.41	RR CN	0.28	Yes	No	0.26	0.17	0.23	0.19	0.14
Silver	mg/kg	0	38.6	RR CN	0.041	Yes	No	0.036 J	0.034 J	0.04 J	0.037 J	0.029 J
Mercury	mg/kg	0.044	2.27	RR CN	0.21	Yes	No	0.041 J	ND	0.021 J	0.019 J	ND
Semivolatile Organic Compounds												
2-Methylnaphthalene	mg/kg	NB	30.6	RR CN	0.014	Yes	No	ND	ND	ND	ND	ND
Acenaphthylene	mg/kg	NB	1,700	RRSL**	0.022	Yes	No	ND	ND	ND	ND	ND
Anthracene	mg/kg	NB	1,700	RRSL	0.052	Yes	No	0.02 J	ND	ND	ND	ND
Benzo(a)anthracene	mg/kg	NB	0.221	RR AC	0.12	Yes	No	0.065	ND	ND	ND	ND
Benzo(a)pyrene	mg/kg	NB	0.022	RR AC	0.094	Yes	Yes	0.044	ND	ND	ND	ND
Benzo(b)fluoranthene	mg/kg	NB	0.221	RR AC	0.2	Yes	No	0.11	0.021 J	ND	ND	ND
Benzo(g,h,i)perylene	mg/kg	NB	122	RR CN*	0.089	Yes	No	0.054	ND	ND	ND	ND
Benzo(k)fluoranthene	mg/kg	NB	2.21	RR AC	0.056	Yes	No	0.033	ND	ND	ND	ND
Chrysene	mg/kg	NB	22.1	RR AC	0.15	Yes	No	0.078	ND	ND	ND	ND
Fluoranthene	mg/kg	NB	163	RR CN	0.27	Yes	No	0.14	0.021 J	ND	ND	ND
Indeno(1,2,3-c,d)pyrene	mg/kg	NB	0.221	RR CN	0.072	Yes	No	0.051	ND	ND	ND	ND
Naphthalene	mg/kg	NB	122	RR CN	0.017	Yes	No	ND	ND	ND	ND	ND
Phenanthrene	mg/kg	NB	1,700	RRSL**	0.18	Yes	No	0.048	ND	ND	ND	ND
Pyrene	mg/kg	NB	122	RR CN	0.22	Yes	No	0.13	ND	ND	ND	ND
Propellants												
Nitrocellulose	mg/kg	NB	18,000,000	RRSL	0.88	Yes	No	NR	NR	NR	NR	NR

Table 7-5: Chemicals of Potential Concern, West Substation – Subsurface Soil Samples (continued)

Location Identification:		Site Background Criteria	Screening Value[1]	Screening Value Source[2]	Maximum Detection	SRC Yes/No	COPC - Yes/No	68-ESSW-DU1-SB2	68-ESSW-DU1-SB3	68-ESSW-DU1-SB4	68-ESSW-DU1-SB5
Field Sample Identification:								068SB-0020M 0001-SO	068SB-0023M 0001-SO	068SB-0024M 0001-SO	068SB-0025M 0001-SO
Lab Sample Identification:								240-22663-35	240-22663-36	240-22663-37	240-22663-38
Sample Date:								3/29/2013	3/29/2013	3/29/2013	3/29/2013
Sample Depth:								1-7	1-4	1-7	1-7
Metals	**Units**										
Cadmium	mg/kg	0	6.41	RR CN	0.28	Yes	No	0.19	0.27	0.21	0.28
Silver	mg/kg	0	38.6	RR CN	0.041	Yes	No	0.034 J	0.036 J	0.04 J	0.041 J
Mercury	mg/kg	0.044	2.27	RR CN	0.21	Yes	No	ND	0.04 J	0.025 J	0.05 J
2-Methylnaphthalene	mg/kg	NB	30.6	RR CN	0.014	Yes	No	ND	ND	ND	ND
Acenaphthylene	mg/kg	NB	1,700	RRSL**	0.022	Yes	No	ND	0.019 J	0.022 J	ND
Anthracene	mg/kg	NB	1,700	RRSL	0.052	Yes	No	ND	ND	0.028 J	0.052
Benzo(a)anthracene	mg/kg	NB	0.221	RR AC	0.12	Yes	No	ND	0.08	0.11	0.12
Benzo(a)pyrene	mg/kg	NB	0.022	RR AC	0.094	Yes	Yes	ND	0.07	0.094	0.083
Benzo(b)fluoranthene	mg/kg	NB	0.221	RR AC	0.2	Yes	No	ND	0.14	0.2	0.14
Benzo(g,h,i)perylene	mg/kg	NB	122	RR CN*	0.089	Yes	No	ND	0.071	0.089	0.058
Benzo(k)fluoranthene	mg/kg	NB	2.21	RR AC	0.056	Yes	No	ND	0.049	0.056	0.046
Chrysene	mg/kg	NB	22.1	RR AC	0.15	Yes	No	ND	0.11	0.15	0.13
Fluoranthene	mg/kg	NB	163	RR CN	0.27	Yes	No	0.023 J	0.14	0.18	0.27
Indeno(1,2,3-c,d)pyrene	mg/kg	NB	0.221	RR CN	0.072	Yes	No	ND	0.061	0.072	0.05
Naphthalene	mg/kg	NB	122	RR CN	0.017	Yes	No	ND	ND	ND	ND
Phenanthrene	mg/kg	NB	1,700	RRSL**	0.18	Yes	No	ND	0.055	0.094	0.18
Pyrene	mg/kg	NB	122	RR CN	0.22	Yes	No	ND	0.12	0.17	0.22
Nitrocellulose	mg/kg	NB	18,000,000	RRSL	0.88	Yes	No	NR	NR	NR	NR

Table 7-5: Chemicals of Potential Concern, West Substation – Subsurface Soil Samples (continued)

Location Identification:		Site Background Criteria	Screening Value[1]	Screening Value Source[2]	Maximum Detection	SRC Yes/No	COPC Yes/No	68-ESSW-DU2-SB		68-ESSW-DU2-SB1	
Field Sample Identification:								068SB-0027M 0001-SO	068SB-0028M 0001-SO	068SB-0060M 0001-SO	068SB-0061M 0001-SO
Lab Sample Identification:								240-22663-40	240-22663-41	240-22852-1	240-22852-2
Sample Date:								3/29/2013	3/29/2013	4/4/2013	4/4/2013
Sample Depth:								1-4	4-7	1-7	1-7
Metals	**Units**										
Cadmium	mg/kg	0	6.41	RR CN	0.28	Yes	No	0.21	0.17	0.22	0.17
Silver	mg/kg	0	38.6	RR CN	0.041	Yes	No	0.036 J	0.035 J	0.037 J	0.027 J
Mercury	mg/kg	0.044	2.27	RR CN	0.21	Yes	No	ND	ND	0.03 J	ND
Semivolatile Organic Compounds											
2-Methylnaphthalene	mg/kg	NB	30.6	RR CN	0.014	Yes	No	0.0055 J	0.0073	ND	ND
Acenaphthylene	mg/kg	NB	1,700	RRSL**	0.022	Yes	No	ND	ND	ND	ND
Anthracene	mg/kg	NB	1,700	RRSL	0.052	Yes	No	ND	ND	ND	ND
Benzo(a)anthracene	mg/kg	NB	0.221	RR AC	0.12	Yes	No	ND	0.0055 J	ND	ND
Benzo(a)pyrene	mg/kg	NB	0.022	RR AC	0.094	Yes	Yes	ND	0.0043 J	ND	ND
Benzo(b)fluoranthene	mg/kg	NB	0.221	RR AC	0.2	Yes	No	ND	0.014	ND	ND
Benzo(g,h,i)perylene	mg/kg	NB	122	RR CN*	0.089	Yes	No	ND	ND	ND	ND
Benzo(k)fluoranthene	mg/kg	NB	2.21	RR AC	0.056	Yes	No	ND	0.0068	ND	ND
Chrysene	mg/kg	NB	22.1	RR AC	0.15	Yes	No	ND	0.011	ND	ND
Fluoranthene	mg/kg	NB	163	RR CN	0.27	Yes	No	ND	0.017	0.018 J	ND
Indeno(1,2,3-c,d)pyrene	mg/kg	NB	0.221	RR CN	0.072	Yes	No	ND	ND	ND	ND
Naphthalene	mg/kg	NB	122	RR CN	0.017	Yes	No	0.0073	0.008	ND	ND
Phenanthrene	mg/kg	NB	1,700	RRSL**	0.18	Yes	No	ND	0.0096	ND	ND
Pyrene	mg/kg	NB	122	RR CN	0.22	Yes	No	ND	0.015	ND	ND
Propellants											
Nitrocellulose	mg/kg	NB	18,000,000	RRSL	0.88	Yes	No	NR	NR	0.9 J	NR

Table 7-5: Chemicals of Potential Concern, West Substation – Subsurface Soil Samples (continued)

Location Identification:		Site Background Criteria	Screening Value[1]	Screening Value Source[2]	Maximum Detection	SRC - Yes/No	COPC - Yes/No	68-ESSW-DU2-SB2	68-ESSW-DU2-SB3	68-ESSW-DU2-SB4	68-ESSW-DU2-SB5
Field Sample Identification:								068SB-0047M-0001-SO	068SB-0030M-0001-SO	068SB-0048M-0001-SO	068SB-0031M-0001-SO
Lab Sample Identification:								240-22648-44	240-22663-43	240-22648-45	240-22663-44
Sample Date:								3/29/2013	3/29/2013	3/29/2013	3/29/2013
Sample Depth:								1-7	1-7	1-7	1-7
Metals	**Units**										
Cadmium	mg/kg	0	6.41	RR CN	0.28	Yes	No	0.13	0.21	0.15	0.18
Silver	mg/kg	0	38.6	RR CN	0.041	Yes	No	0.029 J	0.041 J	0.023 J	0.038 J
Mercury	mg/kg	0.044	2.27	RR CN	0.21	Yes	No	ND	ND	ND	ND
Semivolatile Organic Compounds											
2-Methylnaphthalene	mg/kg	NB	30.6	RR CN	0.014	Yes	No	0.0072	0.0041 J	0.0064 J	ND
Acenaphthylene	mg/kg	NB	1,700	RRSL**	0.022	Yes	No	ND	ND	ND	ND
Anthracene	mg/kg	NB	1,700	RRSL	0.052	Yes	No	ND	ND	ND	ND
Benzo(a)anthracene	mg/kg	NB	0.221	RR AC	0.12	Yes	No	ND	0.0084	ND	ND
Benzo(a)pyrene	mg/kg	NB	0.022	RR AC	0.094	Yes	Yes	ND	0.0079	ND	ND
Benzo(b)fluoranthene	mg/kg	NB	0.221	RR AC	0.2	Yes	No	ND	0.02	ND	0.021 J
Benzo(g,h,i)perylene	mg/kg	NB	122	RR CN*	0.089	Yes	No	ND	0.012	ND	ND
Benzo(k)fluoranthene	mg/kg	NB	2.21	RR AC	0.056	Yes	No	ND	0.0099	ND	ND
Chrysene	mg/kg	NB	22.1	RR AC	0.15	Yes	No	ND	0.017	ND	ND
Fluoranthene	mg/kg	NB	163	RR CN	0.27	Yes	No	ND	0.014	ND	0.028 J
Indeno(1,2,3-c,d)pyrene	mg/kg	NB	0.221	RR CN	0.072	Yes	No	ND	0.0084	ND	ND
Naphthalene	mg/kg	NB	122	RR CN	0.017	Yes	No	0.009	0.0061 J	0.01	ND
Phenanthrene	mg/kg	NB	1,700	RRSL**	0.18	Yes	No	0.0043 J	0.0056 J	ND	ND
Pyrene	mg/kg	NB	122	RR CN	0.22	Yes	No	ND	0.011	ND	0.017 J
Propellants											
Nitrocellulose	mg/kg	NB	18,000,000	RRSL	0.88	Yes	No	NR	NR	NR	NR

Notes:

1. Most stringent screening value from available sources
2. Source of Screening Values:

RR AC = Residential Receptor (Adult) (Cancer ELCR of 1×10^{-6}).
RR CN = Residential Receptor (Child) (Non-cancer HQ = 0.1) (*) = Pyrene used as a surrogate.
RRSL = Residential RSL (Lower of HQ = 0.1 and ELCR of 1×10^{-6}) (**) = Anthracene was used as surrogate for acenaphthylene and phenanthrene.

Yellow highlight indicates analyte is a COPC.

COPC = Chemical of potential concern.
CrVI = Hexavalent chromium.
ELCR = Excess Lifetime Cancer Risk.
FWCUG = Facility-Wide Cleanup Goal.
J = Estimated: The result reported between the Detection Limit and the Limit of Quantitation.
mg/kg = Milligrams per kilogram.
NB = No background).
ND = Not detected (valid to the limit of detection).
NR = No sample collected.
SRC = Site-related chemical.

Table 7-6: Chemicals of Potential Concern, Substation No. 3 – Surface Soil Samples

Location Identification:		Site Background Criteria	Screening Value[1]	Screening Value Source[2]	Maximum Detection	SRC - Yes/No	COPC - Yes/No	68-SS3-DU1-SS
Field Sample Identification:								068SS-0005M-0001-SO
Lab Sample Identification:								240-17317-14
Sample Date:								11/6/2012
Sample Depth:								0-1
Metals	**Units**							
Arsenic	mg/kg	15.4	0.425	RR CN	16	Yes	Yes	16
Cadmium	mg/kg	0	6.41	RR CN	0.29	Yes	No	0.18
Chromium (as CrVI)	mg/kg	17.4	1.64	NGT C	24	Yes	Yes	18
Silver	mg/kg	0	38.6	RR CN	0.044	Yes	No	0.025 J
Thallium	mg/kg	0	0.612	RR CN	0.26	Yes	No	0.14 J
Zinc	mg/kg	61.8	2,321	RR CN	210	Yes	No	210
Semivolatile Organic Compounds								
2-Methylnaphthalene	mg/kg	NB	30.6	RR CN	0.081	Yes	No	0.013
Acenaphthene	mg/kg	NB	340	RRSL	0.021	Yes	No	0.0062 J
Acenaphthylene	mg/kg	NB	1,700	RRSL**	0.028	Yes	No	0.0068
Anthracene	mg/kg	NB	1,700	RRSL	0.067	Yes	No	0.009
Benzo(a)anthracene	mg/kg	NB	0.221	RR AC	0.27	Yes	No	0.01
Benzo(a)pyrene	mg/kg	NB	0.022	RR AC	0.33	Yes	No	0.01
Benzo(b)fluoranthene	mg/kg	NB	0.221	RR AC	0.52	Yes	No	0.013
Benzo(g,h,i)perylene	mg/kg	NB	122	RR CN*	0.26	Yes	No	0.012
Benzo(k)fluoranthene	mg/kg	NB	2.21	RR AC	0.18	Yes	No	0.01
Chrysene	mg/kg	NB	22.1	RR AC	0.34	Yes	No	0.014
Dibenzofuran	mg/kg	NB	15.3	RR CN	0.029	Yes	No	0.0085 J
Diethyl Phthalate	mg/kg	NB	4,900	RRSL	0.026	Yes	No	0.017 J
Fluoranthene	mg/kg	NB	163	RR CN	0.65	Yes	No	0.014
Fluorene	mg/kg	NB	243	RR CN	0.027	Yes	No	0.0082
Indeno(1,2,3-c,d)pyrene	mg/kg	NB	0.221	RR AC	0.22	Yes	No	0.0098
Naphthalene	mg/kg	NB	122	RR CN	0.062	Yes	No	0.012
Phenanthrene	mg/kg	NB	1,700	RRSL**	0.28	Yes	No	0.015
Pyrene	mg/kg	NB	122	RR CN	0.5	Yes	No	0.013

Notes:

1. Most stringent screening value from available sources
2. Source of Screening Values:

NGT C = National Guard Trainee (Cancer ELCR of 1×10^{-6})

RR AC = Residential Receptor (Adult) (Cancer ELCR of 1×10^{-6})

RR CN = Residential Receptor (Child) (Non-cancer HQ = 0.1) (*) = Pyrene used as a surrogate

RRSL = Residential RSL (Lower of HQ = 0.1 and ELCR of 1×10^{-6}) (**) = Anthracene was used as surrogate for acenaphthylene and phenanthrene.

Yellow highlight indicates analyte is a COPC.

COPC = Chemical of potential concern.
CrVI = Hexavalent chromium.
ELCR = Excess Lifetime Cancer Risk.
FWCUG = Facility-Wide Cleanup Goal.
J = Estimated: The result reported between the detection limit and the limit of quantitation.
mg/kg = Milligrams per kilogram.
NB = No background.
SRC = Site-related chemical.

This page intentionally left blank

Table 7-7: Chemicals of Potential Concern, Substation No. 3 – Subsurface Soil Samples

Location Identification:		Site Background Criteria	Screening Value[1]	Screening Value Source[2]	Maximum Detection	SRC - Yes/No	COPC - Yes/No	68-SS3-DU1-SB		68-SS3-DU1-SB1	68-SS3-DU1-SB2	
Field Sample Identification:								068SB-0050M-0001-SO	068SB-0051M-0001-SO	068SB-0052M-0001-SO	068SB-0053M-0001-SO	068SB-0054M-0001-SO
Lab Sample Identification:								240-22648-55	240-22648-56	240-22648-57	240-22648-58	240-22648-59
Sample Date:								3/29/2013	3/29/2013	3/29/2013	3/29/2013	3/29/2013
Sample Depth:								1-4	4-7	1-7	1-7	1-7
Metals	**Units**											
Cadmium	mg/kg	0	6.41	RR CN	0.28	Yes	No	0.11	0.1	0.12	0.12	0.13
Silver	mg/kg	0	38.6	RR CN	0.041	Yes	No	0.023 J	0.019 J	0.014 J	0.028 J	0.028 J
Semivolatile Organic Compounds												
2-Methylnaphthalene	mg/kg	NB	30.6	RR CN	0.014	Yes	No	0.0057 J	0.0065 J	0.0057 J	0.0044 J	0.0096
Dibenzofuran	mg/kg	NB	15.3	RR CN	0.017	Yes	No	ND	ND	0.017 J	ND	ND
Fluorene	mg/kg	NB	243	RR CN	0.013	Yes	No	ND	ND	0.013	ND	ND
Naphthalene	mg/kg	NB	122	RR CN	0.017	Yes	No	0.0077	0.0092	0.0073	ND	ND
Phenanthrene	mg/kg	NB	1,700	RRSL**	0.018	Yes	No	0.007	0.0083	0.013	ND	0.0054 J
Pyrene	mg/kg	NB	122	RR CN	0.22	Yes	No	0.0034 J	ND	ND	ND	ND

Table 7-7: Chemicals of Potential Concern, Substation No. 3 – Subsurface Soil Samples (continued)

Location Identification:		Site Background Criteria	Screening Value[1]	Screening Value Source[2]	Maximum Detection	SRC - Yes/No	COPC - Yes/No	68-SS3-DU1 SB3	68 SS3-DU1-SB4	68-SS3-DU1-SB5
Field Sample Identification:								068SB-0056M-0001-SO	068SB-0057M-0001-SO	068SB-0059M-0001-SO
Lab Sample Identification:								240-22648-60	240-22648-61	240-22648-62
Sample Date:								3/29/2013	3/29/2013	3/29/2013
Sample Depth:								1-7	1-7	1-7
Metals	**Units**									
Cadmium	mg/kg	0	6.41	RR CN	0.28	Yes	No	0.13	0.12	0.13
Silver	mg/kg	0	38.6	RR CN	0.041	Yes	No	0.026 J	0.035 J	0.031 J
Semivolatile Organic Compounds										
2-Methylnaphthalene	mg/kg	NB	30.6	RR CN	0.014	Yes	No	0.0075	0.012	0.0088
Dibenzofuran	mg/kg	NB	15.3	RR CN	0.017	Yes	No	ND	0.017 J	ND
Fluorene	mg/kg	NB	243	RR CN	0.013	Yes	No	ND	0.013	ND
Naphthalene	mg/kg	NB	122	RR CN	0.017	Yes	No	0.0087	0.012	0.012
Phenanthrene	mg/kg	NB	1,700	RRSL**	0.018	Yes	No	ND	0.015	ND
Pyrene	mg/kg	NB	122	RR CN	0.22	Yes	No	ND	ND	ND

Notes:
1. Most stringent screening value from available sources
2. Source of Screening Values:
   NGT C = National Guard Trainee (Cancer ELCR of 1×10^{-6})
   RR AC = Residential Receptor (Adult) (Cancer ELCR of 1×10^{-6})
   RR CN = Residential Receptor (Child) (Non-cancer HQ = 0.1) (*) = Pyrene used as a surrogate
   RRSL = Residential RSL (Lower of HQ = 0.1 and ELCR of 1×10^{-6}) (**) = Anthracene was used as surrogate for acenaphthylene and phenanthrene.

COPC = Chemical of potential concern.
CrVI = Hexavalent chromium.
ELCR = Excess Lifetime Cancer Risk.
FWCUG = Facility-Wide Cleanup Goal.
J = Estimated: The result reported between the Detection Limit and the Limit of quantitation. “J” means that the result is estimate with a potential low bias.
mg/kg = Milligrams per kilogram.
NB = No background.
ND = Not detected (valid to the Limit of Detection).
SRC = Site-related chemical.

Table 7-8: Chemicals of Potential Concern, Substation No. 3 – Sediment Samples

Location Identification:		Site Background Criteria	Screening Value[1]	Screening Value Source[2]	Maximum Detection	SRC - Yes/No	COPC - Yes/No	68 SS3-SD		68-SS3-SD2	68-SS3-SD3
Field Sample Identification:								068SD-00010-0001-SO	068SD-0009-0001-SO	068SD-00011-0001-SO	068SD-00012-0001-SO
Lab Sample Identification:								240-17422-10	240-17422-9	240-17422-11	240-17422-12
Sample Date:								11/8/2012	11/8/2012	11/8/2012	11/8/2012
Sample Depth:								0-1	0-1	0-1	0-1
Metals	**Units**										
Cadmium	mg/kg	0	6.41	RR CN	0.61	Yes	No	0.49	0.61	0.26	0.089 J
Chromium (as CrVI)	mg/kg	18.1	1.64	NGT C	22	Yes	Yes	22	21	12	20
Silver	mg/kg	0	38.6	RR CN	0.056	Yes	No	0.05 J	0.056 J	0.044 J	0.033 J
Semivolatile Organic Compounds											
2-Methylnaphthalene	mg/kg	NB	23	RRSL	0.014	Yes	No	0.014	0.013	0.012	0.0077
Anthracene	mg/kg	NB	1,700	RRSL	0.0049	Yes	No	0.0034 J	0.0033 J	ND	0.0049 J
Benzo(a)anthracene	mg/kg	NB	0.221	RR AC	0.018	Yes	No	0.018	0.016	0.012	0.012
Benzo(a)pyrene	mg/kg	NB	0.022	RR AC	0.027	Yes	Yes	0.027	0.026	0.022	0.02
Benzo(b)fluoranthene	mg/kg	NB	0.221	RR AC	0.051	Yes	No	0.051	0.046	0.031	0.025
Benzo(g,h,i)perylene	mg/kg	NB	170	RR CN*	0.016	Yes	No	0.016 J	0.016 J	ND	0.0057 J
Benzo(k)fluoranthene	mg/kg	NB	2.21	RR AC	0.012	Yes	No	0.011	0.012	0.008	0.0064 J
Chrysene	mg/kg	NB	15	RRSL	0.036	Yes	No	0.036	0.028	0.017	0.017
Dibenzofuran	mg/kg	NB	7.8	RRSL	0.0047	Yes	No	0.0047 J	ND	ND	ND
Fluoranthene	mg/kg	NB	230	RRSL	0.05	Yes	No	0.05	0.038	0.03	0.035
Fluorene	mg/kg	NB	230	RRSL	0.0058	Yes	No	0.0038 J	ND	ND	0.0058 J
Indeno(1,2,3-c,d)pyrene	mg/kg	NB	0.221	RR AC	0.02	Yes	No	0.02 J	0.017 J	ND	0.01 J
Naphthalene	mg/kg	NB	3.6	RRSL	0.015	Yes	No	0.015	0.011	0.012	0.0084
Phenanthrene	mg/kg	NB	1,700	RRSL**	0.029	Yes	No	0.025	0.022	0.018	0.029
Pyrene	mg/kg	NB	170	RRSL	0.035	Yes	No	0.035	0.028	0.021	0.024

Notes:

1. Most stringent screening value from available sources
2. Source of Screening Values:
   - NGT C = National Guard Trainee (Cancer ELCR of 1×10^{-6})
   - RR AC = Residential Receptor (Adult) (Cancer ELCR of 1×10^{-6})
   - RR CN = Residential Receptor (Child) (Non-cancer HQ = 0.1) (*) = Pyrene used as a surrogate.

highlight indicates analyte is a COPC.

COPC	=	Chemical of potential concern.
CrVI	=	Hexavalent chromium.
ELCR	=	Excess Lifetime Cancer Risk.
FWCUG	=	Facility-Wide Cleanup Goal.
J	=	Estimated: The result reported between the Detection Limit and the Limit of Quantitation. “J” means that the result is estimate with a potential low bias.
mg/kg	=	Milligrams per kilogram.
NB	=	No background.
ND	=	Not detected (valid to the Limit of Detection).
RRSL	=	Residential Regional Screening Level (lower of HQ = 0.1 and ELCR of 1×10^{-6}) (**) = Anthracene was used as surrogate for acenaphthylene and phenanthrene.
SRC	=	Site-related chemical.

This page intentionally left blank

7.1.3.1 Chemicals of Potential Concern in Surface Soils

All samples used to identify COPCs in surface soil were collected using ISM. Each individual ISM result represents an average concentration across the DU. The COPC screening process uses a 0-1 ft bgs definition for surface soil, and compares concentrations in that interval against the FWCUGs for all receptors. After this step, receptor-specific definitions of surface soil are applied. A summary of COPCs in surface soil (0-1 ft bgs) for each exposure area at CC RVAAP-68 Electric Substations (East, West, No. 3) is presented on Figures 5-2 through 5-21 and below in Table 7-9.

- Three metals (arsenic, chromium, and cobalt) and four SVOCs (benzo[a]anthracene, benzo[a]pyrene, benzo[b]fluoranthene, and dibenz[a,h]anthracene) have been identified as COPCs in CC RVAAP-68 Electric Substations (East, West, No. 3) surface soil. COPCs were identified in all three exposure areas.

Table 7-9: Summary of Chemicals of Potential Concern in Surface Soil

Surface Soil (0-1 ft bgs)	Exposure Areas		
COPCs	**East Substation**	**West Substation**	**Substation No. 3**
Metals			
Arsenic			X
Chromium (as CrVI)	X	X	X
Cobalt		X	
Semivolatile Organic Compounds			
Benzo(a)anthracene	X	X	
Benzo(a)pyrene	X	X	
Benzo(b)fluoranthene	X	X	
Dibenz(a,h)anthracene	X	X	

Notes:
bgs = Below ground surface.
COPC = Chemical of potential concern.
ft = Feet.
X = Selected as a COPC.

7.1.3.2 Chemicals of Potential Concern in Subsurface Soils

Samples used to identify COPCs in subsurface soil were collected using ISM and composite sampling. Each individual ISM result represents an average concentration across the DU. The COPC screening process uses samples collected from a depth greater than 1 ft bgs for subsurface soil and compares concentrations in that interval against the FWCUGs for all receptors. After this step, receptor-specific definitions of subsurface soil are applied. A summary of COPCs in subsurface soil (greater than 1 ft bgs) for each exposure area at CC RVAAP-68 Electric Substations (East, West, No. 3) is presented on Figures 5-4 through 5-21 and below in Table 7-10.

- One SVOC (benzo[a]pyrene) has been identified as a COPC in East and West Substations subsurface soil. No COPCs were identified for Substation No. 3.

Table 7-10: Summary of Chemicals of Potential Concern in Subsurface Soil

Subsurface Soil	Exposure Areas		
COPCs	**East Substation**	**West Substation**	**Substation No. 3**
Semivolatile Organic Compounds			
Benzo(a)pyrene	X	X	

Notes:
COPC = Chemical of potential concern.
X = Selected as a COPC.

7.1.3.3 Chemicals of Potential Concern in Wet Sediment

Samples used to identify COPCs in wet sediment were collected as discrete samples. Sediment samples were only collected at one exposure area, in a wetland adjacent to Substation No. 3. A summary of COPCs in sediment near Substation No. 3 is presented on Figures 5-18 through 5-19 and below in Table 7-11.

- One metal (chromium) and one SVOC (benzo[a]pyrene) have been identified as COPCs in sediment near Substation No. 3.

Table 7-11: Summary of Chemicals of Potential Concern in Wet Sediment

Sediment	
COPCs	**Substation No. 3**
Metals	
Chromium	X
Semivolatile Organic Compounds	
Benzo(a)pyrene	X

Notes:
COPC = Chemical of potential concern.
X = Selected as a COPC.

7.1.4 Receptor Evaluation

The OHARNG projected future land use for CC RVAAP-68 Electric Substations (East, West, No. 3) is Military Training Land Use. The representative receptor for these areas is the NGT. This use, in conjunction with the evaluation of agricultural-residential land use and associated receptors, form the basis for identifying COCs. Unrestricted (Residential) Land Use, specifically the Resident Receptor scenario, is included to evaluate COCs for unrestricted land use at CC RVAAP-68 Electric Substations (East, West, No. 3) as required by the CERCLA process. The representative receptor for Unrestricted Land Use is the Resident Receptor. FWCUGs for these receptors from the FWCUG Report (USACE 2010a) are provided in Tables 7-12 (surface soil), 7-13 (subsurface soil), and 7-14 (sediment) for all COPCs.

The Resident Receptor is evaluated as a first step and, if COCs are identified, the NGT is evaluated to refine potential risks. If no COCs are identified for the Resident Receptor, the NGT is not evaluated because Unrestricted Land Use is the more conservative scenario.

Table 7-12: Facility-Wide Cleanup Goals Corresponding to a Hazard Quotient of 1.0 and Target Risk of 10^{-5} for the Determination of Chemicals of Concern in Surface Soil

CAS No.	COPC	Critical Effect or Target Organ	FWCUG (mg/kg)				Background
			National Guard Trainee		Resident Receptor[1]		
			HQ=1.0	TR=10^{-5}	HQ=1.0	TR=10^{-5}	Surface Soil
7440-38-2	Arsenic	Skin	1140	27.8	20.2	4.25	15.4
56-55-3	Benzo(a)anthracene	NA	NA	47.7	NA	2.21	NB
50-32-8	Benzo(a)pyrene	NA	NA	4.77	NA	0.22	NB
205-99-2	Benzo(b)fluoranthene	NA	NA	47.7	NA	2.21	NB
7440-47-3	Chromium	NOAEL	1,000,000	NA	81,473	NA	17.4
7440-48-4	Cobalt	Blood	140	70.3	1,310	8030	10.4
53-70-3	Dibenz(a,h)anthracene	NA	NA	4.77	NA	0.22	NB

1. Resident Receptor FWCUGs are the most stringent of the Adult or Child values for each COPC and endpoint (non-cancer and cancer).

CAS = Chemical Abstract Service.
COPC = Chemical of potential concern.
FWCUG = Facility-Wide Cleanup Goal.
HQ = Hazard Quotient.
mg/kg = Milligram per kilogram.
NA = Not available.
NB = No background value available.
NOAEL = No observed adverse effects level.
TR = Target Risk.

Table 7-13: Facility-Wide Cleanup Goals Corresponding to a Hazard Quotient of 1.0 and Target Risk of 10^{-5} for the Determination of COCs in Subsurface Soil

CAS No.	COPC	Critical Effect or Target Organ	FWCUG (mg/kg)				Background
			National Guard Trainee		Resident Receptor[1]		
			HQ=1.0	TR=10^{-5}	HQ=1.0	TR=10^{-5}	Subsurface Soil
50-32-8	Benzo(a)pyrene	NA	NA	4.77	NA	0.22	NB

1. Resident Receptor FWCUGs are the most stringent of the Adult or Child values for each COPC and endpoint (non-cancer and cancer).

CAS = Chemical Abstract Service.
COPC = Chemical of potential concern.
FWCUG = Facility-Wide Cleanup Goal.
HQ = Hazard Quotient.
mg/kg = Milligram per kilogram.
NA = Not available.
NB = No background value available.
NOAEL = No observed adverse effects level.
TR = Target Risk.

Table 7-14: Facility-Wide Cleanup Goals Corresponding to a Hazard Quotient of 1.0 and Target Risk of 10^{-5} for the Determination of COCs in Wet Sediment

CAS No.	COPC	Critical Effect or Target Organ	FWCUG (mg/kg)				Background
			National Guard Trainee		Resident Receptor[1]		
			HQ=1.0	TR=10^{-5}	HQ=1.0	TR=10^{-5}	Sediment
50-32-8	Benzo(a)pyrene	NA	NA	4.77	NA	0.22	NB
7440-47-3	Chromium	NOAEL	1,000,000	NA	81,473	NA	18.1

[1.] Resident Receptor FWCUGs are the most stringent of the Adult or Child values for each COPC and endpoint (non-cancer and cancer).

CAS = Chemical Abstract Service.
COPC = Chemical of potential concern.
FWCUG = Facility-Wide Cleanup Goal.
HQ = Hazard Quotient.
mg/kg = Milligram per kilogram.
NA = Not available.
NB = No background value available.
NOAEL = No observed adverse effects level.
TR = Target Risk.

7.1.5 Exposure Point Concentration Development

EPCs are intended to estimate representative concentrations that a receptor might contact during the period of exposure. EPCs were calculated for each exposure area and depth interval evaluated in the HHRA. Exposure to surface soil and subsurface soil in the exposure area was evaluated based on ISM and composite samples. ISM samples consist of 30-50 aliquots of soil collected from random locations within a DU and combined into a single ISM sample. The ISM analytical result provides a more reliable estimate of the average concentration for a DU than a discrete samples, as the ISM sample includes soil collected over a larger spatial area. When an exposure area consists of one DU, the ISM results (which represent an average concentration of the soil contained within a defined area [i.e., the DU]) were used as the EPCs. When there was more than one DU within an exposure area, the average concentration of the ISM results for all of the DUs was used as the EPC for that exposure area. For the East and West Substation subsurface soil exposure areas, both ISM and vertical composite samples were averaged to determine the EPC. The EPC for Substation No. 3 is based only on ISM samples (no vertical composite samples were collected for this exposure area). Exposure to sediment and surface water in the exposure area was evaluated based on discrete samples. For sediment and surface water samples, the MDCs were used as EPCs. Based on CC RVAAP-68 Electric Substations (East, West, No. 3) characteristics and the recorded operational areas, the sample coverage to define nature and extent of these operationally area is adequate.

7.1.6 Identification of Chemicals of Concern: Resident Receptor

The process for identifying COCs follows Appendix B of the FWCUG Report as described above (Section 7.1.1).

For the Resident Receptor evaluation, soil samples for the COPCs were aggregated into Resident Receptor surface soil (0-1 ft) and Resident Receptor subsurface soil (1-13 ft). The majority of

samples used for evaluating the Resident Receptor scenario were collected using ISM. The average of all data from the 0-1 ft bgs interval was used to calculate the EPC for the Resident Receptor surface soil COPCs. Subsurface soil samples consisted of ISM and composite soil samples collected within the 1-13 ft bgs interval. The aggregation of these data and EPC calculations are provided in Appendix I, Tables I-1 through I-3. EPCs for sediment are the MDCs for each COPC and are presented in Appendix I, Table I-4.

The evaluations of COCs in surface soil, subsurface soil, and sediment by area are provided in Appendix I, Tables I-5 through I-10. The COC evaluation includes a comparison of the selected FWCUG to the EPC including a sum of ratios (SOR) assessment. For non-carcinogens, the EPC was compared to the target HQ FWCUG. SOR was used where COPCs affect similar target organs. For carcinogens, the EPC was compared to the target risk FWCUG. SOR method was used for all carcinogens.

For the Resident Receptor, COCs were identified as presented in Appendix I, Tables I-5 through I-10 as follows:

- Surface soils:
  - East Substation – No COCs identified
  - West Substation – Benzo(a)pyrene, benzo(b)fluoranthene, and dibenz(a,h)anthracene
  - Substation No. 3 – Arsenic
- Subsurface soils: No COCs were identified at any of the exposure areas evaluated.
- Sediment: No COCs were identified at any of the exposure areas evaluated.

Arsenic

The EPC for arsenic in Substation No. 3 surface soil is 16 mg/kg. This EPC within an order of magnitude of the FWCUG of 4.3 mg/kg. The EPC is based on the ISM sampling results from one DU. The facility surface soil background for arsenic is 15.4 mg/kg.

Benzo(a)pyrene

The EPC for benzo(a)pyrene in West Substation surface soil is 0.21 mg/kg. This EPC is less than the FWCUG of 0.22 mg/kg. Benzo(a)pyrene has been identified as a COC because the SOR for carcinogens is greater than 1, and percent contribution of benzo(a)pyrene to the SOR is greater than 10 percent.

Benzo(b)fluoranthene

The EPC for benzo(b)fluoranthene in West Substation surface soil is 0.41 mg/kg. This EPC is less than the FWCUG of 2.2 mg/kg. Benzo(b)fluoranthene has been identified as a COC because the SOR for carcinogens is greater than 1, and percent contribution of benzo(b)fluoranthene to the SOR is greater than 10 percent.

Dibenz(a,h)anthracene

The EPC for dibenz(a,h)anthracene in West Substation surface soil is 0.042 mg/kg. This EPC is less than the FWCUG of 0.22 mg/kg. Dibenz(a,h)anthracene has been identified as a COC because the SOR for carcinogens is greater than 1, and percent contribution of dibenz(a,h)anthracene to the SOR is greater than 10 percent.

In summary, benzo(a)pyrene, benzo(b)fluoranthene, and dibenz(a,h)anthracene were identified as COCs in surface soil for West Substation and arsenic has been identified as a COC in surface soil for Substation No. 3 for the Resident Receptor. There were no other COCs identified for surface soil for the East Substation, subsurface soil for the East Substation, subsurface soil for the West Substation, and subsurface soil for the Substation No. 3 for the Resident Receptor. Also, there were no COCs identified for surface water or sediment for Substation No. 3 for the Resident Receptor.

7.1.7 Identification of Chemicals of Concern: National Guard Trainee

For the NGT evaluation, soil samples for COPCs were aggregated into NGT surface soil (0-4 ft bgs) and NGT subsurface soil (4-7 ft bgs). An average of samples collected within the 0-4 ft bgs interval was used to calculate the EPC for NGT surface soil. Because the NGT surface soil is represented by the soil interval of 0-4 ft bgs and RI samples and reporting were for various soil intervals (i.e., 0-1, 1-4, and 1-7 ft bgs), an average of all samples collected from within the 0- to 4-ft bgs depth interval was used to calculate the 0-4 ft bgs EPC. Soil data collected from 1-7 ft bgs were included in both the 0-4 ft bgs EPC and 4-7 ft bgs EPC. NGT subsurface soil samples consisted of ISM and composite soil samples collected within the 4- to 7-ft interval. The average of all data collected between the 4- to 7-ft depth interval was used to calculate the EPC for NGT subsurface soil COPCs. The aggregation of these data is provided in Appendix I, Tables I-1 through I-3. EPCs for sediment are the MDCs for each COPC. The MDCs for COPCs in sediment are presented in Appendix I, Tables I-4.

The COC evaluation includes a comparison of the selected FWCUG to the EPC including an SOR assessment. For non-carcinogens, the EPC was compared to the target HQ FWCUG. The SOR method was used where COPCs affect similar target organs. For carcinogens, the EPC was compared to the target risk FWCUG. The SOR method was used again for all carcinogens.

For the NGT receptor, COCs were identified as presented in Appendix I, Tables I-11 through I-16 as follows:

- NGT surface soil: No COCs were identified at any of the exposure areas evaluated.
- NGT subsurface soil: No COCs were identified at any of the exposure areas evaluated.
- NGT sediment: No COCs were identified at any of the exposure areas evaluated.

In summary, no COCs have been identified in surface, subsurface soil, or sediment for East Substation, West Substation, or Substation No. 3 for the NGT receptor.

7.1.8 Risk Characterization

The following discussion provides a characterization of risk posed to the Resident Receptor and the NGT based on the COCs identified in surface soil.

Resident Receptor

COCs for the Resident Receptor were retained for surface soil at West Substation and Substation No. 3. Total ELCR was calculated for all carcinogenic COCs (i.e., benzo(a)pyrene and other carcinogenic PAHs) for each exposure area. The total ELCR in surface soil at West Substation (1×10^{-5}) is presented in the summary table below (Table 7-15) does not exceed the Ohio EPA cancer risk limit of 10^{-5}. The total ELCR in surface soil at Substation No. 3 (4×10^{-5}) is greater than the Ohio cancer risk limit of 10^{-5} and is presented in the summary table below.

The total cancer risk for the Resident Receptor is greater than the Ohio EPA risk limit for surface soil at Substation No. 3. Arsenic is the only parameter identified as a COC that contributes to the total cancer risk. The EPC for arsenic is slightly greater than the background concentration. The cancer risk for the Resident Receptor exposed to the background concentration is 4×10^{-5}. Incremental risk could be calculated to determine the cancer risk above the background level (site-related risks). For the Resident Receptor exposed to arsenic in surface soil, the background cancer risk (4×10^{-5}) is equal to the cancer risk at Substation No. 3 (4×10^{-5}). In addition, arsenic was not identified as a COC in surface soil at Substation No. 3 for the NGT. Therefore, based on incremental risk evaluation, No Further Action is recommended for surface soil at Substation No. 3.

National Guard Trainee

No COCs were identified for the NGT.

Table 7-15: Summary of Carcinogenic Risk Values for the Chemicals of Concern Identified in the Human Health Risk Assessment

Exposure Area	Media	Arsenic	Benzo(a)pyrene	Benzo(b)fluoranthene	Dibenz(a,h)anthracene	Total
		Resident ELCR	Resident ELCR	Resident ELCR	Resident ELCR	Resident ELCR
East Substation	Surface Soil	NA	NA	NA	NA	NA
	Subsurface Soil	NA	NA	NA	NA	NA
West Substation	Surface Soil	NA	1×10^{-5}	2×10^{-6}	2×10^{-6}	1×10^{-5}
	Subsurface Soil	NA	NA	NA	NA	NA
Substation No. 3	Surface Soil	4×10^{-5}	NA	NA	NA	4×10^{-5}
	Subsurface Soil	NA	NA	NA	NA	NA

Note:
ELCR = Excess lifetime cancer risk
NA = Not applicable. No Chemical of Concern identified.

7.1.9 Uncertainty

Uncertainty is inherent to risk assessment and can be introduced at every step of the process and because risk assessment is a complex process the impact of uncertainty should be discussed. Variability is the variations in physical and biological processes and should not be confused with uncertainty. Uncertainty is the lack of knowledge of the true value or variation of a particular variable. Uncertainty can be reduced by the gathering of information; however, it can likely never be eliminated where variability would not change by adding additional information.

Common uncertainties in risks assessment that apply CC RVAAP-68 Electric Substations (East, West, No. 3) include:

- Assumptions for intake rates, exposure duration, and exposure frequencies are upperbound estimates that are very conservative.

- Laboratory animals are used to determine carcinogenicity in humans; however, there are many sources of uncertainty in the dose-response evaluation such as:

  - Interspecies (animal-to-human) extrapolation which, in the absence of quantitative pharmacokinetic, dosimetric, or mechanistic data is usually based on consideration of interspecies differences in basal metabolic rate.

  - Intraspecies or individual variation. Laboratory animals are very similar in age and genotype so that intragroup biological variation is minimal, but the human population may reflect wide heterogeneity, including unusual sensitivity to the COPC. This includes toxicity data from human occupational exposure that are is

biased towards a healthy population rather than a population that is unusually sensitive.

- The linearized multi-stage model is based on a non-threshold assumption of carcinogenesis. However, a large body of evidence suggests that epigenetic carcinogens, as well as many genotoxic carcinogens, have a threshold below which they are non-carcinogenic (USEPA 1996b); therefore, the use of the linearized multistage model is ultraconservative for chemicals that exhibit a threshold for carcinogenicity.

- The estimation of an RfD uses an effect level because this estimation is predicated on the assumption of a threshold below which adverse effects are not expected. Therefore, an additional uncertainty factor is usually applied to estimate a no-effect level.

- Additional uncertainty arises from estimation of an RfD for chronic exposure from less-than-chronic data. Unless empirical data indicate that effects do not worsen with increasing duration of exposure, an additional uncertainty factor is applied to the no-effect level in the less than chronic study.

- The USEPA (1989) risk assessment guidelines advocate the use of the one-hit model to estimate risk. However, there is uncertainty associated with the one-hit model and with other risk models, because most studies of carcinogenic effects provide limited dose-response information for risk estimation (International Commission for Radiological Protection 1991). This effort to identify potential uncertainties associated with each step of the risk assessment is not intended to discredit the calculated results, but to point out that risks are calculated for hypothetical receptors under a definite, strict method. Refinements of sampling plans, analytical techniques, data statistical evaluation, exposure assessment models and parameters, hazard evaluation, dose-response assessment, and risk characterization could reduce these uncertainties.

- The Resident Receptor is evaluated for exposure to subsurface soil using the 1- to 13-ft bgs interval. The majority of subsurface soil samples collected are from 1-7 ft bgs. Therefore, the EPC for the Resident Receptor for the 1- to 13-ft bgs interval is biased toward the 1- to 7-ft bgs interval.

7.1.10 Human Health Risk Assessment Conclusions

The HHRA performed for CC RVAAP-68 Electric Substations (East, West, No. 3) provided an evaluation of risk posed to the NGT receptors based on the COCs identified in NGT surface (0-4 ft), NGT subsurface (4-7 ft), and sediment samples and Resident Receptors surface (0-1 ft), subsurface soils (1-13 ft), sediment, and surface water samples.

COCs (benzo(a)pyrene, benzo(b)fluoranthene, and dibenz(a,h)anthracene) were identified as COCs in surface soil for West Substation and arsenic was identified as a COC in surface soil for Substation No. 3 for the Resident Receptor. Although these COCs were identified in surface soil

at the West Substation, the ELCRs indicate that carcinogenic risk for the Resident Receptor at the West Substation does not exceed the Ohio EPA cancer risk limit of 10^{-5}. The ELCR for the Resident Receptor at the Substation No. 3 does exceed the Ohio EPA cancer risk limit of 10^{-5}.

For the Resident Receptor, the total cancer risk and the total HQ are below the Ohio EPA risk limits for exposure to surface soil and subsurface soil at the East Substation, surface soil and subsurface soil at the West Substations, subsurface soil at the Substation No. 3 and sediment at the Substation No. 3. Therefore, No Further Action is recommended for those exposure areas.

The total cancer risk for the Resident Receptor is greater than the Ohio EPA risk limit for surface soil at Substation No. 3. Arsenic is the only parameter identified as a COC that contributes to the total cancer risk. However, based on incremental risk evaluation, the cancer risk is below the Ohio EPA cancer risk limit. Therefore, No Further Action is recommended for surface soil at Substation No. 3.

7.2 SCREENING LEVEL ECOLOGICAL RISK ASSESSMENT

The purpose of this ERA is to evaluate the potential for chemical constituents detected in surface soil (0-1 ft), sediment, and surface water at CC RVAAP-68 Electric Substations (East, West, No. 3) to adversely affect ecological receptors. This ERA is conducted in accordance with the Unified Approach integrating USACE, Ohio EPA, and USEPA ecological risk assessment guidance documents including:

- The Ohio EPA Division of Environmental Response and Revitalization (DERR) ERA Guidance Document (Ohio EPA-DERR 2008)
- The USEPA ERA Guidance for Superfund (USEPA 1997)
- The USACE Risk Assessment Handbook Volume II: Environmental Evaluation (USACE 2010)
- The Facility-Wide ERA Work Plan (FWERAWP) (USACE 2003)

The Unified Approach was developed collaboratively by the USACE and SAIC and was approved by the Ohio EPA in 2011. The Unified Approach meets the requirements of the Ohio EPA's and USACE's ERA guidance, while following the accepted methods established for the facility as presented the FWERAWP.

Scope and Objective

Following the Unified Approach, this ERA satisfies the requirements of a qualitative Level I Scoping ERA (Section 7.2.1) and Level II Screening ERA (Section 7.2.2). The results of this ERA are used to reach a scientific management decision point, selected as the appropriate recommendation from one of the following:

- Continue the ERA process and conduct a Level III Baseline ERA.

- Proceed with remediation of CC RVAAP-68 Electric Substations (East, West, No. 3) through development and implementation of a remediation plan.

- Ecological risk at CC RVAAP-68 Electric Substations (East, West, No. 3) is negligible and No Further Action is necessary.

As described in the remainder of Section 7.2, the Level II ERA concludes that no further investigation or removal action is necessary.

7.2.1 Level I: Scoping Level Ecological Risk Assessment

This section presents the Level I Scoping ERA. The Level I ERA evaluates if past releases have occurred, if there is the potential for current contamination, and if there are important ecological resources at or near CC RVAAP-68 Electric Substations (East, West, No. 3).

The Level I ERA considered the following two questions:

1. *Are current or past releases suspected at CC RVAAP-68 Electric Substations (East, West, No. 3)?* Yes; the historical operations of the electric substations may have resulted in releases at CC RVAAP-68 Electric Substations (East, West, No. 3).

2. *Are important ecological resources present at or in the locality of CC RVAAP-68 Electric Substations (East, West, No. 3)?* Yes; important ecological resources, defined in the Guidance for Conducting ERAs (Ohio EPA-DERR 2008) and Technical Document for ERA: Process for Developing Management Goals (Biological Technical Assistance Group 2005) were identified in the vicinity of CC RVAAP-68 Electric Substations (East, West, No. 3).

As described below, the Level I ERA found that both releases AND important ecological resources are present; therefore, the risk assessment process proceeds to a Level II Screening ERA (Section 7.2.2).

7.2.1.1 Evidence of Historic Chemical Contamination

No previous ERAs have been conducted for CC RVAAP-68 Electric Substations (East, West, No. 3); therefore, chemicals of potential ecological concern (COPECs) have not historically been identified. CC RVAAP-68 Electric Substations (East, West, No. 3) consists of three former electric substations. The three substations are no longer active and all associated transformers have been removed. The potential exists for former operations to have impacted surface soil at the AOC. In addition, the potential exists for former operations to have impacted wet sediment and surface water downgradient of Substation No. 3. Wet sediment and surface water are not present near the East and West Substations.

7.2.1.2 Ecological Significance

This section presents the management goals for the facility, characterizes environmental conditions at CC RVAAP-68 Electric Substations (East, West, No. 3) and determines if there is ecological significance. Ecological significance is defined as the presence of important ecological resources at or in the vicinity of an area that are subject to COPEC exposure (USEPA 1996a). The presence or absence of ecologically important places is determined by comparing the environmental conditions and characteristics of the area to those of the important places and resources as identified in the Unified Approach and presented in the final checklist (Table 7-16).

Table 7-16: Final Checklist of Important Ecological Places and Resources

Resource	USACE List (2005b)	Ohio EPA List (2008)	At CC RVAAP-68	
			Absent	Present
National Park	X	X	X	
Designated Federal Wilderness Area	X	X	X	
National Lakeshore Recreational Area	X	X	X	
Habitat known to be used by Federal designated or proposed threatened or endangered species	X	X	X	
National or State Wildlife Refuge	X	X	X	
Habitat known to be used by state designated threatened or endangered species	X	X	X	
Federally-designated Scenic or Wild River	X	X	X	
State land designated for wildlife or game management	X	X	X	
State-designated Scenic or Wild River	X	X	X	
Wetlands and waters of the State(1)	X	X	X	
National preserve	X	X(4)	X	
State-designated Natural Areas	X	X(4)	X	
Spawning areas critical for the maintenance of fish/shellfish species within river, lake, or coastal tidal waters	X	X(5)	X	
Migratory pathways and feeding areas critical for maintenance of anadromous fish species(2)	X	X(5)	X	
Terrestrial areas used for breeding by large or dense aggregations of animals	X	X(5)	X	
Particular areas, relatively small in size, important to maintenance of unique biotic communities	X	X(5)	X	
Locally important ecological place(3)	X		X	
Critical habitat for Federal designated threatened or endangered species	X		X	
Marine Sanctuary	X		X	
Areas identified under the Coastal Zone Management Act	X		X	
Sensitive Areas identified under the National Estuary Program or Near Coastal Waters Program	X		X	
Critical areas identified under the Clean Lakes Program	X		X	
National Monument	X		X	
National Seashore Recreational Area	X		X	

Table 7-16: Final Checklist of Important Ecological Places and Resources (continued)

Resource	USACE List (2005b)	Ohio EPA List (2008)	At CC RVAAP-68	
			Absent	Present
Unit of Coastal Barrier Resources System	X		X	
Coastal Barrier (undeveloped)	X		X	
Coastal Barrier (partially developed)	X		X	
Administratively Proposed Federal Wilderness Area	X		X	
National river reach designated as Recreational	X		X	
Habitat known to be used by species under review as to its Federal threatened or endangered status	X		X	
State-designated areas for protection or maintenance of aquatic life	X		X	
Fragile landscapes, land sensitive to degradation if vegetative habitat or cover diminishes	X		X	
State, local or private land designated for protection of natural ecosystems		X	X	
Federal land designated for wildlife or game management		X	X	
Surface water, as that term is used in Chapter 3745-1 of the Ohio Administrative Code		X	X	
Federally-listed or state-listed threatened or endangered species		X	X	
State of Ohio special interest or declining species and its associated habitat		X		X
State Park		X	X	

Notes:

1. For Ohio Environmental Protection Agency 2008, as qualified by "regulated under federal law and state of Ohio's water quality laws."
2. Within river reaches or areas in lakes or coastal tidal waters in which fish spend extended periods of time.
3. Identified by the Integrated Natural Resource Management Plan, Base Realignment and Closure Cleanup Plan or Redevelopment Plan, or other official land management plans. The Ohio Army National Guard (Integrated Natural Resources Management Plan [AMEC Environment & Infrastructure, Inc. 2008]) has five special interest areas (important resources) at Ravenna Army Ammunition Plant: mixed mature woods, Hemlock Ravine-Wadsworth Glen, mixed swamp forest, mixed valuable communities, and oak/maple swamp forest. Also, the Ohio Army National guard recognizes the importance of federal and state-listed threatened and endangered plant and animal species.
4. Ohio EPA does not restrict preserves and natural areas to National or State preserves.
5. Ohio EPA lists "wildlife populations and their associated important nesting areas and food resources, taking into consideration land use and the quality and extent of habitat on and in the vicinity of the site"

X = Designated as important.

Management Goals

The OHARNG monitors and maintains ecological conditions and resources at the facility to maintain or enhance the integrity of the property's natural resources and ecosystem. The OHARNG's Management Goals for meeting this requirement are published in the Integrated Natural Resources Management Plan (INRMP) (AMEC Environment & Infrastructure, Inc. [AMEC] 2008) and are as follows:

- **GOAL 1**—Manage natural resources in a manner that is compatible with and supports the military mission while complying with applicable federal and state laws and Army regulations and policies.

- **GOAL 2**—Maintain and foster positive working relationships with the U. S. Fish and Wildlife Service; the Ohio Department of Natural Resources (ODNR) Division of Wildlife; and other federal, state, and local natural resources management agencies and organizations for the benefit of the military mission, the natural resources being managed, and the citizens of Ohio and the nation.

- **GOAL 3**—Monitor the condition of the natural resources and the implied impacts from training and the natural resources management program on the natural resources at the facility.

- **GOAL 4**—Protect and maintain populations of rare plant and animal species on the facility in compliance with federal and state laws and regulations.

- **GOAL 5**—Sustain usable training lands and native natural resources by managing non-native and invasive species, vegetation and plant communities, and nuisance wildlife species.

- **GOAL 6**—Manage wildlife resources in a manner compatible with the military mission and within the limits of the natural habitat.

- **GOAL 7**—Manage the whitetail deer population in a manner that minimizes impacts on the military mission, is ecologically sustainable, provides for public hunting, and is in accordance with Army regulations and state law.

- **GOAL 8**—Manage forest resources to the benefit of the military mission, to perpetuate the ecosystem functions, to support regional ecosystem needs, and for the production of forest products.

- **GOAL 9**—Manage wetlands and other surface waters in accordance applicable federal, state, and local regulations and to protect water quality and ecological function while facilitating the military mission.

- **GOAL 10**—Manage soil to maintain productivity and prevent and repair erosion in accordance with state and federal laws and regulations so that the Site can support doctrinally required military training in perpetuity.

- **GOAL 11**—Manage cultural resources on the Site in accordance with state and federal laws and regulations while implementing the natural resources management program.

- **GOAL 12**—Develop, maintain, and manage data regarding natural resources at the Site through the use of Geographic Information System for efficient data storage, retrieval, analysis, and presentation.

Important Places and Resources

Ecological importance means that a place or resource exhibits a unique, special, or otherwise important attribute of great value. Important ecological places and resources, as identified in the Unified Approach, include:

- Wetlands
- Terrestrial areas used for breeding by large or dense aggregations of animals
- Habitat known to be used by state or federally-listed threatened, endangered, or special concern species
- State land designated for wildlife or game management
- Locally important ecological places
- State parks

Environmental conditions and characteristics of CC RVAAP-68 Electric Substations (East, West, No. 3) are presented below to determine if ecologically important places or resources are present. Terrestrial resources are presented first, followed by aquatic resources.

Terrestrial Resources

The terrestrial portion of CC RVAAP-68 Electric Substations (East, West, No. 3) consists of three separate former electric substations.

- The East Substation comprises an area of approximately 12,300 ft^2. The only remaining structure at the East Substation is the former switch house building (Building 25-27). East Substation is mostly covered in gravel. The area in the vicinity the East Substation is flat, open field that is regularly maintained by mowing.
- The West Substation comprises an area of approximately 3,000 ft^2. The West Substation is located immediately southwest of former Power House No. 52-15 that was demolished in 2010. The West Substation is mostly open field and gravel. The only remaining structure at the West Substation is Building 28-28. This building is not included as part of this RI and is currently used by the OHARNG for military training exercises. The area immediately north of the West Substation is mainly wooded.
- The Substation No. 3 comprises an area of approximately 10,000 ft^2. There were no buildings associated with Substation No. 3. The only structures that remain at Substation No. 3 are concrete foundations for the transformers, other electrical equipment, and stumps from former utility poles. Electric Substation No. 3 is mostly gravel. Substation No. 3 is located just north of a wetland and northwest of an unnamed tributary to Sand Creek.

Detailed information about the habitats associated with these areas is presented below.

Habitat Descriptions and Species

Numerous plant community and wildlife studies have been conducted at the facility going back to 1993 (AMEC 2008). Plant communities have been mapped for the entire facility including CC RVAAP-68 Electric Substations (East, West, No. 3) (Figure 7-1), using two classification systems:

- Anderson's Classification Scheme (Anderson 1983) in 1993 (ODNR-Division of Natural Areas and Preserves [DNAP] 1993)

- The Federal Geographic Data Committee (FGDC) Vegetation Classification Standard (National Spatial Data Infrastructure 1997) in 1999 (SAIC 1999).

The FGDC Vegetation Classification Standard is the approved standard for vegetation classification on federal land. Plant communities in and around CC RVAAP-68 Electric Substations (East, West, No. 3) were mapped using the FGDC Vegetation Classification Standard (Figure 7-1). However, the three former electric substations themselves represent small areas (<1 acre total) of the facility. Therefore, the gravel areas and mowed lawns that represent the dominant land cover at the former electric substations do not appear on the vegetation maps. Plant communities in the greater vicinity of the former electric substations were mapped as:

- East Substation
  - Dry mid-successional cold-deciduous shrubland (SU1)
  - Dry early-successional herbaceous field (HU1)
  - Red Maple (*Acer rubrum*) successional forest (FU4)
- West Substation
  - Dry early-successional herbaceous field (HU1)
  - Dry mid-successional cold-deciduous shrubland (SU1)
  - Mixed cold-deciduous successional forest (FU5)
- Substation No. 3
  - Dry mid-successional cold-deciduous shrubland (SU1)
  - Red Maple (*Acer rubrum*) successional forest (FU4)
  - Red maple (*Acer rubrum*) green ash (*Fraxinus pennsylvanica*) Seasonally Flooded Forest Alliance (FL3)
  - Cattail (Typha spp.), sedge (Scirpus spp. - Juncus spp.) Seasonally Flooded Herbaceous Alliance (HL3)

Land cover at CC RVAAP-68 Electric Substations (East, West, No. 3) is dominated by gravel and maintained lawn, which are not considered habitat. Vegetated portions of CC RVAAP-68 Electric Substations (East, West, No. 3) are dominated by dry early-successional herbaceous field (HU1) and dry late-to-mid successional cold-deciduous shrub land (SU1).

Detailed descriptions and additional information on the vegetation classifications are presented in the INRMP (AMEC 2008) and the Vegetation Communities Planning Level Survey for the Ravenna Training and Logistics Site (AMEC 2006). Additional information on Site vegetation can be found in the comprehensive vegetation survey of the property, The Vascular Plant Flora of the Ravenna Arsenal (ODNR-DNAP 2000) conducted during the 1998 growing season (May through October) and Spring 1999.

Wildlife studies conducted at the facility include:

- Two land mammal surveys (Schneider 1993, Carroll 1999)
- Three bat studies commissioned by the OHANG (Tawse 1999, Davey Resource Group 2002, Duffy & Brack 2005)
- Routine avian surveys conducted in 1993, 1999, and 2001 through 2005 (Schneider 1993, Rosche 2005, BHE Environmental, Inc. 2006)
- Amphibian studies (Pfingsten 2000)
- Butterfly and moth (Lepidoptera), dragonfly and damselfly (Odanata), and beetle (Coleoperta) surveys
- Aquatic macroinvertebrate and fish surveys (AMEC 2008)

The updated INRMP includes summaries of all the wildlife survey work done at the facility (AMEC 2008). Wildlife observed at the Site includes:

- 35 species of mammals including 11 species of bats
- 214 species of birds including 117 species of birds known to or are considered likely to nest on RVAAP property
- 34 species of amphibians and reptiles, including salamanders, toads, frogs, snakes, lizards, and turtles (AMEC 2008)

Wildlife studies have not been conducted specifically for CC RVAAP-68 Electric Substations (East, West, No. 3). The gravel and moved lawn land cover that dominates CC RVAAP-68 Electric Substations (East, West, No. 3) does not constitute habitat. However, the vicinity of CC RVAAP-68 Electric Substations (East, West, No. 3), with its mix of herbaceous fields, shrubland, forest edge and wetland habitats, provides habitat for a variety of wildlife species.

The vicinity of CC RVAAP-68 Electric Substations (East, West, No. 3) provides foraging habitat for birds as well as habitat for small mammals including, mice and voles, shrews, and moles that would typically occur in these habitats. Larger mammals occurring at the facility including white-tailed deer, raccoons, woodchucks, and eastern fox squirrels may also use habitats in the vicinity of CC RVAAP-68 Electric Substations (East, West, No. 3), but only transiently.

Threatened, Endangered, and Other Rare Species

Terrestrial portions of CC RVAAP-68 Electric Substations (East, West, No. 3) have not been surveyed for federal or State listed species nor have there been any reported sightings of listed species. At the facility, there are no known occurrences of federally listed rare, threatened, and endangered species (AMEC 2008). There are however, occurrences of state-listed species that have been identified at the facility. The State status of animal and plant species is determined by the ODNR Division of Wildlife and the ODNR Division of Natural Areas and Preserves, respectively. Listed species fall into one of the following five designations: endangered, threatened, special concern, special interest, and potentially threatened. Table 7-17 presents all state-listed species observed at the facility and, therefore, may potentially occur at CC RVAAP-68 Electric Substations (East, West, No. 3) or in its vicinity.

Table 7-17: Rare Species Observed at the Facility

Group	Common Name	Scientific Name	State Status	Known to Nest or Reside at the Facility?
Birds	American bittern	*Botaurus lentiginosus*	E	No
	Bald eagle	*Haliaeetus leucocephalus*	E	No
	Dark-eyed junco	*Junco hyemalis*	T	No
	Great egret	*Ardea alba*	SC	No
	Hermit thrush	*Catharus guttatus*	T	No
	Osprey	*Pandion haliaetus*	E	No
	Sandhill crane	*Grus Canadensis*	E	No
	Trumpeter swan	*Cygnus buccinator*	E	No
	American wigeon	*Anas americana*	SI	Yes
	Back-throated blue warbler	*Dendroica caerulescens*	SI	Yes
	Barn owl	*Tyto alba*	T	Yes
	Blackburnian warbler	*Dendroica fusca*	SI	Yes
	Blue grosbeak	*Guiraca caerulea*	SI	Yes
	Bobolink	*Dolichonyx oryzivorus*	SC	Yes
	Brown creeper	*Certhia americana*	SI	Yes
	Canada warbler	*Wilsonia canadensis*	SI	Yes
	Cerulean warbler	*Dendroica cerulea*	SC	Yes
	Common moorhen	*Gallinula chloropus*	SC	Yes
	Common snipe	*Gallinago gallinago*	SI	Yes
	Gadwall	*Anas strepera*	SI	Yes
	Golden-crowned kinglet	*Regulus satrapa*	SI	Yes
	Golden-winged warbler	*Vermivora chrysoptera*	E	Yes
	Green-winged teal	*Anas crecca*	SI	Yes
	Henslow's sparrow	*Ammodramus henslowii*	SC	Yes
	Least bittern	*Ixobrychus exilis*	T	Yes
	Least flycatcher	*Empidonax minimus*	T	Yes
	Little blue heron	*Egretta caerula*	SI	Yes
	Magnolia warbler	*Dendroica magnolia*	SI	Yes
	Marsh wren	*Cistothorus palustris*	SC	Yes
	Mourning warbler	*Oporornis philadelphia*	SI	Yes
	Northern bobwhite	*Colinus virginianus*	SC	Yes
	Northern harrier	*Circus cyaneus*	E	Yes
Birds (continued)	Northern shoveler	*Anas clypeata*	SI	Yes
	Northern waterthrush	*Seiurus noveboracensis*	SI	Yes
	Pine siskin	*Carduelis pinus*	SI	Yes
	Prothonotary warbler	*Protonotaria citrea*	SC	Yes
	Purple finch	*Carpodacus purpureus*	SI	Yes
	Red-breasted nuthatch	*Sitta canadensis*	SI	Yes
	Redhead duck	*Aythya americana*	SI	Yes
	Ruddy duck	*Oxyura jamaicensis*	SI	Yes
	Sedge wren	*Cistothorus platensis*	SC	Yes
	Sharp-shinned hawk	*Accipiter striatus*	SC	Yes
	Sora	*Porzana carolina*	SC	Yes
	Virginia rail	*Rallus limicola*	SC	Yes
	Winter wren	*Troglodytes troglodytes*	SI	Yes
	Yellow-bellied sapsucker	*Sphyrapicus varius*	E	Yes
	Arbor vitae	*Thuja occidentalis*	P	Yes
	Butternut	*Juglans cinerea*	P	Yes
	Gray birch	*Betula populifolia*	P	Yes

Table 7-17: Rare Species Observed at the Facility (continued)

Group	Common Name	Scientific Name	State Status	Known to Nest or Reside at the Facility?
	Hobblebush	*Viburnum alnifolium*	P	Yes
Mammals	Bobcat	*Felis rufus*	E	Yes
	Pygmy shrew	*Sorex hovi*	SC	Yes
	Star-nosed mole	*Condylura cristata*	SC	Yes
	Woodland jumping mouse	*Napaeozapus insignis*	SC	Yes
Mussel	Creek heelsplitter	*Lasmigona compressa*	SC	Yes
Lamprey	Mountain brook lamprey	*Ichthyomyzon greeleyi*	E	Yes
Amphibian	Four-toed salamander	*Hemidactylium scutatum*	SC	Yes
Reptile	Eastern box turtle	*Terrapene carolina*	SC	Yes
Caddisfly	No common name	*Psilotreta indecisa*	T	Yes
Mayfly	No common name	*Stenonema ithica*	SC	Yes
Moth	Graceful underwing	*Catocala gracilis*	E	Yes
	No common name	*Apamea mixta*	SC	Yes
	No common name	*Brachylomia algens*	SC	Yes
Plant (bryophyte)	Lurking leskea	*Plagiothecium latebricola*	T	Yes
	Narrow-necked pohl's moss	*Pohlia elongata var. elongata*	E	Yes
	Tufted moisture-loving moss	*Philonotis fontana var. caespitosa*	E	Yes
Plant (vascular)	American chestnut	*Castanea dentata*	P	Yes
	Arbor vitae	*Thuja occidentalis*	P	Yes
	Butternut	*Juglans cinerea*	P	Yes
	Gray birch	*Betula populifolia*	P	Yes
	Hobblebush	*Viburnum alnifolium*	P	Yes
	Long beech fern	*Phegopteris connectilis*	P	Yes
	Northern rose azalea	*Rhododendron nudiflorum var. roseum*	P	Yes
	Pale sedge	*Carex pallescens*	T	Yes
	Shinning ladies'-tresses	*Spiranthes lucida*	P	Yes
	Simple willow-herb	*Epilobium strictum*	T	Yes
	Straw sedge	*Carex straminea*	P	Yes
	Swamp oats	*Sphenopholis pensylvanica*	P	Yes
	Tall St. John's wort	*Hypercium majus*	P	Yes
	Water avens	*Geum rivale*	P	Yes
	Woodland horsetail	*Equisetum sylvaticum*	T	Yes

Notes:
State Status Designations
E = Endangered.
P = Potentially threatened (administrative status; not a legal designation).
SC = Species of concern (administrative status; not a legal designation).
SI = Special interest (administrative status; not a legal designation).
T = Threatened.

Other Terrestrial Resources

The INRMP provides additional detailed information about species and habitat surveys at the facility (AMEC 2008). There are no other reported surveys of terrestrial plant communities and wildlife at CC RVAAP-68 Electric Substations (East, West, No. 3) or its vicinity beyond those summarized in the INRMP (AMEC 2008) and discussed above.

Aquatic Resources

The wetland and unnamed tributary to Sand Creek to the south and east of Substation No. 3 comprise the only surface water features included in CC RVAAP-68 Electric Substations (East, West, No. 3). Vegetation types in the vicinity of these features are consistent with the habitats described in the Terrestrial Resources section above.

CC RVAAP-68 Electric Substations (East, West, No. 3) is situated at the headwaters of a tributary to Sand Creek upstream of Sand Creek biosurvey stations S-3 as mapped in the Facility-Wide Biological and Water Quality Study (USACE 2005a). The fish community was characterized as very good and the benthic community was characterized as good.

Habitat Descriptions and Species

The wetland and unnamed tributary to Sand Creek may provide suitable habitat for benthic invertebrates, amphibians and fish, as well as attract terrestrial species discussed in the previous Terrestrial Resources section.

Threatened, Endangered and Other Rare Species

The aquatic portion of CC RVAAP-68 Electric Substations (East, West, No. 3) has not been surveyed for federal or state-listed species nor have there been any reported sightings of listed species. At the facility, there are no known occurrences of federally listed rare, threatened, and endangered species (AMEC 2008). There are however, occurrences of state-listed species that have been identified at the facility. Table 7-17 presents all State-listed species observed at the facility that may occur in the aquatic portion of CC RVAAP-68 Electric Substations (East, West, No. 3).

Other Aquatic Resources

The INRMP provides additional detailed information about species and habitat surveys at the facility (AMEC 2008). There are no other reported surveys of aquatic communities and wildlife at CC RVAAP-68 Electric Substations (East, West, No. 3) or in its vicinity beyond those summarized in the INRMP (AMEC 2008) and discussed above.

Ecosystem and Landscape Roles and Relationships

Per the Unified Approach, four spatial areas are evaluated to assess the ecosystem and landscape roles and relationships: CC RVAAP-68 Electric Substations (East, West, No. 3), the vicinity of CC RVAAP-68 Electric Substations (East, West, No. 3), the entire facility, and the surrounding eco-region of northeastern Ohio.

CC RVAAP-68 Electric Substations (East, West, No. 3)

Information about the first spatial area (CC RVAAP-68 Electric Substations [East, West, No. 3]) is provided in the Terrestrial Resources and Aquatic Resources subsections above.

Vicinity of CC RVAAP-68 Electric Substations (East, West, No. 3)

The gravel and maintained lawn land cover at the three former electric substations that comprise CC RVAAP-68 Electric Substations (East, West, No. 3) is not habitat. However, the herbaceous field, shrub communities, forest edge, and wetland habitat that are found in the vicinity of CC RVAAP-68 Electric Substations (East, West, No. 3) are in abundance across the facility (Figure 7-1). In addition, habitat in the largely undeveloped vicinity are of better quality than habitats in the vicinity of CC RVAAP-68 Electric Substations (East, West, No. 3), which are segmented and affected by proximity to roads, rail lines and other developed features and disturbed by historical use. Thus, the type and quality of habitats in the vicinity of CC RVAAP-68 Electric Substations (East, West, No. 3) are, therefore, expected to generally be of lower quality than those in less developed portions of the facility.

The Entire Facility

CC RVAAP-68 Electric Substations (East, West, No. 3) (0.58 acres) comprises only 0.003 percent of the total facility (approximately 21,683 acres). The gravel and mowed lawn land cover that is present at the three former electric substations is not habitat. Habitats in the vicinity of CC RVAAP-68 Electric Substations (East, West, No. 3) (herbaceous field, shrub, forest edge and wetland habitat) are common throughout the facility, comprising approximately 3,380 acres of facility (AMEC 2008). Thus, habitats in the vicinity of CC RVAAP-68 Electric Substations (East, West, No. 3) represent only a small fraction of the total available habitat at the facility.

The Eco-Region

The upland fields, shrub land, and forest habitats found in the vicinity of CC RVAAP-68 Electric Substations (East, West, No. 3) are in abundance in the surrounding eco-regions. The facility is located in the Erie/Ontario Drift and Lake Plain eco-regions (USEPA 2013) in northeastern Ohio. These eco-regions contain communities of:

- Dry early-successional herbaceous field (HU1)
- Dry mid-successional cold-deciduous shrubland (SU1)
- Red maple successional forest (FU4)
- Mixed cold-deciduous successional forest (FU5)
- Mixed needle-leaved evergreen cold-deciduous forest (MFU2)
- Temporarily flooded forest wetlands (FL1)
- Semi-permanently flooded, herbaceous wetlands (HL4)
- Permanently flooded herbaceous wetlands (HL5)

Many of the habitats found in the vicinity of CC RVAAP-68 Electric Substations (East, West, No. 3) (HU1, SU1, and FU4) are common to the surrounding eco-regions. Therefore, this assessment concludes that there are no known unique resources at CC RVAAP-68 Electric Substations (East, West, No. 3) that cannot be found elsewhere at the facility and the surrounding eco-region of northeastern Ohio.

7.2.1.3 Summary and Recommendations of Scoping Level Ecological Risk Assessment

CC RVAAP-68 Electric Substations (East, West, No. 3) is not habitat. Habitat in the vicinity of CC RVAAP-68 Electric Substations (East, West, No. 3) represents only a small fraction of the total habitat available at the facility and does not contain any unique habitats, and generally contains habitat of lower quality that the less developed portions of the facility. However, there is the potential for state-listed species observed at the facility to occur at CC RVAAP-68 Electric Substations (East, West, No. 3) or in its vicinity. The potential presence of these species satisfies the condition of the existence of an important ecological resource. There are also potential releases from the historical use of the former electric substations. Per the Unified Approach, both potential releases and important ecological resources are present at CC RVAAP-68 Electric Substations (East, West, No. 3); this ERA proceeds to a Level II Screening ERA.

7.2.2 Level II: Screening Level Ecological Risk Assessment

The Level II Screening Level ERA follows the Unified Approach and guidance documents listed in Section 7.2.1. This section:

- Presents the generic Ecological CSM (Section 7.2.2.1)
- Identifies habitats and species including generic receptors (Section 7.2.2.2)
- Identifies procedures used to identify COPECs (Section 7.2.2.3)
- Selects COPECs (Sections 7.2.2.4 through 7.2.2.6)
- Conducts refinements steps for evaluating COPECs (Step 3A in the ERA process) (Section 7.2.2.7)
- Provides consideration of effects on COPECs from human health-driven remediation (Section 7.2.2.8)
- Considers uncertainties and mitigations (Section 7.2.2.9)
- Provides a summary and recommendations for the Level II: Screening Level ERA (7.2.2.10)

7.2.1.1 Generic Ecological Conceptual Site Model

The generic ecological CSM identifies the relationship between historical chemical releases to source media and ecological receptors. The ecological CSM for CC RVAAP-68 Electric Substations (East, West, No. 3) was developed using the available information and serves as a framework for evaluating ecological exposure and risk. The CSM is depicted in Figure 7-2 and described below.

Potential Sources

Contaminants found at CC RVAAP-68 Electric Substations (East, West, No. 3) may have originated from historical operation of the electric substations (Section 7.2.1.2).

Transport Mechanisms

Chemicals from the sources may have migrated via the following transport mechanisms:

- Erosion and subsequent deposition in surface soil
- Surface water runoff and subsequent deposition to surface water and sediment
- Bioaccumulation in biota (*i.e.* prey items)

Exposure Media

Media in CC RVAAP-68 Electric Substations (East, West, No. 3) to which ecological receptors (i.e., plants and animals) may be exposed to chemicals include: surface soil (0-1 ft), surface water, sediment, and biota (i.e., prey items). Ecological receptors are not typically exposed to subsurface soil or groundwater therefore those media are not evaluated in this Level II ERA. Exposure to air is not evaluated in this Level II ERA as volatiles in outdoor air rapidly disperse resulting in negligible exposures.

Exposure Routes

Exposure routes through which ecological receptors may be exposed to chemicals in exposure media include:

- Direct contact with surface water, sediment and surface soil
- Dietary ingestion of biota (e.g., prey items) exposed to surface water sediment and surface soil
- Incidental ingestion of surface water, sediment, and surface soil

Ecological Receptors

The following generic ecological receptors are likely present in the terrestrial habitats of CC RVAAP-68 Electric Substations (East, West, No. 3) and are selected for evaluation in this ERA:

- Terrestrial plants
- Soil invertebrates
- Birds
- Mammals

The following generic ecological receptors are likely present in the aquatic habitats of CC RVAAP-68 Electric Substations (East, West, No. 3) and are selected for evaluation in this ERA:

- Aquatic plants
- Aquatic invertebrates
- Amphibians
- Fish
- Birds
- Mammals

7.2.2.1 Habitats and Species (Including Generic Receptors)

Habitats and species present in CC RVAAP-68 Electric Substations (East, West, No. 3) were identified in the Level I ERA (Section 7.2.1). The Level I ERA determined that important or significant ecological resources may be present in CC RVAAP-68 Electric Substations (East, West, No. 3) and/or its vicinity. CC RVAAP-68 Electric Substations (East, West, No. 3) consists primarily of gravel and mowed lawns that do not represent habitat for ecological receptors. However, the open field, shrub, forest edge, and wetland habitats in the vicinity of CC RVAAP-68 Electric Substations (East, West, No. 3) may support a variety of species including state-listed species that have been observed at the facility. This Level II ERA does not identify specific ecological receptors but instead uses generic receptors, and evaluates risk using Ecological Screening Values (ESVs) as toxicity metrics. ESVs are intended to represent conservative estimates of toxicity to be protective of multiple generic receptors, including plants, microorganisms, and animals.

7.2.2.2 Procedure to Identify Chemical of Potential Ecological Concerns

COPECs are identified in this Level II ERA following a multi-step selection process that includes:

- Data selection
- Comparison to BSVs and sediment reference values (SRVs)
- Selection of ESVs
- Comparison of MDCs to ESVs

Data Selection

This Level II ERA uses surface soil (0-1 ft), sediment (0-1 ft), and surface water data collected in November 2012 in support of the RI. Sample locations are shown on Figures 5-2 through 5-21. Evaluation of data usability is presented in Chapter 5.0 of the RI. Surface soil, sediment, and surface water samples used in the ERA are presented in Table 7-18.

Table 7-18: Samples Used in the Ecological Risk Assessment

Medium	Exposure Area	Sample Location	Sample Identification	Sample Type	Sample Purpose	Sample Date	Depth (feet)
Surface Soil	East Substation	68-FCP-DU1-SS	068SS-0006M-0001-SO	ISM	N & E, RA	11/6/2012	0-1
		68-2527-DU2-SS	068SS-0007M-0001-SO	ISM	N & E, RA	11/6/2012	0-1
		68-RRDD-DU3-SS	068SS-0008M-0001-SO	ISM	N & E, RA	11/6/2012	0-1
	West Substation	68-2828-DU2-SS	068SS-0002M-0001-SO	ISM	N & E, RA	11/6/2012	0-1
		68-FBDD-DU3-SS	068SS-0003M-0001-SO	ISM	N & E, RA	11/6/2012	0-1
		68-FBDD-DU3-SS	068SS-0004M-0001-SO	ISM	QC FD	11/6/2012	0-1
		68-FTP-DU1-SS	068SS-0001M-0001-SO	ISM	N & E, RA	11/6/2012	0-1
	Substation No. 3	68-SS3-DU1-SS	068SS-0005M-0001-SO	ISM	N & E, RA	11/6/2012	0-1
Sediment	Substation No. 3	68-SS3-SD	068SD-00010-0001-SO	ISM	QC FD	11/8/2012	0-1
		68-SS3-SD	068SD-0009-0001-SO	ISM	N & E, RA	11/8/2012	0-1
		68-SS3-SD2	068SD-00011-0001-SO	ISM	N & E, RA	11/8/2012	0-1
		68-SS3-SD3	068SD-00012-0001-SO	ISM	N & E, RA	11/8/2012	0-1
Surface Water	Substation No. 3	68-SS3-SW	068SW-0013-0001-SW	D	N & E, RA	11/8/2012	0-1
		68-SS3-SW2	068SW-0015-0001-SW	D	N & E, RA	11/8/2012	0-1
		68-SS3-SW3	068SW-0014-0001-SW	D	QC FD	11/8/2012	0-1
		68-SS3-SW3	068SW-0016-0001-SW	D	N & E, RA	11/8/2012	0-1

Notes:
D = Discrete.
ISM = Incremental sampling methodology.
N & E = Nature and extent.
RA = Risk assessment.
QC FD = Quality control field duplicate.

Surface soil samples used in this Level II ERA were collected in CC RVAAP-68 Electric Substations (East, West, No. 3) using the ISM, a structured composite sampling method that is intended to provide a reasonably unbiased mean estimate of chemical concentrations within a given area. A total of 8 ISM surface soil samples were collected in CC RVAAP-68 Electric Substations (East, West, No. 3) and considered in this ERA. Three ISM surface soil samples were collected at East Substation. Four ISM surface soil samples were collected at the West Substation, including one QC field duplicate sample. One ISM surface soil sample was collected at Substation No. 3.

Sediment samples used in this ERA are ISM samples. Four ISM sediment samples were collected at Substation No. 3 including one QC field duplicate sample, and are considered in this ERA. Surface water samples used in this ERA are discrete samples. Four discrete surface water

samples were collected at Substation No. 3, including one QC field duplicate sample and are considered in this ERA.

This Level II ERA conservatively assumes that terrestrial receptors are continually exposed to CC RVAAP-68 Electric Substations (East, West, No. 3) media with no accounting for the actual home range of individual terrestrial receptors, migration, or winter dormancy. Only surface soil samples collected from the top 1 ft of soil are used in this ERA, as the majority of ecological receptors would only be exposed to soils to this depth. Soil from deeper intervals is generally considered outside the biologically active zone for plants and soil invertebrates (Brady & Weil 2001). Sediment samples were collected from the 0- to 1-ft interval which is considered the zone of biological activity (USEPA 2003)

Comparison to Background

Chemicals detected in CC RVAAP-68 Electric Substations (East, West, No. 3) media are compared to BSVs to determine if their concentrations are facility related (Table 7-19 to 7-21). Chemicals detected in surface soil, sediment, and surface water are eliminated from further consideration in this Level II ERA where MDCs in facility media are less than facility specific BSVs. Metals detected in sediment are also compared to published Ohio-specific SRVs representative of state-wide background conditions and eliminated from further consideration where MDCs are less than BSVs or SRVs. VOCs, SVOCs, explosive compounds, and nitrocellulose detected in CC RVAAP-68 Electric Substations (East, West, No. 3) media are not compared to BSVs and SRVs as those values are not available.

Analytes detected in facility media that are known to be persistent, bioaccumulative, and toxic (PBT) compounds, as described in Ohio EPA-DERR guidance (Ohio EPA-DERR 2008), are retained for further evaluation regardless of the results of the media evaluation. The Ohio EPA-DERR guidance identifies chemicals that are PBT and also notes that chemicals with an octanol-water partition coefficient (log K_{ow}) of 3.0 or greater are also likely bioaccumulative. Analytes specifically listed in the guidance, as well as analytes detected in Site media with a log K_{ow} greater than 3.0 are identified as COPECs, except where MDCs are less than ESVs developed to be protective of bioaccumulative effects.

Ecological Screening Value Selection

ESVs are selected using the media-specific Ohio EPA-DERR screening hierarchy.

Soil Ecological Screening Value

The following Ohio EPA-DERR screening hierarchy is used to select ESVs for surface soil, with sources presented in the preferred order of selection:

1. USEPA Ecological SSLs (USEPA 2005)
2. Preliminary Remediation Goals for Ecological Endpoints (Efroymson et al. 1997)
3. USEPA Region 5 Ecological Screening Levels (ESLs) (USEPA 2003)

Sediment Ecological Screening Value

The following Ohio EPA-DERR screening hierarchy is used to select ESVs for sediment, with sources presented in the preferred order of selection:

1. Consensus-based Threshold Effects Concentrations (MacDonald et.al. 2000)
2. USEPA Region 5 ESLs (USEPA 2003)

Surface Water Ecological Screening Value

Ohio Water Quality Criteria (Regulation 3745-1-07) outside mixing zone maximum values are selected as ESVs for surface water. Hardness dependent criteria promulgated in the Ohio Water Quality Criteria are calculated using a hardness value of 112 mg/L as calcium carbonate ($CaCO_3$) calculated using Equation 1 below:

$$\text{Hardness} = 2.5*Ca+4.1*Mg \qquad \text{(Equation 1)}$$

where:

Hardness = 112 mg/L $CaCO_3$
Ca = The minimum detected concentration of calcium (31 mg/L)
Mg = The minimum detected concentration of magnesium (8.3 mg/L)

The calcium and magnesium ions that contribute to water hardness generally lower the toxicity of metals by competing with metal ions for binding sites on the gills of aquatic organisms preventing absorption. Thus, metals are more toxic at low hardness than at high hardness. ESVs calculated based on the facility specific minimum hardness, therefore represent the most protective conditions for aquatic life and as such are conservative.

For analytes lacking Ohio Water Quality Criteria, screening values were selected from the following source:

- USEPA Region 5 ESLs (USEPA 2003)

The Ohio EPA-DERR screening hierarchy does not specify the use of Region 5 ESLs for surface water. It does, however, specify their use for sediment. Therefore, Region 5 ESLs were considered for values lacking Ohio Water Quality Criteria.

Comparison of Maximum Detected Concentration to Ecological Screening Value

COPECs are selected by comparing MDCs of chemicals retained following the background comparison to ESVs. MDCs are used to provide a conservative estimate of the concentration of a given chemical in CC RVAAP-68 Electric Substations (East, West, No. 3) exposure media. The ratio of the MDC to the ESV is also referred to as a HQ and is calculated using Equation 2:

$$HQ = \frac{MDC}{ESV} \qquad \text{(Equation 2)}$$

An HQ ≤1.0 indicates that a chemical is present in Site media at concentrations that are unlikely to result in adverse ecological affects and can be eliminated from further evaluation. An HQ >1.0 does not necessarily indicate that a chemical is present at concentrations that would result in adverse ecological affects, only that it is present at a concentration greater than the conservative ESV. Chemicals with HQs >1.0 are selected as COPECs and are retained for further evaluation. Analytes with HQs ≤1.0 that are known PBT compounds are retained as COPEC where ESVs are not protective of bioaccumulation effects.

COPECs are selected by medium. Surface soil HQs are calculated using the MDC for a given chemical from all of the three distinct terrestrial areas of CC RVAAP-68 Electric Substations (East, West, No. 3). HQs for surface water and sediment are calculated using the MDC for a given chemical from among discrete samples collected in the one aquatic exposure unit evaluated.

HQs are not calculated for essential nutrients. Essential nutrients are chemical elements that are required by most organisms, naturally present in the environment in high concentrations, and generally considered to be innocuous. Calcium, iron, magnesium, potassium, and sodium are considered essential nutrients and were therefore eliminated from further consideration in this Level II ERA.

COPEC selection is summarized in Sections 7.2.2.4 through Section 7.2.2.6 below.

7.2.2.3 Soil Chemical of Potential Ecological Concerns

Thirteen metals, 2 VOCs, 23 SVOCs, and 1 propellant were detected in surface soil samples in CC RVAAP-68 Electric Substations (East, West, No. 3) (Table 7-19). Four metals were eliminated from further evaluation because the MDCs were less than or equal to their respective BSVs. Six additional metals, the 2 detected VOCs, and 23 SVOCs were eliminated from further evaluation as MDCs were less than or equal to their respective ESVs. Following the screening, 3 metals, 2 SVOCs, and 1 propellant were identified as COPECs in surface soil and retained for further evaluation:

- Lead
- Mercury
- Zinc
- Carbazole
- Dibenzofuran
- Nitrocellulose

7.2.2.4 Sediment Chemical of Potential Ecological Concerns

Eight metals and 17 SVOCs were detected in CC RVAAP-68 Electric Substations (East, West, No. 3) sediment samples (Table 7-20). All eight metals were eliminated from further evaluation

because MDCs were less than or equal to their respective BSVs or SRVs. All 17 detected SVOCs were eliminated from further evaluation because MDCs were less than or equal to their respective ESVs. Following the screening, no analytes were identified as COPECs. No further evaluation of CC RVAAP-68 Electric Substations (East, West, No. 3) sediment is necessary.

7.2.2.5 Surface Water Chemical of Potential Ecological Concerns

Four metals were detected in CC RVAAP-68 Electric Substations (East, West, No. 3) surface water samples (Table 7-21). Three metals were eliminated from further review as MDCs were less than or equal to their respective ESVs. Following the screening, one metal lacking a screening benchmark was identified as COPECs in surface water and retained for further evaluation:

- Manganese

Table 7-19: Chemicals of Potential Ecological Concern Selection – Surface Soil

Analyte[1]	Frequency of Detection	Range of Reporting Limits for Non-Detects		Range of Detected Concentrations		BSV	Persistent? [2]	ESV[3]		COPEC? [4]	COPEC Reasoning[5]	Hazard Quotient[6]
Metals (mg/kg)		**Min**	**Max**	**Min**	**Max**							
Aluminum	8 / 8	NA	NA	10,000 -	16,000	17,700	No	NA	NA	No	MDC ≤ BSV	NA
Antimony	5 / 8	0.79 -	0.85	0.088 -	0.22	0.96	No	0.27	ECO-SSL	No	MDC ≤ ESV	NA
Arsenic	8 / 8	NA	NA	9.3 -	16	15.4	No	18	ECO-SSL	No	MDC ≤ ESV	NA
Barium	8 / 8	NA	NA	73 -	95	88.4	No	330	ECO-SSL	No	MDC ≤ ESV	NA
Beryllium	8 / 8	NA	NA	0.62 -	1	0.88	No	21	ECO-SSL	No	MDC ≤ ESV	NA
Cadmium	8 / 8	NA	NA	0.1 -	0.29	NB	No	0.36	ECO-SSL	No	MDC ≤ ESV	NA
Calcium	8 / 8	NA	NA	3,900 -	35,000	15,800	No	EN	EN	No	EN	NA
Chromium	8 / 8	NA	NA	17 -	24	17.4	No	26	ECO-SSL	No	MDC ≤ ESV	NA
Cobalt	8 / 8	NA	NA	7.4 -	13	10.4	No	13	ECO-SSL	No	MDC ≤ ESV	NA
Copper	8 / 8	NA	NA	11 -	24	17.7	No	28	ECO-SSL	No	MDC ≤ ESV	NA
Iron	8 / 8	NA	NA	20,000 -	29,800	23,100	No	EN	EN	No	EN	NA
Lead	8 / 8	NA	NA	12 -	28	26.1	No	11	ECO-SSL	Yes	MDC > ESV	2.5
Magnesium	8 / 8	NA	NA	2,500 -	4,700	3,030	No	EN	EN	No	EN	NA
Manganese	8 / 8	NA	NA	280 -	1,300	1,450	No	220	ECO-SSL	No	MDC ≤ BSV	NA
Mercury	2 / 8	0.092 -	0.11	0.13 -	0.13	0.036	Yes	0.00051	ORNL - PRG	Yes	MDC > ESV	255
Nickel	8 / 8	NA	NA	16 -	33	21.1	No	38	ECO-SSL	No	MDC ≤ ESV	NA
Potassium	8 / 8	NA	NA	750 -	1,600	927	No	EN	EN	No	EN	NA
Selenium	8 / 8	NA	NA	0.53 -	0.9	1.4	No	0.52	ECO-SSL	No	MDC ≤ BSV	NA
Silver	8 / 8	NA	NA	0.025 -	0.044	NB	No	4.2	ECO-SSL	No	MDC ≤ ESV	NA
Sodium	8 / 8	NA	NA	42 -	96	123	No	EN	EN	No	EN	NA
Thallium	6 / 8	0.80 -	0.85	0.14 -	0.26	NB	No	1	ORNL - PRG	No	MDC ≤ ESV	NA
Vanadium	8 / 8	NA	NA	16 -	24	31.1	No	7.8	ECO-SSL	No	MDC ≤ BSV	NA
Zinc	8 / 8	NA	NA	53 -	210	61.8	No	46	ECO-SSL	Yes	MDC > ESV	4.6
Volatile Organic Compounds (µg/kg)												
Carbon Disulfide	2 / 2	NA	NA	0.66 -	0.69	NB	No	94.5	Region 5	No	MDC ≤ ESV	NA
Styrene	1 / 2	4 -	4	0.14 -	0.14	NB	No	4,690	Region 5	No	MDC ≤ ESV	NA

Table 7-19: Chemicals of Potential Ecological Concern Selection – Surface Soil (continued)

Analyte[1]	Frequency of Detection	Range of Reporting Limits for Non-Detects		Range of Detected Concentrations		BSV	Persistent? [2]	ESV[3]		COPEC? [4]	COPEC Reasoning[5]	Hazard Quotient[6]
Metals (mg/kg)		**Min**	**Max**	**Min**	**Max**							
Semivolatile Organic Compounds (µg/kg)												
1,4-Dichlorobenzene	1 / 8	49 -	250	21 -	21	NB	Yes	2,960	Region 5	No	MDC ≤ ESV	NA
2-Methylnaphthalene	8 / 8	NA	NA	9.8 -	81	NB	Yes	29,000	ECO-SSL	No	MDC ≤ ESV	NA
Acenaphthene	6 / 8	6.6 -	33	5.6 -	21	NB	Yes	29,000	ECO-SSL	No	MDC ≤ ESV	NA
Acenaphthylene	6 / 8	6.6 -	33	4.1 -	28	NB	Yes	29,000	ECO-SSL	No	MDC ≤ ESV	NA
Anthracene	8 / 8	NA	NA	7 -	67	NB	Yes	29,000	ECO-SSL	No	MDC ≤ ESV	NA
Benzo(a)anthracene	8 / 8	NA	NA	10 -	270	NB	Yes	1,100	ECO-SSL	No	MDC ≤ ESV	NA
Benzo(a)pyrene	8 / 8	NA	NA	10 -	330	NB	Yes	1,100	ECO-SSL	No	MDC ≤ ESV	NA
Benzo(b)fluoranthene	8 / 8	NA	NA	13 -	520	NB	Yes	1,100	ECO-SSL	No	MDC ≤ ESV	NA
Benzo(g,h,i)perylene	8 / 8	NA	NA	11 -	260	NB	Yes	1,100	ECO-SSL	No	MDC ≤ ESV	NA
Benzo(k)fluoranthene	8 / 8	NA	NA	10 -	180	NB	Yes	1,100	ECO-SSL	No	MDC ≤ ESV	NA
Carbazole	3 / 8	49 -	250	29 -	46	NB	Yes	NA	NA	Yes	NSL	NC
Chrysene	8 / 8	NA	NA	14 -	340	NB	Yes	1,100	ECO-SSL	No	MDC ≤ ESV	NA
Semivolatile Organic Compounds (µg/kg)		**Min**	**Max**	**Min**	**Max**							
Dibenz(a,h)anthracene	4 / 8	6.6 -	33	32 -	57	NB	Yes	1,100	ECO-SSL	No	MDC ≤ ESV	NA
Dibenzofuran	6 / 8	49 -	250	7.9 -	29	NB	Yes	NA	NA	Yes	NSL	NC
Diethyl Phthalate	4 / 8	49 -	250	17 -	26	NB	Yes	100	ORNL - PRG	No	MDC ≤ ESV	NA
Fluoranthene	8 / 8	NA	NA	14 -	650	NB	Yes	1,100	ECO-SSL	No	MDC ≤ ESV	NA
Fluorene	6 / 8	6.6 -	33	7.9 -	27	NB	Yes	29,000	ECO-SSL	No	MDC ≤ ESV	NA
Indeno(1,2,3-c,d)pyrene	8 / 8	NA	NA	9.2 -	220	NB	Yes	1,100	ECO-SSL	No	MDC ≤ ESV	NA
Isophorone	5 / 8	50 -	250	13 -	22	NB	Yes	139,000	Region 5	No	MDC ≤ ESV	NA
Naphthalene	7 / 8	33 -	33	9.7 -	62	NB	Yes	29,000	ECO-SSL	No	MDC ≤ ESV	NA
Phenanthrene	8 / 8	NA	NA	15 -	280	NB	Yes	29,000	ECO-SSL	No	MDC ≤ ESV	NA
Pyrene	8 / 8	NA	NA	13 -	500	NB	Yes	1,100	ECO-SSL	No	MDC ≤ ESV	NA

Table 7-19: Chemicals of Potential Ecological Concern Selection – Surface Soil (continued)

Analyte[1]	Frequency of Detection	Range of Reporting Limits for Non-Detects	Range of Detected Concentrations	BSV	Persistent? [2]	ESV[3]	COPEC? [4]	COPEC Reasoning[5]	Hazard Quotient[6]
Propellants (mg/kg)									
Nitrocellulose	1 / 2	5 - 5	0.88 - 0.88	NB	Yes	NA NA	Yes	NSL	NC

Notes:

1. Only analytes detected in one or more incremental sampling methodology surface soil samples are presented for COPEC selection.
2. Chemical is identified as persistent, bioaccumulative, and toxic (Ohio Environmental Protection Agency-Division of Environmental Remediation and Revitalization 2008) and/or log K_{ow} greater than or equal to 3.
3. ESVs are selected from the Ohio Environmental Protection Agency-Division of Environmental Remediation and Revitalization hierarchy using these sources in the order presented:
   1. ECO-SSL = USEPA Ecological Screening Levels, (USEPA 2005).
   2. ORNL PRG = Oak Ridge National Laboratory Preliminary Remediation Goals for Ecological Endpoints (Efroymson et. al 1997)
   3. USEPA Region 5 Ecological Screening Levels (USEPA 2003).
4. Analytes were retained as COPECs when:
   MDC > ESV = The maximum detected concentration is greater than the background screening value and ecological screening value.
   NSL = No screening level is available.
5. Analytes are eliminated from further review when:
   MDC ≤ BSV = The maximum detected concentration is less than or equal to the background screening value.
   MDC ≤ ESV = The maximum detected concentration is less than or equal to the ecological screening value.
   EN = The analyte is an essential nutrient.
6. Hazard Quotient calculated by dividing the MDC by the ESV.

µg/kg = Micrograms per kilogram.
BSV = Background screening value.
COPEC = Chemical of potential ecological concern.
EN = Essential nutrient.
ESV = Ecological screening value.
MDC = Maximum Detected Concentration.
Mg/kg = Milligrams per kilogram.
NA = Not available/Not applicable.
NB = No background.
NC = Not calculated.
NSL = No screening level.
SVOC = Semivolatile organic compound.
USEPA = U.S. Environmental Protection Agency.
VOC = Volatile organic compound.

This page intentionally left blank

Table 7-20: Chemicals of Potential Ecological Concern Selection – Sediment

Analyte[1]	Frequency of Detection			Range of Reporting Limits for Non-Detects			Range of Detected Concentrations			BSV	SRV [2]	Persistent? [3]	ESV[4]		COPEC? [5]	COPEC Reasoning[5]	Hazard Quotient [6]
Metals (mg/kg)				**Min**		**Max**	**Min**		**Max**								
Aluminum	4	/	4	NA		NA	8,300	-	13,000	13,900	29,000	No	NA	NA	No	MDC ≤ BSV	NA
Antimony	4	/	4	NA		NA	0.099	-	0.13	NB	1.3	No	NA	NA	No	MDC ≤ SRV	NA
Arsenic	4	/	4	NA		NA	8.8	-	16	19.5	25	No	10	TECs	No	MDC ≤ BSV	NA
Barium	4	/	4	NA		NA	57	-	78	123	190	No	NA	NA	No	MDC ≤ BSV	NA
Beryllium	4	/	4	NA		NA	0.49	-	0.76	0.38	0.80	No	NA	NA	No	MDC ≤ SRV	NA
Cadmium	4	/	4	NA		NA	0.089	-	0.61	NB	0.79	No	1	TECs	No	MDC ≤ SRV	NA
Calcium	4	/	4	NA		NA	1,100	-	1,500	5,510	21,000	No	EN	EN	No	EN	NA
Chromium	4	/	4	NA		NA	12	-	22	18.1	29	No	43	TECs	No	MDC ≤ SRV	NA
Cobalt	4	/	4	NA		NA	7.2	-	12	9.1	12	No	50	Region 5	No	MDC ≤ SRV	NA
Copper	4	/	4	NA		NA	12	-	30	27.6	32	No	32	TECs	No	MDC ≤ SRV	NA
Iron	4	/	4	NA		NA	21,000	-	30,000	28,200	41,000	No	EN	EN	No	EN	NA
Lead	4	/	4	NA		NA	18	-	23	27.4	47	No	36	TECs	No	MDC ≤ BSV	NA
Magnesium	4	/	4	NA		NA	1,600	-	2,400	2,760	7,100	No	EN	EN	No	EN	NA
Manganese	4	/	4	NA		NA	300	-	1,200	1,950	1,500	No	NA	NA	No	MDC ≤ BSV	NA
Nickel	4	/	4	NA		NA	14	-	25	17.7	33	No	23	TECs	No	MDC ≤ SRV	NA
Potassium	4	/	4	NA		NA	500	-	790	NB	6,800	No	EN	EN	No	EN	NA
Selenium	4	/	4	NA		NA	0.5	-	0.8	1.7	1.7	No	NA	NA	No	MDC ≤ BSV	NA
Silver	4	/	4	NA		NA	0.033	-	0.056	NB	0.43	No	1	Region 5	No	MDC ≤ SRV	NA
Sodium	4	/	4	NA		NA	38	-	53	NB	NA	No	EN	EN	No	EN	NA
Thallium	4	/	4	NA		NA	0.17	-	0.23	1	4.7	No	NA	NA	No	MDC ≤ BSV	NA
Vanadium	4	/	4	NA		NA	15	-	20	26.1	40	No	NA	NA	No	MDC ≤ BSV	NA
Zinc	4	/	4	NA		NA	44	-	160	532	160	No	121	TECs	No	MDC ≤ BSV	NA

Table 7-20: Chemicals of Potential Ecological Concern Selection – Sediment (continued)

Analyte[1]	Frequency of Detection			Range of Reporting Limits for Non-Detects			Range of Detected Concentrations			BSV	SRV [2]	Persistent? [3]	ESV[4]		COPEC? [5]	COPEC Reasoning[5]	Hazard Quotient [6]
Semivolatile Organic Compounds (µg/kg)																	
1,4-Dichlorobenzene	1	/	4	49	-	50	20	-	20	NB	NA	Yes	318	Region 5	No	MDC ≤ ESV	NA
2-Methylnaphthalene	4	/	4	NA		NA	7.7	-	14	NB	NA	Yes	20	Region 5	No	MDC ≤ ESV	NA
Anthracene	3	/	4	6.8	-	6.8	3.3	-	4.9	NB	NA	Yes	57	TECs	No	MDC ≤ ESV	NA
Benzo(a)anthracene	4	/	4	NA		NA	12	-	18	NB	NA	Yes	108	TECs	No	MDC ≤ ESV	NA
Benzo(a)pyrene	4	/	4	NA		NA	20	-	27	NB	NA	Yes	150	TECs	No	MDC ≤ ESV	NA
Benzo(b)fluoranthene	4	/	4	NA		NA	25	-	51	NB	NA	Yes	10,400	Region 5	No	MDC ≤ ESV	NA
Benzo(g,h,i)perylene	3	/	4	6.8	-	6.8	5.7	-	16	NB	NA	Yes	170	Region 5	No	MDC ≤ ESV	NA
Benzo(k)fluoranthene	4	/	4	NA		NA	6.4	-	12	NB	NA	Yes	240	Region 5	No	MDC ≤ ESV	NA
Chrysene	4	/	4	NA		NA	17	-	36	NB	NA	Yes	166	TECs	No	MDC ≤ ESV	NA
Dibenzofuran	1	/	4	49	-	51	4.7	-	4.7	NB	NA	Yes	449	Region 5	No	MDC ≤ ESV	NA
Fluoranthene	4	/	4	NA		NA	30	-	50	NB	NA	Yes	423	TECs	No	MDC ≤ ESV	NA
Fluorene	2	/	4	6.6	-	6.8	3.8	-	5.8	NB	NA	Yes	77.4	Region 5	No	MDC ≤ ESV	NA
Indeno(1,2,3-c,d)pyrene	3	/	4	6.8	-	6.8	10	-	20	NB	NA	Yes	200	Region 5	No	MDC ≤ ESV	NA
Isophorone	1	/	4	49	-	51	14	-	14	NB	NA	Yes	432	Region 5	No	MDC ≤ ESV	NA
Naphthalene	4	/	4	NA		NA	8.4	-	15	NB	NA	Yes	176	TECs	No	MDC ≤ ESV	NA
Phenanthrene	4	/	4	NA		NA	18	-	29	NB	NA	Yes	204	TECs	No	MDC ≤ ESV	NA
Pyrene	4	/	4	NA		NA	21	-	35	NB	NA	Yes	195	TECs	No	MDC ≤ ESV	NA

Notes:

1. Only analytes detected in one or more sediment samples are presented for COPEC selection.
2. Ohio EPA-DERR (2008) SRVs.
3. Chemical is identified as persistent, bioaccumulative, and toxic (Ohio EPA-DERR 2008) and/or log K_{ow} greater than or equal to 3.
4. ESVs are selected from the Ohio EPA-DERR hierarchy using these sources in the order presented:
    1. TECs = Threshold Effects Concentrations. MacDonald et. al. (2000) Consensus-based Sediment Quality Guidelines Threshold Effects Concentrations.
    2. U.S. Environmental Protection Agency (2003) Region 5 ESVs.

Table 7-20: Chemicals of Potential Ecological Concern Selection – Sediment (continued)

Notes (continued):
MDC > ESV = The maximum detected concentration is greater than the background screening value, sediment reference value and ecological screening value.
NSL = No screening level is available.
Analytes are eliminated from further review when:
MDC ≤ BSV = The maximum detected concentration is less than or equal to the background screening value.
MDC ≤ ESV = The maximum detected concentration is less than or equal to the ecological screening value.
MDC ≤ SRV = The maximum detected concentration is less than or equal to the sediment reference value.
EN = The analyte is an essential nutrient.
5. Hardness dependent criteria are calculated using a site-specific minimum hardness value of 48 mg/L.
6. Hazard Quotient calculated by dividing the maximum detected concentration by the ESV.

µg/kg	=	Micrograms per kilogram.
BSV	=	Background Screening Value.
COPEC	=	Chemical of potential ecological concern.
DERR	=	Division of Environmental Remediation and Revitalization.
EN	=	Essential nutrient.
ESV	=	Ecological Screening Value.
MDC	=	Maximum detected concentration.
mg/kg	=	Milligrams per kilogram.
NA	=	Not available/Not applicable.
Ohio EPA	=	Ohio Environmental Protection Agency.
SRV	=	Sediment Reference Value.
SVOC	=	Semivolatile organic compound.

This page intentionally left blank

Table 7-21: Chemicals of Potential Ecological Concern Selection – Surface Water

Analyte[1]	Frequency of Detection			Range of Reporting Limits for Non-Detects			Range of Detected Concentrations			BSV	Persistent? [2]	ESV[3]		COPEC? [4]	COPEC Reasoning[5]	Hazard Quotient[6]
Metals (µg/L)				**Min**		**Max**	**Min**		**Max**							
Aluminum	4	/	4	NA		NA	38	-	320	3,370	No	NA	NA	No	MDC ≤ BSV	NA
Antimony	1	/	4	2	-	2	1	-	1.0	NB	No	80	Region 5	No	MDC ≤ ESV	NA
Arsenic	3	/	4	5	-	5	0.64	-	0.78	3.2	No	340	Ohio - WQC	No	MDC ≤ BSV	NA
Barium	4	/	4	NA		NA	27	-	34	47.5	No	220	Region 5	No	MDC ≤ BSV	NA
Calcium	4	/	4	NA		NA	31,000	-	33,000	41,400	No	EN	EN	No	EN	NA
Copper [e]	1	/	4	4	-	4	1.6	-	1.6	7.90	No	15.5	Ohio - WQC	No	MDC ≤ BSV	NA
Iron	4	/	4	NA		NA	620	-	1,400	2,560	No	EN	EN	No	EN	NA
Magnesium	4	/	4	NA		NA	8,300	-	9,400	10,800	No	EN	EN	No	EN	NA
Manganese	4	/	4	NA		NA	190	-	620	391	No	NA	NA	Yes	NSL	NC
Nickel [e]	2	/	4	5	-	5	0.74	-	0.9	NB	No	515	Ohio - WQC	No	MDC ≤ ESV	NA
Potassium	4	/	4	NA		NA	1,700	-	2,000	3.170	No	EN	EN	No	EN	NA
Sodium	4	/	4	NA		NA	3,900	-	4,300	21,300	No	EN	EN	No	EN	NA
Vanadium	2	/	4	5	-	5	0.55	-	0.72	NB	No	12	Region 5	No	MDC ≤ ESV	NA

Notes:

1. Only analytes detected in one or more surface water samples are presented for COPEC selection.
2. Chemical is identified as persistent, bioaccumulative, and toxic (Ohio EPA-DERR 2008) and/or log K_{ow} greater than or equal to 3.
3. ESVs are Ohio Water Quality Criteria (Regulation 3745-1-07) Outside Mixing Zone Maximum Values.
4. Analytes were retained as COPECs when:

   MDC > ESV = The maximum detected concentration is greater than the background screening value and ecological screening value.

   NSL = No screening level is available.

   Analytes are eliminated from further review when:

   MDC ≤ BSV = The maximum detected concentration is less than or equal to the background screening value.

   MDC ≤ ESV = The maximum detected concentration is less than or equal to the ecological screening value.

   EN = The analyte is an essential nutrient.
5. Hardness dependent criteria are calculated using a site-specific minimum hardness value of 48 mg/L.
6. Hazard Quotient calculated by dividing the maximum detected concentration by the ESV.

Table 7-21: Chemicals of Potential Ecological Concern Selection – Surface Water (continued)

Notes: (continued)
BSV = Background Screening Value.
MDC = Maximum Detected Concentration
NSL = No Screening Level.
COPEC = Chemical of potential ecological concern.
NA = Not available/Not applicable.
SVOCs = Semivolatile organic compound.
EN = Essential nutrient.
NB = No background.
µg/L = Micrograms per liter.
ESV = Ecological Screening Value.
NC = Not calculated.
Ohio EPA = Ohio Environmental Protection Agency.

7.2.2.6 Step 3A: Refinement of Chemical of Potential Ecological Concerns

The purpose of Step 3A is to refine the list of COPECs to determine if:

(1) There are final COPECs requiring further evaluation in Level III ERA or remediation to protect ecological receptors; or

(2) COPECs can be eliminated from further consideration.

This evaluation is adapted from the USEPA Step 3A, outlined in the ERA Guidance for Superfund: Process for Designing and Conducting ERAs (USEPA 1997) and Risk Assessment Handbook Volume II: Environmental Evaluation (USACE 2010a).

Soil Chemical of Potential Ecological Concerns Refinement

Three metals, two SVOCs, and one propellant were identified as COPECs in CC RVAAP-68 Electric Substations (East, West, No. 3) surface soil and are further refined in Step 3A.

Metals

It was conservatively assumed in the ERA that receptors would be limited to within the boundaries of CC RVAAP-68 Electric Substations (East, West, No. 3). However, CC RVAAP 68 Electric Substations (East, West, No. 3) accounts for only 0.003 percent of the total terrestrial area of the facility. Populations of birds and mammals would forage and nest across a much larger range, and communities of plants and soil invertebrates would also occur across a much larger area. Even individuals of state-listed species are unlikely to be restricted to such a small area. Also, as explained above, CC RVAAP-68 Electric Substations (East, West, No. 3) does not provide any unique habitat and is of lesser quality than other less developed parts of the facility.

Considering the uncertainties associated with conservative exposure assumptions (see Section 7.2.2.9), HQs presented in Table 7-19 overestimate risk. Therefore, risks from metals in CC RVAAP-68 Electric Substations (East, West, No. 3) surface soil were further refined by calculating HQs based on the average concentration (herein referred to as the "average HQ"). Average concentrations provide more realistic estimates of concentrations to which populations of ecological receptors would be exposed to over time and across the spatial extent of CC RVAAP-68 Electric Substations (East, West, No. 3). Although CC RVAAP-68 Electric Substations (East, West, No. 3) is not a contiguous area, habitats are consistent in the three distinct terrestrial areas of CC RVAAP-68 Electric Substations (East, West, No. 3). It is, therefore, appropriate to consider CC RVAAP-68 Electric Substations (East, West, No. 3) as a single unit for the purpose of characterizing risk to ecological receptors.

Table 7-22 presents average HQs for metals identified as COPECs in CC RVAAP-68 Electric Substations (East, West, No. 3) surface soil. Average HQs are <10 for lead (1.7) and zinc (2.2). The average HQ for mercury in CC RVAAP-68 Electric Substations (East, West, No. 3) surface soil is 136; however, the average concentration of mercury (0.070 mg/kg) is only slightly higher than the BSV (0.036 mg/kg). Considering other conservative assumptions (100 percent

bioavailability and receptors using CC RVAAP-68 Electric Substations [East, West, No. 3] 100 percent of the time), risk to communities and populations of commons species, and to individual species of special concern, is likely negligible, and metals detected in surface soil can be eliminated from further review.

Table 7-22: Chemicals of Potential Ecological Concern Refinement – Surface Soil

COPEC[1]	Average Concentration[2]	BSV	ESV[3]	Average Hazard Quotient[4]
Metals (mg/kg)				
Lead	18.7	26.1	11	1.7
Mercury	0.070	0.036	0.00051	136
Zinc	99	61.8	46	2.2
Semivolatile Organic Compounds (µg/kg)				
Carbazole	43	NB	NA	NC
Dibenzofuran	30	NB	NA	NC
Propellants (mg/kg)				
Nitrocellulose	1.69	NB	NA	NC

Notes:
1. Only analytes identified as COPECs in Table 7-19 are presented in this table.
2. The average is calculated as the arithmetic mean for all ISM surface soil samples in CC RVAAP-68.
3. ESVs are selected from the Ohio EPA-DERR hierarchy using these sources in the order presented:
    1. USEPA Ecological Screening Levels (USEPA 2005).
    2. ORNL Preliminary Remediation Goals for Ecological Endpoints (Efroymson et. al. 1997).
    3. USEPA Region 5 Ecological Screening Levels (USEPA 2003).
4. Average Hazard Quotient calculated by dividing the average concentration by the ESV.

BSV = Background Screening Value.
COPEC = Chemical of potential ecological concern.
ESV = Ecological Screening Value.
µg/kg = Micrograms per kilogram.
mg/kg = Milligrams per kilogram.
NA = Not available.
NB = No background.
NC = Not calculated.
USEPA = U.S. Environmental Protection Agency.

Carbazole

Carbazole was detected in CC RVAAP-68 Electric Substations (East, West, No. 3) surface soil and retained as a COPEC for further evaluation as no screening benchmark was available in the Ohio EPA-DERR screening hierarchy. Very little information is available in the scientific literature regarding the toxicity of carbazole in surface soil to ecological receptors. An HQ could not be calculated; thus, risk to ecological receptors from carbazole in surface soil is uncertain.

Dibenzofuran

Dibenzofuran was detected in CC RVAAP-68 Electric Substations (East, West, No. 3) surface soil and retained as a COPEC for further evaluation as no screening benchmark was available in the Ohio EPA-DERR screening hierarchy. Dibenzofuran was detected in six of eight surface soil samples with an MDC of 29 µg/kg. The Los Alamos National Laboratory (LANL) Eco-RISK

Database (LANL 2014) presents a minimum no-effect benchmark (6,100 µg/kg) and low-effect benchmarks (61,000 µg/kg) for dibenzofuran based on values for effects on generic plant receptors. Considering that the MDC of dibenzofuran is an order of magnitude lower than the LANL low-effect minimum ecological screening value, risk to communities and populations of commons species, and to individual species of special concern, is likely negligible, and dibenzofuran can be eliminated from further review.

Nitrocellulose

Nitrocellulose was detected in CC RVAAP-68 Electric Substations (East, West, No. 3) surface soil and retained as a COPEC for further evaluation as no screening benchmark was available in the Ohio EPA-DERR screening hierarchy. The presence of this propellant is, however, not related to the historical practices at this AOC.

Sediment COPEC Refinement

All detected analytes in sediment were eliminated from further review in the COPEC selection step; therefore, no further refinement is necessary.

Surface Water COPEC Refinement

One metal was identified as a COPEC in CC RVAAP-68 Electric Substations (East, West, No. 3) surface water and is further refined in Step 3A.

Manganese

Manganese was detected in CC RVAAP-68 Electric Substations (East, West, No. 3) surface water and retained as a COPEC for further evaluation because no screening benchmark was available in the Ohio EPA-DERR screening hierarchy. The average concentration of manganese in CC RVAAP-68 Electric Substations (East, West, No. 3) surface water (620 micrograms per liter [µg/L]) is greater than the BSV (391 µg/L). The REACH (2014) database presents a No Observed-Adverse-Effect-Concentration (NOEC) (1,700 µg/L) for long-term effects on aquatic invertebrates. Considering that the average concentration of manganese in CC RVAAP-68 Electric Substations (East, West, No. 3) surface water is less than the NOEC, risk to ecological receptors is expected to be negligible.

7.2.2.7 Consideration of Human Health Driven Remediation

The HHRA did not identify any actionable risks for CC RVAAP-68 Electric Substations (East, West, No. 3).

7.2.2.8 Uncertainties and Mitigations

The initial risk screening conducted in the Level II Screening ERA incorporated numerous assumptions and uncertainties that tend to overestimate risk including:

- That ecological receptors are exposed to COPEC in exposure units all of the time with no accounting for home range, habitat suitability, or temporal use (e.g. migration or hibernation).

- That ecological receptors are exposed to MDCs of COPECs in ISM samples from among all the terrestrial exposure units at all times.

- That ecological receptors are exposed to MDCs of COPECs in the aquatic exposure area at all times.

- The use of ESVs that are highly conservative and do not take into account bioavailability in the environment or the attenuation and degradation of chemicals in the environment.

- Surface water benchmarks for metals are based on conservative site-specific minimum hardness values.

These uncertainties are considered in the Step 3A refinement presented in Section 7.2.2.7.

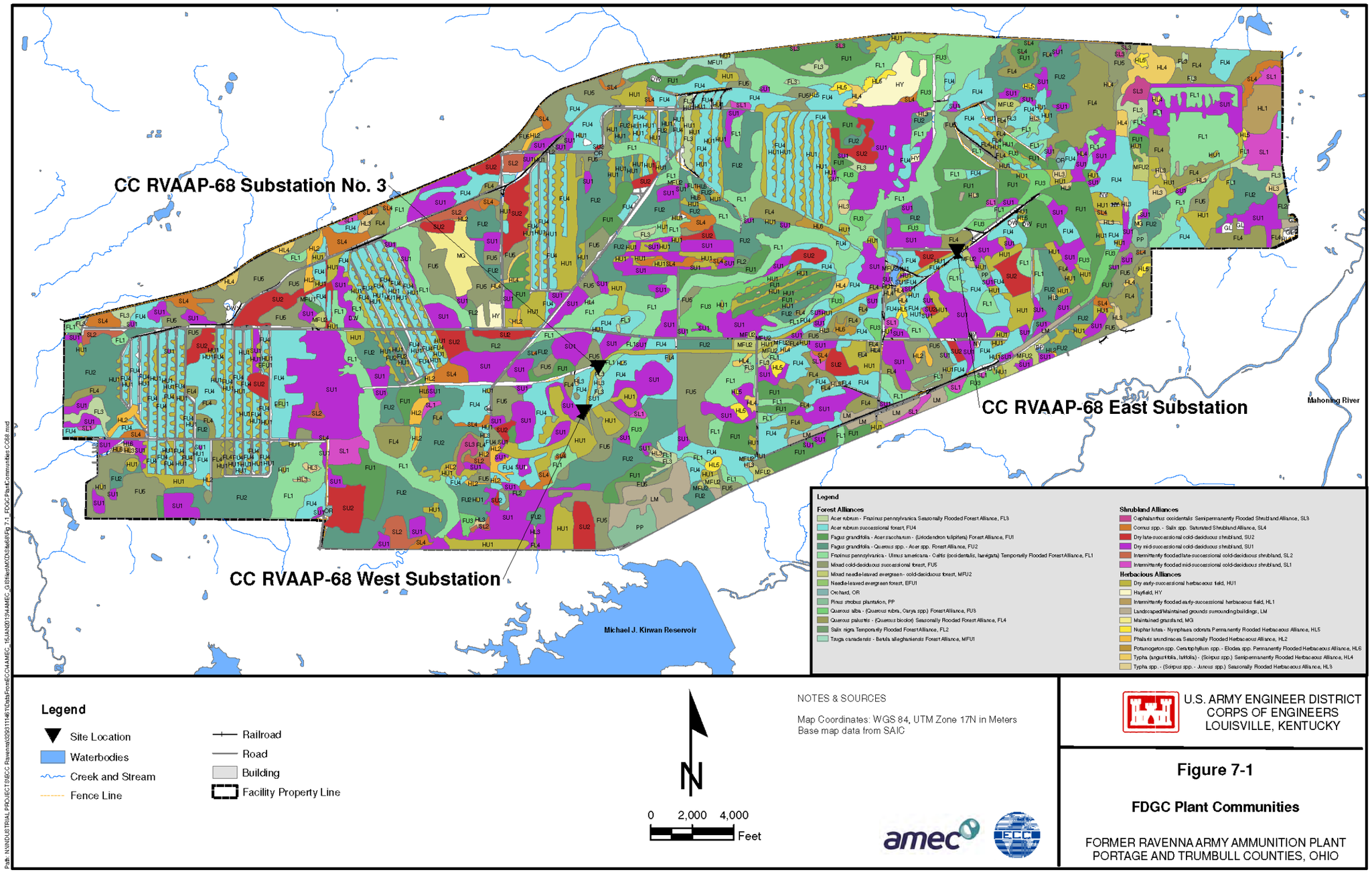
7.2.2.9 Summary and Recommendations of Screening Level Ecological Risk Assessment

MDCs in surface soil, sediment, and surface water were compared to BSVs, Ohio EPA sediment reference values, and conservative ecological screening benchmarks for generic receptors to identify COPECs. The list of COPECs was subsequently refined on a COPEC-by-COPEC basis. Considering site-specific factors, and taking into account mitigating uncertainties, it is not likely that exposure to sediment would adversely affect communities or populations of common ecological receptors or individuals of State-listed species in CC RVAAP-68 Electric Substations (East, West, No. 3).

For surface soil, risks are not likely for all COPECs. For surface water, risks are not likely for all COPECs to communities or populations of common ecological receptors or individuals of State-listed species in CC RVAAP-68 Electric Substations (East, West, No. 3). Considering the conservative assumptions incorporated into the ERA and the limited ecological value of CC RVAAP-68 Electric Substations (East, West, No. 3), further evaluations are not expected to identify any actionable risk to ecological receptors for the three remaining COPECs.

7.2.3 Conclusions

No further investigation (e.g., Level III Baseline ERA or removal action is considered necessary for environmental media in CC RVAAP-68 Electric Substations (East, West, No. 3) for the protection of ecological receptors.


CC RVAAP-68 Substation No. 3
CC RVAAP-68 East Substation
CC RVAAP-68 West Substation
Mahoning River
Michael J. Kirwan Reservoir
Legend
Forest Alliances
Acer rubrum - Fraxinus pennsylvanica Seasonally Flooded Forest Alliance, FL3
Acer rubrum successional forest, FU4
Fagus grandifolia - Acer saccharum - (Liriodendron tulipifera) Forest Alliance, FU1
Fagus grandifolia - Quercus spp. - Acer spp. Forest Alliance, FU2
Fraxinus pennsylvanica - Ulmus americana - Celtis (occidentalis, laevigata) Temporarily Flooded Forest Alliance, FL1
Mixed cold-deciduous successional forest, FU5
Mixed needle-leaved evergreen - cold-deciduous forest, MFU2
Needle-leaved evergreen forest, EFU1
Orchard, OR
Pinus strobus plantation, PP
Quercus alba - (Quercus rubra, Carya spp.) Forest Alliance, FU3
Quercus palustris - (Quercus bicolor) Seasonally Flooded Forest Alliance, FL4
Salix nigra Temporally Flooded Forest Alliance, FL2
Tsuga canadensis - Betula alleghaniensis Forest Alliance, MFU1
Shrubland Alliances
Cephalanthus occidentalis Semipermanently Flooded Shrubland Alliance, SL3
Cornus spp. - Salix spp. Saturated Shrubland Alliance, SL4
Dry late-successional cold-deciduous shrubland, SU2
Dry mid-successional cold-deciduous shrubland, SU1
Intermittently flooded late-successional cold-deciduous shrubland, SL2
Intermittently flooded mid-successional cold-deciduous shrubland, SL1
Herbacious Alliances
Dry early-successional herbaceous field, HU1
Hayfield, HY
Intermittently flooded early-successional herbaceous field, HL1
Landscaped/Maintained grounds surrounding buildings, LM
Maintained grassland, MGI
Nuphar lutea - Nymphaea odorata Permanently Flooded Herbaceous Alliance, HL5
Phalaris arundinacea Seasonally Flooded Herbaceous Alliance, HL2
Potamogeton spp. Ceratophyllum spp. - Elodea spp. Permanently Flooded Herbaceous Alliance, HL6
Typha (angustifolia, latifolia) - (Scirpus spp.) Semipermanently Flooded Herbaceous Alliance, HL4
Typha spp. - (Scirpus spp. - Juncus spp.) Seasonally Flooded Herbaceous Alliance, HL3
Legend
Site Location
Waterbodies
Creek and Stream
Fence Line
Railroad
Road
Building
Facility Property Line
N
0 2,000 4,000
Feet
NOTES & SOURCES
Map Coordinates: WGS 84, UTM Zone 17N in Meters
Base map data from SAIC
amec
EDGE
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY
Figure 7-1
FDGC Plant Communities
FORMER RAVENNA ARMY AMMUNITION PLANT
PORTAGE AND TRUMBULL COUNTIES, OHIO
Path: N:\INDUSTRIAL PROJECTS\EC-C Ravenna\32931114610\Data\From EC\C04\AMEC_15JAN2013194\AMEC_GIS\files\MXD\Site68\Fig 7-1_FDGC Plant Communities CC68.mxd

This page intentionally left blank

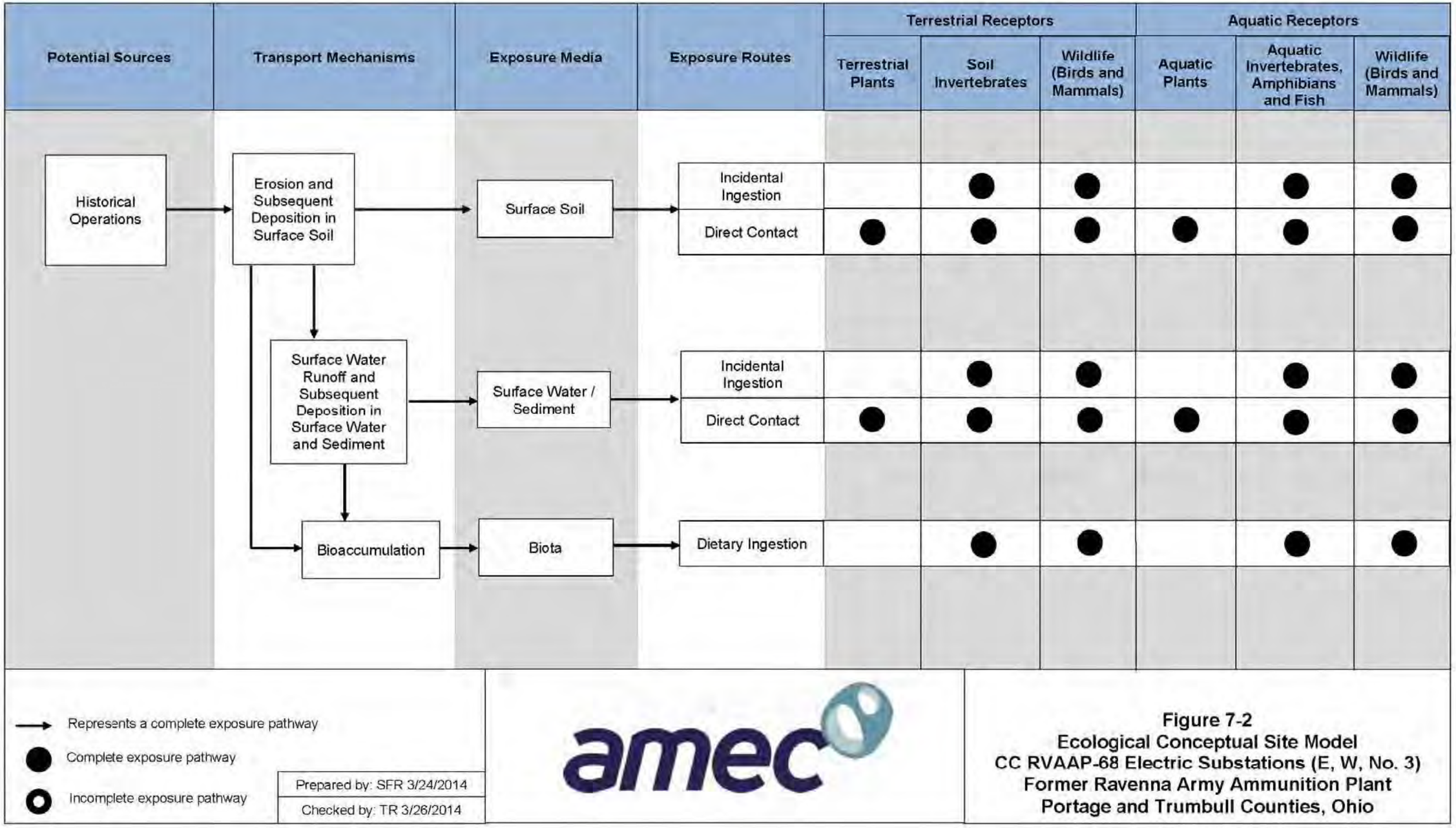


Figure 7-2
Ecological Conceptual Site Model
CC RVAAP-68 Electric Substations (E, W, No. 3)
Former Ravenna Army Ammunition Plant
Portage and Trumbull Counties, Ohio

This page intentionally left blank

8.0 REMEDIAL INVESTIGATION CONCLUSIONS AND RECOMMENDATIONS

The following sections present the conclusions and recommendations related to the RI conducted for CC RVAAP-68 Electric Substations (East, West, No. 3).

8.1 SUMMARY OF DATA IN REMEDIAL INVESTIGATION

All data collected during the RI of CC RVAAP-68 Electric Substations (East, West, No. 3) were deemed usable for this report. For surface and subsurface soil, all available ISM and composite samples were included in the data screening to identify SRCs, contaminant nature and extent, contaminant fate and transport, and in risk assessments (with the exception of field duplicates). Discrete wet sediment samples were collected from adjacent to Substation No. 3 and surface water samples were also collected from adjacent to Substation No. 3. These sample results were also used in the nature and extent evaluation and the risk assessments.

8.2 SUMMARY OF NATURE AND EXTENT

SRCs were identified in all media evaluated at CC RVAAP-68 Electric Substations (East, West, No. 3), except surface water. The majority of SRCs identified were SVOCs and metals; SVOCs and metals were retained as SRCs in surface soil and subsurface soil from all three former electric substations and in wet sediment downgradient of Substation No. 3 (wet sediment and surface water are not present near the East and West substations). Some of the metals and SVOCs detected in sediment and surface water downgradient of Substation No. 3 were not detected in surface soil or subsurface soil at the substation and, therefore, were not retained as SRCs. Although the two VOCs and one propellant identified in soils at the East and West substations were retained as SRCs, the presence of these compounds is not related to historical operations at those areas. PCBs, organochlorine pesticides, and explosives were not identified in any of the samples analyzed.

For the surface soil aggregate (0-1 ft bgs from three former electric substations), the following analytes were retained as SRCs:

- Thirteen inorganics: arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, nickel, silver, thallium, zinc, and mercury

- Two VOCs: carbon disulfide and styrene

- Twenty-two SVOCs: 1,4-dichlorobenzene; 2-methylnaphthalene; acenaphthene; acenaphthylene; anthracene; benzo(a)anthracene, benzo(a)pyrene; benzo(b)fluoranthene; benzo(g,h,i)perylene; benzo(k)fluoranthene; carbazole; chrysene; dibenz(a,h)anthracene; dibenzofuran; diethyl phthalate; fluoranthene; fluorene; indeno(1,2,3-c,d)pyrene; isophorone; naphthalene; phenanthrene; and pyrene

- One propellant: nitrocellulose

For the subsurface soil aggregate (1-4, 4-7, 1-7, and 7-13 ft bgs from three former electric substations), the following analytes were retained as SRCs:

- Three inorganics: cadmium, silver, and mercury
- One VOC: carbon disulfide
- Sixteen SVOCs: 2-methylnaphthalene; acenaphthylene; anthracene; benzo(a)anthracene, benzo(a)pyrene; benzo(b)fluoranthene; benzo(g,h,i)perylene; benzo(k)fluoranthene; chrysene; dibenzofuran; fluoranthene; fluorene; indeno(1,2,3-c,d)pyrene; naphthalene; phenanthrene; and pyrene
- One propellant: nitrocellulose

For sediment downgradient of the Substation No. 3, the following analytes were retained as SRCs:

- Three inorganics: cadmium, chromium, and silver
- Fifteen SVOCs: 2-methylnaphthalene; anthracene; benzo(a)anthracene, benzo(a)pyrene; benzo(b)fluoranthene; benzo(g,h,i)perylene; benzo(k)fluoranthene; chrysene; dibenzofuran; fluoranthene; fluorene; indeno(1,2,3-c,d)pyrene; naphthalene; phenanthrene; and pyrene

For surface water downgradient of the Substation No. 3, no analytes were retained as SRCs.

To delineate the nature and extent of contamination at the three substations, SRCs were compared to the most stringent Resident Receptor FWCUG at a target risk of 1×10^{-6} and HQ of 0.1. The concentrations of these SRCs did not exceed their respective FWCUG, with the following few exceptions:

Surface Soil
- Chromium, benzo(a)anthracene, benzo(b)pyrene, benzo(b)fluoranthene, and dibenz(a,h)anthracene at the East Substation
- Chromium, cobalt, benzo(a)anthracene, benzo(b)pyrene, benzo(b)fluoranthene, and dibenz(a,h)anthracene at the West Substation
- Arsenic and chromium at Substation No. 3

Subsurface Soil
- Benzo(a)pyrene at the East Substation
- Benzo(a)pyrene at the West Substation

Wet Sediment
- Chromium and benzo(a)pyrene downgradient of Substation No. 3

The concentrations of these chemicals were only slightly above their respective FWCUG. In addition, there is no known use of these chemicals at the electric substations of this AOC. The horizontal and vertical extent of these chemicals has been defined at each substation.

8.3 SUMMARY OF CONTAMINANT FATE AND TRANSPORT

To identify potential risks to groundwater beneath CC RVAAP-68 Electric Substations (East, West, No. 3), a multi-step soil screening analysis was applied to each substation separately using available site-specific values and assumptions. The first step identified SRCs as defined in nature and extent evaluation (Chapter 5.0). In the second step, the MDCs of the SRCs were then compared with the generic soil screening levels (SSLs) to develop the initial contaminant migration COPCs. During the third step, the MDCs of the initial contaminant migration COPCs were compared with dilution attenuation factor (DAF)-based site-specific SSLs to further refine the initial contaminant migration COPCs. After the third step, only four SVOCs were retained as initial contaminant migration COPCs at all three substations because their concentrations exceeded the generic and site SSLs: benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and naphthalene.

The fourth step eliminated from further consideration those initial contaminant migration COPCs that require more than 1,000 years to leach through the unsaturated zone before reaching the water table. After the fourth step, only naphthalene was retained as an initial contaminant migration COPC for all three substations.

The fifth screening step then eliminated from further consideration those initial contaminant migration COPCs that require more than 1,000 years to reach the assumed downgradient receptor (i.e., nearest surface water body to which groundwater is likely to discharge). After the fifth step, naphthalene was retained as an initial contaminant migration COPC at the Substation No. 3 because calculations indicate that transport in groundwater may take less than 1,000 years. This is due in large part to the chemical properties of naphthalene (low retardation factor), the physical properties of the aquifer (moderate hydraulic conductivity), and the fact that the nearest surface water body (a wetland) is approximately 100 ft downgradient of the substation. The results of this step are independent of naphthalene concentration.

The last two steps of the fate and transport evaluation process (Steps 6 and 7) usually include modeling to predict soil concentrations after leaching (SESOIL model) and then groundwater concentrations downgradient at the groundwater-surface water interface (AT123D model). Contaminant migration COCs are defined as the chemicals with potential to leach to groundwater and migrate to downgradient receptor locations at a concentration exceeding the FWCUGs for the AOC-specific receptors, BSVs, and MCL/RSLs. If the predicted chemical concentration was lower than at least one of these three screening goals at the downgradient receptor location, the chemical was not considered a contaminant migration COC. Because the maximum detected naphthalene concentration in soil from all three substations (0.017 mg/kg) is already well below the most stringent FWCUG (122 mg/kg), fate and transport modeling was not necessary. Although the travel time of naphthalene to the wetland downgradient of Substation No. 3 is less than 1,000 years, naphthalene currently poses no risk to human health or the

environment. In addition, naphthalene was not detected in the three surface water samples collected in the tributary to Sand Creek (to which the wetland flows).

The conclusions of the soil screening analysis are that all SRCs in soil are currently eliminated as potential risks to groundwater. Final contaminant migration COCs were not identified at any of the three substations.

8.4 SUMMARY AND CONCLUSIONS OF THE RISK ASSESSMENTS

The HHRA identified COPCs and COCs and conducted risk analysis to identify those COCs requiring remediation based on potential risks to human receptors. The representative receptor is the Resident Receptor, which represents an unrestricted land use scenario. Because the facility is currently used and will be used for military training in the future, the HHRA also included an evaluation of the NGT receptor. Media of concern evaluated in the HHRA are surface soil, subsurface soil, and sediment. Surface water was not evaluated because SRCs were not identified in that medium.

To identify the COPCs that would be carried through the risk assessment, the MDC of each SRC was screened against the chemical-specific FWCUG at a target cancer risk level of 10^{-6} and non-carcinogenic target HQ of 0.1.

The COPCs identified in surface soils for are:

- Four metals: arsenic, chromium, cobalt, and thallium
- Four SVOCs: benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and dibenz(a,h)anthracene
- COPCs were identified in all three exposure areas (i.e., substations)

The COPCs identified in subsurface soils are:

- One SVOC: benzo(a)pyrene
- No COPCs were identified for Substation No. 3

The COPCs identified in Substation No. 3 sediment are:

- Two metals: chromium and cobalt
- One SVOC: benzo(a)pyrene

The HHRA performed for CC RVAAP-68 Electric Substations (East, West, No. 3) provided further evaluation of risk posed to the Resident Receptors and the NGT based on identified COPCs listed above.

The following COCs were identified in surface soil for the Resident Receptor:

- East Substation – No COCs identified
- West Substation – Benzo(a)pyrene, benzo(b)fluoranthene, and dibenz(a,h)anthracene
- Substation No. 3 – Arsenic

No COCs have been identified in surface soil, subsurface soil, or sediment for East Substation, West Substation, or Substation No. 3 for the NGT receptor.

For the Resident Receptor, the total cancer risk and the total HQ are below the Ohio EPA risk limits for exposure to surface soil and subsurface soil at the East Substation, surface soil and subsurface soil at the West Substation, subsurface soil at the Substation No. 3, and sediment at the Substation No. 3. Therefore, No Further Action is required for those exposure areas for the protection of human health.

The total cancer risk for the Resident Receptor is greater than the Ohio EPA risk limit for surface soil at Substation No. 3. Arsenic is the only parameter identified as a COC that contributes to the total cancer risk. The cancer risk for the Resident Receptor exposed to the background concentration is 4×10^{-5}. Typically, incremental risk is calculated to determine the cancer risk above the background level. For the Resident Receptor exposed to arsenic in surface soil, the background cancer risk (4×10^{-5}) is equal to the cancer risk at Substation No. 3 (4×10^{-5}). In addition, arsenic was not identified as a COC in surface soil at Substation No. 3 for the NGT. Therefore, based on incremental risk, No Further Action is recommended for surface soil at Substation No. 3 for the protection of human health.

The ERA was conducted to evaluate the potential for chemical constituents detected in surface soil, sediment, and surface water to adversely affect ecological receptors. MDCs of analytes detected in surface soil, sediment, and surface water were compared to BSVs, Ohio EPA sediment reference values and to conservative ecological screening benchmarks for generic receptors to identify COPECs. The list of COPECs was subsequently refined on a COPEC-by-COPEC basis. Considering site-specific factors, and taking into account mitigating uncertainties, it is not likely that exposure to sediment would adversely affect communities or populations of common ecological receptors or individuals of State-listed species in CC RVAAP-68 Electric Substations (East, West, No. 3).

For surface soil, risks are not likely for all COPECs. For surface water, risks are not likely for all COPECs to communities or populations of common ecological receptors or individuals of State-listed species in CC RVAAP-68 Electric Substations (East, West, No. 3). Considering the conservative assumptions incorporated into the ERA and the limited ecological value of CC RVAAP-68 Electric Substations (East, West, No. 3), further evaluations are not expected to identify any actionable risk to ecological receptors for the three remaining COPECs.

8.5 RECOMMENDATION OF THE REMEDIAL INVESTIGATION

The RI conducted at CC RVAAP-68 Electric Substations (East, West, No. 3) has adequately characterized surface and subsurface soil within the three substation areas, which comprise the operational area of this AOC, and sediment and surface water downgradient of Substation No. 3. Based on the results of the RI, which included an evaluation of contamination fate and transport,

an HHRA, and an ERA, No Further Action is recommended at CC RVAAP-68 Electric Substations (East, West, No. 3) for soil, sediment, and surface water.

No further investigation (e.g., Level III Baseline ERA) or removal action is required for surface and subsurface soil, sediment, and surface water present at CC RVAAP-68 Electric Substations (East, West, No. 3) for the protection of ecological receptors.

9.0 REFERENCES

AMEC Environmental & Infrastructure, Inc. (AMEC). 2006. Wetlands Planning Level Survey for the Ravenna Training and Logistics Site. Prepared for: Ohio Army National Guard.

AMEC. 2008. Integrated Natural Resource Management Plan, updated for FY 2008. Prepared for Ohio Army National Guard. March.

Anderson, D.M. 1983. *Plant communities of Ohio: A preliminary classification and description*. Ohio Department of Natural Resources, Division of Natural Areas and Preserves.

Agency for Toxic Substances and Disease Registry. 1995. *Toxicological Profile for Polycyclic Aromatic Hydrocarbons*. United States Department of Health and Human Services. August.

Bentum, J.K., D.K. Dodoo, and P.K. Kwakye. 2012. Accumulation of Metals and Polychlorinated Biphenyls (PCBs) in Soils around Transformers in the Central Region of Ghana. Adv. Appl. Sci. Res., 3(2): 634-643.

BHE Environmental, Inc. 2006. Planning Level Surveys, Ravenna Training and Logistics Site, Portage and Trumbull counties, Ohio. *Prepared for:* Ohio Army National Guard. March.

Biological Technical Assistance Group. 2005. *Technical Document for Ecological Risk Assessment: Process for Developing Management Goals*. August.

Bradley, L.J.N., B.H. McGee, and S.L. Allen. 1994. Background Levels of Polycyclic Aromatic Hydrocarbons and Selected Metals in New England Urban Soils. *J. of Soil Contamination*.

Brady, N.C. and R.R. Weil, 2001. The Nature and Property of Soils, Thirteenth Edition. (Prentice-Hall: New York).

Carroll, C. 1999. A Survey of the Small Mammals of the Ravenna Arsenal. Ohio Department of Natural Resources, Division of Natural Areas and Preserves, Columbus, Ohio.

Citizens for Safe Water Around Badger (CSWAB). 2013. Hexavalent Chromium Contamination at U.S. Army Ammunition Facilities. January 9.

Davey Resource Group. 2002. Indiana Bat (*Mytotis sodalist*) Survey Report. Ravenna Training and Logistics Site, Ravenna, Ohio. Kent, Ohio. September.

Department of Defense (DoD). 2009. Quality Systems Manual for Environmental Laboratories, Version 4.2

Department of Energy. 1992. *An Analytical Solution for Transient One-, Two-, or Three-Dimensional Transport in a Homogenous, Anisotropic Aquifer with Uniform, Stationary Regional Flow*. Oak Ridge National Laboratory, Oak Ridge, Tennessee.

Dragun, J. 1998. *The Soil Chemistry of Hazardous Materials*. Hazardous Materials Control Research Institute, Silver Spring, Maryland.

Duffey, J.A. and V. Brack. 2005. Training Site Wide Survey for Indiana Bat (*Myotis sodalist*), the Ravenna Training and Logistics Site, Portage and Trumbull counties, Ohio. Prepared by: Environmental Solutions & Innovations, Inc. in association with: Environmental Quality Management, Inc.

Environmental Chemical Corporation (ECC). 2012. *Final Site Inspection and Remedial Investigation Work Plan at Compliance Restorations Sites* (Revision 0).

Efroymson, R.A., G.W. Suter II, B.E. Sample, and D.S. Jones. 1997. Preliminary Remediation Goals for Ecological Endpoints, Oak Ridge National Laboratory, Report No. ES/ER/TM-162/R2.

Environmental Quality Management, Inc. (EQM). 2013. F*acility-Wide Groundwater Monitoring Program RVAAP-66 facility Wide Groundwater, Annual Report for 2012, Revision 1.0, Ravenna Army Ammunition Plant, Ravenna, Ohio. October 31.*

European Chemicals Agency. 2014. Registration, Evaluation, Authorization and Restriction of Chemicals database. Website: http://echa.europa.eu/regulations/reach.

General Sciences Corporation. 1998. *SESOIL for Windows*, Version 3.0, Laurel, Maryland.

Illinois Environmental Protection Agency. 2005. Urban area polycyclic aromatic hydrocarbons study tiered approach to corrective action objectives.

International Commission for Radiological Protection. 1991. *1990 Recommendations of the International Commission on Radiological Protection*. Publication 60. Ann. ICRP 21 (1-3).

Kammer, H.W. 1982. *A Hydrologic Study of the Ravenna Arsenal, Eastern Portage and Western Trumbull counties, Ohio*. Master Thesis, Kent State University.

Los Alamos National Laboratory (LANL). 2012. Ecological Screening Values, ECORISK Database Release 3.1, October.

Lyman, W.J., et al. 1990. *Handbook of Chemical Property Estimation Methods*. American Chemical Society, Washington, D.C.

MacDonald, D.D., C.G. Ingersoll, and T.A. Berger. 2000. Development and Evaluation of Consensus-Based Sediment Quality Guidelines for Freshwater Ecosystems. Arch. Environ. Contam. Toxicol. 39, 20-31. January.

MKM Engineers, Inc. 2007. *Final Characterization of 14 Areas of Concern at Ravenna Army Ammunition Plant.* March.

National Spatial Data Infrastructure. 1997. Federal Geographic Data Committee, Vegetation Subcommittee. National Vegetation Classification Standard. FGDC-STD-005. June.

Nevada Division of Environmental Protection. 2006. Selection of Pyrene as a Non-Carcinogenic Toxicological Surrogate for Polycyclic Aromatic Hydrocarbons. Technical Memorandum from T.L. Copeland DABT (consulting toxicologist) to B. Rakvica P.E. Nevada Division of Environmental Protection Bureau of Corrective Actions). February.

Ohio Air National Guard (OHARNG). 2008. *Integrated Natural Resources Management Plan and Environmental Assessment for the Ravenna Training and Logistics Site, Portage and Trumbull Counties, Ohio*. March.

Ohio Department of Natural Resources (ODNR)–Division of Natural Areas and Preserves (DNAP). 1993. In cooperation with The Nature Conservancy, Ohio Chapter. Species and Plant Communities Inventory (1993)-Ravenna Army Ammunition Plant.

ODNR-DNAP. 2000. The Vascular Plant Flora of the Ravenna Arsenal, Ravenna Army Ammunition Plant.

Ohio Environmental Protection Agency (Ohio EPA). 2004. *Director's Final Findings and Orders for the Ravenna Army Ammunition Plant*. June.

Ohio Environmental Protection Agency (Ohio EPA)–Division of Environmental Response and Revitalization (DERR). 2008. *Ecological Risk Assessment Guidance Document, Columbus, Ohio*. April.

O'Brien and Gere Engineers, Inc. (OGE). 1988. *Hazardous Waste Site Remediation, the Engineer's Perspective.*

Pfingsten, R. 2000. The Amphibians and Reptiles of the Ravenna Training and Logistics Site. Ohio Department of Natural Resources, Division of Natural Areas and Preserves, Columbus, Ohio.

Rosche, L.O. 2005. The Avifauna of the Ravenna Training and Logistics Site. Ohio Department of Natural Resources Division of Natural Areas and Preserves, Columbus, Ohio.

Science Application International Corporation (SAIC). 1999. Plant Community Survey for the Ravenna Army Ammunition Plant Science and Engineering Science and Engineering Associates, Inc. June.

SAIC. 2010. Facility-wide Human Health Cleanup Goals for the Ravenna Army Ammunition Plant, Ravenna Ohio. March 23.

SAIC. 2011a. *Historical Records Review Report for the 2010 Phase I Remedial Investigation Services at Compliance Restoration Sites (9 Areas of Concern), Ravenna Army Ammunition Plant, Ravenna, Ohio*. December 22 .

SAIC. 2011b. *Facility-Wide Sampling and Analysis Plan for Environmental Investigation*. February 24.

SAIC. 2011c. *Remedial Investigation/Feasability Study Report for RVAAP-67 Facility-Wide Sewers at the Ravenna Army Ammunition Plan, Ravenna, Ohio*. September.

SAIC. 2013. *Remedial Investigation Report for Soil, Sediment, and Surface Water at RVAAP-43 Load Line 10, Revised Draft I, Ravenna Army Ammunition Plant, Ravenna, Ohio*. June.

Schneider, G.J. 1993. Species and Plant Communities Inventory (1993) - Ravenna Army Ammunition Plant. Prepared by Ohio Department of Natural Resources Division of Natural Areas and Preserves *in cooperation with* The Nature Conservancy, Ohio Chapter.

Sheppard and Thibault. 1990. *Default Soil/Liquid Partition Coefficients, K_ds, for Four Major Soil Types: A Compendium.* Health Physics 59; 471-482

Tawse. M. 1999. A Survey of the Bats of the Ravenna Arsenal. Ohio Department of Natural Resources, Division of Natural Areas and Preserves, Columbus. February 1.

Teaf, C.M., D.J. Covert, and S.R. Kother. 2008. Urban Polycyclic Aromatic Hydrocarbons: A Florida Perspective. Proceedings of the Annual International Conference on Soils, Sediments, Water and Energy: Vol. 13, Article 23.

United States Army Corps of Engineers (USACE). 1998. *Phase I Remedial Investigation Report of High Priority Areas of Concern at the Ravenna Army Ammunition Plant, Ravenna, Ohio*. February.

USACE. 2001a. *Facility-Wide Sampling and Analysis Plan for Environmental Investigations at the Ravenna Army Ammunition Plant, Ravenna, Ohio*. March.

USACE. 2001b. *Phase II Remedial Investigation Report for the Winklepeck Burning Grounds at the Ravenna Army Ammunition Plant, Ravenna, Ohio*. April.

USACE. 2003. *RVAAP Facility Wide Ecological Risk Assessment Work Plan*. April.

USACE. 2005a. *Facility-Wide Biological and Water Quality Study 2003 Ravenna Army Ammunition Plant, Ravenna, Ohio, Part I-Streams, Part II-Ponds*. November.

USACE. 2005b. *Remedial Investigation Report for the Central Burn Pits (RVAAP-49) at the Ravenna Army Ammunition Plant, Ravenna, Ohio*. September.

USACE. 2005c. *RVAAP Facility-Wide Human Health Risk Assessor Manual – Amendment 1.* December.

USACE. 2010a. *Facility-Wide Human Health Cleanup Goals for the Ravenna Army Ammunition Plant*, *RVAAP, Ravenna, Ohio*. March.

USACE. 2010b. Risk Assessment Handbook Volume II: Environmental Evaluation. Engineer Manual. EM 200-1-4. December.

U.S. Army Toxic and Hazardous Materials Agency. 1978. *Installation Assessment of Ravenna Army Ammunition Plant, Records Evaluation Report No. 132.* November.

U.S. Department of Agriculture (USDA). 1978. *Soil Survey of Portage County, Ohio*.

USDA. 2010. *Soil Map of Portage County, Version 4*. Website: www.websoilsurvey.nrcs.usda.gov. January.

U.S. Environmental Protection Agency (USEPA). 1989. *Risk Assessment Guidance for Superfund, Volume 1: Human Health Evaluation Manual (Part A)*. December.

USEPA. 1994. *The Hydrologic Evaluation of Landfill Performance Model: Engineering Documentation for Version 3*. EPA/600/R-94/168b, U.S. Environmental Protection Agency Office of Research and Development, Washington, D.C. September.

USEPA. 1996a. *Soil Screening Guidance: Technical Background Document*. Office of Solid Waste and Emergency Response, Washington, D.C. May.

USEPA. 1996b. *Field Sampling and Selecting Onsite Analytical Methods for Explosives in Soil*, EPA/540/S-97/501, National Exposure Research Laboratory, USEPA, Las Vegas, Nevada. December.

USEPA. 1997. *Ecological Risk Assessment Guidance for Superfund: Process for Designing and Conducting Ecological Risk Assessment*, EPA/540-R-97-006

USEPA. 2003. *USEPA Region 5 Resource Conservation and Recovery Act Ecological Screening Levels*. Website version last updated 22 August 2003: http//www.epa.gov/reg5rcra/ca/edql.htm.

USEPA. 2005. Guidance for Developing Ecological Soil Screening Levels. Office of Solid Waste and Emergency Response Directive 9285.7-55. February.

USEPA. 2010. EPA Regional Screening Level. Website: http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm. November.

USEPA. 2013. Ecoregions of Indiana and Ohio. Western Ecology Division. http://www.epa.gov/wed/pages/ecoregions/ohin_eco.htm. May.

U.S. Geological Survey (USGS). 1954. *Geology of the Bedford Shale and Berea Sandstone in the Appalachian Basin.* USGS Professional Paper No. 259.

USGS. 1968. *Mineral Resources of the Appalachian Region*. USGS Professional Paper No. 580.

Winslow, J.D., and G.W. White, 1966. *Geology and Ground-water Resources of Portage County, Ohio*. Geological Survey Professional Paper 511.

APPENDIX A

Boring Logs

This page intentionally left blank.

Environmental Chemical Corporation

LOG OF SOIL BORING

Coordinates: X 496922.663 Y 4561217.273
Surface Elevation: 993.292 ft msl
Casing Below Surface:
Reference Elevation:
Reference Description:

Job. No. 5461.004	Client ACOE-Louisville		Location RVAAP	
			CC-68 DU01	
Drilling Method:	Direct-Push Geoprobe 6620DT		Boring No. SB01 E S.Station	
Sampling Method:	2" diameter-5 ft SS sampler MacroCore liner		Sheet 1 of 1	
			Drilling	
Water Lev. NA			Start 29-Mar-13	Finish 29-Mar-13
Time NA				
Date NA				
Reference NA				

Digital Picture #	Sample Type	In. Drvn / In. Recvrd	Dpth. Csg.	Samp. # / Samp. depth	PID (ppm)	Blows per 6 in.	Depth (feet)	USCS Log	Surface Conditions: Gravel
		60/33			0.0	NA	0		
								GP	Black sandy gravel (10YR 2/1), 50% fine gravel, 50% fine sand,
							1		loose, very soft, moist
								SM	Dark yellowish brown (10YR 4/0) silty sand, loose, soft, wet
	ISM			1-4 ft			2		
							3	CL	Light olive brown silty clay (2.5Y 5/4), stiff, dense, moist
							4		
	ISM			4-7 ft					
							5	CL	Grading to very stiff, dry
		60/48			0.0	NA			
							6		
	ISM			1-7 ft			7	SM	Sandy/gravely silt, soft, loose, wet
							8	CL	Silty clay, stiff, dense, dry
							9		
							10		
		36/36			0.0	NA		CL	Silty clay, stiff, dense, dry
							11		
	Disc.			7-13 ft			12		
							13		End of boring 13 ft
							14		
							15		
							16		
							17		
							18		
							19		
							20		
							21		
							22		
							23		
							24		

Logged by: J. Scott P.G. - ECC.
Drilling Contractor: Frontz Drilling
WELL SPECIFICATIONS: Well not installed
Diam. of casing: 2" Screen Interval:
BOH: 13 ft Riser Interval:

Date: 29-Mar-13
Driller: Joe Teter
Sandpack:
Bentonite: 13 ft to grnd. Surface

Notes: NA = Not Applicable
See Sample Summary Sheets for sampling information
ISM = Incremental Sampling Method. Disc. = Discrete

Environmental Chemical Corporation

LOG OF SOIL BORING

Coordinates: X 496936.782 Y 4561228.37
Surface Elevation: 993.472 ft msl
Casing Below Surface:
Reference Elevation:
Reference Description:

Job. No. 5461.004	Client ACOE-Louisville	Location	RVAAP
			CC-68 DU01
Drilling Method:	Direct-Push Geoprobe 6620DT	Boring No.	SB02
		E S.Station	
Sampling Method:	2" diameter-5 ft SS sampler MacroCore liner	Sheet 1 of 1	

		Drilling	
Water Lev.	NA	Start	Finish
Time	NA	29-Mar-13	29-Mar-13
Date	NA		
Reference	NA		

Digital Picture #	Sample Type	In. Drvn / In. Recvrd	Dpth. Csg.	Samp. # / Samp. depth	PID (ppm)	Blows per 6 in.	Depth (feet)	USCS Log	Surface Conditions: Sandy gravel
		60/38			0.0	NA	0		
								GP	Black sandy gravel
							1		
								CL	Light olive brown silty clay (2.5Y 5/4), stiff, moist
	ISM			1-4 ft			2		
							3		
							4		
	ISM			4-7 ft			5		
		24/24			0.0	NA		CL	Light olive brown silty clay (2.5Y 5/4), stiff, moist
							6		
	ISM			1-7 ft			7		End of boring 7 ft
							8		
							9		
							10		
							11		
							12		
							13		
							14		
							15		
							16		
							17		
							18		
							19		
							20		
							21		
							22		
							23		
							24		

Logged by: J. Scott P.G. - ECC.
Drilling Contractor: Frontz Drilling
WELL SPECIFICATIONS: Well not installed
Diam. of casing: 2" Screen Interval:
BOH: 7 ft Riser Interval:

Date: 29-Mar-13
Driller: Joe Teter
Sandpack:
Bentonite: 7 ft to grnd. Surface

Notes: NA = Not Applicable
See Sample Summary Sheets for sampling information
ISM = Incremental Sampling Method

Environmental Chemical Corporation

LOG OF SOIL BORING

Coordinates: X 496931.645 Y 4561212.808
Surface Elevation: 993.285 ft msl
Casing Below Surface:
Reference Elevation:
Reference Description:

Job. No. 5461.004	Client ACOE-Louisville		Location RVAAP CC-68 DU01	
Drilling Method:	Direct-Push Geoprobe 6620DT		Boring No. SB03 E S.Station	
Sampling Method:	2" diameter-5 ft SS sampler MacroCore liner		Sheet 1 of 1	
			Drilling	
Water Lev. NA			Start 29-Mar-13	Finish 29-Mar-13
Time NA				
Date NA				
Reference NA				

Digital Picture #	Sample Type	In. Drvn / In. Recvrd	Dpth. Csg.	Samp. # / Samp. depth	PID (ppm)	Blows per 6 in.	Depth (feet)	USCS Log	Surface Conditions: Sandy gravel
		60/36			0.0	NA	0		
								GP	Black sandy gravel (10YR 2/1), soft, loose
							1		
								CL	Dark yellowish brown (10YR 4/6) silty sand, soft, wet
	ISM			1-4 ft			2		
							3	CL	Grading to light olive brown silty clay (2.5Y 5/4), stiff, dense moist
							4		
	ISM			4-7 ft					
							5	CL	Grading to very stiff, dry
		24/24			0.0	NA			
							6		
	ISM			1-7 ft			7		End of boring 7 ft
							8		
							9		
							10		
							11		
							12		
							13		
							14		
							15		
							16		
							17		
							18		
							19		
							20		
							21		
							22		
							23		
							24		

Logged by: J. Scott P.G. - ECC.
Drilling Contractor: Frontz Drilling
WELL SPECIFICATIONS: Well not installed
Diam. of casing: 2" Screen Interval:
BOH: 7 ft Riser Interval:

Date: 29-Mar-13
Driller: Joe Teter
Sandpack:
Bentonite: 7 ft to grnd. Surface

Notes: NA = Not Applicable
See Sample Summary Sheets for sampling information
ISM = Incremental Sampling Method.

Environmental Chemical Corporation

LOG OF SOIL BORING

Coordinates:
Surface Elevation: X 496934.923 Y 4561214.529
Casing Below Surface: 993.311 ft msl
Reference Elevation:
Reference Description:

Job. No. 5461.004	Client ACOE-Louisville		Location RVAAP CC-68 DU01	
Drilling Method:	Direct-Push Geoprobe 6620DT		Boring No. SB04 E S.Station	
Sampling Method:	2" diameter-5 ft SS sampler MacroCore liner		Sheet 1 of 1	
			Drilling	
Water Lev. NA			Start 29-Mar-13	Finish 29-Mar-13
Time NA				
Date NA				
Reference NA				

Digital Picture #	Sample Type	In. Drvn / In. Recvrd	Dpth. Csg.	Samp. # / Samp. depth	PID (ppm)	Blows per 6 in.	Depth (feet)	USCS Log	Surface Conditions: Sandy gravel
		60/30			0.0	NA	0		
								GP	Black sandy gravel
							1		
								CL	Dark yellowish brown silty sand, soft, wet
	ISM			1-4 ft			2		
							3	CL	Grading to silty clay, soft, wet
							4		2 inch black stained, soft, wet, no hydro carbon odor
	ISM			4-7 ft					
							5	CL	Silty clay, stiff, dense, dry
		24/24			0.0	NA		CL	Silty clay, stiff, dense, dry
							6		
	ISM			1-7 ft			7		End of boring 7 ft
							8		
							9		
							10		
							11		
							12		
							13		
							14		
							15		
							16		
							17		
							18		
							19		
							20		
							21		
							22		
							23		
							24		

Logged by: J. Scott P.G. - ECC.
Drilling Contractor: Frontz Drilling
WELL SPECIFICATIONS: Well not installed
Diam. of casing: 2" Screen Interval:
BOH: 7 ft Riser Interval:

Date: 29-Mar-13
Driller: Joe Teter
Sandpack:
Bentonite: 7 ft to grnd. Surface

Notes: NA = Not Applicable
See Sample Summary Sheets for sampling information
ISM = Incremental Sampling Method.

Environmental Chemical Corporation

LOG OF SOIL BORING

Coordinates: X 496938.009 Y 4561217.25
Surface Elevation: 993.265 ft msl
Casing Below Surface:
Reference Elevation:
Reference Description:

Job. No. 5461.004	Client ACOE-Louisville		Location RVAAP	
			CC-68	DU01
Drilling Method:	Direct-Push Geoprobe 6620DT		Boring No. SB05	
			E S.Station	
Sampling Method:	2" diameter-5 ft SS sampler MacroCore liner		Sheet 1 of 1	
			Drilling	
Water Lev. NA			Start 29-Mar-13	Finish 29-Mar-13
Time NA				
Date NA				
Reference NA				

Digital Picture #	Sample Type	In. Drvn / In. Recvrd	Dpth. Csg.	Samp. # / Samp. depth	PID (ppm)	Blows per 6 in.	Depth (feet)	USCS Log	Surface Conditions: Sandy gravel
		60/26			0.0	NA	0		
								GP	Black sandy gravel
							1		
								CL	Light olive brown silty clay (2.5Y 5/4), stiff, moist
	ISM VOC			1-4 ft			2		
							3		
							4		
	ISM			4-7 ft			5		
		24/24			0.0	NA		CL	Light olive brown silty clay (2.5Y 5/4), stiff, moist
							6		
	ISM			1-7 ft			7		End of boring 7 ft
							8		
							9		
							10		
							11		
							12		
							13		
							14		
							15		
							16		
							17		
							18		
							19		
							20		
							21		
							22		
							23		
							24		

Logged by: J. Scott P.G. - ECC.
Drilling Contractor: Frontz Drilling
WELL SPECIFICATIONS: Well not installed
Diam. of casing: 2" Screen Interval:
BOH: 7 ft Riser Interval:

Date: 29-Mar-13
Driller: Joe Teter
Sandpack:
Bentonite: 7 ft to grnd. Surface

Notes: NA = Not Applicable
See Sample Summary Sheets for sampling information
ISM = Incremental Sampling Method.

Environmental Chemical Corporation

LOG OF SOIL BORING

Coordinates: X 496932.396 Y 4561202.856
Surface Elevation: 993.482 ft msl
Casing Below Surface:
Reference Elevation:
Reference Description:

Job. No. 5461.004	Client ACOE-Louisville		Location RVAAP	
			CC-68	DU02
Drilling Method:	Direct-Push Geoprobe 6620DT		Boring No. SB01	
			E S.Station	
Sampling Method:	2" diameter-5 ft SS sampler MacroCore liner		Sheet 1 of 1	
			Drilling	
Water Lev. NA			Start 29-Mar-13	Finish 29-Mar-13
Time NA				
Date NA				
Reference NA				

Digital Picture #	Sample Type	In. Drvn / In. Recvrd	Dpth. Csg.	Samp. # / Samp. depth	PID (ppm)	Blows per 6 in.	Depth (feet)	USCS Log	Surface Conditions: Sandy gravel
		60/36			0.0	NA	0		
								GP	Black sandy gravel, soft, loose
							1		
								CL	Light olive brown silty clay (2.5Y 5/4), stiff, moist
	ISM			1-4 ft			2		
	VOC								
							3	CL	Grading to medium stiff
							4		
	ISM			4-7 ft					
							5	CL	Grading to very stiff, dry
		24/24			0.0	NA			
							6		
	ISM			1-7 ft			7		End of boring 7 ft
							8		
							9		
							10		
							11		
							12		
							13		
							14		
							15		
							16		
							17		
							18		
							19		
							20		
							21		
							22		
							23		
							24		

Logged by: J. Scott P.G. - ECC.
Drilling Contractor: Frontz Drilling
WELL SPECIFICATIONS: Well not installed
Diam. of casing: 2" Screen Interval:
BOH: 7 ft Riser Interval:

Date: 29-Mar-13
Driller: Joe Teter
Sandpack:
Bentonite: 7 ft to grnd. Surface

Notes: NA = Not Applicable
See Sample Summary Sheets for sampling information
ISM = Incremental Sampling Method

Environmental Chemical Corporation

LOG OF SOIL BORING

Coordinates: X 496946.504 Y 4561214.692
Surface Elevation: 993.279 ft msl
Casing Below Surface:
Reference Elevation:
Reference Description:

Job. No. 5461.004	Client ACOE-Louisville	Location	RVAAP
		CC-68	DU02
Drilling Method:	Direct-Push Geoprobe 6620DT	Boring No.	SB02
		E S.Station	
Sampling Method:	2" diameter-5 ft SS sampler MacroCore liner	Sheet 1 of 1	

					Drilling	
Water Lev.	NA				Start	Finish
Time	NA				29-Mar-13	29-Mar-13
Date	NA					
Reference	NA					

Digital Picture #	Sample Type	In. Drvn / In. Recvrd	Dpth. Csg.	Samp. # / Samp. depth	PID (ppm)	Blows per 6 in.	Depth (feet)	USCS Log	Surface Conditions: Sandy gravel
		60/40			0.0	NA	0		
								GP	Black sandy gravel
							1		
								CL	Light olive brown silty clay, stiff, dry
	ISM			1-4 ft			2		
							3		
							4		
	ISM			4-7 ft			5		
		24/24			0.0	NA	6		
	ISM			1-7 ft			7		End of boring 7 ft
							8		
							9		
							10		
							11		
							12		
							13		
							14		
							15		
							16		
							17		
							18		
							19		
							20		
							21		
							22		
							23		
							24		

Logged by: J. Scott P.G. - ECC.
Drilling Contractor: Frontz Drilling
WELL SPECIFICATIONS: Well not installed
Diam. of casing: 2" Screen Interval:
BOH: 7 ft Riser Interval:

Date: 29-Mar-13
Driller: Joe Teter
Sandpack:
Bentonite: 7 ft to grnd. Surface

Notes: NA = Not Applicable
See Sample Summary Sheets for sampling information
ISM = Incremental Sampling Method

Environmental Chemical Corporation

LOG OF SOIL BORING

Coordinates: X 496937.022 Y 4561197.59
Surface Elevation: 993.187 ft msl
Casing Below Surface:
Reference Elevation:
Reference Description:

Job. No.	5461.004	Client	ACOE-Louisville	Location	RVAAP CC-68 DU02
Drilling Method:		Direct-Push Geoprobe 6620DT		Boring No.	SB03 E S.Station
Sampling Method:		2" diameter-5 ft SS sampler MacroCore liner		Sheet 1 of 1	

					Drilling	
Water Lev.	NA				Start	Finish
Time	NA				29-Mar-13	29-Mar-13
Date	NA					
Reference	NA					

Digital Picture #	Sample Type	In. Drvr / In. Recvrd	Dpth. Csg.	Samp. # / Samp. depth	PID (ppm)	Blows per 6 in.	Depth (feet)	USCS Log	Surface Conditions: Sandy gravel
		60/37			0.0	NA	0		
								GP	Black sandy gravel
							1		
								CL	Light olive brown silty clay, stiff, moist
	ISM			1-4 ft			2		
							3	CL	Grading to dry
							4		
	ISM			4-7 ft					
							5		
		24/24			0.0	NA			
							6		
							7		End of boring 7 ft
							8		
							9		
							10		
							11		
							12		
							13		
							14		
							15		
							16		
							17		
							18		
							19		
							20		
							21		
							22		
							23		
							24		

Logged by: J. Scott P.G. - ECC.
Drilling Contractor: Frontz Drilling
WELL SPECIFICATIONS: Well not installed
Diam. of casing: 2" Screen Interval:
BOH: 7 ft Riser Interval:

Date: 29-Mar-13
Driller: Joe Teter
Sandpack:
Bentonite: 7 ft to grnd. Surface

Notes: NA = Not Applicable
See Sample Summary Sheets for sampling information
ISM = Incremental Sampling Method

Environmental Chemical Corporation

LOG OF SOIL BORING

Coordinates: X 496944.252 Y 4561204.818
Surface Elevation: 993.279 ft msl
Casing Below Surface:
Reference Elevation:
Reference Description:

Job. No. 5461.004	Client ACOE-Louisville	Location	RVAAP
		CC-68	DU02
Drilling Method:	Direct-Push Geoprobe 6620DT	Boring No.	SB04
		E S.Station	
Sampling Method:	2" diameter-5 ft SS sampler MacroCore liner	Sheet 1 of 1	

					Drilling	
Water Lev.	NA				Start	Finish
Time	NA				29-Mar-13	29-Mar-13
Date	NA					
Reference	NA					

Digital Picture #	Sample Type	In. Drvn / In. Recvrd	Dpth. Csg.	Samp. # / Samp. depth	PID (ppm)	Blows per 6 in.	Depth (feet)	USCS Log	Surface Conditions: Sandy gravel
		60/51			0.0	NA	0		
								GP	Black sandy gravel
							1		
								CL	Light olive brown silty clay, stiff, moist
	ISM			1-4 ft			2		
							3		
							4	CL	Grading with sand, very moist, soft
	ISM			4-7 ft			5		
		24/24			0.0	NA			
							6		
	ISM			1-7 ft			7		End of boring 7 ft
							8		
							9		
							10		
							11		
							12		
							13		
							14		
							15		
							16		
							17		
							18		
							19		
							20		
							21		
							22		
							23		
							24		

Logged by: J. Scott P.G. - ECC.
Drilling Contractor: Frontz Drilling
WELL SPECIFICATIONS: Well not installed
Diam. of casing: 2" Screen Interval:
BOH: 7 ft Riser Interval:

Date: 29-Mar-13
Driller: Joe Teter
Sandpack:
Bentonite: 7 ft to grnd. Surface

Notes: NA = Not Applicable
See Sample Summary Sheets for sampling information
ISM = Incremental Sampling Method

Environmental Chemical Corporation

LOG OF SOIL BORING

Coordinates: X 496932.396 Y 4561202.856
Surface Elevation: 993.439 ft msl
Casing Below Surface:
Reference Elevation:
Reference Description:

Job. No. 5461.004	Client ACOE-Louisville	Location	RVAAP
		CC-68	DU02
Drilling Method:	Direct-Push Geoprobe 6620DT	Boring No.	SB05
		E S.Station	
Sampling Method:	2" diameter-5 ft SS sampler MacroCore liner	Sheet 1 of 1	

					Drilling	
Water Lev.	NA				Start	Finish
Time	NA				29-Mar-13	29-Mar-13
Date	NA					
Reference	NA					

Surface Conditions: Sandy gravel

Digital Picture #	Sample Type	In. Drvn / In. Recvrd	Dpth. Csg.	Samp. # / Samp. depth	PID (ppm)	Blows per 6 in.	Depth (feet)	USCS Log	
		60/48			0.0	NA	0		
								GP	Black sandy gravel
							1		
								CL	Light olive brown silty clay, stiff, dry
	ISM			1-4 ft			2		
							3		
							4		
	ISM			4-7 ft			5		
		24/24			0.0	NA			
							6		
							7		End of boring 7 ft
							8		
							9		
							10		
							11		
							12		
							13		
							14		
							15		
							16		
							17		
							18		
							19		
							20		
							21		
							22		
							23		
							24		

Logged by: J. Scott P.G. - ECC.
Drilling Contractor: Frontz Drilling
WELL SPECIFICATIONS: Well not installed
Diam. of casing: 2" Screen Interval:
BOH: 7 ft Riser Interval:

Date: 29-Mar-13
Driller: Joe Teter
Sandpack:
Bentonite: 7 ft to grnd. Surface

Notes: NA = Not Applicable
See Sample Summary Sheets for sampling information
ISM = Incremental Sampling Method

Environmental Chemical Corporation

LOG OF SOIL BORING

Coordinates: X491673.143 Y4559519.162
Surface Elevation: 1089.754 ft msl
Casing Below Surface:
Reference Elevation:
Reference Description:

Job. No. 5461.004	Client ACOE-Louisville	Location RVAAP CC-68 DU01	
Drilling Method:	Direct-Push Geoprobe 6620DT	Boring No. SB01 S.Station No.3	
Sampling Method:	2" diameter-5 ft SS sampler MacroCore liner	Sheet 1 of 1	

					Drilling	
Water Lev.	NA				Start	Finish
Time	NA				29-Mar-13	29-Mar-13
Date	NA					
Reference	NA					

Digital Picture #	Sample Type	In. Drvn / In. Recvrd	Dpth. Csg.	Samp. # / Samp. depth	PID (ppm)	Blows per 6 in.	Depth (feet)	USCS Log	Surface Conditions: Gravel
		60/56			0.0	NA	0		
								SW	Gray sandy gravel
							1		
								CL	Light olive brown silty clay, stiff, fairly moist
	ISM			1-4 ft			2		
							3		
							4		
	ISM			4-7 ft			5		
		24/21			0.0	NA			
							6	SM	Grading to brown silty sand, loose, soft, wet
	ISM			1-7 ft			7		End of boring 7 ft
							8		
							9		
							10		
							11		
							12		
							13		
							14		
							15		
							16		
							17		
							18		
							19		
							20		
							21		
							22		
							23		
							24		

Logged by: J. Scott P.G. - ECC. Date: 29-Mar-13
Drilling Contractor: Frontz Drilling Driller: Joe Teter
WELL SPECIFICATIONS: Well not installed
Diam. of casing: 2" Screen Interval: Sandpack:
BOH: 7 ft Riser Interval: Bentonite: 7 ft to grnd. Surface

Notes: NA = Not Applicable
See Sample Summary Sheets for sampling information
ISM = Incremental Sampling Method

Environmental Chemical Corporation

LOG OF SOIL BORING

Coordinates: X 491680.213 Y 4559510.105
Surface Elevation: 1089.554 ft msl
Casing Below Surface:
Reference Elevation:
Reference Description:

Job. No. 5461.004	Client ACOE-Louisville		Location RVAAP CC-68 DU01	
Drilling Method:	Direct-Push Geoprobe 6620DT		Boring No. SB02 S.Station No.3	
Sampling Method:	2" diameter-5 ft SS sampler MacroCore liner		Sheet 1 of 1	
			Drilling	
Water Lev. NA			Start 29-Mar-13	Finish 29-Mar-13
Time NA				
Date NA				
Reference NA				

Digital Picture #	Sample Type	In. Drvn / In. Recvrd	Dpth. Csg.	Samp. # / Samp. depth	PID (ppm)	Blows per 6 in.	Depth (feet)	USCS Log	Surface Conditions: Gravel
		60/56				NA	0		
								SW	Light gray (N7/1) sandy gravel
							1		
					0.2			CL	Black (N 2.5) silty clay with gravel, loose, wet. No hydrocarbon odor
	ISM			1-4 ft			2		
								CL	Light olive brown silty clay (2.5Y 5/4), stiff, fairly moist
							3		
							4		
	ISM			4-7 ft					
							5	SM	Light olive brown (2.5Y 5/6) silty sand, loose, soft, wet
		24/24			0.0	NA			
							6		
	ISM			1-7 ft			7		End of boring 7 ft
							8		
							9		
							10		
							11		
							12		
							13		
							14		
							15		
							16		
							17		
							18		
							19		
							20		
							21		
							22		
							23		
							24		

Logged by: J. Scott P.G. - ECC. Date: 29-Mar-13
Drilling Contractor: Frontz Drilling Driller: Joe Teter
WELL SPECIFICATIONS: Well not installed
Diam. of casing: 2" Screen Interval: Sandpack:
BOH: 7 ft Riser Interval: Bentonite: 7 ft to grnd. Surface

Notes: NA = Not Applicable
See Sample Summary Sheets for sampling information
ISM = Incremental Sampling Method

Environmental Chemical Corporation

LOG OF SOIL BORING

Coordinates: X 491651.818 Y 4559509.706
Surface Elevation: 1089.908 ft msl
Casing Below Surface:
Reference Elevation:
Reference Description:

Job. No. 5461.004	Client ACOE-Louisville	Location RVAAP	
		CC-68	DU01
Drilling Method:	Direct-Push Geoprobe 6620DT	Boring No. SB03	
		S.Station No.3	
Sampling Method:	2" diameter-5 ft SS sampler MacroCore liner	Sheet 1 of 1	

					Drilling	
Water Lev.	NA				Start	Finish
Time	NA				29-Mar-13	29-Mar-13
Date	NA					
Reference	NA					

Digital Picture #	Sample Type	In. Drvn / In. Recvrd	Dpth. Csg.	Samp. # / Samp. depth	PID (ppm)	Blows per 6 in.	Depth (feet)	USCS Log	Surface Conditions: Gravel
		60/57			0.0	NA	0		
								GP	Light gray sandy gravel
							1		
								CL	Light olive brown and gray silty clay, stiff, dense
	ISM			1-4 ft			2		
							3		
							4		
	ISM			4-7 ft					
							5	SM	Silty sand, wet
		24/24			0.0	NA			
							6	CL	Light olive brown silty clay
	ISM			1-7 ft			7		End of boring 7 ft
							8		
							9		
							10		
							11		
							12		
							13		
							14		
							15		
							16		
							17		
							18		
							19		
							20		
							21		
							22		
							23		
							24		

Logged by: J. Scott P.G. - ECC.
Drilling Contractor: Frontz Drilling
WELL SPECIFICATIONS: Well not installed
Diam. of casing: 2"
BOH: 7 ft
Screen Interval:
Riser Interval:
Date: 29-Mar-13
Driller: Joe Teter
Sandpack:
Bentonite: 7 ft to grnd. Surface

Notes: NA = Not Applicable
See Sample Summary Sheets for sampling information
ISM = Incremental Sampling Method

Environmental Chemical Corporation

LOG OF SOIL BORING

Coordinates: X 491663.239 Y 4559495.349
Surface Elevation: 1089.078 ft msl
Casing Below Surface:
Reference Elevation:
Reference Description:

Job. No. 5461.004	Client ACOE-Louisville	Location RVAAP	
		CC-68	DU01
Drilling Method:	Direct-Push Geoprobe 6620DT	Boring No. SB04 S.Station No.3	
Sampling Method:	2" diameter-5 ft SS sampler MacroCore liner	Sheet 1 of 1	
		Drilling	
Water Lev. NA		Start	Finish
Time NA		29-Mar-13	29-Mar-13
Date NA			
Reference NA			

Digital Picture #	Sample Type	In. Drvn / In. Recvrd	Dpth. Csg.	Samp. # / Samp. depth	PID (ppm)	Blows per 6 in.	Depth (feet)	USCS Log	Surface Conditions: Gravel
		60/53			0.0	NA	0		
								GP	Light gray (N 7/1) sandy gravel
							1		
								CL	Light olive brown (2.5Y 5/4) and gray (N6/-) silty clay, stiff, dense, moist
	ISM			1-4 ft			2		
							3		
							4	CL	Grading to dry
	ISM			4-7 ft			5		
		24/20			0.0	NA			
							6	SM	Light olive brown (2.5Y 5/6) silty san, loose, soft, wet
	ISM			1-7 ft			7		End of boring 7 ft
							8		
							9		
							10		
							11		
							12		
							13		
							14		
							15		
							16		
							17		
							18		
							19		
							20		
							21		
							22		
							23		
							24		

Logged by: J. Scott P.G. - ECC.
Drilling Contractor: Frontz Drilling
WELL SPECIFICATIONS: Well not installed
Diam. of casing: 2" Screen Interval:
BOH: 7 ft Riser Interval:

Date: 29-Mar-13
Driller: Joe Teter
Sandpack:
Bentonite: 7 ft to grnd. Surface

Notes: NA = Not Applicable
See Sample Summary Sheets for sampling information
ISM = Incremental Sampling Method

Environmental Chemical Corporation

LOG OF SOIL BORING

Coordinates: X 491665.632 Y 4559511.051
Surface Elevation: 1090.213 ft msl
Casing Below Surface:
Reference Elevation:
Reference Description:

Job. No. 5461.004	Client ACOE-Louisville				Location RVAAP CC-68 DU01	
Drilling Method:	Direct-Push Geoprobe 6620DT				Boring No. SB05 S.Station No.3	
Sampling Method:	2" diameter-5 ft SS sampler MacroCore liner				Sheet 1 of 1	
					Drilling	
Water Lev.	NA				Start	Finish
Time	NA				29-Mar-13	29-Mar-13
Date	NA					
Reference	NA					

Digital Picture #	Sample Type	In. Drvn / In. Recvrd	Dpth. Csg.	Samp. # / Samp. depth	PID (ppm)	Blows per 6 in.	Depth (feet)	USCS Log	Surface Conditions: Gravel
		60/53			0.0	NA	0		
								GP	Sandy gravel
							1		
								CL	Silty clay, stiff, moist
	ISM			1-4 ft			2		
									Grading to soft, very moist
							3		
							4		Grading to stiff, fairly moist
	ISM			4-7 ft					
							5		
		24/24			0.0	NA			
							6		
	ISM			1-7 ft			7		End of boring 7 ft
							8		
							9		
							10		
							11		
							12		
							13		
							14		
							15		
							16		
							17		
							18		
							19		
							20		
							21		
							22		
							23		
							24		

Logged by: J. Scott P.G. - ECC.
Drilling Contractor: Frontz Drilling
WELL SPECIFICATIONS: Well not installed
Diam. of casing: 2"
BOH: 7 ft
Screen Interval:
Riser Interval:
Date: 29-Mar-13
Driller: Joe Teter
Sandpack:
Bentonite: 7 ft to grnd. Surface

Notes: NA = Not Applicable
See Sample Summary Sheets for sampling information
ISM = Incremental Sampling Method

Environmental Chemical Corporation

LOG OF SOIL BORING

Coordinates: X 491444.546 Y 4558863.59
Surface Elevation: 1,115.18 ft msl
Casing Below Surface:
Reference Elevation:
Reference Description:

Job. No. 5461.004	Client ACOE-Louisville				Location RVAAP CC-68 DU01
Drilling Method:	Direct-Push Geoprobe 6620DT				Boring No. SB01 W S.Station
Sampling Method:	2" diameter-5 ft SS sampler MacroCore liner				Sheet 1 of 1
					Drilling
Water Lev.	NA				Start 29-Mar-13 / Finish 29-Mar-13
Time	NA				
Date	NA				
Reference	NA				

Digital Picture #	Sample Type	In. Drvn / In. Recvrd	Dpth. Csg.	Samp. # / Samp. depth	PID (ppm)	Blows per 6 in.	Depth (feet)	USCS Log	Surface Conditions: Grass
		60/48			0.0	NA	0		
								CL	Olive brown silty clay, stiff, moist,
							1		
	ISM			1-4 ft			2		
							3		
									Grading to stiff, dry
							4		
	ISM			4-7 ft					
							5		
		60/48			0.0	NA			
							6		
									Grading to moderately dense, moist
	ISM			1=7 ft			7		
							8		
							9		
							10		
		36/36			0.0	NA		CL	Silty clay, stiff, moist, dense
							11		
							12		
	Disc.			7-13 ft			13		End of boring 13 ft
							14		
							15		
							16		
							17		
							18		
							19		
							20		
							21		
							22		
							23		
							24		

Logged by: J. Scott P.G. - ECC.
Drilling Contractor: Frontz Drilling
WELL SPECIFICATIONS: Well not installed
Diam. of casing: 2" Screen Interval:
BOH: 13 ft Riser Interval:

Date: 29-Mar-13
Driller: Joe Teter
Sandpack:
Bentonite: 13 ft to grnd. Surface

Notes: NA = Not Applicable
See Sample Summary Sheets for sampling information
ISM = Incremental Sampling Method

Environmental Chemical Corporation

LOG OF SOIL BORING

Coordinates: X 491458.946 Y 4558871.921
Surface Elevation: 1,114.98 ft msl
Casing Below Surface:
Reference Elevation:
Reference Description:

Job. No. 5461.004	Client ACOE-Louisville		Location RVAAP	
			CC-68	DU01
Drilling Method:	Direct-Push Geoprobe 6620DT		Boring No. SB02 W S.Station	
Sampling Method:	2" diameter-5 ft SS sampler MacroCore liner		Sheet 1 of 1	
			Drilling	
Water Lev. NA			Start 29-Mar-13	Finish 29-Mar-13
Time NA				
Date NA				
Reference NA				

Digital Picture #	Sample Type	In. Drvn / In. Recvrd	Dpth. Csg.	Samp. # / Samp. depth	PID (ppm)	Blows per 6 in.	Depth (feet)	USCS Log	Surface Conditions: Gravel
		60/50			0.0	NA	0		
									Gravel, wet
							1	CL	Silty clay, stiff, moist
	ISM			1-4 ft			2		
							3	CL	Grading to very stiff, dry
							4		
	ISM			4-7 ft					
							5		
		24/24			0.0	NA			
							6	CL	Grading to moderately stiff
	ISM			1-7 ft			7		
							8		End of boring 8 ft
							9		
							10		
							11		
							12		
							13		
							14		
							15		
							16		
							17		
							18		
							19		
							20		
							21		
							22		
							23		
							24		

Logged by: J. Scott P.G. - ECC.
Drilling Contractor: Frontz Drilling
WELL SPECIFICATIONS: Well not installed
Diam. of casing: 2" Screen Interval:
BOH: 7 ft Riser Interval:

Date: 29-Mar-13
Driller: Joe Teter
Sandpack:
Bentonite: 7 ft to grnd. Surface

Notes: NA = Not Applicable
See Sample Summary Sheets for sampling information
ISM = Incremental Sampling Method

Environmental Chemical Corporation

LOG OF SOIL BORING

Coordinates: X 491463.342 Y 4558862.927
Surface Elevation: 1,115.62 ft msl
Casing Below Surface:
Reference Elevation:
Reference Description:

Job. No. 5461.004	Client ACOE-Louisville	Location RVAAP CC-68 DU01	
Drilling Method:	Direct-Push Geoprobe 6620DT	Boring No. SB03 W S.Station	
Sampling Method:	2" diameter-5 ft SS sampler MacroCore liner	Sheet 1 of 1	
		Drilling	

					Start	Finish
Water Lev.	NA				29-Mar-13	29-Mar-13
Time	NA					
Date	NA					
Reference	NA					

Digital Picture #	Sample Type	In. Drvn / In. Recvrd	Dpth. Csg.	Samp. # / Samp. depth	PID (ppm)	Blows per 6 in.	Depth (feet)	USCS Log	Surface Conditions: Gravel
		52/24			0.0	NA	0		Gravel
							1		
								CL	Olive brown silty clay, stiff
	ISM			1-4 ft			2		
							3		
							4		Slag, gravel, cobbles, refusal at 4.5 ft
							5		
							6		
							7		
							8		
							9		
							10		
							11		
							12		
							13		
							14		
							15		
							16		
							17		
							18		
							19		
							20		
							21		
							22		
							23		
							24		

Logged by: J. Scott P.G. - ECC.
Drilling Contractor: Frontz Drilling
WELL SPECIFICATIONS: Well not installed
Diam. of casing: 2" Screen Interval:
BOH: 4.5 ft Riser Interval:

Date: 29-Mar-13
Driller: Joe Teter
Sandpack:
Bentonite: 4.5 ft to grnd. Surface

Notes: NA = Not Applicable
See Sample Summary Sheets for sampling information
ISM = Incremental Sampling Method

Environmental Chemical Corporation

LOG OF SOIL BORING

Coordinates: X 491460.566 Y 4558867.918
Surface Elevation: 1,114.97 ft msl
Casing Below Surface:
Reference Elevation:
Reference Description:

Job. No. 5461.004	Client ACOE-Louisville			Location	RVAAP CC-68 DU01
Drilling Method:	Direct-Push Geoprobe 6620DT			Boring No.	SB04 W S.Station
Sampling Method:	2" diameter-5 ft SS sampler MacroCore liner			Sheet 1 of 1	
				Drilling	
Water Lev.	NA			Start	Finish
Time	NA			29-Mar-13	29-Mar-13
Date	NA				
Reference	NA				

Digital Picture #	Sample Type	In. Drvn / In. Recvrd	Dpth. Csg.	Samp. # / Samp. depth	PID (ppm)	Blows per 6 in.	Depth (feet)	USCS Log	Surface Conditions: Soil
		60/24			0.0	NA	0		
								CL	Silty clay
							1		
								GP	Sandy gravel, wet
	ISM			1-4 ft			2		
							3		
							4		
	ISM			4-7 ft				CL	Grading to silty clay, stiff, dense, moist
							5		
		24/24			0.0	NA			
							6		
									Grading to fairly moist
	ISM			1-7 ft			7		End of boring 7 ft
							8		
							9		
							10		
							11		
							12		
							13		
							14		
							15		
							16		
							17		
							18		
							19		
							20		
							21		
							22		
							23		
							24		

Logged by: J. Scott P.G. - ECC.
Drilling Contractor: Frontz Drilling
WELL SPECIFICATIONS: Well not installed
Diam. of casing: 2" Screen Interval:
BOH: 7 ft Riser Interval:

Date: 29-Mar-13
Driller: Joe Teter
Sandpack:
Bentonite: 7 ft to grnd. Surface

Notes: NA = Not Applicable
See Sample Summary Sheets for sampling information
ISM = Incremental Sampling Method

Environmental Chemical Corporation

LOG OF SOIL BORING

Coordinates: X 491455.477 Y 4558868.151
Surface Elevation: 1,114.76 ft msl
Casing Below Surface:
Reference Elevation:
Reference Description:

Job. No. 5461.004	Client ACOE-Louisville	Location	RVAAP CC-68 DU01
Drilling Method:	Direct-Push Geoprobe 6620DT	Boring No.	SB05 W S.Station
Sampling Method:	2" diameter-5 ft SS sampler MacroCore liner	Sheet 1 of 1	

					Drilling	
Water Lev.	NA				Start	Finish
Time	NA				29-Mar-13	29-Mar-13
Date	NA					
Reference	NA					

Digital Picture #	Sample Type	In. Drvn / In. Recvrd	Dpth. Csg.	Samp. # / Samp. depth	PID (ppm)	Blows per 6 in.	Depth (feet)	USCS Log	Surface Conditions: Gravel
		60/24			0.0	NA	0		
								GM	Silty sandy gravel, soft, loose, wet
							1		low recovery, lots of gravel
	ISM			1-4 ft			2		
							3		
							4	CL	Olive brown silty clay, stiff, grading to fairly moist
	ISM			4-7 ft					
							5		
		24/24			0.0	NA			
							6		Grading to wet and soft
	ISM			1-7 ft			7		Grading to stiff, moist
							8		End of boring 8 ft
							9		
							10		
							11		
							12		
							13		
							14		
							15		
							16		
							17		
							18		
							19		
							20		
							21		
							22		
							23		
							24		

Logged by: J. Scott P.G. - ECC.
Drilling Contractor: Frontz Drilling
WELL SPECIFICATIONS: Well not installed
Diam. of casing: 2" Screen Interval:
BOH: 8 ft Riser Interval:

Date: 29-Mar-13
Driller: Joe Teter
Sandpack:
Bentonite: 8 ft to grnd. Surface

Notes: NA = Not Applicable
See Sample Summary Sheets for sampling information
ISM = Incremental Sampling Method

Environmental Chemical Corporation

LOG OF SOIL BORING

Coordinates: X 491447.959 Y 4558855.451
Surface Elevation: 1115.459 ft msl
Casing Below Surface:
Reference Elevation:
Reference Description:

Job. No. 5461.004	Client ACOE-Louisville	Location RVAAP	
		CC-68	DU02
Drilling Method:	Direct-Push Geoprobe 6620DT	Boring No. W S.Station	SB01
Sampling Method:	2" diameter-5 ft SS sampler MacroCore liner	Sheet 1 of 1	

		Drilling	
		Start	Finish
Water Lev.	NA	29-Mar-13	29-Mar-13
Time	NA		
Date	NA		
Reference	NA		

Surface Conditions: Gravel

Digital Picture #	Sample Type	In. Drvn / In. Recvrd	Dpth. Csg.	Samp. # / Samp. depth	PID (ppm)	Blows per 6 in.	Depth (feet)	USCS Log	
		60/57			0.0	NA	0		
								GP	Dark gray (N4/-) sandy gravel, loose, hard, very moist
							1		
								CL	Olive brown (2.5Y 4/4) and gray (N 5/-) silty clay
	ISM			1-4 ft			2		
							3		
							4	CL	Grading to silt, sandy clay dark yellowish brown (10YR 4/4) soft, wet
	ISM			4-7 ft			5		
		60/53			0.0	NA			
							6		
	ISM			1-7 ft			7		
							8	CL	Grading to silty, sandy clay, moderately stiff, dense, moist
							9		
							10		
		36/0			0.0	NA			Split liner, no recovery
							11		
							12		
							13		End of boring 13 ft
							14		
							15		
							16		
							17		
							18		
							19		
							20		
							21		
							22		
							23		
							24		

Logged by: J. Scott P.G. - ECC.
Drilling Contractor: Frontz Drilling
WELL SPECIFICATIONS: Well not installed
Diam. of casing: 2" Screen Interval:
BOH: 13 ft Riser Interval:

Date: 29-Mar-13
Driller: Joe Teter
Sandpack:
Bentonite: 13 ft to grnd. Surface

Notes: NA = Not Applicable
See Sample Summary Sheets for sampling information
ISM = Incremental Sampling Method

Environmental Chemical Corporation

LOG OF SOIL BORING

Coordinates: X 491452.226 Y 4558849.764
Surface Elevation: 1115.282 ft msl
Casing Below Surface:
Reference Elevation:
Reference Description:

Job. No. 5461.004	Client ACOE-Louisville		Location RVAAP	
			CC-68	DU02
Drilling Method:	Direct-Push Geoprobe 6620DT		Boring No.	SB02
			W S.Station	
Sampling Method:	2" diameter-5 ft SS sampler MacroCore liner		Sheet 1 of 1	
			Drilling	
Water Lev. NA			Start	Finish
Time NA			29-Mar-13	29-Mar-13
Date NA				
Reference NA				

Surface Conditions: Gravel

Digital Picture #	Sample Type	In. Drvn / In. Recvrd	Dpth. Csg.	Samp. # / Samp. depth	PID (ppm)	Blows per 6 in.	Depth (feet)	USCS Log	
		60/55			0.0	NA	0		
								GM	Dark gray sandy gravel
							1		
								CL	Olive brown silty clay
	ISM			1-4 ft			2		
							3		
							4		
	ISM			4-7 ft			5		
		24/19			0.0	NA			
							6	SM	Silty sand, soft, very moist
							7		End of boring 7 ft
							8		
							9		
							10		
							11		
							12		
							13		
							14		
							15		
							16		
							17		
							18		
							19		
							20		
							21		
							22		
							23		
							24		

Logged by: J. Scott P.G. - ECC.
Drilling Contractor: Frontz Drilling
WELL SPECIFICATIONS: Well not installed
Diam. of casing: 2" Screen Interval:
BOH: 7 ft Riser Interval:

Date: 29-Mar-13
Driller: Joe Teter
Sandpack:
Bentonite: 7 ft to grnd. Surface

Notes: NA = Not Applicable
See Sample Summary Sheets for sampling information
ISM = Incremental Sampling Method

Environmental Chemical Corporation

LOG OF SOIL BORING

Coordinates: X 491463.342 Y 4558862.927
Surface Elevation: 1115.065 ft msl
Casing Below Surface:
Reference Elevation:
Reference Description:

Job. No. 5461.004	Client ACOE-Louisville	Location	RVAAP CC-68 DU02
Drilling Method:	Direct-Push Geoprobe 6620DT	Boring No.	SB03 W S.Station
Sampling Method:	2" diameter-5 ft SS sampler MacroCore liner	Sheet 1 of 1	

					Drilling Start	Drilling Finish
Water Lev.	NA					
Time	NA				29-Mar-13	29-Mar-13
Date	NA					
Reference	NA					

Digital Picture #	Sample Type	In. Drvn / In. Recvrd	Dpth. Csg.	Samp. # / Samp. depth	PID (ppm)	Blows per 6 in.	Depth (feet)	USCS Log	Surface Conditions: Gravel
		60/53			0.0	NA	0		
									Sandy slag, gravel
							1		
								CL	Olive brown silty clay, stiff, fairly moist
	ISM			1-4 ft			2		
							3		
							4	SM	Silty sand, gravel, soft, wet
	ISM			4-7 ft			5		
		36/36			0.0	NA		CL	Silty clay
							6		
	ISM			1-7 ft			7		End of boring 7 ft
							8		
							9		
							10		
							11		
							12		
							13		
							14		
							15		
							16		
							17		
							18		
							19		
							20		
							21		
							22		
							23		
							24		

Logged by: J. Scott P.G. - ECC.
Drilling Contractor: Frontz Drilling
WELL SPECIFICATIONS: Well not installed
Diam. of casing: 2" Screen Interval:
BOH: 7 ft Riser Interval:

Date: 29-Mar-13
Driller: Joe Teter
Sandpack:
Bentonite: 7 ft to grnd. Surface

Notes: NA = Not Applicable
See Sample Summary Sheets for sampling information
ISM = Incremental Sampling Method

Environmental Chemical Corporation

LOG OF SOIL BORING

Coordinates: X 491464.82 Y 4558856.958
Surface Elevation: 1115.226 ft msl
Casing Below Surface:
Reference Elevation:
Reference Description:

Job. No. 5461.004	Client ACOE-Louisville			Location RVAAP CC-68 DU02	
Drilling Method:	Direct-Push Geoprobe 6620DT			Boring No. SB04 W S.Station	
Sampling Method:	2" diameter-5 ft SS sampler MacroCore liner			Sheet 1 of 1	
				Drilling	
Water Lev. NA				Start	Finish
Time NA				29-Mar-13	29-Mar-13
Date NA					
Reference NA					

Digital Picture #	Sample Type	In. Drvn / In. Recvrd	Dpth. Csg.	Samp. # / Samp. depth	PID (ppm)	Blows per 6 in.	Depth (feet)	USCS Log	Surface Conditions: Gravel
		60/56			0.0	NA	0		
									Sandy slag, gravel
							1		
								CL	Olive brown silty clay, stiff, fairly moist
	ISM			1-4 ft			2		
							3		
							4	SM	Silty san, gravel, soft, wet
	ISM			4-7 ft			5		
		24/21			0.0	NA		CL	Silty clay
							6		
							7		End of boring 7 ft
							8		
							9		
							10		
							11		
							12		
							13		
							14		
							15		
							16		
							17		
							18		
							19		
							20		
							21		
							22		
							23		
							24		

Logged by: J. Scott P.G. - ECC.
Drilling Contractor: Frontz Drilling
WELL SPECIFICATIONS: Well not installed
Diam. of casing: 2" Screen Interval:
BOH: 7 ft Riser Interval:

Date: 29-Mar-13
Driller: Joe Teter
Sandpack:
Bentonite: 7 ft to grnd. Surface

Notes: NA = Not Applicable
See Sample Summary Sheets for sampling information
ISM = Incremental Sampling Method

Environmental Chemical Corporation

LOG OF SOIL BORING

Coordinates: X 491459.69 Y 4558854.181
Surface Elevation: 1115.380 ft msl
Casing Below Surface:
Reference Elevation:
Reference Description:

Job. No.	5461.004	Client	ACOE-Louisville	Location	RVAAP CC-68 DU02
Drilling Method:		Direct-Push Geoprobe 6620DT		Boring No.	SB05 W S.Station
Sampling Method:		2" diameter-5 ft SS sampler MacroCore liner		Sheet 1 of 1	

					Drilling	
Water Lev.	NA				Start	Finish
Time	NA				29-Mar-13	29-Mar-13
Date	NA					
Reference	NA					

Digital Picture #	Sample Type	In. Drvn / In. Recvrd	Dpth. Csg.	Samp. # / Samp. depth	PID (ppm)	Blows per 6 in.	Depth (feet)	USCS Log	Surface Conditions: Gravel
		60/55			0.0	NA	0		
								GP	Gray sandy gravel
							1		
								CL	Olive brown silty clay, stiff, fairly moist
							2		
							3		
							4	SP	Gray sand, silt, loose, soft, wet, medium to very coarse sand
							5		
		24/21			0.0	NA		CL	Silty clay, stiff, moist
							6		
							7		End of boring 7 ft
							8		
							9		
							10		
							11		
							12		
							13		
							14		
							15		
							16		
							17		
							18		
							19		
							20		
							21		
							22		
							23		
							24		

Logged by: J. Scott P.G. - ECC.
Drilling Contractor: Frontz Drilling
WELL SPECIFICATIONS: Well not installed
Diam. of casing: 2"
BOH: 7 ft
Screen Interval:
Riser Interval:
Date: 29-Mar-13
Driller: Joe Teter
Sandpack:
Bentonite: 7 ft to grnd. Surface

Notes: NA = Not Applicable
See Sample Summary Sheets for sampling information
ISM = Incremental Sampling Method

HTW DRILLING LOG

HOLE NO. DU1-581

1. COMPANY NAME ECC	2. DRILLING SUBCONTRACTOR Frontz
3. PROJECT Ravenna Army Ammunition Plant	4. LOCATION CC 68, East Substation
5. NAME OF DRILLER Joe Teter	6. MANUFACTURER'S DESIGNATION OF DRILL Geoprobe 6620DT
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 5 FT SS SAMPLER; MACROCORE	8. HOLE LOCATION DU1-581
	9. SURFACE ELEVATION NA
	10. DATE STARTED 3/29/13 — 11. DATE COMPLETED 3/25/13
12. OVERBURDEN THICKNESS NA	15. DEPTH GROUNDWATER ENCOUNTERED ~7.
13. DEPTH DRILLED INTO ROCK NA	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA
14. TOTAL DEPTH OF HOLE 13	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
NA			

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
SEE SAMPLE SUMMARY SHEET						

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	BENTONITE			Jason Scott

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	REMARKS h
FILL	0–5 / 1	Sandy Gravel, Black, (10YR 2/1) 50% fine Gravel, 50% fine sand, loose, very soft, moist	0.0				
SM	5–10 / 2	Silty Sand, loose, soft, wet, dark yellowish brown, (10 YR 4/6)					IV
CL	10–15 / 3	Silty Clay, stiff, dense, moist, light olive brown, 2.5 Y 5/4					
	15–20 / 4						
	20–25 / 5	Grading to very stiff, dry	0.0				
	25–30 / 6						
SM	30–35 / 7	Sand, Gravelly, Silt, soft, loose, wet					IV
	35–40 / 8						
CL	40–45 / 12	Silty Clay, stiff, dense, dry	0.0				

PROJECT RVAAP — HOLE NO.

MFR 5/78 55

HTW DRILLING LOG

HOLE NO. DU1-SB2

1. COMPANY NAME ECC	2. DRILLING SUBCONTRACTOR Frontz
3. PROJECT Ravenna Army Ammunition Plant	4. LOCATION CC 68, East Electric
5. NAME OF DRILLER Joe Teter	6. MANUFACTURER'S DESIGNATION OF DRILL Geoprobe 6620DT
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 5 FT SS SAMPLER; MACROCORE	8. HOLE LOCATION DU1 - SB2
	9. SURFACE ELEVATION NA
	10. DATE STARTED 3/26/13 — 11. DATE COMPLETED 3/29/13
12. OVERBURDEN THICKNESS NA	15. DEPTH GROUNDWATER ENCOUNTERED
13. DEPTH DRILLED INTO ROCK NA	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA
14. TOTAL DEPTH OF HOLE 7.	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
NA			

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
SEE SAMPLE SUMMARY SHEET						

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	BENTONITE			JASON SCOTT

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	REMARKS h
	5 1	See SB 5, DU01					
	10 2						
	15 3						
	20 4						
	25 5						
	30 6						
	35 7						
	40						
	45						

PROJECT RVAAP — HOLE NO.

MRK FORM Jun 88 55

HTW DRILLING LOG

HOLE NO. DU1-383

1. COMPANY NAME ECC	2. DRILLING SUBCONTRACTOR Frontz
3. PROJECT Ravenna Army Ammunition Plant	4. LOCATION CC 68, East Substation
5. NAME OF DRILLER Joe Teter	6. MANUFACTURER'S DESIGNATION OF DRILL Geoprobe 6620DT
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 5 FT SS SAMPLER; MACROCORE	8. HOLE LOCATION DU1-383
	9. SURFACE ELEVATION NA
	10. DATE STARTED 3/29/13 — 11. DATE COMPLETED 3/29/13
12. OVERBURDEN THICKNESS NA	16. DEPTH GROUNDWATER ENCOUNTERED
13. DEPTH DRILLED INTO ROCK NA	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA
14. TOTAL DEPTH OF HOLE 7	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
NA			

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
SEE SAMPLE SUMMARY SHEET						

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	BENTONITE			Jason Scott

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	REMARKS h
GP	5 1	Sandy Gravel, Black, (10 YR 2/1) Soft, loose					
SM	10 2	Silty Sand, dark Yellowish Brown, (10 YR 4/6), soft, wet.	0.0				
	15 3	Grading to					
CL	20 4	Silty Clay, light Olive Brown, 2.5 Y 5/4, stiff, dense, moist					
	25 5		0.0				
	30 6	Grading to very stiff, dry					
	35 7						
	40						
	45						

PROJECT RVAAP — HOLE NO.

MFK FORM JAN 88 55

HTW DRILLING LOG

HOLE NO. SB04

1. COMPANY NAME ECC	2. DRILLING SUBCONTRACTOR Frontz	SHEET 1 OF SHEETS
3. PROJECT Ravenna Army Ammunition Plant	4. LOCATION CC 68, East Substation	
5. NAME OF DRILLER Joe Teter	6. MANUFACTURER'S DESIGNATION OF DRILL Geoprobe 6620DT	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 5 FT SS SAMPLER; MACROCORE	8. HOLE LOCATION DU1 - SB4	
	9. SURFACE ELEVATION NA	
	10. DATE STARTED 3/29/13	11. DATE COMPLETED 3/29/13
12. OVERBURDEN THICKNESS NA	15. DEPTH GROUNDWATER ENCOUNTERED /	
13. DEPTH DRILLED INTO ROCK NA	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA	
14. TOTAL DEPTH OF HOLE 7	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA	

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
NA			

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
SEE SAMPLE SUMMARY SHEET						

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	BENTONITE			JASON SCOTT

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	REMARKS h
GW	0	Sandy Gravel, black					
	5		0.0				
SW	1	Silty Sand, dark yellow brown, sdst, wet					
	10						
	2	Grading to silty Clay, sdst, wet					
	15						
	3						
		Black stained, sdst, wet	0.0				No HC odor
CL	20 4	Silty Clay, sdst, dry					
	25 5						
	30 6						
	35 7						
	40						
	45						

PROJECT RVAAP HOLE NO.

MRK FORM JUN 88 55

HTW DRILLING LOG

HOLE NO. D41-SB5

1. COMPANY NAME ECC	2. DRILLING SUBCONTRACTOR Frontz
3. PROJECT Ravenna Army Ammunition Plant	4. LOCATION CC 68, East Electric Substation
5. NAME OF DRILLER Joe Teter	6. MANUFACTURER'S DESIGNATION OF DRILL Geoprobe 6620DT
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 5 FT SS SAMPLER; MACROCORE	8. HOLE LOCATION D41-SB5
	9. SURFACE ELEVATION NA
	10. DATE STARTED 3/25/13 — 11. DATE COMPLETED 3/25/13
12. OVERBURDEN THICKNESS NA	15. DEPTH GROUNDWATER ENCOUNTERED —
13. DEPTH DRILLED INTO ROCK NA	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA
14. TOTAL DEPTH OF HOLE 7'	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
NA			

20. SAMPLES FOR CHEMICAL ANALYSES	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
SEE SAMPLE SUMMARY SHEET						

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	BENTONITE			Jason Scott

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	REMARKS h
GP	0	Sandy Gravel, black					
	5 1		0.0				
SM CL	10 2	Silty Clay, lt olive brn 2.5Y 5/4, stiff, moist					VOC sample
	15 3						
	20 4						
	25 5		0.0				
	30 6						
	35 7						
	40						
	45						

PROJECT RVAAP — HOLE NO.

MFK FORM 55

HTW DRILLING LOG

HOLE NO. SB1

1. COMPANY NAME ECC	2. DRILLING SUBCONTRACTOR Frontz
3. PROJECT Ravenna Army Ammunition Plant	4. LOCATION CC 68, East Electric
5. NAME OF DRILLER Joe Teter	6. MANUFACTURER'S DESIGNATION OF DRILL Geoprobe 6620DT
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 5 FT SS SAMPLER; MACROCORE	8. HOLE LOCATION DU2 - SB1
	9. SURFACE ELEVATION NA
	10. DATE STARTED 3/25/13 — 11. DATE COMPLETED 3/29/13
12. OVERBURDEN THICKNESS NA	15. DEPTH GROUNDWATER ENCOUNTERED
13. DEPTH DRILLED INTO ROCK NA	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA
14. TOTAL DEPTH OF HOLE 71	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
NA			

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
SEE SAMPLE SUMMARY SHEET						

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	BENTONITE			Tasha Scott

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	REMARKS h
6A	5 1	Sandy Gravel, Black, soft, loose,					
CL	10 2	Silty Clay, lt. Olive brown, (2.5Y 5/4), stiff, moist.	0.0				VOC sample
	15 3	Grading to med. stiff					
	20 4						
	25 5		0.0				
	30 6	Grading to very stiff, dry					
	35 7						
	40						
	45						

PROJECT RVAAP — HOLE NO.

MRK FORM JUN 89 55

HTW DRILLING LOG

HOLE NO. DU2-SB2

1. COMPANY NAME ECC	2. DRILLING SUBCONTRACTOR Frontz
3. PROJECT Ravenna Army Ammunition Plant	4. LOCATION CC 68, East Electric
5. NAME OF DRILLER Joe Teter	6. MANUFACTURER'S DESIGNATION OF DRILL Geoprobe 6620DT
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 5 FT SS SAMPLER; MACROCORE	8. HOLE LOCATION DU2, SB2
	9. SURFACE ELEVATION NA
	10. DATE STARTED 3/29/17 — 11. DATE COMPLETED 3/29/17
12. OVERBURDEN THICKNESS NA	15. DEPTH GROUNDWATER ENCOUNTERED
13. DEPTH DRILLED INTO ROCK NA	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA
14. TOTAL DEPTH OF HOLE 7	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
NA			

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
SEE SAMPLE SUMMARY SHEET						

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
Bentonite Plug	BENTONITE			Jason Scott

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	REMARKS h
	5 1 10 2 15 3 20 4 25 5 30 6 35 7 40 45	See DU2-SB5					

PROJECT RVAAP — HOLE NO.

MRK FORM JUN 89 55

HTW DRILLING LOG

HOLE NO. DU2-SB3

1. COMPANY NAME ECC	2. DRILLING SUBCONTRACTOR Frontz
3. PROJECT Ravenna Army Ammunition Plant	4. LOCATION CC 18, East Electric
5. NAME OF DRILLER Joe Teter	6. MANUFACTURER'S DESIGNATION OF DRILL Geoprobe 6620DT
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 5 FT SS SAMPLER; MACROCORE	8. HOLE LOCATION DU2-SB3
	9. SURFACE ELEVATION NA
	10. DATE STARTED 3/29/13 — 11. DATE COMPLETED 3/29/13
12. OVERBURDEN THICKNESS NA	15. DEPTH GROUNDWATER ENCOUNTERED
13. DEPTH DRILLED INTO ROCK NA	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA
14. TOTAL DEPTH OF HOLE 7	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
NA			

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
SEE SAMPLE SUMMARY SHEET						

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	BENTONITE			JBrian Scott

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	REMARKS h
GR	0	Sandy Gravel, Black					
CL	5 / 1	Silty Clay; lt Olive Gr. stiff, moist	0.0				
	10 / 2						
	15 / 3	Grading to dry					
	20 / 4						
	25 / 5		0.0				
	30 / 6						
	35 / 7						
	40						
	45						

PROJECT RVAAP — HOLE NO.

MFK FORM JAN 86 55

HTW DRILLING LOG

HOLE NO. DU2-SB4

1. COMPANY NAME ECC	2. DRILLING SUBCONTRACTOR Frontz
3. PROJECT Ravenna Army Ammunition Plant	4. LOCATION CC 68, East Electric
5. NAME OF DRILLER Joe Teter	6. MANUFACTURER'S DESIGNATION OF DRILL Geoprobe 6620DT
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 5 FT SS SAMPLER; MACROCORE	8. HOLE LOCATION DU2 - SB4
	9. SURFACE ELEVATION NA
	10. DATE STARTED 3/28/13 — 11. DATE COMPLETED 3/29/13
12. OVERBURDEN THICKNESS NA	15. DEPTH GROUNDWATER ENCOUNTERED
13. DEPTH DRILLED INTO ROCK NA	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA
14. TOTAL DEPTH OF HOLE 7	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
NA			

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
SEE SAMPLE SUMMARY SHEET						

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	BENTONITE			Jason Scott

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	REMARKS h
GR	5 / 1	Sandy Gravel, Black					
CL	10 / 2	Silty Clay, lt Olive Gray, stiff, moist	0.0				
	15 / 3						
	20 / 4	grading with Sand, very moist, soft					
	25 / 5						
	30 / 6		0.0				
	35 / 7						
	40						
	45						

PROJECT RVAAP — HOLE NO.

MRK FORM JAN 88 55

HTW DRILLING LOG

HOLE NO. DU2-SB5

1. COMPANY NAME ECC	2. DRILLING SUBCONTRACTOR Frontz
3. PROJECT Ravenna Army Ammunition Plant	4. LOCATION CC 68 - East Electric
5. NAME OF DRILLER Joe Teter	6. MANUFACTURER'S DESIGNATION OF DRILL Geoprobe 6620DT
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 5 FT SS SAMPLER; MACROCORE	8. HOLE LOCATION DU-2 -SB5
	9. SURFACE ELEVATION NA
	10. DATE STARTED 3/29/13 — 11. DATE COMPLETED 3/29/13
12. OVERBURDEN THICKNESS NA	15. DEPTH GROUNDWATER ENCOUNTERED —
13. DEPTH DRILLED INTO ROCK NA	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA
14. TOTAL DEPTH OF HOLE 7	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
NA			

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
SEE SAMPLE SUMMARY SHEET						

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
Bent. Chp Plug	BENTONITE			JASON SCOTT

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	REMARKS h
GR		Sandy Gravel, Black					
CC	5 1	Silty Clay; lt. olive brn, stiff, dry	0.0				
	10 2						
	15 3						
	20 4						
	25 5		0.0				
	30 6						
	35 7						TD=7'
	40						
	45						

MRK FORM JUN 88 55

PROJECT RVAAP

HOLE NO.

HTW DRILLING LOG

HOLE NO. SB1

1. COMPANY NAME ECC	2. DRILLING SUBCONTRACTOR Frontz
3. PROJECT Ravenna Army Ammunition Plant	4. LOCATION CC 68, Substation 9
5. NAME OF DRILLER Joe Teter	6. MANUFACTURER'S DESIGNATION OF DRILL Geoprobe 6620DT
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 5 FT SS SAMPLER; MACROCORE	8. HOLE LOCATION DU1-SB1
	9. SURFACE ELEVATION NA
	10. DATE STARTED 3/29/13 -1147 / 11. DATE COMPLETED 3/29/13
12. OVERBURDEN THICKNESS NA	15. DEPTH GROUNDWATER ENCOUNTERED 6'
13. DEPTH DRILLED INTO ROCK NA	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA
14. TOTAL DEPTH OF HOLE 7	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
NA			—

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
SEE SAMPLE SUMMARY SHEET	—	—	—	—		

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	BENTONITE	—	—	Jason Scott

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	REMARKS h
607		Sandy Gravel, Gray					
CL	5 1	Silty Clay, lt. Olive Brn, Stiff, Fair Hy moist	0.0				
	10 2						
	15 3						
	20 4						
	25 5		0.0				
SM	30 6	Grading to Silty Sand, loose, soft wet					V
	35 7						
	40						
	45						

PROJECT RVAAP HOLE NO.

MRK FORM JUN 88 55

HTW DRILLING LOG

HOLE NO. DU1-SB2

1. COMPANY NAME ECC	2. DRILLING SUBCONTRACTOR Frontz	SHEET 1 OF SHEETS
3. PROJECT Ravenna Army Ammunition Plant	4. LOCATION CC 68, Substation 3	
5. NAME OF DRILLER Joe Teter	6. MANUFACTURER'S DESIGNATION OF DRILL Geoprobe 6620DT	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 5 FT SS SAMPLER; MACROCORE	8. HOLE LOCATION DU1-SB2	
	9. SURFACE ELEVATION NA	
	10. DATE STARTED 3/29/13	11. DATE COMPLETED 3/29/13
12. OVERBURDEN THICKNESS NA	15. DEPTH GROUNDWATER ENCOUNTERED 5.5	
13. DEPTH DRILLED INTO ROCK NA	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA	
14. TOTAL DEPTH OF HOLE 7'	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA	

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
NA			

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
SEE SAMPLE SUMMARY SHEET	—	—	—	—		

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	BENTONITE	—	—	Jason Scott

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	REMARKS h
bp		Sandy Gravel, lt. Grey (N7/),	~~0.2~~				
CL	5 1	Silty Clay w/gravel, Black, (N 2.5/) wet					~4" No HC odor
	10 2	Silty Clay, lt. Olive Gry (2.5Y 5/4), stiff, faint moist	~~0.0~~				PID = 0.2
	15 3		0.0				
	20 4		0.0				
	25 5						
sm		Silty Sand, lt. olive Gry (2.5Y 5/6), loose, sat, wet	0.0				V
	30 6						
	35 7						
	40						
	45						

PROJECT RVAAP

HOLE NO.

HTW DRILLING LOG

HOLE NO. SB3

1. COMPANY NAME ECC	2. DRILLING SUBCONTRACTOR Frontz
3. PROJECT Ravenna Army Ammunition Plant	4. LOCATION CC 68, Substation 3
5. NAME OF DRILLER Joe Teter	6. MANUFACTURER'S DESIGNATION OF DRILL Geoprobe 6620DT
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 5 FT SS SAMPLER; MACROCORE	8. HOLE LOCATION DU1 - SB3
	9. SURFACE ELEVATION NA
	10. DATE STARTED 3/29/13 — 11. DATE COMPLETED 3/29/13
12. OVERBURDEN THICKNESS NA	15. DEPTH GROUNDWATER ENCOUNTERED 5 - 5.5'
13. DEPTH DRILLED INTO ROCK NA	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA
14. TOTAL DEPTH OF HOLE 7	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
NA			

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
SEE SAMPLE SUMMARY SHEET	—	—	—	—		

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	BENTONITE	—	—	Jason Scott

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	REMARKS h
GP	0	Sandy Gravel, lt. grey	0.0				
CL	5 / 1	Silty Clay, lt Olive brown and Gray, Stiff, dense.					
	10 / 2						
	15 / 3						
	20 / 4		0.0				
SM	25 / 5	Silty sand, wet					R
CL	30 / 6	Silty Clay, lt. olive brown					
	35 / 7						
	40						
	45						

PROJECT RVAAP — HOLE NO.

MPK FORM JUN 88 55

HTW DRILLING LOG

HOLE NO. DU1-SB4

1. COMPANY NAME ECC	2. DRILLING SUBCONTRACTOR Frontz
3. PROJECT Ravenna Army Ammunition Plant	4. LOCATION CC 68, B Substation 3
5. NAME OF DRILLER Joe Teter	6. MANUFACTURER'S DESIGNATION OF DRILL Geoprobe 6620DT
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 5 FT SS SAMPLER; MACROCORE	8. HOLE LOCATION DU1 - SB4
	9. SURFACE ELEVATION NA
	10. DATE STARTED 3/29/13 — 11. DATE COMPLETED 3/29/13
12. OVERBURDEN THICKNESS NA	15. DEPTH GROUNDWATER ENCOUNTERED 5.5
13. DEPTH DRILLED INTO ROCK NA	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA
14. TOTAL DEPTH OF HOLE 7	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
NA			—

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
SEE SAMPLE SUMMARY SHEET	—	—	—	—		

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	BENTONITE	—	—	JASON SCOTT

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	REMARKS h
fp	0	Sandy Gravel, lt. Gray (10 7/1)	0.0				
CL	5 / 1	Silty Clay, lt. olive brown (2.5Y 5/4) and Gray (N 6/-) stiff, dense, moderate moist.					
	10 / 2						
	15 / 3						
	20 / 4	Grading to dry					
	25 / 5		0.0				V
SM	30 / 6	Silty Sand, light olive brown (2.5Y 5/6), loose, soft, wet					
	35 / 7						
	40						
	45						

PROJECT RVAAP — HOLE NO.

MFK FORM JUN 88 55

HTW DRILLING LOG

HOLE NO. SB 5

1. COMPANY NAME ECC
2. DRILLING SUBCONTRACTOR Frontz
SHEET 1 OF SHEETS
3. PROJECT Ravenna Army Ammunition Plant
4. LOCATION CC 68 - Substation 3
5. NAME OF DRILLER Joe Teter
6. MANUFACTURER'S DESIGNATION OF DRILL Geoprobe 6620DT
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 5 FT SS SAMPLER; MACROCORE
8. HOLE LOCATION DU1 - SB5
9. SURFACE ELEVATION NA
10. DATE STARTED 3/24/13
11. DATE COMPLETED 3/24/13
12. OVERBURDEN THICKNESS NA
15. DEPTH GROUNDWATER ENCOUNTERED NA
13. DEPTH DRILLED INTO ROCK NA
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA
14. TOTAL DEPTH OF HOLE 7
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA
18. GEOTECHNICAL SAMPLES NA — DISTURBED — UNDISTURBED
19. TOTAL NUMBER OF CORE BOXES —
20. SAMPLES FOR CHEMICAL ANALYSIS: SEE SAMPLE SUMMARY SHEET — VOC: — ; METALS: — ; OTHER (SPECIFY): — ; OTHER (SPECIFY): — ; OTHER (SPECIFY): —
21. TOTAL CORE RECOVERY %
22. DISPOSITION OF HOLE — BACKFILLED: BENTONITE ; MONITORING WELL: — ; OTHER (SPECIFY): —
23. SIGNATURE OF INSPECTOR Jason Scott

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	REMARKS h
6P	0	Sandy Grave					
CL	5	Silty Clay, stiff, moist	0.0				
	10 2	Grading to Soft, very moist	0.0				
	15 3	Grading to Stiff, Paint moist					
	20 4						
	25 5		0.0				
	30 6						
	35 7						
	40						
	45						

PROJECT RVAAP
HOLE NO.

MPK FORM JUN 89 55

HTW DRILLING LOG

HOLE NO. SB1

1. COMPANY NAME ECC	2. DRILLING SUBCONTRACTOR Frontz
3. PROJECT Ravenna Army Ammunition Plant	4. LOCATION CC 68 WEST SUBSTATION
5. NAME OF DRILLER Joe Teter	6. MANUFACTURER'S DESIGNATION OF DRILL Geoprobe 6620DT
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 5 FT SS SAMPLER; MACROCORE	8. HOLE LOCATION DU1-SB1
	9. SURFACE ELEVATION NA
	10. DATE STARTED 3/29/13 — 11. DATE COMPLETED 3/29/13
12. OVERBURDEN THICKNESS NA	15. DEPTH GROUNDWATER ENCOUNTERED NA
13. DEPTH DRILLED INTO ROCK NA	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA
14. TOTAL DEPTH OF HOLE 13'	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA

18. GEOTECHNICAL SAMPLES NA	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
	—	—	—

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
SEE SAMPLE SUMMARY SHEET	—	—	—	—	—	

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	BENTONITE			JASON SCOTT

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	REMARKS h
	0	GRASS					
CL	5	SILTY CLAY, STIFF, MOIST OLIVE BRN	0.0				
	10						
CL	15	SILTY CLAY, OLIVE BRN GRADING TO STIFF, DRY	0.0				
	20						
CL	25	GRADING TO MODERATELY STIFF DENSE, MOIST					
	30		0.0				
	35						
CL	40	SILTY CLAY, STIFF, DENSE MOIST, OLIVE BRN					
	45						

PROJECT RVAAP — HOLE NO.

MRK FORM JUN 88 55

HTW DRILLING LOG

HOLE NO. SB2

1. COMPANY NAME ECC	2. DRILLING SUBCONTRACTOR Frontz
3. PROJECT Ravenna Army Ammunition Plant	4. LOCATION CC 68 West Substation
5. NAME OF DRILLER Joe Teter	6. MANUFACTURER'S DESIGNATION OF DRILL Geoprobe 6620DT
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 5 FT SS SAMPLER; MACROCORE	8. HOLE LOCATION DU1 - SB2
	9. SURFACE ELEVATION NA
	10. DATE STARTED 3/29/13 — 11. DATE COMPLETED 3/29/13
12. OVERBURDEN THICKNESS NA	15. DEPTH GROUNDWATER ENCOUNTERED NA
13. DEPTH DRILLED INTO ROCK NA	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA
14. TOTAL DEPTH OF HOLE 8	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
NA			

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
SEE SAMPLE SUMMARY SHEET	—	—	—	—		

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	BENTONITE	—	—	JASON SCOTT

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	REMARKS h
bw	5	Gravel, wet					
CL	1	Silty Clay, stiff, Moist.	0.0				
	10 2						
	15 3	Grading to very stiff, dry					
	20 4						
	25 5		0.0				
	30 6	Grading to mod. stiff.					
	35 7						
	40 8						
	45						

PROJECT RVAAP — HOLE NO.

MRK FORM JUN 88 55

HTW DRILLING LOG

HOLE NO. SB3

1. COMPANY NAME ECC	2. DRILLING SUBCONTRACTOR Frontz
3. PROJECT Ravenna Army Ammunition Plant	4. LOCATION CC 68 WEST SUBSTATION
5. NAME OF DRILLER Joe Teter	6. MANUFACTURER'S DESIGNATION OF DRILL Geoprobe 6620DT
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 5 FT SS SAMPLER; MACROCORE	8. HOLE LOCATION DU1 SB3
	9. SURFACE ELEVATION NA
	10. DATE STARTED 3/29/12 — 11. DATE COMPLETED 3/29/12
12. OVERBURDEN THICKNESS NA	15. DEPTH GROUNDWATER ENCOUNTERED NA
13. DEPTH DRILLED INTO ROCK NA	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA
14. TOTAL DEPTH OF HOLE 4.5' REFUSAL	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
NA			—

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
SEE SAMPLE SUMMARY SHEET	—	—	—	—		

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	BENTONITE	—	—	JASON SCOTT

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	REMARKS h
	5	GRAVEL					
CL	1	SILTY CLAY, OLIVE BROWN, STIFF	0.0				
	10 2						
	15 3						
	20 4	SILTY, GRAVEL, COBBLE REFUSAL					
	25 5						
	30 6						
	35 7						
	40						
	45						

PROJECT RVAAP — HOLE NO.

MRK FORM JUN 80 55

HTW DRILLING LOG

HOLE NO. SB4

1. COMPANY NAME ECC	2. DRILLING SUBCONTRACTOR Frontz
3. PROJECT Ravenna Army Ammunition Plant	4. LOCATION CC 68 West Substation
5. NAME OF DRILLER Joe Teter	6. MANUFACTURER'S DESIGNATION OF DRILL Geoprobe 6620DT
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 5 FT SS SAMPLER; MACROCORE	8. HOLE LOCATION DU1-SB4
	9. SURFACE ELEVATION NA
	10. DATE STARTED 3/26/13 — 11. DATE COMPLETED 3/29/13
12. OVERBURDEN THICKNESS NA	15. DEPTH GROUNDWATER ENCOUNTERED /
13. DEPTH DRILLED INTO ROCK NA	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA
14. TOTAL DEPTH OF HOLE 7	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
NA			—

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
SEE SAMPLE SUMMARY SHEET	—	—	—	—		

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	BENTONITE	—	—	Jason Scott

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	REMARKS h
CL	0–1	Silty Clay Soil	0.0				
SM FP	1–2	Sandy Gravel wet					
	2–3						
	3–4						
CL	4–5	Grading to Silty Clay, Stiff, dense, moist	0.0				
	5–6						
	6–7	Grading to Faintly moist.					
	7–40						
	40–45						

PROJECT RVAAP — HOLE NO.

MRK FORM JUN 88 55

HTW DRILLING LOG

HOLE NO. SB5

1. COMPANY NAME ECC	2. DRILLING SUBCONTRACTOR Frontz
3. PROJECT Ravenna Army Ammunition Plant	4. LOCATION CC 68 West Substation
5. NAME OF DRILLER Joe Teter	6. MANUFACTURER'S DESIGNATION OF DRILL Geoprobe 6620DT
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 5 FT SS SAMPLER; MACROCORE	8. HOLE LOCATION DU1-SB5
	9. SURFACE ELEVATION NA
	10. DATE STARTED 3/29/13 — 11. DATE COMPLETED 3/29/13
12. OVERBURDEN THICKNESS NA	15. DEPTH GROUNDWATER ENCOUNTERED ~~NA~~ 6
13. DEPTH DRILLED INTO ROCK NA	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA
14. TOTAL DEPTH OF HOLE 7	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
NA			—

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
SEE SAMPLE SUMMARY SHEET	—	—	—	—		

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	BENTONITE	—	—	JASON SCOTT

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	REMARKS h
GM	5 / 1	SILTY SAND + GRAVEL, LOOSE WET	0.0				LOW RECOVERY LOTS OF GRAVEL
	10 / 2						
	15 / 3						
CL	20 / 4	SILTY CLAY, OLIVE BRN, STIFF GRADING TO FAIRLY MOIST					
	25 / 5						
	30 / 6	GRADING TO WET AND SOFT	0.0				
	35 / 7						
	40 / 7	GRADING TO STIFF, MOIST					
	45						

PROJECT RVAAP — HOLE NO.

MRK FORM JAN 89 55

HTW DRILLING LOG

HOLE NO. SB1

1. COMPANY NAME ECC	2. DRILLING SUBCONTRACTOR Frontz
3. PROJECT Ravenna Army Ammunition Plant	4. LOCATION CC 68, West Substation
5. NAME OF DRILLER Joe Teter	6. MANUFACTURER'S DESIGNATION OF DRILL Geoprobe 6620DT
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 5 FT SS SAMPLER; MACROCORE	8. HOLE LOCATION DU2, SB1
	9. SURFACE ELEVATION NA
	10. DATE STARTED 3/29/13 — 11. DATE COMPLETED 3/29/13
12. OVERBURDEN THICKNESS NA	15. DEPTH GROUNDWATER ENCOUNTERED 5.5'
13. DEPTH DRILLED INTO ROCK NA	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA
14. TOTAL DEPTH OF HOLE 13	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
NA			—

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
SEE SAMPLE SUMMARY SHEET	—	—	—			

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	BENTONITE	—	—	Jason Scott

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	REMARKS h
FILL GP	0	Sandy Gravel; dark grey (N4/-) loose, hard, very Moist					
	5 1		0.0				
CL		Silty Clay, Olive brn (2.5 4/4) and Grey (N5/)					
	10 2						
	15 3						
	20 4						
CL		Grading to Silt, Sandy Clay dark yellowish brn (10YR 4/4) Soft, wet					
	25 6		0.0				
	30 8	Grading to silty Sandy Clay & moderately stiff, dense, moist					
	35 10						
	40 12		0.0				
	45 14	No Recovery					

PROJECT RVAAP — HOLE NO.

MRK FORM JUN 88 55

HTW DRILLING LOG

HOLE NO. SB2

1. COMPANY NAME ECC	2. DRILLING SUBCONTRACTOR Frontz
3. PROJECT Ravenna Army Ammunition Plant	4. LOCATION CC 68, West Substation
5. NAME OF DRILLER Joe Teter	6. MANUFACTURER'S DESIGNATION OF DRILL Geoprobe 6620DT
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 5 FT SS SAMPLER; MACROCORE	8. HOLE LOCATION DU2 - SB2
	9. SURFACE ELEVATION NA
	10. DATE STARTED 3/29/13 — 11. DATE COMPLETED 3/29/13
12. OVERBURDEN THICKNESS NA	15. DEPTH GROUNDWATER ENCOUNTERED 6
13. DEPTH DRILLED INTO ROCK NA	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA
14. TOTAL DEPTH OF HOLE 7'	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA
18. GEOTECHNICAL SAMPLES NA — DISTURBED — UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
SEE SAMPLE SUMMARY SHEET						

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	BENTONITE			Jason Scott

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	REMARKS h
GM	0	Sandy Gravel; dark Gray					
CL	5 / 1	Silty Clay, Olive brn	0.0				
	10 / 2						
	15 / 3						
	20 / 4						
	25 / 5						
	30 / 6		0.0				
SM		Silty Sand, Soft, Gray Moist					IV
	35 / 7						
	40						
	45						

PROJECT RVAAP — HOLE NO.

MRK FORM JUN 88 55

HTW DRILLING LOG

HOLE NO. DU2-SB3

1. COMPANY NAME ECC	2. DRILLING SUBCONTRACTOR Frontz
3. PROJECT Ravenna Army Ammunition Plant	4. LOCATION CC 68, Wat Substation
5. NAME OF DRILLER Joe Teter	6. MANUFACTURER'S DESIGNATION OF DRILL Geoprobe 6620DT
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 5 FT SS SAMPLER; MACROCORE	8. HOLE LOCATION DU2 SB3
	9. SURFACE ELEVATION NA
	10. DATE STARTED 3/29/13 — 11. DATE COMPLETED 3/29/13
12. OVERBURDEN THICKNESS NA	15. DEPTH GROUNDWATER ENCOUNTERED
13. DEPTH DRILLED INTO ROCK NA	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA
14. TOTAL DEPTH OF HOLE	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
NA			

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
SEE SAMPLE SUMMARY SHEET	—	—	—	—		

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	BENTONITE	—	—	Jason Scott

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	REMARKS h
	5	See SB4					
	10						
	15						
	20						
	25						
	30						
	35						
	40						
	45						

PROJECT RVAAP

HOLE NO.

MPK FORM JUN 88 55

HTW DRILLING LOG

HOLE NO. SB4

1. COMPANY NAME ECC	2. DRILLING SUBCONTRACTOR Frontz
3. PROJECT Ravenna Army Ammunition Plant	4. LOCATION CC 68, West Substation
5. NAME OF DRILLER Joe Teter	6. MANUFACTURER'S DESIGNATION OF DRILL Geoprobe 6620DT
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 5 FT SS SAMPLER; MACROCORE	8. HOLE LOCATION DU2 - SB4
	9. SURFACE ELEVATION NA
	10. DATE STARTED 3/29/13 — 11. DATE COMPLETED 3/29/13
12. OVERBURDEN THICKNESS NA	15. DEPTH GROUNDWATER ENCOUNTERED 4.3'
13. DEPTH DRILLED INTO ROCK NA	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA
14. TOTAL DEPTH OF HOLE 7'	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
NA			

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
SEE SAMPLE SUMMARY SHEET	—	—	—	—		

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	BENTONITE	—	—	Jason Scott

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	REMARKS h
	0	Sandy Slag Gravel					
CL	5 (1)	Silty Clay, Olive brown, Stiff, Partly Moist	0.0				
	10 (2)						
	15 (3)						
	20 (4)						V
SM	25 (5)	silty Sandy Gravel, wet	0.0				
CL	30 (6)	Silty Clay					
	35 (7)						
	40						
	45						

PROJECT RVAAP — HOLE NO.

MFK FORM JAN 88 55

HTW DRILLING LOG

HOLE NO. SB5

1. COMPANY NAME ECC	2. DRILLING SUBCONTRACTOR Frontz
3. PROJECT Ravenna Army Ammunition Plant	4. LOCATION CC 68; West Substation
5. NAME OF DRILLER Joe Teter	6. MANUFACTURER'S DESIGNATION OF DRILL Geoprobe 6620DT
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 5 FT SS SAMPLER; MACROCORE	8. HOLE LOCATION DU2 - SB5
	9. SURFACE ELEVATION NA
	10. DATE STARTED 3/26/13 1327 — 11. DATE COMPLETED 3/29/13
12. OVERBURDEN THICKNESS NA	15. DEPTH GROUNDWATER ENCOUNTERED 4.5
13. DEPTH DRILLED INTO ROCK NA	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED NA
14. TOTAL DEPTH OF HOLE 7	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
NA			—

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
SEE SAMPLE SUMMARY SHEET	—	—	—	—		

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	BENTONITE	—	—	JR Lee/Scott

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	REMARKS h
FILL		Sandy Gravel, Gray					
CL	5 1	Silty Clay, Olive brown, stiff, faintly moist	0.0				
	10 2						
	15 3						
SAND	20 4	Sand, Gray, loose, slt, wet; med to v. coarse sand	0.0				II
	25 5						
CL	30 6	Silty Clay, stiff, moist					
	35 7						
	40						
	45						

PROJECT RVAAP — HOLE NO.

MRK FORM JUN 88 55

APPENDIX B

Data Verification Report

This page intentionally left blank.

TABLE OF CONTENTS

1.0 INTRODUCTION 5
1.1 SAMPLING ACTIVITIES 6
1.2 LABORATORY ACTIVITIES 6
2.0 DATA QUALITY VERIFICATION RESULTS 13
2.1 DATA VERIFICATION QUALIFIER DEFINITIONS 13
2.2 SAMPLE RECEIPT AT THE LABORATORY 14
2.3 HOLDING TIMES 14
2.4 TUNING AND CALIBRATION 14
2.5 LABORATORY METHOD BLANKS, INITIAL CALIBRATION BLANKS, CONTINUING CALIBRATION BLANKS 17
2.6 FIELD BLANK QUALITY CONTROL – TRIP BLANKS, EQUIPMENT RINSATE BLANKS, AND SOURCE WATER 23
2.7 SURROGATES 24
2.8 LABORATORY CONTROL SAMPLES AND/OR LABORATORY CONTROL SAMPLE DUPLICATES 24
2.9 MATRIX SPIKES AND MATRIX SPIKE DUPLICATES 35
2.10 FIELD DUPLICATES 35
2.11 LABORATORY DUPLICATES 45
2.12 DILUTIONS AND RE-ANALYSES 49
2.13 INTERNAL STANDARDS 49
2.14 SERIAL DILUTION 49
2.15 POST-DIGESTION SPIKE SAMPLES 49
2.16 DUAL-COLUMN RELATIVE PERCENT DIFFERENCE 53
2.17 METHOD REPORTING LIMIT CHECKS 57
3.0 OVERALL ASSESSMENT 65
3.1 FIELD COMPLETENESS 65
3.2 ANALYTICAL COMPLETENESS 65
3.3 PROJECT COMPLETENESS 65
3.4 DATA USABILITY 69
4.0 REFERENCES 71

TABLE OF CONTENTS (CONTINUED)

LIST OF TABLES

Table 1-1 Sample Summary....B-6
Table 1-2 Sampling Activities Summary....B-7
Table 1-3 Sample Preparation and Analytical Methods....B-11
Table 2-1 Calibration - Initial and Continuing Calibration Verification....B-15
Table 2-2 Laboratory Method Blanks....B-19
Table 2-3 Surrogate Recoveries....B-25
Table 2-4 Laboratory Control Samples/Laboratory Control Sample Duplicate Recoveries....B-33
Table 2-5 Matrix Spike/Matrix Spike Duplicate Recoveries....B-37
Table 2-6 Field Duplicate Relative Percent Difference....B-43
Table 2-7 Laboratory Duplicate Relative Percent Difference....B-47
Table 2-8 Serial Dilution Recoveries....B-51
Table 2-9 Dual-Column Relative Percent Difference....B-55
Table 2-10 Method Reporting Limit Check....B-59
Table 3-1 Field Completeness Summary....B-67
Table 3-2 Analytical Completeness Summary....B-67
Table 3-3 Project Completeness Summary....B-67

LIST OF WORKSHEETS

Worksheet 1 Automated Data Review Summary for 240-17317-1 / 240-17422-1
Worksheet 2 Automated Data Review Summary for 240-17477-1
Worksheet 3 Automated Data Review Summary for 240-22648-1 / 240-22660-1
Worksheet 4 Automated Data Review Summary for 240-22663-1
Worksheet 5 Automated Data Review Summary for 240-22852-1
Worksheet 6 Automated Data Review Summary for 240-17796-1 Rinsate Blank
Worksheet 7 Automated Data Review Summary for 240-17796-2 Rinsate Blank
Worksheet 8 Automated Data Review Summary for 240-18735-1/-2 Source Water
Worksheet 9 Automated Data Review Summary for 240-21987-1 Source Water
Worksheet 10 Automated Data Review Summary for 240-22804-1 Rinsate Blank
Worksheet 11 Automated Data Review Summary for Field Duplicates

LIST OF ATTACHMENTS

Attachment A Field Blank Quality Control – Trip Blanks and Equipment Rinsate Blanks
Attachment B Source Water

ACRONYMS AND ABBREVIATIONS

°C	Degrees Celsius
% REC	Percent Recovery
µg/kg	Micrograms per Kilogram
µg/L	Micrograms per Liter
BHC	Hexachlorocyclohexane
CC	Army Environmental Compliance-Related Cleanup Program
CCB	Continuing Calibration Blank
CCV	Continuing Calibration Verification
COC	Chain of Custody
DL	Detection Limit
DoD	Department of Defense
DRO	Diesel Range Organics
DSB	Deep Soil Boring
DU	Decision Unit
DVR	Data Verification Report
DVRW	Data Verification Report Worksheet
ECC	Environmental Chemical Corporation
ELAP	Environmental Laboratory Accreditation Program
ER	Equipment Rinsate
FD	Field Duplicate
ft	Feet
FWSAP	Facility-Wide Sampling and Analysis Plan
FWQAPP	Facility-Wide Quality Assurance Project Plan
GRO	Gasoline Range Organics
ICB	Initial Calibration Blank
ICV	Initial Calibration Verification
ID	Identification
ISM	Incremental Sampling Methodology
J	Estimated
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection
LOQ	Limit of Quantitation
MeOH	Methanol
MB	Method Blank
mg/kg	Milligrams per Kilogram

ACRONYMS AND ABBREVIATIONS (CONTINUED)

MRL	Method Reporting Limit
MS	Matrix Spike
MS/MSD	Matrix Spike/Matrix Spike Duplicate
MTBE	Methyl Tertiary Butyl Ether
No.	Number
PCB	Polychlorinated Biphenyls
QA	Quality Assurance
QAPP	Quality Assurance Project Plan
QC	Quality Control
QSM	Quality Systems Manual
R	Rejected
RI	Remedial Investigation
RPD	Relative Percent Difference
RVAAP	Ravenna Army Ammunition Plant
SAIC	Science Applications International Corporation
SDG	Sample Delivery Group
SOP	Standard Operating Procedure
SorW	Source Water
SVOC	Semi-volatile Organic Compound
TAL	Target Analyte List
TB	Trip Blank
TPH	Total Petroleum Hydrocarbons
U	Undetected
UJ	Not detected, with estimated reporting limit
USACE	United States Army Corps of Engineers
USEPA	United States Environmental Protection Agency
VOC	Volatile Organic Compound

1.0 INTRODUCTION

This Data Verification Report (DVR) presents the results of an analytical data review and verification conducted by Environmental Chemical Corporation (ECC) in support the remedial investigation (RI) at CC (Army Environmental Compliance-Related Cleanup Program) RVAAP (Ravenna Army Ammunition Plant)-68 Electric Substations (East, West, No. 3). Project data verification followed the direction provided in the Facility-Wide Quality Assurance Project Plan (FWQAPP), which is part of the Facility-Wide Sampling and Analysis Plan (FWSAP) (SAIC 2011). Protocol for analytical data verification has been updated to the following references:

- Departmental of Defense (DoD) Quality Systems Manual (QSM) for Environmental Laboratories, 2010 Version 4.1 (DoD QSM 2009)
- U.S. Army Corps of Engineers (USACE), Louisville District QSM Supplement (USACE 2007)
- United States Environmental Protection Agency (USEPA) National Functional Guidelines for Superfund Organic Methods Data Review, EPA-540/R-08-01, June 2008 (USEPA 2008)
- USEPA National Functional Guidelines for Inorganic Superfund Data Review, EPA-540-R-10-011, January 2010 (USEPA 2010)
- Quality Assurance Project Plan (QAPP) for Site Inspections and Remedial Investigations at Compliance Restoration Sites, July 2012 (ECC 2012)

All data were verified by ECC in accordance with the FWQAPP using ECC's automated electronic verification software and manual methods.

All incremental sampling methodology (ISM) samples were prepared for analysis by TestAmerica of North Canton, Ohio, and all soil, sediment, and surface water analysis were performed by TestAmerica of North Canton, Ohio, except for propellant and explosives analyses, where were performed at TestAmerica of West Sacramento, California, and metals (except mercury), which were performed at TestAmerica of Pittsburgh, Pennsylvania. All three laboratories are DoD Environmental Laboratory Accreditation Program (ELAP) certified. The sample data groups (SDG) associated with CC RVAAP-68 field sample data are 240-17317-1, 240-17422-1, 240-17477-1, 240-22648-1, 240-22660-1, 240-22663-1, and 240-22852-1. Source water and equipment rinsate analyses were also performed by TestAmerica Laboratories. See Table 1-1 for a sample summary and Table 1-2 for a summary of sampling activities.

The sampling activities conducted in support of this project are presented in Section 1.0 Introduction. The data verification findings are presented in Section 2.0 Data Quality Verification Results, and the supporting field sample Data Verification Report Worksheets (DVRW) are provided in Appendix B Worksheets 1 through 5. Section 3.0 Overall Assessment

provides the field, analytical, and project completeness, and Section 4.0 References presents the data verification guidance used for this project. All results with final qualifiers are presented in Appendix G.

1.1 Sampling Activities

The total number of field and quality control (QC) samples collected by media is presented in Table 1-1.

Table 1-1: Sample Summary

Matrix	Number of Field Samples	Number of Field Duplicates	Number of MS/MSD	Number of Associated Trip Blanks	Total Number of Samples
Surface Soil	7	1	1	1	10
Sediment	3	1	1	0(1)	5
Surface Water	3	1	1	0(1)	5
Subsurface Soil	37	4	1	3	45

Notes:
MS/MSD = Matrix Spike/Matrix Spike Duplicate
(1)Not collected for volatile analysis; trip blanks for volatile analysis not applicable.

A complete list of the sample locations, the corresponding sample identification (ID) numbers, and the requested analyses for the decision units (DUs) are presented in Table 1-2. In addition, field duplicate (FD) sample and the matrix spike (MS)/matrix spike duplicate (MSD) sample pair locations are presented. All volatile organic compound (VOC) soil samples are collected as a discrete soil sample using a disposable coring device, placed into an appropriate sample container, and then placed in a cooler with ice.

The site chemicals of interest at CC RVAAP-68 Electric Substations (East, West, No. 3) are Semi-volatile Organic Compounds (SVOC) and Polychlorinated Biphenyls (PCBs) for the West and No. 3 substations and SVOCs, PCBs, and Target Analyte List (TAL) metals for the east substation.

1.2 Laboratory Activities

A list of extraction and analytical methods is presented in Table 1-3.

Table 1-2: Sampling Activities Summary

Site No.	Depth (ft)	SDG	Sample ID	Decision Unit	Location	Date	COC No.	FD	MS/ MSD	FULL SUITE	VOC	SVOC	TPH GRO	TPH DRO	TAL Metals	PCB	Pesticides	Herbicides	Explosives	Hexavalent Chromium	Propellants
Surface Soil																					
CC RVAAP-68	0-1	240-17317-1	068SS-0001M-0001-SO	DU01	West	6-Nov-12	48527					X			X	X					
CC RVAAP-68	0-1	240-17317-1	068SS-0002M-0001-SO	DU02	West	6-Nov-12	48527					X			X	X					
CC RVAAP-68	0-1	240-17317-1	068SS-0003M-0001-SO	DU03	West	6-Nov-12	48527			X	X	X			X	X	X		X		X
CC RVAAP-68	0-1	240-17317-1	068SS-0003M-0002-SO	MS/MSD of 0003M	West	6-Nov-12	48527		X		X	X			X	X	X		X		X
CC RVAAP-68	0-1	240-17317-1	068SS-0004M-0001-SO	FD of 0003M	West	6-Nov-12	48527	X			X	X			X	X	X		X		X
CC RVAAP-68	0-1	240-17317-1	068SS-0005M-0001-SO	DU01	Substation No. 3	6-Nov-12	48538					X			X	X					
CC RVAAP-68	0-1	240-17317-1	068SS-0006M-0001-SO	DU01	East	6-Nov-12	48538					X			X	X					
CC RVAAP-68	0-1	240-17317-1	068SS-0007M-0001-SO	DU02	East	6-Nov-12	48538					X			X	X					
CC RVAAP-68	0-1	240-17317-1	068SS-0008M-0001-SO	DU03	East	6-Nov-12	48538					X			X	X					
Sediment																					
CC RVAAP-68	0-1	240-17422-1	068SD-0009-0001-SD	Sed #1	Substation No. 3	8-Nov-12	48640					X			X	X					
CC RVAAP-68	0-1	240-17422-1	068SD-0009-0002-SD (MS/MSD)	of Sed #1	Substation No. 3	8-Nov-12	48640		X			X			X	X					
CC RVAAP-68	0-1	240-17422-1	068SD-0010-0001-SD	FD of Sed #1	Substation No. 3	8-Nov-12	48640	X				X			X	X					
CC RVAAP-68	0-1	240-17422-1	068SD-0011-0001-SD	Sed #2	Substation No. 3	8-Nov-12	48640					X			X	X					
CC RVAAP-68	0-1	240-17422-1	068SD-0012-0001-SD	Sed #3	Substation No. 3	8-Nov-12	48640					X			X	X					
Surface Water																					
CC RVAAP-68	0-1	240-17477-1	068SW-0013-0001-SW	SW #1	Substation No. 3	8-Nov-12	48641					X			X	X					
CC RVAAP-68	0-1	240-17477-1	068SW-0016-0002-SW (MS/MSD)	MS/MSD of SW #3	Substation No. 3	8-Nov-12	48641		X			X			X	X					
CC RVAAP-68	0-1	240-17477-1	068SW-0014-0001-SW	FD of SW #3	Substation No. 3	8-Nov-12	48641	X				X			X	X					
CC RVAAP-68	0-1	240-17477-1	068SW-0015-0001-SW	SW #2	Substation No. 3	8-Nov-12	48641					X			X	X					
CC RVAAP-68	0-1	240-17477-1	068SW-0016-0001-SW	SW #3	Substation No. 3	8-Nov-12	48641					X			X	X					
Subsurface Soil																					
CC RVAAP-68	1-4	240-22663-1	068SB-0017M-0001-SO	DU01	West	29-Mar-13	008876					X			X	X					
CC RVAAP-68	4-7	240-22663-1	068SB-0018M-0001-SO	DU01	West	29-Mar-13	008876					X			X	X					
CC RVAAP-68	1-7 vertical ISM	240-22663-1	068SB-0019M-0001-SO	DU01 SB01	West	29-Mar-13	008876					X			X	X					
CC RVAAP-68	1-7 vertical ISM	240-22663-1	068SB-0022M-0001-SO	FD at SB01	West	29-Mar-13	008876	X				X			X	X					
CC RVAAP-68	1-7 vertical ISM	240-22663-1	068SB-0020M-0001-SO	DU01 SB02	West	29-Mar-13	008876					X			X	X					
CC RVAAP-68	1-7 vertical ISM	QA Lab assigned	068SB-0021M-0001-SO	QA at SB02	West	29-Mar-13	A34421					X			X	X					
CC RVAAP-68	1-4 vertical ISM	240-22663-1	068SB-0023M-0001-SO	DU01 SB03	West	29-Mar-13	008876					X			X	X					
CC RVAAP-68	1-7 vertical ISM	240-22663-1	068SB-0024M-0001-SO	DU01 SB04	West	29-Mar-13	008876					X			X	X					

Table 1-2: Sampling Activities Summary (Continued)

Site No.	Depth (ft)	SDG	Sample ID	Decision Unit	Location	Date	COC No.	FD	MS/ MSD	FULL SUITE	VOC	SVOC	TPH GRO	TPH DRO	TAL Metals	PCB	Pesticides	Herbicides	Explosives	Hexavalent Chromium	Propellants
Subsurface Soil																					
CC RVAAP-68	1-7 vertical ISM	240-22663-1	068SB-0025M-0001-SO	DU01 SB05	West	29-Mar-13	008876					X			X	X					
CC RVAAP-68	DSB 7-13	240-22663-1	068SB-0032M-0001-SO	DU01 SB01	West	29-Mar-13	008876					X			X	X					
CC RVAAP-68	1-4	240-22663-1	068SB-0027M-0001-SO	DU02	West	29-Mar-13	008872					X			X	X					
CC RVAAP-68	4-7	240-22663-1	068SB-0028M-0001-SO	DU02	West	29-Mar-13	008872					X			X	X					
CC RVAAP-68	1-7 vertical ISM	240-22663-1	068SB-0030M-0001-SO	DU02 SB03	West	29-Mar-13	008872					X			X	X					
CC RVAAP-68	1-7 vertical ISM	240-22663-1	068SB-0031M-0001-SO	DU02 SB05	West	29-Mar-13	008872					X			X	X					
CC RVAAP-68	1-7 vertical ISM	240-22852-1	068SB-0060M-0001-SO	DU02 SB01	West	4-Apr-13	049137			X	X	X			X	X	X		X		X
CC RVAAP-68	1-7 vertical ISM	240-22852-1	068SB-0060M-0002-SO	DU02 SB01	West	4-Apr-13	049137		X			X			X	X					
CC RVAAP-68	1-7 vertical ISM	240-22852-1	068SB-0061M-0001-SO	DU02 SB01	West	4-Apr-13	049137	X				X			X	X					
CC RVAAP-68	1-4	240-22648-1	068SB-0033M-0001-SO	DU01	East	29-Mar-13	008868					X			X	X					
CC RVAAP-68	4-7	240-22648-1	068SB-0034M-0001-SO	DU01	East	29-Mar-13	008868					X			X	X					
CC RVAAP-68	1-7 vertical ISM	240-22648-1	068SB-0035M-0001-SO	DU01 SB01	East	29-Mar-13	008868					X			X	X					
CC RVAAP-68	1-7 vertical ISM	240-22648-1	068SB-0036M-0001-SO	FD of SB01	East	29-Mar-13	008868	X				X			X	X					
CC RVAAP-68	1-7 vertical ISM	QA Lab assigned	068SB-0037M-0001-SO	QA at SB01 for SVOCs, TAL Metals, and PCBs	East	29-Mar-13	A34421					X			X	X					
CC RVAAP-68	1-7 vertical ISM	240-22648-1	068SB-0038M-0001-SO	DU01 SB02	East	29-Mar-13	008868					X			X	X					
CC RVAAP-68	1-7 vertical ISM	240-22648-1	068SB-0039M-0001-SO	DU01 SB03	East	29-Mar-13	008868					X			X	X					
CC RVAAP-68	1-7 vertical ISM	240-22648-1	068SB-0040M-0001-SO	DU01 SB04	East	29-Mar-13	008868					X			X	X					
CC RVAAP-68	1-7 vertical ISM	240-22648-1	068SB-0041M-0001-SO	DU01 SB05	East	29-Mar-13	008866			X	X	X			X	X	X		X		X
CC RVAAP-68	7-13 DSB	240-22648-1	068SB-0042-0001-SO	DU01 SB01	East	29-Mar-13	008866					X			X	X					
CC RVAAP-68	1-4	240-22648-1	068SB-0044M-0001-SO	DU02	East	29-Mar-13	008868					X			X	X					
CC RVAAP-68	4-7	240-22648-1	068SB-0045M-0001-SO	DU02	East	29-Mar-13	008868					X			X	X					
CC RVAAP-68	1-7 vertical ISM	240-22648-1	068SB-0046M-0001-SO	Full Suite DU02 SB01	East	29-Mar-13	008868			X	X	X			X	X	X		X		X
CC RVAAP-68	1-7 vertical ISM	240-22648-1	068SB-0047M-0001-SO	DU02 SB02	East	29-Mar-13	008868					X			X	X					
CC RVAAP-68	1-7 vertical ISM	240-22648-1	068SB-0048M-0001-SO	DU02 SB04	East	29-Mar-13	008868					X			X	X					

Table 1-2: Sampling Activities Summary (Continued)

Site No.	Depth (ft)	SDG	Sample ID	Decision Unit	Location	Date	COC No.	FD	MS/ MSD	FULL SUITE	VOC	SVOC	TPH GRO	TPH DRO	TAL Metals	PCB	Pesticides	Herbicides	Explosives	Hexavalent Chromium	Propellants
Subsurface Soil																					
CC RVAAP-68	1-4	240-22648-1	068SB-0050M-0001-SO	DU01	Substation No. 3	29-Mar-13	008866					X			X	X					
CC RVAAP-68	4-7	240-22648-1	068SB-0051M-0001-SO	DU01	Substation No. 3	29-Mar-13	008866					X			X	X					
CC RVAAP-68	1-7 vertical ISM	240-22648-1	068SB-0052M-0001-SO	DU01 SB01	Substation No. 3	29-Mar-13	008866					X			X	X					
CC RVAAP-68	1-7 vertical ISM	240-22648-1	068SB-0053M-0001-SO	DU01 SB02	Substation No. 3	29-Mar-13	008866					X			X	X					
CC RVAAP-68	1-7 vertical ISM	240-22648-1	068SB-0054M-0001-SO	FD of SB02	Substation No. 3	29-Mar-13	008866	X				X			X	X					
CC RVAAP-68	1-7 vertical ISM	QA Lab assigned	068SB-0055M-0001-SO	QA at SB02 for SVOCs, TAL Metals, and PCBs	Substation No. 3	29-Mar-13	A34421					X			X	X					
CC RVAAP-68	1-7 vertical ISM	240-22648-1	068SB-0056M-0001-SO	DU01 SB03	Substation No. 3	29-Mar-13	008866					X			X	X					
CC RVAAP-68	1-7 vertical ISM	240-22648-1	068SB-0057M-0001-SO	DU01 SB04	Substation No. 3	29-Mar-13	008866					X			X	X					
CC RVAAP-68	1-7 vertical ISM	240-22660-1	068SB-0057M-0001-SO	DU01 SB04	Substation No. 3	29-Mar-13	008870				X										
CC RVAAP-68	1-7 vertical ISM	240-22648-1	068SB-0059M-0001-SO	DU01 SB05	Substation No. 3	29-Mar-13	008866					X			X	X					
Field Quality Control - Trip Blanks																					
CC RVAAP-68	NA	240-17317-1	076SS-0027-0001-TB	TB-1	NA	7-Nov-12	048638				X		X								
CC RVAAP-68	NA	240-22663-1	068SB-0026-0001-TB	TB-2	NA	1-Apr-13	008878				X										
CC RVAAP-68	NA	QA Lab assigned	068SB-0058-0001-TB	QA TB	NA	1-Apr-13	A34421				X										
CC RVAAP-68	NA	240-22648-1	073SW-0057-0001-TB	TB-3	NA	29-Mar-13	008864				X										
2012 Sampling Event	NA	240-18735-1/-2	070-0060-0001-TB	QC TB-1	NA	12-Dec-12	50743				X										
2012 Sampling Event	NA	240-18735-1/-2	070SB-0055-0001-TB	QC TB-2	NA	12-Dec-12	50743						X								
2012 Sampling Event	NA	240-21987-1	079-0008-0001-TB	QC TB-5	NA	14-Mar-13	48788				X										
2013 Sampling Event	NA	240-21987-1	079-0009-0001-TB	QC TB-6	NA	14-Mar-13	48788						X								
2012 Sampling Event	NA	240-17796-1/-2	076-0068-0001-TB	QC TB-7	NA	15-Nov-12	48707				X										
2013 Sampling Event	NA	240-22804-1	079-0318-0001-TB	QC TB-10	NA	3-Apr-13	49555				X										

Table 1-2: Sampling Activities Summary (Continued)

Site No.	Depth (ft)	SDG	Sample ID	Decision Unit	Location	Date	COC No.	FD	MS/ MSD	FULL SUITE	VOC	SVOC	TPH GRO	TPH DRO	TAL Metals	PCB	Pesticides	Herbicides	Explosives	Hexavalent Chromium	Propellants
Field Quality Control - Source Water																					
All 2012-2013 Sampling Events	non-dedicated hand sampling tools	240-18735-1/-2	070-0057-0001-Source Water	Source Water (ECC bottled decontamination water)	SorW-1	12-Dec-12	50743				X	X	X	X	X	X	X	X	X		X
2013 Subsurface Sampling Event	Direct Push Tools	240-21987-1	079-0007-0001-Source Water	Source Water (Driller decontamination water)	SorW-3	14-Mar-13	48788				X	X	X	X	X	X	X	X	X	X	X
Field Quality Control -Equipment Rinsate																					
2012 RI Sampling Event	non-dedicated hand sampling tools during sampling event	240-17796-1/-2	076-0067-0001-ER	Equipment Rinsate Blank	ER-1	15-Nov-12	48707				X	X	X	X	X	X	X	X	X		X
2013 RI Sampling Event	non-dedicated hand sampling tools during sampling event	240-22804-1	079RN-0317-0001-RN	Equipment Rinsate Blank	ER-3	3-Apr-13	49555				X	X		X	X	X	X		X		X

Notes

ID = Identification
SB = Soil Boring
DSB = Deep Soil Boring
ISM = Incremental Sampling Methodology
GRO = Gasoline Range Organics
DRO = Diesel Range Organics
COC = Chain of Custody
TAL = Target Analyte List
No. = Number
PCB = Polychlorinated Biphenyls
FD = Field Duplicate
DU = Decision Unit
Dup = Duplicate
TPH = Total Petroleum Hydrocarbon
VOC = Volatile Organic Compound
SVOC = Semi-volatile Organic Compound
SDG = Sample Delivery Group
ft = feet
MS/MSD = Matrix Spike/Matrix Spike Duplicate
Propellants include nitroguanidine, nitrocellulose, and nitroglycerin.
Sed = Sediment
SW = Surface Water
QA = Quality Assurance
ER = Equipment Rinsate
RN = Rinsate
SorW= Source Water
QC = Quality Control
TB = Trip Blank
RI = Remedial Investigation
NA = Not Applicable

Table 1-3: Sample Preparation and Analytical Methods

Soil/Dry Sediment			
Analytical Group	**Analytical Method**	**Sample Preparation Method**	**Holding Time to Extraction/Holding Time to Analysis**
VOC[1]	SW8260B	SW5035	DI Water 48 hours to analysis or freezing MeOH or freezing/14 days
SVOC[2]	SW8270C	SW3540C	14 days/40 days
TAL Metals	Metals SW6020	SW3050B	180 days
	Mercury SW7471A	SW7471A	28 days
PCB	SW8082	SW3540C	14 days/40 days
Pesticides	SW8081	SW3540C	14 days/40 days
Explosives	SW8330B	SW8330B	14 days/40 days
Propellants[3]	Nitrocellulose EPA 353.2	EPA 353.2	28 days
	Nitroguanidine SW8330 Modified	SW8330	14 days/40 days
Surface Water/Aqueous			
Analytical Group	**Analytical Method**	**Sample Preparation Method**	**Holding Time to Extraction/Holding Time to Analysis**
VOC[1]	SW8260B	SW5030B	14 days
SVOC[2]	SW8270C	SW3510C	7 days/40 days
TPH-GRO	SW8015V Modified	SW5030B	14 days
TPH-DRO	SW8015D Modified	SW3520C	7 days/40 days
	SW8015C	SW3520C	7 days/40 days
TAL Metals	SW6020	SW3050b	180 days
	SW7470A	SW7470A	28 days
PCB	SW8081	SW3520C	7 days/40 days
Pesticides	SW8082	SW3520C	7 days/40 days
Herbicides	SW8151A	SW3510	7 days/40 days
Explosives	SW8330A	SW8330A	7 days/40 days
Propellants[3]	Nitroguanidine SW8330 Modified	SW8330	7 days/40 days
	Nitrocellulose E353.2	EPA 353.2	28 days
Hexavalent Chromium	SW7196A	SW7196A	48 hours

Notes:
All soil and dry sediment samples, except for VOCs, undergo incremental sample preparation by air drying, then passed through a rotary hammer mill, and sieve.
[1]Includes benzene, ethylbenzene, toluene, total xylenes, and methyl tertiary-butyl ether (MTBE)
[2]Includes polycyclic aromatic hydrocarbons
[3]Propellant nitroglycerin reported by explosives method (SW8330B)
EPA = Environmental Protection Agency
TAL = Target Analyte List
PCB = Polychlorinated Biphenyls
VOC = Volatile Organic Compound
SVOC = Semi-volatile Organic Compound
TPH = Total Petroleum Hydrocarbon
GRO = Gasoline Range Organics
DRO = Diesel Range Organics
DI = Deionized
MeOH = Methanol
SW = Solid Waste

This page left intentionally blank.

2.0 DATA QUALITY VERIFICATION RESULTS

Data verification is a systematic automated and manual review of all project data for compliance with the FWQAPP Section 10.2.1. This section provides highlights of significant data verification findings (i.e. rejected results, matrix issues), which are discussed in the applicable sections below and presented in the referenced tables. The reference tables are a summary of all reported data. The DVRWs provide specific details such as acceptance ranges, and spike values for automated parameters. The following parameters are evaluated during data verification:

- Holding time
- Blanks (method blank [MB], initial calibration blank [ICB], and/or continuing calibration blank [CCB])
- Serial Dilution
- Post Digestion Spike
- Internal Standards
- Laboratory control samples (LCS)
- Method Reporting Limit (MRL) check
- Calibration (initial calibration, continuing calibration verification [CCV], and initial calibration verification [ICV])
- Surrogates
- Matrix spike (MS)/matrix spike duplicates (MSD)
- Field duplicate results
- Laboratory case narrative
- Dual column relative percent difference (RPD)
- Sample re-analysis and secondary dilutions
- Trip Blanks (TB)
- Equipment Rinsate (ER) Blanks
- Source Water (SorW)

2.1 Data Verification Qualifier Definitions

The data verification qualifier flags and their definitions are presented below:

- U Undetected: The analyte was analyzed for, but not detected. Reported at Limit of Quantitation (LOQ).
- UJ The analyte was not detected with estimated reporting limit: The analyte was not detected; however, the reporting limit is estimated due to discrepancies in meeting certain analyte-specific QC criteria.

- J Estimated: The analyte was positively identified; the quantitation is an estimation due to discrepancies in meeting certain analyte-specific QC criteria. J is also used to report detections between the detection limit (DL) and the LOQ.
- R Rejected: The data are rejected due to deficiencies in meeting QC criteria and may not be used for decision making.
- N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification".
- NJ The analysis indicates the presence of an analyte that has been “tentatively identified” and the associated numerical value represents its approximate concentration.

The data reporting convention used will be consistent with past data reporting practices to ensure comparability. Non-detect data will be reported at the LOQ in this Appendix B and Appendix G. Within the analytical data packages, the laboratory reporting forms use the DoD QSM convention of reporting non-detect data at the limit of detection (LOD). The laboratory reporting forms also present the LOQ for the sample results.

2.2 Sample Receipt at the Laboratory

All sample custodial possession and transfer requirements were met for samples received at the three laboratories. No data required qualification based on sample condition. The sample coolers were received within the recommended temperature range of 4 ± 2 degrees Celsius (°C) or just below 2° C, but not frozen.

2.3 Holding Times

All extractions and analyses were performed within QAPP method-specific holding times.

2.4 Tuning and Calibration

All methods using a mass selective detector must be tuned in accordance with the standard operating procedures (SOP), and method calibrations must meet the DoD QSM criteria. All applicable method tunes and initial calibrations met method criteria. One SVOC, pentachlorophenol, in four samples and three pesticides (heptachlor, methoxychlor, and toxaphene) in two samples had ICV or CCV out of limits. See Table 2-1 for qualified data.

Table 2-1: Calibration: Initial and Continuing Calibration Verification

Sample Identification	Date Sampled	SDG	Lab Number	Parameter	Lab Result	Data Review Qualifier	Comments	Final Result
Pesticides (µg/kg)								
068SB-0046M-0001-SO	3/29/2013	240-22648-1	240-22648-43	Heptachlor	3.5	UJ	CCV	3.5 UJ
068SB-0046M-0001-SO	3/29/2013	240-22648-1	240-22648-43	Methoxychlor	5.1	UJ	CCV	5.1 UJ
068SB-0046M-0001-SO	3/29/2013	240-22648-1	240-22648-43	Toxaphene	68	UJ	ICV	68 UJ
068SB-0041M-0001-SO	3/29/2013	240-22648-1	240-22648-53	Heptachlor	3.5	UJ	CCV	3.5 UJ
068SB-0041M-0001-SO	3/29/2013	240-22648-1	240-22648-53	Methoxychlor	5.0	UJ	CCV	5.0 UJ
068SB-0041M-0001-SO	3/29/2013	240-22648-1	240-22648-53	Toxaphene	67	UJ	ICV	67 UJ
SVOC (µg/L)								
068SW-0013-0001-SW	11/8/2012	240-17477-1	240-17477-1	Pentachlorophenol	4.8	UJ	ICV	4.8 UJ
068SW-0014-0001-SW	11/8/2012	240-17477-1	240-17477-2	Pentachlorophenol	4.8	UJ	ICV	4.8 UJ
068SW-0015-0001-SW	11/8/2012	240-17477-1	240-17477-3	Pentachlorophenol	4.8	UJ	ICV	4.8 UJ
068SW-0016-0001-SW	11/8/2012	240-17477-1	240-17477-4	Pentachlorophenol	4.8	UJ	ICV	4.8 UJ

Notes:
SDG = Sample Delivery Group
µg/kg= Microgram per Kilogram
µg/L = Microgram per Liter
SVOC = Semi-volatile Organic Compound
UJ = Not Detected, with estimated reporting limit
CCV = Continuing Calibration Verification
ICV = Initial Calibration Verification

This page left intentionally blank.

2.5 Laboratory Method Blanks, Initial Calibration Blanks, Continuing Calibration Blanks

A laboratory MB is an analyte-free matrix that is carried through the entire sample preparation and analysis sequence for the purpose of identifying potential contamination introduced during preparation and analysis. Method blanks were analyzed for each sample batch for all analyses. ICB and CCB are analyzed for metals and nitrocellulose analyses to assess the potential for carry over in the analytical method. If a contaminant is detected below the LOQ and has a result less than 5 times the associated blank level, then the sample value will be U (undetected) flagged at the LOQ. If a contaminant is detected above the LOQ and has a result less than five times the associated blank level, then the sample value will be U flagged and the LOQ will be changed to that of the contaminant concentration in the sample.

All applicable laboratory blank detections resulting in qualified sample results are presented in Table 2-2. Select VOCs (methylene chloride and 2-hexanone), SVOCs (bis[2-ethylhexyl] phthalate and di-n-butylphthalate), and metals (antimony, mercury, cobalt, lead, thallium, and zinc) were qualified on the basis of the method blanks or CCBs.

This page left intentionally blank.

Table 2-2: Laboratory Method Blanks

Sample Identification	Date Sampled	SDG	Lab Number	Parameter	Lab Result	Data Review Qualifier	Comments	Final Result
Metals (mg/kg)								
068SB-0038M-0001-SO	3/29/2013	240-22648-1	240-22648-49	Antimony	0.044	UJ	MB	0.19 UJ
068SB-0040M-0001-SO	3/29/2013	240-22648-1	240-22648-52	Antimony	0.045	UJ	MB	0.19 UJ
068SB-0044M-0001-SO	3/29/2013	240-22648-1	240-22648-41	Antimony	0.046	UJ	MB	0.18 UJ
068SB-0051M-0001-SO	3/29/2013	240-22648-1	240-22648-56	Antimony	0.048	UJ	MB	0.19 UJ
068SB-0052M-0001-SO	3/29/2013	240-22648-1	240-22648-57	Antimony	0.049	UJ	MB	0.18 UJ
068SD-00010-0001-SO	11/8/2012	240-17422-1	240-17422-10	Mercury	0.078	U	MB	0.098 U
068SD-00011-0001-SO	11/8/2012	240-17422-1	240-17422-11	Mercury	0.088	U	MB	0.098 U
068SD-00012-0001-SO	11/8/2012	240-17422-1	240-17422-12	Mercury	0.063	U	MB	0.098 U
068SD-0009-0001-SO	11/8/2012	240-17422-1	240-17422-9	Mercury	0.079	U	MB	0.095 U
068SS-0003M-0001-SO	11/6/2012	240-17317-1	240-17317-7	Mercury	0.098	U	MB	0.098 U
068SS-0004M-0001-SO	11/6/2012	240-17317-1	240-17317-8	Mercury	0.048	U	MB	0.11 U
068SS-0005M-0001-SO	11/6/2012	240-17317-1	240-17317-14	Mercury	0.049	U	MB	0.10 U
068SS-0006M-0001-SO	11/6/2012	240-17317-1	240-17317-15	Mercury	0.059	U	MB	0.092 U
068SS-0007M-0001-SO	11/6/2012	240-17317-1	240-17317-16	Mercury	0.068	U	MB	0.095 U
068SS-0008M-0001-SO	11/6/2012	240-17317-1	240-17317-17	Mercury	0.088	U	MB	0.098 U
Metals (µg/L)								
068SW-0013-0001-SW	11/8/2012	240-17477-1	240-17477-1	Cobalt	0.29	U	CCB	1.0 U
068SW-0014-0001-SW	11/8/2012	240-17477-1	240-17477-2	Lead	0.31	U	CCB	1.0 U
068SW-0016-0001-SW	11/8/2012	240-17477-1	240-17477-4	Cobalt	0.31	U	CCB	1.0 U
068SW-0016-0001-SW	11/8/2012	240-17477-1	240-17477-4	Lead	0.59	U	CCB	1.0 U
068SW-0016-0001-SW	11/8/2012	240-17477-1	240-17477-4	Thallium	0.43	U	CCB	2.0 U
068SW-0016-0001-SW	11/8/2012	240-17477-1	240-17477-4	Zinc	12	U	MB	40 U

Table 2-2: Laboratory Method Blanks (Continued)

Sample Identification	Date Sampled	SDG	Lab Number	Parameter	Lab Result	Data Review Qualifier	Comments	Final Result
SVOC (µg/kg)								
068SB-0027M-0001-SO	3/29/2013	240-22663-1	240-22663-40	Di-n-Butyl Phthalate	27	U	MB	70 U
068SB-0030M-0001-SO	3/29/2013	240-22663-1	240-22663-43	Di-n-Butyl Phthalate	29	U	MB	71 U
068SB-0031M-0001-SO	3/29/2013	240-22663-1	240-22663-44	Di-n-Butyl Phthalate	110	U	MB	350 U
068SB-0032M-0001-SO	3/29/2013	240-22663-1	240-22663-39	Di-n-Butyl Phthalate	30	U	MB	81 U
068SB-0033M-0001-SO	3/29/2013	240-22648-1	240-22648-46	bis(2-Ethylhexyl) Phthalate	140	U	MB	140 U
068SB-0034M-0001-SO	3/29/2013	240-22648-1	240-22648-47	bis(2-Ethylhexyl) Phthalate	110	U	MB	110 U
068SB-0035M-0001-SO	3/29/2013	240-22648-1	240-22648-48	bis(2-Ethylhexyl) Phthalate	73	U	MB	73 U
068SB-0036M-0001-SO	3/29/2013	240-22648-1	240-22648-50	bis(2-Ethylhexyl) Phthalate	55	U	MB	70 U
068SB-0038M-0001-SO	3/29/2013	240-22648-1	240-22648-49	bis(2-Ethylhexyl) Phthalate	120	U	MB	120 U
068SB-0039M-0001-SO	3/29/2013	240-22648-1	240-22648-51	bis(2-Ethylhexyl) Phthalate	64	U	MB	69 U
068SB-0040M-0001-SO	3/29/2013	240-22648-1	240-22648-52	bis(2-Ethylhexyl) Phthalate	35	U	MB	71 U
068SB-0041M-0001-SO	3/29/2013	240-22648-1	240-22648-53	bis(2-Ethylhexyl) Phthalate	66	U	MB	70 U
068SB-0042M-0001-SO	3/29/2013	240-22648-1	240-22648-54	bis(2-Ethylhexyl) Phthalate	120	U	MB	120 U
068SB-0047M-0001-SO	3/29/2013	240-22648-1	240-22648-44	bis(2-Ethylhexyl) Phthalate	61	U	MB	70 U
068SB-0050M-0001-SO	3/29/2013	240-22648-1	240-22648-55	bis(2-Ethylhexyl) Phthalate	110	U	MB	110 U
068SB-0051M-0001-SO	3/29/2013	240-22648-1	240-22648-56	bis(2-Ethylhexyl) Phthalate	84	U	MB	84 U
068SB-0052M-0001-SO	3/29/2013	240-22648-1	240-22648-57	bis(2-Ethylhexyl) Phthalate	91	U	MB	91 U
068SB-0053M-0001-SO	3/29/2013	240-22648-1	240-22648-58	bis(2-Ethylhexyl) Phthalate	74	U	MB	74 U
068SB-0054M-0001-SO	3/29/2013	240-22648-1	240-22648-59	bis(2-Ethylhexyl) Phthalate	46	U	MB	70 U
068SB-0056M-0001-SO	3/29/2013	240-22648-1	240-22648-60	bis(2-Ethylhexyl) Phthalate	90	U	MB	90 U
068SB-0057M-0001-SO	3/29/2013	240-22648-1	240-22648-61	bis(2-Ethylhexyl) Phthalate	80	U	MB	80 U

Table 2-2: Laboratory Method Blanks (Continued)

Sample Identification	Date Sampled	SDG	Lab Number	Parameter	Lab Result	Data Review Qualifier	Comments	Final Result
SVOC (µg/kg)								
068SB-0059M-0001-SO	3/29/2013	240-22648-1	240-22648-62	bis(2-Ethylhexyl) Phthalate	120	U	MB	120 U
068SD-00010-0001-SO	11/8/2012	240-17422-1	240-17422-10	bis(2-Ethylhexyl) Phthalate	48	U	MB	50 U
068SD-00011-0001-SO	11/8/2012	240-17422-1	240-17422-11	bis(2-Ethylhexyl) Phthalate	35	U	MB	51 U
068SD-00012-0001-SO	11/8/2012	240-17422-1	240-17422-12	bis(2-Ethylhexyl) Phthalate	35	U	MB	50 U
068SD-0009-0001-SO	11/8/2012	240-17422-1	240-17422-9	bis(2-Ethylhexyl) Phthalate	38	U	MB	49 U
068SS-0001M-0001-SO	11/6/2012	240-17422-1	240-17317-5	bis(2-Ethylhexyl) Phthalate	47	U	MB	50 U
068SS-0003M-0001-SO	11/6/2012	240-17317-1	240-17317-7	bis(2-Ethylhexyl) Phthalate	34	U	MB	50 U
VOC (µg/kg)								
068SB-0041M-0001-SO	3/29/2013	240-22648-1	240-22648-53	Methylene Chloride	1.8	UJ	MB	4.8 UJ
068SB-0046M-0001-SO	3/29/2013	240-22648-1	240-22648-43	Methylene Chloride	1.7	UJ	MB	5.7 UJ
068SB-0057M-0001-SO	3/29/2013	240-22660-1	240-22660-30	Methylene Chloride	1.6	UJ	MB	5.1 UJ
068SS-0004M-0001-SO	11/6/2012	240-17317-1	240-17317-8	2-Hexanone	0.66	U	MB	15 U

Notes:
SDG = Sample Delivery Group
U = Undetected
UJ = Not Detected, with estimated reporting limit
SVOC = Semi-volatile Organic Compound
VOC = Volatile Organic Compound
mg/kg = Milligrams per Kilogram
µg/L = Micrograms per Liter
µg/kg = Micrograms per Kilogram
CCB = Continuing Calibration Blank
MB = Method Blank

This page left intentionally blank.

2.6 Field Blank Quality Control – Trip Blanks, Equipment Rinsate Blanks, and Source Water

A trip blank is an analyte-free matrix that accompanies samples through the sample collection and transportation process to identify potential VOC cross-contamination during storage and shipment. A total of 4 trip blanks were sent with site primary samples and analyzed as part of the QC program. Concentrations of acetone, chloroform, and methylene chloride were detected within trip blank samples. However, no concentrations of these contaminants were detected in associated field samples. See Attachment A for trip blank data and equipment rinsate blank data.

Source water sample data are used determine the pre-existing levels of chemicals in decontamination fluids. For the sampling at this site, two source water samples were collected, see Table 1-2. Source water sample SorW-1 was collected from water used to decontaminate hand held tools. Source water sample SorW-3 was collected from drillers water used to decontaminate direct push sampling tools used in 2013. See Attachment B for source water data.

Source water is used as the final rinsate during equipment decontamination, and a sample of this water was submitted as the equipment rinsate sample. The equipment rinsate results are evaluated to determine the effectiveness of equipment decontamination. As the source water was tested, the pre-existing levels of chemicals in the equipment rinsate are known, and these are not further evaluated when assessing the equipment rinsate results. Equipment rinsate samples ER-1 and ER-3 are associated with the source water samples listed above.

SorW-1 has detections of several metals, barium, calcium, copper, magnesium, and sodium. SorW-1 also has several VOC detections including 2-butanone, acetone, toluene, bromodichloromethane, chloroform, and dibromochloromethane, and a TPH-GRO detection. SorW-3 has detection of several metals; arsenic, chromium, cobalt, and thallium, copper, calcium, barium, iron, magnesium, manganese, potassium, sodium, and zinc. SorW-3 also had a trace level TPH-GRO detection. Source water sample, SorW-3, had organic detections for bis(2-ethylhexyl)phthalate, dalapon, and nitroguanidine, which were qualified as non-detect during data verification.

Quality control TBs were collected along with the source water and rinsate blank samples. The trip blank QC TB-1, associated with source water sample SorW-1, had a trace-level chloroform detection, and QC TB-2 had a TPH-GRO detection. The trip blank QC TB-6, associated with source water sample SorW-3, had a TPH-GRO detection.

Comparison of the source water sample SorW-1 results to the equipment rinsate results for ER-3 shows similar chemicals except for copper and nickel detections, which may be from the stainless steel sampling tools. Soil samples for metals are reported in the part per million range,

so these low-level equipment rinsate results show that sampling tools were properly decontaminated and that there was no apparent cross-contamination between metal soil samples. The only organic detected in ER-3 was chloroform. The trip blank associated with ER-3 was non-detect for chloroform. The equipment rinsate result had aqueous detects for trace part per billion levels for several metals and chloroform. Chloroform was not detected in the soil samples. The equipment rinsate results show that sampling tools were properly decontaminated and that there was no apparent cross-contamination between soil samples.

2.7 Surrogates

Surrogates are compounds not normally found in the environment that are added (spiked) into samples prior to extraction (for extractable methods) or prior to analysis (for non-extractable methods). The percent recovery (% REC) of each surrogate is used to assess the success of the sample preparation process for an individual sample. All applicable surrogates were within QAPP limits with the exception of low surrogate recoveries in four VOC samples. See Table 2-3 for qualified data.

2.8 Laboratory Control Samples and/or Laboratory Control Sample Duplicates

A LCS consists of a matrix, similar to that of the field sample, which is spiked with known concentrations of analytes. The LCS % REC is a measure of the accuracy of the preparation and analytical methods. The laboratory control sample duplicate (LCSD), if analyzed, is a duplicate preparation and analysis of the LCS. The differences between the LCS and LCSD recoveries are used to calculate the RPD, which is a measure of the precision of the preparation and analytical methods. LCS samples were analyzed for each sample batch for all analyses. All applicable LCS recoveries were within QAPP limits with the exceptions of benzoic acid, qualified as rejected in eight surficial soil, four sediment, and 16 soil boring samples, because the LCS recovery was less than 10%. See Table 2-4 sample results rejected due to LCS recoveries.

Table 2-3: Surrogate Recoveries

Sample Identification	Date Sampled	SDG	Lab Number	Parameter	Lab Result	Data Review Qualifier	Comments	Final Result
VOC (µg/kg)								
068SB-0046M-0001-SO	3/29/2013	240-22648-1	240-22648-43	1,1,1-Trichloroethane	5.7	UJ	Surrogate recovery - low	5.7 UJ
068SB-0046M-0001-SO	3/29/2013	240-22648-1	240-22648-43	1,1,2,2-Tetrachloroethane	5.7	UJ	Surrogate recovery - low	5.7 UJ
068SB-0046M-0001-SO	3/29/2013	240-22648-1	240-22648-43	1,1,2-Trichloroethane	5.7	UJ	Surrogate recovery - low	5.7 UJ
068SB-0046M-0001-SO	3/29/2013	240-22648-1	240-22648-43	1,1-Dichloroethane	5.7	UJ	Surrogate recovery - low	5.7 UJ
068SB-0046M-0001-SO	3/29/2013	240-22648-1	240-22648-43	1,1-Dichloroethene	5.7	UJ	Surrogate recovery - low	5.7 UJ
068SB-0046M-0001-SO	3/29/2013	240-22648-1	240-22648-43	1,2-Dibromoethane	5.7	UJ	Surrogate recovery - low	5.7 UJ
068SB-0046M-0001-SO	3/29/2013	240-22648-1	240-22648-43	1,2-Dichloroethane	5.7	UJ	Surrogate recovery - low	5.7 UJ
068SB-0046M-0001-SO	3/29/2013	240-22648-1	240-22648-43	1,2-Dichloroethene	11	UJ	Surrogate recovery - low	11 UJ
068SB-0046M-0001-SO	3/29/2013	240-22648-1	240-22648-43	1,2-Dichloropropane	5.7	UJ	Surrogate recovery - low	5.7 UJ
068SB-0046M-0001-SO	3/29/2013	240-22648-1	240-22648-43	2-Butanone	23	UJ	Surrogate recovery - low	23 UJ
068SB-0046M-0001-SO	3/29/2013	240-22648-1	240-22648-43	2-Hexanone	23	UJ	Surrogate recovery - low	23 UJ
068SB-0046M-0001-SO	3/29/2013	240-22648-1	240-22648-43	4-Methyl-2-pentanone	23	UJ	Surrogate recovery - low	23 UJ
068SB-0046M-0001-SO	3/29/2013	240-22648-1	240-22648-43	Acetone	23	UJ	Surrogate recovery - low	23 UJ
068SB-0046M-0001-SO	3/29/2013	240-22648-1	240-22648-43	Benzene	5.7	UJ	Surrogate recovery - low	5.7 UJ
068SB-0046M-0001-SO	3/29/2013	240-22648-1	240-22648-43	Bromochloromethane	5.7	UJ	Surrogate recovery - low	5.7 UJ
068SB-0046M-0001-SO	3/29/2013	240-22648-1	240-22648-43	Bromodichloromethane	5.7	UJ	Surrogate recovery - low	5.7 UJ
068SB-0046M-0001-SO	3/29/2013	240-22648-1	240-22648-43	Bromoform	5.7	UJ	Surrogate recovery - low	5.7 UJ
068SB-0046M-0001-SO	3/29/2013	240-22648-1	240-22648-43	Bromomethane	5.7	UJ	Surrogate recovery - low	5.7 UJ
068SB-0046M-0001-SO	3/29/2013	240-22648-1	240-22648-43	Carbon Disulfide	5.7	UJ	Surrogate recovery - low	5.7 UJ
068SB-0046M-0001-SO	3/29/2013	240-22648-1	240-22648-43	Carbon Tetrachloride	5.7	UJ	Surrogate recovery - low	5.7 UJ
068SB-0046M-0001-SO	3/29/2013	240-22648-1	240-22648-43	Chlorobenzene	5.7	UJ	Surrogate recovery - low	5.7 UJ

Table 2-3: Surrogate Recoveries (Continued)

Sample Identification	Date Sampled	SDG	Lab Number	Parameter	Lab Result	Data Review Qualifier	Comments	Final Result
VOC (µg/kg)								
068SB-0046M-0001-SO	3/29/2013	240-22648-1	240-22648-43	Chloroethane	5.7	UJ	Surrogate recovery - low	5.7 UJ
068SB-0046M-0001-SO	3/29/2013	240-22648-1	240-22648-43	Chloroform	5.7	UJ	Surrogate recovery - low	5.7 UJ
068SB-0046M-0001-SO	3/29/2013	240-22648-1	240-22648-43	Chloromethane	5.7	UJ	Surrogate recovery - low	5.7 UJ
068SB-0046M-0001-SO	3/29/2013	240-22648-1	240-22648-43	cis-1,3-Dichloropropene	5.7	UJ	Surrogate recovery - low	5.7 UJ
068SB-0046M-0001-SO	3/29/2013	240-22648-1	240-22648-43	Dibromochloromethane	5.7	UJ	Surrogate recovery - low	5.7 UJ
068SB-0046M-0001-SO	3/29/2013	240-22648-1	240-22648-43	Ethylbenzene	5.7	UJ	Surrogate recovery - low	5.7 UJ
068SB-0046M-0001-SO	3/29/2013	240-22648-1	240-22648-43	Methylene Chloride	5.7	UJ	Surrogate recovery - low	5.7 UJ
068SB-0046M-0001-SO	3/29/2013	240-22648-1	240-22648-43	Styrene	5.7	UJ	Surrogate recovery - low	5.7 UJ
068SB-0046M-0001-SO	3/29/2013	240-22648-1	240-22648-43	Tetrachloroethene (PCE)	5.7	UJ	Surrogate recovery - low	5.7 UJ
068SB-0046M-0001-SO	3/29/2013	240-22648-1	240-22648-43	Toluene	5.7	UJ	Surrogate recovery - low	5.7 UJ
068SB-0046M-0001-SO	3/29/2013	240-22648-1	240-22648-43	trans-1,3-Dichloropropene	5.7	UJ	Surrogate recovery - low	5.7 UJ
068SB-0046M-0001-SO	3/29/2013	240-22648-1	240-22648-43	Trichloroethene	5.7	UJ	Surrogate recovery - low	5.7 UJ
068SB-0046M-0001-SO	3/29/2013	240-22648-1	240-22648-43	Vinyl Chloride	5.7	UJ	Surrogate recovery - low	5.7 UJ
068SB-0046M-0001-SO	3/29/2013	240-22648-1	240-22648-43	Xylenes, Total	11	UJ	Surrogate recovery - low	11 UJ
068SB-0041M-0001-SO	3/29/2013	240-22648-1	240-22648-53	1,1,1-Trichloroethane	4.8	UJ	Surrogate recovery - low	4.8 UJ
068SB-0041M-0001-SO	3/29/2013	240-22648-1	240-22648-53	1,1,2,2-Tetrachloroethane	4.8	UJ	Surrogate recovery - low	4.8 UJ
068SB-0041M-0001-SO	3/29/2013	240-22648-1	240-22648-53	1,1,2-Trichloroethane	4.8	UJ	Surrogate recovery - low	4.8 UJ
068SB-0041M-0001-SO	3/29/2013	240-22648-1	240-22648-53	1,1-Dichloroethane	4.8	UJ	Surrogate recovery - low	4.8 UJ
068SB-0041M-0001-SO	3/29/2013	240-22648-1	240-22648-53	1,1-Dichloroethene	4.8	UJ	Surrogate recovery - low	4.8 UJ
068SB-0041M-0001-SO	3/29/2013	240-22648-1	240-22648-53	1,2-Dibromoethane (EDB)	4.8	UJ	Surrogate recovery - low	4.8 UJ
068SB-0041M-0001-SO	3/29/2013	240-22648-1	240-22648-53	1,2-Dichloroethane	4.8	UJ	Surrogate recovery - low	4.8 UJ

Table 2-3: Surrogate Recoveries (Continued)

Sample Identification	Date Sampled	SDG	Lab Number	Parameter	Lab Result	Data Review Qualifier	Comments	Final Result
VOC (µg/kg)								
068SB-0041M-0001-SO	3/29/2013	240-22648-1	240-22648-53	1,2-Dichloroethene	9.5	UJ	Surrogate recovery - low	9.5 UJ
068SB-0041M-0001-SO	3/29/2013	240-22648-1	240-22648-53	1,2-Dichloropropane	4.8	UJ	Surrogate recovery - low	4.8 UJ
068SB-0041M-0001-SO	3/29/2013	240-22648-1	240-22648-53	2-Butanone	19	UJ	Surrogate recovery - low	19 UJ
068SB-0041M-0001-SO	3/29/2013	240-22648-1	240-22648-53	2-Hexanone	19	UJ	Surrogate recovery - low	19 UJ
068SB-0041M-0001-SO	3/29/2013	240-22648-1	240-22648-53	4-Methyl-2-pentanone	19	UJ	Surrogate recovery - low	19 UJ
068SB-0041M-0001-SO	3/29/2013	240-22648-1	240-22648-53	Acetone	19	UJ	Surrogate recovery - low	19 UJ
068SB-0041M-0001-SO	3/29/2013	240-22648-1	240-22648-53	Benzene	4.8	UJ	Surrogate recovery - low	4.8 UJ
068SB-0041M-0001-SO	3/29/2013	240-22648-1	240-22648-53	Bromochloromethane	4.8	UJ	Surrogate recovery - low	4.8 UJ
068SB-0041M-0001-SO	3/29/2013	240-22648-1	240-22648-53	Bromodichloromethane	4.8	UJ	Surrogate recovery - low	4.8 UJ
068SB-0041M-0001-SO	3/29/2013	240-22648-1	240-22648-53	Bromoform	4.8	UJ	Surrogate recovery - low	4.8 UJ
068SB-0041M-0001-SO	3/29/2013	240-22648-1	240-22648-53	Bromomethane	4.8	UJ	Surrogate recovery - low	4.8 UJ
068SB-0041M-0001-SO	3/29/2013	240-22648-1	240-22648-53	Carbon Disulfide	3.1	J	Surrogate recovery - low	3.1 J
068SB-0041M-0001-SO	3/29/2013	240-22648-1	240-22648-53	Carbon Tetrachloride	4.8	UJ	Surrogate recovery - low	4.8 UJ
068SB-0041M-0001-SO	3/29/2013	240-22648-1	240-22648-53	Chlorobenzene	4.8	UJ	Surrogate recovery - low	4.8 UJ
068SB-0041M-0001-SO	3/29/2013	240-22648-1	240-22648-53	Chloroethane	4.8	UJ	Surrogate recovery - low	4.8 UJ
068SB-0041M-0001-SO	3/29/2013	240-22648-1	240-22648-53	Chloroform	4.8	UJ	Surrogate recovery - low	4.8 UJ
068SB-0041M-0001-SO	3/29/2013	240-22648-1	240-22648-53	Chloromethane	4.8	UJ	Surrogate recovery - low	4.8 UJ
068SB-0041M-0001-SO	3/29/2013	240-22648-1	240-22648-53	cis-1,3-Dichloropropene	4.8	UJ	Surrogate recovery - low	4.8 UJ
068SB-0041M-0001-SO	3/29/2013	240-22648-1	240-22648-53	Dibromochloromethane	4.8	UJ	Surrogate recovery - low	4.8 UJ
068SB-0041M-0001-SO	3/29/2013	240-22648-1	240-22648-53	Ethylbenzene	4.8	UJ	Surrogate recovery - low	4.8 UJ
068SB-0041M-0001-SO	3/29/2013	240-22648-1	240-22648-53	Methylene Chloride	4.8	UJ	Surrogate recovery - low	4.8 UJ

Table 2-3: Surrogate Recoveries (Continued)

Sample Identification	Date Sampled	SDG	Lab Number	Parameter	Lab Result	Data Review Qualifier	Comments	Final Result
VOC (µg/kg)								
068SB-0041M-0001-SO	3/29/2013	240-22648-1	240-22648-53	Styrene	4.8	UJ	Surrogate recovery - low	4.8 UJ
068SB-0041M-0001-SO	3/29/2013	240-22648-1	240-22648-53	Tetrachloroethene	4.8	UJ	Surrogate recovery - low	4.8 UJ
068SB-0041M-0001-SO	3/29/2013	240-22648-1	240-22648-53	Toluene	4.8	UJ	Surrogate recovery - low	4.8 UJ
068SB-0041M-0001-SO	3/29/2013	240-22648-1	240-22648-53	trans-1,3-Dichloropropene	4.8	UJ	Surrogate recovery - low	4.8 UJ
068SB-0041M-0001-SO	3/29/2013	240-22648-1	240-22648-53	Trichloroethene	4.8	UJ	Surrogate recovery - low	4.8 UJ
068SB-0041M-0001-SO	3/29/2013	240-22648-1	240-22648-53	Vinyl Chloride	4.8	UJ	Surrogate recovery - low	4.8 UJ
068SB-0041M-0001-SO	3/29/2013	240-22648-1	240-22648-53	Xylenes, Total	9.5	UJ	Surrogate recovery - low	9.5 UJ
068SB-0057M-0001-SO	3/29/2013	240-22660-1	240-22660-30	1,1,1-Trichloroethane	5.1	UJ	Surrogate recovery - low	5.1 UJ
068SB-0057M-0001-SO	3/29/2013	240-22660-1	240-22660-30	1,1,2,2-Tetrachloroethane	5.1	UJ	Surrogate recovery - low	5.1 UJ
068SB-0057M-0001-SO	3/29/2013	240-22660-1	240-22660-30	1,1,2-Trichloroethane	5.1	UJ	Surrogate recovery - low	5.1 UJ
068SB-0057M-0001-SO	3/29/2013	240-22660-1	240-22660-30	1,1-Dichloroethane	5.1	UJ	Surrogate recovery - low	5.1 UJ
068SB-0057M-0001-SO	3/29/2013	240-22660-1	240-22660-30	1,1-Dichloroethene	5.1	UJ	Surrogate recovery - low	5.1 UJ
068SB-0057M-0001-SO	3/29/2013	240-22660-1	240-22660-30	1,2-Dibromoethane	5.1	UJ	Surrogate recovery - low	5.1 UJ
068SB-0057M-0001-SO	3/29/2013	240-22660-1	240-22660-30	1,2-Dichloroethane	5.1	UJ	Surrogate recovery - low	5.1 UJ
068SB-0057M-0001-SO	3/29/2013	240-22660-1	240-22660-30	1,2-Dichloroethene	10	UJ	Surrogate recovery - low	10 UJ
068SB-0057M-0001-SO	3/29/2013	240-22660-1	240-22660-30	1,2-Dichloropropane	5.1	UJ	Surrogate recovery - low	5.1 UJ
068SB-0057M-0001-SO	3/29/2013	240-22660-1	240-22660-30	2-Butanone	21	UJ	Surrogate recovery - low	21 UJ
068SB-0057M-0001-SO	3/29/2013	240-22660-1	240-22660-30	2-Hexanone	21	UJ	Surrogate recovery - low	21 UJ
068SB-0057M-0001-SO	3/29/2013	240-22660-1	240-22660-30	4-Methyl-2-pentanone	21	UJ	Surrogate recovery - low	21 UJ
068SB-0057M-0001-SO	3/29/2013	240-22660-1	240-22660-30	Acetone	21	UJ	Surrogate recovery - low	21 UJ
068SB-0057M-0001-SO	3/29/2013	240-22660-1	240-22660-30	Benzene	5.1	UJ	Surrogate recovery - low	5.1 UJ

Table 2-3: Surrogate Recoveries (Continued)

Sample Identification	Date Sampled	SDG	Lab Number	Parameter	Lab Result	Data Review Qualifier	Comments	Final Result
VOC (µg/kg)								
068SB-0057M-0001-SO	3/29/2013	240-22660-1	240-22660-30	Bromochloromethane	5.1	UJ	Surrogate recovery - low	5.1 UJ
068SB-0057M-0001-SO	3/29/2013	240-22660-1	240-22660-30	Bromodichloromethane	5.1	UJ	Surrogate recovery - low	5.1 UJ
068SB-0057M-0001-SO	3/29/2013	240-22660-1	240-22660-30	Bromoform	5.1	UJ	Surrogate recovery - low	5.1 UJ
068SB-0057M-0001-SO	3/29/2013	240-22660-1	240-22660-30	Bromomethane	5.1	UJ	Surrogate recovery - low	5.1 UJ
068SB-0057M-0001-SO	3/29/2013	240-22660-1	240-22660-30	Carbon Disulfide	5.1	UJ	Surrogate recovery - low	5.1 UJ
068SB-0057M-0001-SO	3/29/2013	240-22660-1	240-22660-30	Carbon Tetrachloride	5.1	UJ	Surrogate recovery - low	5.1 UJ
068SB-0057M-0001-SO	3/29/2013	240-22660-1	240-22660-30	Chlorobenzene	5.1	UJ	Surrogate recovery - low	5.1 UJ
068SB-0057M-0001-SO	3/29/2013	240-22660-1	240-22660-30	Chloroethane	5.1	UJ	Surrogate recovery - low	5.1 UJ
068SB-0057M-0001-SO	3/29/2013	240-22660-1	240-22660-30	Chloroform	5.1	UJ	Surrogate recovery - low	5.1 UJ
068SB-0057M-0001-SO	3/29/2013	240-22660-1	240-22660-30	Chloromethane	5.1	UJ	Surrogate recovery - low	5.1 UJ
068SB-0057M-0001-SO	3/29/2013	240-22660-1	240-22660-30	cis-1,3-Dichloropropene	5.1	UJ	Surrogate recovery - low	5.1 UJ
068SB-0057M-0001-SO	3/29/2013	240-22660-1	240-22660-30	Dibromochloromethane	5.1	UJ	Surrogate recovery - low	5.1 UJ
068SB-0057M-0001-SO	3/29/2013	240-22660-1	240-22660-30	Ethylbenzene	5.1	UJ	Surrogate recovery - low	5.1 UJ
068SB-0057M-0001-SO	3/29/2013	240-22660-1	240-22660-30	Methylene Chloride	5.1	UJ	Surrogate recovery - low	5.1 UJ
068SB-0057M-0001-SO	3/29/2013	240-22660-1	240-22660-30	Styrene	5.1	UJ	Surrogate recovery - low	5.1 UJ
068SB-0057M-0001-SO	3/29/2013	240-22660-1	240-22660-30	Tetrachloroethene	5.1	UJ	Surrogate recovery - low	5.1 UJ
068SB-0057M-0001-SO	3/29/2013	240-22660-1	240-22660-30	Toluene	5.1	UJ	Surrogate recovery - low	5.1 UJ
068SB-0057M-0001-SO	3/29/2013	240-22660-1	240-22660-30	trans-1,3-Dichloropropene	5.1	UJ	Surrogate recovery - low	5.1 UJ
068SB-0057M-0001-SO	3/29/2013	240-22660-1	240-22660-30	Trichloroethene	5.1	UJ	Surrogate recovery - low	5.1 UJ
068SB-0057M-0001-SO	3/29/2013	240-22660-1	240-22660-30	Vinyl Chloride	5.1	UJ	Surrogate recovery - low	5.1 UJ
068SB-0057M-0001-SO	3/29/2013	240-22660-1	240-22660-30	Xylenes, Total	10	UJ	Surrogate recovery - low	10 UJ

Table 2-3: Surrogate Recoveries (Continued)

Sample Identification	Date Sampled	SDG	Lab Number	Parameter	Lab Result	Data Review Qualifier	Comments	Final Result
VOC (µg/kg)								
068SB-0060M-0001-SO	4/4/2013	240-22852-1	240-22852-1	1,1,1-Trichloroethane	4.6	UJ	Surrogate recovery - low	4.6 UJ
068SB-0060M-0001-SO	4/4/2013	240-22852-1	240-22852-1	1,1,2,2-Tetrachloroethane	4.6	UJ	Surrogate recovery - low	4.6 UJ
068SB-0060M-0001-SO	4/4/2013	240-22852-1	240-22852-1	1,1,2-Trichloroethane	4.6	UJ	Surrogate recovery - low	4.6 UJ
068SB-0060M-0001-SO	4/4/2013	240-22852-1	240-22852-1	1,1-Dichloroethane	4.6	UJ	Surrogate recovery - low	4.6 UJ
068SB-0060M-0001-SO	4/4/2013	240-22852-1	240-22852-1	1,1-Dichloroethene	4.6	UJ	Surrogate recovery - low	4.6 UJ
068SB-0060M-0001-SO	4/4/2013	240-22852-1	240-22852-1	1,2-Dibromoethane	4.6	UJ	Surrogate recovery - low	4.6 UJ
068SB-0060M-0001-SO	4/4/2013	240-22852-1	240-22852-1	1,2-Dichloroethane	4.6	UJ	Surrogate recovery - low	4.6 UJ
068SB-0060M-0001-SO	4/4/2013	240-22852-1	240-22852-1	1,2-Dichloroethene	9.2	UJ	Surrogate recovery - low	9.2 UJ
068SB-0060M-0001-SO	4/4/2013	240-22852-1	240-22852-1	1,2-Dichloropropane	4.6	UJ	Surrogate recovery - low	4.6 UJ
068SB-0060M-0001-SO	4/4/2013	240-22852-1	240-22852-1	2-Butanone	18	UJ	Surrogate recovery - low	18 UJ
068SB-0060M-0001-SO	4/4/2013	240-22852-1	240-22852-1	2-Hexanone	18	UJ	Surrogate recovery - low	18 UJ
068SB-0060M-0001-SO	4/4/2013	240-22852-1	240-22852-1	4-Methyl-2-pentanone	18	UJ	Surrogate recovery - low	18 UJ
068SB-0060M-0001-SO	4/4/2013	240-22852-1	240-22852-1	Acetone	18	UJ	Surrogate recovery - low	18 UJ
068SB-0060M-0001-SO	4/4/2013	240-22852-1	240-22852-1	Benzene	4.6	UJ	Surrogate recovery - low	4.6 UJ
068SB-0060M-0001-SO	4/4/2013	240-22852-1	240-22852-1	Bromochloromethane	4.6	UJ	Surrogate recovery - low	4.6 UJ
068SB-0060M-0001-SO	4/4/2013	240-22852-1	240-22852-1	Bromodichloromethane	4.6	UJ	Surrogate recovery - low	4.6 UJ
068SB-0060M-0001-SO	4/4/2013	240-22852-1	240-22852-1	Bromoform	4.6	UJ	Surrogate recovery - low	4.6 UJ
068SB-0060M-0001-SO	4/4/2013	240-22852-1	240-22852-1	Bromomethane	4.6	UJ	Surrogate recovery - low	4.6 UJ
068SB-0060M-0001-SO	4/4/2013	240-22852-1	240-22852-1	Carbon Disulfide	4.6	UJ	Surrogate recovery - low	4.6 UJ
068SB-0060M-0001-SO	4/4/2013	240-22852-1	240-22852-1	Carbon Tetrachloride	4.6	UJ	Surrogate recovery - low	4.6 UJ
068SB-0060M-0001-SO	4/4/2013	240-22852-1	240-22852-1	Chlorobenzene	4.6	UJ	Surrogate recovery - low	4.6 UJ

Table 2-3: Surrogate Recoveries (Continued)

Sample Identification	Date Sampled	SDG	Lab Number	Parameter	Lab Result	Data Review Qualifier	Comments	Final Result
VOC (µg/kg)								
068SB-0060M-0001-SO	4/4/2013	240-22852-1	240-22852-1	Chloroethane	4.6	UJ	Surrogate recovery - low	4.6 UJ
068SB-0060M-0001-SO	4/4/2013	240-22852-1	240-22852-1	Chloroform	4.6	UJ	Surrogate recovery - low	4.6 UJ
068SB-0060M-0001-SO	4/4/2013	240-22852-1	240-22852-1	Chloromethane	4.6	UJ	Surrogate recovery - low	4.6 UJ
068SB-0060M-0001-SO	4/4/2013	240-22852-1	240-22852-1	cis-1,3-Dichloropropene	4.6	UJ	Surrogate recovery - low	4.6 UJ
068SB-0060M-0001-SO	4/4/2013	240-22852-1	240-22852-1	Dibromochloromethane	4.6	UJ	Surrogate recovery - low	4.6 UJ
068SB-0060M-0001-SO	4/4/2013	240-22852-1	240-22852-1	Ethylbenzene	4.6	UJ	Surrogate recovery - low	4.6 UJ
068SB-0060M-0001-SO	4/4/2013	240-22852-1	240-22852-1	Methylene Chloride	4.6	UJ	Surrogate recovery - low	4.6 UJ
068SB-0060M-0001-SO	4/4/2013	240-22852-1	240-22852-1	Styrene	4.6	UJ	Surrogate recovery - low	4.6 UJ
068SB-0060M-0001-SO	4/4/2013	240-22852-1	240-22852-1	Methyl tertiary Butyl Ether	4.6	UJ	Surrogate recovery - low	4.6 UJ
068SB-0060M-0001-SO	4/4/2013	240-22852-1	240-22852-1	Tetrachloroethene	4.6	UJ	Surrogate recovery - low	4.6 UJ
068SB-0060M-0001-SO	4/4/2013	240-22852-1	240-22852-1	Toluene	4.6	UJ	Surrogate recovery - low	4.6 UJ
068SB-0060M-0001-SO	4/4/2013	240-22852-1	240-22852-1	trans-1,3-Dichloropropene	4.6	UJ	Surrogate recovery - low	4.6 UJ
068SB-0060M-0001-SO	4/4/2013	240-22852-1	240-22852-1	Trichloroethene	4.6	UJ	Surrogate recovery - low	4.6 UJ
068SB-0060M-0001-SO	4/4/2013	240-22852-1	240-22852-1	Vinyl Chloride	4.6	UJ	Surrogate recovery - low	4.6 UJ
068SB-0060M-0001-SO	4/4/2013	240-22852-1	240-22852-1	Xylenes, Total	9.2	UJ	Surrogate recovery - low	9.2 UJ

Notes:
SDG = Sample Delivery Group
VOC = Volatile Organic Compound
µg/kg = Micrograms per Kilogram
UJ = Not Detected, with estimated reporting limit
J = Estimated

This page left intentionally blank.

Table 2-4: Laboratory Control Sample/Laboratory Control Sample Duplicate Recoveries

Sample Identification	Date Sampled	SDG	Lab Number	Parameter	Lab Result	Data Review Qualifier	Comments	Final Result
SVOC (µg/kg)								
068SS-0005M-0001-SO	11/6/2012	240-17317-1	240-17317-14	Benzoic acid	660	R	LCS <10%	660 R
068SS-0006M-0001-SO	11/6/2012	240-17317-1	240-17317-15	Benzoic acid	650	R	LCS <10%	650 R
068SS-0007M-0001-SO	11/6/2012	240-17317-1	240-17317-16	Benzoic acid	650	R	LCS <10%	650 R
068SS-0008M-0001-SO	11/6/2012	240-17317-1	240-17317-17	Benzoic acid	660	R	LCS <10%	660 R
068SS-0001M-0001-SO	11/6/2012	240-17317-1	240-17317-5	Benzoic acid	660	R	LCS <10%	660 R
068SS-0002M-0001-SO	11/6/2012	240-17317-1	240-17317-6	Benzoic acid	650	R	LCS <10%	650 R
068SS-0003M-0001-SO	11/6/2012	240-17317-1	240-17317-7	Benzoic acid	660	R	LCS <10%	660 R
068SS-0004M-0001-SO	11/6/2012	240-17317-1	240-17317-8	Benzoic acid	3300	R	LCS <10%	3300 R
068SD-00010-0001-SO	11/8/2012	240-17422-1	240-17422-10	Benzoic acid	660	R	LCS <10%	660 R
068SD-00011-0001-SO	11/8/2012	240-17422-1	240-17422-11	Benzoic acid	670	R	LCS <10%	670 R
068SD-00012-0001-SO	11/8/2012	240-17422-1	240-17422-12	Benzoic acid	660	R	LCS <10%	660 R
068SD-0009-0001-SO	11/8/2012	240-17422-1	240-17422-9	Benzoic acid	650	R	LCS <10%	650 R
068SB-0044M-0001-SO	3/29/2013	240-22648-1	240-22648-41	Benzoic acid	670	R	LCS <10%	670 R
068SB-0045M-0001-SO	3/29/2013	240-22648-1	240-22648-42	Benzoic acid	660	R	LCS <10%	660 R
068SB-0046M-0001-SO	3/29/2013	240-22648-1	240-22648-43	Benzoic acid	650	R	LCS <10%	650 R
068SB-0017M-0001-SO	3/29/2013	240-22663-1	240-22663-31	Benzoic acid	3300	R	LCS <10%	3300 R
068SB-0018M-0001-SO	3/29/2013	240-22663-1	240-22663-32	Benzoic acid	3300	R	LCS <10%	3300 R
068SB-0019M-0001-SO	3/29/2013	240-22663-1	240-22663-33	Benzoic acid	3300	R	LCS <10%	3300 R
068SB-0022M-0001-SO	3/29/2013	240-22663-1	240-22663-34	Benzoic acid	3400	R	LCS <10%	3400 R
068SB-0020M-0001-SO	3/29/2013	240-22663-1	240-22663-35	Benzoic acid	3300	R	LCS <10%	3300 R
068SB-0023M-0001-SO	3/29/2013	240-22663-1	240-22663-36	Benzoic acid	3300	R	LCS <10%	3300 R

Table 2-4: Laboratory Control Sample/Laboratory Control Sample Duplicate Recoveries (Continued)

Sample Identification	Date Sampled	SDG	Lab Number	Parameter	Lab Result	Data Review Qualifier	Comments	Final Result
SVOC (µg/kg)								
068SB-0024M-0001-SO	3/29/2013	240-22663-1	240-22663-37	Benzoic acid	3300	R	LCS <10%	3300 R
068SB-0025M-0001-SO	3/29/2013	240-22663-1	240-22663-38	Benzoic acid	3300	R	LCS <10%	3300 R
068SB-0032M-0001-SO	3/29/2013	240-22663-1	240-22663-39	Benzoic acid	770	R	LCS <10%	770 R
068SB-0027M-0001-SO	3/29/2013	240-22663-1	240-22663-40	Benzoic acid	660	R	LCS <10%	660 R
068SB-0028M-0001-SO	3/29/2013	240-22663-1	240-22663-41	Benzoic acid	660	R	LCS <10%	660 R
068SB-0030M-0001-SO	3/29/2013	240-22663-1	240-22663-43	Benzoic acid	670	R	LCS <10%	670 R
068SB-0031M-0001-SO	3/29/2013	240-22663-1	240-22663-44	Benzoic acid	3300	R	LCS <10%	3300 R

Notes:
SDG = Sample Delivery Group
SVOC = Semi-volatile Organic Compound
µg/kg = Microgram per Kilogram
R = Rejected
LCS = Laboratory Control Sample

2.9 Matrix Spikes and Matrix Spike Duplicates

MS/MSD analyses measure method accuracy and precision for a project-specific matrix. A field sample is split into three portions (original, MS, and MSD) and known amounts of analytes are added (spiked) into the MS and MSD portions of the sample. The analytical results of these two portions are compared to each other for reproducibility using the RPD. These results are also compared against the unspiked portion of the sample for the percent of the spiked analytes. Low MS recovery exceedances for non-detects are qualified as UJ (non-detect with an estimated reporting limit) and detects qualified as J (estimated). High MS recovery exceedances are qualified as J (estimated) for detections. All MS/MSD recoveries were within QAPP limits with the exception of those listed in Table 2-5.

MS/MSD samples were analyzed for all analyses. It should be noted that MS results for inorganic analyses (metals) apply to the entire analytical batch; therefore 1 MS recovery outside QC limits can cause qualification to multiple samples.

Select SVOCs are considered unusable due to low MS recovery. Analytes 3,3'-dichloro-benzidine, 4-chloroaniline, and benzoic acid have MS recoveries less than 10%, so these SVOCs were qualified as R in sample 068SS-0003M-0001-SO. Analytes 3,3'-dichlorobenzidine, 3-nitroaniline, 4-chloroaniline, and benzoic acid have MS recoveries less than 10%, so these SVOCs were qualified as R in sample 068SD-0009-0001-SO. Analyte 3,3'-dichlorobenzidine has a MS recovery less than 10%, so this SVOC was qualified as R in sample 068SW-0016-0001-SW. Analyte benzoic acid has a MS recovery less than 10%, so this SVOC was qualified as R in sample 068SB-0057M-0001-SO. Analytes 2-methylphenol, 4-nitrophenol, and benzoic acid have MS recoveries less than 10%, so these SVOCs were qualified as R in sample 068SB-0031M-0001-SO.

It should be noted for the SVOC analysis of 068SB-0031M-0001-SO, while the MS recovery was below 10%, the MSD recovery was within QC limits. Therefore, this non-detect result was qualified as estimated (UJ) based upon the MS recovery below 10% and the MS/MSD RPD outside limits. No other data were qualified based upon MS/MSD RPDs.

2.10 Field Duplicates

Field duplicate analytical results provide information on the ability to reproduce field results and account for error introduced from handling, shipping, preparing, and analyzing field samples. All field duplicate RPDs were within the QC limits, with exception of three SVOCs and two metals. See Table 2-6 for a summary of qualified primary/field duplicate samples. See DVRW 11 for all field duplicate results.

This page left intentionally blank.

Table 2-5: Matrix Spike/Matrix Spike Duplicate Recoveries

Sample Identification	Date Sampled	SDG	Lab Number	Parameter	Lab Result	Data Review Qualifier	Comments	Final Result
Metals (mg/kg)								
068SB-0017M-0001-SO	3/29/2013	240-22663-1	240-22663-31	Antimony	0.068	J	MS - low	0.068 J
068SB-0018M-0001-SO	3/29/2013	240-22663-1	240-22663-32	Antimony	0.20	UJ	MS - low	0.20 UJ
068SB-0019M-0001-SO	3/29/2013	240-22663-1	240-22663-33	Antimony	0.20	UJ	MS - low	0.20 UJ
068SB-0020M-0001-SO	3/29/2013	240-22663-1	240-22663-35	Antimony	0.20	UJ	MS - low	0.20 UJ
068SB-0022M-0001-SO	3/29/2013	240-22663-1	240-22663-34	Antimony	0.19	UJ	MS - low	0.19 UJ
068SB-0023M-0001-SO	3/29/2013	240-22663-1	240-22663-36	Antimony	0.20	UJ	MS - low	0.20 UJ
068SB-0024M-0001-SO	3/29/2013	240-22663-1	240-22663-37	Antimony	0.20	UJ	MS - low	0.20 UJ
068SB-0025M-0001-SO	3/29/2013	240-22663-1	240-22663-38	Antimony	0.20	UJ	MS - low	0.20 UJ
068SB-0027M-0001-SO	3/29/2013	240-22663-1	240-22663-40	Antimony	0.19	UJ	MS - low	0.19 UJ
068SB-0028M-0001-SO	3/29/2013	240-22663-1	240-22663-41	Antimony	0.20	UJ	MS - low	0.20 UJ
068SB-0030M-0001-SO	3/29/2013	240-22663-1	240-22663-43	Antimony	0.19	UJ	MS - low	0.19 UJ
068SB-0031M-0001-SO	3/29/2013	240-22663-1	240-22663-44	Antimony	0.19	UJ	MS - low	0.19 UJ
068SB-0032M-0001-SO	3/29/2013	240-22663-1	240-22663-39	Antimony	0.23	UJ	MS - low	0.23 UJ
068SB-0033M-0001-SO	3/29/2013	240-22648-1	240-22648-46	Antimony	0.17	UJ	MS - low	0.17 UJ
068SB-0033M-0001-SO	3/29/2013	240-22648-1	240-22648-46	Calcium	2100	J	MS - high	2100 J
068SB-0034M-0001-SO	3/29/2013	240-22648-1	240-22648-47	Antimony	0.18	UJ	MS - low	0.18 UJ
068SB-0034M-0001-SO	3/29/2013	240-22648-1	240-22648-47	Calcium	2300	J	MS - high	2300 J
068SB-0035M-0001-SO	3/29/2013	240-22648-1	240-22648-48	Antimony	0.18	UJ	MS - low	0.18 UJ
068SB-0035M-0001-SO	3/29/2013	240-22648-1	240-22648-48	Calcium	2300	J	MS - high	2300 J
068SB-0036M-0001-SO	3/29/2013	240-22648-1	240-22648-50	Antimony	0.19	UJ	MS - low	0.19 UJ

Table 2-5: Matrix Spike/Matrix Spike Duplicate Recoveries (Continued)

Sample Identification	Date Sampled	SDG	Lab Number	Parameter	Lab Result	Data Review Qualifier	Comments	Final Result
Metals (mg/kg)								
068SB-0036M-0001-SO	3/29/2013	240-22648-1	240-22648-50	Calcium	1900	J	MS - high	1900 J
068SB-0038M-0001-SO	3/29/2013	240-22648-1	240-22648-49	Antimony	0.19	UJ	MS - low	0.19 UJ
068SB-0038M-0001-SO	3/29/2013	240-22648-1	240-22648-49	Calcium	1600	J	MS - high	1600 J
068SB-0039M-0001-SO	3/29/2013	240-22648-1	240-22648-51	Antimony	0.19	UJ	MS - low	0.19 UJ
068SB-0039M-0001-SO	3/29/2013	240-22648-1	240-22648-51	Calcium	2800	J	MS - high	2800 J
068SB-0040M-0001-SO	3/29/2013	240-22648-1	240-22648-52	Antimony	0.19	UJ	MS - low	0.19 UJ
068SB-0040M-0001-SO	3/29/2013	240-22648-1	240-22648-52	Calcium	1900	J	MS - high	1900 J
068SB-0041M-0001-SO	3/29/2013	240-22648-1	240-22648-53	Antimony	0.18	UJ	MS - low	0.18 UJ
068SB-0041M-0001-SO	3/29/2013	240-22648-1	240-22648-53	Calcium	2200	J	MS - high	2200 J
068SB-0042M-0001-SO	3/29/2013	240-22648-1	240-22648-54	Antimony	0.18	UJ	MS - low	0.18 UJ
068SB-0042M-0001-SO	3/29/2013	240-22648-1	240-22648-54	Calcium	8100	J	MS - high	8100 J
068SB-0044M-0001-SO	3/29/2013	240-22648-1	240-22648-41	Antimony	0.18	UJ	MS - low	0.18 UJ
068SB-0044M-0001-SO	3/29/2013	240-22648-1	240-22648-41	Calcium	1200	J	MS - high	1200 J
068SB-0045M-0001-SO	3/29/2013	240-22648-1	240-22648-42	Antimony	0.19	UJ	MS - low	0.19 UJ
068SB-0045M-0001-SO	3/29/2013	240-22648-1	240-22648-42	Calcium	5500	J	MS - high	5500 J
068SB-0046M-0001-SO	3/29/2013	240-22648-1	240-22648-43	Antimony	0.19	UJ	MS - low	0.19 UJ
068SB-0046M-0001-SO	3/29/2013	240-22648-1	240-22648-43	Calcium	930	J	MS - high	930 J
068SB-0047M-0001-SO	3/29/2013	240-22648-1	240-22648-44	Antimony	0.18	UJ	MS - low	0.18 UJ
068SB-0047M-0001-SO	3/29/2013	240-22648-1	240-22648-44	Calcium	4800	J	MS - high	4800 J
068SB-0048M-0001-SO	3/29/2013	240-22648-1	240-22648-45	Antimony	0.19	UJ	MS - low	0.19 UJ

Table 2-5: Matrix Spike/Matrix Spike Duplicate Recoveries (Continued)

Sample Identification	Date Sampled	SDG	Lab Number	Parameter	Lab Result	Data Review Qualifier	Comments	Final Result
Metals (mg/kg)								
068SB-0048M-0001-SO	3/29/2013	240-22648-1	240-22648-45	Calcium	2400	J	MS - high	2400 J
068SB-0050M-0001-SO	3/29/2013	240-22648-1	240-22648-55	Antimony	0.18	UJ	MS - low	0.18 UJ
068SB-0050M-0001-SO	3/29/2013	240-22648-1	240-22648-55	Calcium	4500	J	MS - high	4500 J
068SB-0051M-0001-SO	3/29/2013	240-22648-1	240-22648-56	Antimony	0.19	UJ	MS - low	0.19 UJ
068SB-0051M-0001-SO	3/29/2013	240-22648-1	240-22648-56	Calcium	3300	J	MS - high	3300 J
068SB-0052M-0001-SO	3/29/2013	240-22648-1	240-22648-57	Antimony	0.18	UJ	MS - low	0.18 UJ
068SB-0052M-0001-SO	3/29/2013	240-22648-1	240-22648-57	Calcium	760	J	MS - high	760 J
068SB-0060M-0001-SO	4/4/2013	240-22852-1	240-22852-1	Antimony	0.20	UJ	MS - low	0.20 UJ
068SB-0061M-0001-SO	4/4/2013	240-22852-1	240-22852-2	Antimony	0.15	J	MS - low	0.15 J
068SD-00010-0001-SO	11/8/2012	240-17422-1	240-17422-10	Antimony	0.13	J	MS - low	0.13 J
068SD-00011-0001-SO	11/8/2012	240-17422-1	240-17422-11	Antimony	0.11	J	MS - low	0.11 J
068SD-00012-0001-SO	11/8/2012	240-17422-1	240-17422-12	Antimony	0.099	J	MS - low	0.099 J
068SD-0009-0001-SO	11/8/2012	240-17422-1	240-17422-9	Antimony	0.13	J	MS - low	0.13 J
068SS-0001M-0001-SO	11/6/2012	240-17317-1	240-17317-5	Antimony	0.22	J	MS - low	0.22 J
068SS-0002M-0001-SO	11/6/2012	240-17317-1	240-17317-6	Antimony	0.12	J	MS - low	0.12 J
068SS-0003M-0001-SO	11/6/2012	240-17317-1	240-17317-7	Antimony	2.2	J	MS - low	2.2 J
068SS-0004M-0001-SO	11/6/2012	240-17317-1	240-17317-8	Antimony	0.79	UJ	MS - low	0.79 UJ
068SS-0005M-0001-SO	11/6/2012	240-17317-1	240-17317-14	Antimony	0.088	J	MS - low	0.088 J
068SS-0006M-0001-SO	11/6/2012	240-17317-1	240-17317-15	Antimony	0.11	J	MS - low	0.11 J
068SS-0007M-0001-SO	11/6/2012	240-17317-1	240-17317-16	Antimony	0.095	J	MS - low	0.095 J
068SS-0008M-0001-SO	11/6/2012	240-17317-1	240-17317-17	Antimony	0.80	UJ	MS - low	0.80 UJ

Table 2-5: Matrix Spike/Matrix Spike Duplicate Recoveries (Continued)

Sample Identification	Date Sampled	SDG	Lab Number	Parameter	Lab Result	Data Review Qualifier	Comments	Final Result
Propellants (mg/kg)								
068SB-0060M-0001-SO	4/4/2013	240-22852-1	240-22852-1	Nitrocellulose	0.90	J	MS - low	0.90 J
068SS-0003M-0001-SO	11/6/2012	240-17317-1	240-17317-7	Nitrocellulose	0.88	J	MS - low	0.88 J
068SS-0004M-0001-SO	11/6/2012	240-17317-1	240-17317-8	Nitrocellulose	5.0	UJ	MS - low	5.0 UJ
SVOC (µg/kg)								
068SB-0031M-0001-SO	3/29/2013	240-22663-1	240-22663-44	2,4-Dimethylphenol	740	UJ	MS - low	740 UJ
068SB-0031M-0001-SO	3/29/2013	240-22663-1	240-22663-44	2-Methylphenol	990	R	MS < 10%	990 R
068SB-0031M-0001-SO	3/29/2013	240-22663-1	240-22663-44	4,6-Dinitro-2-Methylphenol	740	UJ	MS - low; MS/MSD RPD	740 UJ
068SB-0031M-0001-SO	3/29/2013	240-22663-1	240-22663-44	4-Nitrophenol	1600	R	MS < 10%	1600 R
068SB-0031M-0001-SO	3/29/2013	240-22663-1	240-22663-44	Benzoic acid	3300	R	MS < 10%	3300 R
068SB-0031M-0001-SO	3/29/2013	240-22663-1	240-22663-44	Dimethyl Phthalate	350	UJ	MS - low	350 UJ
068SB-0057M-0001-SO	3/29/2013	240-22648-1	240-22648-61	Benzoic acid	670	R	MS < 10%	670 R
068SD-0009-0001-SO	11/8/2012	240-17422-1	240-17422-9	3,3'-Dichlorobenzidine	99	R	MS < 10%	99 R
068SD-0009-0001-SO	11/8/2012	240-17422-1	240-17422-9	3-Nitroaniline	200	R	MS < 10%	200 R
068SD-0009-0001-SO	11/8/2012	240-17422-1	240-17422-9	4-Chloroaniline	150	R	MS < 10%	150 R
068SD-0009-0001-SO	11/8/2012	240-17422-1	240-17422-9	4-Nitroaniline	200	UJ	MS - low	200 UJ
068SD-0009-0001-SO	11/8/2012	240-17422-1	240-17422-9	Benzoic acid	650	R	MS < 10%	650 R
068SS-0003M-0001-SO	11/6/2012	240-17317-1	240-17317-7	3,3'-Dichlorobenzidine	100	R	MS < 10%	100 R
068SS-0003M-0001-SO	11/6/2012	240-17317-1	240-17317-7	4-Chloroaniline	150	R	MS < 10%	150 R
068SS-0003M-0001-SO	11/6/2012	240-17317-1	240-17317-7	Benzo(a)pyrene	330	J	MS - low	330 J
068SS-0003M-0001-SO	11/6/2012	240-17317-1	240-17317-7	Benzo(g,h,i)perylene	260	J	MS - low	260 J

Table 2-5: Matrix Spike/Matrix Spike Duplicate Recoveries (Continued)

Sample Identification	Date Sampled	SDG	Lab Number	Parameter	Lab Result	Data Review Qualifier	Comments	Final Result
SVOC (µg/kg)								
068SS-0003M-0001-SO	11/6/2012	240-17317-1	240-17317-7	Benzoic acid	660	R	MS < 10%	660 R
068SS-0003M-0001-SO	11/6/2012	240-17317-1	240-17317-7	Fluoranthene	650	J	MS - low	650 J
SVOC (µg/L)								
068SW-0016-0001-SW	11/8/2012	240-17477-1	240-17477-4	3,3'-Dichlorobenzidine	4.8	R	MS < 10%	4.8 R
068SW-0016-0001-SW	11/8/2012	240-17477-1	240-17477-4	Benzo(a)pyrene	0.19	UJ	MS - low	0.19 UJ
VOC (µg/kg)								
068SS-0003M-0001-SO	11/6/2012	240-17317-1	240-17317-7	Bromodichloromethane	4.0	UJ	MS - low	4.0 UJ
068SS-0003M-0001-SO	11/6/2012	240-17317-1	240-17317-7	Chlorobenzene	4.0	UJ	MS - low	4.0 UJ
068SS-0003M-0001-SO	11/6/2012	240-17317-1	240-17317-7	cis-1,3-Dichloropropene	4.0	UJ	MS - low	4.0 UJ
068SS-0003M-0001-SO	11/6/2012	240-17317-1	240-17317-7	Ethylbenzene	4.0	UJ	MS - low	4.0 UJ
068SS-0003M-0001-SO	11/6/2012	240-17317-1	240-17317-7	Styrene	4.0	UJ	MS - low	4.0 UJ
068SS-0003M-0001-SO	11/6/2012	240-17317-1	240-17317-7	Tetrachloroethene	4.0	UJ	MS - low	4.0 UJ
068SS-0003M-0001-SO	11/6/2012	240-17317-1	240-17317-7	Toluene	4.0	UJ	MS - low	4.0 UJ
068SS-0003M-0001-SO	11/6/2012	240-17317-1	240-17317-7	Xylenes, Total	8.0	UJ	MS - low	8.0 UJ

Notes:
SDG = Sample Delivery Group
SVOC = Semi-volatile Organic Compound
VOC = Volatile Organic Compound
mg/kg = Milligram per Kilogram
µg/kg = Microgram per Kilogram
µg/L= Microgram per Liter
UJ = Not Detected, with estimated reporting limit
J = Estimated
R = Rejected
MS = Matrix Spike
RPD = Relative Percent Difference

This page left intentionally blank.

Table 2-6: Field Duplicate Relative Percent Difference

Sample Identification	Date Sampled	SDG	Lab Number	Parameter	Lab Result	Data Review Qualifier	Comments	Final Result
SVOC (µg/kg)								
068SS-0004M-0001-SO	11/6/2012	240-17317-1	240-17317-8	Benzo(g,h,i)perylene	130	J	Field Duplicate RPD	130 J
068SS-0003M-0001-SO	11/6/2012	240-17317-1	240-17317-7	Benzo(g,h,i)perylene	260	J	Field Duplicate RPD	260 J
068SS-0003M-0001-SO	11/6/2012	240-17317-1	240-17317-7	Anthracene	48	J	Field Duplicate RPD	48 J
068SS-0003M-0001-SO	11/6/2012	240-17317-1	240-17317-7	Benzo(k)fluoranthene	180	J	Field Duplicate RPD	180 J
068SS-0004M-0001-SO	11/6/2012	240-17317-1	240-17317-8	Anthracene	28	J	Field Duplicate RPD	28 J
068SS-0004M-0001-SO	11/6/2012	240-17317-1	240-17317-8	Benzo(k)fluoranthene	100	J	Field Duplicate RPD	100 J
Metals (µg/L)								
0068SW-0016-0001-SW	11/8/2012	240-17422-1	240-17422-4	Manganese	330	J	Field Duplicate RPD	330 J
0068SW-0014-0001-SW	11/8/2012	240-17422-1	240-17422-2	Manganese	240	J	Field Duplicate RPD	240 J
Metals (µg/kg)								
0068SB-0053M-0001-SO	3/29/2013	240-22648-1	240-22648-58	Calcium	3400	J	Field Duplicate RPD	3400 J
0068SB-0054M-0001-SO	3/29/2013	240-22648-1	240-22648-59	Calcium	910	J	Field Duplicate RPD	900 J
0068SB-0035M-0001-SO	3/29/2013	240-22648-1	240-22648-48	Manganese	360	J	Field Duplicate RPD	360 J
0068SB-0036M-0001-SO	3/29/2013	240-22648-1	240-22648-50	Manganese	620	J	Field Duplicate RPD	620 J

Notes:
SDG = Sample Delivery Group
SVOC = Semi-volatile Organic Compound
µg/kg = Microgram per Kilogram
µg/L= Microgram per Liter
J = Estimated
RPD = Relative Percent Difference

This page left intentionally blank.

2.11 Laboratory Duplicates

Laboratory duplicate analytical results provide information on the ability to reproduce field results and account for error introduced from preparing and analyzing field samples. All laboratory duplicate RPDs were within the QC limits, with exception of manganese in two duplicates. See Table 2-7 for a summary of qualified samples.

This page left intentionally blank.

Table 2-7: Laboratory Duplicate Relative Percent Difference

Sample Identification	Date Sampled	SDG	Lab Number	Parameter	Lab Result	Data Review Qualifier	Comments	Final Result
Metals (mg/kg)								
068SS-0005M-0001-SO	11/6/2012	240-17317-1	240-17317-14	Manganese	990	J	Lab Replicate RPD	990 J
068SS-0006M-0001-SO	11/6/2012	240-17317-1	240-17317-15	Manganese	1300	J	Lab Replicate RPD	1300 J
068SS-0007M-0001-SO	11/6/2012	240-17317-1	240-17317-16	Manganese	1100	J	Lab Replicate RPD	1100 J
068SS-0008M-0001-SO	11/6/2012	240-17317-1	240-17317-17	Manganese	640	J	Lab Replicate RPD	640 J
068SS-0001M-0001-SO	11/6/2012	240-17317-1	240-17317-5	Manganese	820	J	Lab Replicate RPD	820 J
068SS-0002M-0001-SO	11/6/2012	240-17317-1	240-17317-6	Manganese	690	J	Lab Replicate RPD	690 J
068SS-0003M-0001-SO	11/6/2012	240-17317-1	240-17317-7	Manganese	390	J	Lab Replicate RPD	390 J
068SS-0004M-0001-SO	11/6/2012	240-17317-1	240-17317-8	Manganese	280	J	Lab Replicate RPD	280 J
068SD-00010-0001-SO	11/8/2012	240-17422-1	240-17422-10	Manganese	770	J	Lab Replicate RPD	770 J
068SD-00011-0001-SO	11/8/2012	240-17422-1	240-17422-11	Manganese	480	J	Lab Replicate RPD	480 J
068SD-00012-0001-SO	11/8/2012	240-17422-1	240-17422-12	Manganese	300	J	Lab Replicate RPD	300 J
068SD-0009-0001-SO	11/8/2012	240-17422-1	240-17422-9	Manganese	890	J	Lab Replicate RPD	890 J

Notes:
SDG = Sample Delivery Group
SVOC = Semi-volatile Organic Compound
mg/kg = Milligram per Kilogram
J = Estimated
RPD = Relative Percent Difference

This page left intentionally blank.

2.12 Dilutions and Re-Analyses

Secondary dilutions are made as required to stay within the calibration range of the analytical method or to overcome matrix issues. Re-analyses are performed as necessary to confirm QC exceedances in accordance with the method SOP and DoD QSM. Select VOC and SVOC samples were re-analyzed due to quality exceedances.

2.13 Internal Standards

All method using internal calibration must have internal standards spiked into them in accordance with the method SOP and DoD QSM. All applicable internal standards were within method criteria. No qualifications were required.

2.14 Serial Dilution

Serial dilution for metals analysis may be performed if MS recovery is out of limits and analyte results are greater than 50 times the MRL. Serial dilutions were within QC limits, with the exception of beryllium in one QC batch, zinc in a second QC batch, and arsenic, copper, nickel and zinc in a third QC batch. All applicable data qualified based upon batch serial dilution recoveries are presented in Table 2-8.

2.15 Post-Digestion Spike Samples

Post-digestion spikes for metals analysis may be performed if a MS recovery is out of limits and analyte results are not greater than 50 time the MRL. Post-digestion spike recoveries were within QC limits.

This page left intentionally blank.

Table 2-8: Serial Dilution Recoveries

Sample Identification	Date Sampled	SDG	Lab Number	Parameter	Lab Result	Data Review Qualifier	Comments	Final Result
Metals (mg/kg)								
068SB-0044M-0001-SO	3/29/2013	240-22648-1	240-22648-41	Zinc	48	J	Serial dilution	48 J
068SB-0045M-0001-SO	3/29/2013	240-22648-1	240-22648-42	Zinc	59	J	Serial dilution	59 J
068SB-0046M-0001-SO	3/29/2013	240-22648-1	240-22648-43	Zinc	47	J	Serial dilution	47 J
068SB-0047M-0001-SO	3/29/2013	240-22648-1	240-22648-44	Zinc	52	J	Serial dilution	52 J
068SB-0048M-0001-SO	3/29/2013	240-22648-1	240-22648-45	Zinc	56	J	Serial dilution	56 J
068SB-0033M-0001-SO	3/29/2013	240-22648-1	240-22648-46	Zinc	61	J	Serial dilution	61 J
068SB-0034M-0001-SO	3/29/2013	240-22648-1	240-22648-47	Zinc	56	J	Serial dilution	56 J
068SB-0035M-0001-SO	3/29/2013	240-22648-1	240-22648-48	Zinc	53	J	Serial dilution	53 J
068SB-0038M-0001-SO	3/29/2013	240-22648-1	240-22648-49	Zinc	54	J	Serial dilution	54 J
068SB-0036M-0001-SO	3/29/2013	240-22648-1	240-22648-50	Zinc	55	J	Serial dilution	55 J
068SB-0039M-0001-SO	3/29/2013	240-22648-1	240-22648-51	Zinc	47	J	Serial dilution	47 J
068SB-0040M-0001-SO	3/29/2013	240-22648-1	240-22648-52	Zinc	58	J	Serial dilution	58 J
068SB-0041M-0001-SO	3/29/2013	240-22648-1	240-22648-53	Zinc	37	J	Serial dilution	37 J
068SB-0042M-0001-SO	3/29/2013	240-22648-1	240-22648-54	Zinc	40	J	Serial dilution	40 J
068SB-0050M-0001-SO	3/29/2013	240-22648-1	240-22648-55	Zinc	36	J	Serial dilution	36 J
068SB-0051M-0001-SO	3/29/2013	240-22648-1	240-22648-56	Zinc	32	J	Serial dilution	32 J
068SB-0052M-0001-SO	3/29/2013	240-22648-1	240-22648-57	Zinc	33	J	Serial dilution	33 J
068SB-0017M-0001-SO	3/29/2013	240-22663-1	240-22663-31	Beryllium	0.60	J	Serial dilution	0.60 J
068SB-0018M-0001-SO	3/29/2013	240-22663-1	240-22663-32	Beryllium	0.44	J	Serial dilution	0.44 J
068SB-0019M-0001-SO	3/29/2013	240-22663-1	240-22663-33	Beryllium	0.57	J	Serial dilution	0.57 J
068SB-0022M-0001-SO	3/29/2013	240-22663-1	240-22663-34	Beryllium	0.56	J	Serial dilution	0.56 J
068SB-0020M-0001-SO	3/29/2013	240-22663-1	240-22663-35	Beryllium	0.53	J	Serial dilution	0.53 J
068SB-0023M-0001-SO	3/29/2013	240-22663-1	240-22663-36	Beryllium	0.59	J	Serial dilution	0.59 J
068SB-0024M-0001-SO	3/29/2013	240-22663-1	240-22663-37	Beryllium	0.58	J	Serial dilution	0.58 J
068SB-0025M-0001-SO	3/29/2013	240-22663-1	240-22663-38	Beryllium	0.42	J	Serial dilution	0.42 J

Table 2-8: Serial Dilution Recoveries (Continued)

Sample ID	Date Sampled	SDG	Lab Number	Parameter	Lab Result	Data Review Qualifier	Comments	Final Result
Metals (mg/kg)								
068SB-0032M-0001-SO	3/29/2013	240-22663-1	240-22663-39	Beryllium	0.41	J	Serial dilution	0.41 J
068SB-0027M-0001-SO	3/29/2013	240-22663-1	240-22663-40	Beryllium	0.64	J	Serial dilution	0.64 J
068SB-0028M-0001-SO	3/29/2013	240-22663-1	240-22663-41	Beryllium	0.38	J	Serial dilution	0.38 J
068SB-0030M-0001-SO	3/29/2013	240-22663-1	240-22663-43	Beryllium	0.49	J	Serial dilution	0.49 J
068SB-0031M-0001-SO	3/29/2013	240-22663-1	240-22663-44	Beryllium	0.46	J	Serial dilution	0.46 J
068SB-0060M-0001-SO	4/4/2013	240-22852-1_	240-22852-1	Arsenic	9.9	J	Serial dilution	9.9 J
068SB-0060M-0001-SO	4/4/2013	240-22852-1_	240-22852-1	Copper	19	J	Serial dilution	19 J
068SB-0060M-0001-SO	4/4/2013	240-22852-1_	240-22852-1	Nickel	29	J	Serial dilution	29 J
068SB-0060M-0001-SO	4/4/2013	240-22852-1_	240-22852-1	Zinc	50	J	Serial dilution	50 J
068SB-0061M-0001-SO	4/4/2013	240-22852-1_	240-22852-2	Arsenic	7.1	J	Serial dilution	7.1 J
068SB-0061M-0001-SO	4/4/2013	240-22852-1_	240-22852-2	Copper	14	J	Serial dilution	14 J
068SB-0061M-0001-SO	4/4/2013	240-22852-1_	240-22852-2	Nickel	21	J	Serial dilution	21 J
068SB-0061M-0001-SO	4/4/2013	240-22852-1_	240-22852-2	Zinc	35	J	Serial dilution	35 J

Notes:
SDG = Sample Delivery Group
mg/kg = Milligram per Kilogram
J = Estimated

2.16 Dual-Column Relative Percent Difference

All detected results from dual column methods were confirmed on a second column. Dual column comparisons between the detected explosive, pesticides and PCBs results were made using the identification summary forms. All applicable dual column results were within QC limits with the exception of alpha-BHC (alpha-Hexachlorocyclohexane) in pesticides sample 068SB-0041M-0001-SO.

For sample 068SB-0041M-0001-SO, at the retention time for alpha-BHC, the laboratory reported matrix interference for the primary column; therefore, alpha-BHC was not reported on the primary column. On the secondary column, the retention time for alpha-BHC was shifted fourteen times more than the surrogate retention time peak, which means the laboratory was searching for a peak. On the secondary column, alpha-BHC was reported from the upshifted peak with a concentration of 0.08 µg/kg, which is marginally greater than the 0.07 detection limit. Due to Alpha-BHC not being detected conclusively on the primary column, the retention time shift on the secondary column, and a laboratory-determined dual column RPD of 102.7%, alpha-BHC was qualified as a false-positive with a U (non-detect) qualifier.

See Table 2-9 for the dual-column RPD qualified data.

This page left intentionally blank.

Table 2-9: Dual Column Relative Percent Difference

Sample Identification	Date Sampled	SDG	Lab Number	Parameter	Lab Result	Data Review Qualifier	Comments	Final Result
Pesticides (µg/kg)								
068SB-0041M-0001-SO	3/29/2013	240-22648-1	240-22648-53	alpha-BHC (alpha-Hexachlorocyclohexane)	2.5	U	Column RPD, False Positive	2.5 U

Notes:
SDG = Sample Delivery Group
µg/kg = Microgram per Kilogram
U = Undetected
RPD = Relative Percent Difference

This page left intentionally blank.

2.17 Method Reporting Limit Checks

The ability of the laboratory to quantitatively meet the MRL is verified by analyzing pre-analysis and post-analysis MRL check samples. The MRL check criterion is 70 -130%. If the MRL % REC is less than 70%, then non-detects are qualified as UJ and detects are qualified as J. If the MRL % REC is greater than 130%, then detects are qualified as J. If the MRL % REC is less than 10%, then non-detects are qualified as R and detects are qualified as J.

The MRL check is within limits for all methods with exceptions listed in Table 2-10, all of which have MRL check sample recoveries below 70%. For samples 068SS-0001M-0001-SO, 068SS-0002M-0001-SO, 068SS-0003M-0001-SO, and 068-SS-0004M-0001-SO, the associated MRL % REC for n-Nitrosodiphenylamine is less than 10% and data are non-detect; therefore, the data are qualified as R.

This page left intentionally blank.

Table 2-10: Method Reporting Limit Check

Sample Identification	Date Sampled	SDG	Lab Number	Parameter	Lab Result	Data Review Qualifier	Comments	Final Result
SVOC (µg/kg)								
068SS-0008M-0001-SO	11/6/2012	240-17317-1	240-17317-17	2,4-Dinitrophenol	330	UJ	MRL - low	330 UJ
068SS-0008M-0001-SO	11/6/2012	240-17317-1	240-17317-17	4,6-Dinitro-2-Methylphenol	150	UJ	MRL - low	150 UJ
068SS-0001M-0001-SO	11/6/2012	240-17317-1	240-17317-5	2,4-Dinitrophenol	330	UJ	MRL - low	330 UJ
068SS-0001M-0001-SO	11/6/2012	240-17317-1	240-17317-5	4,6-Dinitro-2-Methylphenol	150	UJ	MRL - low	150 UJ
068SS-0001M-0001-SO	11/6/2012	240-17317-1	240-17317-5	Benzo(g,h,i)perylene	78	J	MRL - low	78 J
068SS-0001M-0001-SO	11/6/2012	240-17317-1	240-17317-5	n-Nitrosodiphenylamine	50	R	MRL < 10%	50 R
068SS-0002M-0001-SO	11/6/2012	240-17317-1	240-17317-6	2,4-Dinitrophenol	330	UJ	MRL - low	330 UJ
068SS-0002M-0001-SO	11/6/2012	240-17317-1	240-17317-6	4,6-Dinitro-2-Methylphenol	150	UJ	MRL - low	150 UJ
068SS-0002M-0001-SO	11/6/2012	240-17317-1	240-17317-6	Benzo(g,h,i)perylene	120	J	MRL - low	120 J
068SS-0002M-0001-SO	11/6/2012	240-17317-1	240-17317-6	n-Nitrosodiphenylamine	49	R	MRL < 10%	49 R
068SS-0003M-0001-SO	11/6/2012	240-17317-1	240-17317-7	2,4-Dinitrophenol	330	UJ	MRL - low	330 UJ
068SS-0003M-0001-SO	11/6/2012	240-17317-1	240-17317-7	4,6-Dinitro-2-Methylphenol	150	UJ	MRL - low	150 UJ
068SS-0003M-0001-SO	11/6/2012	240-17317-1	240-17317-7	Benzo(g,h,i)perylene	260	J	MRL - low	260 J
068SS-0003M-0001-SO	11/6/2012	240-17317-1	240-17317-7	n-Nitrosodiphenylamine	50	R	MRL < 10%	50 R
068SS-0004M-0001-SO	11/6/2012	240-17317-1	240-17317-8	2,4-Dinitrophenol	1600	UJ	MRL - low	1600 UJ
068SS-0004M-0001-SO	11/6/2012	240-17317-1	240-17317-8	4,6-Dinitro-2-Methylphenol	740	UJ	MRL - low	740 UJ
068SS-0004M-0001-SO	11/6/2012	240-17317-1	240-17317-8	Benzo(g,h,i)perylene	130	J	MRL - low	130 J
068SS-0004M-0001-SO	11/6/2012	240-17317-1	240-17317-8	n-Nitrosodiphenylamine	250	R	MRL < 10%	250 R
068SD-00010-0001-SO	11/8/2012	240-17422-1	240-17422-10	2,4-Dinitrophenol	330	UJ	MRL - low	330 UJ
068SD-00010-0001-SO	11/8/2012	240-17422-1	240-17422-10	Benzo(g,h,i)perylene	16	J	MRL - low	16 J

Table 2-10: Method Reporting Limit (Continued)

Sample Identification	Date Sampled	SDG	Lab Number	Parameter	Lab Result	Data Review Qualifier	Comments	Final Result
SVOC (µg/kg)								
068SD-00010-0001-SO	11/8/2012	240-17422-1	240-17422-10	Dibenz(a,h)anthracene	6.7	UJ	MRL - low	6.7 UJ
068SD-00010-0001-SO	11/8/2012	240-17422-1	240-17422-10	Indeno(1,2,3-c,d)pyrene	20	J	MRL - low	20 J
068SD-00011-0001-SO	11/8/2012	240-17422-1	240-17422-11	2,4-Dinitrophenol	340	UJ	MRL - low	340 UJ
068SD-00011-0001-SO	11/8/2012	240-17422-1	240-17422-11	Benzo(g,h,i)perylene	6.8	UJ	MRL - low	6.8 UJ
068SD-00011-0001-SO	11/8/2012	240-17422-1	240-17422-11	Dibenz(a,h)anthracene	6.8	UJ	MRL - low	6.8 UJ
068SD-00011-0001-SO	11/8/2012	240-17422-1	240-17422-11	Indeno(1,2,3-c,d)pyrene	6.8	UJ	MRL - low	6.8 UJ
068SD-00012-0001-SO	11/8/2012	240-17422-1	240-17422-12	2,4-Dinitrophenol	330	UJ	MRL - low	330 UJ
068SD-00012-0001-SO	11/8/2012	240-17422-1	240-17422-12	Benzo(g,h,i)perylene	5.7	J	MRL - low	5.7 J
068SD-00012-0001-SO	11/8/2012	240-17422-1	240-17422-12	Dibenz(a,h)anthracene	6.7	UJ	MRL - low	6.7 UJ
068SD-00012-0001-SO	11/8/2012	240-17422-1	240-17422-12	Indeno(1,2,3-c,d)pyrene	10	J	MRL - low	10 J
068SD-0009-0001-SO	11/8/2012	240-17422-1	240-17422-9	2,4-Dinitrophenol	330	UJ	MRL - low	330 UJ
068SD-0009-0001-SO	11/8/2012	240-17422-1	240-17422-9	Benzo(g,h,i)perylene	16	J	MRL - low	16 J
068SD-0009-0001-SO	11/8/2012	240-17422-1	240-17422-9	Dibenz(a,h)anthracene	6.6	UJ	MRL - low	6.6 UJ
068SD-0009-0001-SO	11/8/2012	240-17422-1	240-17422-9	Indeno(1,2,3-c,d)pyrene	17	J	MRL - low	17 J
068SB-0044M-0001-SO	3/29/2013	240-22648-1	240-22648-41	Benzyl alcohol	340	UJ	MRL - low	340 UJ
068SB-0044M-0001-SO	3/29/2013	240-22648-1	240-22648-41	Hexachloroethane	51	UJ	MRL - low	51 UJ
068SB-0045M-0001-SO	3/29/2013	240-22648-1	240-22648-42	Benzyl alcohol	330	UJ	MRL - low	330 UJ
068SB-0045M-0001-SO	3/29/2013	240-22648-1	240-22648-42	Hexachloroethane	50	UJ	MRL - low	50 UJ
068SB-0046M-0001-SO	3/29/2013	240-22648-1	240-22648-43	Benzyl alcohol	330	UJ	MRL - low	330 UJ
068SB-0046M-0001-SO	3/29/2013	240-22648-1	240-22648-43	Hexachloroethane	49	UJ	MRL - low	49 UJ

Table 2-10: Method Reporting Limit (Continued)

Sample Identification	Date Sampled	SDG	Lab Number	Parameter	Lab Result	Data Review Qualifier	Comments	Final Result
SVOC (µg/kg)								
068SB-0047M-0001-SO	3/29/2013	240-22648-1	240-22648-44	2,4-Dinitrophenol	330	UJ	MRL - low	330 UJ
068SB-0047M-0001-SO	3/29/2013	240-22648-1	240-22648-44	Benzyl alcohol	330	UJ	MRL - low	330 UJ
068SB-0048M-0001-SO	3/29/2013	240-22648-1	240-22648-45	Benzyl alcohol	330	UJ	MRL - low	330 UJ
068SB-0048M-0001-SO	3/29/2013	240-22648-1	240-22648-45	Hexachloroethane	50	UJ	MRL - low	50 UJ
068SB-0033M-0001-SO	3/29/2013	240-22648-1	240-22648-46	2,4-Dinitrophenol	330	UJ	MRL - low	330 UJ
068SB-0033M-0001-SO	3/29/2013	240-22648-1	240-22648-46	Benzyl alcohol	330	UJ	MRL - low	330 UJ
068SB-0034M-0001-SO	3/29/2013	240-22648-1	240-22648-47	2,4-Dinitrophenol	330	UJ	MRL - low	330 UJ
068SB-0034M-0001-SO	3/29/2013	240-22648-1	240-22648-47	Benzyl alcohol	330	UJ	MRL - low	330 UJ
068SB-0035M-0001-SO	3/29/2013	240-22648-1	240-22648-48	2,4-Dinitrophenol	330	UJ	MRL - low	330 UJ
068SB-0035M-0001-SO	3/29/2013	240-22648-1	240-22648-48	Benzyl alcohol	330	UJ	MRL - low	330 UJ
068SB-0038M-0001-SO	3/29/2013	240-22648-1	240-22648-49	2,4-Dinitrophenol	330	UJ	MRL - low	330 UJ
068SB-0038M-0001-SO	3/29/2013	240-22648-1	240-22648-49	Benzyl alcohol	330	UJ	MRL - low	330 UJ
068SB-0036M-0001-SO	3/29/2013	240-22648-1	240-22648-50	2,4-Dinitrophenol	330	UJ	MRL - low	330 UJ
068SB-0036M-0001-SO	3/29/2013	240-22648-1	240-22648-50	Benzyl alcohol	330	UJ	MRL - low	330 UJ
068SB-0039M-0001-SO	3/29/2013	240-22648-1	240-22648-51	2,4-Dinitrophenol	330	UJ	MRL - low	330 UJ
068SB-0039M-0001-SO	3/29/2013	240-22648-1	240-22648-51	Benzyl alcohol	330	UJ	MRL - low	330 UJ
068SB-0040M-0001-SO	3/29/2013	240-22648-1	240-22648-52	2,4-Dinitrophenol	330	UJ	MRL - low	330 UJ
068SB-0040M-0001-SO	3/29/2013	240-22648-1	240-22648-52	Benzyl alcohol	330	UJ	MRL - low	330 UJ
068SB-0041M-0001-SO	3/29/2013	240-22648-1	240-22648-53	2,4-Dinitrophenol	330	UJ	MRL - low	330 UJ
068SB-0041M-0001-SO	3/29/2013	240-22648-1	240-22648-53	Benzyl alcohol	330	UJ	MRL - low	330 UJ

Table 2-10: Method Reporting Limit (Continued)

Sample Identification	Date Sampled	SDG	Lab Number	Parameter	Lab Result	Data Review Qualifier	Comments	Final Result
SVOC (µg/kg)								
068SB-0042M-0001-SO	3/29/2013	240-22648-1	240-22648-54	2,4-Dinitrophenol	330	UJ	MRL - low	330 UJ
068SB-0042M-0001-SO	3/29/2013	240-22648-1	240-22648-54	Benzyl alcohol	330	UJ	MRL - low	330 UJ
068SB-0050M-0001-SO	3/29/2013	240-22648-1	240-22648-55	2,4-Dinitrophenol	330	UJ	MRL - low	330 UJ
068SB-0050M-0001-SO	3/29/2013	240-22648-1	240-22648-55	Benzyl alcohol	330	UJ	MRL - low	330 UJ
068SB-0051M-0001-SO	3/29/2013	240-22648-1	240-22648-56	2,4-Dinitrophenol	330	UJ	MRL - low	330 UJ
068SB-0051M-0001-SO	3/29/2013	240-22648-1	240-22648-56	Benzyl alcohol	330	UJ	MRL - low	330 UJ
068SB-0052M-0001-SO	3/29/2013	240-22648-1	240-22648-57	2,4-Dinitrophenol	330	UJ	MRL - low	330 UJ
068SB-0052M-0001-SO	3/29/2013	240-22648-1	240-22648-57	Benzyl alcohol	330	UJ	MRL - low	330 UJ
068SB-0053M-0001-SO	3/29/2013	240-22648-1	240-22648-58	2,4-Dinitrophenol	330	UJ	MRL - low	330 UJ
068SB-0053M-0001-SO	3/29/2013	240-22648-1	240-22648-58	Benzyl alcohol	330	UJ	MRL - low	330 UJ
068SB-0054M-0001-SO	3/29/2013	240-22648-1	240-22648-59	2,4-Dinitrophenol	330	UJ	MRL - low	330 UJ
068SB-0054M-0001-SO	3/29/2013	240-22648-1	240-22648-59	Benzyl alcohol	330	UJ	MRL - low	330 UJ
068SB-0056M-0001-SO	3/29/2013	240-22648-1	240-22648-60	2,4-Dinitrophenol	330	UJ	MRL - low	330 UJ
068SB-0056M-0001-SO	3/29/2013	240-22648-1	240-22648-60	Benzyl alcohol	330	UJ	MRL - low	330 UJ
068SB-0057M-0001-SO	3/29/2013	240-22648-1	240-22648-61	2,4-Dinitrophenol	330	UJ	MRL - low	330 UJ
068SB-0057M-0001-SO	3/29/2013	240-22648-1	240-22648-61	Benzyl alcohol	330	UJ	MRL - low	330 UJ
068SB-0059M-0001-SO	3/29/2013	240-22648-1	240-22648-62	2,4-Dinitrophenol	330	UJ	MRL - low	330 UJ
068SB-0059M-0001-SO	3/29/2013	240-22648-1	240-22648-62	Benzyl alcohol	330	UJ	MRL - low	330 UJ

Table 2-10: Method Reporting Limit (Continued)

Sample Identification	Date Sampled	SDG	Lab Number	Parameter	Lab Result	Data Review Qualifier	Comments	Final Result
VOC (µg/kg)								
068SB-0060M-0001-SO	4/4/2013	240-22852-1	240-22852-1	Acetone	18	UJ	MRL - low	18 UJ
068SB-0060M-0001-SO	4/4/2013	240-22852-1	240-22852-1	Mercury	0.03	J	MRL - low	0.030 J
068SB-0061M-0001-SO	4/4/2013	240-22852-1	240-22852-2	Mercury	0.098	U	MRL - low	0.098 U

Notes:
MRL = Method Reporting Limit
SDG = Sample Delivery Group
SVOC = Semi-volatile Organic Compound
µg/kg = Microgram per Kilogram
mg/kg = Milligram per Kilogram
UJ = Not Detected, with estimated reporting limit
J = Estimated
R = Rejected
U = Undetected

This page left intentionally blank.

3.0 OVERALL ASSESSMENT

The following subsections present the field completeness, analytical completeness, and project completeness determinations for this project.

3.1 Field Completeness

Field completeness for sample collection was assessed by comparing the number of sample points sampled to the number of sample points planned for collection in accordance with FWQAPP Section 13.1. All planned samples were collected. One additional surface water sample was collected for target analytes SVOCs, PCBs, and TAL Metals, and VOC analysis was added to a subsurface soil sample. Field completeness was therefore over 100%. See Table 3-1 for a summary of field completeness.

3.2 Analytical Completeness

Analytical completeness was assessed by comparing the number of valid (analytes that have not been rejected) laboratory analyte measurements performed to the number of laboratory analyte measurements planned. Analytical completeness was 100% for all analytes except for select SVOCs. See Table 3-2 for a summary of analytical completeness. Benzoic acid data were qualified as R in 29 samples due to low LCS and/or MS recoveries. Data for 3,3'-dichlorobenzidine and 4-chloroaniline were qualified as R in 3 and 2 samples, respectively, due to low MS recoveries. Data for 3-nitroaniline, 2-methylphenol, and 4-nitrophenol were qualified as R in 1 sample due to low MS recoveries. Data for n-nitrosodiphenylamine were qualified as R in 4 samples due to low MRL recoveries. SVOC analytical completeness is 98.6%.

3.3 Project Completeness

Project completeness combines sampling and analytical protocols to assess the expectations of the project as a whole. Project completeness is determined by comparing the percentage of samples/measurements that are determined to be usable to the total number of samples/ measurements planned. Project completeness is calculated using the field completeness and analytical completeness (quality data completeness) percentages. Project completeness for characterization site constituents of concern was 100%, except for SVOCs. SVOC project completeness was 98.6%. All field characterization samples and valid analytical results met project completeness limits. See Table 3-3 for the project completeness results.

This page left intentionally blank.

Table 3-1: Field Completeness Summary[1]

	VOC	SVOC	TAL Metals	PCB	Pesticides	Explosives	Propellants[2]
Collected Field Samples	5	46	46	46	4	4	4
Planned Field Samples	4	45	45	45	4	4	4
% Complete	125.00	102.22	102.22	102.22	100.00	100.00	100.00

Table 3-2: Analytical Completeness Summary

	VOC	SVOC	TAL Metals	PCB	Pesticides	Explosives	Propellants[2]
Valid Analytes	180	2995	1058	322	84	60	12
Collected Analytes	180	3036	1058	322	84	60	12
% Complete	100.00	98.6	100.00	100.00	100.00	100.00	100.00

Table 3-3: Project Completeness Summary

	VOC	SVOC	TAL Metals	PCB	Pesticides	Explosives	Propellants[2]
Valid Analytes	180	2995	1058	322	84	60	12
Planned Analytes	180	3036	1058	322	84	60	12
% Complete	100.00	98.6	100.00	100.00	100.00	100.00	100.00

Notes for Table 3-1, 3-2, and 3-3:

1) Only field samples are included in completeness tally
2) Nitroglycerin counted for completeness as an explosive

VOC = Volatile Organic Compound
SVOC = Semi-volatile Organic Compound
TAL = Target Analyte List
PCB = Polychlorinated Biphenyls
Propellants include nitroguanidine, nitrocellulose, and nitroglycerin

This page left intentionally blank.

3.4 Data Usability

The overall quality of the CC-RVAAP-68 Electric Substations (East, West, No. 3) RI information meets or exceeds the established project objectives. Through proper implementation of the project data verification and assessment process, 99.1% of the project information has been determined to be acceptable for use.

Data are usable as qualified J, U, or UJ. Select data have been qualified as R. Select SVOCs were qualified as R due to low LCS recoveries and or low MS recoveries, or low MRL recoveries. All applicable LCS recoveries were above the 10% usable data criteria, with the exception of several for benzoic acid, qualified as R in 8 surficial soil, 4 sediment, and 16 soil boring ISM samples. See Table 2-4 for sample results rejected due to LCS recoveries.

Analytes 3,3'-dichloro-benzidine, 4-chloroaniline, and benzoic acid have MS recoveries less than 10%, so these SVOCs were qualified as R in sample 068SS-0003M-0001-SO. Analytes 3,3'-dichlorobenzidine, 3-nitroaniline, 4-chloroaniline, and benzoic acid have MS recoveries less than 10%, so these SVOCs were qualified as R in sample 068SD-0009-0001-SO. Analyte 3,3'-dichlorobenzidine has a MS recovery less than 10%, so this SVOC was qualified as R in sample 068SW-0016-0001-SW. Analyte benzoic acid has a MS recovery less than 10%, so this SVOC was qualified as R in sample 068SB-0057M-0001-SO. Analytes 2-methylphenol, 4-nitrophenol, and benzoic acid have MS recoveries less than 10%, so these SVOCs were qualified as R in sample 068SB-0031M-0001-SO. It should be noted that 3 of these 4 benzoic acid results were already rejected based on LCS recoveries.

The MRL check is within limits for all methods with exceptions listed in Table 2-10 that have MRL check sample recoveries below 70%. For samples 068SS-0001M-0001-SO, 068SS-0002M-0001-SO, 068SS-0003M-0001-SO, and 068-SS-0004M-0001-SO, the associated MRL % REC for n-Nitrosodiphenylamine is less than 10% and data are non-detect, and therefore qualified as R.

Data that have been estimated provide indications of either accuracy, precision, or sensitivity being less than desired but adequate for interpretation. All undetected analytes were reported at detection levels that were adequate for use during data interpretation and statistical applications. Qualifiers have been applied to data as appropriate. Select analytes had reporting limits greater than FWQAPP requirements, as documented in the DVRWs, but data with elevated limits is still usable for data interpretation and statistical applications. All results with final qualifiers are presented in Appendix G.

Data produced for this project demonstrate they can withstand scientific scrutiny; are appropriate for its intended purpose; are technically defensible; and are of known and acceptable sensitivity,

precision, and accuracy. Data integrity has been documented through proper implementation of quality assurance (QA) and QC measures. A third-party QA data validation report was completed, which is in general concurrence with the data verification findings, and that report is provided in Appendix H. The environmental information presented has an established confidence that allows utilization for the project objectives and provides data for future needs.

4.0 REFERENCES

Environmental Chemical Corporation (ECC), 2012. *Final Quality Assurance Project Plan for Site Inspections and Remedial Investigations at Compliance Restoration Sites Revision 0 Ravenna Army Ammunition Plant Ravenna, Ohio,* Revision 0. July

Science Applications International Corporation (SAIC), 2010. *Final Facility-Wide Human Health Cleanup Goals for the Ravenna Army Ammunition Plant Ravenna, Ohio, Revision 0*. March.

SAIC, 2011. *Final Facility-Wide Sampling and Analysis Plan for Environmental Investigations, Revision 0*. February.

United States Department of Defense (DoD), 2009. *Final Quality Systems Manual for Environmental Laboratories*. Environmental Data Quality Workgroup, Final Version 4.1. October.

United States Army Corp of Engineers (USACE), 2007. *Final Louisville DoD Supplement, Version 1.* Final, March.

United States Environmental Protection Agency (USEPA), 2008. *Final Contract Laboratory Program National Functional Guidelines for Superfund Organic Data Review*, EPA-540/R-08-01. June.

USEPA, 2010. *Final Contract Laboratory Program National Functional Guidelines for Superfund Inorganic Data Review*, EPA-540-R-10-011. January.

This page left intentionally blank.

WORKSHEETS AND ATTACHMENTS
(Note – To be provided on disc only)

This page left intentionally blank.

WORKSHEET 1

Automated Data Review Summary for 240-17317-1 / 240-17422-1

This page left intentionally blank.

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1 / 240-17422-1

Facility: Ravenna Army Ammunition Plant

Event: Fall 2012 SI/RI Sampling

Guidance Document: Ravenna Army Ammunition Plant, Quality Assurance Project Plan, Oct. 3, 2012

Contract Laboratory: TestAmerica, Inc., North Canton, OH

Field Contractor: Environmental Chemical Corporation, Otis Ang Base, MA

Data Review Contractor: ECC

SDG: 240-17317-1_CC68, Certified - 4/12/2013 by frederickroche

QC Level: ADR

Project Manager:

Data Reviewer: n/a

Data Reviewer Title: Sr. QA Chemist

Date of Review Report: April 12, 2013

Second Reviewer: n/a

Completion Date of Second Reviewer:

Samples Included in SDG 240-17317-1_CC68

Analytical Method/ Leach Method	Normal Soil Samples	Field QC Soil Samples
E353.2/NONE	1	1
SW6020/NONE	10	2
SW7471A/NONE	10	2
SW8081/NONE	1	1

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

Analytical Method/ Leach Method	Normal Soil Samples	Field QC Soil Samples
SW8082/NONE	10	2
SW8260B/NONE	1	1
SW8270C/NONE	10	2
SW8330B/NONE	1	1

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

This report assesses the analytical data quality associated with the analyses listed on the preceding cover page. This assessment has been made through a combination of automated data review (ADR) and supplemental manual review, the details of which are described below. The approach taken in the review of this data set is consistent with the requirements contained in the Ravenna Army Ammunition Plant, Quality Assurance Project Plan, Oct. 3, 2012 to the extent possible. Where definitive guidance is not provided, data has been evaluated in a conservative manner using professional judgment. In cases where two qualifiers are listed as an action, such as 'J/UJ', the first qualifier applies to positive results, and the second to non-detect results.

Samples were collected by Environmental Chemical Corporation, Otis Ang Base, MA; analyses were performed by TestAmerica, Inc., North Canton, OH and were reported under sample delivery group (SDG) 240-17317-1_CC68. Results have been evaluated electronically using electronic data deliverables (EDDs) provided by the laboratory. The laboratory data summary forms (hard copy) have been reviewed during this effort and compared to the automated review output. Findings based on the automated data submission and manual data verification processes are detailed in the ADR narrative.

The following quality control elements were supported by the electronic deliverable and were evaluated during this review effort:

- Field Duplicate RPD
- MS Recovery
- MS RPD
- Prep Hold Time
- Surrogate
- Test Hold Time

The following quality control elements were either not applicable to the deliverable, or were not supported by the electronic deliverable, and were therefore not included in the automated data review. Those elements required for the project were reviewed manually, as narrated in the Comment section below.

- Ambient Blank
- Blank
- Blank - Negative
- Calibration Blank
- Calibration Blank - Negative
- Continuing Calibration Verification
- Equipment Blank
- Field Blank

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

Initial Calibration Verification

Lab Replicate RPD

LCS Recovery

LCS RPD

Material Blank

Trip Blank

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

A representative sampling or ten percent of sample and QC results were manually evaluated for compliance with project specific requirements and consistency with hard copy results. The following summaries were generated during the evaluation of this data set and are included in this report as applicable.

Batch – The analytical batch report is reviewed for completeness and compliance with project specific requirements. Incomplete or non-compliant run sequences are identified and their impact on data quality are discussed in the narrative.

QC Outlier – Results exceeding the evaluation criteria are reviewed for compliance with project requirements and a minimum of ten percent of the non-compliant QC values reported electronically are verified for consistency with hard-copy values.

Qualified Results – Qualified results are evaluated for compliance with project requirements and ten percent of qualified results are verified for consistency with the QC Outliers.

Rejected Results – All rejected results are evaluated for compliance with project requirements. The reason for rejection of the data is verified against hard copy data.

Field Duplicates – Field duplicate comparison results are evaluated for compliance with project requirements and ten percent of values reported are verified for consistency with the hard-copy data.

Data Submission Warnings – Warnings encountered during the data submission process are evaluated and their affect on data quality is discussed in the narrative below.

Analytical deficiencies, project non-compliance issues and inconsistencies with hard copy results observed during ADR evaluation process and their impact on data quality are summarized in the narrative below.

A total of 109 results (8.40%) out of the 1298 results (sample and field QC samples) reported are qualified based on review and 21 results (1.62%) have been rejected. Trace values are not counted as qualified results in the above count. The qualified results are detailed in the following tables and discussed in the narrative below, where appropriate.

Narrative Comments

Site 68 and Site 79 SS 2012
SDG: 240-17317-1
SDG: 240-17422-1

Analytical Method	Comment
E353.2	

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

SW6020	Samples 079SS-0001M-0001-SO and 079SS-0002M-0001-SO do not appear in batch report for 6020 (metals) and 7471 (Hg), but have been validated.
SW7471A	
SW8081	
SW8082	
SW8260B	
SW8270C	
SW8330B	

12-Apr-2013

Reviewed by n/a, Sr. QA Chemist

Reviewed by n/a

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

Reason and Comment Code Definitions

Reasons	
Code	**Definition**
A	Serial dilution
A1	Ambient Blank
B	The analyte was found in an associated blank as well as in the sample.
B2	CCB
B3	CCB - Neg
c	LCS - low
C	LCS Recovery
d	Field Duplicate RPD
D	MS RPD
D1	Lab Replicate RPD
D2	No precision available
F	Field Blank
F1	Hydrocarbon pattern does not match standard
G1	Initial Calibration RRF
G2	Initial Calibration RSD
h	Holding time exceeded by less than 2X.
H	Holding time exceeded by more than 2X.
H1	Test Hold Time
H2	Prep Hold Time
I	Surrogate recovery outside project limits.
J	CRA/CRI Recovery
K	An analyte (non-common laboratory artifact) was detected in the sample at a concentration less than 5X the concentration detected in the associated method blank.
L	Lab Blank
L1	Lab Blank - Neg
m	MS - low
M	MS Recovery
N	Blank - No Action

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

Reason and Comment Code Definitions

O	ICS
P	Sample preservation/collection requirement not met.
P1	Column RPD
P2	Improper preparation/extraction
q	Encore sample holding time exceeded by less than 2X.
Q	Encore sample holding time exceeded by more than 2X.
Q1	Material Blank
R	Exceeds LinearCalibration Range
S	Internal standard
T	Trip Blank
TI	Tentatively Identified Compound
TR	Trace Level Detect
U	Receipt Temperature
V	Equipment Blank
V1	ICV
V2	CCV
V3	CCV RRF
V4	Sample Receipt Condition
W	Column breakdown (pesticides)
X	Raised reporting limit
Y	Cooler temperature greater than 10 degreec C.
y	Cooler temperature greater than 4 degrees C, but less than 10 degreec C.
Y1	False Positive
Y2	Data rejected due to radiological anomolies
Z	LCS RPD
Z2	Analyte not confirmed on second column
Z3	High percent moisture in sample.

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

Flag Code and Definitions	
Flag	Definition
U	Undetected: The analyte was analyzed for, but not detected.
UJ	The analyte was not detected; however, the result is estimated due to discrepancies in meeting certain analyte-specific quality control criteria.
J	Estimated: The analyte was positively identified, the quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
R	The data are rejected due to deficiencies in meeting QC criteria and may not be used for decision making.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification".
NJ	The analysis indicates the presence of an analyte that has been “tentatively identified” and the associated numerical value represents its approximate concentration.

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

Batch Report

Test Method: E353.2; Leach Method: NONE												
Analytical Batch	**Prep Batch**	**Leach Batch**	**Location**	**Matrix**	**Field Sample ID**	**Lab Sample ID**	**Calibration Ref**	**Run#/ Dil'n**	**Collection Date/Time**	**Extract Date/Time**	**Analysis Date/Time**	**Sample Type**
6288	6149	NA	68-FBDD-DU3-SS	SO	068SS-0003M-0001-SO	240-17317-7		1/1	06-Nov-2012 12:00 PM	20-Nov-2012 6:48 AM	21-Nov-2012 4:54 PM	N
	6149	NA	68-FBDD-DU3-SS	SO	068SS-0003M-0002-SO	240-17317-7		1/1	06-Nov-2012 12:00 PM	20-Nov-2012 6:48 AM	21-Nov-2012 4:56 PM	MS
	6149	NA	68-FBDD-DU3-SS	SO	068SS-0003M-0002-SO	240-17317-7		1/1	06-Nov-2012 12:00 PM	20-Nov-2012 6:48 AM	21-Nov-2012 4:58 PM	SD
	6149	NA	68-FBDD-DU3-SS	SO	068SS-0004M-0001-SO	240-17317-8		1/1	06-Nov-2012 12:00 PM	20-Nov-2012 6:48 AM	21-Nov-2012 5:00 PM	FD
Test Method: SW6020; Leach Method: NONE												
Analytical Batch	**Prep Batch**	**Leach Batch**	**Location**	**Matrix**	**Field Sample ID**	**Lab Sample ID**	**Calibration Ref**	**Run#/ Dil'n**	**Collection Date/Time**	**Extract Date/Time**	**Analysis Date/Time**	**Sample Type**
65867	65145	NA	68-FTP-DU1-SS	SO	068SS-0001M-0001-SO	240-17317-5		1/1	06-Nov-2012 12:40 PM	15-Nov-2012 10:09 AM	20-Nov-2012 1:42 PM	N
	65145	NA	68-2828-DU2-SS	SO	068SS-0002M-0001-SO	240-17317-6		1/1	06-Nov-2012 12:10 PM	15-Nov-2012 10:09 AM	20-Nov-2012 1:47 PM	N
	65145	NA	68-FBDD-DU3-SS	SO	068SS-0003M-0001-SO	240-17317-7		1/1	06-Nov-2012 12:00 PM	15-Nov-2012 10:09 AM	20-Nov-2012 1:52 PM	N
	65145	NA	68-FBDD-DU3-SS	SO	068SS-0003M-0002-SO	240-17317-7		1/1	06-Nov-2012 12:00 PM	15-Nov-2012 10:09 AM	20-Nov-2012 1:57 PM	MS
	65145	NA	68-FBDD-DU3-SS	SO	068SS-0004M-0001-SO	240-17317-8		1/1	06-Nov-2012 12:00 PM	15-Nov-2012 10:09 AM	20-Nov-2012 2:09 PM	FD
	65145	NA	68-SS3-DU1-SS	SO	068SS-0005M-0001-SO	240-17317-14		1/1	06-Nov-2012 1:50 PM	15-Nov-2012 10:09 AM	20-Nov-2012 2:36 PM	N
	65145	NA	68-FCP-DU1-SS	SO	068SS-0006M-0001-SO	240-17317-15		1/1	06-Nov-2012 3:45 PM	15-Nov-2012 10:09 AM	20-Nov-2012 2:41 PM	N
	65145	NA	68-2527-DU2-SS	SO	068SS-0007M-0001-SO	240-17317-16		1/1	06-Nov-2012 4:15 PM	15-Nov-2012 10:09 AM	20-Nov-2012 2:46 PM	N
	65145	NA	68-RRDD-DU3-SS	SO	068SS-0008M-0001-SO	240-17317-17		1/1	06-Nov-2012 3:10 PM	15-Nov-2012 10:09 AM	20-Nov-2012 2:51 PM	N
66205	65145	NA	68-FTP-DU1-SS	SO	068SS-0001M-0001-SO	240-17317-5		2/2	06-Nov-2012 12:40 PM	15-Nov-2012 10:09 AM	23-Nov-2012 1:05 PM	N
	65145	NA	68-2828-DU2-SS	SO	068SS-0002M-0001-SO	240-17317-6		2/5	06-Nov-2012 12:10 PM	15-Nov-2012 10:09 AM	23-Nov-2012 1:10 PM	N
	65145	NA	68-FBDD-DU3-SS	SO	068SS-0003M-0002-SO	240-17317-7		2/5	06-Nov-2012 12:00 PM	15-Nov-2012 10:09 AM	23-Nov-2012 1:15 PM	MS

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

Batch Report

Test Method: SW6020; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
66205	65145	NA	68-FBDD-DU3-SS	SO	068SS-0003M-0002-SO	240-17317-7		2/5	06-Nov-2012 12:00 PM	15-Nov-2012 10:09 AM	23-Nov-2012 1:20 PM	SD
	65145	NA	68-FBDD-DU3-SS	SO	068SS-0003M-0001-SO	240-17317-7		1/5	06-Nov-2012 12:00 PM	15-Nov-2012 10:09 AM	23-Nov-2012 1:25 PM	N
	65145	NA	68-FBDD-DU3-SS	SO	068SS-0003M-0002-SO	240-17317-7		2/5	06-Nov-2012 12:00 PM	15-Nov-2012 10:09 AM	23-Nov-2012 1:31 PM	SD
	65145	NA	68-FBDD-DU3-SS	SO	068SS-0004M-0001-SO	240-17317-8		2/5	06-Nov-2012 12:00 PM	15-Nov-2012 10:09 AM	23-Nov-2012 1:36 PM	FD
	65145	NA	68-SS3-DU1-SS	SO	068SS-0005M-0001-SO	240-17317-14		2/10	06-Nov-2012 1:50 PM	15-Nov-2012 10:09 AM	23-Nov-2012 1:51 PM	N
	65145	NA	68-FCP-DU1-SS	SO	068SS-0006M-0001-SO	240-17317-15		2/10	06-Nov-2012 3:45 PM	15-Nov-2012 10:09 AM	23-Nov-2012 2:08 PM	N
	65145	NA	68-2527-DU2-SS	SO	068SS-0007M-0001-SO	240-17317-16		2/10	06-Nov-2012 4:15 PM	15-Nov-2012 10:09 AM	23-Nov-2012 2:13 PM	N
	65145	NA	68-RRDD-DU3-SS	SO	068SS-0008M-0001-SO	240-17317-17		2/5	06-Nov-2012 3:10 PM	15-Nov-2012 10:09 AM	23-Nov-2012 2:18 PM	N
	65198	NA	68-SS3-SD	SE	068SD-0009-0001-SO	240-17422-9		1/1	08-Nov-2012 12:35 PM	15-Nov-2012 12:19 PM	23-Nov-2012 5:22 PM	N
	65198	NA	68-SS3-SD	SE	068SD-0009-0002-SO	240-17422-9		1/1	08-Nov-2012 12:35 PM	15-Nov-2012 12:19 PM	23-Nov-2012 5:27 PM	MS
	65198	NA	68-SS3-SD	SE	068SD-0009-0002-SO	240-17422-9		1/1	08-Nov-2012 12:35 PM	15-Nov-2012 12:19 PM	23-Nov-2012 5:32 PM	SD
	65198	NA	68-SS3-SD	SE	068SD-00010-0001-SO	240-17422-10		1/1	08-Nov-2012 12:35 PM	15-Nov-2012 12:19 PM	23-Nov-2012 5:39 PM	FD
	65198	NA	68-SS3-SD2	SE	068SD-00011-0001-SO	240-17422-11		1/1	08-Nov-2012 12:42 PM	15-Nov-2012 12:19 PM	23-Nov-2012 5:44 PM	N
	65198	NA	68-SS3-SD3	SE	068SD-00012-0001-SO	240-17422-12		1/1	08-Nov-2012 12:35 PM	15-Nov-2012 12:19 PM	23-Nov-2012 5:49 PM	N
66869	65198	NA	68-SS3-SD	SE	068SD-00010-0001-SO	240-17422-10		2/5	08-Nov-2012 12:35 PM	15-Nov-2012 12:19 PM	30-Nov-2012 6:12 AM	FD
67023	65198	NA	68-SS3-SD	SE	068SD-0009-0001-SO	240-17422-9		2/10	08-Nov-2012 12:35 PM	15-Nov-2012 12:19 PM	30-Nov-2012 12:02 PM	N
	65198	NA	68-SS3-SD	SE	068SD-0009-0002-SO	240-17422-9		2/10	08-Nov-2012 12:35 PM	15-Nov-2012 12:19 PM	30-Nov-2012 12:08 PM	MS
	65198	NA	68-SS3-SD	SE	068SD-0009-0002-SO	240-17422-9		2/20	08-Nov-2012 12:35 PM	15-Nov-2012 12:19 PM	30-Nov-2012 12:25 PM	SD

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

Batch Report

Test Method: SW7471A; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
65450	65191	NA	68-FTP-DU1-SS	SO	068SS-0001M-0001-SO	240-17317-5		1/1	06-Nov-2012 12:40 PM	15-Nov-2012 2:40 PM	16-Nov-2012 6:31 PM	N
	65191	NA	68-2828-DU2-SS	SO	068SS-0002M-0001-SO	240-17317-6		1/1	06-Nov-2012 12:10 PM	15-Nov-2012 2:40 PM	16-Nov-2012 6:32 PM	N
	65191	NA	68-FBDD-DU3-SS	SO	068SS-0003M-0001-SO	240-17317-7		1/1	06-Nov-2012 12:00 PM	15-Nov-2012 2:40 PM	16-Nov-2012 6:34 PM	N
	65191	NA	68-FBDD-DU3-SS	SO	068SS-0003M-0001-SO	240-17317-7		1/1	06-Nov-2012 12:00 PM	15-Nov-2012 2:40 PM	16-Nov-2012 6:35 PM	MS
	65191	NA	68-FBDD-DU3-SS	SO	068SS-0004M-0001-SO	240-17317-8		1/1	06-Nov-2012 12:00 PM	15-Nov-2012 2:40 PM	16-Nov-2012 6:38 PM	FD
	65191	NA	68-SS3-DU1-SS	SO	068SS-0005M-0001-SO	240-17317-14		1/1	06-Nov-2012 1:50 PM	15-Nov-2012 2:40 PM	16-Nov-2012 6:42 PM	N
	65191	NA	68-FCP-DU1-SS	SO	068SS-0006M-0001-SO	240-17317-15		1/1	06-Nov-2012 3:45 PM	15-Nov-2012 2:40 PM	16-Nov-2012 6:47 PM	N
	65191	NA	68-2527-DU2-SS	SO	068SS-0007M-0001-SO	240-17317-16		1/1	06-Nov-2012 4:15 PM	15-Nov-2012 2:40 PM	16-Nov-2012 6:48 PM	N
	65191	NA	68-RRDD-DU3-SS	SO	068SS-0008M-0001-SO	240-17317-17		1/1	06-Nov-2012 3:10 PM	15-Nov-2012 2:40 PM	16-Nov-2012 6:50 PM	N
	65204	NA	68-SS3-SD	SE	068SD-0009-0001-SO	240-17422-9		1/1	08-Nov-2012 12:35 PM	15-Nov-2012 2:40 PM	16-Nov-2012 7:30 PM	N
	65204	NA	68-SS3-SD	SE	068SD-0009-0002-SO	240-17422-9		1/1	08-Nov-2012 12:35 PM	15-Nov-2012 2:40 PM	16-Nov-2012 7:32 PM	MS
	65204	NA	68-SS3-SD	SE	068SD-0009-0002-SO	240-17422-9		1/1	08-Nov-2012 12:35 PM	15-Nov-2012 2:40 PM	16-Nov-2012 7:33 PM	SD
	65204	NA	68-SS3-SD	SE	068SD-00010-0001-SO	240-17422-10		1/1	08-Nov-2012 12:35 PM	15-Nov-2012 2:40 PM	16-Nov-2012 7:35 PM	FD
	65204	NA	68-SS3-SD2	SE	068SD-00011-0001-SO	240-17422-11		1/1	08-Nov-2012 12:42 PM	15-Nov-2012 2:40 PM	16-Nov-2012 7:40 PM	N
	65204	NA	68-SS3-SD3	SE	068SD-00012-0001-SO	240-17422-12		1/1	08-Nov-2012 12:35 PM	15-Nov-2012 2:40 PM	16-Nov-2012 7:41 PM	N

Test Method: SW8081; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
65793	65399	NA	68-FBDD-DU3-SS	SO	068SS-0003M-0001-SO	240-17317-7		1/10	06-Nov-2012 12:00 PM	16-Nov-2012 1:53 PM	20-Nov-2012 2:16 PM	N

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

Batch Report

Test Method: SW8081; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
65793	65399	NA	68-FBDD-DU3-SS	SO	068SS-0003M-0002-SO	240-17317-7		1/10	06-Nov-2012 12:00 PM	16-Nov-2012 1:53 PM	20-Nov-2012 2:16 PM	MS
	65399	NA	68-FBDD-DU3-SS	SO	068SS-0003M-0002-SO	240-17317-7		1/10	06-Nov-2012 12:00 PM	16-Nov-2012 1:53 PM	20-Nov-2012 2:16 PM	SD
	65399	NA	68-FBDD-DU3-SS	SO	068SS-0003M-0001-SO	240-17317-7		1/10	06-Nov-2012 12:00 PM	16-Nov-2012 1:53 PM	20-Nov-2012 2:41 PM	N
	65399	NA	68-FBDD-DU3-SS	SO	068SS-0003M-0002-SO	240-17317-7		1/10	06-Nov-2012 12:00 PM	16-Nov-2012 1:53 PM	20-Nov-2012 2:41 PM	MS
	65399	NA	68-FBDD-DU3-SS	SO	068SS-0003M-0002-SO	240-17317-7		1/10	06-Nov-2012 12:00 PM	16-Nov-2012 1:53 PM	20-Nov-2012 2:41 PM	SD
	65399	NA	68-FBDD-DU3-SS	SO	068SS-0003M-0002-SO	240-17317-7		1/10	06-Nov-2012 12:00 PM	16-Nov-2012 1:53 PM	20-Nov-2012 3:06 PM	MS
	65399	NA	68-FBDD-DU3-SS	SO	068SS-0003M-0002-SO	240-17317-7		1/10	06-Nov-2012 12:00 PM	16-Nov-2012 1:53 PM	20-Nov-2012 3:06 PM	SD
	65399	NA	68-FBDD-DU3-SS	SO	068SS-0004M-0001-SO	240-17317-8		1/10	06-Nov-2012 12:00 PM	16-Nov-2012 1:53 PM	20-Nov-2012 3:31 PM	FD

Test Method: SW8082; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
65670	65400	NA	68-FTP-DU1-SS	SO	068SS-0001M-0001-SO	240-17317-5		1/1	06-Nov-2012 12:40 PM	16-Nov-2012 1:56 PM	20-Nov-2012 5:05 AM	N
	65400	NA	68-FBDD-DU3-SS	SO	068SS-0003M-0001-SO	240-17317-7		1/1	06-Nov-2012 12:00 PM	16-Nov-2012 1:56 PM	20-Nov-2012 5:20 AM	N
	65400	NA	68-FBDD-DU3-SS	SO	068SS-0003M-0002-SO	240-17317-7		1/1	06-Nov-2012 12:00 PM	16-Nov-2012 1:56 PM	20-Nov-2012 5:20 AM	MS
	65400	NA	68-FBDD-DU3-SS	SO	068SS-0003M-0002-SO	240-17317-7		1/1	06-Nov-2012 12:00 PM	16-Nov-2012 1:56 PM	20-Nov-2012 5:35 AM	MS
	65400	NA	68-FBDD-DU3-SS	SO	068SS-0003M-0002-SO	240-17317-7		1/1	06-Nov-2012 12:00 PM	16-Nov-2012 1:56 PM	20-Nov-2012 5:35 AM	SD
	65400	NA	68-FBDD-DU3-SS	SO	068SS-0003M-0001-SO	240-17317-7		1/1	06-Nov-2012 12:00 PM	16-Nov-2012 1:56 PM	20-Nov-2012 5:50 AM	N
	65400	NA	68-FBDD-DU3-SS	SO	068SS-0003M-0002-SO	240-17317-7		1/1	06-Nov-2012 12:00 PM	16-Nov-2012 1:56 PM	20-Nov-2012 5:50 AM	MS
	65400	NA	68-FBDD-DU3-SS	SO	068SS-0003M-0002-SO	240-17317-7		1/1	06-Nov-2012 12:00 PM	16-Nov-2012 1:56 PM	20-Nov-2012 5:50 AM	SD

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

Batch Report

Test Method: SW8082; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
65670	65400	NA	68-FBDD-DU3-SS	SO	068SS-0004M-0001-SO	240-17317-8		1/1	06-Nov-2012 12:00 PM	16-Nov-2012 1:56 PM	20-Nov-2012 6:05 AM	FD
	65400	NA	68-SS3-DU1-SS	SO	068SS-0005M-0001-SO	240-17317-14		1/1	06-Nov-2012 1:50 PM	16-Nov-2012 1:56 PM	20-Nov-2012 6:20 AM	N
	65400	NA	68-FCP-DU1-SS	SO	068SS-0006M-0001-SO	240-17317-15		1/1	06-Nov-2012 3:45 PM	16-Nov-2012 1:56 PM	20-Nov-2012 6:35 AM	N
	65400	NA	68-2527-DU2-SS	SO	068SS-0007M-0001-SO	240-17317-16		1/1	06-Nov-2012 4:15 PM	16-Nov-2012 1:56 PM	20-Nov-2012 7:19 AM	N
	65400	NA	68-RRDD-DU3-SS	SO	068SS-0008M-0001-SO	240-17317-17		1/1	06-Nov-2012 3:10 PM	16-Nov-2012 1:56 PM	20-Nov-2012 7:34 AM	N
	65400	NA	68-2828-DU2-SS	SO	068SS-0002M-0001-SO	240-17317-6		1/1	06-Nov-2012 12:10 PM	16-Nov-2012 1:56 PM	20-Nov-2012 12:41 PM	N
65860	65499	NA	68-SS3-SD	SE	068SD-0009-0001-SO	240-17422-9		1/1	08-Nov-2012 12:35 PM	18-Nov-2012 11:16 AM	21-Nov-2012 12:40 PM	N
	65499	NA	68-SS3-SD	SE	068SD-0009-0002-SO	240-17422-9		1/1	08-Nov-2012 12:35 PM	18-Nov-2012 11:16 AM	21-Nov-2012 12:55 PM	MS
	65499	NA	68-SS3-SD	SE	068SD-0009-0002-SO	240-17422-9		1/1	08-Nov-2012 12:35 PM	18-Nov-2012 11:16 AM	21-Nov-2012 1:10 PM	SD
	65499	NA	68-SS3-SD	SE	068SD-00010-0001-SO	240-17422-10		1/1	08-Nov-2012 12:35 PM	18-Nov-2012 11:16 AM	21-Nov-2012 1:40 PM	FD
	65499	NA	68-SS3-SD2	SE	068SD-00011-0001-SO	240-17422-11		1/1	08-Nov-2012 12:42 PM	18-Nov-2012 11:16 AM	21-Nov-2012 1:55 PM	N
	65499	NA	68-SS3-SD3	SE	068SD-00012-0001-SO	240-17422-12		1/1	08-Nov-2012 12:35 PM	18-Nov-2012 11:16 AM	21-Nov-2012 2:10 PM	N

Test Method: SW8260B; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
64980	64810	NA	68-FBDD-DU3-SS	SO	068SS-0003M-0001-SO	240-17317-7		1/1	06-Nov-2012 12:00 PM	07-Nov-2012 7:25 PM	14-Nov-2012 7:02 PM	N
	64810	NA	68-FBDD-DU3-SS	SO	068SS-0003M-0002-SO	240-17317-7		1/1	06-Nov-2012 12:00 PM	07-Nov-2012 7:25 PM	14-Nov-2012 7:02 PM	MS
	64810	NA	68-FBDD-DU3-SS	SO	068SS-0003M-0002-SO	240-17317-7		1/1	06-Nov-2012 12:00 PM	07-Nov-2012 7:25 PM	14-Nov-2012 7:24 PM	MS
	64810	NA	68-FBDD-DU3-SS	SO	068SS-0003M-0002-SO	240-17317-7		1/1	06-Nov-2012 12:00 PM	07-Nov-2012 7:25 PM	14-Nov-2012 7:24 PM	SD

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

Batch Report

Test Method: SW8260B; Leach Method: NONE												
Analytical Batch	**Prep Batch**	**Leach Batch**	**Location**	**Matrix**	**Field Sample ID**	**Lab Sample ID**	**Calibration Ref**	**Run#/ Dil'n**	**Collection Date/Time**	**Extract Date/Time**	**Analysis Date/Time**	**Sample Type**
64980	64810	NA	68-FBDD-DU3-SS	SO	068SS-0003M-0001-SO	240-17317-7		1/1	06-Nov-2012 12:00 PM	07-Nov-2012 7:25 PM	14-Nov-2012 7:45 PM	N
	64810	NA	68-FBDD-DU3-SS	SO	068SS-0003M-0002-SO	240-17317-7		1/1	06-Nov-2012 12:00 PM	07-Nov-2012 7:25 PM	14-Nov-2012 7:45 PM	MS
	64810	NA	68-FBDD-DU3-SS	SO	068SS-0003M-0002-SO	240-17317-7		1/1	06-Nov-2012 12:00 PM	07-Nov-2012 7:25 PM	14-Nov-2012 7:45 PM	SD
	64810	NA	68-FBDD-DU3-SS	SO	068SS-0004M-0001-SO	240-17317-8		1/1	06-Nov-2012 12:00 PM	07-Nov-2012 7:25 PM	14-Nov-2012 8:07 PM	FD
Test Method: SW8270C; Leach Method: NONE												
Analytical Batch	**Prep Batch**	**Leach Batch**	**Location**	**Matrix**	**Field Sample ID**	**Lab Sample ID**	**Calibration Ref**	**Run#/ Dil'n**	**Collection Date/Time**	**Extract Date/Time**	**Analysis Date/Time**	**Sample Type**
65876	65352	NA	68-FBDD-DU3-SS	SO	068SS-0003M-0001-SO	240-17317-7		1/1	06-Nov-2012 12:00 PM	16-Nov-2012 11:46 AM	21-Nov-2012 1:38 PM	N
	65352	NA	68-FBDD-DU3-SS	SO	068SS-0003M-0002-SO	240-17317-7		1/1	06-Nov-2012 12:00 PM	16-Nov-2012 11:46 AM	21-Nov-2012 1:38 PM	MS
	65352	NA	68-FBDD-DU3-SS	SO	068SS-0003M-0002-SO	240-17317-7		1/1	06-Nov-2012 12:00 PM	16-Nov-2012 11:46 AM	21-Nov-2012 1:38 PM	SD
	65352	NA	68-FBDD-DU3-SS	SO	068SS-0003M-0001-SO	240-17317-7		1/1	06-Nov-2012 12:00 PM	16-Nov-2012 11:46 AM	21-Nov-2012 2:01 PM	N
	65352	NA	68-FBDD-DU3-SS	SO	068SS-0003M-0002-SO	240-17317-7		1/1	06-Nov-2012 12:00 PM	16-Nov-2012 11:46 AM	21-Nov-2012 2:01 PM	MS
	65352	NA	68-FBDD-DU3-SS	SO	068SS-0003M-0002-SO	240-17317-7		1/1	06-Nov-2012 12:00 PM	16-Nov-2012 11:46 AM	21-Nov-2012 2:01 PM	SD
	65352	NA	68-FBDD-DU3-SS	SO	068SS-0003M-0002-SO	240-17317-7		1/1	06-Nov-2012 12:00 PM	16-Nov-2012 11:46 AM	21-Nov-2012 2:25 PM	MS
	65352	NA	68-FBDD-DU3-SS	SO	068SS-0003M-0002-SO	240-17317-7		1/1	06-Nov-2012 12:00 PM	16-Nov-2012 11:46 AM	21-Nov-2012 2:25 PM	SD
	65352	NA	68-FTP-DU1-SS	SO	068SS-0001M-0001-SO	240-17317-5		1/1	06-Nov-2012 12:40 PM	16-Nov-2012 11:46 AM	21-Nov-2012 2:48 PM	N
	65352	NA	68-2828-DU2-SS	SO	068SS-0002M-0001-SO	240-17317-6		1/1	06-Nov-2012 12:10 PM	16-Nov-2012 11:46 AM	21-Nov-2012 3:12 PM	N
	65352	NA	68-FBDD-DU3-SS	SO	068SS-0004M-0001-SO	240-17317-8		1/5	06-Nov-2012 12:00 PM	16-Nov-2012 11:46 AM	21-Nov-2012 3:35 PM	FD
66702	65386	NA	68-SS3-DU1-SS	SO	068SS-0005M-0001-SO	240-17317-14		1/1	06-Nov-2012 1:50 PM	16-Nov-2012 1:26 PM	29-Nov-2012 10:52 AM	N

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

Batch Report

Test Method: SW8270C; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
66702	65386	NA	68-FCP-DU1-SS	SO	068SS-0006M-0001-SO	240-17317-15		1/1	06-Nov-2012 3:45 PM	16-Nov-2012 1:26 PM	29-Nov-2012 11:17 AM	N
	65386	NA	68-2527-DU2-SS	SO	068SS-0007M-0001-SO	240-17317-16		1/1	06-Nov-2012 4:15 PM	16-Nov-2012 1:26 PM	29-Nov-2012 11:41 AM	N
67921	65386	NA	68-RRDD-DU3-SS	SO	068SS-0008M-0001-SO	240-17317-17		1/1	06-Nov-2012 3:10 PM	16-Nov-2012 1:26 PM	10-Dec-2012 9:39 AM	N
66246	65764	NA	68-SS3-SD	SE	068SD-0009-0001-SO	240-17422-9		1/1	08-Nov-2012 12:35 PM	20-Nov-2012 11:32 AM	26-Nov-2012 1:12 PM	N
	65764	NA	68-SS3-SD	SE	068SD-0009-0002-SO	240-17422-9		1/1	08-Nov-2012 12:35 PM	20-Nov-2012 11:32 AM	26-Nov-2012 1:12 PM	MS
	65764	NA	68-SS3-SD	SE	068SD-0009-0002-SO	240-17422-9		1/1	08-Nov-2012 12:35 PM	20-Nov-2012 11:32 AM	26-Nov-2012 1:12 PM	SD
	65764	NA	68-SS3-SD	SE	068SD-0009-0001-SO	240-17422-9		1/1	08-Nov-2012 12:35 PM	20-Nov-2012 11:32 AM	26-Nov-2012 1:35 PM	N
	65764	NA	68-SS3-SD	SE	068SD-0009-0002-SO	240-17422-9		1/1	08-Nov-2012 12:35 PM	20-Nov-2012 11:32 AM	26-Nov-2012 1:35 PM	MS
	65764	NA	68-SS3-SD	SE	068SD-0009-0002-SO	240-17422-9		1/1	08-Nov-2012 12:35 PM	20-Nov-2012 11:32 AM	26-Nov-2012 1:58 PM	MS
	65764	NA	68-SS3-SD	SE	068SD-0009-0002-SO	240-17422-9		1/1	08-Nov-2012 12:35 PM	20-Nov-2012 11:32 AM	26-Nov-2012 1:58 PM	SD
	65764	NA	68-SS3-SD	SE	068SD-00010-0001-SO	240-17422-10		1/1	08-Nov-2012 12:35 PM	20-Nov-2012 11:32 AM	26-Nov-2012 2:22 PM	FD
	65764	NA	68-SS3-SD2	SE	068SD-00011-0001-SO	240-17422-11		1/1	08-Nov-2012 12:42 PM	20-Nov-2012 11:32 AM	26-Nov-2012 4:18 PM	N
	65764	NA	68-SS3-SD3	SE	068SD-00012-0001-SO	240-17422-12		1/1	08-Nov-2012 12:35 PM	20-Nov-2012 11:32 AM	26-Nov-2012 4:41 PM	N

Test Method: SW8330B; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
6177	6026	NA	68-FBDD-DU3-SS	SO	068SS-0003M-0001-SO	240-17317-7		1/1	06-Nov-2012 12:00 PM	16-Nov-2012 10:46 AM	21-Nov-2012 3:04 AM	N
	6026	NA	68-FBDD-DU3-SS	SO	068SS-0003M-0002-SO	240-17317-7		1/1	06-Nov-2012 12:00 PM	16-Nov-2012 10:46 AM	21-Nov-2012 3:04 AM	MS
	6026	NA	68-FBDD-DU3-SS	SO	068SS-0003M-0001-SO	240-17317-7		1/1	06-Nov-2012 12:00 PM	16-Nov-2012 10:46 AM	21-Nov-2012 3:45 AM	MS

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

Batch Report

Test Method: SW8330B; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
6177	6026	NA	68-FBDD-DU3-SS	SO	068SS-0003M-0002-SO	240-17317-7		1/1	06-Nov-2012 12:00 PM	16-Nov-2012 10:46 AM	21-Nov-2012 3:45 AM	MS
	6026	NA	68-FBDD-DU3-SS	SO	068SS-0003M-0002-SO	240-17317-7		1/1	06-Nov-2012 12:00 PM	16-Nov-2012 10:46 AM	21-Nov-2012 3:45 AM	SD
	6026	NA	68-FBDD-DU3-SS	SO	068SS-0003M-0001-SO	240-17317-7		1/1	06-Nov-2012 12:00 PM	16-Nov-2012 10:46 AM	21-Nov-2012 4:25 AM	N
	6026	NA	68-FBDD-DU3-SS	SO	068SS-0003M-0002-SO	240-17317-7		1/1	06-Nov-2012 12:00 PM	16-Nov-2012 10:46 AM	21-Nov-2012 4:25 AM	MS
	6026	NA	68-FBDD-DU3-SS	SO	068SS-0003M-0002-SO	240-17317-7		1/1	06-Nov-2012 12:00 PM	16-Nov-2012 10:46 AM	21-Nov-2012 4:25 AM	SD
	6026	NA	68-FBDD-DU3-SS	SO	068SS-0004M-0001-SO	240-17317-8		1/1	06-Nov-2012 12:00 PM	16-Nov-2012 10:46 AM	21-Nov-2012 5:46 AM	FD
6340	6035	NA	68-FBDD-DU3-SS	SO	068SS-0003M-0002-SO	240-17317-7		2/1	06-Nov-2012 12:00 PM	16-Nov-2012 11:29 AM	26-Nov-2012 2:25 PM	SD
	6035	NA	68-FBDD-DU3-SS	SO	068SS-0003M-0002-SO	240-17317-7		2/1	06-Nov-2012 12:00 PM	16-Nov-2012 11:29 AM	26-Nov-2012 2:39 PM	MS

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

Field Batch Report

--No Records Found--

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

QC Outlier Report

Test/Prep/Leach	QC Element	Sample ID/ Lab Sample ID	Run# / Dil'n	Analyte	Result (Units)	Qualifier	Warning Limits	Control Limits	Reason	Comment	Rule	Action Level
E353.2 / METHOD/NONE	MS Recovery	068SS-0003M-0002-SO (MS) / 240-17317-7	1 / 1.00	Nitrocellulose	31.7 (PERCENT)	J/UJ	34 - 115	30 - 115	M			
E353.2 / METHOD/NONE	MS Recovery	068SS-0003M-0002-SO (SD) / 240-17317-7	1 / 1.00	Nitrocellulose	32.2 (PERCENT)	J/UJ	34 - 115	30 - 115	M			
E353.2 / METHOD/NONE	Test Hold Time	068SS-0003M-0001-SO (N) / 240-17317-7	1 / 1.00	Nitrocellulose	15.2 (Days)	J/UJ	< 14	< 28	H1	Test Exceeds UWL		
E353.2 / METHOD/NONE	Test Hold Time	068SS-0004M-0001-SO (FD) / 240-17317-8	1 / 1.00	Nitrocellulose	15.2 (Days)	J/UJ	< 14	< 28	H1	Test Exceeds UWL		
SW7471A / TOTAL/NONE	MS Recovery	068SD-0009-0002-SO (MS) / 240-17422-9	1 / 1.00	Mercury	0.0000 (PERCENT)	J/R	80 - 120	30 - 125	M			
SW7471A / TOTAL/NONE	MS Recovery	068SS-0003M-0001-SO (MS) / 240-17317-7	1 / 1.00	Mercury	0.0000 (PERCENT)	J/R	80 - 120	30 - 125	M			
SW8081 / SW3540C/NONE	MS Recovery	068SS-0003M-0002-SO (SD) / 240-17317-7	1 / 10.00	beta-BHC (beta-Hexachlorocyclohexane)	210 (PERCENT)	J/None	60 - 125	20 - 125	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	068SS-0003M-0002-SO (MS) / 240-17317-7	1 / 10.00	beta-BHC (beta-Hexachlorocyclohexane)	312 (PERCENT)	J/None	60 - 125	20 - 125	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	068SS-0003M-0002-SO (SD) / 240-17317-7	1 / 10.00	beta-Endosulfan	11.4 (PERCENT)	J/R	35 - 140	20 - 140	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	068SS-0003M-0002-SO (MS) / 240-17317-7	1 / 10.00	Methoxychlor	147 (PERCENT)	J/None	55 - 145	20 - 145	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	068SS-0003M-0002-SO (SD) / 240-17317-7	1 / 10.00	Methoxychlor	147 (PERCENT)	J/None	55 - 145	20 - 145	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	068SS-0003M-0002-SO (MS) / 240-17317-7	1 / 10.00	p,p'-DDD	320 (PERCENT)	J/None	30 - 135	20 - 135	M	Spike amount Insignificant	4.00	
SW8260B / SW5035/NONE	MS Recovery	068SS-0003M-0002-SO (MS) / 240-17317-7	1 / 1.00	Bromodichloromethane	69.3 (PERCENT)	J/UJ	70 - 130	20 - 130	M			
SW8260B / SW5035/NONE	MS Recovery	068SS-0003M-0002-SO (MS) / 240-17317-7	1 / 1.00	Chlorobenzene	57.5 (PERCENT)	J/UJ	75 - 125	20 - 125	M			
SW8260B / SW5035/NONE	MS Recovery	068SS-0003M-0002-SO (SD) / 240-17317-7	1 / 1.00	Chlorobenzene	67.3 (PERCENT)	J/UJ	75 - 125	20 - 125	M			
SW8260B / SW5035/NONE	MS Recovery	068SS-0003M-0002-SO (MS) / 240-17317-7	1 / 1.00	cis-1,3-Dichloropropene	68.0 (PERCENT)	J/UJ	70 - 125	20 - 125	M			
SW8260B / SW5035/NONE	MS Recovery	068SS-0003M-0002-SO (MS) / 240-17317-7	1 / 1.00	Ethylbenzene	53.5 (PERCENT)	J/UJ	75 - 125	20 - 125	M			
SW8260B / SW5035/NONE	MS Recovery	068SS-0003M-0002-SO (SD) / 240-17317-7	1 / 1.00	Ethylbenzene	65.7 (PERCENT)	J/UJ	75 - 125	20 - 125	M			
SW8260B / SW5035/NONE	MS Recovery	068SS-0003M-0002-SO (MS) / 240-17317-7	1 / 1.00	Styrene	53.5 (PERCENT)	J/UJ	75 - 125	20 - 125	M			

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

QC Outlier Report

Test/Prep/Leach	QC Element	Sample ID/ Lab Sample ID	Run# / Dil'n	Analyte	Result (Units)	Qualifier	Warning Limits	Control Limits	Reason	Comment	Rule	Action Level
SW8260B / SW5035/NONE	MS Recovery	068SS-0003M-0002-SO (SD) / 240-17317-7	1 / 1.00	Styrene	66.2 (PERCENT)	J/UJ	75 - 125	20 - 125	M			
SW8260B / SW5035/NONE	MS Recovery	068SS-0003M-0002-SO (SD) / 240-17317-7	1 / 1.00	Tetrachloroethene (PCE)	62.0 (PERCENT)	J/UJ	65 - 140	20 - 140	M			
SW8260B / SW5035/NONE	MS Recovery	068SS-0003M-0002-SO (MS) / 240-17317-7	1 / 1.00	Toluene	69.5 (PERCENT)	J/UJ	70 - 125	20 - 125	M			
SW8260B / SW5035/NONE	MS Recovery	068SS-0003M-0002-SO (MS) / 240-17317-7	1 / 1.00	Xylenes, Total	52.2 (PERCENT)	J/UJ	75 - 125	20 - 125	M			
SW8260B / SW5035/NONE	MS Recovery	068SS-0003M-0002-SO (SD) / 240-17317-7	1 / 1.00	Xylenes, Total	64.2 (PERCENT)	J/UJ	75 - 125	20 - 125	M			
SW8270C / SW3550/NONE	MS Recovery	068SD-0009-0002-SO (MS) / 240-17422-9	1 / 1.00	3,3'-Dichlorobenzidine	0.0000 (PERCENT)	J/UJ	10 - 130	10 - 130	M			
SW8270C / SW3550/NONE	MS Recovery	068SD-0009-0002-SO (SD) / 240-17422-9	1 / 1.00	3,3'-Dichlorobenzidine	0.0000 (PERCENT)	J/UJ	10 - 130	10 - 130	M			
SW8270C / SW3550/NONE	MS Recovery	068SD-0009-0002-SO (SD) / 240-17422-9	1 / 1.00	3-Nitroaniline	17.0 (PERCENT)	J/UJ	25 - 110	25 - 110	M			
SW8270C / SW3550/NONE	MS Recovery	068SD-0009-0002-SO (MS) / 240-17422-9	1 / 1.00	3-Nitroaniline	8.7 (PERCENT)	J/UJ	25 - 110	25 - 110	M			
SW8270C / SW3550/NONE	MS Recovery	068SD-0009-0002-SO (MS) / 240-17422-9	1 / 1.00	4-Chloroaniline	9.4 (PERCENT)	J/UJ	10 - 100	10 - 100	M			
SW8270C / SW3550/NONE	MS Recovery	068SD-0009-0002-SO (MS) / 240-17422-9	1 / 1.00	4-Nitroaniline	21.1 (PERCENT)	J/UJ	35 - 115	35 - 115	M			
SW8270C / SW3550/NONE	MS Recovery	068SD-0009-0002-SO (SD) / 240-17422-9	1 / 1.00	4-Nitroaniline	23.4 (PERCENT)	J/UJ	35 - 115	35 - 115	M			
SW8270C / SW3550/NONE	MS Recovery	068SD-0009-0002-SO (SD) / 240-17422-9	1 / 1.00	Hexachloroethane	31.7 (PERCENT)	J/UJ	35 - 110	35 - 110	M			
SW8270C / SW3550/NONE	MS Recovery	068SD-0009-0002-SO (SD) / 240-17422-9	1 / 1.00	Naphthalene	-5.7 (PERCENT)	J/UJ	40 - 105	40 - 105	M			
SW8270C / SW3550/NONE	MS Recovery	068SS-0003M-0002-SO (SD) / 240-17317-7	1 / 1.00	3,3'-Dichlorobenzidine	3.8 (PERCENT)	J/UJ	10 - 130	10 - 130	M			
SW8270C / SW3550/NONE	MS Recovery	068SS-0003M-0002-SO (MS) / 240-17317-7	1 / 1.00	3,3'-Dichlorobenzidine	5.7 (PERCENT)	J/UJ	10 - 130	10 - 130	M			
SW8270C / SW3550/NONE	MS Recovery	068SS-0003M-0002-SO (MS) / 240-17317-7	1 / 1.00	4-Chloroaniline	8.4 (PERCENT)	J/UJ	10 - 100	10 - 100	M			
SW8270C / SW3550/NONE	MS Recovery	068SS-0003M-0002-SO (SD) / 240-17317-7	1 / 1.00	Benzo(a)pyrene	46.0 (PERCENT)	J/UJ	50 - 110	50 - 110	M			
SW8270C / SW3550/NONE	MS Recovery	068SS-0003M-0002-SO (SD) / 240-17317-7	1 / 1.00	Benzo(g,h,i)perylene	35.9 (PERCENT)	J/UJ	40 - 125	40 - 125	M			

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

QC Outlier Report

Test/Prep/Leach	QC Element	Sample ID/ Lab Sample ID	Run# / Dil'n	Analyte	Result (Units)	Qualifier	Warning Limits	Control Limits	Reason	Comment	Rule	Action Level
SW8270C / SW3550/NONE	MS Recovery	068SS-0003M-0002-SO (MS) / 240-17317-7	1 / 1.00	Benzyl alcohol	-3.8 (PERCENT)	J/UJ	20 - 125	20 - 125	M			
SW8270C / SW3550/NONE	MS Recovery	068SS-0003M-0002-SO (SD) / 240-17317-7	1 / 1.00	Dibenzofuran	-17.5 (PERCENT)	J/UJ	50 - 105	50 - 105	M			
SW8270C / SW3550/NONE	MS Recovery	068SS-0003M-0002-SO (SD) / 240-17317-7	1 / 1.00	Fluoranthene	53.0 (PERCENT)	J/UJ	55 - 115	55 - 115	M			
SW8270C / SW3550/NONE	MS Recovery	068SS-0003M-0002-SO (MS) / 240-17317-7	1 / 1.00	Isophorone	-11.3 (PERCENT)	J/UJ	45 - 110	45 - 110	M			

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
E353.2/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Nitrocellulose	4.8	0.88	0.88 J	-	MG/KG	H1/M/TR
E353.2/NONE	SO	068SS-0004M-0001-SO	240-17317-8	FD	Nitrocellulose	5.0	5.0	5.0 UJ	-	MG/KG	H1/M
Test Leach	**Matrix**	**FieldSample ID**	**LabSample ID**	**Type**	**Analyte**	**RL**	**Lab Result**	**Qualified Result**	**Bias**	**Units**	**Reason**
SW6020/NONE	SE	068SD-00010-0001-SO	240-17422-10	FD	Antimony	0.16	0.13	0.13 J		MG/KG	TR/M
SW6020/NONE	SE	068SD-00010-0001-SO	240-17422-10	FD	Manganese	0.41	770	770 J		MG/KG	D1
SW6020/NONE	SE	068SD-00010-0001-SO	240-17422-10	FD	Silver	0.082	0.050	0.050 J		MG/KG	TR
SW6020/NONE	SE	068SD-00010-0001-SO	240-17422-10	FD	Sodium	82.0	43.0	43.0 J		MG/KG	TR
SW6020/NONE	SE	068SD-00011-0001-SO	240-17422-11	N	Antimony	0.20	0.11	0.11 J		MG/KG	TR/M
SW6020/NONE	SE	068SD-00011-0001-SO	240-17422-11	N	Manganese	0.49	480	480 J		MG/KG	D1
SW6020/NONE	SE	068SD-00011-0001-SO	240-17422-11	N	Silver	0.098	0.044	0.044 J		MG/KG	TR
SW6020/NONE	SE	068SD-00011-0001-SO	240-17422-11	N	Sodium	98.0	38.0	38.0 J		MG/KG	TR
SW6020/NONE	SE	068SD-00011-0001-SO	240-17422-11	N	Thallium	0.20	0.17	0.17 J		MG/KG	TR
SW6020/NONE	SE	068SD-00012-0001-SO	240-17422-12	N	Antimony	0.17	0.099	0.099 J		MG/KG	TR/M
SW6020/NONE	SE	068SD-00012-0001-SO	240-17422-12	N	Cadmium	0.17	0.089	0.089 J		MG/KG	TR
SW6020/NONE	SE	068SD-00012-0001-SO	240-17422-12	N	Manganese	0.43	300	300 J		MG/KG	D1
SW6020/NONE	SE	068SD-00012-0001-SO	240-17422-12	N	Silver	0.087	0.033	0.033 J		MG/KG	TR
SW6020/NONE	SE	068SD-00012-0001-SO	240-17422-12	N	Sodium	87.0	53.0	53.0 J		MG/KG	TR
SW6020/NONE	SE	068SD-0009-0001-SO	240-17422-9	N	Antimony	0.19	0.13	0.13 J		MG/KG	TR/M
SW6020/NONE	SE	068SD-0009-0001-SO	240-17422-9	N	Manganese	4.8	1200	1200 J		MG/KG	D1
SW6020/NONE	SE	068SD-0009-0001-SO	240-17422-9	N	Silver	0.096	0.056	0.056 J		MG/KG	TR
SW6020/NONE	SE	068SD-0009-0001-SO	240-17422-9	N	Sodium	96.0	47.0	47.0 J		MG/KG	TR
SW6020/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	Antimony	0.19	0.22	0.22 J		MG/KG	M
SW6020/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	Manganese	0.93	820	820 J		MG/KG	D1
SW6020/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	Silver	0.093	0.033	0.033 J		MG/KG	TR
SW6020/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	Thallium	0.19	0.15	0.15 J		MG/KG	TR
SW6020/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	Antimony	0.17	0.12	0.12 J		MG/KG	TR/M
SW6020/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	Manganese	2.1	690	690 J		MG/KG	D1
SW6020/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	Silver	0.085	0.031	0.031 J		MG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
SW6020/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	Sodium	85.0	82.0	82.0 J		MG/KG	TR
SW6020/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	Thallium	0.17	0.15	0.15 J		MG/KG	TR
SW6020/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Antimony	0.85	0.85	0.85 UJ		MG/KG	M
SW6020/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Cadmium	0.17	0.12	0.12 J		MG/KG	TR
SW6020/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Silver	0.085	0.029	0.029 J		MG/KG	TR
SW6020/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Sodium	85.0	52.0	52.0 J		MG/KG	TR
SW6020/NONE	SO	068SS-0004M-0001-SO	240-17317-8	FD	Antimony	0.79	0.79	0.79 UJ		MG/KG	M
SW6020/NONE	SO	068SS-0004M-0001-SO	240-17317-8	FD	Cadmium	0.16	0.10	0.10 J		MG/KG	TR
SW6020/NONE	SO	068SS-0004M-0001-SO	240-17317-8	FD	Manganese	0.40	280	280 J		MG/KG	D1
SW6020/NONE	SO	068SS-0004M-0001-SO	240-17317-8	FD	Silver	0.079	0.030	0.030 J		MG/KG	TR
SW6020/NONE	SO	068SS-0004M-0001-SO	240-17317-8	FD	Sodium	400	72.0	72.0 J		MG/KG	TR
SW6020/NONE	SO	068SS-0004M-0001-SO	240-17317-8	FD	Thallium	0.79	0.26	0.26 J		MG/KG	TR
SW6020/NONE	SO	068SS-0005M-0001-SO	240-17317-14	N	Antimony	0.16	0.088	0.088 J		MG/KG	TR/M
SW6020/NONE	SO	068SS-0005M-0001-SO	240-17317-14	N	Manganese	3.9	990	990 J		MG/KG	D1
SW6020/NONE	SO	068SS-0005M-0001-SO	240-17317-14	N	Silver	0.078	0.025	0.025 J		MG/KG	TR
SW6020/NONE	SO	068SS-0005M-0001-SO	240-17317-14	N	Sodium	78.0	66.0	66.0 J		MG/KG	TR
SW6020/NONE	SO	068SS-0005M-0001-SO	240-17317-14	N	Thallium	0.16	0.14	0.14 J		MG/KG	TR
SW6020/NONE	SO	068SS-0006M-0001-SO	240-17317-15	N	Antimony	0.17	0.11	0.11 J		MG/KG	TR/M
SW6020/NONE	SO	068SS-0006M-0001-SO	240-17317-15	N	Manganese	4.2	1300	1300 J		MG/KG	D1
SW6020/NONE	SO	068SS-0006M-0001-SO	240-17317-15	N	Silver	0.084	0.033	0.033 J		MG/KG	TR
SW6020/NONE	SO	068SS-0006M-0001-SO	240-17317-15	N	Sodium	84.0	46.0	46.0 J		MG/KG	TR
SW6020/NONE	SO	068SS-0006M-0001-SO	240-17317-15	N	Thallium	0.17	0.16	0.16 J		MG/KG	TR
SW6020/NONE	SO	068SS-0007M-0001-SO	240-17317-16	N	Antimony	0.16	0.095	0.095 J		MG/KG	TR/M
SW6020/NONE	SO	068SS-0007M-0001-SO	240-17317-16	N	Cadmium	0.16	0.13	0.13 J		MG/KG	TR
SW6020/NONE	SO	068SS-0007M-0001-SO	240-17317-16	N	Manganese	4.1	1100	1100 J		MG/KG	D1
SW6020/NONE	SO	068SS-0007M-0001-SO	240-17317-16	N	Silver	0.082	0.044	0.044 J		MG/KG	TR
SW6020/NONE	SO	068SS-0007M-0001-SO	240-17317-16	N	Sodium	82.0	42.0	42.0 J		MG/KG	TR
SW6020/NONE	SO	068SS-0008M-0001-SO	240-17317-17	N	Antimony	0.80	0.80	0.80 UJ		MG/KG	M

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
SW6020/NONE	SO	068SS-0008M-0001-SO	240-17317-17	N	Manganese	2.0	640	640 J		MG/KG	D1
SW6020/NONE	SO	068SS-0008M-0001-SO	240-17317-17	N	Silver	0.080	0.039	0.039 J		MG/KG	TR
SW6020/NONE	SO	068SS-0008M-0001-SO	240-17317-17	N	Sodium	80.0	76.0	76.0 J		MG/KG	TR
Test Leach	**Matrix**	**FieldSample ID**	**LabSample ID**	**Type**	**Analyte**	**RL**	**Lab Result**	**Qualified Result**	**Bias**	**Units**	**Reason**
SW7471A/NONE	SE	068SD-00010-0001-SO	240-17422-10	FD	Mercury	0.098	0.078	0.098 U	+	MG/KG	L
SW7471A/NONE	SE	068SD-00011-0001-SO	240-17422-11	N	Mercury	0.098	0.088	0.098 U	+	MG/KG	L
SW7471A/NONE	SE	068SD-00012-0001-SO	240-17422-12	N	Mercury	0.098	0.063	0.098 U	+	MG/KG	L
SW7471A/NONE	SE	068SD-0009-0001-SO	240-17422-9	N	Mercury	0.095	0.079	0.095 U	+	MG/KG	L
SW7471A/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Mercury	0.098	0.046	0.098 U	+	MG/KG	L
SW7471A/NONE	SO	068SS-0004M-0001-SO	240-17317-8	FD	Mercury	0.11	0.048	0.11 U	+	MG/KG	L
SW7471A/NONE	SO	068SS-0005M-0001-SO	240-17317-14	N	Mercury	0.10	0.049	0.10 U	+	MG/KG	L
SW7471A/NONE	SO	068SS-0006M-0001-SO	240-17317-15	N	Mercury	0.092	0.059	0.092 U	+	MG/KG	L
SW7471A/NONE	SO	068SS-0007M-0001-SO	240-17317-16	N	Mercury	0.095	0.068	0.095 U	+	MG/KG	L
SW7471A/NONE	SO	068SS-0008M-0001-SO	240-17317-17	N	Mercury	0.098	0.088	0.098 U	+	MG/KG	L
Test Leach	**Matrix**	**FieldSample ID**	**LabSample ID**	**Type**	**Analyte**	**RL**	**Lab Result**	**Qualified Result**	**Bias**	**Units**	**Reason**
SW8260B/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Bromodichloromethane	4.0	4.0	4.0 UJ	-	UG/KG	M
SW8260B/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Carbon Disulfide	4.0	0.69	0.69 J		UG/KG	TR
SW8260B/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Chlorobenzene	4.0	4.0	4.0 UJ	-	UG/KG	M
SW8260B/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	cis-1,3-Dichloropropene	4.0	4.0	4.0 UJ	-	UG/KG	M
SW8260B/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Ethylbenzene	4.0	4.0	4.0 UJ	-	UG/KG	M
SW8260B/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Styrene	4.0	4.0	4.0 UJ	-	UG/KG	M
SW8260B/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Tetrachloroethene (PCE)	4.0	4.0	4.0 UJ	-	UG/KG	M
SW8260B/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Toluene	4.0	4.0	4.0 UJ	-	UG/KG	M
SW8260B/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Xylenes, Total	8.0	8.0	8.0 UJ	-	UG/KG	M
SW8260B/NONE	SO	068SS-0004M-0001-SO	240-17317-8	FD	2-Hexanone	15.0	0.66	15.0 U	+	UG/KG	L
SW8260B/NONE	SO	068SS-0004M-0001-SO	240-17317-8	FD	Carbon Disulfide	3.7	0.66	0.66 J		UG/KG	TR
SW8260B/NONE	SO	068SS-0004M-0001-SO	240-17317-8	FD	Styrene	3.7	0.14	0.14 J		UG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
SW8270C/NONE	SE	068SD-00010-0001-SO	240-17422-10	FD	1,4-Dichlorobenzene	50.0	20.0	20.0 J		UG/KG	TR
SW8270C/NONE	SE	068SD-00010-0001-SO	240-17422-10	FD	2,4-Dinitrophenol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SE	068SD-00010-0001-SO	240-17422-10	FD	Anthracene	6.7	3.4	3.4 J		UG/KG	TR
SW8270C/NONE	SE	068SD-00010-0001-SO	240-17422-10	FD	Benzo(g,h,i)perylene	6.7	16.0	16.0 J		UG/KG	J
SW8270C/NONE	SE	068SD-00010-0001-SO	240-17422-10	FD	Benzoic acid	660	660	660 R		UG/KG	C
SW8270C/NONE	SE	068SD-00010-0001-SO	240-17422-10	FD	bis(2-Ethylhexyl) Phthalate	50.0	48.0	50.0 U	+	UG/KG	L
SW8270C/NONE	SE	068SD-00010-0001-SO	240-17422-10	FD	Dibenz(a,h)anthracene	6.7	6.7	6.7 UJ		UG/KG	J
SW8270C/NONE	SE	068SD-00010-0001-SO	240-17422-10	FD	Dibenzofuran	50.0	4.7	4.7 J		UG/KG	TR
SW8270C/NONE	SE	068SD-00010-0001-SO	240-17422-10	FD	Fluorene	6.7	3.8	3.8 J		UG/KG	TR
SW8270C/NONE	SE	068SD-00010-0001-SO	240-17422-10	FD	Indeno(1,2,3-c,d)pyrene	6.7	20.0	20.0 J		UG/KG	J
SW8270C/NONE	SE	068SD-00010-0001-SO	240-17422-10	FD	Isophorone	50.0	14.0	14.0 J		UG/KG	TR
SW8270C/NONE	SE	068SD-00011-0001-SO	240-17422-11	N	2,4-Dinitrophenol	340	340	340 UJ		UG/KG	J
SW8270C/NONE	SE	068SD-00011-0001-SO	240-17422-11	N	Benzo(g,h,i)perylene	6.8	6.8	6.8 UJ		UG/KG	J
SW8270C/NONE	SE	068SD-00011-0001-SO	240-17422-11	N	Benzoic acid	670	670	670 R		UG/KG	C
SW8270C/NONE	SE	068SD-00011-0001-SO	240-17422-11	N	bis(2-Ethylhexyl) Phthalate	51.0	35.0	51.0 U	+	UG/KG	L
SW8270C/NONE	SE	068SD-00011-0001-SO	240-17422-11	N	Dibenz(a,h)anthracene	6.8	6.8	6.8 UJ		UG/KG	J
SW8270C/NONE	SE	068SD-00011-0001-SO	240-17422-11	N	Indeno(1,2,3-c,d)pyrene	6.8	6.8	6.8 UJ		UG/KG	J
SW8270C/NONE	SE	068SD-00012-0001-SO	240-17422-12	N	2,4-Dinitrophenol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SE	068SD-00012-0001-SO	240-17422-12	N	Anthracene	6.7	4.9	4.9 J		UG/KG	TR
SW8270C/NONE	SE	068SD-00012-0001-SO	240-17422-12	N	Benzo(g,h,i)perylene	6.7	5.7	5.7 J		UG/KG	TR/J
SW8270C/NONE	SE	068SD-00012-0001-SO	240-17422-12	N	Benzo(k)fluoranthene	6.7	6.4	6.4 J		UG/KG	TR
SW8270C/NONE	SE	068SD-00012-0001-SO	240-17422-12	N	Benzoic acid	660	660	660 R		UG/KG	C
SW8270C/NONE	SE	068SD-00012-0001-SO	240-17422-12	N	bis(2-Ethylhexyl) Phthalate	50.0	35.0	50.0 U	+	UG/KG	L
SW8270C/NONE	SE	068SD-00012-0001-SO	240-17422-12	N	Dibenz(a,h)anthracene	6.7	6.7	6.7 UJ		UG/KG	J
SW8270C/NONE	SE	068SD-00012-0001-SO	240-17422-12	N	Fluorene	6.7	5.8	5.8 J		UG/KG	TR
SW8270C/NONE	SE	068SD-00012-0001-SO	240-17422-12	N	Indeno(1,2,3-c,d)pyrene	6.7	10.0	10.0 J		UG/KG	J
SW8270C/NONE	SE	068SD-0009-0001-SO	240-17422-9	N	2,4-Dinitrophenol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SE	068SD-0009-0001-SO	240-17422-9	N	3,3'-Dichlorobenzidine	99.0	99.0	99.0 R	-	UG/KG	M
SW8270C/NONE	SE	068SD-0009-0001-SO	240-17422-9	N	3-Nitroaniline	200	200	200 R	-	UG/KG	M

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
SW8270C/NONE	SE	068SD-0009-0001-SO	240-17422-9	N	4-Chloroaniline	150	150	150 R	-	UG/KG	M
SW8270C/NONE	SE	068SD-0009-0001-SO	240-17422-9	N	4-Nitroaniline	200	200	200 UJ	-	UG/KG	M
SW8270C/NONE	SE	068SD-0009-0001-SO	240-17422-9	N	Anthracene	6.6	3.3	3.3 J		UG/KG	TR
SW8270C/NONE	SE	068SD-0009-0001-SO	240-17422-9	N	Benzo(g,h,i)perylene	6.6	16.0	16.0 J		UG/KG	J
SW8270C/NONE	SE	068SD-0009-0001-SO	240-17422-9	N	Benzoic acid	650	650	650 R		UG/KG	C/M
SW8270C/NONE	SE	068SD-0009-0001-SO	240-17422-9	N	bis(2-Ethylhexyl) Phthalate	49.0	38.0	49.0 U	+	UG/KG	L
SW8270C/NONE	SE	068SD-0009-0001-SO	240-17422-9	N	Dibenz(a,h)anthracene	6.6	6.6	6.6 UJ		UG/KG	J
SW8270C/NONE	SE	068SD-0009-0001-SO	240-17422-9	N	Indeno(1,2,3-c,d)pyrene	6.6	17.0	17.0 J		UG/KG	J
SW8270C/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	2,4-Dinitrophenol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	4,6-Dinitro-2-Methylphenol	150	150	150 UJ		UG/KG	J
SW8270C/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	Acenaphthene	6.6	5.6	5.6 J		UG/KG	TR
SW8270C/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	Benzo(g,h,i)perylene	6.6	78.0	78.0 J		UG/KG	J
SW8270C/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	Benzoic acid	660	660	660 R		UG/KG	C
SW8270C/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	bis(2-Ethylhexyl) Phthalate	50.0	47.0	50.0 U	+	UG/KG	L
SW8270C/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	Dibenzofuran	50.0	9.6	9.6 J		UG/KG	TR
SW8270C/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	Diethyl Phthalate	50.0	26.0	26.0 J		UG/KG	TR
SW8270C/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	Di-n-Butyl Phthalate	50.0	31.0	31.0 J		UG/KG	TR
SW8270C/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	Isophorone	50.0	22.0	22.0 J		UG/KG	TR
SW8270C/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	n-Nitrosodiphenylamine	50.0	50.0	50.0 R		UG/KG	J
SW8270C/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	2,4-Dinitrophenol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	4,6-Dinitro-2-Methylphenol	150	150	150 UJ		UG/KG	J
SW8270C/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	Benzo(g,h,i)perylene	6.6	120	120 J		UG/KG	J
SW8270C/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	Benzoic acid	650	650	650 R		UG/KG	C
SW8270C/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	Carbazole	49.0	29.0	29.0 J		UG/KG	TR
SW8270C/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	Dibenzofuran	49.0	19.0	19.0 J		UG/KG	TR
SW8270C/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	Diethyl Phthalate	49.0	26.0	26.0 J		UG/KG	TR
SW8270C/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	Di-n-Butyl Phthalate	49.0	40.0	40.0 J		UG/KG	TR
SW8270C/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	Isophorone	49.0	22.0	22.0 J		UG/KG	TR
SW8270C/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	n-Nitrosodiphenylamine	49.0	49.0	49.0 R		UG/KG	J

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
SW8270C/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	2,4-Dinitrophenol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	3,3'-Dichlorobenzidine	100	100	100 R	-	UG/KG	M
SW8270C/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	4,6-Dinitro-2-Methylphenol	150	150	150 UJ		UG/KG	J
SW8270C/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	4-Chloroaniline	150	150	150 R	-	UG/KG	M
SW8270C/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Anthracene	6.7	48.0	48.0 J		UG/KG	d
SW8270C/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Benzo(a)pyrene	6.7	330	330 J	-	UG/KG	M
SW8270C/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Benzo(g,h,i)perylene	6.7	260	260 J	-	UG/KG	M/J/d
SW8270C/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Benzo(k)fluoranthene	6.7	180	180 J		UG/KG	d
SW8270C/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Benzoic acid	660	660	660 R		UG/KG	C/m
SW8270C/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	bis(2-Ethylhexyl) Phthalate	50.0	34.0	50.0 U	+	UG/KG	L
SW8270C/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Carbazole	50.0	44.0	44.0 J		UG/KG	TR
SW8270C/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Diethyl Phthalate	50.0	22.0	22.0 J		UG/KG	TR
SW8270C/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Di-n-Butyl Phthalate	50.0	19.0	19.0 J		UG/KG	TR
SW8270C/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Fluoranthene	6.7	650	650 J	-	UG/KG	M
SW8270C/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Isophorone	50.0	470	16.0 J		UG/KG	TR
SW8270C/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	n-Nitrosodiphenylamine	50.0	50.0	50.0 R		UG/KG	J
SW8270C/NONE	SO	068SS-0004M-0001-SO	240-17317-8	FD	2,4-Dinitrophenol	1600	1600	1600 UJ		UG/KG	J
SW8270C/NONE	SO	068SS-0004M-0001-SO	240-17317-8	FD	2-Methylnaphthalene	33.0	23.0	23.0 J		UG/KG	TR
SW8270C/NONE	SO	068SS-0004M-0001-SO	240-17317-8	FD	4,6-Dinitro-2-Methylphenol	740	740	740 UJ		UG/KG	J
SW8270C/NONE	SO	068SS-0004M-0001-SO	240-17317-8	FD	Anthracene	33.0	28.0	28.0 J		UG/KG	TR/d
SW8270C/NONE	SO	068SS-0004M-0001-SO	240-17317-8	FD	Benzo(g,h,i)perylene	33.0	130	130 J		UG/KG	J/d
SW8270C/NONE	SO	068SS-0004M-0001-SO	240-17317-8	FD	Benzo(k)fluoranthene	33.0	100	100 J		UG/KG	d
SW8270C/NONE	SO	068SS-0004M-0001-SO	240-17317-8	FD	Benzoic acid	3300	3300	3300 R		UG/KG	C
SW8270C/NONE	SO	068SS-0004M-0001-SO	240-17317-8	FD	n-Nitrosodiphenylamine	250	250	250 R		UG/KG	J
SW8270C/NONE	SO	068SS-0005M-0001-SO	240-17317-14	N	Acenaphthene	6.7	6.2	6.2 J		UG/KG	TR
SW8270C/NONE	SO	068SS-0005M-0001-SO	240-17317-14	N	Benzoic acid	660	660	660 R		UG/KG	C
SW8270C/NONE	SO	068SS-0005M-0001-SO	240-17317-14	N	bis(2-Ethylhexyl) Phthalate	50.0	32.0	32.0 J		UG/KG	TR
SW8270C/NONE	SO	068SS-0005M-0001-SO	240-17317-14	N	Dibenzofuran	50.0	8.5	8.5 J		UG/KG	TR
SW8270C/NONE	SO	068SS-0005M-0001-SO	240-17317-14	N	Diethyl Phthalate	50.0	17.0	17.0 J		UG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
SW8270C/NONE	SO	068SS-0005M-0001-SO	240-17317-14	N	Di-n-Butyl Phthalate	50.0	20.0	20.0 J		UG/KG	TR
SW8270C/NONE	SO	068SS-0006M-0001-SO	240-17317-15	N	Acenaphthylene	6.6	4.1	4.1 J		UG/KG	TR
SW8270C/NONE	SO	068SS-0006M-0001-SO	240-17317-15	N	Benzoic acid	650	650	650 R		UG/KG	C
SW8270C/NONE	SO	068SS-0006M-0001-SO	240-17317-15	N	Isophorone	49.0	13.0	13.0 J		UG/KG	TR
SW8270C/NONE	SO	068SS-0007M-0001-SO	240-17317-16	N	Benzoic acid	650	650	650 R		UG/KG	C
SW8270C/NONE	SO	068SS-0007M-0001-SO	240-17317-16	N	bis(2-Ethylhexyl) Phthalate	50.0	29.0	29.0 J		UG/KG	TR
SW8270C/NONE	SO	068SS-0007M-0001-SO	240-17317-16	N	Dibenzofuran	50.0	7.9	7.9 J		UG/KG	TR
SW8270C/NONE	SO	068SS-0008M-0001-SO	240-17317-17	N	1,4-Dichlorobenzene	50.0	21.0	21.0 J		UG/KG	TR
SW8270C/NONE	SO	068SS-0008M-0001-SO	240-17317-17	N	2,4-Dinitrophenol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SO	068SS-0008M-0001-SO	240-17317-17	N	4,6-Dinitro-2-Methylphenol	150	150	150 UJ		UG/KG	J
SW8270C/NONE	SO	068SS-0008M-0001-SO	240-17317-17	N	Benzoic acid	660	660	660 R		UG/KG	C
SW8270C/NONE	SO	068SS-0008M-0001-SO	240-17317-17	N	Carbazole	50.0	46.0	46.0 J		UG/KG	TR
SW8270C/NONE	SO	068SS-0008M-0001-SO	240-17317-17	N	Dibenzofuran	50.0	29.0	29.0 J		UG/KG	TR
SW8270C/NONE	SO	068SS-0008M-0001-SO	240-17317-17	N	Di-n-Butyl Phthalate	50.0	15.0	15.0 J		UG/KG	TR
SW8270C/NONE	SO	068SS-0008M-0001-SO	240-17317-17	N	Isophorone	50.0	15.0	15.0 J		UG/KG	TR
Test Leach	**Matrix**	**FieldSample ID**	**LabSample ID**	**Type**	**Analyte**	**RL**	**Lab Result**	**Qualified Result**	**Bias**	**Units**	**Reason**
SW8330B/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Tetryl	0.25	0.031	0.031 J		MG/KG	TR
SW8330B/NONE	SO	068SS-0004M-0001-SO	240-17317-8	FD	Tetryl	0.25	0.039	0.039 J		MG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
E353.2/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Nitrocellulose	4.8	0.88	0.88 J -	MG/KG	H1/M/TR

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SE	068SD-00010-0001-SO	240-17422-10	FD	Silver	0.082	0.050	0.050 J	MG/KG	TR
SW6020/NONE	SE	068SD-00010-0001-SO	240-17422-10	FD	Aluminum	8.2	13000	13000	MG/KG	
SW6020/NONE	SE	068SD-00010-0001-SO	240-17422-10	FD	Arsenic	0.41	16.0	16.0	MG/KG	
SW6020/NONE	SE	068SD-00010-0001-SO	240-17422-10	FD	Barium	0.41	75.0	75.0	MG/KG	
SW6020/NONE	SE	068SD-00010-0001-SO	240-17422-10	FD	Beryllium	0.082	0.74	0.74	MG/KG	
SW6020/NONE	SE	068SD-00010-0001-SO	240-17422-10	FD	Calcium	160	1200	1200	MG/KG	
SW6020/NONE	SE	068SD-00010-0001-SO	240-17422-10	FD	Cadmium	0.16	0.49	0.49	MG/KG	
SW6020/NONE	SE	068SD-00010-0001-SO	240-17422-10	FD	Cobalt	0.082	12.0	12.0	MG/KG	
SW6020/NONE	SE	068SD-00010-0001-SO	240-17422-10	FD	Chromium	0.41	22.0	22.0	MG/KG	
SW6020/NONE	SE	068SD-00010-0001-SO	240-17422-10	FD	Copper	0.33	27.0	27.0	MG/KG	
SW6020/NONE	SE	068SD-00010-0001-SO	240-17422-10	FD	Iron	200	30000	30000	MG/KG	
SW6020/NONE	SE	068SD-00010-0001-SO	240-17422-10	FD	Potassium	82.0	790	790	MG/KG	
SW6020/NONE	SE	068SD-00010-0001-SO	240-17422-10	FD	Magnesium	82.0	2400	2400	MG/KG	
SW6020/NONE	SE	068SD-00010-0001-SO	240-17422-10	FD	Manganese	0.41	770	770 J	MG/KG	D1
SW6020/NONE	SE	068SD-00010-0001-SO	240-17422-10	FD	Sodium	82.0	43.0	43.0 J	MG/KG	TR
SW6020/NONE	SE	068SD-00010-0001-SO	240-17422-10	FD	Nickel	0.41	25.0	25.0	MG/KG	
SW6020/NONE	SE	068SD-00010-0001-SO	240-17422-10	FD	Lead	0.25	21.0	21.0	MG/KG	
SW6020/NONE	SE	068SD-00010-0001-SO	240-17422-10	FD	Antimony	0.16	0.13	0.13 J	MG/KG	TR/M
SW6020/NONE	SE	068SD-00010-0001-SO	240-17422-10	FD	Selenium	0.41	0.78	0.78	MG/KG	
SW6020/NONE	SE	068SD-00010-0001-SO	240-17422-10	FD	Thallium	0.16	0.23	0.23	MG/KG	
SW6020/NONE	SE	068SD-00010-0001-SO	240-17422-10	FD	Vanadium	0.41	19.0	19.0	MG/KG	
SW6020/NONE	SE	068SD-00010-0001-SO	240-17422-10	FD	Zinc	3.3	130	130	MG/KG	
SW6020/NONE	SE	068SD-00011-0001-SO	240-17422-11	N	Silver	0.098	0.044	0.044 J	MG/KG	TR
SW6020/NONE	SE	068SD-00011-0001-SO	240-17422-11	N	Aluminum	9.8	8300	8300	MG/KG	
SW6020/NONE	SE	068SD-00011-0001-SO	240-17422-11	N	Arsenic	0.49	9.6	9.6	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SE	068SD-00011-0001-SO	240-17422-11	N	Barium	0.49	76.0	76.0	MG/KG	
SW6020/NONE	SE	068SD-00011-0001-SO	240-17422-11	N	Beryllium	0.098	0.49	0.49	MG/KG	
SW6020/NONE	SE	068SD-00011-0001-SO	240-17422-11	N	Calcium	200	1300	1300	MG/KG	
SW6020/NONE	SE	068SD-00011-0001-SO	240-17422-11	N	Cadmium	0.20	0.26	0.26	MG/KG	
SW6020/NONE	SE	068SD-00011-0001-SO	240-17422-11	N	Cobalt	0.098	8.3	8.3	MG/KG	
SW6020/NONE	SE	068SD-00011-0001-SO	240-17422-11	N	Chromium	0.49	12.0	12.0	MG/KG	
SW6020/NONE	SE	068SD-00011-0001-SO	240-17422-11	N	Copper	0.39	12.0	12.0	MG/KG	
SW6020/NONE	SE	068SD-00011-0001-SO	240-17422-11	N	Iron	49.0	22000	22000	MG/KG	
SW6020/NONE	SE	068SD-00011-0001-SO	240-17422-11	N	Potassium	98.0	500	500	MG/KG	
SW6020/NONE	SE	068SD-00011-0001-SO	240-17422-11	N	Magnesium	98.0	1600	1600	MG/KG	
SW6020/NONE	SE	068SD-00011-0001-SO	240-17422-11	N	Manganese	0.49	480	480 J	MG/KG	D1
SW6020/NONE	SE	068SD-00011-0001-SO	240-17422-11	N	Sodium	98.0	38.0	38.0 J	MG/KG	TR
SW6020/NONE	SE	068SD-00011-0001-SO	240-17422-11	N	Nickel	0.49	14.0	14.0	MG/KG	
SW6020/NONE	SE	068SD-00011-0001-SO	240-17422-11	N	Lead	0.29	20.0	20.0	MG/KG	
SW6020/NONE	SE	068SD-00011-0001-SO	240-17422-11	N	Antimony	0.20	0.11	0.11 J	MG/KG	TR/M
SW6020/NONE	SE	068SD-00011-0001-SO	240-17422-11	N	Selenium	0.49	0.58	0.58	MG/KG	
SW6020/NONE	SE	068SD-00011-0001-SO	240-17422-11	N	Thallium	0.20	0.17	0.17 J	MG/KG	TR
SW6020/NONE	SE	068SD-00011-0001-SO	240-17422-11	N	Vanadium	0.49	15.0	15.0	MG/KG	
SW6020/NONE	SE	068SD-00011-0001-SO	240-17422-11	N	Zinc	3.9	56.0	56.0	MG/KG	
SW6020/NONE	SE	068SD-00012-0001-SO	240-17422-12	N	Silver	0.087	0.033	0.033 J	MG/KG	TR
SW6020/NONE	SE	068SD-00012-0001-SO	240-17422-12	N	Aluminum	8.7	11000	11000	MG/KG	
SW6020/NONE	SE	068SD-00012-0001-SO	240-17422-12	N	Arsenic	0.43	8.8	8.8	MG/KG	
SW6020/NONE	SE	068SD-00012-0001-SO	240-17422-12	N	Barium	0.43	57.0	57.0	MG/KG	
SW6020/NONE	SE	068SD-00012-0001-SO	240-17422-12	N	Beryllium	0.087	0.49	0.49	MG/KG	
SW6020/NONE	SE	068SD-00012-0001-SO	240-17422-12	N	Calcium	170	1100	1100	MG/KG	
SW6020/NONE	SE	068SD-00012-0001-SO	240-17422-12	N	Cadmium	0.17	0.089	0.089 J	MG/KG	TR
SW6020/NONE	SE	068SD-00012-0001-SO	240-17422-12	N	Cobalt	0.087	7.2	7.2	MG/KG	
SW6020/NONE	SE	068SD-00012-0001-SO	240-17422-12	N	Chromium	0.43	20.0	20.0	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SE	068SD-00012-0001-SO	240-17422-12	N	Copper	0.35	13.0	13.0	MG/KG	
SW6020/NONE	SE	068SD-00012-0001-SO	240-17422-12	N	Iron	43.0	21000	21000	MG/KG	
SW6020/NONE	SE	068SD-00012-0001-SO	240-17422-12	N	Potassium	87.0	670	670	MG/KG	
SW6020/NONE	SE	068SD-00012-0001-SO	240-17422-12	N	Magnesium	87.0	2100	2100	MG/KG	
SW6020/NONE	SE	068SD-00012-0001-SO	240-17422-12	N	Manganese	0.43	300	300 J	MG/KG	D1
SW6020/NONE	SE	068SD-00012-0001-SO	240-17422-12	N	Sodium	87.0	53.0	53.0 J	MG/KG	TR
SW6020/NONE	SE	068SD-00012-0001-SO	240-17422-12	N	Nickel	0.43	16.0	16.0	MG/KG	
SW6020/NONE	SE	068SD-00012-0001-SO	240-17422-12	N	Lead	0.26	18.0	18.0	MG/KG	
SW6020/NONE	SE	068SD-00012-0001-SO	240-17422-12	N	Antimony	0.17	0.099	0.099 J	MG/KG	TR/M
SW6020/NONE	SE	068SD-00012-0001-SO	240-17422-12	N	Selenium	0.43	0.50	0.50	MG/KG	
SW6020/NONE	SE	068SD-00012-0001-SO	240-17422-12	N	Thallium	0.17	0.17	0.17	MG/KG	
SW6020/NONE	SE	068SD-00012-0001-SO	240-17422-12	N	Vanadium	0.43	20.0	20.0	MG/KG	
SW6020/NONE	SE	068SD-00012-0001-SO	240-17422-12	N	Zinc	3.5	44.0	44.0	MG/KG	
SW6020/NONE	SE	068SD-0009-0001-SO	240-17422-9	N	Silver	0.096	0.056	0.056 J	MG/KG	TR
SW6020/NONE	SE	068SD-0009-0001-SO	240-17422-9	N	Aluminum	9.6	12000	12000	MG/KG	
SW6020/NONE	SE	068SD-0009-0001-SO	240-17422-9	N	Arsenic	0.48	16.0	16.0	MG/KG	
SW6020/NONE	SE	068SD-0009-0001-SO	240-17422-9	N	Barium	0.48	78.0	78.0	MG/KG	
SW6020/NONE	SE	068SD-0009-0001-SO	240-17422-9	N	Beryllium	0.096	0.76	0.76	MG/KG	
SW6020/NONE	SE	068SD-0009-0001-SO	240-17422-9	N	Calcium	190	1500	1500	MG/KG	
SW6020/NONE	SE	068SD-0009-0001-SO	240-17422-9	N	Cadmium	0.19	0.61	0.61	MG/KG	
SW6020/NONE	SE	068SD-0009-0001-SO	240-17422-9	N	Cobalt	0.096	12.0	12.0	MG/KG	
SW6020/NONE	SE	068SD-0009-0001-SO	240-17422-9	N	Chromium	0.48	21.0	21.0	MG/KG	
SW6020/NONE	SE	068SD-0009-0001-SO	240-17422-9	N	Copper	0.38	30.0	30.0	MG/KG	
SW6020/NONE	SE	068SD-0009-0001-SO	240-17422-9	N	Iron	48.0	26000	26000	MG/KG	
SW6020/NONE	SE	068SD-0009-0001-SO	240-17422-9	N	Potassium	96.0	790	790	MG/KG	
SW6020/NONE	SE	068SD-0009-0001-SO	240-17422-9	N	Magnesium	96.0	2400	2400	MG/KG	
SW6020/NONE	SE	068SD-0009-0001-SO	240-17422-9	N	Manganese	4.8	1200	1200 J	MG/KG	D1
SW6020/NONE	SE	068SD-0009-0001-SO	240-17422-9	N	Sodium	96.0	47.0	47.0 J	MG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SE	068SD-0009-0001-SO	240-17422-9	N	Nickel	0.48	24.0	24.0	MG/KG	
SW6020/NONE	SE	068SD-0009-0001-SO	240-17422-9	N	Lead	0.29	23.0	23.0	MG/KG	
SW6020/NONE	SE	068SD-0009-0001-SO	240-17422-9	N	Antimony	0.19	0.13	0.13 J	MG/KG	TR/M
SW6020/NONE	SE	068SD-0009-0001-SO	240-17422-9	N	Selenium	0.48	0.80	0.80	MG/KG	
SW6020/NONE	SE	068SD-0009-0001-SO	240-17422-9	N	Thallium	0.19	0.22	0.22	MG/KG	
SW6020/NONE	SE	068SD-0009-0001-SO	240-17422-9	N	Vanadium	0.48	19.0	19.0	MG/KG	
SW6020/NONE	SE	068SD-0009-0001-SO	240-17422-9	N	Zinc	3.8	160	160	MG/KG	
SW6020/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	Silver	0.093	0.033	0.033 J	MG/KG	TR
SW6020/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	Aluminum	9.3	13000	13000	MG/KG	
SW6020/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	Arsenic	0.47	9.3	9.3	MG/KG	
SW6020/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	Barium	0.47	95.0	95.0	MG/KG	
SW6020/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	Beryllium	0.093	0.90	0.90	MG/KG	
SW6020/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	Calcium	370	29000	29000	MG/KG	
SW6020/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	Cadmium	0.19	0.28	0.28	MG/KG	
SW6020/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	Cobalt	0.093	7.8	7.8	MG/KG	
SW6020/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	Chromium	0.47	21.0	21.0	MG/KG	
SW6020/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	Copper	0.37	16.0	16.0	MG/KG	
SW6020/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	Iron	47.0	23000	23000	MG/KG	
SW6020/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	Potassium	93.0	1100	1100	MG/KG	
SW6020/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	Magnesium	93.0	4700	4700	MG/KG	
SW6020/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	Manganese	0.93	820	820 J	MG/KG	D1
SW6020/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	Sodium	93.0	96.0	96.0	MG/KG	
SW6020/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	Nickel	0.47	22.0	22.0	MG/KG	
SW6020/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	Lead	0.28	21.0	21.0	MG/KG	
SW6020/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	Antimony	0.19	0.22	0.22 J	MG/KG	M
SW6020/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	Selenium	0.47	0.60	0.60	MG/KG	
SW6020/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	Thallium	0.19	0.15	0.15 J	MG/KG	TR
SW6020/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	Vanadium	0.47	19.0	19.0	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	Zinc	3.7	90.0	90.0	MG/KG	
SW6020/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	Silver	0.085	0.031	0.031 J	MG/KG	TR
SW6020/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	Aluminum	8.5	11000	11000	MG/KG	
SW6020/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	Arsenic	0.42	11.0	11.0	MG/KG	
SW6020/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	Barium	0.42	84.0	84.0	MG/KG	
SW6020/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	Beryllium	0.085	0.80	0.80	MG/KG	
SW6020/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	Calcium	850	35000	35000	MG/KG	
SW6020/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	Cadmium	0.17	0.19	0.19	MG/KG	
SW6020/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	Cobalt	0.085	7.4	7.4	MG/KG	
SW6020/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	Chromium	0.42	18.0	18.0	MG/KG	
SW6020/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	Copper	0.34	14.0	14.0	MG/KG	
SW6020/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	Iron	42.0	20000	20000	MG/KG	
SW6020/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	Potassium	85.0	850	850	MG/KG	
SW6020/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	Magnesium	85.0	4000	4000	MG/KG	
SW6020/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	Manganese	2.1	690	690 J	MG/KG	D1
SW6020/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	Sodium	85.0	82.0	82.0 J	MG/KG	TR
SW6020/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	Nickel	0.42	24.0	24.0	MG/KG	
SW6020/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	Lead	0.25	17.0	17.0	MG/KG	
SW6020/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	Antimony	0.17	0.12	0.12 J	MG/KG	TR/M
SW6020/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	Selenium	0.42	0.64	0.64	MG/KG	
SW6020/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	Thallium	0.17	0.15	0.15 J	MG/KG	TR
SW6020/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	Vanadium	0.42	16.0	16.0	MG/KG	
SW6020/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	Zinc	3.4	74.0	74.0	MG/KG	
SW6020/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Silver	0.085	0.029	0.029 J	MG/KG	TR
SW6020/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Aluminum	8.5	13000	13000	MG/KG	
SW6020/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Arsenic	0.43	12.0	12.0	MG/KG	
SW6020/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Barium	2.1	95.0	95.0	MG/KG	
SW6020/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Beryllium	0.085	0.87	0.87	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Calcium	170	3900	3900	MG/KG	
SW6020/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Cadmium	0.17	0.12	0.12 J	MG/KG	TR
SW6020/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Cobalt	0.085	13.0	13.0	MG/KG	
SW6020/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Chromium	0.43	22.0	22.0	MG/KG	
SW6020/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Copper	0.34	18.0	18.0	MG/KG	
SW6020/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Iron	210	31000	31000	MG/KG	
SW6020/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Potassium	85.0	1200	1200	MG/KG	
SW6020/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Magnesium	85.0	3700	3700	MG/KG	
SW6020/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Manganese	2.1	520	520	MG/KG	
SW6020/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Sodium	85.0	52.0	52.0 J	MG/KG	TR
SW6020/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Nickel	0.43	28.0	28.0	MG/KG	
SW6020/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Lead	1.3	18.0	18.0	MG/KG	
SW6020/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Selenium	0.43	0.57	0.57	MG/KG	
SW6020/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Vanadium	0.43	21.0	21.0	MG/KG	
SW6020/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Zinc	3.4	63.0	63.0	MG/KG	
SW6020/NONE	SO	068SS-0004M-0001-SO	240-17317-8	FD	Silver	0.079	0.030	0.030 J	MG/KG	TR
SW6020/NONE	SO	068SS-0004M-0001-SO	240-17317-8	FD	Aluminum	40.0	16000	16000	MG/KG	
SW6020/NONE	SO	068SS-0004M-0001-SO	240-17317-8	FD	Arsenic	0.40	11.0	11.0	MG/KG	
SW6020/NONE	SO	068SS-0004M-0001-SO	240-17317-8	FD	Barium	2.0	83.0	83.0	MG/KG	
SW6020/NONE	SO	068SS-0004M-0001-SO	240-17317-8	FD	Beryllium	0.079	0.83	0.83	MG/KG	
SW6020/NONE	SO	068SS-0004M-0001-SO	240-17317-8	FD	Calcium	160	3900	3900	MG/KG	
SW6020/NONE	SO	068SS-0004M-0001-SO	240-17317-8	FD	Cadmium	0.16	0.10	0.10 J	MG/KG	TR
SW6020/NONE	SO	068SS-0004M-0001-SO	240-17317-8	FD	Cobalt	0.40	11.0	11.0	MG/KG	
SW6020/NONE	SO	068SS-0004M-0001-SO	240-17317-8	FD	Chromium	2.0	24.0	24.0	MG/KG	
SW6020/NONE	SO	068SS-0004M-0001-SO	240-17317-8	FD	Copper	1.6	22.0	22.0	MG/KG	
SW6020/NONE	SO	068SS-0004M-0001-SO	240-17317-8	FD	Iron	200	29000	29000	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	068SS-0004M-0001-SO	240-17317-8	FD	Potassium	79.0	1600	1600	MG/KG	
SW6020/NONE	SO	068SS-0004M-0001-SO	240-17317-8	FD	Magnesium	400	4500	4500	MG/KG	
SW6020/NONE	SO	068SS-0004M-0001-SO	240-17317-8	FD	Manganese	0.40	280	280 J	MG/KG	D1
SW6020/NONE	SO	068SS-0004M-0001-SO	240-17317-8	FD	Sodium	400	72.0	72.0 J	MG/KG	TR
SW6020/NONE	SO	068SS-0004M-0001-SO	240-17317-8	FD	Nickel	2.0	33.0	33.0	MG/KG	
SW6020/NONE	SO	068SS-0004M-0001-SO	240-17317-8	FD	Lead	1.2	16.0	16.0	MG/KG	
SW6020/NONE	SO	068SS-0004M-0001-SO	240-17317-8	FD	Selenium	0.40	0.56	0.56	MG/KG	
SW6020/NONE	SO	068SS-0004M-0001-SO	240-17317-8	FD	Thallium	0.79	0.26	0.26 J	MG/KG	TR
SW6020/NONE	SO	068SS-0004M-0001-SO	240-17317-8	FD	Vanadium	2.0	24.0	24.0	MG/KG	
SW6020/NONE	SO	068SS-0004M-0001-SO	240-17317-8	FD	Zinc	16.0	74.0	74.0	MG/KG	
SW6020/NONE	SO	068SS-0005M-0001-SO	240-17317-14	N	Silver	0.078	0.025	0.025 J	MG/KG	TR
SW6020/NONE	SO	068SS-0005M-0001-SO	240-17317-14	N	Aluminum	7.8	11000	11000	MG/KG	
SW6020/NONE	SO	068SS-0005M-0001-SO	240-17317-14	N	Arsenic	0.39	16.0	16.0	MG/KG	
SW6020/NONE	SO	068SS-0005M-0001-SO	240-17317-14	N	Barium	0.39	81.0	81.0	MG/KG	
SW6020/NONE	SO	068SS-0005M-0001-SO	240-17317-14	N	Beryllium	0.078	0.79	0.79	MG/KG	
SW6020/NONE	SO	068SS-0005M-0001-SO	240-17317-14	N	Calcium	160	22000	22000	MG/KG	
SW6020/NONE	SO	068SS-0005M-0001-SO	240-17317-14	N	Cadmium	0.16	0.18	0.18	MG/KG	
SW6020/NONE	SO	068SS-0005M-0001-SO	240-17317-14	N	Cobalt	0.078	7.5	7.5	MG/KG	
SW6020/NONE	SO	068SS-0005M-0001-SO	240-17317-14	N	Chromium	0.39	18.0	18.0	MG/KG	
SW6020/NONE	SO	068SS-0005M-0001-SO	240-17317-14	N	Copper	0.31	13.0	13.0	MG/KG	
SW6020/NONE	SO	068SS-0005M-0001-SO	240-17317-14	N	Iron	39.0	23000	23000	MG/KG	
SW6020/NONE	SO	068SS-0005M-0001-SO	240-17317-14	N	Potassium	78.0	760	760	MG/KG	
SW6020/NONE	SO	068SS-0005M-0001-SO	240-17317-14	N	Magnesium	78.0	3100	3100	MG/KG	
SW6020/NONE	SO	068SS-0005M-0001-SO	240-17317-14	N	Manganese	3.9	990	990 J	MG/KG	D1
SW6020/NONE	SO	068SS-0005M-0001-SO	240-17317-14	N	Sodium	78.0	66.0	66.0 J	MG/KG	TR
SW6020/NONE	SO	068SS-0005M-0001-SO	240-17317-14	N	Nickel	0.39	18.0	18.0	MG/KG	
SW6020/NONE	SO	068SS-0005M-0001-SO	240-17317-14	N	Lead	0.23	12.0	12.0	MG/KG	
SW6020/NONE	SO	068SS-0005M-0001-SO	240-17317-14	N	Antimony	0.16	0.088	0.088 J	MG/KG	TR/M

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	068SS-0005M-0001-SO	240-17317-14	N	Selenium	0.39	0.53	0.53	MG/KG	
SW6020/NONE	SO	068SS-0005M-0001-SO	240-17317-14	N	Thallium	0.16	0.14	0.14 J	MG/KG	TR
SW6020/NONE	SO	068SS-0005M-0001-SO	240-17317-14	N	Vanadium	0.39	18.0	18.0	MG/KG	
SW6020/NONE	SO	068SS-0005M-0001-SO	240-17317-14	N	Zinc	31.0	210	210	MG/KG	
SW6020/NONE	SO	068SS-0006M-0001-SO	240-17317-15	N	Silver	0.084	0.033	0.033 J	MG/KG	TR
SW6020/NONE	SO	068SS-0006M-0001-SO	240-17317-15	N	Aluminum	8.4	10000	10000	MG/KG	
SW6020/NONE	SO	068SS-0006M-0001-SO	240-17317-15	N	Arsenic	0.42	12.0	12.0	MG/KG	
SW6020/NONE	SO	068SS-0006M-0001-SO	240-17317-15	N	Barium	0.42	73.0	73.0	MG/KG	
SW6020/NONE	SO	068SS-0006M-0001-SO	240-17317-15	N	Beryllium	0.084	0.62	0.62	MG/KG	
SW6020/NONE	SO	068SS-0006M-0001-SO	240-17317-15	N	Calcium	170	6100	6100	MG/KG	
SW6020/NONE	SO	068SS-0006M-0001-SO	240-17317-15	N	Cadmium	0.17	0.24	0.24	MG/KG	
SW6020/NONE	SO	068SS-0006M-0001-SO	240-17317-15	N	Cobalt	0.084	9.7	9.7	MG/KG	
SW6020/NONE	SO	068SS-0006M-0001-SO	240-17317-15	N	Chromium	0.42	18.0	18.0	MG/KG	
SW6020/NONE	SO	068SS-0006M-0001-SO	240-17317-15	N	Copper	0.34	24.0	24.0	MG/KG	
SW6020/NONE	SO	068SS-0006M-0001-SO	240-17317-15	N	Iron	42.0	21000	21000	MG/KG	
SW6020/NONE	SO	068SS-0006M-0001-SO	240-17317-15	N	Potassium	84.0	750	750	MG/KG	
SW6020/NONE	SO	068SS-0006M-0001-SO	240-17317-15	N	Magnesium	84.0	2500	2500	MG/KG	
SW6020/NONE	SO	068SS-0006M-0001-SO	240-17317-15	N	Manganese	4.2	1300	1300 J	MG/KG	D1
SW6020/NONE	SO	068SS-0006M-0001-SO	240-17317-15	N	Sodium	84.0	46.0	46.0 J	MG/KG	TR
SW6020/NONE	SO	068SS-0006M-0001-SO	240-17317-15	N	Nickel	0.42	22.0	22.0	MG/KG	
SW6020/NONE	SO	068SS-0006M-0001-SO	240-17317-15	N	Lead	0.25	15.0	15.0	MG/KG	
SW6020/NONE	SO	068SS-0006M-0001-SO	240-17317-15	N	Antimony	0.17	0.11	0.11 J	MG/KG	TR/M
SW6020/NONE	SO	068SS-0006M-0001-SO	240-17317-15	N	Selenium	0.42	0.59	0.59	MG/KG	
SW6020/NONE	SO	068SS-0006M-0001-SO	240-17317-15	N	Thallium	0.17	0.16	0.16 J	MG/KG	TR
SW6020/NONE	SO	068SS-0006M-0001-SO	240-17317-15	N	Vanadium	0.42	18.0	18.0	MG/KG	
SW6020/NONE	SO	068SS-0006M-0001-SO	240-17317-15	N	Zinc	3.4	110	110	MG/KG	
SW6020/NONE	SO	068SS-0007M-0001-SO	240-17317-16	N	Silver	0.082	0.044	0.044 J	MG/KG	TR
SW6020/NONE	SO	068SS-0007M-0001-SO	240-17317-16	N	Aluminum	8.2	12000	12000	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	068SS-0007M-0001-SO	240-17317-16	N	Arsenic	0.41	10.0	10.0	MG/KG	
SW6020/NONE	SO	068SS-0007M-0001-SO	240-17317-16	N	Barium	0.41	79.0	79.0	MG/KG	
SW6020/NONE	SO	068SS-0007M-0001-SO	240-17317-16	N	Beryllium	0.082	0.65	0.65	MG/KG	
SW6020/NONE	SO	068SS-0007M-0001-SO	240-17317-16	N	Calcium	160	4600	4600	MG/KG	
SW6020/NONE	SO	068SS-0007M-0001-SO	240-17317-16	N	Cadmium	0.16	0.13	0.13 J	MG/KG	TR
SW6020/NONE	SO	068SS-0007M-0001-SO	240-17317-16	N	Cobalt	0.082	9.4	9.4	MG/KG	
SW6020/NONE	SO	068SS-0007M-0001-SO	240-17317-16	N	Chromium	0.41	17.0	17.0	MG/KG	
SW6020/NONE	SO	068SS-0007M-0001-SO	240-17317-16	N	Copper	0.33	11.0	11.0	MG/KG	
SW6020/NONE	SO	068SS-0007M-0001-SO	240-17317-16	N	Iron	41.0	22000	22000	MG/KG	
SW6020/NONE	SO	068SS-0007M-0001-SO	240-17317-16	N	Potassium	82.0	790	790	MG/KG	
SW6020/NONE	SO	068SS-0007M-0001-SO	240-17317-16	N	Magnesium	82.0	2500	2500	MG/KG	
SW6020/NONE	SO	068SS-0007M-0001-SO	240-17317-16	N	Manganese	4.1	1100	1100 J	MG/KG	D1
SW6020/NONE	SO	068SS-0007M-0001-SO	240-17317-16	N	Sodium	82.0	42.0	42.0 J	MG/KG	TR
SW6020/NONE	SO	068SS-0007M-0001-SO	240-17317-16	N	Nickel	0.41	16.0	16.0	MG/KG	
SW6020/NONE	SO	068SS-0007M-0001-SO	240-17317-16	N	Lead	0.25	14.0	14.0	MG/KG	
SW6020/NONE	SO	068SS-0007M-0001-SO	240-17317-16	N	Antimony	0.16	0.095	0.095 J	MG/KG	TR/M
SW6020/NONE	SO	068SS-0007M-0001-SO	240-17317-16	N	Selenium	0.41	0.58	0.58	MG/KG	
SW6020/NONE	SO	068SS-0007M-0001-SO	240-17317-16	N	Thallium	0.16	0.16	0.16	MG/KG	
SW6020/NONE	SO	068SS-0007M-0001-SO	240-17317-16	N	Vanadium	0.41	22.0	22.0	MG/KG	
SW6020/NONE	SO	068SS-0007M-0001-SO	240-17317-16	N	Zinc	3.3	53.0	53.0	MG/KG	
SW6020/NONE	SO	068SS-0008M-0001-SO	240-17317-17	N	Silver	0.080	0.039	0.039 J	MG/KG	TR
SW6020/NONE	SO	068SS-0008M-0001-SO	240-17317-17	N	Aluminum	8.0	13000	13000	MG/KG	
SW6020/NONE	SO	068SS-0008M-0001-SO	240-17317-17	N	Arsenic	0.40	13.0	13.0	MG/KG	
SW6020/NONE	SO	068SS-0008M-0001-SO	240-17317-17	N	Barium	2.0	89.0	89.0	MG/KG	
SW6020/NONE	SO	068SS-0008M-0001-SO	240-17317-17	N	Beryllium	0.080	1.0	1.0	MG/KG	
SW6020/NONE	SO	068SS-0008M-0001-SO	240-17317-17	N	Calcium	160	7300	7300	MG/KG	
SW6020/NONE	SO	068SS-0008M-0001-SO	240-17317-17	N	Cadmium	0.16	0.29	0.29	MG/KG	
SW6020/NONE	SO	068SS-0008M-0001-SO	240-17317-17	N	Cobalt	0.080	9.9	9.9	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	068SS-0008M-0001-SO	240-17317-17	N	Chromium	0.40	21.0	21.0	MG/KG	
SW6020/NONE	SO	068SS-0008M-0001-SO	240-17317-17	N	Copper	0.32	20.0	20.0	MG/KG	
SW6020/NONE	SO	068SS-0008M-0001-SO	240-17317-17	N	Iron	40.0	23000	23000	MG/KG	
SW6020/NONE	SO	068SS-0008M-0001-SO	240-17317-17	N	Potassium	80.0	1200	1200	MG/KG	
SW6020/NONE	SO	068SS-0008M-0001-SO	240-17317-17	N	Magnesium	80.0	3600	3600	MG/KG	
SW6020/NONE	SO	068SS-0008M-0001-SO	240-17317-17	N	Manganese	2.0	640	640 J	MG/KG	D1
SW6020/NONE	SO	068SS-0008M-0001-SO	240-17317-17	N	Sodium	80.0	76.0	76.0 J	MG/KG	TR
SW6020/NONE	SO	068SS-0008M-0001-SO	240-17317-17	N	Nickel	0.40	22.0	22.0	MG/KG	
SW6020/NONE	SO	068SS-0008M-0001-SO	240-17317-17	N	Lead	1.2	28.0	28.0	MG/KG	
SW6020/NONE	SO	068SS-0008M-0001-SO	240-17317-17	N	Selenium	0.40	0.90	0.90	MG/KG	
SW6020/NONE	SO	068SS-0008M-0001-SO	240-17317-17	N	Vanadium	0.40	20.0	20.0	MG/KG	
SW6020/NONE	SO	068SS-0008M-0001-SO	240-17317-17	N	Zinc	3.2	120	120	MG/KG	

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW7471A/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	Mercury	0.11	0.13	0.13	MG/KG	
SW7471A/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	Mercury	0.11	0.13	0.13	MG/KG	

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8260B/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Carbon Disulfide	4.0	0.69	0.69 J	UG/KG	TR
SW8260B/NONE	SO	068SS-0004M-0001-SO	240-17317-8	FD	Carbon Disulfide	3.7	0.66	0.66 J	UG/KG	TR
SW8260B/NONE	SO	068SS-0004M-0001-SO	240-17317-8	FD	Styrene	3.7	0.14	0.14 J	UG/KG	TR

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8270C/NONE	SE	068SD-00010-0001-SO	240-17422-10	FD	Anthracene	6.7	3.4	3.4 J	UG/KG	TR
SW8270C/NONE	SE	068SD-00010-0001-SO	240-17422-10	FD	Benzo(a)anthracene	6.7	18.0	18.0	UG/KG	
SW8270C/NONE	SE	068SD-00010-0001-SO	240-17422-10	FD	Benzo(a)pyrene	6.7	27.0	27.0	UG/KG	
SW8270C/NONE	SE	068SD-00010-0001-SO	240-17422-10	FD	Benzo(b)fluoranthene	6.7	51.0	51.0	UG/KG	
SW8270C/NONE	SE	068SD-00010-0001-SO	240-17422-10	FD	Benzo(g,h,i)perylene	6.7	16.0	16.0 J	UG/KG	J
SW8270C/NONE	SE	068SD-00010-0001-SO	240-17422-10	FD	Benzo(k)fluoranthene	6.7	11.0	11.0	UG/KG	
SW8270C/NONE	SE	068SD-00010-0001-SO	240-17422-10	FD	Chrysene	6.7	36.0	36.0	UG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8270C/NONE	SE	068SD-00010-0001-SO	240-17422-10	FD	Dibenzofuran	50.0	4.7	4.7 J	UG/KG	TR
SW8270C/NONE	SE	068SD-00010-0001-SO	240-17422-10	FD	1,4-Dichlorobenzene	50.0	20.0	20.0 J	UG/KG	TR
SW8270C/NONE	SE	068SD-00010-0001-SO	240-17422-10	FD	Fluorene	6.7	3.8	3.8 J	UG/KG	TR
SW8270C/NONE	SE	068SD-00010-0001-SO	240-17422-10	FD	Fluoranthene	6.7	50.0	50.0	UG/KG	
SW8270C/NONE	SE	068SD-00010-0001-SO	240-17422-10	FD	Indeno(1,2,3-c,d)pyrene	6.7	20.0	20.0 J	UG/KG	J
SW8270C/NONE	SE	068SD-00010-0001-SO	240-17422-10	FD	Isophorone	50.0	14.0	14.0 J	UG/KG	TR
SW8270C/NONE	SE	068SD-00010-0001-SO	240-17422-10	FD	2-Methylnaphthalene	6.7	14.0	14.0	UG/KG	
SW8270C/NONE	SE	068SD-00010-0001-SO	240-17422-10	FD	Naphthalene	6.7	15.0	15.0	UG/KG	
SW8270C/NONE	SE	068SD-00010-0001-SO	240-17422-10	FD	Phenanthrene	6.7	25.0	25.0	UG/KG	
SW8270C/NONE	SE	068SD-00010-0001-SO	240-17422-10	FD	Pyrene	6.7	35.0	35.0	UG/KG	
SW8270C/NONE	SE	068SD-00011-0001-SO	240-17422-11	N	Benzo(a)anthracene	6.8	12.0	12.0	UG/KG	
SW8270C/NONE	SE	068SD-00011-0001-SO	240-17422-11	N	Benzo(a)pyrene	6.8	22.0	22.0	UG/KG	
SW8270C/NONE	SE	068SD-00011-0001-SO	240-17422-11	N	Benzo(b)fluoranthene	6.8	31.0	31.0	UG/KG	
SW8270C/NONE	SE	068SD-00011-0001-SO	240-17422-11	N	Benzo(k)fluoranthene	6.8	8.0	8.0	UG/KG	
SW8270C/NONE	SE	068SD-00011-0001-SO	240-17422-11	N	Chrysene	6.8	17.0	17.0	UG/KG	
SW8270C/NONE	SE	068SD-00011-0001-SO	240-17422-11	N	Fluoranthene	6.8	30.0	30.0	UG/KG	
SW8270C/NONE	SE	068SD-00011-0001-SO	240-17422-11	N	2-Methylnaphthalene	6.8	12.0	12.0	UG/KG	
SW8270C/NONE	SE	068SD-00011-0001-SO	240-17422-11	N	Naphthalene	6.8	12.0	12.0	UG/KG	
SW8270C/NONE	SE	068SD-00011-0001-SO	240-17422-11	N	Phenanthrene	6.8	18.0	18.0	UG/KG	
SW8270C/NONE	SE	068SD-00011-0001-SO	240-17422-11	N	Pyrene	6.8	21.0	21.0	UG/KG	
SW8270C/NONE	SE	068SD-00012-0001-SO	240-17422-12	N	Anthracene	6.7	4.9	4.9 J	UG/KG	TR
SW8270C/NONE	SE	068SD-00012-0001-SO	240-17422-12	N	Benzo(a)anthracene	6.7	12.0	12.0	UG/KG	
SW8270C/NONE	SE	068SD-00012-0001-SO	240-17422-12	N	Benzo(a)pyrene	6.7	20.0	20.0	UG/KG	
SW8270C/NONE	SE	068SD-00012-0001-SO	240-17422-12	N	Benzo(b)fluoranthene	6.7	25.0	25.0	UG/KG	
SW8270C/NONE	SE	068SD-00012-0001-SO	240-17422-12	N	Benzo(g,h,i)perylene	6.7	5.7	5.7 J	UG/KG	TR/J
SW8270C/NONE	SE	068SD-00012-0001-SO	240-17422-12	N	Benzo(k)fluoranthene	6.7	6.4	6.4 J	UG/KG	TR
SW8270C/NONE	SE	068SD-00012-0001-SO	240-17422-12	N	Chrysene	6.7	17.0	17.0	UG/KG	
SW8270C/NONE	SE	068SD-00012-0001-SO	240-17422-12	N	Fluorene	6.7	5.8	5.8 J	UG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8270C/NONE	SE	068SD-00012-0001-SO	240-17422-12	N	Fluoranthene	6.7	35.0	35.0	UG/KG	
SW8270C/NONE	SE	068SD-00012-0001-SO	240-17422-12	N	Indeno(1,2,3-c,d)pyrene	6.7	10.0	10.0 J	UG/KG	J
SW8270C/NONE	SE	068SD-00012-0001-SO	240-17422-12	N	2-Methylnaphthalene	6.7	7.7	7.7	UG/KG	
SW8270C/NONE	SE	068SD-00012-0001-SO	240-17422-12	N	Naphthalene	6.7	8.4	8.4	UG/KG	
SW8270C/NONE	SE	068SD-00012-0001-SO	240-17422-12	N	Phenanthrene	6.7	29.0	29.0	UG/KG	
SW8270C/NONE	SE	068SD-00012-0001-SO	240-17422-12	N	Pyrene	6.7	24.0	24.0	UG/KG	
SW8270C/NONE	SE	068SD-0009-0001-SO	240-17422-9	N	Anthracene	6.6	3.3	3.3 J	UG/KG	TR
SW8270C/NONE	SE	068SD-0009-0001-SO	240-17422-9	N	Benzo(a)anthracene	6.6	16.0	16.0	UG/KG	
SW8270C/NONE	SE	068SD-0009-0001-SO	240-17422-9	N	Benzo(a)pyrene	6.6	26.0	26.0	UG/KG	
SW8270C/NONE	SE	068SD-0009-0001-SO	240-17422-9	N	Benzo(b)fluoranthene	6.6	46.0	46.0	UG/KG	
SW8270C/NONE	SE	068SD-0009-0001-SO	240-17422-9	N	Benzo(g,h,i)perylene	6.6	16.0	16.0 J	UG/KG	J
SW8270C/NONE	SE	068SD-0009-0001-SO	240-17422-9	N	Benzo(k)fluoranthene	6.6	12.0	12.0	UG/KG	
SW8270C/NONE	SE	068SD-0009-0001-SO	240-17422-9	N	Chrysene	6.6	28.0	28.0	UG/KG	
SW8270C/NONE	SE	068SD-0009-0001-SO	240-17422-9	N	Fluoranthene	6.6	38.0	38.0	UG/KG	
SW8270C/NONE	SE	068SD-0009-0001-SO	240-17422-9	N	Indeno(1,2,3-c,d)pyrene	6.6	17.0	17.0 J	UG/KG	J
SW8270C/NONE	SE	068SD-0009-0001-SO	240-17422-9	N	2-Methylnaphthalene	6.6	13.0	13.0	UG/KG	
SW8270C/NONE	SE	068SD-0009-0001-SO	240-17422-9	N	Naphthalene	6.7	472	11.0	UG/KG	
SW8270C/NONE	SE	068SD-0009-0001-SO	240-17422-9	N	Phenanthrene	6.6	22.0	22.0	UG/KG	
SW8270C/NONE	SE	068SD-0009-0001-SO	240-17422-9	N	Pyrene	6.6	28.0	28.0	UG/KG	
SW8270C/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	Acenaphthene	6.6	5.6	5.6 J	UG/KG	TR
SW8270C/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	Acenaphthylene	6.6	20.0	20.0	UG/KG	
SW8270C/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	Anthracene	6.6	39.0	39.0	UG/KG	
SW8270C/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	Benzo(a)anthracene	6.6	170	170	UG/KG	
SW8270C/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	Benzo(a)pyrene	6.6	150	150	UG/KG	
SW8270C/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	Benzo(b)fluoranthene	6.6	300	300	UG/KG	
SW8270C/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	Benzo(g,h,i)perylene	6.6	78.0	78.0 J	UG/KG	J
SW8270C/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	Benzo(k)fluoranthene	6.6	79.0	79.0	UG/KG	
SW8270C/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	Chrysene	6.6	220	220	UG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8270C/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	Dibenz(a,h)anthracene	6.6	32.0	32.0	UG/KG	
SW8270C/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	Dibenzofuran	50.0	9.6	9.6 J	UG/KG	TR
SW8270C/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	Diethyl Phthalate	50.0	26.0	26.0 J	UG/KG	TR
SW8270C/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	Di-n-Butyl Phthalate	50.0	31.0	31.0 J	UG/KG	TR
SW8270C/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	Fluorene	6.6	7.9	7.9	UG/KG	
SW8270C/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	Fluoranthene	6.6	260	260	UG/KG	
SW8270C/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	Indeno(1,2,3-c,d)pyrene	6.6	76.0	76.0	UG/KG	
SW8270C/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	Isophorone	50.0	22.0	22.0 J	UG/KG	TR
SW8270C/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	2-Methylnaphthalene	6.6	18.0	18.0	UG/KG	
SW8270C/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	Naphthalene	6.6	14.0	14.0	UG/KG	
SW8270C/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	Phenanthrene	6.6	76.0	76.0	UG/KG	
SW8270C/NONE	SO	068SS-0001M-0001-SO	240-17317-5	N	Pyrene	6.6	200	200	UG/KG	
SW8270C/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	Acenaphthene	6.6	10.0	10.0	UG/KG	
SW8270C/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	Acenaphthylene	6.6	28.0	28.0	UG/KG	
SW8270C/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	Anthracene	6.6	41.0	41.0	UG/KG	
SW8270C/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	Benzo(a)anthracene	6.6	160	160	UG/KG	
SW8270C/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	Benzo(a)pyrene	6.6	160	160	UG/KG	
SW8270C/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	Benzo(b)fluoranthene	6.6	410	410	UG/KG	
SW8270C/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	Benzo(g,h,i)perylene	6.6	120	120 J	UG/KG	J
SW8270C/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	Benzo(k)fluoranthene	6.6	170	170	UG/KG	
SW8270C/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	Carbazole	49.0	29.0	29.0 J	UG/KG	TR
SW8270C/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	Chrysene	6.6	240	240	UG/KG	
SW8270C/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	Dibenz(a,h)anthracene	6.6	37.0	37.0	UG/KG	
SW8270C/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	Dibenzofuran	49.0	19.0	19.0 J	UG/KG	TR
SW8270C/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	Diethyl Phthalate	49.0	26.0	26.0 J	UG/KG	TR
SW8270C/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	Di-n-Butyl Phthalate	49.0	40.0	40.0 J	UG/KG	TR
SW8270C/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	Fluorene	6.6	12.0	12.0	UG/KG	
SW8270C/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	Fluoranthene	6.6	280	280	UG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8270C/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	Indeno(1,2,3-c,d)pyrene	6.6	100	100	UG/KG	
SW8270C/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	Isophorone	49.0	22.0	22.0 J	UG/KG	TR
SW8270C/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	2-Methylnaphthalene	6.6	37.0	37.0	UG/KG	
SW8270C/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	Naphthalene	6.6	26.0	26.0	UG/KG	
SW8270C/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	Phenanthrene	6.6	110	110	UG/KG	
SW8270C/NONE	SO	068SS-0002M-0001-SO	240-17317-6	N	Pyrene	6.6	230	230	UG/KG	
SW8270C/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Acenaphthene	6.7	17.0	17.0	UG/KG	
SW8270C/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Acenaphthylene	6.7	9.2	9.2	UG/KG	
SW8270C/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Anthracene	6.7	48.0	48.0 J	UG/KG	d
SW8270C/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Benzo(a)anthracene	6.7	270	270	UG/KG	
SW8270C/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Benzo(a)pyrene	6.7	330	330 J -	UG/KG	M
SW8270C/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Benzo(b)fluoranthene	6.7	520	520	UG/KG	
SW8270C/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Benzo(g,h,i)perylene	6.7	260	260 J -	UG/KG	M/J/d
SW8270C/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Benzo(k)fluoranthene	6.7	180	180 J	UG/KG	d
SW8270C/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Carbazole	50.0	44.0	44.0 J	UG/KG	TR
SW8270C/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Chrysene	6.7	340	340	UG/KG	
SW8270C/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Dibenz(a,h)anthracene	6.7	57.0	57.0	UG/KG	
SW8270C/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Dibenzofuran	50.0	473	15.0 J	UG/KG	
SW8270C/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Diethyl Phthalate	50.0	22.0	22.0 J	UG/KG	TR
SW8270C/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Di-n-Butyl Phthalate	50.0	19.0	19.0 J	UG/KG	TR
SW8270C/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Fluorene	6.7	16.0	16.0	UG/KG	
SW8270C/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Fluoranthene	6.7	650	650 J -	UG/KG	M
SW8270C/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Indeno(1,2,3-c,d)pyrene	6.7	220	220	UG/KG	
SW8270C/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Isophorone	50.0	470	16.0 J	UG/KG	TR
SW8270C/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	2-Methylnaphthalene	6.7	30.0	30.0	UG/KG	
SW8270C/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Naphthalene	6.7	24.0	24.0	UG/KG	
SW8270C/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Phenanthrene	6.7	250	250	UG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8270C/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Pyrene	6.7	480	480	UG/KG	
SW8270C/NONE	SO	068SS-0004M-0001-SO	240-17317-8	FD	Anthracene	33.0	28.0	28.0 J	UG/KG	TR/d
SW8270C/NONE	SO	068SS-0004M-0001-SO	240-17317-8	FD	Benzo(a)anthracene	33.0	190	190	UG/KG	
SW8270C/NONE	SO	068SS-0004M-0001-SO	240-17317-8	FD	Benzo(a)pyrene	33.0	250	250	UG/KG	
SW8270C/NONE	SO	068SS-0004M-0001-SO	240-17317-8	FD	Benzo(b)fluoranthene	33.0	390	390	UG/KG	
SW8270C/NONE	SO	068SS-0004M-0001-SO	240-17317-8	FD	Benzo(g,h,i)perylene	33.0	130	130 J	UG/KG	J/d
SW8270C/NONE	SO	068SS-0004M-0001-SO	240-17317-8	FD	Benzo(k)fluoranthene	33.0	100	100 J	UG/KG	d
SW8270C/NONE	SO	068SS-0004M-0001-SO	240-17317-8	FD	Chrysene	33.0	230	230	UG/KG	
SW8270C/NONE	SO	068SS-0004M-0001-SO	240-17317-8	FD	Fluoranthene	33.0	410	410	UG/KG	
SW8270C/NONE	SO	068SS-0004M-0001-SO	240-17317-8	FD	Indeno(1,2,3-c,d)pyrene	33.0	140	140	UG/KG	
SW8270C/NONE	SO	068SS-0004M-0001-SO	240-17317-8	FD	2-Methylnaphthalene	33.0	23.0	23.0 J	UG/KG	TR
SW8270C/NONE	SO	068SS-0004M-0001-SO	240-17317-8	FD	Phenanthrene	33.0	150	150	UG/KG	
SW8270C/NONE	SO	068SS-0004M-0001-SO	240-17317-8	FD	Pyrene	33.0	310	310	UG/KG	
SW8270C/NONE	SO	068SS-0005M-0001-SO	240-17317-14	N	Acenaphthene	6.7	6.2	6.2 J	UG/KG	TR
SW8270C/NONE	SO	068SS-0005M-0001-SO	240-17317-14	N	Acenaphthylene	6.7	6.8	6.8	UG/KG	
SW8270C/NONE	SO	068SS-0005M-0001-SO	240-17317-14	N	Anthracene	6.7	9.0	9.0	UG/KG	
SW8270C/NONE	SO	068SS-0005M-0001-SO	240-17317-14	N	bis(2-Ethylhexyl) Phthalate	50.0	32.0	32.0 J	UG/KG	TR
SW8270C/NONE	SO	068SS-0005M-0001-SO	240-17317-14	N	Benzo(a)anthracene	6.7	10.0	10.0	UG/KG	
SW8270C/NONE	SO	068SS-0005M-0001-SO	240-17317-14	N	Benzo(a)pyrene	6.7	10.0	10.0	UG/KG	
SW8270C/NONE	SO	068SS-0005M-0001-SO	240-17317-14	N	Benzo(b)fluoranthene	6.7	13.0	13.0	UG/KG	
SW8270C/NONE	SO	068SS-0005M-0001-SO	240-17317-14	N	Benzo(g,h,i)perylene	6.7	12.0	12.0	UG/KG	
SW8270C/NONE	SO	068SS-0005M-0001-SO	240-17317-14	N	Benzo(k)fluoranthene	6.7	10.0	10.0	UG/KG	
SW8270C/NONE	SO	068SS-0005M-0001-SO	240-17317-14	N	Chrysene	6.7	14.0	14.0	UG/KG	
SW8270C/NONE	SO	068SS-0005M-0001-SO	240-17317-14	N	Dibenzofuran	50.0	8.5	8.5 J	UG/KG	TR
SW8270C/NONE	SO	068SS-0005M-0001-SO	240-17317-14	N	Diethyl Phthalate	50.0	17.0	17.0 J	UG/KG	TR
SW8270C/NONE	SO	068SS-0005M-0001-SO	240-17317-14	N	Di-n-Butyl Phthalate	50.0	20.0	20.0 J	UG/KG	TR
SW8270C/NONE	SO	068SS-0005M-0001-SO	240-17317-14	N	Fluorene	6.7	8.2	8.2	UG/KG	
SW8270C/NONE	SO	068SS-0005M-0001-SO	240-17317-14	N	Fluoranthene	6.7	14.0	14.0	UG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8270C/NONE	SO	068SS-0005M-0001-SO	240-17317-14	N	Indeno(1,2,3-c,d)pyrene	6.7	9.8	9.8	UG/KG	
SW8270C/NONE	SO	068SS-0005M-0001-SO	240-17317-14	N	2-Methylnaphthalene	6.7	13.0	13.0	UG/KG	
SW8270C/NONE	SO	068SS-0005M-0001-SO	240-17317-14	N	Naphthalene	6.7	12.0	12.0	UG/KG	
SW8270C/NONE	SO	068SS-0005M-0001-SO	240-17317-14	N	Phenanthrene	6.7	15.0	15.0	UG/KG	
SW8270C/NONE	SO	068SS-0005M-0001-SO	240-17317-14	N	Pyrene	6.7	13.0	13.0	UG/KG	
SW8270C/NONE	SO	068SS-0006M-0001-SO	240-17317-15	N	Acenaphthylene	6.6	4.1	4.1 J	UG/KG	TR
SW8270C/NONE	SO	068SS-0006M-0001-SO	240-17317-15	N	Anthracene	6.6	7.0	7.0	UG/KG	
SW8270C/NONE	SO	068SS-0006M-0001-SO	240-17317-15	N	bis(2-Ethylhexyl) Phthalate	49.0	75.0	75.0	UG/KG	
SW8270C/NONE	SO	068SS-0006M-0001-SO	240-17317-15	N	Benzo(a)anthracene	6.6	13.0	13.0	UG/KG	
SW8270C/NONE	SO	068SS-0006M-0001-SO	240-17317-15	N	Benzo(a)pyrene	6.6	12.0	12.0	UG/KG	
SW8270C/NONE	SO	068SS-0006M-0001-SO	240-17317-15	N	Benzo(b)fluoranthene	6.6	16.0	16.0	UG/KG	
SW8270C/NONE	SO	068SS-0006M-0001-SO	240-17317-15	N	Benzo(g,h,i)perylene	6.6	11.0	11.0	UG/KG	
SW8270C/NONE	SO	068SS-0006M-0001-SO	240-17317-15	N	Benzo(k)fluoranthene	6.6	11.0	11.0	UG/KG	
SW8270C/NONE	SO	068SS-0006M-0001-SO	240-17317-15	N	Chrysene	6.6	14.0	14.0	UG/KG	
SW8270C/NONE	SO	068SS-0006M-0001-SO	240-17317-15	N	Fluoranthene	6.6	19.0	19.0	UG/KG	
SW8270C/NONE	SO	068SS-0006M-0001-SO	240-17317-15	N	Indeno(1,2,3-c,d)pyrene	6.6	9.2	9.2	UG/KG	
SW8270C/NONE	SO	068SS-0006M-0001-SO	240-17317-15	N	Isophorone	49.0	13.0	13.0 J	UG/KG	TR
SW8270C/NONE	SO	068SS-0006M-0001-SO	240-17317-15	N	2-Methylnaphthalene	6.6	11.0	11.0	UG/KG	
SW8270C/NONE	SO	068SS-0006M-0001-SO	240-17317-15	N	Naphthalene	6.6	10.0	10.0	UG/KG	
SW8270C/NONE	SO	068SS-0006M-0001-SO	240-17317-15	N	Phenanthrene	6.6	18.0	18.0	UG/KG	
SW8270C/NONE	SO	068SS-0006M-0001-SO	240-17317-15	N	Pyrene	6.6	17.0	17.0	UG/KG	
SW8270C/NONE	SO	068SS-0007M-0001-SO	240-17317-16	N	Acenaphthene	6.6	7.0	7.0	UG/KG	
SW8270C/NONE	SO	068SS-0007M-0001-SO	240-17317-16	N	Anthracene	6.6	18.0	18.0	UG/KG	
SW8270C/NONE	SO	068SS-0007M-0001-SO	240-17317-16	N	bis(2-Ethylhexyl) Phthalate	50.0	29.0	29.0 J	UG/KG	TR
SW8270C/NONE	SO	068SS-0007M-0001-SO	240-17317-16	N	Benzo(a)anthracene	6.6	41.0	41.0	UG/KG	
SW8270C/NONE	SO	068SS-0007M-0001-SO	240-17317-16	N	Benzo(a)pyrene	6.6	30.0	30.0	UG/KG	
SW8270C/NONE	SO	068SS-0007M-0001-SO	240-17317-16	N	Benzo(b)fluoranthene	6.6	44.0	44.0	UG/KG	
SW8270C/NONE	SO	068SS-0007M-0001-SO	240-17317-16	N	Benzo(g,h,i)perylene	6.6	20.0	20.0	UG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8270C/NONE	SO	068SS-0007M-0001-SO	240-17317-16	N	Benzo(k)fluoranthene	6.6	19.0	19.0	UG/KG	
SW8270C/NONE	SO	068SS-0007M-0001-SO	240-17317-16	N	Chrysene	6.6	37.0	37.0	UG/KG	
SW8270C/NONE	SO	068SS-0007M-0001-SO	240-17317-16	N	Dibenzofuran	50.0	7.9	7.9 J	UG/KG	TR
SW8270C/NONE	SO	068SS-0007M-0001-SO	240-17317-16	N	Fluorene	6.6	9.0	9.0	UG/KG	
SW8270C/NONE	SO	068SS-0007M-0001-SO	240-17317-16	N	Fluoranthene	6.6	88.0	88.0	UG/KG	
SW8270C/NONE	SO	068SS-0007M-0001-SO	240-17317-16	N	Indeno(1,2,3-c,d)pyrene	6.6	18.0	18.0	UG/KG	
SW8270C/NONE	SO	068SS-0007M-0001-SO	240-17317-16	N	2-Methylnaphthalene	6.6	9.8	9.8	UG/KG	
SW8270C/NONE	SO	068SS-0007M-0001-SO	240-17317-16	N	Naphthalene	6.6	9.7	9.7	UG/KG	
SW8270C/NONE	SO	068SS-0007M-0001-SO	240-17317-16	N	Phenanthrene	6.6	78.0	78.0	UG/KG	
SW8270C/NONE	SO	068SS-0007M-0001-SO	240-17317-16	N	Pyrene	6.6	65.0	65.0	UG/KG	
SW8270C/NONE	SO	068SS-0008M-0001-SO	240-17317-17	N	Acenaphthene	6.7	21.0	21.0	UG/KG	
SW8270C/NONE	SO	068SS-0008M-0001-SO	240-17317-17	N	Acenaphthylene	6.7	18.0	18.0	UG/KG	
SW8270C/NONE	SO	068SS-0008M-0001-SO	240-17317-17	N	Anthracene	6.7	67.0	67.0	UG/KG	
SW8270C/NONE	SO	068SS-0008M-0001-SO	240-17317-17	N	bis(2-Ethylhexyl) Phthalate	50.0	50.0	50.0	UG/KG	
SW8270C/NONE	SO	068SS-0008M-0001-SO	240-17317-17	N	Benzo(a)anthracene	6.7	270	270	UG/KG	
SW8270C/NONE	SO	068SS-0008M-0001-SO	240-17317-17	N	Benzo(a)pyrene	6.7	300	300	UG/KG	
SW8270C/NONE	SO	068SS-0008M-0001-SO	240-17317-17	N	Benzo(b)fluoranthene	6.7	470	470	UG/KG	
SW8270C/NONE	SO	068SS-0008M-0001-SO	240-17317-17	N	Benzo(g,h,i)perylene	6.7	170	170	UG/KG	
SW8270C/NONE	SO	068SS-0008M-0001-SO	240-17317-17	N	Benzo(k)fluoranthene	6.7	180	180	UG/KG	
SW8270C/NONE	SO	068SS-0008M-0001-SO	240-17317-17	N	Carbazole	50.0	46.0	46.0 J	UG/KG	TR
SW8270C/NONE	SO	068SS-0008M-0001-SO	240-17317-17	N	Chrysene	6.7	330	330	UG/KG	
SW8270C/NONE	SO	068SS-0008M-0001-SO	240-17317-17	N	Dibenz(a,h)anthracene	6.7	45.0	45.0	UG/KG	
SW8270C/NONE	SO	068SS-0008M-0001-SO	240-17317-17	N	Dibenzofuran	50.0	29.0	29.0 J	UG/KG	TR
SW8270C/NONE	SO	068SS-0008M-0001-SO	240-17317-17	N	1,4-Dichlorobenzene	50.0	21.0	21.0 J	UG/KG	TR
SW8270C/NONE	SO	068SS-0008M-0001-SO	240-17317-17	N	Di-n-Butyl Phthalate	50.0	15.0	15.0 J	UG/KG	TR
SW8270C/NONE	SO	068SS-0008M-0001-SO	240-17317-17	N	Fluorene	6.7	27.0	27.0	UG/KG	
SW8270C/NONE	SO	068SS-0008M-0001-SO	240-17317-17	N	Fluoranthene	6.7	650	650	UG/KG	
SW8270C/NONE	SO	068SS-0008M-0001-SO	240-17317-17	N	Indeno(1,2,3-c,d)pyrene	6.7	160	160	UG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8270C/NONE	SO	068SS-0008M-0001-SO	240-17317-17	N	Isophorone	50.0	15.0	15.0 J	UG/KG	TR
SW8270C/NONE	SO	068SS-0008M-0001-SO	240-17317-17	N	2-Methylnaphthalene	6.7	81.0	81.0	UG/KG	
SW8270C/NONE	SO	068SS-0008M-0001-SO	240-17317-17	N	Naphthalene	6.7	62.0	62.0	UG/KG	
SW8270C/NONE	SO	068SS-0008M-0001-SO	240-17317-17	N	Phenanthrene	6.7	280	280	UG/KG	
SW8270C/NONE	SO	068SS-0008M-0001-SO	240-17317-17	N	Pyrene	6.7	500	500	UG/KG	

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8330B/NONE	SO	068SS-0003M-0001-SO	240-17317-7	N	Tetryl	0.25	0.031	0.031 J	MG/KG	TR
SW8330B/NONE	SO	068SS-0004M-0001-SO	240-17317-8	FD	Tetryl	0.25	0.039	0.039 J	MG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

Rejected Results

Test Leach	Matrix	FieldSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8270C/NONE	SE	068SD-00010-0001-SO	FD	Benzoic acid	660	660	R	UG/KG	C
SW8270C/NONE	SE	068SD-00011-0001-SO	N	Benzoic acid	670	670	R	UG/KG	C
SW8270C/NONE	SE	068SD-00012-0001-SO	N	Benzoic acid	660	660	R	UG/KG	C
SW8270C/NONE	SE	068SD-0009-0001-SO	N	Benzoic acid	650	650	R	UG/KG	C/M
SW8270C/NONE	SE	068SD-0009-0001-SO	N	4-Chloroaniline	150	150	R	UG/KG	M
SW8270C/NONE	SE	068SD-0009-0001-SO	N	3,3'-Dichlorobenzidine	99.0	99.0	R	UG/KG	M
SW8270C/NONE	SE	068SD-0009-0001-SO	N	3-Nitroaniline	200	200	R	UG/KG	M
SW8270C/NONE	SO	068SS-0001M-0001-SO	N	Benzoic acid	660	660	R	UG/KG	C
SW8270C/NONE	SO	068SS-0001M-0001-SO	N	n-Nitrosodiphenylamine	50.0	50.0	R	UG/KG	J
SW8270C/NONE	SO	068SS-0002M-0001-SO	N	Benzoic acid	650	650	R	UG/KG	C
SW8270C/NONE	SO	068SS-0002M-0001-SO	N	n-Nitrosodiphenylamine	49.0	49.0	R	UG/KG	J
SW8270C/NONE	SO	068SS-0003M-0001-SO	N	Benzoic acid	660	660	R	UG/KG	C/m
SW8270C/NONE	SO	068SS-0003M-0001-SO	N	4-Chloroaniline	150	150	R	UG/KG	M
SW8270C/NONE	SO	068SS-0003M-0001-SO	N	3,3'-Dichlorobenzidine	100	100	R	UG/KG	M
SW8270C/NONE	SO	068SS-0003M-0001-SO	N	n-Nitrosodiphenylamine	50.0	50.0	R	UG/KG	J
SW8270C/NONE	SO	068SS-0004M-0001-SO	FD	Benzoic acid	3300	3300	R	UG/KG	C
SW8270C/NONE	SO	068SS-0004M-0001-SO	FD	n-Nitrosodiphenylamine	250	250	R	UG/KG	J
SW8270C/NONE	SO	068SS-0005M-0001-SO	N	Benzoic acid	660	660	R	UG/KG	C
SW8270C/NONE	SO	068SS-0006M-0001-SO	N	Benzoic acid	650	650	R	UG/KG	C
SW8270C/NONE	SO	068SS-0007M-0001-SO	N	Benzoic acid	650	650	R	UG/KG	C
SW8270C/NONE	SO	068SS-0008M-0001-SO	N	Benzoic acid	660	660	R	UG/KG	C

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

Anomalies Count

SDG Name: 240-17317-1_CC68

Test/Extraction Method/Leach	# of Field Samples Outside of Compliance	# of Analytes Outside of Compliance
SW6020/SW3050B/NONE	12	108
SW7471A/TOTAL/NONE	3	3
SW8081/SW3540C/NONE	2	42
SW8082/SW3540C/NONE	12	84
SW8260B/SW5035/NONE	2	2
SW8270C/SW3550/NONE	12	37

Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

Reporting Anomalies

SDG Name: 240-17317-1_CC68

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW6020/NONE	068SD-00010-0001-SO	FD	1	Cadmium	0.49	0.0025	0.16	0.1	MG/KG
SW6020/NONE	068SD-00010-0001-SO	FD	1	Calcium	1200	33	160	10	MG/KG
SW6020/NONE	068SD-00010-0001-SO	FD	5	Iron	30000	45	200	10	MG/KG
SW6020/NONE	068SD-00010-0001-SO	FD	1	Magnesium	2400	7.3	82	10	MG/KG
SW6020/NONE	068SD-00010-0001-SO	FD	1	Potassium	790	3.1	82	20	MG/KG
SW6020/NONE	068SD-00010-0001-SO	FD	1	Sodium	43 J	11	82	20	MG/KG
SW6020/NONE	068SD-00010-0001-SO	FD	1	Zinc	130	0.82	3.3	1	MG/KG
SW6020/NONE	068SD-00011-0001-SO	N	1	Cadmium	0.26	0.003	0.2	0.1	MG/KG
SW6020/NONE	068SD-00011-0001-SO	N	1	Calcium	1300	39	200	10	MG/KG
SW6020/NONE	068SD-00011-0001-SO	N	1	Iron	22000	11	49	10	MG/KG
SW6020/NONE	068SD-00011-0001-SO	N	1	Magnesium	1600	8.7	98	10	MG/KG
SW6020/NONE	068SD-00011-0001-SO	N	1	Potassium	500	3.7	98	20	MG/KG
SW6020/NONE	068SD-00011-0001-SO	N	1	Sodium	38 J	14	98	20	MG/KG
SW6020/NONE	068SD-00011-0001-SO	N	1	Zinc	56	0.98	3.9	1	MG/KG
SW6020/NONE	068SD-00012-0001-SO	N	1	Cadmium	0.089 J	0.0027	0.17	0.1	MG/KG
SW6020/NONE	068SD-00012-0001-SO	N	1	Calcium	1100	35	170	10	MG/KG
SW6020/NONE	068SD-00012-0001-SO	N	1	Iron	21000	9.5	43	10	MG/KG
SW6020/NONE	068SD-00012-0001-SO	N	1	Magnesium	2100	7.7	87	10	MG/KG
SW6020/NONE	068SD-00012-0001-SO	N	1	Potassium	670	3.3	87	20	MG/KG
SW6020/NONE	068SD-00012-0001-SO	N	1	Sodium	53 J	12	87	20	MG/KG
SW6020/NONE	068SD-00012-0001-SO	N	1	Zinc	44	0.87	3.5	1	MG/KG
SW6020/NONE	068SD-0009-0001-SO	N	1	Cadmium	0.61	0.003	0.19	0.1	MG/KG
SW6020/NONE	068SD-0009-0001-SO	N	1	Calcium	1500	39	190	10	MG/KG
SW6020/NONE	068SD-0009-0001-SO	N	1	Iron	26000	10	48	10	MG/KG
SW6020/NONE	068SD-0009-0001-SO	N	1	Magnesium	2400	8.6	96	10	MG/KG
SW6020/NONE	068SD-0009-0001-SO	N	10	Manganese	891 J	1.5	4.8	1	MG/KG
SW6020/NONE	068SD-0009-0001-SO	N	1	Potassium	790	3.6	96	20	MG/KG
SW6020/NONE	068SD-0009-0001-SO	N	1	Sodium	47 J	13	96	20	MG/KG
SW6020/NONE	068SD-0009-0001-SO	N	1	Zinc	160	0.96	3.8	1	MG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

Reporting Anomalies

SDG Name: 240-17317-1_CC68

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW6020/NONE	068SS-0001M-0001-SO	N	1	Cadmium	0.28	0.0029	0.19	0.1	MG/KG
SW6020/NONE	068SS-0001M-0001-SO	N	2	Calcium	29000	75	370	10	MG/KG
SW6020/NONE	068SS-0001M-0001-SO	N	1	Iron	23000	10	47	10	MG/KG
SW6020/NONE	068SS-0001M-0001-SO	N	1	Magnesium	4700	8.3	93	10	MG/KG
SW6020/NONE	068SS-0001M-0001-SO	N	1	Potassium	1100	3.5	93	20	MG/KG
SW6020/NONE	068SS-0001M-0001-SO	N	1	Sodium	96	13	93	20	MG/KG
SW6020/NONE	068SS-0001M-0001-SO	N	1	Zinc	90	0.93	3.7	1	MG/KG
SW6020/NONE	068SS-0002M-0001-SO	N	1	Cadmium	0.19	0.0026	0.17	0.1	MG/KG
SW6020/NONE	068SS-0002M-0001-SO	N	5	Calcium	35000	170	850	10	MG/KG
SW6020/NONE	068SS-0002M-0001-SO	N	1	Iron	20000	9.2	42	10	MG/KG
SW6020/NONE	068SS-0002M-0001-SO	N	1	Magnesium	4000	7.5	85	10	MG/KG
SW6020/NONE	068SS-0002M-0001-SO	N	5	Manganese	690 J	0.68	2.1	1	MG/KG
SW6020/NONE	068SS-0002M-0001-SO	N	1	Potassium	850	3.2	85	20	MG/KG
SW6020/NONE	068SS-0002M-0001-SO	N	1	Sodium	82 J	12	85	20	MG/KG
SW6020/NONE	068SS-0002M-0001-SO	N	1	Zinc	74	0.85	3.4	1	MG/KG
SW6020/NONE	068SS-0003M-0001-SO	N	5	Antimony	2.16 J	0.26	0.85	0.5	MG/KG
SW6020/NONE	068SS-0003M-0001-SO	N	5	Barium	90.5	0.56	2.1	1	MG/KG
SW6020/NONE	068SS-0003M-0001-SO	N	1	Cadmium	0.12 J	0.0026	0.17	0.1	MG/KG
SW6020/NONE	068SS-0003M-0001-SO	N	1	Calcium	3900	34	170	10	MG/KG
SW6020/NONE	068SS-0003M-0001-SO	N	5	Iron	29800	47	210	10	MG/KG
SW6020/NONE	068SS-0003M-0001-SO	N	5	Lead	26.3	0.3	1.3	0.3	MG/KG
SW6020/NONE	068SS-0003M-0001-SO	N	1	Magnesium	3700	7.6	85	10	MG/KG
SW6020/NONE	068SS-0003M-0001-SO	N	5	Manganese	386 J	0.68	2.1	1	MG/KG
SW6020/NONE	068SS-0003M-0001-SO	N	1	Potassium	1200	3.2	85	20	MG/KG
SW6020/NONE	068SS-0003M-0001-SO	N	1	Sodium	52 J	12	85	20	MG/KG
SW6020/NONE	068SS-0003M-0001-SO	N	5	Thallium	7.97	0.24	0.85	0.2	MG/KG
SW6020/NONE	068SS-0003M-0001-SO	N	1	Zinc	63	0.85	3.4	1	MG/KG
SW6020/NONE	068SS-0004M-0001-SO	FD	5	Aluminum	16000	9.9	40	10	MG/KG
SW6020/NONE	068SS-0004M-0001-SO	FD	5	Antimony	0.79 UJ	0.25	0.79	0.5	MG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

Reporting Anomalies

SDG Name: 240-17317-1_CC68

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW6020/NONE	068SS-0004M-0001-SO	FD	5	Barium	83	0.52	2	1	MG/KG
SW6020/NONE	068SS-0004M-0001-SO	FD	1	Cadmium	0.1 J	0.0025	0.16	0.1	MG/KG
SW6020/NONE	068SS-0004M-0001-SO	FD	1	Calcium	3900	32	160	10	MG/KG
SW6020/NONE	068SS-0004M-0001-SO	FD	5	Chromium	24	0.63	2	0.5	MG/KG
SW6020/NONE	068SS-0004M-0001-SO	FD	5	Copper	22	0.44	1.6	0.5	MG/KG
SW6020/NONE	068SS-0004M-0001-SO	FD	5	Iron	29000	43	200	10	MG/KG
SW6020/NONE	068SS-0004M-0001-SO	FD	5	Lead	16	0.28	1.2	0.3	MG/KG
SW6020/NONE	068SS-0004M-0001-SO	FD	5	Magnesium	4500	35	400	10	MG/KG
SW6020/NONE	068SS-0004M-0001-SO	FD	5	Nickel	33	0.34	2	1	MG/KG
SW6020/NONE	068SS-0004M-0001-SO	FD	1	Potassium	1600	3	79	20	MG/KG
SW6020/NONE	068SS-0004M-0001-SO	FD	5	Sodium	72 J	56	400	20	MG/KG
SW6020/NONE	068SS-0004M-0001-SO	FD	5	Thallium	0.26 J	0.22	0.79	0.2	MG/KG
SW6020/NONE	068SS-0004M-0001-SO	FD	5	Vanadium	24	0.17	2	1	MG/KG
SW6020/NONE	068SS-0004M-0001-SO	FD	5	Zinc	74	4	16	1	MG/KG
SW6020/NONE	068SS-0005M-0001-SO	N	1	Cadmium	0.18	0.0024	0.16	0.1	MG/KG
SW6020/NONE	068SS-0005M-0001-SO	N	1	Calcium	22000	31	160	10	MG/KG
SW6020/NONE	068SS-0005M-0001-SO	N	1	Iron	23000	8.5	39	10	MG/KG
SW6020/NONE	068SS-0005M-0001-SO	N	1	Magnesium	3100	7	78	10	MG/KG
SW6020/NONE	068SS-0005M-0001-SO	N	10	Manganese	990 J	1.3	3.9	1	MG/KG
SW6020/NONE	068SS-0005M-0001-SO	N	1	Potassium	760	2.9	78	20	MG/KG
SW6020/NONE	068SS-0005M-0001-SO	N	1	Sodium	66 J	11	78	20	MG/KG
SW6020/NONE	068SS-0005M-0001-SO	N	10	Zinc	210	7.8	31	1	MG/KG
SW6020/NONE	068SS-0006M-0001-SO	N	1	Cadmium	0.24	0.0026	0.17	0.1	MG/KG
SW6020/NONE	068SS-0006M-0001-SO	N	1	Calcium	6100	34	170	10	MG/KG
SW6020/NONE	068SS-0006M-0001-SO	N	1	Iron	21000	9.2	42	10	MG/KG
SW6020/NONE	068SS-0006M-0001-SO	N	1	Magnesium	2500	7.5	84	10	MG/KG
SW6020/NONE	068SS-0006M-0001-SO	N	10	Manganese	1300 J	1.3	4.2	1	MG/KG
SW6020/NONE	068SS-0006M-0001-SO	N	1	Potassium	750	3.2	84	20	MG/KG
SW6020/NONE	068SS-0006M-0001-SO	N	1	Sodium	46 J	12	84	20	MG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

Reporting Anomalies

SDG Name: 240-17317-1_CC68

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW6020/NONE	068SS-0006M-0001-SO	N	1	Zinc	110	0.84	3.4	1	MG/KG
SW6020/NONE	068SS-0007M-0001-SO	N	1	Cadmium	0.13 J	0.0025	0.16	0.1	MG/KG
SW6020/NONE	068SS-0007M-0001-SO	N	1	Calcium	4600	33	160	10	MG/KG
SW6020/NONE	068SS-0007M-0001-SO	N	1	Iron	22000	8.9	41	10	MG/KG
SW6020/NONE	068SS-0007M-0001-SO	N	1	Magnesium	2500	7.3	82	10	MG/KG
SW6020/NONE	068SS-0007M-0001-SO	N	10	Manganese	1100 J	1.3	4.1	1	MG/KG
SW6020/NONE	068SS-0007M-0001-SO	N	1	Potassium	790	3.1	82	20	MG/KG
SW6020/NONE	068SS-0007M-0001-SO	N	1	Sodium	42 J	11	82	20	MG/KG
SW6020/NONE	068SS-0007M-0001-SO	N	1	Zinc	53	0.82	3.3	1	MG/KG
SW6020/NONE	068SS-0008M-0001-SO	N	5	Antimony	0.8 UJ	0.25	0.8	0.5	MG/KG
SW6020/NONE	068SS-0008M-0001-SO	N	5	Barium	89	0.52	2	1	MG/KG
SW6020/NONE	068SS-0008M-0001-SO	N	1	Cadmium	0.29	0.0025	0.16	0.1	MG/KG
SW6020/NONE	068SS-0008M-0001-SO	N	1	Calcium	7300	32	160	10	MG/KG
SW6020/NONE	068SS-0008M-0001-SO	N	1	Iron	23000	8.7	40	10	MG/KG
SW6020/NONE	068SS-0008M-0001-SO	N	5	Lead	28	0.28	1.2	0.3	MG/KG
SW6020/NONE	068SS-0008M-0001-SO	N	1	Magnesium	3600	7.1	80	10	MG/KG
SW6020/NONE	068SS-0008M-0001-SO	N	5	Manganese	640 J	0.64	2	1	MG/KG
SW6020/NONE	068SS-0008M-0001-SO	N	1	Potassium	1200	3	80	20	MG/KG
SW6020/NONE	068SS-0008M-0001-SO	N	1	Sodium	76 J	11	80	20	MG/KG
SW6020/NONE	068SS-0008M-0001-SO	N	5	Thallium	0.8 U	0.22	0.8	0.2	MG/KG
SW6020/NONE	068SS-0008M-0001-SO	N	1	Zinc	120	0.8	3.2	1	MG/KG

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW7471A/NONE	068SS-0001M-0001-SO	N	1	Mercury	0.13	0.015	0.11	0.1	MG/KG
SW7471A/NONE	068SS-0002M-0001-SO	N	1	Mercury	0.13	0.015	0.11	0.1	MG/KG
SW7471A/NONE	068SS-0004M-0001-SO	FD	1	Mercury	0.11 U	0.016	0.11	0.1	MG/KG

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8081/NONE	068SS-0003M-0001-SO	N	10	Aldrin	40 U	12	40	1.7	UG/KG
SW8081/NONE	068SS-0003M-0001-SO	N	10	alpha-BHC (alpha-Hexachlorocyclohexane)	25 U	7.3	25	1.7	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

Reporting Anomalies

SDG Name: 240-17317-1_CC68

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8081/NONE	068SS-0003M-0001-SO	N	10	alpha-Chlordane	30 U	9.4	30	1.7	UG/KG
SW8081/NONE	068SS-0003M-0001-SO	N	10	alpha-Endosulfan	17 U	5.2	17	1.7	UG/KG
SW8081/NONE	068SS-0003M-0001-SO	N	10	beta-BHC (beta-Hexachlorocyclohexane)	35 U	11	35	1.7	UG/KG
SW8081/NONE	068SS-0003M-0001-SO	N	10	beta-Endosulfan	25 U	8.2	25	1.7	UG/KG
SW8081/NONE	068SS-0003M-0001-SO	N	10	delta-BHC (delta-Hexachlorocyclohexane)	40 U	12	40	1.7	UG/KG
SW8081/NONE	068SS-0003M-0001-SO	N	10	Dieldrin	17 U	4.7	17	1.7	UG/KG
SW8081/NONE	068SS-0003M-0001-SO	N	10	Endosulfan Sulfate	30 U	8.7	30	1.7	UG/KG
SW8081/NONE	068SS-0003M-0001-SO	N	10	Endrin	17 U	5	17	1.7	UG/KG
SW8081/NONE	068SS-0003M-0001-SO	N	10	Endrin Aldehyde	30 U	10	30	1.7	UG/KG
SW8081/NONE	068SS-0003M-0001-SO	N	10	Endrin Ketone	20 U	6.3	20	1.7	UG/KG
SW8081/NONE	068SS-0003M-0001-SO	N	10	gamma-BHC (Lindane)	25 U	7.4	25	1.7	UG/KG
SW8081/NONE	068SS-0003M-0001-SO	N	10	gamma-Chlordane	17 U	4.2	17	1.7	UG/KG
SW8081/NONE	068SS-0003M-0001-SO	N	10	Heptachlor	35 U	11	35	1.7	UG/KG
SW8081/NONE	068SS-0003M-0001-SO	N	10	Heptachlor Epoxide	25 U	8	25	1.7	UG/KG
SW8081/NONE	068SS-0003M-0001-SO	N	10	Methoxychlor	50 U	15	50	1.7	UG/KG
SW8081/NONE	068SS-0003M-0001-SO	N	10	p,p'-DDD	20 U	6.2	20	1.7	UG/KG
SW8081/NONE	068SS-0003M-0001-SO	N	10	p,p'-DDE	17 U	3.9	17	1.7	UG/KG
SW8081/NONE	068SS-0003M-0001-SO	N	10	p,p'-DDT	20 U	6.3	20	1.7	UG/KG
SW8081/NONE	068SS-0003M-0001-SO	N	10	Toxaphene	670 U	190	670	170	UG/KG
SW8081/NONE	068SS-0004M-0001-SO	FD	10	Aldrin	40 U	12	40	1.7	UG/KG
SW8081/NONE	068SS-0004M-0001-SO	FD	10	alpha-BHC (alpha-Hexachlorocyclohexane)	25 U	7.3	25	1.7	UG/KG
SW8081/NONE	068SS-0004M-0001-SO	FD	10	alpha-Chlordane	30 U	9.5	30	1.7	UG/KG
SW8081/NONE	068SS-0004M-0001-SO	FD	10	alpha-Endosulfan	17 U	5.2	17	1.7	UG/KG
SW8081/NONE	068SS-0004M-0001-SO	FD	10	beta-BHC (beta-Hexachlorocyclohexane)	35 U	11	35	1.7	UG/KG
SW8081/NONE	068SS-0004M-0001-SO	FD	10	beta-Endosulfan	25 U	8.3	25	1.7	UG/KG
SW8081/NONE	068SS-0004M-0001-SO	FD	10	delta-BHC (delta-Hexachlorocyclohexane)	40 U	12	40	1.7	UG/KG
SW8081/NONE	068SS-0004M-0001-SO	FD	10	Dieldrin	17 U	4.7	17	1.7	UG/KG
SW8081/NONE	068SS-0004M-0001-SO	FD	10	Endosulfan Sulfate	30 U	8.8	30	1.7	UG/KG
SW8081/NONE	068SS-0004M-0001-SO	FD	10	Endrin	17 U	5	17	1.7	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

Reporting Anomalies

SDG Name: 240-17317-1_CC68

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8081/NONE	068SS-0004M-0001-SO	FD	10	Endrin Aldehyde	30 U	10	30	1.7	UG/KG
SW8081/NONE	068SS-0004M-0001-SO	FD	10	Endrin Ketone	20 U	6.3	20	1.7	UG/KG
SW8081/NONE	068SS-0004M-0001-SO	FD	10	gamma-BHC (Lindane)	25 U	7.4	25	1.7	UG/KG
SW8081/NONE	068SS-0004M-0001-SO	FD	10	gamma-Chlordane	17 U	4.2	17	1.7	UG/KG
SW8081/NONE	068SS-0004M-0001-SO	FD	10	Heptachlor	35 U	11	35	1.7	UG/KG
SW8081/NONE	068SS-0004M-0001-SO	FD	10	Heptachlor Epoxide	25 U	8.1	25	1.7	UG/KG
SW8081/NONE	068SS-0004M-0001-SO	FD	10	Methoxychlor	50 U	15	50	1.7	UG/KG
SW8081/NONE	068SS-0004M-0001-SO	FD	10	p,p'-DDD	20 U	6.2	20	1.7	UG/KG
SW8081/NONE	068SS-0004M-0001-SO	FD	10	p,p'-DDE	17 U	3.9	17	1.7	UG/KG
SW8081/NONE	068SS-0004M-0001-SO	FD	10	p,p'-DDT	20 U	6.3	20	1.7	UG/KG
SW8081/NONE	068SS-0004M-0001-SO	FD	10	Toxaphene	670 U	190	670	170	UG/KG

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8082/NONE	068SD-00010-0001-SO	FD	1	PCB-1016 (Arochlor 1016)	65 U	21	65	33	UG/KG
SW8082/NONE	068SD-00010-0001-SO	FD	1	PCB-1221 (Arochlor 1221)	50 U	16	50	33	UG/KG
SW8082/NONE	068SD-00010-0001-SO	FD	1	PCB-1232 (Arochlor 1232)	45 U	14	45	33	UG/KG
SW8082/NONE	068SD-00010-0001-SO	FD	1	PCB-1242 (Arochlor 1242)	40 U	13	40	33	UG/KG
SW8082/NONE	068SD-00010-0001-SO	FD	1	PCB-1248 (Arochlor 1248)	55 U	17	55	33	UG/KG
SW8082/NONE	068SD-00010-0001-SO	FD	1	PCB-1254 (Arochlor 1254)	55 U	17	55	33	UG/KG
SW8082/NONE	068SD-00010-0001-SO	FD	1	PCB-1260 (Arochlor 1260)	55 U	17	55	33	UG/KG
SW8082/NONE	068SD-00011-0001-SO	N	1	PCB-1016 (Arochlor 1016)	66 U	21	66	33	UG/KG
SW8082/NONE	068SD-00011-0001-SO	N	1	PCB-1221 (Arochlor 1221)	51 U	16	51	33	UG/KG
SW8082/NONE	068SD-00011-0001-SO	N	1	PCB-1232 (Arochlor 1232)	46 U	14	46	33	UG/KG
SW8082/NONE	068SD-00011-0001-SO	N	1	PCB-1242 (Arochlor 1242)	41 U	13	41	33	UG/KG
SW8082/NONE	068SD-00011-0001-SO	N	1	PCB-1248 (Arochlor 1248)	56 U	17	56	33	UG/KG
SW8082/NONE	068SD-00011-0001-SO	N	1	PCB-1254 (Arochlor 1254)	56 U	17	56	33	UG/KG
SW8082/NONE	068SD-00011-0001-SO	N	1	PCB-1260 (Arochlor 1260)	56 U	17	56	33	UG/KG
SW8082/NONE	068SD-00012-0001-SO	N	1	PCB-1016 (Arochlor 1016)	64 U	21	64	33	UG/KG
SW8082/NONE	068SD-00012-0001-SO	N	1	PCB-1221 (Arochlor 1221)	49 U	16	49	33	UG/KG
SW8082/NONE	068SD-00012-0001-SO	N	1	PCB-1232 (Arochlor 1232)	44 U	14	44	33	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

Reporting Anomalies

SDG Name: 240-17317-1_CC68

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8082/NONE	068SD-00012-0001-SO	N	1	PCB-1242 (Arochlor 1242)	39 U	13	39	33	UG/KG
SW8082/NONE	068SD-00012-0001-SO	N	1	PCB-1248 (Arochlor 1248)	54 U	17	54	33	UG/KG
SW8082/NONE	068SD-00012-0001-SO	N	1	PCB-1254 (Arochlor 1254)	54 U	17	54	33	UG/KG
SW8082/NONE	068SD-00012-0001-SO	N	1	PCB-1260 (Arochlor 1260)	54 U	17	54	33	UG/KG
SW8082/NONE	068SD-0009-0001-SO	N	1	PCB-1016 (Arochlor 1016)	64 U	21	64	33	UG/KG
SW8082/NONE	068SD-0009-0001-SO	N	1	PCB-1221 (Arochlor 1221)	49 U	16	49	33	UG/KG
SW8082/NONE	068SD-0009-0001-SO	N	1	PCB-1232 (Arochlor 1232)	44 U	14	44	33	UG/KG
SW8082/NONE	068SD-0009-0001-SO	N	1	PCB-1242 (Arochlor 1242)	39 U	13	39	33	UG/KG
SW8082/NONE	068SD-0009-0001-SO	N	1	PCB-1248 (Arochlor 1248)	54 U	17	54	33	UG/KG
SW8082/NONE	068SD-0009-0001-SO	N	1	PCB-1254 (Arochlor 1254)	54 U	17	54	33	UG/KG
SW8082/NONE	068SD-0009-0001-SO	N	1	PCB-1260 (Arochlor 1260)	54 U	17	54	33	UG/KG
SW8082/NONE	068SS-0001M-0001-SO	N	1	PCB-1016 (Arochlor 1016)	66 U	21	66	33	UG/KG
SW8082/NONE	068SS-0001M-0001-SO	N	1	PCB-1221 (Arochlor 1221)	51 U	16	51	33	UG/KG
SW8082/NONE	068SS-0001M-0001-SO	N	1	PCB-1232 (Arochlor 1232)	46 U	14	46	33	UG/KG
SW8082/NONE	068SS-0001M-0001-SO	N	1	PCB-1242 (Arochlor 1242)	41 U	13	41	33	UG/KG
SW8082/NONE	068SS-0001M-0001-SO	N	1	PCB-1248 (Arochlor 1248)	56 U	17	56	33	UG/KG
SW8082/NONE	068SS-0001M-0001-SO	N	1	PCB-1254 (Arochlor 1254)	56 U	17	56	33	UG/KG
SW8082/NONE	068SS-0001M-0001-SO	N	1	PCB-1260 (Arochlor 1260)	56 U	17	56	33	UG/KG
SW8082/NONE	068SS-0002M-0001-SO	N	1	PCB-1016 (Arochlor 1016)	64 U	21	64	33	UG/KG
SW8082/NONE	068SS-0002M-0001-SO	N	1	PCB-1221 (Arochlor 1221)	50 U	16	50	33	UG/KG
SW8082/NONE	068SS-0002M-0001-SO	N	1	PCB-1232 (Arochlor 1232)	45 U	14	45	33	UG/KG
SW8082/NONE	068SS-0002M-0001-SO	N	1	PCB-1242 (Arochlor 1242)	40 U	13	40	33	UG/KG
SW8082/NONE	068SS-0002M-0001-SO	N	1	PCB-1248 (Arochlor 1248)	55 U	17	55	33	UG/KG
SW8082/NONE	068SS-0002M-0001-SO	N	1	PCB-1254 (Arochlor 1254)	55 U	17	55	33	UG/KG
SW8082/NONE	068SS-0002M-0001-SO	N	1	PCB-1260 (Arochlor 1260)	55 U	17	55	33	UG/KG
SW8082/NONE	068SS-0003M-0001-SO	N	1	PCB-1016 (Arochlor 1016)	65 U	21	65	33	UG/KG
SW8082/NONE	068SS-0003M-0001-SO	N	1	PCB-1221 (Arochlor 1221)	50 U	16	50	33	UG/KG
SW8082/NONE	068SS-0003M-0001-SO	N	1	PCB-1232 (Arochlor 1232)	45 U	14	45	33	UG/KG
SW8082/NONE	068SS-0003M-0001-SO	N	1	PCB-1242 (Arochlor 1242)	40 U	13	40	33	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

Reporting Anomalies

SDG Name: 240-17317-1_CC68

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8082/NONE	068SS-0003M-0001-SO	N	1	PCB-1248 (Arochlor 1248)	55 U	17	55	33	UG/KG
SW8082/NONE	068SS-0003M-0001-SO	N	1	PCB-1254 (Arochlor 1254)	55 U	17	55	33	UG/KG
SW8082/NONE	068SS-0003M-0001-SO	N	1	PCB-1260 (Arochlor 1260)	55 U	17	55	33	UG/KG
SW8082/NONE	068SS-0004M-0001-SO	FD	1	PCB-1016 (Arochlor 1016)	65 U	21	65	33	UG/KG
SW8082/NONE	068SS-0004M-0001-SO	FD	1	PCB-1221 (Arochlor 1221)	50 U	16	50	33	UG/KG
SW8082/NONE	068SS-0004M-0001-SO	FD	1	PCB-1232 (Arochlor 1232)	45 U	14	45	33	UG/KG
SW8082/NONE	068SS-0004M-0001-SO	FD	1	PCB-1242 (Arochlor 1242)	40 U	13	40	33	UG/KG
SW8082/NONE	068SS-0004M-0001-SO	FD	1	PCB-1248 (Arochlor 1248)	55 U	17	55	33	UG/KG
SW8082/NONE	068SS-0004M-0001-SO	FD	1	PCB-1254 (Arochlor 1254)	55 U	17	55	33	UG/KG
SW8082/NONE	068SS-0004M-0001-SO	FD	1	PCB-1260 (Arochlor 1260)	55 U	17	55	33	UG/KG
SW8082/NONE	068SS-0005M-0001-SO	N	1	PCB-1016 (Arochlor 1016)	65 U	21	65	33	UG/KG
SW8082/NONE	068SS-0005M-0001-SO	N	1	PCB-1221 (Arochlor 1221)	50 U	16	50	33	UG/KG
SW8082/NONE	068SS-0005M-0001-SO	N	1	PCB-1232 (Arochlor 1232)	45 U	14	45	33	UG/KG
SW8082/NONE	068SS-0005M-0001-SO	N	1	PCB-1242 (Arochlor 1242)	40 U	13	40	33	UG/KG
SW8082/NONE	068SS-0005M-0001-SO	N	1	PCB-1248 (Arochlor 1248)	55 U	17	55	33	UG/KG
SW8082/NONE	068SS-0005M-0001-SO	N	1	PCB-1254 (Arochlor 1254)	55 U	17	55	33	UG/KG
SW8082/NONE	068SS-0005M-0001-SO	N	1	PCB-1260 (Arochlor 1260)	55 U	17	55	33	UG/KG
SW8082/NONE	068SS-0006M-0001-SO	N	1	PCB-1016 (Arochlor 1016)	65 U	21	65	33	UG/KG
SW8082/NONE	068SS-0006M-0001-SO	N	1	PCB-1221 (Arochlor 1221)	50 U	16	50	33	UG/KG
SW8082/NONE	068SS-0006M-0001-SO	N	1	PCB-1232 (Arochlor 1232)	45 U	14	45	33	UG/KG
SW8082/NONE	068SS-0006M-0001-SO	N	1	PCB-1242 (Arochlor 1242)	40 U	13	40	33	UG/KG
SW8082/NONE	068SS-0006M-0001-SO	N	1	PCB-1248 (Arochlor 1248)	55 U	17	55	33	UG/KG
SW8082/NONE	068SS-0006M-0001-SO	N	1	PCB-1254 (Arochlor 1254)	55 U	17	55	33	UG/KG
SW8082/NONE	068SS-0006M-0001-SO	N	1	PCB-1260 (Arochlor 1260)	55 U	17	55	33	UG/KG
SW8082/NONE	068SS-0007M-0001-SO	N	1	PCB-1016 (Arochlor 1016)	66 U	21	66	33	UG/KG
SW8082/NONE	068SS-0007M-0001-SO	N	1	PCB-1221 (Arochlor 1221)	51 U	16	51	33	UG/KG
SW8082/NONE	068SS-0007M-0001-SO	N	1	PCB-1232 (Arochlor 1232)	46 U	14	46	33	UG/KG
SW8082/NONE	068SS-0007M-0001-SO	N	1	PCB-1242 (Arochlor 1242)	41 U	13	41	33	UG/KG
SW8082/NONE	068SS-0007M-0001-SO	N	1	PCB-1248 (Arochlor 1248)	56 U	17	56	33	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

Reporting Anomalies

SDG Name: 240-17317-1_CC68

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8082/NONE	068SS-0007M-0001-SO	N	1	PCB-1254 (Arochlor 1254)	56 U	17	56	33	UG/KG
SW8082/NONE	068SS-0007M-0001-SO	N	1	PCB-1260 (Arochlor 1260)	56 U	17	56	33	UG/KG
SW8082/NONE	068SS-0008M-0001-SO	N	1	PCB-1016 (Arochlor 1016)	64 U	21	64	33	UG/KG
SW8082/NONE	068SS-0008M-0001-SO	N	1	PCB-1221 (Arochlor 1221)	50 U	16	50	33	UG/KG
SW8082/NONE	068SS-0008M-0001-SO	N	1	PCB-1232 (Arochlor 1232)	45 U	14	45	33	UG/KG
SW8082/NONE	068SS-0008M-0001-SO	N	1	PCB-1242 (Arochlor 1242)	40 U	13	40	33	UG/KG
SW8082/NONE	068SS-0008M-0001-SO	N	1	PCB-1248 (Arochlor 1248)	55 U	17	55	33	UG/KG
SW8082/NONE	068SS-0008M-0001-SO	N	1	PCB-1254 (Arochlor 1254)	55 U	17	55	33	UG/KG
SW8082/NONE	068SS-0008M-0001-SO	N	1	PCB-1260 (Arochlor 1260)	55 U	17	55	33	UG/KG

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8260B/NONE	068SS-0003M-0001-SO	N	1	1,2-Dichloroethene	8 U	0.62	8	5	UG/KG
SW8260B/NONE	068SS-0004M-0001-SO	FD	1	1,2-Dichloroethene	7.3 U	0.57	7.3	5	UG/KG

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8270C/NONE	068SD-00010-0001-SO	FD	1	Cresols, m & p	400 U	20	400	300	UG/KG
SW8270C/NONE	068SD-00011-0001-SO	N	1	Benzyl alcohol	340 U	21	340	330	UG/KG
SW8270C/NONE	068SD-00011-0001-SO	N	1	Carbazole	51 U	27	51	50	UG/KG
SW8270C/NONE	068SD-00011-0001-SO	N	1	Cresols, m & p	410 U	20	410	300	UG/KG
SW8270C/NONE	068SD-00011-0001-SO	N	1	Hexachlorocyclopentadiene	340 U	27	340	330	UG/KG
SW8270C/NONE	068SD-00012-0001-SO	N	1	Cresols, m & p	400 U	20	400	300	UG/KG
SW8270C/NONE	068SD-0009-0001-SO	N	1	Cresols, m & p	400 U	20	400	300	UG/KG
SW8270C/NONE	068SS-0001M-0001-SO	N	1	Cresols, m & p	400 U	20	400	300	UG/KG
SW8270C/NONE	068SS-0002M-0001-SO	N	1	Cresols, m & p	390 U	20	390	300	UG/KG
SW8270C/NONE	068SS-0003M-0001-SO	N	1	Cresols, m & p	400 U	20	400	300	UG/KG
SW8270C/NONE	068SS-0004M-0001-SO	FD	5	2,4,6-Trichlorophenol	740 U	400	740	330	UG/KG
SW8270C/NONE	068SS-0004M-0001-SO	FD	5	2,4-Dichlorophenol	740 U	99	740	330	UG/KG
SW8270C/NONE	068SS-0004M-0001-SO	FD	5	2,4-Dimethylphenol	740 U	99	740	330	UG/KG
SW8270C/NONE	068SS-0004M-0001-SO	FD	5	2,4-Dinitrophenol	1600 UJ	400	1600	800	UG/KG
SW8270C/NONE	068SS-0004M-0001-SO	FD	5	2,4-Dinitrotoluene	990 U	130	990	330	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

Reporting Anomalies

SDG Name: 240-17317-1_CC68

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8270C/NONE	068SS-0004M-0001-SO	FD	5	2,6-Dinitrotoluene	990 U	100	990	330	UG/KG
SW8270C/NONE	068SS-0004M-0001-SO	FD	5	2-Methylphenol (o-Cresol)	990 U	400	990	330	UG/KG
SW8270C/NONE	068SS-0004M-0001-SO	FD	5	2-Nitroaniline	990 U	45	990	800	UG/KG
SW8270C/NONE	068SS-0004M-0001-SO	FD	5	3,3'-Dichlorobenzidine	500 U	89	500	330	UG/KG
SW8270C/NONE	068SS-0004M-0001-SO	FD	5	3-Nitroaniline	990 U	79	990	800	UG/KG
SW8270C/NONE	068SS-0004M-0001-SO	FD	5	4-Chloro-3-Methylphenol	740 U	100	740	330	UG/KG
SW8270C/NONE	068SS-0004M-0001-SO	FD	5	4-Chloroaniline	740 U	84	740	330	UG/KG
SW8270C/NONE	068SS-0004M-0001-SO	FD	5	4-Nitroaniline	990 U	130	990	800	UG/KG
SW8270C/NONE	068SS-0004M-0001-SO	FD	5	4-Nitrophenol	1600 U	400	1600	800	UG/KG
SW8270C/NONE	068SS-0004M-0001-SO	FD	5	Benzoic acid	3300 R	1700	3300	800	UG/KG
SW8270C/NONE	068SS-0004M-0001-SO	FD	5	Benzyl alcohol	1600 U	100	1600	330	UG/KG
SW8270C/NONE	068SS-0004M-0001-SO	FD	5	bis(2-Chloroethoxy) Methane	500 U	110	500	330	UG/KG
SW8270C/NONE	068SS-0004M-0001-SO	FD	5	bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	500 U	9.9	500	330	UG/KG
SW8270C/NONE	068SS-0004M-0001-SO	FD	5	bis(2-Chloroisopropyl) Ether	500 U	47	500	330	UG/KG
SW8270C/NONE	068SS-0004M-0001-SO	FD	5	Carbazole	250 U	130	250	50	UG/KG
SW8270C/NONE	068SS-0004M-0001-SO	FD	5	Cresols, m & p	2000 U	99	2000	300	UG/KG
SW8270C/NONE	068SS-0004M-0001-SO	FD	5	Hexachlorocyclopentadiene	1600 U	130	1600	330	UG/KG
SW8270C/NONE	068SS-0004M-0001-SO	FD	5	Nitrobenzene	500 U	11	500	330	UG/KG
SW8270C/NONE	068SS-0005M-0001-SO	N	1	Cresols, m & p	400 U	20	400	300	UG/KG
SW8270C/NONE	068SS-0006M-0001-SO	N	1	Cresols, m & p	390 U	20	390	300	UG/KG
SW8270C/NONE	068SS-0007M-0001-SO	N	1	Cresols, m & p	400 U	20	400	300	UG/KG
SW8270C/NONE	068SS-0008M-0001-SO	N	1	Cresols, m & p	400 U	20	400	300	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

Worksheet

SDG Name: 240-17317-1_CC68

Method: E353.2

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?		•		
Were sample reciept temperatures met?	•			
Were QAPP specified RLs achieved?	•			
Were all QAPP specified target analytes reported?	•			
Was the initial calibration curve within QAPP acceptance limits?	•			
Were the ICV/CCVs analyzed (frequency) as required in the QAPP?	•			
Were ICV/CCV results within QAPP acceptance limits?	•			
Were the ICB/CCBs analyzed (frequency) as required in the QAPP?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the ICB/CCB/method blank?	•			
Was a field blank collected and analyzed?			•	
Were target analytes reported in the field blank analyses above the MDL?			•	
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?	•			
Was a LCS prepared and analyzed with each batch?	•			
Were the LCS recoveries within QAPP acceptance limits?	•			
Was a duplicate sample prepared and analyzed with each batch?			•	
Was the duplicate RPD within QAPP acceptance limits?			•	
Was a MS/MSD pair prepared with each batch?	•			
Is the MS/MSD parent sample the one designated by the sampling team?	•			
Were the MS/MSD recoveries and RPDs within QAPP acceptance limits?		•		Both MS and MSD %R were below laboratory control limits.
Were sample concentrations within calibration range?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

Method: SW6020

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were sample reciept temperatures met?	•			
Were QAPP specified RLs achieved?	•			
Were all QAPP specified target analytes reported?	•			
Was the initial calibration curve within QAPP acceptance limits?	•			
Were the ICV/CCVs analyzed (frequency) as required in the QAPP?	•			
Were ICV/CCV results within QAPP acceptance limits?	•			
Were the ICB/CCBs analyzed (frequency) as required in the QAPP?	•			
Was a method blank prepared and analyzed with each batch?	•			Potassium was detected in MB 240-65145/1-A and MB 240-65198/1-A at level above MDL but below RL. All samples were above the RL.
Were target analytes detected in the ICB/CCB/method blank?		•		
Was a field blank collected and analyzed?			•	
Were target analytes reported in the field blank analyses above the MDL?			•	
Was an Interference Check Standard (ICS) run at the beginning and end of every run?	•			
Was the ICS recovery within QAPP acceptance limits?	•			
If a field duplicate was analyzed, were the RPDs within criteria?	•			
Was a LCS prepared and analyzed with each batch?	•			
Were the LCS recoveries within QAPP acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			Only MS and Sample Duplicate
Is the MS/MSD parent sample the one designated by the sampling team?	•			
Were the MS/MSD within QAPP acceptance limits?		•		Sample 068SS-0003M-0001-SO and Sample 068SD-0009-0001-SO: Antimony recovered low and Manganese RPD was high
Was a serial dilution prepared and analyzed with each batch?			•	
Was the serial dilution within QAPP acceptance limits?			•	
Were sample concentrations within calibration range?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			

Method: SW7471A

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were sample reciept temperatures met?	•			
Were QAPP specified RLs achieved?	•			
Were all QAPP specified target analytes reported?	•			
Was the initial calibration curve within QAPP acceptance limits?	•			
Were the ICV/CCVs analyzed (frequency) as required in the QAPP?	•			
Were ICV/CCV results within QAPP acceptance limits?	•			
Were the ICB/CCBs analyzed (frequency) as required in the QAPP?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the ICB/CCB/method blank?	•			Mercury was detected in MB 240-65191/1-A
Was a field blank collected and analyzed?			•	
Were target analytes reported in the field blank analyses above the MDL?			•	
Was the ICS recovery within QAPP acceptance limits?			•	Not Required
If a field duplicate was analyzed, were the RPDs within criteria?	•			
Was a LCS prepared and analyzed with each batch?	•			
Were the LCS recoveries within QAPP acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			
Is the MS/MSD parent sample the one designated by the sampling team?	•			MS and Dup
Were the MS/MSD within QAPP acceptance limits?	•			
Were sample concentrations within calibration range?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			

Method: SW8081

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report?	•			
Were samples preserved properly and received in good condition?	•			

Method: SW8081

Review Questions	Yes	No	NA	Comment
Were sample reciept temperatures met?	•			
Were holding times for prep and analysis met?	•			
Does the initial calibration curve consist of 5 concentration levels, with the low standard near but > MDL?	•			
Is the ICAL %RSD within acceptance limits (%D =20%) on both columns?	•			
Was a second source verification analyzed after the ICAL and all analytes within criteria (%D =20%)?	•			
Was a CCV run at the beginning of the analytical sequence and every 12 hours?	•			
Was the CCV a mid-level standard from the initial calibration curve?	•			
Was the CCV %D within criteria (%D =20%)?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the method blank above the MDL?		•		
Was a field blank (equipment or trip) collected and analyzed?			•	
Were target analytes reported in the field blank analyses above the MDL?			•	
Were surrogate recoveries within QAPP acceptance limits?	•			
Was an LCS/LCSD pair prepared and analyzed with each batch? (if applicable)	•			Only LCS
Were the LCS recoveries within QAPP acceptance limits?	•			
Were the LCS/LCSD RPDs within QAPP acceptance limits? (if applicable)			•	
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits (RPD = 30%) ?	•			Sample results were either non-detects or below RL.
Were the Breakdown products within QAPP acceptance limits?	•			
Is the MS/MSD parent sample the one designated by the sampling team?	•			
Were MS/MSD recoveries and RPD within QAPP acceptance limits?		•		Beta-BHC and Methoxychlor recovered high.
Were all QAPP-specified target analytes reported?	•			
Were reported sample concentrations within calibration range?	•			
Were RPDs between primary and confirmation columns < 40%?			•	
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were sample prepration sheets present and filled out appropriately?	•			
Were instrument run logs present and filled out appropriately?	•			

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

Method: SW8082

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report?	•			
Were samples preserved properly and received in good condition?	•			
Were sample reciept temperatures met?	•			
Were holding times for prep and analysis met?	•			
Does the initial calibration curve consist of 5 concentration levels, with the low standard near but > MDL?	•			
Is the ICAL %RSD within acceptance limits (%D =20%) on both columns?	•			
Was a second source verification analyzed after the ICAL and all analytes within criteria (%D =20%)?	•			
Was a CCV run at the beginning of the analytical sequence and every 12 hours?	•			
Was the CCV a mid-level standard from the initial calibration curve?	•			
Was the CCV %D within criteria (%D =20%)?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the method blank above the MDL?		•		
Was a field blank (equipment or trip) collected and analyzed?			•	
Were target analytes reported in the field blank analyses above the MDL?			•	
Were surrogate recoveries within QAPP acceptance limits?	•			Only LCS
Was an LCS/LCSD pair prepared and analyzed with each batch? (if applicable)			•	
Were the LCS recoveries within QAPP acceptance limits?	•			
Were the LCS/LCSD RPDs within QAPP acceptance limits? (if applicable)			•	
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits (RPD = 30%) ?	•			Both samples were reported as non-detects.
Were the Breakdown products within QAPP acceptance limits?			•	
Is the MS/MSD parent sample the one designated by the sampling team?	•			
Were MS/MSD recoveries and RPD within QAPP acceptance limits?	•			
Were all QAPP-specified target analytes reported?	•			
Were reported sample concentrations within calibration range?	•			
Were RPDs between primary and confirmation columns < 40%?			•	
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

Method: SW8082

Review Questions	Yes	No	NA	Comment
Were sample prepration sheets present and filled out appropriately?	•			
Were instrument run logs present and filled out appropriately?	•			

Method: SW8260B

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were sample reciept temperatures met?	•			
Were QAPP specified PQLs achieved?	•			
Were all QAPP-specified target analytes reported?	•			
Was the GC/MS system properly tuned based on method criteria?	•			
Was the criteria met during each 12 hour shift (prior to ICAL and Cal Ver.)?	•			
Does the initial calibration curve consist of 5 concentration levels, with the low standard near but > MDL?	•			
Did the Calibration Check Compounds (CCCs) have a relative standard deviation within QAPP acceptance limits?	•			
Were the average response factors (RFs) for the System Performance Check Compounds (SPCCs) within QAPP acceptance limits?	•			
Were all other target analytes within criteria? OR Was the average across all target analytes within criteria? Was a different calibration option used?	•			
If a linear regression curve was used, was the correlation coefficient within criteria?	•			
Was a second source verification analyzed after the ICAL and all analytes within criteria?	•			
Was a CCV run at the beginning of the analytical sequence and every 12 hours?	•			
Was the CCV a mid-level standard from the initial calibration curve?	•			
Did the CCCs have a %Difference within QAPP acceptance limits?	•			
Were the average RFs for the SPCCs within QAPP acceptance limits?	•			
Was the average %D (difference or drift) for all target analytes within QAPP acceptance limits?	•			
Were the internal standards added to every standard, blank, matrix spike, matrix spike duplicate, and sample?	•			

Method: SW8260B				
Review Questions	**Yes**	**No**	**NA**	**Comment**
Were the retention times for all IS compounds within QAPP acceptance limits?	•			
Are the area counts of all IS compounds within QAPP acceptance limits?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the method blank above the MDL?	•			Acetone, 2-Hexanone, and Methylene Chloride
Was a field blank (equipment or trip) collected and analyzed at the required frequency?			•	
Were target analytes reported in the field blank analyses above the MDL?			•	
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?	•			
Was an LCS/LCSD pair prepared and analyzed with each batch?				Only LCS
Were the LCS/LCSD recoveries within QAPP acceptance limits?	•			
Were the LCS/LCSD RPDs within QAPP acceptance limits?			•	
Was the duplicate RPD within QAPP acceptance limits?			•	
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			
Was a MS/MSD pair prepared with each batch?	•			
Is the MS/MSD parent sample the one designated by the sampling team?	•			
Were MS/MSD recoveries and RPD within QAPP acceptance limits?		•		
Were surrogate recoveries within QAPP acceptance limits?	•			
Were reported sample concentrations within calibration range?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were instrument run logs present and filled out appropriately?	•			
Were sample prepration sheets present and filled out appropriately?	•			

Method: SW8270C				
Review Questions	**Yes**	**No**	**NA**	**Comment**
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were sample reciept temperatures met?	•			
Were QAPP specified PQLs achieved?	•			
Were all QAPP-specified target analytes reported?	•			

Method: SW8270C

Review Questions	Yes	No	NA	Comment
Was the GC/MS system properly tuned based on method criteria?	•			DFTPP
Was the criteria met during each 12 hour shift (prior to ICAL and Cal Ver.)?	•			
Does the initial calibration curve consist of 5 concentration levels, with the low standard near but > MDL?	•			
Did the Calibration Check Compounds (CCCs) have a relative standard deviation within QAPP acceptance limits?	•			
Were the average response factors (RFs) for the System Performance Check Compounds (SPCCs) within QAPP acceptance limits?	•			
Were all other target analytes within criteria? OR Was the average across all target analytes within criteria? Was a different calibration option used?	•			
If a linear regression curve was used, was the correlation coefficient within criteria?	•			
Was a second source verification analyzed after the ICAL and all analytes within criteria?	•			
Was a CCV run at the beginning of the analytical sequence and every 12 hours?	•			
Was the CCV a mid-level standard from the initial calibration curve?	•			
Did the CCCs have a %Difference within QAPP acceptance limits?	•			
Were the average RFs for the SPCCs within QAPP acceptance limits?	•			
Was the average %D (difference or drift) for all target analytes within QAPP acceptance limits?	•			
Were the internal standards added to every standard, blank, matrix spike, matrix spike duplicate, and sample?	•			
Were the retention times for all IS compounds within QAPP acceptance limits?	•			
Are the area counts of all IS compounds within QAPP acceptance limits?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the method blank above the MDL?	•			Batch IDs: MB 240-65352/23-A and MB 240-65764/23-A Bis (2-ethylhexyl) phthalate was detected at level above MDL but below RL.
Was a field blank (equipment or trip) collected and analyzed at the required frequency?			•	
Were target analytes reported in the field blank analyses above the MDL?			•	
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?		•		
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			Only LCS
Were the LCS/LCSD recoveries within QAPP acceptance limits?	•			Batch IDs: LCS 240-65352/24-A, LCS 240-65386/22-A and LCS 240-65764/24-A , Benzoic acid was not recovered.
Were the LCS/LCSD RPDs within QAPP acceptance limits?			•	
Was the duplicate RPD within QAPP acceptance limits?			•	

AUTOMATED DATA REVIEW SUMMARY for 240-17317-1_CC68

Method: SW8270C

Review Questions	Yes	No	NA	Comment
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			
Was a MS/MSD pair prepared with each batch?	•			
Is the MS/MSD parent sample the one designated by the sampling team?	•			
Were MS/MSD recoveries and RPD within QAPP acceptance limits?		•		Benzoic acid, 4-Chloroaniline, 3,3'-Dichlorobenzidine and 3-Nitroaniline were either not recovered or recovered less than 10%
Were surrogate recoveries within QAPP acceptance limits?	•			
Were reported sample concentrations within calibration range?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were instrument run logs present and filled out appropriately?	•			
Were sample prepration sheets present and filled out appropriately?	•			

Method: SW8330B

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report?	•			
Were samples preserved properly and received in good condition?	•			
Were sample reciept temperatures met?	•			
Were holding times for prep and analysis met?	•			
Does the initial calibration curve consist of 5 concentration levels, with the low standard near but > MDL?	•			
Is the ICAL %RSD within acceptance limits (%D =20%) on both columns?	•			
Was a second source verification analyzed after the ICAL and all analytes within criteria (%D =20%)?	•			
Was a CCV run at the beginning of the analytical sequence and every 12 hours?	•			
Was the CCV a mid-level standard from the initial calibration curve?	•			
Was the CCV %D within criteria (%D =20%)?	•			
Was a method blank prepared and analyzed with each batch?		•		
Were target analytes detected in the method blank above the MDL?			•	
Was a field blank (equipment or trip) collected and analyzed?			•	
Were target analytes reported in the field blank analyses above the MDL?			•	
Were surrogate recoveries within QAPP acceptance limits?	•			
Was an LCS/LCSD pair prepared and analyzed with each batch? (if applicable)	•			

Method: SW8330B

Review Questions	Yes	No	NA	Comment
Were the LCS recoveries within QAPP acceptance limits?	•			
Were the LCS/LCSD RPDs within QAPP acceptance limits? (if applicable)			•	
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits (RPD = 30%) ?	•			
Is the MS/MSD parent sample the one designated by the sampling team?	•			
Were MS/MSD recoveries and RPD within QAPP acceptance limits?	•			
Were all QAPP-specified target analytes reported?	•			
Were reported sample concentrations within calibration range?	•			
Were RPDs between primary and confirmation columns < 40%?			•	
Did PDA spectra for reported compounds match associated standard spectra?			•	
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were sample prepration sheets present and filled out appropriately?	•			
Were instrument run logs present and filled out appropriately?	•			

WORKSHEET 2

Automated Data Review Summary for 240-17477-1

This page left intentionally blank.

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Facility: Ravenna Army Ammunition Plant

Event: Fall 2012 SI/RI Sampling

Guidance Document: Ravenna Army Ammunition Plant, Quality Assurance Project Plan, Oct. 3, 2012

Contract Laboratory: TestAmerica, Inc., North Canton, OH

Field Contractor: Environmental Chemical Corporation, Otis Ang Base, MA

Data Review Contractor: ECC

SDG: 240-17477-1_(68,69,79-SW,SS), Certified - 3/4/2013 by FrederickRoche

QC Level: ADR

Project Manager:

Data Reviewer: Samir A. Naguib

Data Reviewer Title: Sr. QA Chemist

Date of Review Report: April 05, 2013

Samples Included in SDG 240-17477-1_(68,69,79-SW,SS)

Analytical Method/ Leach Method	Normal Soil Samples	Normal Water Samples	Field QC Soil Samples	Field QC Water Samples
E353.2/NONE	2		2	
SW6020/NONE	2	3	1	1
SW7470A/NONE		3		1
SW7471A/NONE	5		2	
SW8081/NONE	2		2	
SW8082/NONE	2	3	2	1
SW8260B/NONE	4	1	2	0

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Analytical Method/ Leach Method	Normal Soil Samples	Normal Water Samples	Field QC Soil Samples	Field QC Water Samples
SW8270C/NONE	4	3	2	1
SW8330B/NONE	2		2	

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

This report assesses the analytical data quality associated with the analyses listed on the preceding cover page. This assessment has been made through a combination of automated data review (ADR) and supplemental manual review, the details of which are described below. The approach taken in the review of this data set is consistent with the requirements contained in the Ravenna Army Ammunition Plant, Quality Assurance Project Plan, Oct. 3, 2012 to the extent possible. Where definitive guidance is not provided, data has been evaluated in a conservative manner using professional judgment. In cases where two qualifiers are listed as an action, such as 'J/UJ', the first qualifier applies to positive results, and the second to non-detect results.

Samples were collected by Environmental Chemical Corporation, Otis Ang Base, MA; analyses were performed by TestAmerica, Inc., North Canton, OH and were reported under sample delivery group (SDG) 240-17477-1_(68,69,79-SW,SS). Results have been evaluated electronically using electronic data deliverables (EDDs) provided by the laboratory. The laboratory data summary forms (hard copy) have been reviewed during this effort and compared to the automated review output. Findings based on the automated data submission and manual data verification processes are detailed in the ADR narrative.

The following quality control elements were supported by the electronic deliverable and were evaluated during this review effort:

- Blank
- Blank - Negative
- Field Duplicate RPD
- LCS Recovery
- MS Recovery
- MS RPD
- Prep Hold Time
- Surrogate
- Test Hold Time

The following quality control elements were either not applicable to the deliverable, or were not supported by the electronic deliverable, and were therefore not included in the automated data review. Those elements required for the project were reviewed manually, as narrated in the Comment section below.

- Ambient Blank
- Calibration Blank
- Calibration Blank - Negative
- Continuing Calibration Verification
- Equipment Blank

Field Blank

Initial Calibration Verification

Lab Replicate RPD

LCS RPD

Material Blank

Trip Blank

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

A representative sampling or ten percent of sample and QC results were manually evaluated for compliance with project specific requirements and consistency with hard copy results. The following summaries were generated during the evaluation of this data set and are included in this report as applicable.

Batch – The analytical batch report is reviewed for completeness and compliance with project specific requirements. Incomplete or non-compliant run sequences are identified and their impact on data quality are discussed in the narrative.

QC Outlier – Results exceeding the evaluation criteria are reviewed for compliance with project requirements and a minimum of ten percent of the non-compliant QC values reported electronically are verified for consistency with hard-copy values.

Qualified Results – Qualified results are evaluated for compliance with project requirements and ten percent of qualified results are verified for consistency with the QC Outliers.

Rejected Results – All rejected results are evaluated for compliance with project requirements. The reason for rejection of the data is verified against hard copy data.

Field Duplicates – Field duplicate comparison results are evaluated for compliance with project requirements and ten percent of values reported are verified for consistency with the hard-copy data.

Data Submission Warnings – Warnings encountered during the data submission process are evaluated and their affect on data quality is discussed in the narrative below.

Analytical deficiencies, project non-compliance issues and inconsistencies with hard copy results observed during ADR evaluation process and their impact on data quality are summarized in the narrative below.

A total of 92 results (7.14%) out of the 1288 results (sample and field QC samples) reported are qualified based on review and 3 results (0.23%) have been rejected. Trace values are not counted as qualified results in the above count. The qualified results are detailed in the following tables and discussed in the narrative below, where appropriate.

Narrative Comments

Analytical Method	Comment
E353.2	
SW6020	

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

SW7470A	
SW7471A	
SW8081	
SW8082	
SW8260B	
SW8270C	
SW8330B	

05-Apr-2013

Reviewed by Samir A. Naguib, Sr. QA Chemist

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Reason and Comment Code Definitions

Reasons	
Code	**Definition**
A	Serial dilution
A1	Ambient Blank
B	The analyte was found in an associated blank as well as in the sample.
B2	CCB
B3	CCB - Neg
c	LCS - low
C	LCS Recovery
d	Field Duplicate RPD
D	MS RPD
D1	Lab Replicate RPD
D2	No precision available
F	Field Blank
F1	Hydrocarbon pattern does not match standard
G1	Initial Calibration RRF
G2	Initial Calibration RSD
h	Holding time exceeded by less than 2X.
H	Holding time exceeded by more than 2X.
H1	Test Hold Time
H2	Prep Hold Time
I	Surrogate recovery outside project limits.
J	CRA/CRI Recovery
K	An analyte (non-common laboratory artifact) was detected in the sample at a concentration less than 5X the concentration detected in the associated method blank.
L	Lab Blank
L1	Lab Blank - Neg
m	MS - low
M	MS Recovery
N	Blank - No Action

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Reason and Comment Code Definitions

O	ICS
P	Sample preservation/collection requirement not met.
P1	Column RPD
P2	Improper preparation/extraction
q	Encore sample holding time exceeded by less than 2X.
Q	Encore sample holding time exceeded by more than 2X.
Q1	Material Blank
R	Exceeds LinearCalibration Range
S	Internal standard
T	Trip Blank
TI	Tentatively Identified Compound
TR	Trace Level Detect
U	Receipt Temperature
V	Equipment Blank
V1	ICV
V2	CCV
V3	CCV RRF
V4	Sample Receipt Condition
W	Column breakdown (pesticides)
X	Raised reporting limit
Y	Cooler temperature greater than 10 degreec C.
y	Cooler temperature greater than 4 degrees C, but less than 10 degreec C.
Y1	False Positive
Y2	Data rejected due to radiological anomolies
Z	LCS RPD
Z2	Analyte not confirmed on second column
Z3	High percent moisture in sample.

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Flag Code and Definitions	
Flag	Definition
U	Undetected: The analyte was analyzed for, but not detected.
UJ	The analyte was not detected; however, the result is estimated due to discrepancies in meeting certain analyte-specific quality control criteria.
J	Estimated: The analyte was positively identified, the quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
R	The data are rejected due to deficiencies in meeting QC criteria and may not be used for decision making.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification".
NJ	The analysis indicates the presence of an analyte that has been “tentatively identified” and the associated numerical value represents its approximate concentration.

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Batch Report

Test Method: E353.2; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
6863	6824	NA	LABQC	SQ	LABQC	MB 320-6800/1-B		1/1	04-Dec-2012 7:05 AM	04-Dec-2012 7:05 AM	04-Dec-2012 2:12 PM	LB
	6824	NA	LABQC	SQ	LABQC	LCS 320-6800/2-B		1/1	04-Dec-2012 7:05 AM	04-Dec-2012 7:05 AM	04-Dec-2012 2:14 PM	BS
	6824	NA	79-80TF-DU2-SS	SO	079SS-0004M-0001-SO	240-17477-6		1/1	09-Nov-2012 11:10 AM	04-Dec-2012 7:05 AM	04-Dec-2012 2:48 PM	N
	6824	NA	79-80TF-DU2-SS	SO	079SS-0004M-0001-SO	240-17477-6		1/1	09-Nov-2012 11:10 AM	04-Dec-2012 7:05 AM	04-Dec-2012 2:58 PM	MS
	6824	NA	79-80TF-DU2-SS	SO	079SS-0004M-0001-SO	240-17477-6		1/1	09-Nov-2012 11:10 AM	04-Dec-2012 7:05 AM	04-Dec-2012 3:00 PM	SD
	6824	NA	79-80TF-DU2-SS	SO	079SS-0005M-0001-SO	240-17477-7		1/1	09-Nov-2012 11:10 AM	04-Dec-2012 7:05 AM	04-Dec-2012 3:02 PM	FD
	6824	NA	69-1048-DU1-SS	SO	069SS-0001M-0001-SO	240-17525-1		1/1	11-Nov-2012 9:15 AM	04-Dec-2012 7:05 AM	04-Dec-2012 3:04 PM	N
	6824	NA	LABQC	SO	069SS-0001M-0002-SO	240-17525-1		1/1	04-Dec-2012 7:05 AM	04-Dec-2012 7:05 AM	04-Dec-2012 3:06 PM	MS
	6824	NA	69-1048-DU1-SS	SO	069SS-0001M-0002-SO	240-17525-1		1/1	11-Nov-2012 9:15 AM	04-Dec-2012 7:05 AM	04-Dec-2012 3:08 PM	SD
	6824	NA	69-1048-DU1-SS	SO	069SS-0002M-0001-SO	240-17525-2		1/1	11-Nov-2012 9:15 AM	04-Dec-2012 7:05 AM	04-Dec-2012 3:10 PM	FD

Test Method: SW6020; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
66205	65198	NA	LABQC	SQ	LABQC	MB 240-65198/1-A		1/1	15-Nov-2012 12:19 PM	15-Nov-2012 12:19 PM	23-Nov-2012 3:10 PM	LB
	65198	NA	LABQC	SQ	LABQC	LCS 240-65198/2-A		1/1	15-Nov-2012 12:19 PM	15-Nov-2012 12:19 PM	23-Nov-2012 3:15 PM	BS
	65198	NA	79-80TF-DU1-SS	SO	079SS-0003M-0001-SO	240-17477-5		1/1	09-Nov-2012 12:10 AM	15-Nov-2012 12:19 PM	23-Nov-2012 5:54 PM	N
	65198	NA	79-80TF-DU2-SS	SO	079SS-0004M-0001-SO	240-17477-6		1/1	09-Nov-2012 11:10 AM	15-Nov-2012 12:26 PM	23-Nov-2012 5:59 PM	N
	65198	NA	79-80TF-DU2-SS	SO	079SS-0004M-0001-SO	240-17477-6		1/1	09-Nov-2012 11:10 AM	15-Nov-2012 12:26 PM	23-Nov-2012 6:16 PM	MS
	65198	NA	79-80TF-DU2-SS	SO	079SS-0004M-0001-SO	240-17477-6		1/1	09-Nov-2012 11:10 AM	15-Nov-2012 12:26 PM	23-Nov-2012 6:21 PM	SD

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Batch Report

Test Method: SW6020; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
66205	65198	NA	79-80TF-DU2-SS	SO	079SS-0005M-0001-SO	240-17477-7		1/1	09-Nov-2012 11:10 AM	15-Nov-2012 12:26 PM	23-Nov-2012 6:28 PM	FD
68088	65311	NA	LABQC	WQ	LABQC	MB 240-65311/1-A		1/1	16-Nov-2012 9:08 AM	16-Nov-2012 9:08 AM	10-Dec-2012 10:54 AM	LB
	65311	NA	LABQC	WQ	LABQC	LCS 240-65311/2-A		1/1	16-Nov-2012 9:08 AM	16-Nov-2012 9:08 AM	10-Dec-2012 10:59 AM	BS
	65311	NA	68-SS3-SW3	WS	068SW-0016-0001-SW	240-17477-4		1/1	08-Nov-2012 1:25 PM	16-Nov-2012 9:08 AM	10-Dec-2012 11:38 AM	N
	65311	NA	68-SS3-SW3	WS	068SW-0016-0002-SW	240-17477-4		1/1	08-Nov-2012 1:25 PM	16-Nov-2012 9:08 AM	10-Dec-2012 11:38 AM	MS
	65311	NA	68-SS3-SW3	WS	068SW-0016-0001-SW	240-17477-4		1/1	08-Nov-2012 1:25 PM	16-Nov-2012 9:08 AM	10-Dec-2012 11:43 AM	N
	65311	NA	68-SS3-SW3	WS	068SW-0016-0002-SW	240-17477-4		1/1	08-Nov-2012 1:25 PM	16-Nov-2012 9:08 AM	10-Dec-2012 11:43 AM	MS
	65311	NA	68-SS3-SW3	WS	068SW-0016-0002-SW	240-17477-4		1/1	08-Nov-2012 1:25 PM	16-Nov-2012 9:08 AM	10-Dec-2012 11:48 AM	SD
	65311	NA	68-SS3-SW	WS	068SW-0013-0001-SW	240-17477-1		1/1	08-Nov-2012 2:00 PM	16-Nov-2012 9:08 AM	10-Dec-2012 12:19 PM	N
	65311	NA	68-SS3-SW3	WS	068SW-0014-0001-SW	240-17477-2		1/1	08-Nov-2012 1:25 PM	16-Nov-2012 9:08 AM	10-Dec-2012 12:24 PM	FD
	65311	NA	68-SS3-SW2	WS	068SW-0015-0001-SW	240-17477-3		1/1	08-Nov-2012 1:40 PM	16-Nov-2012 9:08 AM	10-Dec-2012 12:29 PM	N

Test Method: SW7470A; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
66485	66219	NA	LABQC	WQ	LABQC	MB 240-66219/1-A		1/1	26-Nov-2012 3:25 PM	26-Nov-2012 3:25 PM	27-Nov-2012 3:50 PM	LB
	66219	NA	LABQC	WQ	LABQC	LCS 240-66219/2-A		1/1	26-Nov-2012 3:25 PM	26-Nov-2012 3:25 PM	27-Nov-2012 3:57 PM	BS
	66219	NA	68-SS3-SW3	WS	068SW-0016-0001-SW	240-17477-4		1/1	08-Nov-2012 1:25 PM	26-Nov-2012 3:25 PM	27-Nov-2012 4:09 PM	N
	66219	NA	68-SS3-SW2	WS	068SW-0015-0001-SW	240-17477-3		1/1	08-Nov-2012 1:40 PM	26-Nov-2012 3:25 PM	27-Nov-2012 4:11 PM	N
	66219	NA	68-SS3-SW3	WS	068SW-0016-0002-SW	240-17477-4		1/1	08-Nov-2012 1:25 PM	26-Nov-2012 3:25 PM	27-Nov-2012 4:16 PM	MS

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Batch Report

Test Method: SW7470A; Leach Method: NONE												
Analytical Batch	**Prep Batch**	**Leach Batch**	**Location**	**Matrix**	**Field Sample ID**	**Lab Sample ID**	**Calibration Ref**	**Run#/ Dil'n**	**Collection Date/Time**	**Extract Date/Time**	**Analysis Date/Time**	**Sample Type**
66485	66219	NA	68-SS3-SW3	WS	068SW-0014-0001-SW	240-17477-2		1/1	08-Nov-2012 1:25 PM	26-Nov-2012 3:25 PM	27-Nov-2012 4:19 PM	FD
	66219	NA	68-SS3-SW	WS	068SW-0013-0001-SW	240-17477-1		1/1	08-Nov-2012 2:00 PM	26-Nov-2012 3:25 PM	27-Nov-2012 4:26 PM	N
	66219	NA	68-SS3-SW3	WS	068SW-0016-0002-SW	240-17477-4		1/1	08-Nov-2012 1:25 PM	26-Nov-2012 3:25 PM	27-Nov-2012 4:40 PM	SD
Test Method: SW7471A; Leach Method: NONE												
Analytical Batch	**Prep Batch**	**Leach Batch**	**Location**	**Matrix**	**Field Sample ID**	**Lab Sample ID**	**Calibration Ref**	**Run#/ Dil'n**	**Collection Date/Time**	**Extract Date/Time**	**Analysis Date/Time**	**Sample Type**
65450	65204	NA	LABQC	SQ	LABQC	MB 240-65204/1-A		1/1	15-Nov-2012 2:40 PM	15-Nov-2012 2:40 PM	16-Nov-2012 6:59 PM	LB
	65204	NA	LABQC	SQ	LABQC	LCS 240-65204/2-A		1/1	15-Nov-2012 2:40 PM	15-Nov-2012 2:40 PM	16-Nov-2012 7:00 PM	BS
	65204	NA	79-80TF-DU1-SS	SO	079SS-0003M-0001-SO	240-17477-5		1/1	09-Nov-2012 12:10 AM	15-Nov-2012 2:40 PM	16-Nov-2012 7:42 PM	N
	65204	NA	79-80TF-DU2-SS	SO	079SS-0004M-0001-SO	240-17477-6		1/1	09-Nov-2012 11:10 AM	15-Nov-2012 2:40 PM	16-Nov-2012 7:44 PM	N
	65204	NA	79-80TF-DU2-SS	SO	079SS-0004M-0001-SO	240-17477-6		1/1	09-Nov-2012 11:10 AM	15-Nov-2012 2:40 PM	16-Nov-2012 7:45 PM	MS
	65204	NA	79-80TF-DU2-SS	SO	079SS-0004M-0001-SO	240-17477-6		1/1	09-Nov-2012 11:10 AM	15-Nov-2012 2:40 PM	16-Nov-2012 7:46 PM	SD
	65204	NA	79-80TF-DU2-SS	SO	079SS-0005M-0001-SO	240-17477-7		1/1	09-Nov-2012 11:10 AM	15-Nov-2012 2:40 PM	16-Nov-2012 7:48 PM	FD
67078	65780	NA	69-1048-DU1-SS	SO	069SS-0001M-0002-SO	240-17525-1		1/1	11-Nov-2012 9:15 AM	20-Nov-2012 2:55 PM	30-Nov-2012 3:03 PM	MS
	65780	NA	69-1048-DU1-SS	SO	069SS-0001M-0002-SO	240-17525-1		1/1	11-Nov-2012 9:15 AM	20-Nov-2012 2:55 PM	30-Nov-2012 3:04 PM	SD
	65780	NA	69-1048-DU1-SS	SO	069SS-0001M-0001-SO	240-17525-1		1/1	11-Nov-2012 9:15 AM	20-Nov-2012 2:55 PM	30-Nov-2012 3:06 PM	N
	65780	NA	69-1048-DU1-SS	SO	069SS-0002M-0001-SO	240-17525-2		1/1	11-Nov-2012 9:15 AM	20-Nov-2012 2:55 PM	30-Nov-2012 3:22 PM	FD
	65780	NA	69-1048-DU2-SS	SO	069SS-0003M-0001-SO	240-17525-3		1/1	11-Nov-2012 10:15 AM	20-Nov-2012 2:55 PM	30-Nov-2012 3:30 PM	N
	65780	NA	69-1048-DU3-SS	SO	069SS-0004M-0001-SO	240-17525-4		1/1	11-Nov-2012 9:50 AM	20-Nov-2012 2:55 PM	30-Nov-2012 3:38 PM	N

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Batch Report

Test Method: SW8081; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
66500	65759	NA	LABQC	SQ	LABQC	LCS 240-65759/18-A		1/1	20-Nov-2012 11:21 AM	20-Nov-2012 11:21 AM	28-Nov-2012 3:36 PM	BS
	65759	NA	79-80TF-DU2-SS	SO	079SS-0005M-0001-SO	240-17477-7		1/10	09-Nov-2012 11:10 AM	20-Nov-2012 11:21 AM	28-Nov-2012 8:43 PM	FD
	65759	NA	69-1048-DU1-SS	SO	069SS-0001M-0001-SO	240-17525-1		1/20	11-Nov-2012 9:15 AM	20-Nov-2012 11:21 AM	28-Nov-2012 9:11 PM	N
	65759	NA	69-1048-DU1-SS	SO	069SS-0001M-0002-SO	240-17525-1		1/20	11-Nov-2012 9:15 AM	20-Nov-2012 11:21 AM	28-Nov-2012 9:38 PM	MS
	65759	NA	69-1048-DU1-SS	SO	069SS-0001M-0002-SO	240-17525-1		1/20	11-Nov-2012 9:15 AM	20-Nov-2012 11:21 AM	28-Nov-2012 9:38 PM	SD
	65759	NA	69-1048-DU1-SS	SO	069SS-0001M-0002-SO	240-17525-1		1/20	11-Nov-2012 9:15 AM	20-Nov-2012 11:21 AM	28-Nov-2012 10:06 PM	MS
	65759	NA	69-1048-DU1-SS	SO	069SS-0001M-0002-SO	240-17525-1		1/20	11-Nov-2012 9:15 AM	20-Nov-2012 11:21 AM	28-Nov-2012 10:06 PM	SD
	65759	NA	69-1048-DU1-SS	SO	069SS-0002M-0001-SO	240-17525-2		1/10	11-Nov-2012 9:15 AM	20-Nov-2012 11:21 AM	28-Nov-2012 10:34 PM	FD
	65759	NA	LABQC	SQ	LABQC	MB 240-65759/17-A		1/1	20-Nov-2012 11:21 AM	20-Nov-2012 11:21 AM	29-Nov-2012 12:47 AM	LB
66829	65759	NA	79-80TF-DU2-SS	SO	079SS-0004M-0001-SO	240-17477-6		1/50	09-Nov-2012 11:10 AM	20-Nov-2012 11:21 AM	29-Nov-2012 6:30 PM	MS
	65759	NA	79-80TF-DU2-SS	SO	079SS-0004M-0001-SO	240-17477-6		1/50	09-Nov-2012 11:10 AM	20-Nov-2012 11:21 AM	29-Nov-2012 6:30 PM	N
	65759	NA	79-80TF-DU2-SS	SO	079SS-0004M-0001-SO	240-17477-6		1/50	09-Nov-2012 11:10 AM	20-Nov-2012 11:21 AM	29-Nov-2012 6:30 PM	SD
	65759	NA	79-80TF-DU2-SS	SO	079SS-0004M-0001-SO	240-17477-6		1/50	09-Nov-2012 11:10 AM	20-Nov-2012 11:21 AM	29-Nov-2012 6:57 PM	MS
	65759	NA	79-80TF-DU2-SS	SO	079SS-0004M-0001-SO	240-17477-6		1/50	09-Nov-2012 11:10 AM	20-Nov-2012 11:21 AM	29-Nov-2012 6:57 PM	N
	65759	NA	79-80TF-DU2-SS	SO	079SS-0004M-0001-SO	240-17477-6		1/50	09-Nov-2012 11:10 AM	20-Nov-2012 11:21 AM	29-Nov-2012 6:57 PM	SD
	65759	NA	79-80TF-DU2-SS	SO	079SS-0004M-0001-SO	240-17477-6		1/50	09-Nov-2012 11:10 AM	20-Nov-2012 11:21 AM	29-Nov-2012 7:24 PM	MS
	65759	NA	79-80TF-DU2-SS	SO	079SS-0004M-0001-SO	240-17477-6		1/50	09-Nov-2012 11:10 AM	20-Nov-2012 11:21 AM	29-Nov-2012 7:24 PM	N
	65759	NA	79-80TF-DU2-SS	SO	079SS-0004M-0001-SO	240-17477-6		1/50	09-Nov-2012 11:10 AM	20-Nov-2012 11:21 AM	29-Nov-2012 7:24 PM	SD

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Batch Report

Test Method: SW8082; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
65363	64779	NA	LABQC	WQ	LABQC	MB 240-64779/13-A		1/1	13-Nov-2012 9:55 AM	13-Nov-2012 9:55 AM	18-Nov-2012 5:27 PM	LB
	64779	NA	68-SS3-SW	WS	068SW-0013-0001-SW	240-17477-1		1/1	08-Nov-2012 2:00 PM	13-Nov-2012 9:55 AM	18-Nov-2012 5:57 PM	N
	64779	NA	68-SS3-SW3	WS	068SW-0014-0001-SW	240-17477-2		1/1	08-Nov-2012 1:25 PM	13-Nov-2012 9:55 AM	18-Nov-2012 6:12 PM	FD
	64779	NA	68-SS3-SW2	WS	068SW-0015-0001-SW	240-17477-3		1/1	08-Nov-2012 1:40 PM	13-Nov-2012 9:55 AM	18-Nov-2012 6:27 PM	N
	64779	NA	68-SS3-SW3	WS	068SW-0016-0001-SW	240-17477-4		1/1	08-Nov-2012 1:25 PM	13-Nov-2012 9:55 AM	18-Nov-2012 6:42 PM	N
	64779	NA	68-SS3-SW3	WS	068SW-0016-0002-SW	240-17477-4		1/1	08-Nov-2012 1:25 PM	13-Nov-2012 9:55 AM	18-Nov-2012 6:42 PM	MS
	64779	NA	68-SS3-SW3	WS	068SW-0016-0002-SW	240-17477-4		1/1	08-Nov-2012 1:25 PM	13-Nov-2012 9:55 AM	18-Nov-2012 6:42 PM	SD
	64779	NA	68-SS3-SW3	WS	068SW-0016-0001-SW	240-17477-4		1/1	08-Nov-2012 1:25 PM	13-Nov-2012 9:55 AM	18-Nov-2012 6:57 PM	N
	64779	NA	68-SS3-SW3	WS	068SW-0016-0002-SW	240-17477-4		1/1	08-Nov-2012 1:25 PM	13-Nov-2012 9:55 AM	18-Nov-2012 6:57 PM	MS
	64779	NA	68-SS3-SW3	WS	068SW-0016-0002-SW	240-17477-4		1/1	08-Nov-2012 1:25 PM	13-Nov-2012 9:55 AM	18-Nov-2012 7:12 PM	MS
	64779	NA	68-SS3-SW3	WS	068SW-0016-0002-SW	240-17477-4		1/1	08-Nov-2012 1:25 PM	13-Nov-2012 9:55 AM	18-Nov-2012 7:12 PM	SD
	64779	NA	LABQC	WQ	LABQC	LCS 240-64779/14-A		1/1	13-Nov-2012 9:55 AM	13-Nov-2012 9:55 AM	18-Nov-2012 7:27 PM	BS
66323	65753	NA	79-80TF-DU2-SS	SO	079SS-0004M-0001-SO	240-17477-6		1/1	09-Nov-2012 11:10 AM	20-Nov-2012 11:06 AM	27-Nov-2012 5:06 AM	N
	65753	NA	79-80TF-DU2-SS	SO	079SS-0004M-0001-SO	240-17477-6		1/1	09-Nov-2012 11:10 AM	20-Nov-2012 11:06 AM	27-Nov-2012 5:06 AM	SD
	65753	NA	79-80TF-DU2-SS	SO	079SS-0004M-0001-SO	240-17477-6		1/1	09-Nov-2012 11:10 AM	20-Nov-2012 11:06 AM	27-Nov-2012 5:21 AM	MS
	65753	NA	79-80TF-DU2-SS	SO	079SS-0004M-0001-SO	240-17477-6		1/1	09-Nov-2012 11:10 AM	20-Nov-2012 11:06 AM	27-Nov-2012 5:21 AM	N
	65753	NA	79-80TF-DU2-SS	SO	079SS-0004M-0001-SO	240-17477-6		1/1	09-Nov-2012 11:10 AM	20-Nov-2012 11:06 AM	27-Nov-2012 5:35 AM	MS
	65753	NA	79-80TF-DU2-SS	SO	079SS-0004M-0001-SO	240-17477-6		1/1	09-Nov-2012 11:10 AM	20-Nov-2012 11:06 AM	27-Nov-2012 5:35 AM	SD

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Batch Report

Test Method: SW8082; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
66323	65753	NA	LABQC	SQ	LABQC	MB 240-65753/23-A		1/1	20-Nov-2012 11:06 AM	20-Nov-2012 11:06 AM	27-Nov-2012 5:50 AM	LB
	65753	NA	79-80TF-DU2-SS	SO	079SS-0005M-0001-SO	240-17477-7		1/1	09-Nov-2012 11:10 AM	20-Nov-2012 11:06 AM	27-Nov-2012 6:20 AM	FD
	65753	NA	69-1048-DU1-SS	SO	069SS-0001M-0001-SO	240-17525-1		1/1	11-Nov-2012 9:15 AM	20-Nov-2012 11:06 AM	27-Nov-2012 6:35 AM	N
	65753	NA	69-1048-DU1-SS	SO	069SS-0001M-0002-SO	240-17525-1		1/1	11-Nov-2012 9:15 AM	20-Nov-2012 11:06 AM	27-Nov-2012 6:35 AM	SD
	65753	NA	69-1048-DU1-SS	SO	069SS-0001M-0001-SO	240-17525-1		1/1	11-Nov-2012 9:15 AM	20-Nov-2012 11:06 AM	27-Nov-2012 6:50 AM	N
	65753	NA	69-1048-DU1-SS	SO	069SS-0001M-0002-SO	240-17525-1		1/1	11-Nov-2012 9:15 AM	20-Nov-2012 11:06 AM	27-Nov-2012 6:50 AM	MS
	65753	NA	69-1048-DU1-SS	SO	069SS-0001M-0002-SO	240-17525-1		1/1	11-Nov-2012 9:15 AM	20-Nov-2012 11:06 AM	27-Nov-2012 6:50 AM	SD
	65753	NA	69-1048-DU1-SS	SO	069SS-0001M-0002-SO	240-17525-1		1/1	11-Nov-2012 9:15 AM	20-Nov-2012 11:06 AM	27-Nov-2012 7:05 AM	MS
	65753	NA	69-1048-DU1-SS	SO	069SS-0001M-0002-SO	240-17525-1		1/1	11-Nov-2012 9:15 AM	20-Nov-2012 11:06 AM	27-Nov-2012 7:05 AM	SD
	65753	NA	69-1048-DU1-SS	SO	069SS-0002M-0001-SO	240-17525-2		1/1	11-Nov-2012 9:15 AM	20-Nov-2012 11:06 AM	27-Nov-2012 7:20 AM	FD
	65753	NA	LABQC	SQ	LABQC	LCS 240-65753/24-A		1/1	20-Nov-2012 11:06 AM	20-Nov-2012 11:06 AM	27-Nov-2012 8:35 AM	BS

Test Method: SW8260B; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
65171	NA	NA	LABQC	SQ	LABQC	LCS 240-65171/7		1/1	15-Nov-2012 1:03 PM		15-Nov-2012 1:03 PM	BS
	NA	NA	LABQC	SQ	LABQC	MB 240-65171/8		1/1	15-Nov-2012 1:25 PM		15-Nov-2012 1:25 PM	LB
65336	NA	NA	LABQC	SQ	LABQC	LCS 240-65336/7		1/1	16-Nov-2012 2:20 PM		16-Nov-2012 2:20 PM	BS
	NA	NA	LABQC	SQ	LABQC	MB 240-65336/8		1/1	16-Nov-2012 2:41 PM		16-Nov-2012 2:41 PM	LB
65171	64955	NA	79-80TF-DU2-SS	SO	079SS-0004M-0001-SO	240-17477-6		1/1	09-Nov-2012 11:10 AM	09-Nov-2012 8:15 PM	15-Nov-2012 7:10 PM	N

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Batch Report

Test Method: SW8260B; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
65171	64955	NA	79-80TF-DU2-SS	SO	079SS-0004M-0001-SO	240-17477-6		1/1	09-Nov-2012 11:10 AM	09-Nov-2012 8:15 PM	15-Nov-2012 7:31 PM	MS
	64955	NA	79-80TF-DU2-SS	SO	079SS-0004M-0001-SO	240-17477-6		1/1	09-Nov-2012 11:10 AM	09-Nov-2012 8:15 PM	15-Nov-2012 7:31 PM	SD
	64955	NA	79-80TF-DU2-SS	SO	079SS-0004M-0001-SO	240-17477-6		1/1	09-Nov-2012 11:10 AM	09-Nov-2012 8:15 PM	15-Nov-2012 7:53 PM	MS
	64955	NA	79-80TF-DU2-SS	SO	079SS-0004M-0001-SO	240-17477-6		1/1	09-Nov-2012 11:10 AM	09-Nov-2012 8:15 PM	15-Nov-2012 7:53 PM	SD
65336	64955	NA	79-80TF-DU2-SS	SO	079SS-0005M-0001-SO	240-17477-7		1/1	09-Nov-2012 11:10 AM	09-Nov-2012 8:15 PM	16-Nov-2012 8:05 PM	FD
66014	65667	NA	69-1048-DU1-SS	SO	069SS-0001M-0001-SO	240-17525-1		1/1	11-Nov-2012 9:15 AM	13-Nov-2012 8:15 AM	22-Nov-2012 1:35 AM	N
	65667	NA	69-1048-DU1-SS	SO	069SS-0001M-0002-SO	240-17525-1		1/1	11-Nov-2012 9:15 AM	13-Nov-2012 8:15 AM	22-Nov-2012 1:35 AM	MS
	65667	NA	69-1048-DU1-SS	SO	069SS-0001M-0002-SO	240-17525-1		1/1	11-Nov-2012 9:15 AM	13-Nov-2012 8:15 AM	22-Nov-2012 1:35 AM	SD
	65667	NA	69-1048-DU1-SS	SO	069SS-0001M-0001-SO	240-17525-1		1/1	11-Nov-2012 9:15 AM	13-Nov-2012 8:15 AM	22-Nov-2012 1:57 AM	N
	65667	NA	69-1048-DU1-SS	SO	069SS-0001M-0002-SO	240-17525-1		1/1	11-Nov-2012 9:15 AM	13-Nov-2012 8:15 AM	22-Nov-2012 1:57 AM	MS
	65667	NA	69-1048-DU1-SS	SO	069SS-0001M-0002-SO	240-17525-1		1/1	11-Nov-2012 9:15 AM	13-Nov-2012 8:15 AM	22-Nov-2012 1:57 AM	SD
	65667	NA	69-1048-DU1-SS	SO	069SS-0001M-0001-SO	240-17525-1		1/1	11-Nov-2012 9:15 AM	13-Nov-2012 8:15 AM	22-Nov-2012 2:18 AM	N
	65667	NA	69-1048-DU1-SS	SO	069SS-0001M-0002-SO	240-17525-1		1/1	11-Nov-2012 9:15 AM	13-Nov-2012 8:15 AM	22-Nov-2012 2:18 AM	MS
	65667	NA	69-1048-DU1-SS	SO	069SS-0001M-0002-SO	240-17525-1		1/1	11-Nov-2012 9:15 AM	13-Nov-2012 8:15 AM	22-Nov-2012 2:18 AM	SD
	65667	NA	69-1048-DU1-SS	SO	069SS-0002M-0001-SO	240-17525-2		1/1	11-Nov-2012 9:15 AM	13-Nov-2012 8:15 AM	22-Nov-2012 2:39 AM	FD
	65667	NA	69-1048-DU2-SS	SO	069SS-0003M-0001-SO	240-17525-3		1/1	11-Nov-2012 10:15 AM	13-Nov-2012 8:15 AM	22-Nov-2012 3:01 AM	N
	65667	NA	69-1048-DU3-SS	SO	069SS-0004M-0001-SO	240-17525-4		1/1	11-Nov-2012 9:50 AM	13-Nov-2012 8:15 AM	22-Nov-2012 3:22 AM	N
66020	65667	NA	69-1048-DU1-SS	SO	069SS-0001M-0001-SO	240-17525-1		2/1	11-Nov-2012 9:15 AM	13-Nov-2012 8:15 AM	22-Nov-2012 11:52 AM	N

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Batch Report

Test Method: SW8260B; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
66020	65667	NA	69-1048-DU1-SS	SO	069SS-0001M-0002-SO	240-17525-1		2/1	11-Nov-2012 9:15 AM	13-Nov-2012 8:15 AM	22-Nov-2012 12:14 PM	MS
	65667	NA	69-1048-DU1-SS	SO	069SS-0001M-0002-SO	240-17525-1		2/1	11-Nov-2012 9:15 AM	13-Nov-2012 8:15 AM	22-Nov-2012 12:14 PM	SD
	65667	NA	69-1048-DU1-SS	SO	069SS-0001M-0002-SO	240-17525-1		2/1	11-Nov-2012 9:15 AM	13-Nov-2012 8:15 AM	22-Nov-2012 12:35 PM	MS
	65667	NA	69-1048-DU1-SS	SO	069SS-0001M-0002-SO	240-17525-1		2/1	11-Nov-2012 9:15 AM	13-Nov-2012 8:15 AM	22-Nov-2012 12:35 PM	SD
	65667	NA	69-1048-DU1-SS	SO	069SS-0002M-0001-SO	240-17525-2		2/1	11-Nov-2012 9:15 AM	13-Nov-2012 8:15 AM	22-Nov-2012 12:57 PM	FD
	65667	NA	69-1048-DU2-SS	SO	069SS-0003M-0001-SO	240-17525-3		2/1	11-Nov-2012 10:15 AM	13-Nov-2012 8:15 AM	22-Nov-2012 1:19 PM	N
	65667	NA	69-1048-DU3-SS	SO	069SS-0004M-0001-SO	240-17525-4		2/1	11-Nov-2012 9:50 AM	13-Nov-2012 8:15 AM	22-Nov-2012 1:40 PM	N
64831	64831	NA	LABQC	WQ	LABQC	LCS 240-64831/4		1/1	13-Nov-2012 12:10 PM	13-Nov-2012 12:10 PM	13-Nov-2012 12:10 PM	BS
	64831	NA	LABQC	WQ	LABQC	MB 240-64831/6		1/1	13-Nov-2012 12:55 PM	13-Nov-2012 12:55 PM	13-Nov-2012 12:55 PM	LB
	64831	NA	79-80TF-DU2-SS	WG	079SS-0006-0001-TB	240-17477-8		1/1	09-Nov-2012 8:00 AM	13-Nov-2012 3:05 PM	13-Nov-2012 3:05 PM	N

Test Method: SW8270C; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
65294	64920	NA	LABQC	WQ	LABQC	MB 240-64920/23-A		1/1	14-Nov-2012 8:33 AM	14-Nov-2012 8:33 AM	16-Nov-2012 10:21 AM	LB
	64920	NA	LABQC	WQ	LABQC	LCS 240-64920/24-A		1/1	14-Nov-2012 8:33 AM	14-Nov-2012 8:33 AM	16-Nov-2012 10:40 AM	BS
	64920	NA	68-SS3-SW	WS	068SW-0013-0001-SW	240-17477-1		1/1	08-Nov-2012 2:00 PM	14-Nov-2012 8:33 AM	16-Nov-2012 1:11 PM	N
	64920	NA	68-SS3-SW3	WS	068SW-0014-0001-SW	240-17477-2		1/1	08-Nov-2012 1:25 PM	14-Nov-2012 8:33 AM	16-Nov-2012 1:30 PM	FD
	64920	NA	68-SS3-SW2	WS	068SW-0015-0001-SW	240-17477-3		1/1	08-Nov-2012 1:40 PM	14-Nov-2012 8:33 AM	16-Nov-2012 1:49 PM	N
	64920	NA	68-SS3-SW3	WS	068SW-0016-0001-SW	240-17477-4		1/1	08-Nov-2012 1:25 PM	14-Nov-2012 8:33 AM	16-Nov-2012 2:08 PM	N

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Batch Report

Test Method: SW8270C; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
65294	64920	NA	68-SS3-SW3	WS	068SW-0016-0002-SW	240-17477-4		1/1	08-Nov-2012 1:25 PM	14-Nov-2012 8:33 AM	16-Nov-2012 2:08 PM	MS
	64920	NA	68-SS3-SW3	WS	068SW-0016-0002-SW	240-17477-4		1/1	08-Nov-2012 1:25 PM	14-Nov-2012 8:33 AM	16-Nov-2012 2:08 PM	SD
	64920	NA	68-SS3-SW3	WS	068SW-0016-0001-SW	240-17477-4		1/1	08-Nov-2012 1:25 PM	14-Nov-2012 8:33 AM	16-Nov-2012 2:27 PM	N
	64920	NA	68-SS3-SW3	WS	068SW-0016-0002-SW	240-17477-4		1/1	08-Nov-2012 1:25 PM	14-Nov-2012 8:33 AM	16-Nov-2012 2:27 PM	MS
	64920	NA	68-SS3-SW3	WS	068SW-0016-0002-SW	240-17477-4		1/1	08-Nov-2012 1:25 PM	14-Nov-2012 8:33 AM	16-Nov-2012 2:27 PM	SD
	64920	NA	68-SS3-SW3	WS	068SW-0016-0001-SW	240-17477-4		1/1	08-Nov-2012 1:25 PM	14-Nov-2012 8:33 AM	16-Nov-2012 2:46 PM	N
	64920	NA	68-SS3-SW3	WS	068SW-0016-0002-SW	240-17477-4		1/1	08-Nov-2012 1:25 PM	14-Nov-2012 8:33 AM	16-Nov-2012 2:46 PM	MS
	64920	NA	68-SS3-SW3	WS	068SW-0016-0002-SW	240-17477-4		1/1	08-Nov-2012 1:25 PM	14-Nov-2012 8:33 AM	16-Nov-2012 2:46 PM	SD
66529	65931	NA	69-1048-DU1-SS	SO	069SS-0001M-0001-SO	240-17525-1		1/5	11-Nov-2012 9:15 AM	21-Nov-2012 11:29 AM	28-Nov-2012 10:09 AM	N
	65931	NA	69-1048-DU1-SS	SO	069SS-0001M-0002-SO	240-17525-1		1/5	11-Nov-2012 9:15 AM	21-Nov-2012 11:29 AM	28-Nov-2012 10:09 AM	SD
	65931	NA	69-1048-DU1-SS	SO	069SS-0001M-0001-SO	240-17525-1		1/5	11-Nov-2012 9:15 AM	21-Nov-2012 11:29 AM	28-Nov-2012 10:32 AM	N
	65931	NA	69-1048-DU1-SS	SO	069SS-0001M-0002-SO	240-17525-1		1/5	11-Nov-2012 9:15 AM	21-Nov-2012 11:29 AM	28-Nov-2012 10:32 AM	MS
	65931	NA	69-1048-DU1-SS	SO	069SS-0001M-0002-SO	240-17525-1		1/5	11-Nov-2012 9:15 AM	21-Nov-2012 11:29 AM	28-Nov-2012 10:32 AM	SD
	65931	NA	69-1048-DU1-SS	SO	069SS-0001M-0001-SO	240-17525-1		1/5	11-Nov-2012 9:15 AM	21-Nov-2012 11:29 AM	28-Nov-2012 10:55 AM	N
	65931	NA	69-1048-DU1-SS	SO	069SS-0001M-0002-SO	240-17525-1		1/5	11-Nov-2012 9:15 AM	21-Nov-2012 11:29 AM	28-Nov-2012 10:55 AM	MS
	65931	NA	69-1048-DU1-SS	SO	069SS-0001M-0002-SO	240-17525-1		1/5	11-Nov-2012 9:15 AM	21-Nov-2012 11:29 AM	28-Nov-2012 10:55 AM	SD
	65931	NA	69-1048-DU3-SS	SO	069SS-0004M-0001-SO	240-17525-4		1/4	11-Nov-2012 9:50 AM	21-Nov-2012 11:29 AM	28-Nov-2012 12:52 PM	N
	65931	NA	69-1048-DU1-SS	SO	069SS-0002M-0001-SO	240-17525-2		1/4	11-Nov-2012 9:15 AM	21-Nov-2012 11:29 AM	28-Nov-2012 1:15 PM	FD

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Batch Report

Test Method: SW8270C; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
66529	65931	NA	69-1048-DU2-SS	SO	069SS-0003M-0001-SO	240-17525-3		1/4	11-Nov-2012 10:15 AM	21-Nov-2012 11:29 AM	28-Nov-2012 1:38 PM	N
67070	65933	NA	LABQC	SQ	LABQC	MB 240-65933/23-A		1/1	21-Nov-2012 11:36 AM	21-Nov-2012 11:36 AM	03-Dec-2012 4:43 PM	LB
	65933	NA	LABQC	SQ	LABQC	LCS 240-65933/24-A		1/1	21-Nov-2012 11:36 AM	21-Nov-2012 11:36 AM	03-Dec-2012 5:08 PM	BS
	65933	NA	79-80TF-DU2-SS	SO	079SS-0005M-0001-SO	240-17477-7		1/1	09-Nov-2012 11:10 AM	21-Nov-2012 11:36 AM	03-Dec-2012 5:34 PM	FD
	65933	NA	79-80TF-DU2-SS	SO	079SS-0004M-0001-SO	240-17477-6		1/1	09-Nov-2012 11:10 AM	21-Nov-2012 11:36 AM	03-Dec-2012 5:59 PM	MS
	65933	NA	79-80TF-DU2-SS	SO	079SS-0004M-0001-SO	240-17477-6		1/1	09-Nov-2012 11:10 AM	21-Nov-2012 11:36 AM	03-Dec-2012 5:59 PM	N
	65933	NA	79-80TF-DU2-SS	SO	079SS-0004M-0001-SO	240-17477-6		1/1	09-Nov-2012 11:10 AM	21-Nov-2012 11:36 AM	03-Dec-2012 5:59 PM	SD
	65933	NA	79-80TF-DU2-SS	SO	079SS-0004M-0001-SO	240-17477-6		1/1	09-Nov-2012 11:10 AM	21-Nov-2012 11:36 AM	03-Dec-2012 6:24 PM	MS
	65933	NA	79-80TF-DU2-SS	SO	079SS-0004M-0001-SO	240-17477-6		1/1	09-Nov-2012 11:10 AM	21-Nov-2012 11:36 AM	03-Dec-2012 6:24 PM	N
	65933	NA	79-80TF-DU2-SS	SO	079SS-0004M-0001-SO	240-17477-6		1/1	09-Nov-2012 11:10 AM	21-Nov-2012 11:36 AM	03-Dec-2012 6:24 PM	SD
	65933	NA	79-80TF-DU2-SS	SO	079SS-0004M-0001-SO	240-17477-6		1/1	09-Nov-2012 11:10 AM	21-Nov-2012 11:36 AM	03-Dec-2012 6:50 PM	MS
	65933	NA	79-80TF-DU2-SS	SO	079SS-0004M-0001-SO	240-17477-6		1/1	09-Nov-2012 11:10 AM	21-Nov-2012 11:36 AM	03-Dec-2012 6:50 PM	N
	65933	NA	79-80TF-DU2-SS	SO	079SS-0004M-0001-SO	240-17477-6		1/1	09-Nov-2012 11:10 AM	21-Nov-2012 11:36 AM	03-Dec-2012 6:50 PM	SD
67729	67436	NA	LABQC	SQ	LABQC	MB 240-67436/23-A		1/1	05-Dec-2012 10:50 AM	05-Dec-2012 10:50 AM	07-Dec-2012 2:08 PM	LB
	67436	NA	LABQC	SQ	LABQC	LCS 240-67436/24-A		1/1	05-Dec-2012 10:50 AM	05-Dec-2012 10:50 AM	07-Dec-2012 2:33 PM	BS
	67436	NA	79-80TF-DU2-SS	SO	079SS-0004M-0001-SO	240-17477-6		2/1	09-Nov-2012 11:10 AM	05-Dec-2012 10:50 AM	07-Dec-2012 5:03 PM	MS
	67436	NA	79-80TF-DU2-SS	SO	079SS-0004M-0001-SO	240-17477-6		2/1	09-Nov-2012 11:10 AM	05-Dec-2012 10:50 AM	07-Dec-2012 5:03 PM	N
	67436	NA	79-80TF-DU2-SS	SO	079SS-0004M-0001-SO	240-17477-6		2/1	09-Nov-2012 11:10 AM	05-Dec-2012 10:50 AM	07-Dec-2012 5:03 PM	SD

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Batch Report

Test Method: SW8270C; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
67729	67436	NA	79-80TF-DU2-SS	SO	079SS-0004M-0001-SO	240-17477-6		2/1	09-Nov-2012 11:10 AM	05-Dec-2012 10:50 AM	07-Dec-2012 5:28 PM	MS
	67436	NA	79-80TF-DU2-SS	SO	079SS-0004M-0001-SO	240-17477-6		2/1	09-Nov-2012 11:10 AM	05-Dec-2012 10:50 AM	07-Dec-2012 5:28 PM	N
	67436	NA	79-80TF-DU2-SS	SO	079SS-0004M-0001-SO	240-17477-6		2/1	09-Nov-2012 11:10 AM	05-Dec-2012 10:50 AM	07-Dec-2012 5:28 PM	SD
	67436	NA	79-80TF-DU2-SS	SO	079SS-0004M-0001-SO	240-17477-6		2/1	09-Nov-2012 11:10 AM	05-Dec-2012 10:50 AM	07-Dec-2012 5:53 PM	MS
	67436	NA	79-80TF-DU2-SS	SO	079SS-0004M-0001-SO	240-17477-6		2/1	09-Nov-2012 11:10 AM	05-Dec-2012 10:50 AM	07-Dec-2012 5:53 PM	N
	67436	NA	79-80TF-DU2-SS	SO	079SS-0004M-0001-SO	240-17477-6		2/1	09-Nov-2012 11:10 AM	05-Dec-2012 10:50 AM	07-Dec-2012 5:53 PM	SD
	67436	NA	79-80TF-DU2-SS	SO	079SS-0005M-0001-SO	240-17477-7		2/1	09-Nov-2012 11:10 AM	05-Dec-2012 10:50 AM	07-Dec-2012 6:18 PM	FD

Test Method: SW8330B; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
6611	6242	NA	LABQC	SQ	LABQC	MB 320-6242/1-A		1/1	21-Nov-2012 2:38 PM	21-Nov-2012 2:38 PM	29-Nov-2012 5:24 PM	LB
	6242	NA	LABQC	SQ	LABQC	LCS 320-6242/2-A		1/1	21-Nov-2012 2:38 PM	21-Nov-2012 2:38 PM	29-Nov-2012 5:38 PM	BS
	6242	NA	79-80TF-DU2-SS	SO	079SS-0004M-0001-SO	240-17477-6		1/1	09-Nov-2012 11:10 AM	21-Nov-2012 2:38 PM	29-Nov-2012 5:53 PM	N
	6242	NA	79-80TF-DU2-SS	SO	079SS-0004M-0001-SO	240-17477-6		1/1	09-Nov-2012 11:10 AM	21-Nov-2012 2:38 PM	29-Nov-2012 6:07 PM	MS
	6242	NA	79-80TF-DU2-SS	SO	079SS-0004M-0001-SO	240-17477-6		1/1	09-Nov-2012 11:10 AM	21-Nov-2012 2:38 PM	29-Nov-2012 6:36 PM	SD
	6242	NA	79-80TF-DU2-SS	SO	079SS-0005M-0001-SO	240-17477-7		1/1	09-Nov-2012 11:10 AM	21-Nov-2012 2:38 PM	29-Nov-2012 6:50 PM	FD
	6242	NA	69-1048-DU1-SS	SO	069SS-0001M-0002-SO	240-17525-1		1/1	11-Nov-2012 9:15 AM	21-Nov-2012 2:38 PM	29-Nov-2012 7:19 PM	MS
	6242	NA	69-1048-DU1-SS	SO	069SS-0001M-0002-SO	240-17525-1		1/1	11-Nov-2012 9:15 AM	21-Nov-2012 2:38 PM	29-Nov-2012 7:33 PM	SD
	6242	NA	69-1048-DU1-SS	SO	069SS-0002M-0001-SO	240-17525-2		1/1	11-Nov-2012 9:15 AM	21-Nov-2012 2:38 PM	29-Nov-2012 7:47 PM	FD

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Batch Report

Test Method: SW8330B; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
6629	6242	NA	69-1048-DU1-SS	SO	069SS-0001M-0001-SO	240-17525-1		2/1	11-Nov-2012 9:15 AM	21-Nov-2012 2:38 PM	30-Nov-2012 11:21 AM	N
6640	6245	NA	LABQC	SQ	LABQC	MB 320-6245/1-A		1/1	21-Nov-2012 3:09 PM	21-Nov-2012 3:09 PM	01-Dec-2012 11:13 AM	LB
	6245	NA	LABQC	SQ	LABQC	LCS 320-6245/2-A		1/1	21-Nov-2012 3:09 PM	21-Nov-2012 3:09 PM	01-Dec-2012 11:53 AM	BS
	6245	NA	79-80TF-DU2-SS	SO	079SS-0004M-0001-SO	240-17477-6		2/1	09-Nov-2012 11:10 AM	21-Nov-2012 3:09 PM	01-Dec-2012 12:33 PM	MS
	6245	NA	79-80TF-DU2-SS	SO	079SS-0004M-0001-SO	240-17477-6		2/1	09-Nov-2012 11:10 AM	21-Nov-2012 3:09 PM	01-Dec-2012 12:33 PM	N
	6245	NA	79-80TF-DU2-SS	SO	079SS-0004M-0001-SO	240-17477-6		2/1	09-Nov-2012 11:10 AM	21-Nov-2012 3:09 PM	01-Dec-2012 1:13 PM	MS
	6245	NA	79-80TF-DU2-SS	SO	079SS-0004M-0001-SO	240-17477-6		2/1	09-Nov-2012 11:10 AM	21-Nov-2012 3:09 PM	01-Dec-2012 1:13 PM	N
	6245	NA	79-80TF-DU2-SS	SO	079SS-0004M-0001-SO	240-17477-6		2/1	09-Nov-2012 11:10 AM	21-Nov-2012 3:09 PM	01-Dec-2012 1:13 PM	SD
	6245	NA	79-80TF-DU2-SS	SO	079SS-0004M-0001-SO	240-17477-6		2/1	09-Nov-2012 11:10 AM	21-Nov-2012 3:09 PM	01-Dec-2012 1:53 PM	MS
	6245	NA	79-80TF-DU2-SS	SO	079SS-0004M-0001-SO	240-17477-6		2/1	09-Nov-2012 11:10 AM	21-Nov-2012 3:09 PM	01-Dec-2012 1:53 PM	SD
	6245	NA	79-80TF-DU2-SS	SO	079SS-0005M-0001-SO	240-17477-7		2/1	09-Nov-2012 11:10 AM	21-Nov-2012 3:09 PM	01-Dec-2012 2:33 PM	FD
	6245	NA	69-1048-DU1-SS	SO	069SS-0001M-0001-SO	240-17525-1		3/1	11-Nov-2012 9:15 AM	21-Nov-2012 3:09 PM	01-Dec-2012 3:14 PM	N
	6245	NA	69-1048-DU1-SS	SO	069SS-0001M-0002-SO	240-17525-1		3/1	11-Nov-2012 9:15 AM	21-Nov-2012 3:09 PM	01-Dec-2012 3:14 PM	SD
	6245	NA	69-1048-DU1-SS	SO	069SS-0001M-0002-SO	240-17525-1		2/1	11-Nov-2012 9:15 AM	21-Nov-2012 3:09 PM	01-Dec-2012 3:54 PM	MS
	6245	NA	69-1048-DU1-SS	SO	069SS-0001M-0002-SO	240-17525-1		2/1	11-Nov-2012 9:15 AM	21-Nov-2012 3:09 PM	01-Dec-2012 3:54 PM	SD
	6245	NA	69-1048-DU1-SS	SO	069SS-0001M-0001-SO	240-17525-1		2/1	11-Nov-2012 9:15 AM	21-Nov-2012 3:09 PM	01-Dec-2012 4:34 PM	N
	6245	NA	69-1048-DU1-SS	SO	069SS-0001M-0002-SO	240-17525-1		2/1	11-Nov-2012 9:15 AM	21-Nov-2012 3:09 PM	01-Dec-2012 4:34 PM	MS
	6245	NA	69-1048-DU1-SS	SO	069SS-0001M-0002-SO	240-17525-1		2/1	11-Nov-2012 9:15 AM	21-Nov-2012 3:09 PM	01-Dec-2012 4:34 PM	SD

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Batch Report

Test Method: SW8330B; Leach Method: NONE											
Analytical Batch	**Prep Batch**	**Leach Batch**	**Location**	**Matrix**	**Field Sample ID**	**Lab Sample ID**	**Calibration Ref**	**Run#/ Dil'n**	**Collection Date/Time**	**Extract Date/Time**	**Analysis Date/Time**	**Sample Type**
6640	6245	NA	69-1048-DU1-SS	SO	069SS-0002M-0001-SO	240-17525-2		3/1	11-Nov-2012 9:15 AM	21-Nov-2012 3:09 PM	01-Dec-2012 5:14 PM	FD
6840	6245	NA	69-1048-DU1-SS	SO	069SS-0001M-0001-SO	240-17525-1		4/1	11-Nov-2012 9:15 AM	21-Nov-2012 3:09 PM	04-Dec-2012 9:18 PM	N

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Field Batch Report

--No Records Found--

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

QC Outlier Report

Test/Prep/Leach	QC Element	Sample ID/ Lab Sample ID	Run# / Dil'n	Analyte	Result (Units)	Qualifier	Warning Limits	Control Limits	Reason	Comment	Rule	Action Level
E353.2 / METHOD/NONE	Test Hold Time	069SS-0001M-0001-SO (N) / 240-17525-1	1 / 1.00	Nitrocellulose	23.2 (Days)	J/UJ	< 14	< 28	H1	Test Exceeds UWL		
E353.2 / METHOD/NONE	Test Hold Time	069SS-0002M-0001-SO (FD) / 240-17525-2	1 / 1.00	Nitrocellulose	23.3 (Days)	J/UJ	< 14	< 28	H1	Test Exceeds UWL		
E353.2 / METHOD/NONE	Test Hold Time	079SS-0004M-0001-SO (N) / 240-17477-6	1 / 1.00	Nitrocellulose	25.2 (Days)	J/UJ	< 14	< 28	H1	Test Exceeds UWL		
E353.2 / METHOD/NONE	Test Hold Time	079SS-0005M-0001-SO (FD) / 240-17477-7	1 / 1.00	Nitrocellulose	25.2 (Days)	J/UJ	< 14	< 28	H1	Test Exceeds UWL		
SW6020 / SW3050B/NONE	Blank	MB 240-65198/1-A (LB) / MB 240-65198/1-A	1 / 1.00	Potassium	4.9 (MG/KG)	U/None	< 3.8	< 100	L		1	4.92
SW6020 / TOTAL/NONE	Blank	MB 240-65311/1-A (LB) / MB 240-65311/1-A	1 / 1.00	Potassium	20.7 (UG/L)	U/None	< 16	< 1000	L		1	20.7
SW6020 / TOTAL/NONE	Blank	MB 240-65311/1-A (LB) / MB 240-65311/1-A	1 / 1.00	Thallium	0.35 (UG/L)	U/None	< 0.32	< 2	L		1	0.348
SW6020 / TOTAL/NONE	Blank	MB 240-65311/1-A (LB) / MB 240-65311/1-A	1 / 1.00	Zinc	10.4 (UG/L)	U/None	< 8.8	< 40	L		1	10.4
SW7471A / TOTAL/NONE	Blank	MB 240-65204/1-A (LB) / MB 240-65204/1-A	1 / 1.00	Mercury	0.028 (MG/KG)	U/None	< 0.014	< 0.1	L		1	0.0276
SW7471A / TOTAL/NONE	MS Recovery	079SS-0004M-0001-SO (MS) / 240-17477-6	1 / 1.00	Mercury	0.0000 (PERCENT)	J/R	80 - 120	30 - 125	M			
SW8081 / SW3540C/NONE	MS Recovery	069SS-0001M-0002-SO (MS) / 240-17525-1	1 / 20.00	Aldrin	180 (PERCENT)	J/None	45 - 140	20 - 140	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	069SS-0001M-0002-SO (SD) / 240-17525-1	1 / 20.00	Aldrin	182 (PERCENT)	J/None	45 - 140	20 - 140	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	069SS-0001M-0002-SO (MS) / 240-17525-1	1 / 20.00	alpha-BHC (alpha-Hexachlorocyclohexane)	147 (PERCENT)	J/None	60 - 125	20 - 125	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	069SS-0001M-0002-SO (SD) / 240-17525-1	1 / 20.00	alpha-BHC (alpha-Hexachlorocyclohexane)	170 (PERCENT)	J/None	60 - 125	20 - 125	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	069SS-0001M-0002-SO (MS) / 240-17525-1	1 / 20.00	alpha-Chlordane	162 (PERCENT)	J/None	65 - 120	20 - 120	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	069SS-0001M-0002-SO (SD) / 240-17525-1	1 / 20.00	alpha-Chlordane	173 (PERCENT)	J/None	65 - 120	20 - 120	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	069SS-0001M-0002-SO (MS) / 240-17525-1	1 / 20.00	alpha-Endosulfan	137 (PERCENT)	J/None	15 - 135	15 - 135	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	069SS-0001M-0002-SO (MS) / 240-17525-1	1 / 20.00	beta-BHC (beta-Hexachlorocyclohexane)	1390 (PERCENT)	J/None	60 - 125	20 - 125	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	069SS-0001M-0002-SO (SD) / 240-17525-1	1 / 20.00	beta-BHC (beta-Hexachlorocyclohexane)	934 (PERCENT)	J/None	60 - 125	20 - 125	M	Diluted Out	2.00	

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

QC Outlier Report

Test/Prep/Leach	QC Element	Sample ID/ Lab Sample ID	Run# / Dil'n	Analyte	Result (Units)	Qualifier	Warning Limits	Control Limits	Reason	Comment	Rule	Action Level
SW8081 / SW3540C/NONE	MS Recovery	069SS-0001M-0002-SO (SD) / 240-17525-1	1 / 20.00	beta-Endosulfan	152 (PERCENT)	J/None	35 - 140	20 - 140	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	069SS-0001M-0002-SO (MS) / 240-17525-1	1 / 20.00	delta-BHC (delta-Hexachlorocyclohexane)	151 (PERCENT)	J/None	55 - 130	20 - 130	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	069SS-0001M-0002-SO (SD) / 240-17525-1	1 / 20.00	delta-BHC (delta-Hexachlorocyclohexane)	190 (PERCENT)	J/None	55 - 130	20 - 130	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	069SS-0001M-0002-SO (MS) / 240-17525-1	1 / 20.00	Dieldrin	159 (PERCENT)	J/None	65 - 125	20 - 125	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	069SS-0001M-0002-SO (SD) / 240-17525-1	1 / 20.00	Dieldrin	174 (PERCENT)	J/None	65 - 125	20 - 125	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	069SS-0001M-0002-SO (MS) / 240-17525-1	1 / 20.00	Endosulfan Sulfate	162 (PERCENT)	J/None	60 - 135	20 - 135	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	069SS-0001M-0002-SO (SD) / 240-17525-1	1 / 20.00	Endosulfan Sulfate	194 (PERCENT)	J/None	60 - 135	20 - 135	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	069SS-0001M-0002-SO (MS) / 240-17525-1	1 / 20.00	Endrin	158 (PERCENT)	J/None	60 - 135	20 - 135	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	069SS-0001M-0002-SO (SD) / 240-17525-1	1 / 20.00	Endrin	168 (PERCENT)	J/None	60 - 135	20 - 135	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	069SS-0001M-0002-SO (MS) / 240-17525-1	1 / 20.00	Endrin Aldehyde	150 (PERCENT)	J/None	35 - 145	20 - 145	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	069SS-0001M-0002-SO (SD) / 240-17525-1	1 / 20.00	Endrin Aldehyde	171 (PERCENT)	J/None	35 - 145	20 - 145	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	069SS-0001M-0002-SO (MS) / 240-17525-1	1 / 20.00	Endrin Ketone	148 (PERCENT)	J/None	65 - 135	20 - 135	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	069SS-0001M-0002-SO (SD) / 240-17525-1	1 / 20.00	Endrin Ketone	170 (PERCENT)	J/None	65 - 135	20 - 135	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	069SS-0001M-0002-SO (MS) / 240-17525-1	1 / 20.00	gamma-BHC (Lindane)	177 (PERCENT)	J/None	60 - 125	20 - 125	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	069SS-0001M-0002-SO (SD) / 240-17525-1	1 / 20.00	gamma-BHC (Lindane)	187 (PERCENT)	J/None	60 - 125	20 - 125	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	069SS-0001M-0002-SO (MS) / 240-17525-1	1 / 20.00	gamma-Chlordane	171 (PERCENT)	J/None	65 - 125	20 - 125	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	069SS-0001M-0002-SO (SD) / 240-17525-1	1 / 20.00	gamma-Chlordane	181 (PERCENT)	J/None	65 - 125	20 - 125	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	069SS-0001M-0002-SO (SD) / 240-17525-1	1 / 20.00	Heptachlor	187 (PERCENT)	J/None	50 - 140	20 - 140	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	069SS-0001M-0002-SO (MS) / 240-17525-1	1 / 20.00	Heptachlor	193 (PERCENT)	J/None	50 - 140	20 - 140	M	Diluted Out	2.00	

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

QC Outlier Report

Test/Prep/Leach	QC Element	Sample ID/ Lab Sample ID	Run# / Dil'n	Analyte	Result (Units)	Qualifier	Warning Limits	Control Limits	Reason	Comment	Rule	Action Level
SW8081 / SW3540C/NONE	MS Recovery	069SS-0001M-0002-SO (MS) / 240-17525-1	1 / 20.00	Heptachlor Epoxide	174 (PERCENT)	J/None	65 - 130	20 - 130	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	069SS-0001M-0002-SO (SD) / 240-17525-1	1 / 20.00	Heptachlor Epoxide	199 (PERCENT)	J/None	65 - 130	20 - 130	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	069SS-0001M-0002-SO (MS) / 240-17525-1	1 / 20.00	Methoxychlor	202 (PERCENT)	J/None	55 - 145	20 - 145	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	069SS-0001M-0002-SO (SD) / 240-17525-1	1 / 20.00	Methoxychlor	204 (PERCENT)	J/None	55 - 145	20 - 145	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	069SS-0001M-0002-SO (MS) / 240-17525-1	1 / 20.00	p,p'-DDD	153 (PERCENT)	J/None	30 - 135	20 - 135	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	069SS-0001M-0002-SO (SD) / 240-17525-1	1 / 20.00	p,p'-DDD	180 (PERCENT)	J/None	30 - 135	20 - 135	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	069SS-0001M-0002-SO (MS) / 240-17525-1	1 / 20.00	p,p'-DDE	159 (PERCENT)	J/None	70 - 125	20 - 125	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	069SS-0001M-0002-SO (SD) / 240-17525-1	1 / 20.00	p,p'-DDE	172 (PERCENT)	J/None	70 - 125	20 - 125	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	069SS-0001M-0002-SO (SD) / 240-17525-1	1 / 20.00	p,p'-DDT	173 (PERCENT)	J/None	45 - 140	20 - 140	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	069SS-0001M-0002-SO (MS) / 240-17525-1	1 / 20.00	p,p'-DDT	174 (PERCENT)	J/None	45 - 140	20 - 140	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	079SS-0004M-0001-SO (MS) / 240-17477-6	1 / 50.00	Aldrin	0.0000 (PERCENT)	J/R	45 - 140	20 - 140	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	079SS-0004M-0001-SO (SD) / 240-17477-6	1 / 50.00	Aldrin	0.0000 (PERCENT)	J/R	45 - 140	20 - 140	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	079SS-0004M-0001-SO (MS) / 240-17477-6	1 / 50.00	alpha-BHC (alpha-Hexachlorocyclohexane)	0.0000 (PERCENT)	J/R	60 - 125	20 - 125	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	079SS-0004M-0001-SO (SD) / 240-17477-6	1 / 50.00	alpha-BHC (alpha-Hexachlorocyclohexane)	0.0000 (PERCENT)	J/R	60 - 125	20 - 125	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	079SS-0004M-0001-SO (MS) / 240-17477-6	1 / 50.00	alpha-Chlordane	0.0000 (PERCENT)	J/R	65 - 120	20 - 120	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	079SS-0004M-0001-SO (SD) / 240-17477-6	1 / 50.00	alpha-Chlordane	0.0000 (PERCENT)	J/R	65 - 120	20 - 120	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	079SS-0004M-0001-SO (MS) / 240-17477-6	1 / 50.00	alpha-Endosulfan	0.0000 (PERCENT)	J/R	15 - 135	15 - 135	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	079SS-0004M-0001-SO (SD) / 240-17477-6	1 / 50.00	alpha-Endosulfan	0.0000 (PERCENT)	J/R	15 - 135	15 - 135	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	079SS-0004M-0001-SO (SD) / 240-17477-6	1 / 50.00	beta-BHC (beta-Hexachlorocyclohexane)	1040 (PERCENT)	J/None	60 - 125	20 - 125	M	Diluted Out	2.00	

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

QC Outlier Report

Test/Prep/Leach	QC Element	Sample ID/ Lab Sample ID	Run# / Dil'n	Analyte	Result (Units)	Qualifier	Warning Limits	Control Limits	Reason	Comment	Rule	Action Level
SW8081 / SW3540C/NONE	MS Recovery	079SS-0004M-0001-SO (MS) / 240-17477-6	1 / 50.00	beta-BHC (beta-Hexachlorocyclohexane)	1170 (PERCENT)	J/None	60 - 125	20 - 125	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	079SS-0004M-0001-SO (MS) / 240-17477-6	1 / 50.00	beta-Endosulfan	0.0000 (PERCENT)	J/R	35 - 140	20 - 140	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	079SS-0004M-0001-SO (MS) / 240-17477-6	1 / 50.00	delta-BHC (delta-Hexachlorocyclohexane)	0.0000 (PERCENT)	J/R	55 - 130	20 - 130	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	079SS-0004M-0001-SO (SD) / 240-17477-6	1 / 50.00	delta-BHC (delta-Hexachlorocyclohexane)	0.0000 (PERCENT)	J/R	55 - 130	20 - 130	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	079SS-0004M-0001-SO (MS) / 240-17477-6	1 / 50.00	Endosulfan Sulfate	0.0000 (PERCENT)	J/R	60 - 135	20 - 135	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	079SS-0004M-0001-SO (SD) / 240-17477-6	1 / 50.00	Endosulfan Sulfate	0.0000 (PERCENT)	J/R	60 - 135	20 - 135	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	079SS-0004M-0001-SO (MS) / 240-17477-6	1 / 50.00	Endrin Aldehyde	0.0000 (PERCENT)	J/R	35 - 145	20 - 145	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	079SS-0004M-0001-SO (SD) / 240-17477-6	1 / 50.00	Endrin Aldehyde	0.0000 (PERCENT)	J/R	35 - 145	20 - 145	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	079SS-0004M-0001-SO (MS) / 240-17477-6	1 / 50.00	gamma-BHC (Lindane)	137 (PERCENT)	J/None	60 - 125	20 - 125	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	079SS-0004M-0001-SO (MS) / 240-17477-6	1 / 50.00	Heptachlor	0.0000 (PERCENT)	J/R	50 - 140	20 - 140	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	079SS-0004M-0001-SO (SD) / 240-17477-6	1 / 50.00	Heptachlor	0.0000 (PERCENT)	J/R	50 - 140	20 - 140	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	079SS-0004M-0001-SO (MS) / 240-17477-6	1 / 50.00	Heptachlor Epoxide	0.0000 (PERCENT)	J/R	65 - 130	20 - 130	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	079SS-0004M-0001-SO (MS) / 240-17477-6	1 / 50.00	Methoxychlor	0.0000 (PERCENT)	J/R	55 - 145	20 - 145	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	079SS-0004M-0001-SO (SD) / 240-17477-6	1 / 50.00	Methoxychlor	0.0000 (PERCENT)	J/R	55 - 145	20 - 145	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	079SS-0004M-0001-SO (MS) / 240-17477-6	1 / 50.00	p,p'-DDD	0.0000 (PERCENT)	J/R	30 - 135	20 - 135	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	079SS-0004M-0001-SO (MS) / 240-17477-6	1 / 50.00	p,p'-DDT	0.0000 (PERCENT)	J/R	45 - 140	20 - 140	M	Diluted Out	2.00	
SW8081 / SW3540C/NONE	MS Recovery	079SS-0004M-0001-SO (SD) / 240-17477-6	1 / 50.00	p,p'-DDT	0.0000 (PERCENT)	J/R	45 - 140	20 - 140	M	Diluted Out	2.00	
SW8260B / NONE/NONE	Blank	MB 240-65171/8 (LB) / MB 240-65171/8	1 / 1.00	4-Methyl-2-pentanone (MIBK)	0.60 (UG/KG)	U/None	< 0.54	< 20	L		1	0.598
SW8260B / NONE/NONE	Blank	MB 240-65171/8 (LB) / MB 240-65171/8	1 / 1.00	Acetone	6.4 (UG/KG)	U/None	< 6.3	< 20	L		2	12.8

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

QC Outlier Report

Test/Prep/Leach	QC Element	Sample ID/ Lab Sample ID	Run# / Dil'n	Analyte	Result (Units)	Qualifier	Warning Limits	Control Limits	Reason	Comment	Rule	Action Level
SW8260B / NONE/NONE	Blank	MB 240-65171/8 (LB) / MB 240-65171/8	1 / 1.00	Styrene	0.15 (UG/KG)	U/None	< 0.15	< 5	L		1	0.151
SW8260B / NONE/NONE	Blank	MB 240-65336/8 (LB) / MB 240-65336/8	1 / 1.00	2-Hexanone	0.78 (UG/KG)	U/None	< 0.63	< 20	L		1	0.776
SW8260B / NONE/NONE	Blank	MB 240-65336/8 (LB) / MB 240-65336/8	1 / 1.00	Acetone	12.8 (UG/KG)	U/None	< 6.3	< 20	L		2	25.6
SW8260B / NONE/NONE	Blank	MB 240-65336/8 (LB) / MB 240-65336/8	1 / 1.00	Methylene Chloride	2.6 (UG/KG)	U/None	< 0.67	< 5	L		2	5.28
SW8260B / NONE/NONE	Blank	MB 240-65336/8 (LB) / MB 240-65336/8	1 / 1.00	Styrene	0.17 (UG/KG)	U/None	< 0.15	< 5	L		1	0.171
SW8260B / SW5030B/NONE	Blank	MB 240-64831/6 (LB) / MB 240-64831/6	1 / 1.00	Methylene Chloride	1.4 (UG/L)	U/None	< 0.33	< 1	L		2	2.74
SW8260B / SW5035/NONE	MS Recovery	069SS-0001M-0002-SO (MS) / 240-17525-1	1 / 1.00	Chlorobenzene	74.1 (PERCENT)	J/UJ	75 - 125	20 - 125	M			
SW8260B / SW5035/NONE	MS Recovery	079SS-0004M-0001-SO (SD) / 240-17477-6	1 / 1.00	1,1,1-Trichloroethane	705 (PERCENT)	J/None	70 - 135	20 - 135	M			
SW8260B / SW5035/NONE	MS Recovery	079SS-0004M-0001-SO (SD) / 240-17477-6	1 / 1.00	1,1,2,2-Tetrachloroethane	278 (PERCENT)	J/None	55 - 130	20 - 130	M			
SW8260B / SW5035/NONE	MS Recovery	079SS-0004M-0001-SO (SD) / 240-17477-6	1 / 1.00	1,1,2-Trichloroethane	314 (PERCENT)	J/None	60 - 125	20 - 125	M			
SW8260B / SW5035/NONE	MS Recovery	079SS-0004M-0001-SO (MS) / 240-17477-6	1 / 1.00	1,1-Dichloroethane	589 (PERCENT)	J/None	75 - 125	20 - 125	M			
SW8260B / SW5035/NONE	MS Recovery	079SS-0004M-0001-SO (SD) / 240-17477-6	1 / 1.00	1,1-Dichloroethene	768 (PERCENT)	J/None	65 - 135	20 - 135	M			
SW8260B / SW5035/NONE	MS Recovery	079SS-0004M-0001-SO (SD) / 240-17477-6	1 / 1.00	1,2-Dichloroethane	311 (PERCENT)	J/None	70 - 135	20 - 135	M			
SW8260B / SW5035/NONE	MS Recovery	079SS-0004M-0001-SO (SD) / 240-17477-6	1 / 1.00	1,2-Dichloropropane	423 (PERCENT)	J/None	70 - 120	20 - 120	M			
SW8260B / SW5035/NONE	MS Recovery	079SS-0004M-0001-SO (SD) / 240-17477-6	1 / 1.00	2-Butanone (MEK)	193 (PERCENT)	J/None	30 - 160	20 - 160	M			
SW8260B / SW5035/NONE	MS Recovery	079SS-0004M-0001-SO (SD) / 240-17477-6	1 / 1.00	2-Hexanone	181 (PERCENT)	J/None	45 - 145	20 - 145	M			
SW8260B / SW5035/NONE	MS Recovery	079SS-0004M-0001-SO (SD) / 240-17477-6	1 / 1.00	4-Methyl-2-pentanone (MIBK)	179 (PERCENT)	J/None	45 - 145	20 - 145	M			
SW8260B / SW5035/NONE	MS Recovery	079SS-0004M-0001-SO (SD) / 240-17477-6	1 / 1.00	Acetone	218 (PERCENT)	J/None	20 - 160	20 - 160	M			
SW8260B / SW5035/NONE	MS Recovery	079SS-0004M-0001-SO (SD) / 240-17477-6	1 / 1.00	Benzene	501 (PERCENT)	J/None	75 - 125	20 - 125	M			

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

QC Outlier Report

Test/Prep/Leach	QC Element	Sample ID/ Lab Sample ID	Run# / Dil'n	Analyte	Result (Units)	Qualifier	Warning Limits	Control Limits	Reason	Comment	Rule	Action Level
SW8260B / SW5035/NONE	MS Recovery	079SS-0004M-0001-SO (SD) / 240-17477-6	1 / 1.00	Bromochloromethane	287 (PERCENT)	J/None	70 - 125	20 - 125	M			
SW8260B / SW5035/NONE	MS Recovery	079SS-0004M-0001-SO (SD) / 240-17477-6	1 / 1.00	Bromodichloromethane	212 (PERCENT)	J/None	70 - 130	20 - 130	M			
SW8260B / SW5035/NONE	MS Recovery	079SS-0004M-0001-SO (SD) / 240-17477-6	1 / 1.00	Bromomethane	1040 (PERCENT)	J/None	30 - 160	20 - 160	M			
SW8260B / SW5035/NONE	MS Recovery	079SS-0004M-0001-SO (SD) / 240-17477-6	1 / 1.00	Carbon Disulfide	481 (PERCENT)	J/None	45 - 160	20 - 160	M			
SW8260B / SW5035/NONE	MS Recovery	079SS-0004M-0001-SO (SD) / 240-17477-6	1 / 1.00	Carbon Tetrachloride	548 (PERCENT)	J/None	65 - 135	20 - 135	M			
SW8260B / SW5035/NONE	MS Recovery	079SS-0004M-0001-SO (SD) / 240-17477-6	1 / 1.00	Chlorobenzene	300 (PERCENT)	J/None	75 - 125	20 - 125	M			
SW8260B / SW5035/NONE	MS Recovery	079SS-0004M-0001-SO (SD) / 240-17477-6	1 / 1.00	Chloroethane	839 (PERCENT)	J/None	40 - 155	20 - 155	M			
SW8260B / SW5035/NONE	MS Recovery	079SS-0004M-0001-SO (SD) / 240-17477-6	1 / 1.00	Chloroform	455 (PERCENT)	J/None	70 - 125	20 - 125	M			
SW8260B / SW5035/NONE	MS Recovery	079SS-0004M-0001-SO (SD) / 240-17477-6	1 / 1.00	Chloromethane	786 (PERCENT)	J/None	50 - 130	20 - 130	M			
SW8260B / SW5035/NONE	MS Recovery	079SS-0004M-0001-SO (SD) / 240-17477-6	1 / 1.00	cis-1,3-Dichloropropene	184 (PERCENT)	J/None	70 - 125	20 - 125	M			
SW8260B / SW5035/NONE	MS Recovery	079SS-0004M-0001-SO (MS) / 240-17477-6	1 / 1.00	cis-1,3-Dichloropropene	61.3 (PERCENT)	J/UJ	70 - 125	20 - 125	M			
SW8260B / SW5035/NONE	MS Recovery	079SS-0004M-0001-SO (SD) / 240-17477-6	1 / 1.00	Dibromochloromethane	181 (PERCENT)	J/None	65 - 130	20 - 130	M			
SW8260B / SW5035/NONE	MS Recovery	079SS-0004M-0001-SO (SD) / 240-17477-6	1 / 1.00	Ethylbenzene	344 (PERCENT)	J/None	75 - 125	20 - 125	M			
SW8260B / SW5035/NONE	MS Recovery	079SS-0004M-0001-SO (SD) / 240-17477-6	1 / 1.00	Methylene Chloride	475 (PERCENT)	J/None	55 - 140	20 - 140	M			
SW8260B / SW5035/NONE	MS Recovery	079SS-0004M-0001-SO (SD) / 240-17477-6	1 / 1.00	Styrene	188 (PERCENT)	J/None	75 - 125	20 - 125	M			
SW8260B / SW5035/NONE	MS Recovery	079SS-0004M-0001-SO (MS) / 240-17477-6	1 / 1.00	Styrene	65.3 (PERCENT)	J/UJ	75 - 125	20 - 125	M			
SW8260B / SW5035/NONE	MS Recovery	079SS-0004M-0001-SO (MS) / 240-17477-6	1 / 1.00	tert-Butyl Methyl Ether (MTBE)	225 (PERCENT)	J/None	70 - 130	20 - 130	M			
SW8260B / SW5035/NONE	MS Recovery	079SS-0004M-0001-SO (MS) / 240-17477-6	1 / 1.00	Tetrachloroethene (PCE)	550 (PERCENT)	J/None	65 - 140	20 - 140	M			
SW8260B / SW5035/NONE	MS Recovery	079SS-0004M-0001-SO (SD) / 240-17477-6	1 / 1.00	Toluene	470 (PERCENT)	J/None	70 - 125	20 - 125	M			

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

QC Outlier Report

Test/Prep/Leach	QC Element	Sample ID/ Lab Sample ID	Run# / Dil'n	Analyte	Result (Units)	Qualifier	Warning Limits	Control Limits	Reason	Comment	Rule	Action Level
SW8260B / SW5035/NONE	MS Recovery	079SS-0004M-0001-SO (MS) / 240-17477-6	1 / 1.00	trans-1,3-Dichloropropene	183 (PERCENT)	J/None	65 - 125	20 - 125	M			
SW8260B / SW5035/NONE	MS Recovery	079SS-0004M-0001-SO (SD) / 240-17477-6	1 / 1.00	Trichloroethene (TCE)	487 (PERCENT)	J/None	75 - 125	20 - 125	M			
SW8260B / SW5035/NONE	MS Recovery	079SS-0004M-0001-SO (MS) / 240-17477-6	1 / 1.00	Vinyl Chloride	867 (PERCENT)	J/None	60 - 125	20 - 125	M			
SW8260B / SW5035/NONE	MS Recovery	079SS-0004M-0001-SO (SD) / 240-17477-6	1 / 1.00	Xylenes, Total	302 (PERCENT)	J/None	75 - 125	20 - 125	M			
SW8260B / SW5035/NONE	Surrogate	079SS-0005M-0001-SO (FD) / 240-17477-7	1 / 1.00	1-Bromo-4-fluorobenzene (4-Bromofluorobenzene)	126 (PERCENT)	J/None	85 - 120	10 - 120	I			
SW8270C / SW3510/NONE	MS Recovery	068SW-0016-0002-SW (MS) / 240-17477-4	1 / 1.00	3,3'-Dichlorobenzidine	0.0000 (PERCENT)	J/UJ	20 - 110	20 - 110	M			
SW8270C / SW3510/NONE	MS Recovery	068SW-0016-0002-SW (SD) / 240-17477-4	1 / 1.00	3,3'-Dichlorobenzidine	2.4 (PERCENT)	J/UJ	20 - 110	20 - 110	M			
SW8270C / SW3510/NONE	MS Recovery	068SW-0016-0002-SW (SD) / 240-17477-4	1 / 1.00	Benzo(a)pyrene	39.6 (PERCENT)	J/UJ	55 - 110	55 - 110	M			
SW8270C / SW3510/NONE	MS Recovery	068SW-0016-0002-SW (MS) / 240-17477-4	1 / 1.00	Benzo(a)pyrene	49.1 (PERCENT)	J/UJ	55 - 110	55 - 110	M			
SW8270C / SW3510/NONE	MS Recovery	068SW-0016-0002-SW (MS) / 240-17477-4	1 / 1.00	bis(2-Ethylhexyl) Phthalate	181 (PERCENT)	J/None	40 - 125	40 - 125	M			
SW8270C / SW3510/NONE	MS Recovery	068SW-0016-0002-SW (MS) / 240-17477-4	1 / 1.00	Cresols, m & p	63.5 (PERCENT)	J/UJ	70 - 130	70 - 130	M			
SW8270C / SW3550/NONE	Blank	MB 240-65933/23-A (LB) / MB 240-65933/23-A	1 / 1.00	1,2-Dichlorobenzene	15.8 (UG/KG)	U/None	< 9.7	< 50	L		1	15.8
SW8270C / SW3550/NONE	Blank	MB 240-65933/23-A (LB) / MB 240-65933/23-A	1 / 1.00	bis(2-Ethylhexyl) Phthalate	90.1 (UG/KG)	U/None	< 19	< 50	L		5	451
SW8270C / SW3550/NONE	MS Recovery	069SS-0001M-0002-SO (MS) / 240-17525-1	1 / 5.00	2,4-Dinitrophenol	131 (PERCENT)	J/None	15 - 130	15 - 130	M	Diluted Out	2.00	
SW8270C / SW3550/NONE	MS Recovery	069SS-0001M-0002-SO (MS) / 240-17525-1	1 / 5.00	3,3'-Dichlorobenzidine	0.0000 (PERCENT)	J/UJ	10 - 130	10 - 130	M	Diluted Out	2.00	
SW8270C / SW3550/NONE	MS Recovery	069SS-0001M-0002-SO (SD) / 240-17525-1	1 / 5.00	3,3'-Dichlorobenzidine	0.0000 (PERCENT)	J/UJ	10 - 130	10 - 130	M	Diluted Out	2.00	
SW8270C / SW3550/NONE	MS Recovery	069SS-0001M-0002-SO (SD) / 240-17525-1	1 / 5.00	4,6-Dinitro-2-Methylphenol	0.0000 (PERCENT)	J/UJ	30 - 135	30 - 135	M	Diluted Out	2.00	
SW8270C / SW3550/NONE	MS Recovery	069SS-0001M-0002-SO (SD) / 240-17525-1	1 / 5.00	4-Nitrophenol	0.0000 (PERCENT)	J/UJ	15 - 140	15 - 140	M	Diluted Out	2.00	
SW8270C / SW3550/NONE	MS Recovery	079SS-0004M-0001-SO (MS) / 240-17477-6	1 / 1.00	3,3'-Dichlorobenzidine	0.0000 (PERCENT)	J/UJ	10 - 130	10 - 130	M			

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

QC Outlier Report

Test/Prep/Leach	QC Element	Sample ID/ Lab Sample ID	Run# / Dil'n	Analyte	Result (Units)	Qualifier	Warning Limits	Control Limits	Reason	Comment	Rule	Action Level
SW8270C / SW3550/NONE	MS Recovery	079SS-0004M-0001-SO (SD) / 240-17477-6	1 / 1.00	3,3'-Dichlorobenzidine	0.0000 (PERCENT)	J/UJ	10 - 130	10 - 130	M			
SW8270C / SW3550/NONE	MS Recovery	079SS-0004M-0001-SO (MS) / 240-17477-6	1 / 1.00	4-Nitroaniline	29.5 (PERCENT)	J/UJ	35 - 115	35 - 115	M			
SW8270C / SW3550/NONE	MS Recovery	079SS-0004M-0001-SO (SD) / 240-17477-6	1 / 1.00	4-Nitroaniline	32.2 (PERCENT)	J/UJ	35 - 115	35 - 115	M			
SW8270C / SW3550/NONE	MS Recovery	079SS-0004M-0001-SO (MS) / 240-17477-6	1 / 1.00	Dibenzofuran	-13.3 (PERCENT)	J/UJ	50 - 105	50 - 105	M			
SW8270C / SW3550/NONE	MS Recovery	079SS-0004M-0001-SO (SD) / 240-17477-6	1 / 1.00	Phenanthrene	-3.6 (PERCENT)	J/UJ	50 - 110	50 - 110	M			
SW8270C / SW3550	Prep Hold Time	079SS-0004M-0001-SO (N) / 240-17477-6	2 / 1.00	All in Run	26.0 (Days)	J/UJ	< 14	< 28	H2	Prep Exceeds UWL		
SW8270C / SW3550	Prep Hold Time	079SS-0005M-0001-SO (FD) / 240-17477-7	2 / 1.00	All in Run	26.0 (Days)	J/UJ	< 14	< 28	H2	Prep Exceeds UWL		
SW8330B / METHOD/NONE	MS Recovery	079SS-0004M-0001-SO (SD) / 240-17477-6	1 / 1.00	NITROGUANIDINE	75.1 (PERCENT)	J/UJ	80 - 120	20 - 120	M			
SW8330B / METHOD/NONE	MS Recovery	079SS-0004M-0001-SO (MS) / 240-17477-6	1 / 1.00	NITROGUANIDINE	76.1 (PERCENT)	J/UJ	80 - 120	20 - 120	M			

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
E353.2/NONE	SO	069SS-0001M-0001-SO	240-17525-1	N	Nitrocellulose	47.0	47.0	47.0 UJ	-	MG/KG	H1
E353.2/NONE	SO	069SS-0002M-0001-SO	240-17525-2	FD	Nitrocellulose	47.0	47.0	47.0 UJ	-	MG/KG	H1
E353.2/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Nitrocellulose	48.0	48.0	48.0 UJ	-	MG/KG	H1
E353.2/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Nitrocellulose	46.0	46.0	46.0 UJ	-	MG/KG	H1
Test Leach	**Matrix**	**FieldSample ID**	**LabSample ID**	**Type**	**Analyte**	**RL**	**Lab Result**	**Qualified Result**	**Bias**	**Units**	**Reason**
SW6020/NONE	WS	068SW-0013-0001-SW	240-17477-1	N	Aluminum	60.0	54.0	54.0 J		UG/L	TR
SW6020/NONE	WS	068SW-0013-0001-SW	240-17477-1	N	Arsenic	5.0	0.64	0.64 J		UG/L	TR
SW6020/NONE	WS	068SW-0013-0001-SW	240-17477-1	N	Cobalt	1.0	0.29	1.0 U	+	UG/L	B2
SW6020/NONE	WS	068SW-0014-0001-SW	240-17477-2	FD	Arsenic	5.0	0.70	0.70 J		UG/L	TR
SW6020/NONE	WS	068SW-0014-0001-SW	240-17477-2	FD	Lead	1.0	0.31	1.0 U	+	UG/L	B2
SW6020/NONE	WS	068SW-0014-0001-SW	240-17477-2	FD	Nickel	5.0	0.74	0.74 J		UG/L	TR
SW6020/NONE	WS	068SW-0014-0001-SW	240-17477-2	FD	Vanadium	5.0	0.55	0.55 J		UG/L	TR
SW6020/NONE	WS	068SW-0015-0001-SW	240-17477-3	N	Aluminum	60.0	38.0	38.0 J		UG/L	TR
SW6020/NONE	WS	068SW-0016-0001-SW	240-17477-4	N	Antimony	2.0	1.0	1.0 J		UG/L	TR
SW6020/NONE	WS	068SW-0016-0001-SW	240-17477-4	N	Arsenic	5.0	0.78	0.78 J		UG/L	TR
SW6020/NONE	WS	068SW-0016-0001-SW	240-17477-4	N	Cobalt	1.0	0.31	1.0 U	+	UG/L	B2
SW6020/NONE	WS	068SW-0016-0001-SW	240-17477-4	N	Copper	4.0	1.6	1.6 J		UG/L	TR
SW6020/NONE	WS	068SW-0016-0001-SW	240-17477-4	N	Lead	1.0	0.59	1.0 U	+	UG/L	B2
SW6020/NONE	WS	068SW-0016-0001-SW	240-17477-4	N	Nickel	5.0	0.90	0.90 J		UG/L	TR
SW6020/NONE	WS	068SW-0016-0001-SW	240-17477-4	N	Thallium	2.0	0.43	2.0 U	+	UG/L	B2
SW6020/NONE	WS	068SW-0016-0001-SW	240-17477-4	N	Vanadium	5.0	0.72	0.72 J		UG/L	TR
SW6020/NONE	WS	068SW-0016-0001-SW	240-17477-4	N	Zinc	40.0	12.0	40.0 U	+	UG/L	L
SW6020/NONE	SO	079SS-0003M-0001-SO	240-17477-5	N	Antimony	0.19	0.71	0.71 J		MG/KG	M
SW6020/NONE	SO	079SS-0003M-0001-SO	240-17477-5	N	Cadmium	0.19	0.13	0.13 J		MG/KG	TR
SW6020/NONE	SO	079SS-0003M-0001-SO	240-17477-5	N	Magnesium	96.0	3300	3300 J		MG/KG	M
SW6020/NONE	SO	079SS-0003M-0001-SO	240-17477-5	N	Sodium	96.0	66.0	66.0 J		MG/KG	TR
SW6020/NONE	SO	079SS-0003M-0001-SO	240-17477-5	N	Thallium	0.19	0.084	0.084 J		MG/KG	TR
SW6020/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Antimony	0.16	0.23	0.23 J		MG/KG	M

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
SW6020/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Cadmium	0.16	0.087	0.087 J		MG/KG	TR
SW6020/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Magnesium	79.0	2700	2700 J		MG/KG	M
SW6020/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Silver	0.079	0.053	0.053 J		MG/KG	TR
SW6020/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Sodium	79.0	52.0	52.0 J		MG/KG	TR
SW6020/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Thallium	0.16	0.13	0.13 J		MG/KG	TR
SW6020/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Antimony	0.17	0.21	0.21 J		MG/KG	M
SW6020/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Cadmium	0.17	0.081	0.081 J		MG/KG	TR
SW6020/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Magnesium	85.0	2300	2300 J		MG/KG	M
SW6020/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Selenium	0.42	0.40	0.40 J		MG/KG	TR
SW6020/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Silver	0.085	0.064	0.064 J		MG/KG	TR
SW6020/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Sodium	85.0	37.0	37.0 J		MG/KG	TR
SW6020/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Thallium	0.17	0.13	0.13 J		MG/KG	TR
Test Leach	**Matrix**	**FieldSample ID**	**LabSample ID**	**Type**	**Analyte**	**RL**	**Lab Result**	**Qualified Result**	**Bias**	**Units**	**Reason**
SW7471A/NONE	SO	069SS-0003M-0001-SO	240-17525-3	N	Mercury	0.090	0.043	0.043 J		MG/KG	TR
SW7471A/NONE	SO	079SS-0003M-0001-SO	240-17477-5	N	Mercury	0.097	0.062	0.097 U	+	MG/KG	L
SW7471A/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Mercury	0.098	0.058	0.098 U	+	MG/KG	L
SW7471A/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Mercury	0.090	0.049	0.090 U	+	MG/KG	L
Test Leach	**Matrix**	**FieldSample ID**	**LabSample ID**	**Type**	**Analyte**	**RL**	**Lab Result**	**Qualified Result**	**Bias**	**Units**	**Reason**
SW8081/NONE	SO	069SS-0001M-0001-SO	240-17525-1	N	alpha-Endosulfan	34.0	34.0	34.0 J		UG/KG	TR
SW8081/NONE	SO	069SS-0001M-0001-SO	240-17525-1	N	beta-Endosulfan	49.0	49.0	49.0 J		UG/KG	TR
SW8081/NONE	SO	069SS-0002M-0001-SO	240-17525-2	FD	alpha-Endosulfan	17.0	17.0	17.0 UJ	-	UG/KG	H1
SW8081/NONE	SO	069SS-0002M-0001-SO	240-17525-2	FD	beta-Endosulfan	25.0	25.0	25.0 J		UG/KG	TR
SW8081/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Heptachlor Epoxide	120	120	120 UJ		UG/KG	V2
SW8081/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Aldrin	40.0	40.0	40.0 UJ		UG/KG	V2
SW8081/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	alpha-BHC (alpha-Hexachlorocyclohexane)	25.0	25.0	25.0 UJ		UG/KG	V2
SW8081/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	alpha-Chlordane	30.0	30.0	30.0 UJ		UG/KG	V2
SW8081/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	alpha-Endosulfan	17.0	17.0	17.0 UJ		UG/KG	V2
SW8081/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	beta-BHC (beta-Hexachlorocyclohexane)	35.0	150	35.0 UJ		UG/KG	V2/P1
SW8081/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	beta-Endosulfan	25.0	25.0	25.0 UJ		UG/KG	V2

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
SW8081/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	delta-BHC (delta-Hexachlorocyclohexane)	40.0	40.0	40.0 UJ		UG/KG	V2
SW8081/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Dieldrin	17.0	17.0	17.0 UJ		UG/KG	V2
SW8081/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Endosulfan Sulfate	30.0	30.0	30.0 UJ		UG/KG	V2
SW8081/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Endrin	17.0	17.0	17.0 UJ		UG/KG	V2
SW8081/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Endrin Aldehyde	30.0	30.0	30.0 UJ		UG/KG	V2
SW8081/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Endrin Ketone	20.0	20.0	20.0 UJ		UG/KG	V2
SW8081/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	gamma-BHC (Lindane)	25.0	25.0	25.0 UJ		UG/KG	V2
SW8081/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	gamma-Chlordane	17.0	17.0	17.0 UJ		UG/KG	V2
SW8081/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Heptachlor	35.0	35.0	35.0 UJ		UG/KG	V2
SW8081/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Heptachlor Epoxide	25.0	25.0	25.0 UJ		UG/KG	V2
SW8081/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Methoxychlor	50.0	50.0	50.0 UJ		UG/KG	V2
SW8081/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	p,p'-DDD	20.0	20.0	20.0 UJ		UG/KG	V2
SW8081/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	p,p'-DDE	17.0	17.0	17.0 UJ		UG/KG	V2
SW8081/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	p,p'-DDT	20.0	20.0	20.0 UJ		UG/KG	V2
Test Leach	**Matrix**	**FieldSample ID**	**LabSample ID**	**Type**	**Analyte**	**RL**	**Lab Result**	**Qualified Result**	**Bias**	**Units**	**Reason**
SW8082/NONE	SO	069SS-0001M-0001-SO	240-17525-1	N	PCB-1260 (Arochlor 1260)	54.0	41.0	41.0 J		UG/KG	TR
Test Leach	**Matrix**	**FieldSample ID**	**LabSample ID**	**Type**	**Analyte**	**RL**	**Lab Result**	**Qualified Result**	**Bias**	**Units**	**Reason**
SW8260B/NONE	SO	069SS-0002M-0001-SO	240-17525-2	FD	2-Hexanone	18.0	1.4	1.4 J		UG/KG	TR
SW8260B/NONE	SO	069SS-0002M-0001-SO	240-17525-2	FD	4-Methyl-2-pentanone (MIBK)	18.0	0.93	0.93 J		UG/KG	TR
SW8260B/NONE	SO	069SS-0004M-0001-SO	240-17525-4	N	2-Hexanone	24.0	0.93	0.93 J		UG/KG	TR
SW8260B/NONE	SO	069SS-0004M-0001-SO	240-17525-4	N	Acetone	22.0	13.0	13.0 J		UG/KG	TR
SW8260B/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	1,1,2,2-Tetrachloroethane	8.5	8.5	8.5 UJ		UG/KG	S
SW8260B/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Carbon Disulfide	8.5	1.5	1.5 J	+	UG/KG	M/TR/I
SW8260B/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	cis-1,3-Dichloropropene	8.5	8.5	8.5 UJ		UG/KG	M
SW8260B/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Styrene	8.5	8.5	8.5 UJ		UG/KG	M
SW8260B/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	1,1,2,2-Tetrachloroethane	6.8	6.8	6.8 UJ		UG/KG	S
SW8260B/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	2-Hexanone	27.0	1.9	1.9 J	+	UG/KG	I/TR
SW8260B/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Acetone	27.0	12.0	27.0 U	+	UG/KG	L
SW8260B/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Carbon Disulfide	6.8	1.3	1.3 J	+	UG/KG	I/TR/J

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
SW8260B/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Styrene	6.8	0.32	6.8 U	+	UG/KG	L
SW8260B/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Toluene	6.8	0.37	0.37 J	+	UG/KG	I/TR
SW8260B/NONE	WG	079SS-0006-0001-TB	240-17477-8	N	Chloroform	1.0	0.61	0.61 J		UG/L	TR
Test Leach	**Matrix**	**FieldSample ID**	**LabSample ID**	**Type**	**Analyte**	**RL**	**Lab Result**	**Qualified Result**	**Bias**	**Units**	**Reason**
SW8270C/NONE	WS	068SW-0013-0001-SW	240-17477-1	N	Pentachlorophenol	4.8	4.8	4.8 UJ		UG/L	V1
SW8270C/NONE	WS	068SW-0014-0001-SW	240-17477-2	FD	Pentachlorophenol	4.8	4.8	4.8 UJ		UG/L	V1
SW8270C/NONE	WS	068SW-0015-0001-SW	240-17477-3	N	bis(2-Ethylhexyl) Phthalate	1.9	1.7	1.7 J		UG/L	TR
SW8270C/NONE	WS	068SW-0015-0001-SW	240-17477-3	N	Pentachlorophenol	4.8	4.8	4.8 UJ		UG/L	V1
SW8270C/NONE	WS	068SW-0016-0001-SW	240-17477-4	N	3,3'-Dichlorobenzidine	4.8	4.8	4.8 R	-	UG/L	M
SW8270C/NONE	WS	068SW-0016-0001-SW	240-17477-4	N	Benzo(a)pyrene	0.19	0.19	0.19 UJ	-	UG/L	M
SW8270C/NONE	WS	068SW-0016-0001-SW	240-17477-4	N	Pentachlorophenol	4.8	4.8	4.8 UJ		UG/L	V1
SW8270C/NONE	SO	069SS-0001M-0001-SO	240-17525-1	N	2,4-Dinitrophenol	1700	1700	1700 J		UG/KG	TR
SW8270C/NONE	SO	069SS-0001M-0001-SO	240-17525-1	N	2-Methylnaphthalene	34.0	20.0	20.0 J		UG/KG	TR
SW8270C/NONE	SO	069SS-0001M-0001-SO	240-17525-1	N	4,6-Dinitro-2-Methylphenol	750	750	750 J		UG/KG	TR
SW8270C/NONE	SO	069SS-0001M-0001-SO	240-17525-1	N	4-Nitrophenol	1700	1700	1700 UJ	-	UG/KG	H1
SW8270C/NONE	SO	069SS-0001M-0001-SO	240-17525-1	N	Benzo(k)fluoranthene	34.0	28.0	28.0 J		UG/KG	TR
SW8270C/NONE	SO	069SS-0001M-0001-SO	240-17525-1	N	Naphthalene	34.0	18.0	18.0 J		UG/KG	TR
SW8270C/NONE	SO	069SS-0002M-0001-SO	240-17525-2	FD	2,4-Dinitrophenol	1300	1300	1300 J		UG/KG	TR
SW8270C/NONE	SO	069SS-0002M-0001-SO	240-17525-2	FD	2-Methylnaphthalene	27.0	21.0	21.0 J		UG/KG	TR
SW8270C/NONE	SO	069SS-0002M-0001-SO	240-17525-2	FD	4,6-Dinitro-2-Methylphenol	600	600	600 J		UG/KG	TR
SW8270C/NONE	SO	069SS-0002M-0001-SO	240-17525-2	FD	4-Nitrophenol	1300	1300	1300 J		UG/KG	TR
SW8270C/NONE	SO	069SS-0002M-0001-SO	240-17525-2	FD	Acenaphthylene	27.0	16.0	16.0 J		UG/KG	TR
SW8270C/NONE	SO	069SS-0002M-0001-SO	240-17525-2	FD	Anthracene	27.0	18.0	18.0 J		UG/KG	TR
SW8270C/NONE	SO	069SS-0003M-0001-SO	240-17525-3	N	2-Methylnaphthalene	27.0	25.0	25.0 J		UG/KG	TR
SW8270C/NONE	SO	069SS-0003M-0001-SO	240-17525-3	N	Acenaphthene	27.0	23.0	23.0 J		UG/KG	TR
SW8270C/NONE	SO	069SS-0003M-0001-SO	240-17525-3	N	bis(2-Ethylhexyl) Phthalate	200	79.0	79.0 J		UG/KG	TR
SW8270C/NONE	SO	069SS-0003M-0001-SO	240-17525-3	N	Dibenzofuran	200	27.0	27.0 J		UG/KG	TR
SW8270C/NONE	SO	069SS-0004M-0001-SO	240-17525-4	N	Acenaphthylene	26.0	18.0	18.0 J		UG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
SW8270C/NONE	SO	069SS-0004M-0001-SO	240-17525-4	N	Anthracene	26.0	25.0	25.0 J		UG/KG	TR
SW8270C/NONE	SO	069SS-0004M-0001-SO	240-17525-4	N	Benzyl butyl phthalate	200	100	100 J		UG/KG	TR
SW8270C/NONE	SO	069SS-0004M-0001-SO	240-17525-4	N	Dibenzofuran	200	22.0	22.0 J		UG/KG	TR
SW8270C/NONE	SO	069SS-0004M-0001-SO	240-17525-4	N	Fluorene	26.0	20.0	20.0 J		UG/KG	TR
SW8270C/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	1,2-Dichlorobenzene	50.0	14.0	50.0 U	+	UG/KG	L
SW8270C/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	2,4-Dinitrophenol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	2-Methylnaphthalene	6.7	90.0	90.0 J		UG/KG	d
SW8270C/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	3,3'-Dichlorobenzidine	100	100	100 R	-	UG/KG	M
SW8270C/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	4,6-Dinitro-2-Methylphenol	150	150	150 UJ		UG/KG	J
SW8270C/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	4-Nitroaniline	200	200	200 UJ	-	UG/KG	M
SW8270C/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Acenaphthene	6.7	5.7	5.7 J		UG/KG	TR
SW8270C/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Benzoic acid	660	660	660 R		UG/KG	M/J
SW8270C/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	bis(2-Ethylhexyl) Phthalate	50.0	50.0	50.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Dibenz(a,h)anthracene	6.7	6.7	6.7 UJ		UG/KG	J
SW8270C/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Fluorene	6.7	6.1	6.1 J		UG/KG	TR
SW8270C/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Hexachloroethane	50.0	50.0	50.0 UJ		UG/KG	J
SW8270C/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Indeno(1,2,3-c,d)pyrene	6.7	22.0	22.0 J		UG/KG	J
SW8270C/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Naphthalene	6.7	63.0	63.0 J		UG/KG	d
SW8270C/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Phenanthrene	6.6	537	71.0 J	-	UG/KG	M
SW8270C/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	1,4-Dichlorobenzene	50.0	20.0	20.0 J		UG/KG	TR
SW8270C/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	2,4-Dinitrophenol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	2-Methylnaphthalene	6.7	53.0	53.0 J		UG/KG	d
SW8270C/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	4,6-Dinitro-2-Methylphenol	150	150	150 UJ		UG/KG	J
SW8270C/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Acenaphthene	6.7	3.6	3.6 J		UG/KG	TR
SW8270C/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Benzoic acid	660	660	660 UJ		UG/KG	J
SW8270C/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	bis(2-Ethylhexyl) Phthalate	51.0	25.0	25.0 J	-	UG/KG	H2/TR
SW8270C/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Dibenz(a,h)anthracene	6.7	6.7	6.7 UJ		UG/KG	J
SW8270C/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Dibenzofuran	50.0	17.0	17.0 J		UG/KG	TR
SW8270C/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Fluorene	6.7	5.1	5.1 J		UG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
SW8270C/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Hexachloroethane	50.0	50.0	50.0 UJ		UG/KG	J
SW8270C/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Indeno(1,2,3-c,d)pyrene	6.7	34.0	34.0 J		UG/KG	J
SW8270C/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Naphthalene	6.7	36.0	36.0 J		UG/KG	d
Test Leach	**Matrix**	**FieldSample ID**	**LabSample ID**	**Type**	**Analyte**	**RL**	**Lab Result**	**Qualified Result**	**Bias**	**Units**	**Reason**
SW8330B/NONE	SO	069SS-0002M-0001-SO	240-17525-2	FD	Tetryl	0.25	0.073	0.073 J		MG/KG	TR
SW8330B/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	2-Nitrotoluene	0.25	0.25	0.25 UJ		MG/KG	V2
SW8330B/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	4-Nitrotoluene	0.25	0.25	0.25 UJ		MG/KG	V2
SW8330B/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine (RDX)	0.25	0.25	0.25 UJ		MG/KG	V2
SW8330B/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Nitrobenzene	0.25	0.25	0.25 UJ		MG/KG	V2
SW8330B/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	NITROGUANIDINE	0.25	0.25	0.25 UJ	-	MG/KG	M
SW8330B/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Pentaerythritol Tetranitrate	0.50	0.50	0.50 UJ		MG/KG	V2
SW8330B/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	2-Nitrotoluene	0.25	0.25	0.25 UJ		MG/KG	V2
SW8330B/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	4-Nitrotoluene	0.25	0.25	0.25 UJ		MG/KG	V2
SW8330B/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine (RDX)	0.25	0.25	0.25 UJ		MG/KG	V2
SW8330B/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Nitrobenzene	0.25	0.25	0.25 UJ		MG/KG	V2
SW8330B/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Pentaerythritol Tetranitrate	0.50	0.50	0.50 UJ		MG/KG	V2

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	WS	068SW-0013-0001-SW	240-17477-1	N	Aluminum	60.0	54.0	54.0 J	UG/L	TR
SW6020/NONE	WS	068SW-0013-0001-SW	240-17477-1	N	Arsenic	5.0	0.64	0.64 J	UG/L	TR
SW6020/NONE	WS	068SW-0013-0001-SW	240-17477-1	N	Barium	5.0	30.0	30.0	UG/L	
SW6020/NONE	WS	068SW-0013-0001-SW	240-17477-1	N	Calcium	2000	33000	33000	UG/L	
SW6020/NONE	WS	068SW-0013-0001-SW	240-17477-1	N	Iron	150	1400	1400	UG/L	
SW6020/NONE	WS	068SW-0013-0001-SW	240-17477-1	N	Potassium	1000	1700	1700	UG/L	
SW6020/NONE	WS	068SW-0013-0001-SW	240-17477-1	N	Magnesium	1000	9400	9400	UG/L	
SW6020/NONE	WS	068SW-0013-0001-SW	240-17477-1	N	Manganese	5.0	620	620	UG/L	
SW6020/NONE	WS	068SW-0013-0001-SW	240-17477-1	N	Sodium	1000	4300	4300	UG/L	
SW6020/NONE	WS	068SW-0014-0001-SW	240-17477-2	FD	Aluminum	60.0	250	250	UG/L	
SW6020/NONE	WS	068SW-0014-0001-SW	240-17477-2	FD	Arsenic	5.0	0.70	0.70 J	UG/L	TR
SW6020/NONE	WS	068SW-0014-0001-SW	240-17477-2	FD	Barium	5.0	32.0	32.0	UG/L	
SW6020/NONE	WS	068SW-0014-0001-SW	240-17477-2	FD	Calcium	2000	33000	33000	UG/L	
SW6020/NONE	WS	068SW-0014-0001-SW	240-17477-2	FD	Iron	150	1000	1000	UG/L	
SW6020/NONE	WS	068SW-0014-0001-SW	240-17477-2	FD	Potassium	1000	2000	2000	UG/L	
SW6020/NONE	WS	068SW-0014-0001-SW	240-17477-2	FD	Magnesium	1000	9000	9000	UG/L	
SW6020/NONE	WS	068SW-0014-0001-SW	240-17477-2	FD	Manganese	5.0	240	240	UG/L	
SW6020/NONE	WS	068SW-0014-0001-SW	240-17477-2	FD	Sodium	1000	4100	4100	UG/L	
SW6020/NONE	WS	068SW-0014-0001-SW	240-17477-2	FD	Nickel	5.0	0.74	0.74 J	UG/L	TR
SW6020/NONE	WS	068SW-0014-0001-SW	240-17477-2	FD	Vanadium	5.0	0.55	0.55 J	UG/L	TR
SW6020/NONE	WS	068SW-0015-0001-SW	240-17477-3	N	Aluminum	60.0	38.0	38.0 J	UG/L	TR
SW6020/NONE	WS	068SW-0015-0001-SW	240-17477-3	N	Barium	5.0	27.0	27.0	UG/L	
SW6020/NONE	WS	068SW-0015-0001-SW	240-17477-3	N	Calcium	2000	32000	32000	UG/L	
SW6020/NONE	WS	068SW-0015-0001-SW	240-17477-3	N	Iron	150	620	620	UG/L	
SW6020/NONE	WS	068SW-0015-0001-SW	240-17477-3	N	Potassium	1000	1800	1800	UG/L	
SW6020/NONE	WS	068SW-0015-0001-SW	240-17477-3	N	Magnesium	1000	8900	8900	UG/L	
SW6020/NONE	WS	068SW-0015-0001-SW	240-17477-3	N	Manganese	5.0	190	190	UG/L	
SW6020/NONE	WS	068SW-0015-0001-SW	240-17477-3	N	Sodium	1000	4200	4200	UG/L	

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	WS	068SW-0016-0001-SW	240-17477-4	N	Aluminum	60.0	320	320	UG/L	
SW6020/NONE	WS	068SW-0016-0001-SW	240-17477-4	N	Arsenic	5.0	0.78	0.78 J	UG/L	TR
SW6020/NONE	WS	068SW-0016-0001-SW	240-17477-4	N	Barium	5.0	34.0	34.0	UG/L	
SW6020/NONE	WS	068SW-0016-0001-SW	240-17477-4	N	Calcium	2000	31000	31000	UG/L	
SW6020/NONE	WS	068SW-0016-0001-SW	240-17477-4	N	Copper	4.0	1.6	1.6 J	UG/L	TR
SW6020/NONE	WS	068SW-0016-0001-SW	240-17477-4	N	Iron	150	1300	1300	UG/L	
SW6020/NONE	WS	068SW-0016-0001-SW	240-17477-4	N	Potassium	1000	1900	1900	UG/L	
SW6020/NONE	WS	068SW-0016-0001-SW	240-17477-4	N	Magnesium	1000	8300	8300	UG/L	
SW6020/NONE	WS	068SW-0016-0001-SW	240-17477-4	N	Manganese	5.0	330	330	UG/L	
SW6020/NONE	WS	068SW-0016-0001-SW	240-17477-4	N	Sodium	1000	3900	3900	UG/L	
SW6020/NONE	WS	068SW-0016-0001-SW	240-17477-4	N	Nickel	5.0	0.90	0.90 J	UG/L	TR
SW6020/NONE	WS	068SW-0016-0001-SW	240-17477-4	N	Antimony	2.0	1.0	1.0 J	UG/L	TR
SW6020/NONE	WS	068SW-0016-0001-SW	240-17477-4	N	Vanadium	5.0	0.72	0.72 J	UG/L	TR
SW6020/NONE	SO	079SS-0003M-0001-SO	240-17477-5	N	Silver	0.096	0.20	0.20	MG/KG	
SW6020/NONE	SO	079SS-0003M-0001-SO	240-17477-5	N	Aluminum	9.6	7800	7800	MG/KG	
SW6020/NONE	SO	079SS-0003M-0001-SO	240-17477-5	N	Arsenic	0.48	37.0	37.0	MG/KG	
SW6020/NONE	SO	079SS-0003M-0001-SO	240-17477-5	N	Barium	0.48	63.0	63.0	MG/KG	
SW6020/NONE	SO	079SS-0003M-0001-SO	240-17477-5	N	Beryllium	0.096	0.65	0.65	MG/KG	
SW6020/NONE	SO	079SS-0003M-0001-SO	240-17477-5	N	Calcium	190	9800	9800	MG/KG	
SW6020/NONE	SO	079SS-0003M-0001-SO	240-17477-5	N	Cadmium	0.19	0.13	0.13 J	MG/KG	TR
SW6020/NONE	SO	079SS-0003M-0001-SO	240-17477-5	N	Cobalt	0.096	14.0	14.0	MG/KG	
SW6020/NONE	SO	079SS-0003M-0001-SO	240-17477-5	N	Chromium	0.48	26.0	26.0	MG/KG	
SW6020/NONE	SO	079SS-0003M-0001-SO	240-17477-5	N	Copper	0.38	16.0	16.0	MG/KG	
SW6020/NONE	SO	079SS-0003M-0001-SO	240-17477-5	N	Iron	48.0	21000	21000	MG/KG	
SW6020/NONE	SO	079SS-0003M-0001-SO	240-17477-5	N	Potassium	96.0	920	920	MG/KG	
SW6020/NONE	SO	079SS-0003M-0001-SO	240-17477-5	N	Magnesium	96.0	3300	3300 J	MG/KG	M
SW6020/NONE	SO	079SS-0003M-0001-SO	240-17477-5	N	Manganese	0.48	720	720	MG/KG	
SW6020/NONE	SO	079SS-0003M-0001-SO	240-17477-5	N	Sodium	96.0	66.0	66.0 J	MG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	079SS-0003M-0001-SO	240-17477-5	N	Nickel	0.48	33.0	33.0	MG/KG	
SW6020/NONE	SO	079SS-0003M-0001-SO	240-17477-5	N	Lead	0.29	24.0	24.0	MG/KG	
SW6020/NONE	SO	079SS-0003M-0001-SO	240-17477-5	N	Antimony	0.19	0.71	0.71 J	MG/KG	M
SW6020/NONE	SO	079SS-0003M-0001-SO	240-17477-5	N	Selenium	0.48	0.53	0.53	MG/KG	
SW6020/NONE	SO	079SS-0003M-0001-SO	240-17477-5	N	Thallium	0.19	0.084	0.084 J	MG/KG	TR
SW6020/NONE	SO	079SS-0003M-0001-SO	240-17477-5	N	Vanadium	0.48	14.0	14.0	MG/KG	
SW6020/NONE	SO	079SS-0003M-0001-SO	240-17477-5	N	Zinc	3.8	57.0	57.0	MG/KG	
SW6020/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Silver	0.079	0.053	0.053 J	MG/KG	TR
SW6020/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Aluminum	7.9	7700	7700	MG/KG	
SW6020/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Arsenic	0.40	21.0	21.0	MG/KG	
SW6020/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Barium	0.40	60.0	60.0	MG/KG	
SW6020/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Beryllium	0.079	0.53	0.53	MG/KG	
SW6020/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Calcium	160	5500	5500	MG/KG	
SW6020/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Cadmium	0.16	0.087	0.087 J	MG/KG	TR
SW6020/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Cobalt	0.079	8.4	8.4	MG/KG	
SW6020/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Chromium	0.40	20.0	20.0	MG/KG	
SW6020/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Copper	0.32	11.0	11.0	MG/KG	
SW6020/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Iron	40.0	19000	19000	MG/KG	
SW6020/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Potassium	79.0	870	870	MG/KG	
SW6020/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Magnesium	79.0	2700	2700 J	MG/KG	M
SW6020/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Manganese	0.40	530	530	MG/KG	
SW6020/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Sodium	79.0	52.0	52.0 J	MG/KG	TR
SW6020/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Nickel	0.40	23.0	23.0	MG/KG	
SW6020/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Lead	0.24	14.0	14.0	MG/KG	
SW6020/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Antimony	0.16	0.23	0.23 J	MG/KG	M
SW6020/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Selenium	0.40	0.46	0.46	MG/KG	
SW6020/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Thallium	0.16	0.13	0.13 J	MG/KG	TR
SW6020/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Vanadium	0.40	14.0	14.0	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Zinc	3.2	44.0	44.0	MG/KG	
SW6020/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Silver	0.085	0.064	0.064 J	MG/KG	TR
SW6020/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Aluminum	8.5	6500	6500	MG/KG	
SW6020/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Arsenic	0.42	22.0	22.0	MG/KG	
SW6020/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Barium	0.42	44.0	44.0	MG/KG	
SW6020/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Beryllium	0.085	0.43	0.43	MG/KG	
SW6020/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Calcium	170	3600	3600	MG/KG	
SW6020/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Cadmium	0.17	0.081	0.081 J	MG/KG	TR
SW6020/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Cobalt	0.085	8.3	8.3	MG/KG	
SW6020/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Chromium	0.42	14.0	14.0	MG/KG	
SW6020/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Copper	0.34	10.0	10.0	MG/KG	
SW6020/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Iron	42.0	19000	19000	MG/KG	
SW6020/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Potassium	85.0	730	730	MG/KG	
SW6020/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Magnesium	85.0	2300	2300 J	MG/KG	M
SW6020/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Manganese	0.42	440	440	MG/KG	
SW6020/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Sodium	85.0	37.0	37.0 J	MG/KG	TR
SW6020/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Nickel	0.42	21.0	21.0	MG/KG	
SW6020/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Lead	0.25	13.0	13.0	MG/KG	
SW6020/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Antimony	0.17	0.21	0.21 J	MG/KG	M
SW6020/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Selenium	0.42	0.40	0.40 J	MG/KG	TR
SW6020/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Thallium	0.17	0.13	0.13 J	MG/KG	TR
SW6020/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Vanadium	0.42	13.0	13.0	MG/KG	
SW6020/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Zinc	3.4	43.0	43.0	MG/KG	

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW7471A/NONE	SO	069SS-0001M-0001-SO	240-17525-1	N	Mercury	0.11	0.21	0.21	MG/KG	
SW7471A/NONE	SO	069SS-0002M-0001-SO	240-17525-2	FD	Mercury	0.11	0.12	0.12	MG/KG	
SW7471A/NONE	SO	069SS-0003M-0001-SO	240-17525-3	N	Mercury	0.090	0.043	0.043 J	MG/KG	TR
SW7471A/NONE	SO	069SS-0004M-0001-SO	240-17525-4	N	Mercury	0.092	0.11	0.11	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8082/NONE	SO	069SS-0001M-0001-SO	240-17525-1	N	PCB-1260 (Arochlor 1260)	54.0	41.0	41.0 J	UG/KG	TR

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8260B/NONE	SO	069SS-0002M-0001-SO	240-17525-2	FD	2-Hexanone	18.0	1.4	1.4 J	UG/KG	TR
SW8260B/NONE	SO	069SS-0002M-0001-SO	240-17525-2	FD	4-Methyl-2-pentanone (MIBK)	18.0	0.93	0.93 J	UG/KG	TR
SW8260B/NONE	SO	069SS-0004M-0001-SO	240-17525-4	N	Acetone	22.0	13.0	13.0 J	UG/KG	TR
SW8260B/NONE	SO	069SS-0004M-0001-SO	240-17525-4	N	2-Hexanone	24.0	0.93	0.93 J	UG/KG	TR
SW8260B/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Carbon Disulfide	8.5	1.5	1.5 J +	UG/KG	M/TR/I
SW8260B/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Toluene	6.8	0.37	0.37 J +	UG/KG	I/TR
SW8260B/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Carbon Disulfide	6.8	1.3	1.3 J +	UG/KG	I/TR/J
SW8260B/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	2-Hexanone	27.0	1.9	1.9 J +	UG/KG	I/TR
SW8260B/NONE	WG	079SS-0006-0001-TB	240-17477-8	N	Chloroform	1.0	0.61	0.61 J	UG/L	TR

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8270C/NONE	WS	068SW-0013-0001-SW	240-17477-1	N	bis(2-Ethylhexyl) Phthalate	1.9	23.0	23.0	UG/L	
SW8270C/NONE	WS	068SW-0014-0001-SW	240-17477-2	FD	bis(2-Ethylhexyl) Phthalate	1.9	2.8	2.8	UG/L	
SW8270C/NONE	WS	068SW-0015-0001-SW	240-17477-3	N	bis(2-Ethylhexyl) Phthalate	1.9	1.7	1.7 J	UG/L	TR
SW8270C/NONE	SO	069SS-0001M-0001-SO	240-17525-1	N	Benzo(a)anthracene	34.0	54.0	54.0	UG/KG	
SW8270C/NONE	SO	069SS-0001M-0001-SO	240-17525-1	N	Benzo(a)pyrene	34.0	93.0	93.0	UG/KG	
SW8270C/NONE	SO	069SS-0001M-0001-SO	240-17525-1	N	Benzo(b)fluoranthene	34.0	90.0	90.0	UG/KG	
SW8270C/NONE	SO	069SS-0001M-0001-SO	240-17525-1	N	Benzo(g,h,i)perylene	34.0	52.0	52.0	UG/KG	
SW8270C/NONE	SO	069SS-0001M-0001-SO	240-17525-1	N	Benzo(k)fluoranthene	34.0	28.0	28.0 J	UG/KG	TR
SW8270C/NONE	SO	069SS-0001M-0001-SO	240-17525-1	N	Chrysene	34.0	72.0	72.0	UG/KG	
SW8270C/NONE	SO	069SS-0001M-0001-SO	240-17525-1	N	Fluoranthene	34.0	120	120	UG/KG	
SW8270C/NONE	SO	069SS-0001M-0001-SO	240-17525-1	N	Indeno(1,2,3-c,d)pyrene	34.0	69.0	69.0	UG/KG	
SW8270C/NONE	SO	069SS-0001M-0001-SO	240-17525-1	N	2-Methylnaphthalene	34.0	20.0	20.0 J	UG/KG	TR
SW8270C/NONE	SO	069SS-0001M-0001-SO	240-17525-1	N	Naphthalene	34.0	18.0	18.0 J	UG/KG	TR
SW8270C/NONE	SO	069SS-0001M-0001-SO	240-17525-1	N	Phenanthrene	34.0	53.0	53.0	UG/KG	
SW8270C/NONE	SO	069SS-0001M-0001-SO	240-17525-1	N	Pyrene	34.0	86.0	86.0	UG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8270C/NONE	SO	069SS-0002M-0001-SO	240-17525-2	FD	Acenaphthylene	27.0	16.0	16.0 J	UG/KG	TR
SW8270C/NONE	SO	069SS-0002M-0001-SO	240-17525-2	FD	Anthracene	27.0	18.0	18.0 J	UG/KG	TR
SW8270C/NONE	SO	069SS-0002M-0001-SO	240-17525-2	FD	Benzo(a)anthracene	27.0	120	120	UG/KG	
SW8270C/NONE	SO	069SS-0002M-0001-SO	240-17525-2	FD	Benzo(a)pyrene	27.0	120	120	UG/KG	
SW8270C/NONE	SO	069SS-0002M-0001-SO	240-17525-2	FD	Benzo(b)fluoranthene	27.0	150	150	UG/KG	
SW8270C/NONE	SO	069SS-0002M-0001-SO	240-17525-2	FD	Benzo(g,h,i)perylene	27.0	63.0	63.0	UG/KG	
SW8270C/NONE	SO	069SS-0002M-0001-SO	240-17525-2	FD	Benzo(k)fluoranthene	27.0	45.0	45.0	UG/KG	
SW8270C/NONE	SO	069SS-0002M-0001-SO	240-17525-2	FD	Chrysene	27.0	130	130	UG/KG	
SW8270C/NONE	SO	069SS-0002M-0001-SO	240-17525-2	FD	Fluoranthene	27.0	190	190	UG/KG	
SW8270C/NONE	SO	069SS-0002M-0001-SO	240-17525-2	FD	Indeno(1,2,3-c,d)pyrene	27.0	82.0	82.0	UG/KG	
SW8270C/NONE	SO	069SS-0002M-0001-SO	240-17525-2	FD	2-Methylnaphthalene	27.0	21.0	21.0 J	UG/KG	TR
SW8270C/NONE	SO	069SS-0002M-0001-SO	240-17525-2	FD	Phenanthrene	27.0	65.0	65.0	UG/KG	
SW8270C/NONE	SO	069SS-0002M-0001-SO	240-17525-2	FD	Pyrene	27.0	170	170	UG/KG	
SW8270C/NONE	SO	069SS-0003M-0001-SO	240-17525-3	N	Acenaphthene	27.0	23.0	23.0 J	UG/KG	TR
SW8270C/NONE	SO	069SS-0003M-0001-SO	240-17525-3	N	Acenaphthylene	27.0	83.0	83.0	UG/KG	
SW8270C/NONE	SO	069SS-0003M-0001-SO	240-17525-3	N	Anthracene	27.0	81.0	81.0	UG/KG	
SW8270C/NONE	SO	069SS-0003M-0001-SO	240-17525-3	N	bis(2-Ethylhexyl) Phthalate	200	79.0	79.0 J	UG/KG	TR
SW8270C/NONE	SO	069SS-0003M-0001-SO	240-17525-3	N	Benzo(a)anthracene	27.0	380	380	UG/KG	
SW8270C/NONE	SO	069SS-0003M-0001-SO	240-17525-3	N	Benzo(a)pyrene	27.0	400	400	UG/KG	
SW8270C/NONE	SO	069SS-0003M-0001-SO	240-17525-3	N	Benzo(b)fluoranthene	27.0	520	520	UG/KG	
SW8270C/NONE	SO	069SS-0003M-0001-SO	240-17525-3	N	Benzo(g,h,i)perylene	27.0	240	240	UG/KG	
SW8270C/NONE	SO	069SS-0003M-0001-SO	240-17525-3	N	Benzo(k)fluoranthene	27.0	210	210	UG/KG	
SW8270C/NONE	SO	069SS-0003M-0001-SO	240-17525-3	N	Chrysene	27.0	410	410	UG/KG	
SW8270C/NONE	SO	069SS-0003M-0001-SO	240-17525-3	N	Dibenz(a,h)anthracene	27.0	120	120	UG/KG	
SW8270C/NONE	SO	069SS-0003M-0001-SO	240-17525-3	N	Dibenzofuran	200	27.0	27.0 J	UG/KG	TR
SW8270C/NONE	SO	069SS-0003M-0001-SO	240-17525-3	N	Fluorene	27.0	45.0	45.0	UG/KG	
SW8270C/NONE	SO	069SS-0003M-0001-SO	240-17525-3	N	Fluoranthene	27.0	710	710	UG/KG	
SW8270C/NONE	SO	069SS-0003M-0001-SO	240-17525-3	N	Indeno(1,2,3-c,d)pyrene	27.0	250	250	UG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8270C/NONE	SO	069SS-0003M-0001-SO	240-17525-3	N	2-Methylnaphthalene	27.0	25.0	25.0 J	UG/KG	TR
SW8270C/NONE	SO	069SS-0003M-0001-SO	240-17525-3	N	Naphthalene	27.0	32.0	32.0	UG/KG	
SW8270C/NONE	SO	069SS-0003M-0001-SO	240-17525-3	N	Phenanthrene	27.0	360	360	UG/KG	
SW8270C/NONE	SO	069SS-0003M-0001-SO	240-17525-3	N	Pyrene	27.0	540	540	UG/KG	
SW8270C/NONE	SO	069SS-0004M-0001-SO	240-17525-4	N	Acenaphthylene	26.0	18.0	18.0 J	UG/KG	TR
SW8270C/NONE	SO	069SS-0004M-0001-SO	240-17525-4	N	Anthracene	26.0	25.0	25.0 J	UG/KG	TR
SW8270C/NONE	SO	069SS-0004M-0001-SO	240-17525-4	N	Benzyl butyl phthalate	200	100	100 J	UG/KG	TR
SW8270C/NONE	SO	069SS-0004M-0001-SO	240-17525-4	N	Benzo(a)anthracene	26.0	130	130	UG/KG	
SW8270C/NONE	SO	069SS-0004M-0001-SO	240-17525-4	N	Benzo(a)pyrene	26.0	160	160	UG/KG	
SW8270C/NONE	SO	069SS-0004M-0001-SO	240-17525-4	N	Benzo(b)fluoranthene	26.0	200	200	UG/KG	
SW8270C/NONE	SO	069SS-0004M-0001-SO	240-17525-4	N	Benzo(g,h,i)perylene	26.0	100	100	UG/KG	
SW8270C/NONE	SO	069SS-0004M-0001-SO	240-17525-4	N	Benzo(k)fluoranthene	26.0	73.0	73.0	UG/KG	
SW8270C/NONE	SO	069SS-0004M-0001-SO	240-17525-4	N	Chrysene	26.0	150	150	UG/KG	
SW8270C/NONE	SO	069SS-0004M-0001-SO	240-17525-4	N	Dibenzofuran	200	22.0	22.0 J	UG/KG	TR
SW8270C/NONE	SO	069SS-0004M-0001-SO	240-17525-4	N	Fluorene	26.0	20.0	20.0 J	UG/KG	TR
SW8270C/NONE	SO	069SS-0004M-0001-SO	240-17525-4	N	Fluoranthene	26.0	260	260	UG/KG	
SW8270C/NONE	SO	069SS-0004M-0001-SO	240-17525-4	N	Indeno(1,2,3-c,d)pyrene	26.0	100	100	UG/KG	
SW8270C/NONE	SO	069SS-0004M-0001-SO	240-17525-4	N	2-Methylnaphthalene	26.0	46.0	46.0	UG/KG	
SW8270C/NONE	SO	069SS-0004M-0001-SO	240-17525-4	N	Naphthalene	26.0	43.0	43.0	UG/KG	
SW8270C/NONE	SO	069SS-0004M-0001-SO	240-17525-4	N	Phenanthrene	26.0	150	150	UG/KG	
SW8270C/NONE	SO	069SS-0004M-0001-SO	240-17525-4	N	Pyrene	26.0	210	210	UG/KG	
SW8270C/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Acenaphthene	6.7	5.7	5.7 J	UG/KG	TR
SW8270C/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Acenaphthylene	6.7	10.0	10.0	UG/KG	
SW8270C/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Anthracene	6.7	10.0	10.0	UG/KG	
SW8270C/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Benzo(a)anthracene	6.7	43.0	43.0	UG/KG	
SW8270C/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Benzo(a)pyrene	6.7	42.0	42.0	UG/KG	
SW8270C/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Benzo(b)fluoranthene	6.7	75.0	75.0	UG/KG	
SW8270C/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Benzo(g,h,i)perylene	6.7	26.0	26.0	UG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8270C/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Benzo(k)fluoranthene	6.7	27.0	27.0	UG/KG	
SW8270C/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Chrysene	6.7	63.0	63.0	UG/KG	
SW8270C/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Dibenzofuran	50.0	506	23.0	UG/KG	
SW8270C/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Fluorene	6.7	6.1	6.1 J	UG/KG	TR
SW8270C/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Fluoranthene	6.7	78.0	78.0	UG/KG	
SW8270C/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Indeno(1,2,3-c,d)pyrene	6.7	22.0	22.0 J	UG/KG	J
SW8270C/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	2-Methylnaphthalene	6.7	90.0	90.0 J	UG/KG	d
SW8270C/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Naphthalene	6.7	63.0	63.0 J	UG/KG	d
SW8270C/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Phenanthrene	6.6	537	71.0 J -	UG/KG	M
SW8270C/NONE	SO	079SS-0004M-0001-SO	240-17477-6	N	Pyrene	6.7	65.0	65.0	UG/KG	
SW8270C/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Acenaphthene	6.7	3.6	3.6 J	UG/KG	TR
SW8270C/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Acenaphthylene	6.7	12.0	12.0	UG/KG	
SW8270C/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Anthracene	6.7	12.0	12.0	UG/KG	
SW8270C/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	bis(2-Ethylhexyl) Phthalate	51.0	25.0	25.0 J -	UG/KG	H2/TR
SW8270C/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Benzo(a)anthracene	6.7	58.0	58.0	UG/KG	
SW8270C/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Benzo(a)pyrene	6.7	49.0	49.0	UG/KG	
SW8270C/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Benzo(b)fluoranthene	6.7	100	100	UG/KG	
SW8270C/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Benzo(g,h,i)perylene	6.7	40.0	40.0	UG/KG	
SW8270C/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Benzo(k)fluoranthene	6.7	42.0	42.0	UG/KG	
SW8270C/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Chrysene	6.7	82.0	82.0	UG/KG	
SW8270C/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Dibenzofuran	50.0	17.0	17.0 J	UG/KG	TR
SW8270C/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	1,2-Dichlorobenzene	50.0	95.0	95.0	UG/KG	
SW8270C/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	1,4-Dichlorobenzene	50.0	20.0	20.0 J	UG/KG	TR
SW8270C/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Fluorene	6.7	5.1	5.1 J	UG/KG	TR
SW8270C/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Fluoranthene	6.7	96.0	96.0	UG/KG	
SW8270C/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Indeno(1,2,3-c,d)pyrene	6.7	34.0	34.0 J	UG/KG	J
SW8270C/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	2-Methylnaphthalene	6.7	53.0	53.0 J	UG/KG	d
SW8270C/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Naphthalene	6.7	36.0	36.0 J	UG/KG	d

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8270C/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Phenanthrene	6.7	56.0	56.0	UG/KG	
SW8270C/NONE	SO	079SS-0005M-0001-SO	240-17477-7	FD	Pyrene	6.7	79.0	79.0	UG/KG	

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8330B/NONE	SO	069SS-0002M-0001-SO	240-17525-2	FD	NITROGUANIDINE	0.24	0.34	0.34	MG/KG	
SW8330B/NONE	SO	069SS-0002M-0001-SO	240-17525-2	FD	Tetryl	0.25	0.073	0.073 J	MG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Rejected Results

Test Leach	Matrix	FieldSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8270C/NONE	WS	068SW-0016-0001-SW	N	3,3'-Dichlorobenzidine	4.8	4.8	R	UG/L	M
SW8270C/NONE	SO	079SS-0004M-0001-SO	N	Benzoic acid	660	660	R	UG/KG	M/J
SW8270C/NONE	SO	079SS-0004M-0001-SO	N	3,3'-Dichlorobenzidine	100	100	R	UG/KG	M

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Anomalies Count

SDG Name: 240-17477-1_(68,69,79-SW,SS)

Test/Extraction Method/Leach	# of Field Samples Outside of Compliance	# of Analytes Outside of Compliance
E353.2/METHOD/NONE	4	4
SW6020/SW3050B/NONE	3	21
SW7471A/TOTAL/NONE	2	2
SW8081/SW3540C/NONE	4	84
SW8082/SW3540C/NONE	8	56
SW8260B/SW5035/NONE	6	174
SW8270C/SW3550/NONE	6	88

Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Reporting Anomalies

SDG Name: 240-17477-1_(68,69,79-SW,SS)

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
E353.2/NONE	069SS-0001M-0001-SO	N	1	Nitrocellulose	47 UJ	7.4	47	5	MG/KG
E353.2/NONE	069SS-0002M-0001-SO	FD	1	Nitrocellulose	47 UJ	7.3	47	5	MG/KG
E353.2/NONE	079SS-0004M-0001-SO	N	1	Nitrocellulose	48 UJ	7.5	48	5	MG/KG
E353.2/NONE	079SS-0005M-0001-SO	FD	1	Nitrocellulose	46 UJ	7.2	46	5	MG/KG

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW6020/NONE	068SW-0013-0001-SW	N	1	Aluminum	54 J	20	60	50	UG/L
SW6020/NONE	068SW-0013-0001-SW	N	1	Cadmium	2 U	0.4	2	0.5	UG/L
SW6020/NONE	068SW-0013-0001-SW	N	1	Calcium	33000	540	2000	100	UG/L
SW6020/NONE	068SW-0013-0001-SW	N	1	Iron	1400	44	150	100	UG/L
SW6020/NONE	068SW-0013-0001-SW	N	1	Magnesium	9400	120	1000	100	UG/L
SW6020/NONE	068SW-0013-0001-SW	N	1	Potassium	1700	16	1000	200	UG/L
SW6020/NONE	068SW-0013-0001-SW	N	1	Sodium	4300	160	1000	200	UG/L
SW6020/NONE	068SW-0013-0001-SW	N	1	Thallium	2 U	0.32	2	1	UG/L
SW6020/NONE	068SW-0013-0001-SW	N	1	Zinc	40 U	8.8	40	10	UG/L
SW6020/NONE	068SW-0014-0001-SW	FD	1	Aluminum	250	20	60	50	UG/L
SW6020/NONE	068SW-0014-0001-SW	FD	1	Cadmium	2 U	0.4	2	0.5	UG/L
SW6020/NONE	068SW-0014-0001-SW	FD	1	Calcium	33000	540	2000	100	UG/L
SW6020/NONE	068SW-0014-0001-SW	FD	1	Iron	1000	44	150	100	UG/L
SW6020/NONE	068SW-0014-0001-SW	FD	1	Magnesium	9000	120	1000	100	UG/L
SW6020/NONE	068SW-0014-0001-SW	FD	1	Potassium	2000	16	1000	200	UG/L
SW6020/NONE	068SW-0014-0001-SW	FD	1	Sodium	4100	160	1000	200	UG/L
SW6020/NONE	068SW-0014-0001-SW	FD	1	Thallium	2 U	0.32	2	1	UG/L
SW6020/NONE	068SW-0014-0001-SW	FD	1	Zinc	40 U	8.8	40	10	UG/L
SW6020/NONE	068SW-0015-0001-SW	N	1	Aluminum	38 J	20	60	50	UG/L
SW6020/NONE	068SW-0015-0001-SW	N	1	Cadmium	2 U	0.4	2	0.5	UG/L
SW6020/NONE	068SW-0015-0001-SW	N	1	Calcium	32000	540	2000	100	UG/L
SW6020/NONE	068SW-0015-0001-SW	N	1	Iron	620	44	150	100	UG/L
SW6020/NONE	068SW-0015-0001-SW	N	1	Magnesium	8900	120	1000	100	UG/L

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Reporting Anomalies

SDG Name: 240-17477-1_(68,69,79-SW,SS)

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW6020/NONE	068SW-0015-0001-SW	N	1	Potassium	1800	16	1000	200	UG/L
SW6020/NONE	068SW-0015-0001-SW	N	1	Sodium	4200	160	1000	200	UG/L
SW6020/NONE	068SW-0015-0001-SW	N	1	Thallium	2 U	0.32	2	1	UG/L
SW6020/NONE	068SW-0015-0001-SW	N	1	Zinc	40 U	8.8	40	10	UG/L
SW6020/NONE	068SW-0016-0001-SW	N	1	Aluminum	320	20	60	50	UG/L
SW6020/NONE	068SW-0016-0001-SW	N	1	Cadmium	2 U	0.4	2	0.5	UG/L
SW6020/NONE	068SW-0016-0001-SW	N	1	Calcium	31000	540	2000	100	UG/L
SW6020/NONE	068SW-0016-0001-SW	N	1	Iron	1300	44	150	100	UG/L
SW6020/NONE	068SW-0016-0001-SW	N	1	Magnesium	8300	120	1000	100	UG/L
SW6020/NONE	068SW-0016-0001-SW	N	1	Potassium	1900	16	1000	200	UG/L
SW6020/NONE	068SW-0016-0001-SW	N	1	Sodium	3900	160	1000	200	UG/L
SW6020/NONE	068SW-0016-0001-SW	N	1	Thallium	2 U	0.32	2	1	UG/L
SW6020/NONE	068SW-0016-0001-SW	N	1	Zinc	40 U	8.8	40	10	UG/L
SW6020/NONE	079SS-0003M-0001-SO	N	1	Cadmium	0.13 J	0.003	0.19	0.1	MG/KG
SW6020/NONE	079SS-0003M-0001-SO	N	1	Calcium	9800	39	190	10	MG/KG
SW6020/NONE	079SS-0003M-0001-SO	N	1	Iron	21000	10	48	10	MG/KG
SW6020/NONE	079SS-0003M-0001-SO	N	1	Magnesium	3300 J	8.6	96	10	MG/KG
SW6020/NONE	079SS-0003M-0001-SO	N	1	Potassium	920	3.6	96	20	MG/KG
SW6020/NONE	079SS-0003M-0001-SO	N	1	Sodium	66 J	13	96	20	MG/KG
SW6020/NONE	079SS-0003M-0001-SO	N	1	Zinc	57	0.96	3.8	1	MG/KG
SW6020/NONE	079SS-0004M-0001-SO	N	1	Cadmium	0.087 J	0.0025	0.16	0.1	MG/KG
SW6020/NONE	079SS-0004M-0001-SO	N	1	Calcium	5500	32	160	10	MG/KG
SW6020/NONE	079SS-0004M-0001-SO	N	1	Iron	19000	8.7	40	10	MG/KG
SW6020/NONE	079SS-0004M-0001-SO	N	1	Magnesium	2700 J	7.1	79	10	MG/KG
SW6020/NONE	079SS-0004M-0001-SO	N	1	Potassium	870	3	79	20	MG/KG
SW6020/NONE	079SS-0004M-0001-SO	N	1	Sodium	52 J	11	79	20	MG/KG
SW6020/NONE	079SS-0004M-0001-SO	N	1	Zinc	44	0.79	3.2	1	MG/KG
SW6020/NONE	079SS-0005M-0001-SO	FD	1	Cadmium	0.081 J	0.0026	0.17	0.1	MG/KG
SW6020/NONE	079SS-0005M-0001-SO	FD	1	Calcium	3600	34	170	10	MG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Reporting Anomalies

SDG Name: 240-17477-1_(68,69,79-SW,SS)

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW6020/NONE	079SS-0005M-0001-SO	FD	1	Iron	19000	9.2	42	10	MG/KG
SW6020/NONE	079SS-0005M-0001-SO	FD	1	Magnesium	2300 J	7.5	85	10	MG/KG
SW6020/NONE	079SS-0005M-0001-SO	FD	1	Potassium	730	3.2	85	20	MG/KG
SW6020/NONE	079SS-0005M-0001-SO	FD	1	Sodium	37 J	12	85	20	MG/KG
SW6020/NONE	079SS-0005M-0001-SO	FD	1	Zinc	43	0.85	3.4	1	MG/KG

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW7471A/NONE	069SS-0001M-0001-SO	N	1	Mercury	0.206	0.015	0.11	0.1	MG/KG
SW7471A/NONE	069SS-0002M-0001-SO	FD	1	Mercury	0.12	0.015	0.11	0.1	MG/KG

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8081/NONE	069SS-0001M-0001-SO	N	20	Aldrin	79 U	24	79	1.7	UG/KG
SW8081/NONE	069SS-0001M-0001-SO	N	20	alpha-BHC (alpha-Hexachlorocyclohexane)	49 U	14	49	1.7	UG/KG
SW8081/NONE	069SS-0001M-0001-SO	N	20	alpha-Chlordane	59 U	19	59	1.7	UG/KG
SW8081/NONE	069SS-0001M-0001-SO	N	20	alpha-Endosulfan	34 J	10	34	1.7	UG/KG
SW8081/NONE	069SS-0001M-0001-SO	N	20	beta-BHC (beta-Hexachlorocyclohexane)	69 U	22	69	1.7	UG/KG
SW8081/NONE	069SS-0001M-0001-SO	N	20	beta-Endosulfan	49 J	16	49	1.7	UG/KG
SW8081/NONE	069SS-0001M-0001-SO	N	20	delta-BHC (delta-Hexachlorocyclohexane)	79 U	24	79	1.7	UG/KG
SW8081/NONE	069SS-0001M-0001-SO	N	20	Dieldrin	34 U	9.3	34	1.7	UG/KG
SW8081/NONE	069SS-0001M-0001-SO	N	20	Endosulfan Sulfate	59 U	17	59	1.7	UG/KG
SW8081/NONE	069SS-0001M-0001-SO	N	20	Endrin	34 U	9.9	34	1.7	UG/KG
SW8081/NONE	069SS-0001M-0001-SO	N	20	Endrin Aldehyde	59 U	20	59	1.7	UG/KG
SW8081/NONE	069SS-0001M-0001-SO	N	20	Endrin Ketone	40 U	12	40	1.7	UG/KG
SW8081/NONE	069SS-0001M-0001-SO	N	20	gamma-BHC (Lindane)	49 U	15	49	1.7	UG/KG
SW8081/NONE	069SS-0001M-0001-SO	N	20	gamma-Chlordane	34 U	8.3	34	1.7	UG/KG
SW8081/NONE	069SS-0001M-0001-SO	N	20	Heptachlor	69 U	22	69	1.7	UG/KG
SW8081/NONE	069SS-0001M-0001-SO	N	20	Heptachlor Epoxide	49 U	16	49	1.7	UG/KG
SW8081/NONE	069SS-0001M-0001-SO	N	20	Methoxychlor	99 U	30	99	1.7	UG/KG
SW8081/NONE	069SS-0001M-0001-SO	N	20	p,p'-DDD	40 U	12	40	1.7	UG/KG
SW8081/NONE	069SS-0001M-0001-SO	N	20	p,p'-DDE	34 U	7.7	34	1.7	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Reporting Anomalies

SDG Name: 240-17477-1_(68,69,79-SW,SS)

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8081/NONE	069SS-0001M-0001-SO	N	20	p,p'-DDT	40 U	12	40	1.7	UG/KG
SW8081/NONE	069SS-0001M-0001-SO	N	20	Toxaphene	1300 U	380	1300	170	UG/KG
SW8081/NONE	069SS-0002M-0001-SO	FD	10	Aldrin	40 U	12	40	1.7	UG/KG
SW8081/NONE	069SS-0002M-0001-SO	FD	10	alpha-BHC (alpha-Hexachlorocyclohexane)	25 U	7.4	25	1.7	UG/KG
SW8081/NONE	069SS-0002M-0001-SO	FD	10	alpha-Chlordane	30 U	9.5	30	1.7	UG/KG
SW8081/NONE	069SS-0002M-0001-SO	FD	10	alpha-Endosulfan	17 UJ	5.2	17	1.7	UG/KG
SW8081/NONE	069SS-0002M-0001-SO	FD	10	beta-BHC (beta-Hexachlorocyclohexane)	35 U	11	35	1.7	UG/KG
SW8081/NONE	069SS-0002M-0001-SO	FD	10	beta-Endosulfan	25 J	8.3	25	1.7	UG/KG
SW8081/NONE	069SS-0002M-0001-SO	FD	10	delta-BHC (delta-Hexachlorocyclohexane)	40 U	12	40	1.7	UG/KG
SW8081/NONE	069SS-0002M-0001-SO	FD	10	Dieldrin	17 U	4.7	17	1.7	UG/KG
SW8081/NONE	069SS-0002M-0001-SO	FD	10	Endosulfan Sulfate	30 U	8.8	30	1.7	UG/KG
SW8081/NONE	069SS-0002M-0001-SO	FD	10	Endrin	17 U	5	17	1.7	UG/KG
SW8081/NONE	069SS-0002M-0001-SO	FD	10	Endrin Aldehyde	30 U	10	30	1.7	UG/KG
SW8081/NONE	069SS-0002M-0001-SO	FD	10	Endrin Ketone	20 U	6.3	20	1.7	UG/KG
SW8081/NONE	069SS-0002M-0001-SO	FD	10	gamma-BHC (Lindane)	25 U	7.5	25	1.7	UG/KG
SW8081/NONE	069SS-0002M-0001-SO	FD	10	gamma-Chlordane	17 U	4.2	17	1.7	UG/KG
SW8081/NONE	069SS-0002M-0001-SO	FD	10	Heptachlor	35 U	11	35	1.7	UG/KG
SW8081/NONE	069SS-0002M-0001-SO	FD	10	Heptachlor Epoxide	25 U	8.1	25	1.7	UG/KG
SW8081/NONE	069SS-0002M-0001-SO	FD	10	Methoxychlor	50 U	15	50	1.7	UG/KG
SW8081/NONE	069SS-0002M-0001-SO	FD	10	p,p'-DDD	20 U	6.2	20	1.7	UG/KG
SW8081/NONE	069SS-0002M-0001-SO	FD	10	p,p'-DDE	17 U	3.9	17	1.7	UG/KG
SW8081/NONE	069SS-0002M-0001-SO	FD	10	p,p'-DDT	20 U	6.3	20	1.7	UG/KG
SW8081/NONE	069SS-0002M-0001-SO	FD	10	Toxaphene	680 U	190	680	170	UG/KG
SW8081/NONE	079SS-0004M-0001-SO	N	50	Aldrin	200 U	60	200	1.7	UG/KG
SW8081/NONE	079SS-0004M-0001-SO	N	50	alpha-BHC (alpha-Hexachlorocyclohexane)	120 U	36	120	1.7	UG/KG
SW8081/NONE	079SS-0004M-0001-SO	N	50	alpha-Chlordane	150 U	47	150	1.7	UG/KG
SW8081/NONE	079SS-0004M-0001-SO	N	50	alpha-Endosulfan	84 U	26	84	1.7	UG/KG
SW8081/NONE	079SS-0004M-0001-SO	N	50	beta-BHC (beta-Hexachlorocyclohexane)	170 U	55	170	1.7	UG/KG
SW8081/NONE	079SS-0004M-0001-SO	N	50	beta-Endosulfan	120 U	41	120	1.7	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Reporting Anomalies

SDG Name: 240-17477-1_(68,69,79-SW,SS)

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8081/NONE	079SS-0004M-0001-SO	N	50	delta-BHC (delta-Hexachlorocyclohexane)	200 U	60	200	1.7	UG/KG
SW8081/NONE	079SS-0004M-0001-SO	N	50	Dieldrin	84 U	23	84	1.7	UG/KG
SW8081/NONE	079SS-0004M-0001-SO	N	50	Endosulfan Sulfate	150 U	43	150	1.7	UG/KG
SW8081/NONE	079SS-0004M-0001-SO	N	50	Endrin	84 U	25	84	1.7	UG/KG
SW8081/NONE	079SS-0004M-0001-SO	N	50	Endrin Aldehyde	150 U	50	150	1.7	UG/KG
SW8081/NONE	079SS-0004M-0001-SO	N	50	Endrin Ketone	99 U	31	99	1.7	UG/KG
SW8081/NONE	079SS-0004M-0001-SO	N	50	gamma-BHC (Lindane)	120 U	37	120	1.7	UG/KG
SW8081/NONE	079SS-0004M-0001-SO	N	50	gamma-Chlordane	84 U	21	84	1.7	UG/KG
SW8081/NONE	079SS-0004M-0001-SO	N	50	Heptachlor	170 U	55	170	1.7	UG/KG
SW8081/NONE	079SS-0004M-0001-SO	N	50	Heptachlor Epoxide	120 UJ	40	120	1.7	UG/KG
SW8081/NONE	079SS-0004M-0001-SO	N	50	Methoxychlor	250 U	74	250	1.7	UG/KG
SW8081/NONE	079SS-0004M-0001-SO	N	50	p,p'-DDD	99 U	31	99	1.7	UG/KG
SW8081/NONE	079SS-0004M-0001-SO	N	50	p,p'-DDE	84 U	19	84	1.7	UG/KG
SW8081/NONE	079SS-0004M-0001-SO	N	50	p,p'-DDT	99 U	31	99	1.7	UG/KG
SW8081/NONE	079SS-0004M-0001-SO	N	50	Toxaphene	3300 U	940	3300	170	UG/KG
SW8081/NONE	079SS-0005M-0001-SO	FD	10	Aldrin	40 UJ	12	40	1.7	UG/KG
SW8081/NONE	079SS-0005M-0001-SO	FD	10	alpha-BHC (alpha-Hexachlorocyclohexane)	25 UJ	7.3	25	1.7	UG/KG
SW8081/NONE	079SS-0005M-0001-SO	FD	10	alpha-Chlordane	30 UJ	9.4	30	1.7	UG/KG
SW8081/NONE	079SS-0005M-0001-SO	FD	10	alpha-Endosulfan	17 UJ	5.2	17	1.7	UG/KG
SW8081/NONE	079SS-0005M-0001-SO	FD	10	beta-BHC (beta-Hexachlorocyclohexane)	35 UJ	11	35	1.7	UG/KG
SW8081/NONE	079SS-0005M-0001-SO	FD	10	beta-Endosulfan	25 UJ	8.2	25	1.7	UG/KG
SW8081/NONE	079SS-0005M-0001-SO	FD	10	delta-BHC (delta-Hexachlorocyclohexane)	40 UJ	12	40	1.7	UG/KG
SW8081/NONE	079SS-0005M-0001-SO	FD	10	Dieldrin	17 UJ	4.7	17	1.7	UG/KG
SW8081/NONE	079SS-0005M-0001-SO	FD	10	Endosulfan Sulfate	30 UJ	8.7	30	1.7	UG/KG
SW8081/NONE	079SS-0005M-0001-SO	FD	10	Endrin	17 UJ	5	17	1.7	UG/KG
SW8081/NONE	079SS-0005M-0001-SO	FD	10	Endrin Aldehyde	30 UJ	10	30	1.7	UG/KG
SW8081/NONE	079SS-0005M-0001-SO	FD	10	Endrin Ketone	20 UJ	6.3	20	1.7	UG/KG
SW8081/NONE	079SS-0005M-0001-SO	FD	10	gamma-BHC (Lindane)	25 UJ	7.4	25	1.7	UG/KG
SW8081/NONE	079SS-0005M-0001-SO	FD	10	gamma-Chlordane	17 UJ	4.2	17	1.7	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Reporting Anomalies

SDG Name: 240-17477-1_(68,69,79-SW,SS)

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8081/NONE	079SS-0005M-0001-SO	FD	10	Heptachlor	35 UJ	11	35	1.7	UG/KG
SW8081/NONE	079SS-0005M-0001-SO	FD	10	Heptachlor Epoxide	25 UJ	8	25	1.7	UG/KG
SW8081/NONE	079SS-0005M-0001-SO	FD	10	Methoxychlor	50 UJ	15	50	1.7	UG/KG
SW8081/NONE	079SS-0005M-0001-SO	FD	10	p,p'-DDD	20 UJ	6.2	20	1.7	UG/KG
SW8081/NONE	079SS-0005M-0001-SO	FD	10	p,p'-DDE	17 UJ	3.9	17	1.7	UG/KG
SW8081/NONE	079SS-0005M-0001-SO	FD	10	p,p'-DDT	20 UJ	6.3	20	1.7	UG/KG
SW8081/NONE	079SS-0005M-0001-SO	FD	10	Toxaphene	670 U	190	670	170	UG/KG

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8082/NONE	068SW-0013-0001-SW	N	1	PCB-1016 (Arochlor 1016)	0.48 U	0.16	0.48	0.2	UG/L
SW8082/NONE	068SW-0013-0001-SW	N	1	PCB-1221 (Arochlor 1221)	0.48 U	0.12	0.48	0.2	UG/L
SW8082/NONE	068SW-0013-0001-SW	N	1	PCB-1232 (Arochlor 1232)	0.48 U	0.15	0.48	0.2	UG/L
SW8082/NONE	068SW-0013-0001-SW	N	1	PCB-1242 (Arochlor 1242)	0.48 U	0.21	0.48	0.2	UG/L
SW8082/NONE	068SW-0013-0001-SW	N	1	PCB-1248 (Arochlor 1248)	0.48 U	0.095	0.48	0.2	UG/L
SW8082/NONE	068SW-0013-0001-SW	N	1	PCB-1254 (Arochlor 1254)	0.48 U	0.15	0.48	0.2	UG/L
SW8082/NONE	068SW-0013-0001-SW	N	1	PCB-1260 (Arochlor 1260)	0.48 U	0.16	0.48	0.2	UG/L
SW8082/NONE	068SW-0014-0001-SW	FD	1	PCB-1016 (Arochlor 1016)	0.48 U	0.16	0.48	0.2	UG/L
SW8082/NONE	068SW-0014-0001-SW	FD	1	PCB-1221 (Arochlor 1221)	0.48 U	0.12	0.48	0.2	UG/L
SW8082/NONE	068SW-0014-0001-SW	FD	1	PCB-1232 (Arochlor 1232)	0.48 U	0.15	0.48	0.2	UG/L
SW8082/NONE	068SW-0014-0001-SW	FD	1	PCB-1242 (Arochlor 1242)	0.48 U	0.21	0.48	0.2	UG/L
SW8082/NONE	068SW-0014-0001-SW	FD	1	PCB-1248 (Arochlor 1248)	0.48 U	0.095	0.48	0.2	UG/L
SW8082/NONE	068SW-0014-0001-SW	FD	1	PCB-1254 (Arochlor 1254)	0.48 U	0.15	0.48	0.2	UG/L
SW8082/NONE	068SW-0014-0001-SW	FD	1	PCB-1260 (Arochlor 1260)	0.48 U	0.16	0.48	0.2	UG/L
SW8082/NONE	068SW-0015-0001-SW	N	1	PCB-1016 (Arochlor 1016)	0.48 U	0.16	0.48	0.2	UG/L
SW8082/NONE	068SW-0015-0001-SW	N	1	PCB-1221 (Arochlor 1221)	0.48 U	0.12	0.48	0.2	UG/L
SW8082/NONE	068SW-0015-0001-SW	N	1	PCB-1232 (Arochlor 1232)	0.48 U	0.15	0.48	0.2	UG/L
SW8082/NONE	068SW-0015-0001-SW	N	1	PCB-1242 (Arochlor 1242)	0.48 U	0.21	0.48	0.2	UG/L
SW8082/NONE	068SW-0015-0001-SW	N	1	PCB-1248 (Arochlor 1248)	0.48 U	0.095	0.48	0.2	UG/L
SW8082/NONE	068SW-0015-0001-SW	N	1	PCB-1254 (Arochlor 1254)	0.48 U	0.15	0.48	0.2	UG/L
SW8082/NONE	068SW-0015-0001-SW	N	1	PCB-1260 (Arochlor 1260)	0.48 U	0.16	0.48	0.2	UG/L

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Reporting Anomalies

SDG Name: 240-17477-1_(68,69,79-SW,SS)

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8082/NONE	068SW-0016-0001-SW	N	1	PCB-1016 (Arochlor 1016)	0.48 U	0.16	0.48	0.2	UG/L
SW8082/NONE	068SW-0016-0001-SW	N	1	PCB-1221 (Arochlor 1221)	0.48 U	0.12	0.48	0.2	UG/L
SW8082/NONE	068SW-0016-0001-SW	N	1	PCB-1232 (Arochlor 1232)	0.48 U	0.15	0.48	0.2	UG/L
SW8082/NONE	068SW-0016-0001-SW	N	1	PCB-1242 (Arochlor 1242)	0.48 U	0.21	0.48	0.2	UG/L
SW8082/NONE	068SW-0016-0001-SW	N	1	PCB-1248 (Arochlor 1248)	0.48 U	0.095	0.48	0.2	UG/L
SW8082/NONE	068SW-0016-0001-SW	N	1	PCB-1254 (Arochlor 1254)	0.48 U	0.15	0.48	0.2	UG/L
SW8082/NONE	068SW-0016-0001-SW	N	1	PCB-1260 (Arochlor 1260)	0.48 U	0.16	0.48	0.2	UG/L
SW8082/NONE	069SS-0001M-0001-SO	N	1	PCB-1016 (Arochlor 1016)	64 U	21	64	33	UG/KG
SW8082/NONE	069SS-0001M-0001-SO	N	1	PCB-1221 (Arochlor 1221)	49 U	16	49	33	UG/KG
SW8082/NONE	069SS-0001M-0001-SO	N	1	PCB-1232 (Arochlor 1232)	44 U	14	44	33	UG/KG
SW8082/NONE	069SS-0001M-0001-SO	N	1	PCB-1242 (Arochlor 1242)	40 U	13	40	33	UG/KG
SW8082/NONE	069SS-0001M-0001-SO	N	1	PCB-1248 (Arochlor 1248)	54 U	17	54	33	UG/KG
SW8082/NONE	069SS-0001M-0001-SO	N	1	PCB-1254 (Arochlor 1254)	54 U	17	54	33	UG/KG
SW8082/NONE	069SS-0001M-0001-SO	N	1	PCB-1260 (Arochlor 1260)	41 J	17	54	33	UG/KG
SW8082/NONE	069SS-0002M-0001-SO	FD	1	PCB-1016 (Arochlor 1016)	66 U	21	66	33	UG/KG
SW8082/NONE	069SS-0002M-0001-SO	FD	1	PCB-1221 (Arochlor 1221)	50 U	16	50	33	UG/KG
SW8082/NONE	069SS-0002M-0001-SO	FD	1	PCB-1232 (Arochlor 1232)	45 U	14	45	33	UG/KG
SW8082/NONE	069SS-0002M-0001-SO	FD	1	PCB-1242 (Arochlor 1242)	40 U	13	40	33	UG/KG
SW8082/NONE	069SS-0002M-0001-SO	FD	1	PCB-1248 (Arochlor 1248)	55 U	17	55	33	UG/KG
SW8082/NONE	069SS-0002M-0001-SO	FD	1	PCB-1254 (Arochlor 1254)	55 U	17	55	33	UG/KG
SW8082/NONE	069SS-0002M-0001-SO	FD	1	PCB-1260 (Arochlor 1260)	55 U	17	55	33	UG/KG
SW8082/NONE	079SS-0004M-0001-SO	N	1	PCB-1016 (Arochlor 1016)	65 U	21	65	33	UG/KG
SW8082/NONE	079SS-0004M-0001-SO	N	1	PCB-1221 (Arochlor 1221)	50 U	16	50	33	UG/KG
SW8082/NONE	079SS-0004M-0001-SO	N	1	PCB-1232 (Arochlor 1232)	45 U	14	45	33	UG/KG
SW8082/NONE	079SS-0004M-0001-SO	N	1	PCB-1242 (Arochlor 1242)	40 U	13	40	33	UG/KG
SW8082/NONE	079SS-0004M-0001-SO	N	1	PCB-1248 (Arochlor 1248)	55 U	17	55	33	UG/KG
SW8082/NONE	079SS-0004M-0001-SO	N	1	PCB-1254 (Arochlor 1254)	55 U	17	55	33	UG/KG
SW8082/NONE	079SS-0004M-0001-SO	N	1	PCB-1260 (Arochlor 1260)	55 U	17	55	33	UG/KG
SW8082/NONE	079SS-0005M-0001-SO	FD	1	PCB-1016 (Arochlor 1016)	65 U	21	65	33	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Reporting Anomalies

SDG Name: 240-17477-1_(68,69,79-SW,SS)

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8082/NONE	079SS-0005M-0001-SO	FD	1	PCB-1221 (Arochlor 1221)	50 U	16	50	33	UG/KG
SW8082/NONE	079SS-0005M-0001-SO	FD	1	PCB-1232 (Arochlor 1232)	45 U	14	45	33	UG/KG
SW8082/NONE	079SS-0005M-0001-SO	FD	1	PCB-1242 (Arochlor 1242)	40 U	13	40	33	UG/KG
SW8082/NONE	079SS-0005M-0001-SO	FD	1	PCB-1248 (Arochlor 1248)	55 U	17	55	33	UG/KG
SW8082/NONE	079SS-0005M-0001-SO	FD	1	PCB-1254 (Arochlor 1254)	55 U	17	55	33	UG/KG
SW8082/NONE	079SS-0005M-0001-SO	FD	1	PCB-1260 (Arochlor 1260)	55 U	17	55	33	UG/KG

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8260B/NONE	069SS-0001M-0001-SO	N	1	1,1,2,2-Tetrachloroethane	5.1 U	0.34	5.1	5	UG/KG
SW8260B/NONE	069SS-0001M-0001-SO	N	1	1,1,2-Trichloroethane	5.1 U	0.39	5.1	5	UG/KG
SW8260B/NONE	069SS-0001M-0001-SO	N	1	1,1-Dichloroethane	5.1 U	0.36	5.1	5	UG/KG
SW8260B/NONE	069SS-0001M-0001-SO	N	1	1,1-Dichloroethene	5.1 U	0.53	5.1	5	UG/KG
SW8260B/NONE	069SS-0001M-0001-SO	N	1	1,2-Dibromoethane (EDB)	5.1 U	0.51	5.1	5	UG/KG
SW8260B/NONE	069SS-0001M-0001-SO	N	1	1,2-Dichloroethane	5.1 U	0.34	5.1	5	UG/KG
SW8260B/NONE	069SS-0001M-0001-SO	N	1	1,2-Dichloroethene	10 U	0.78	10	5	UG/KG
SW8260B/NONE	069SS-0001M-0001-SO	N	1	1,2-Dichloropropane	5.1 U	0.7	5.1	5	UG/KG
SW8260B/NONE	069SS-0001M-0001-SO	N	1	Benzene	5.1 U	0.23	5.1	5	UG/KG
SW8260B/NONE	069SS-0001M-0001-SO	N	1	Bromochloromethane	5.1 U	0.72	5.1	5	UG/KG
SW8260B/NONE	069SS-0001M-0001-SO	N	1	Bromodichloromethane	5.1 U	0.28	5.1	5	UG/KG
SW8260B/NONE	069SS-0001M-0001-SO	N	1	Bromoform	5.1 U	0.33	5.1	5	UG/KG
SW8260B/NONE	069SS-0001M-0001-SO	N	1	Bromomethane	5.1 U	0.55	5.1	5	UG/KG
SW8260B/NONE	069SS-0001M-0001-SO	N	1	Carbon Disulfide	5.1 U	0.45	5.1	5	UG/KG
SW8260B/NONE	069SS-0001M-0001-SO	N	1	Chlorobenzene	5.1 U	0.33	5.1	5	UG/KG
SW8260B/NONE	069SS-0001M-0001-SO	N	1	Chloroethane	5.1 U	0.87	5.1	5	UG/KG
SW8260B/NONE	069SS-0001M-0001-SO	N	1	Chloroform	5.1 U	0.29	5.1	5	UG/KG
SW8260B/NONE	069SS-0001M-0001-SO	N	1	Chloromethane	5.1 U	0.41	5.1	5	UG/KG
SW8260B/NONE	069SS-0001M-0001-SO	N	1	cis-1,3-Dichloropropene	5.1 U	0.34	5.1	5	UG/KG
SW8260B/NONE	069SS-0001M-0001-SO	N	1	Dibromochloromethane	5.1 U	0.56	5.1	5	UG/KG
SW8260B/NONE	069SS-0001M-0001-SO	N	1	Ethylbenzene	5.1 U	0.26	5.1	5	UG/KG
SW8260B/NONE	069SS-0001M-0001-SO	N	1	Methylene Chloride	5.1 U	0.68	5.1	5	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Reporting Anomalies

SDG Name: 240-17477-1_(68,69,79-SW,SS)

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8260B/NONE	069SS-0001M-0001-SO	N	1	Styrene	5.1 U	0.15	5.1	5	UG/KG
SW8260B/NONE	069SS-0001M-0001-SO	N	1	tert-Butyl Methyl Ether (MTBE)	5.1 U	0.43	5.1	5	UG/KG
SW8260B/NONE	069SS-0001M-0001-SO	N	1	Tetrachloroethene (PCE)	5.1 U	0.53	5.1	5	UG/KG
SW8260B/NONE	069SS-0001M-0001-SO	N	1	Toluene	5.1 U	0.27	5.1	5	UG/KG
SW8260B/NONE	069SS-0001M-0001-SO	N	1	trans-1,3-Dichloropropene	5.1 U	0.55	5.1	5	UG/KG
SW8260B/NONE	069SS-0001M-0001-SO	N	1	Trichloroethene (TCE)	5.1 U	0.42	5.1	5	UG/KG
SW8260B/NONE	069SS-0001M-0001-SO	N	1	Vinyl Chloride	5.1 U	0.39	5.1	5	UG/KG
SW8260B/NONE	069SS-0002M-0001-SO	FD	1	1,2-Dichloroethene	9.1 U	0.7	9.1	5	UG/KG
SW8260B/NONE	069SS-0003M-0001-SO	N	1	1,1,1-Trichloroethane	5.8 U	0.64	5.8	5	UG/KG
SW8260B/NONE	069SS-0003M-0001-SO	N	1	1,1,2,2-Tetrachloroethane	5.9 U	0.4	5.9	5	UG/KG
SW8260B/NONE	069SS-0003M-0001-SO	N	1	1,1,2-Trichloroethane	5.9 U	0.46	5.9	5	UG/KG
SW8260B/NONE	069SS-0003M-0001-SO	N	1	1,1-Dichloroethane	5.9 U	0.42	5.9	5	UG/KG
SW8260B/NONE	069SS-0003M-0001-SO	N	1	1,1-Dichloroethene	5.9 U	0.61	5.9	5	UG/KG
SW8260B/NONE	069SS-0003M-0001-SO	N	1	1,2-Dibromoethane (EDB)	5.9 U	0.59	5.9	5	UG/KG
SW8260B/NONE	069SS-0003M-0001-SO	N	1	1,2-Dichloroethane	5.9 U	0.4	5.9	5	UG/KG
SW8260B/NONE	069SS-0003M-0001-SO	N	1	1,2-Dichloroethene	12 U	0.9	12	5	UG/KG
SW8260B/NONE	069SS-0003M-0001-SO	N	1	1,2-Dichloropropane	5.9 U	0.81	5.9	5	UG/KG
SW8260B/NONE	069SS-0003M-0001-SO	N	1	2-Butanone (MEK)	23 U	1.6	23	20	UG/KG
SW8260B/NONE	069SS-0003M-0001-SO	N	1	2-Hexanone	23 U	0.74	23	20	UG/KG
SW8260B/NONE	069SS-0003M-0001-SO	N	1	4-Methyl-2-pentanone (MIBK)	23 U	0.63	23	20	UG/KG
SW8260B/NONE	069SS-0003M-0001-SO	N	1	Acetone	23 U	7.3	23	20	UG/KG
SW8260B/NONE	069SS-0003M-0001-SO	N	1	Benzene	5.9 U	0.27	5.9	5	UG/KG
SW8260B/NONE	069SS-0003M-0001-SO	N	1	Bromochloromethane	5.9 U	0.83	5.9	5	UG/KG
SW8260B/NONE	069SS-0003M-0001-SO	N	1	Bromodichloromethane	5.9 U	0.33	5.9	5	UG/KG
SW8260B/NONE	069SS-0003M-0001-SO	N	1	Bromoform	5.9 U	0.39	5.9	5	UG/KG
SW8260B/NONE	069SS-0003M-0001-SO	N	1	Bromomethane	5.9 U	0.63	5.9	5	UG/KG
SW8260B/NONE	069SS-0003M-0001-SO	N	1	Carbon Disulfide	5.9 U	0.52	5.9	5	UG/KG
SW8260B/NONE	069SS-0003M-0001-SO	N	1	Carbon Tetrachloride	5.8 U	0.43	5.8	5	UG/KG
SW8260B/NONE	069SS-0003M-0001-SO	N	1	Chlorobenzene	5.9 U	0.39	5.9	5	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Reporting Anomalies

SDG Name: 240-17477-1_(68,69,79-SW,SS)

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8260B/NONE	069SS-0003M-0001-SO	N	1	Chloroethane	5.9 U	1	5.9	5	UG/KG
SW8260B/NONE	069SS-0003M-0001-SO	N	1	Chloroform	5.9 U	0.34	5.9	5	UG/KG
SW8260B/NONE	069SS-0003M-0001-SO	N	1	Chloromethane	5.9 U	0.48	5.9	5	UG/KG
SW8260B/NONE	069SS-0003M-0001-SO	N	1	cis-1,3-Dichloropropene	5.9 U	0.4	5.9	5	UG/KG
SW8260B/NONE	069SS-0003M-0001-SO	N	1	Dibromochloromethane	5.9 U	0.65	5.9	5	UG/KG
SW8260B/NONE	069SS-0003M-0001-SO	N	1	Ethylbenzene	5.9 U	0.31	5.9	5	UG/KG
SW8260B/NONE	069SS-0003M-0001-SO	N	1	Methylene Chloride	5.9 U	0.79	5.9	5	UG/KG
SW8260B/NONE	069SS-0003M-0001-SO	N	1	Styrene	5.9 U	0.18	5.9	5	UG/KG
SW8260B/NONE	069SS-0003M-0001-SO	N	1	tert-Butyl Methyl Ether (MTBE)	5.9 U	0.51	5.9	5	UG/KG
SW8260B/NONE	069SS-0003M-0001-SO	N	1	Tetrachloroethene (PCE)	5.9 U	0.61	5.9	5	UG/KG
SW8260B/NONE	069SS-0003M-0001-SO	N	1	Toluene	5.9 U	0.32	5.9	5	UG/KG
SW8260B/NONE	069SS-0003M-0001-SO	N	1	trans-1,3-Dichloropropene	5.9 U	0.63	5.9	5	UG/KG
SW8260B/NONE	069SS-0003M-0001-SO	N	1	Trichloroethene (TCE)	5.9 U	0.49	5.9	5	UG/KG
SW8260B/NONE	069SS-0003M-0001-SO	N	1	Vinyl Chloride	5.9 U	0.46	5.9	5	UG/KG
SW8260B/NONE	069SS-0003M-0001-SO	N	1	Xylenes, Total	12 U	0.79	12	10	UG/KG
SW8260B/NONE	069SS-0004M-0001-SO	N	1	1,1,1-Trichloroethane	5.5 U	0.62	5.5	5	UG/KG
SW8260B/NONE	069SS-0004M-0001-SO	N	1	1,1,2,2-Tetrachloroethane	6 U	0.41	6	5	UG/KG
SW8260B/NONE	069SS-0004M-0001-SO	N	1	1,1,2-Trichloroethane	6 U	0.47	6	5	UG/KG
SW8260B/NONE	069SS-0004M-0001-SO	N	1	1,1-Dichloroethane	6 U	0.43	6	5	UG/KG
SW8260B/NONE	069SS-0004M-0001-SO	N	1	1,1-Dichloroethene	6 U	0.63	6	5	UG/KG
SW8260B/NONE	069SS-0004M-0001-SO	N	1	1,2-Dibromoethane (EDB)	6 U	0.6	6	5	UG/KG
SW8260B/NONE	069SS-0004M-0001-SO	N	1	1,2-Dichloroethane	6 U	0.41	6	5	UG/KG
SW8260B/NONE	069SS-0004M-0001-SO	N	1	1,2-Dichloroethene	12 U	0.93	12	5	UG/KG
SW8260B/NONE	069SS-0004M-0001-SO	N	1	1,2-Dichloropropane	6 U	0.83	6	5	UG/KG
SW8260B/NONE	069SS-0004M-0001-SO	N	1	2-Butanone (MEK)	24 U	1.7	24	20	UG/KG
SW8260B/NONE	069SS-0004M-0001-SO	N	1	2-Hexanone	0.93 J	0.76	24	20	UG/KG
SW8260B/NONE	069SS-0004M-0001-SO	N	1	4-Methyl-2-pentanone (MIBK)	24 U	0.65	24	20	UG/KG
SW8260B/NONE	069SS-0004M-0001-SO	N	1	Acetone	13 J	7	22	20	UG/KG
SW8260B/NONE	069SS-0004M-0001-SO	N	1	Benzene	6 U	0.28	6	5	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Reporting Anomalies

SDG Name: 240-17477-1_(68,69,79-SW,SS)

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8260B/NONE	069SS-0004M-0001-SO	N	1	Bromochloromethane	6 U	0.85	6	5	UG/KG
SW8260B/NONE	069SS-0004M-0001-SO	N	1	Bromodichloromethane	6 U	0.34	6	5	UG/KG
SW8260B/NONE	069SS-0004M-0001-SO	N	1	Bromoform	6 U	0.4	6	5	UG/KG
SW8260B/NONE	069SS-0004M-0001-SO	N	1	Bromomethane	6 U	0.65	6	5	UG/KG
SW8260B/NONE	069SS-0004M-0001-SO	N	1	Carbon Disulfide	6 U	0.53	6	5	UG/KG
SW8260B/NONE	069SS-0004M-0001-SO	N	1	Carbon Tetrachloride	5.5 U	0.41	5.5	5	UG/KG
SW8260B/NONE	069SS-0004M-0001-SO	N	1	Chlorobenzene	6 U	0.4	6	5	UG/KG
SW8260B/NONE	069SS-0004M-0001-SO	N	1	Chloroethane	6 U	1	6	5	UG/KG
SW8260B/NONE	069SS-0004M-0001-SO	N	1	Chloroform	6 U	0.35	6	5	UG/KG
SW8260B/NONE	069SS-0004M-0001-SO	N	1	Chloromethane	6 U	0.49	6	5	UG/KG
SW8260B/NONE	069SS-0004M-0001-SO	N	1	cis-1,3-Dichloropropene	6 U	0.41	6	5	UG/KG
SW8260B/NONE	069SS-0004M-0001-SO	N	1	Dibromochloromethane	6 U	0.66	6	5	UG/KG
SW8260B/NONE	069SS-0004M-0001-SO	N	1	Ethylbenzene	6 U	0.31	6	5	UG/KG
SW8260B/NONE	069SS-0004M-0001-SO	N	1	Methylene Chloride	6 U	0.81	6	5	UG/KG
SW8260B/NONE	069SS-0004M-0001-SO	N	1	Styrene	6 U	0.18	6	5	UG/KG
SW8260B/NONE	069SS-0004M-0001-SO	N	1	tert-Butyl Methyl Ether (MTBE)	6 U	0.52	6	5	UG/KG
SW8260B/NONE	069SS-0004M-0001-SO	N	1	Tetrachloroethene (PCE)	6 U	0.63	6	5	UG/KG
SW8260B/NONE	069SS-0004M-0001-SO	N	1	Toluene	6 U	0.32	6	5	UG/KG
SW8260B/NONE	069SS-0004M-0001-SO	N	1	trans-1,3-Dichloropropene	6 U	0.65	6	5	UG/KG
SW8260B/NONE	069SS-0004M-0001-SO	N	1	Trichloroethene (TCE)	6 U	0.5	6	5	UG/KG
SW8260B/NONE	069SS-0004M-0001-SO	N	1	Vinyl Chloride	6 U	0.47	6	5	UG/KG
SW8260B/NONE	069SS-0004M-0001-SO	N	1	Xylenes, Total	12 U	0.81	12	10	UG/KG
SW8260B/NONE	079SS-0004M-0001-SO	N	1	1,1,1-Trichloroethane	8.5 U	0.95	8.5	5	UG/KG
SW8260B/NONE	079SS-0004M-0001-SO	N	1	1,1,2,2-Tetrachloroethane	8.5 UJ	0.58	8.5	5	UG/KG
SW8260B/NONE	079SS-0004M-0001-SO	N	1	1,1,2-Trichloroethane	8.5 U	0.66	8.5	5	UG/KG
SW8260B/NONE	079SS-0004M-0001-SO	N	1	1,1-Dichloroethane	8.5 U	0.61	8.5	5	UG/KG
SW8260B/NONE	079SS-0004M-0001-SO	N	1	1,1-Dichloroethene	8.5 U	0.88	8.5	5	UG/KG
SW8260B/NONE	079SS-0004M-0001-SO	N	1	1,2-Dibromoethane (EDB)	8.5 U	0.85	8.5	5	UG/KG
SW8260B/NONE	079SS-0004M-0001-SO	N	1	1,2-Dichloroethane	8.5 U	0.58	8.5	5	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Reporting Anomalies

SDG Name: 240-17477-1_(68,69,79-SW,SS)

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8260B/NONE	079SS-0004M-0001-SO	N	1	1,2-Dichloroethene	17 U	1.3	17	5	UG/KG
SW8260B/NONE	079SS-0004M-0001-SO	N	1	1,2-Dichloropropane	8.5 U	1.2	8.5	5	UG/KG
SW8260B/NONE	079SS-0004M-0001-SO	N	1	2-Butanone (MEK)	34 U	2.4	34	20	UG/KG
SW8260B/NONE	079SS-0004M-0001-SO	N	1	2-Hexanone	34 U	1.1	34	20	UG/KG
SW8260B/NONE	079SS-0004M-0001-SO	N	1	4-Methyl-2-pentanone (MIBK)	34 U	0.92	34	20	UG/KG
SW8260B/NONE	079SS-0004M-0001-SO	N	1	Acetone	34 U	11	34	20	UG/KG
SW8260B/NONE	079SS-0004M-0001-SO	N	1	Benzene	8.5 U	0.39	8.5	5	UG/KG
SW8260B/NONE	079SS-0004M-0001-SO	N	1	Bromochloromethane	8.5 U	1.2	8.5	5	UG/KG
SW8260B/NONE	079SS-0004M-0001-SO	N	1	Bromodichloromethane	8.5 U	0.47	8.5	5	UG/KG
SW8260B/NONE	079SS-0004M-0001-SO	N	1	Bromoform	8.5 U	0.56	8.5	5	UG/KG
SW8260B/NONE	079SS-0004M-0001-SO	N	1	Bromomethane	8.5 U	0.92	8.5	5	UG/KG
SW8260B/NONE	079SS-0004M-0001-SO	N	1	Carbon Disulfide	1.5 J	0.75	8.5	5	UG/KG
SW8260B/NONE	079SS-0004M-0001-SO	N	1	Carbon Tetrachloride	8.5 U	0.63	8.5	5	UG/KG
SW8260B/NONE	079SS-0004M-0001-SO	N	1	Chlorobenzene	8.5 U	0.56	8.5	5	UG/KG
SW8260B/NONE	079SS-0004M-0001-SO	N	1	Chloroethane	8.5 U	1.5	8.5	5	UG/KG
SW8260B/NONE	079SS-0004M-0001-SO	N	1	Chloroform	8.5 U	0.49	8.5	5	UG/KG
SW8260B/NONE	079SS-0004M-0001-SO	N	1	Chloromethane	8.5 U	0.7	8.5	5	UG/KG
SW8260B/NONE	079SS-0004M-0001-SO	N	1	cis-1,3-Dichloropropene	8.5 UJ	0.58	8.5	5	UG/KG
SW8260B/NONE	079SS-0004M-0001-SO	N	1	Dibromochloromethane	8.5 U	0.93	8.5	5	UG/KG
SW8260B/NONE	079SS-0004M-0001-SO	N	1	Ethylbenzene	8.5 U	0.44	8.5	5	UG/KG
SW8260B/NONE	079SS-0004M-0001-SO	N	1	Methylene Chloride	8.5 U	1.1	8.5	5	UG/KG
SW8260B/NONE	079SS-0004M-0001-SO	N	1	Styrene	8.5 UJ	0.25	8.5	5	UG/KG
SW8260B/NONE	079SS-0004M-0001-SO	N	1	tert-Butyl Methyl Ether (MTBE)	8.5 U	0.73	8.5	5	UG/KG
SW8260B/NONE	079SS-0004M-0001-SO	N	1	Tetrachloroethene (PCE)	8.5 U	0.88	8.5	5	UG/KG
SW8260B/NONE	079SS-0004M-0001-SO	N	1	Toluene	8.5 U	0.46	8.5	5	UG/KG
SW8260B/NONE	079SS-0004M-0001-SO	N	1	trans-1,3-Dichloropropene	8.5 U	0.92	8.5	5	UG/KG
SW8260B/NONE	079SS-0004M-0001-SO	N	1	Trichloroethene (TCE)	8.5 U	0.71	8.5	5	UG/KG
SW8260B/NONE	079SS-0004M-0001-SO	N	1	Vinyl Chloride	8.5 U	0.66	8.5	5	UG/KG
SW8260B/NONE	079SS-0004M-0001-SO	N	1	Xylenes, Total	17 U	1.1	17	10	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Reporting Anomalies

SDG Name: 240-17477-1_(68,69,79-SW,SS)

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8260B/NONE	079SS-0005M-0001-SO	FD	1	1,1,1-Trichloroethane	6.8 U	0.76	6.8	5	UG/KG
SW8260B/NONE	079SS-0005M-0001-SO	FD	1	1,1,2,2-Tetrachloroethane	6.8 UJ	0.46	6.8	5	UG/KG
SW8260B/NONE	079SS-0005M-0001-SO	FD	1	1,1,2-Trichloroethane	6.8 U	0.53	6.8	5	UG/KG
SW8260B/NONE	079SS-0005M-0001-SO	FD	1	1,1-Dichloroethane	6.8 U	0.49	6.8	5	UG/KG
SW8260B/NONE	079SS-0005M-0001-SO	FD	1	1,1-Dichloroethene	6.8 U	0.71	6.8	5	UG/KG
SW8260B/NONE	079SS-0005M-0001-SO	FD	1	1,2-Dibromoethane (EDB)	6.8 U	0.68	6.8	5	UG/KG
SW8260B/NONE	079SS-0005M-0001-SO	FD	1	1,2-Dichloroethane	6.8 U	0.46	6.8	5	UG/KG
SW8260B/NONE	079SS-0005M-0001-SO	FD	1	1,2-Dichloroethene	14 U	1	14	5	UG/KG
SW8260B/NONE	079SS-0005M-0001-SO	FD	1	1,2-Dichloropropane	6.8 U	0.94	6.8	5	UG/KG
SW8260B/NONE	079SS-0005M-0001-SO	FD	1	2-Butanone (MEK)	27 U	1.9	27	20	UG/KG
SW8260B/NONE	079SS-0005M-0001-SO	FD	1	2-Hexanone	1.9 J	0.86	27	20	UG/KG
SW8260B/NONE	079SS-0005M-0001-SO	FD	1	4-Methyl-2-pentanone (MIBK)	27 U	0.73	27	20	UG/KG
SW8260B/NONE	079SS-0005M-0001-SO	FD	1	Acetone	27 U	8.6	27	20	UG/KG
SW8260B/NONE	079SS-0005M-0001-SO	FD	1	Benzene	6.8 U	0.31	6.8	5	UG/KG
SW8260B/NONE	079SS-0005M-0001-SO	FD	1	Bromochloromethane	6.8 U	0.97	6.8	5	UG/KG
SW8260B/NONE	079SS-0005M-0001-SO	FD	1	Bromodichloromethane	6.8 U	0.38	6.8	5	UG/KG
SW8260B/NONE	079SS-0005M-0001-SO	FD	1	Bromoform	6.8 U	0.45	6.8	5	UG/KG
SW8260B/NONE	079SS-0005M-0001-SO	FD	1	Bromomethane	6.8 U	0.73	6.8	5	UG/KG
SW8260B/NONE	079SS-0005M-0001-SO	FD	1	Carbon Disulfide	1.3 J	0.6	6.8	5	UG/KG
SW8260B/NONE	079SS-0005M-0001-SO	FD	1	Carbon Tetrachloride	6.8 U	0.5	6.8	5	UG/KG
SW8260B/NONE	079SS-0005M-0001-SO	FD	1	Chlorobenzene	6.8 U	0.45	6.8	5	UG/KG
SW8260B/NONE	079SS-0005M-0001-SO	FD	1	Chloroethane	6.8 U	1.2	6.8	5	UG/KG
SW8260B/NONE	079SS-0005M-0001-SO	FD	1	Chloroform	6.8 U	0.39	6.8	5	UG/KG
SW8260B/NONE	079SS-0005M-0001-SO	FD	1	Chloromethane	6.8 U	0.56	6.8	5	UG/KG
SW8260B/NONE	079SS-0005M-0001-SO	FD	1	cis-1,3-Dichloropropene	6.8 U	0.46	6.8	5	UG/KG
SW8260B/NONE	079SS-0005M-0001-SO	FD	1	Dibromochloromethane	6.8 U	0.75	6.8	5	UG/KG
SW8260B/NONE	079SS-0005M-0001-SO	FD	1	Ethylbenzene	6.8 U	0.35	6.8	5	UG/KG
SW8260B/NONE	079SS-0005M-0001-SO	FD	1	Methylene Chloride	6.8 U	0.91	6.8	5	UG/KG
SW8260B/NONE	079SS-0005M-0001-SO	FD	1	Styrene	6.8 U	0.2	6.8	5	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Reporting Anomalies

SDG Name: 240-17477-1_(68,69,79-SW,SS)

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8260B/NONE	079SS-0005M-0001-SO	FD	1	tert-Butyl Methyl Ether (MTBE)	6.8 U	0.59	6.8	5	UG/KG
SW8260B/NONE	079SS-0005M-0001-SO	FD	1	Tetrachloroethene (PCE)	6.8 U	0.71	6.8	5	UG/KG
SW8260B/NONE	079SS-0005M-0001-SO	FD	1	Toluene	0.37 J	0.37	6.8	5	UG/KG
SW8260B/NONE	079SS-0005M-0001-SO	FD	1	trans-1,3-Dichloropropene	6.8 U	0.73	6.8	5	UG/KG
SW8260B/NONE	079SS-0005M-0001-SO	FD	1	Trichloroethene (TCE)	6.8 U	0.57	6.8	5	UG/KG
SW8260B/NONE	079SS-0005M-0001-SO	FD	1	Vinyl Chloride	6.8 U	0.53	6.8	5	UG/KG
SW8260B/NONE	079SS-0005M-0001-SO	FD	1	Xylenes, Total	14 U	0.91	14	10	UG/KG
SW8260B/NONE	079SS-0006-0001-TB	N	1	1,2-Dichloroethene	2 U	0.34	2	1	UG/L

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8270C/NONE	069SS-0001M-0001-SO	N	5	2,4,6-Trichlorophenol	750 U	400	750	330	UG/KG
SW8270C/NONE	069SS-0001M-0001-SO	N	5	2,4-Dichlorophenol	750 U	100	750	330	UG/KG
SW8270C/NONE	069SS-0001M-0001-SO	N	5	2,4-Dimethylphenol	750 U	100	750	330	UG/KG
SW8270C/NONE	069SS-0001M-0001-SO	N	5	2,4-Dinitrophenol	1700 J	400	1700	800	UG/KG
SW8270C/NONE	069SS-0001M-0001-SO	N	5	2,4-Dinitrotoluene	1000 U	140	1000	330	UG/KG
SW8270C/NONE	069SS-0001M-0001-SO	N	5	2,6-Dinitrotoluene	1000 U	110	1000	330	UG/KG
SW8270C/NONE	069SS-0001M-0001-SO	N	5	2-Methylphenol (o-Cresol)	1000 U	400	1000	330	UG/KG
SW8270C/NONE	069SS-0001M-0001-SO	N	5	2-Nitroaniline	1000 U	46	1000	800	UG/KG
SW8270C/NONE	069SS-0001M-0001-SO	N	5	3,3'-Dichlorobenzidine	500 U	91	500	330	UG/KG
SW8270C/NONE	069SS-0001M-0001-SO	N	5	3-Nitroaniline	1000 U	80	1000	800	UG/KG
SW8270C/NONE	069SS-0001M-0001-SO	N	5	4-Chloro-3-Methylphenol	750 U	110	750	330	UG/KG
SW8270C/NONE	069SS-0001M-0001-SO	N	5	4-Chloroaniline	750 U	86	750	330	UG/KG
SW8270C/NONE	069SS-0001M-0001-SO	N	5	4-Nitroaniline	1000 U	130	1000	800	UG/KG
SW8270C/NONE	069SS-0001M-0001-SO	N	5	4-Nitrophenol	1700 UJ	400	1700	800	UG/KG
SW8270C/NONE	069SS-0001M-0001-SO	N	5	Benzoic acid	3300 U	1700	3300	800	UG/KG
SW8270C/NONE	069SS-0001M-0001-SO	N	5	Benzyl alcohol	1700 U	110	1700	330	UG/KG
SW8270C/NONE	069SS-0001M-0001-SO	N	5	bis(2-Chloroethoxy) Methane	500 U	110	500	330	UG/KG
SW8270C/NONE	069SS-0001M-0001-SO	N	5	bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	500 U	10	500	330	UG/KG
SW8270C/NONE	069SS-0001M-0001-SO	N	5	bis(2-Chloroisopropyl) Ether	500 U	48	500	330	UG/KG
SW8270C/NONE	069SS-0001M-0001-SO	N	5	Carbazole	250 U	140	250	50	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Reporting Anomalies

SDG Name: 240-17477-1_(68,69,79-SW,SS)

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8270C/NONE	069SS-0001M-0001-SO	N	5	Cresols, m & p	2000 U	100	2000	300	UG/KG
SW8270C/NONE	069SS-0001M-0001-SO	N	5	Hexachlorocyclopentadiene	1700 U	140	1700	330	UG/KG
SW8270C/NONE	069SS-0001M-0001-SO	N	5	Nitrobenzene	500 U	11	500	330	UG/KG
SW8270C/NONE	069SS-0002M-0001-SO	FD	4	2,4,6-Trichlorophenol	600 U	320	600	330	UG/KG
SW8270C/NONE	069SS-0002M-0001-SO	FD	4	2,4-Dichlorophenol	600 U	80	600	330	UG/KG
SW8270C/NONE	069SS-0002M-0001-SO	FD	4	2,4-Dimethylphenol	600 U	80	600	330	UG/KG
SW8270C/NONE	069SS-0002M-0001-SO	FD	4	2,4-Dinitrophenol	1300 J	320	1300	800	UG/KG
SW8270C/NONE	069SS-0002M-0001-SO	FD	4	2,4-Dinitrotoluene	800 U	110	800	330	UG/KG
SW8270C/NONE	069SS-0002M-0001-SO	FD	4	2,6-Dinitrotoluene	800 U	84	800	330	UG/KG
SW8270C/NONE	069SS-0002M-0001-SO	FD	4	2-Methylphenol (o-Cresol)	800 U	320	800	330	UG/KG
SW8270C/NONE	069SS-0002M-0001-SO	FD	4	3,3'-Dichlorobenzidine	400 U	72	400	330	UG/KG
SW8270C/NONE	069SS-0002M-0001-SO	FD	4	4-Chloro-3-Methylphenol	600 U	84	600	330	UG/KG
SW8270C/NONE	069SS-0002M-0001-SO	FD	4	4-Chloroaniline	600 U	68	600	330	UG/KG
SW8270C/NONE	069SS-0002M-0001-SO	FD	4	4-Nitrophenol	1300 J	320	1300	800	UG/KG
SW8270C/NONE	069SS-0002M-0001-SO	FD	4	Benzoic acid	2600 U	1300	2600	800	UG/KG
SW8270C/NONE	069SS-0002M-0001-SO	FD	4	Benzyl alcohol	1300 U	84	1300	330	UG/KG
SW8270C/NONE	069SS-0002M-0001-SO	FD	4	bis(2-Chloroethoxy) Methane	400 U	88	400	330	UG/KG
SW8270C/NONE	069SS-0002M-0001-SO	FD	4	bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	400 U	8	400	330	UG/KG
SW8270C/NONE	069SS-0002M-0001-SO	FD	4	bis(2-Chloroisopropyl) Ether	400 U	38	400	330	UG/KG
SW8270C/NONE	069SS-0002M-0001-SO	FD	4	Carbazole	200 U	110	200	50	UG/KG
SW8270C/NONE	069SS-0002M-0001-SO	FD	4	Cresols, m & p	1600 U	80	1600	300	UG/KG
SW8270C/NONE	069SS-0002M-0001-SO	FD	4	Hexachlorocyclopentadiene	1300 U	110	1300	330	UG/KG
SW8270C/NONE	069SS-0002M-0001-SO	FD	4	Nitrobenzene	400 U	8.8	400	330	UG/KG
SW8270C/NONE	069SS-0003M-0001-SO	N	4	2,4,6-Trichlorophenol	610 U	320	610	330	UG/KG
SW8270C/NONE	069SS-0003M-0001-SO	N	4	2,4-Dichlorophenol	610 U	81	610	330	UG/KG
SW8270C/NONE	069SS-0003M-0001-SO	N	4	2,4-Dimethylphenol	610 U	81	610	330	UG/KG
SW8270C/NONE	069SS-0003M-0001-SO	N	4	2,4-Dinitrophenol	1300 U	320	1300	800	UG/KG
SW8270C/NONE	069SS-0003M-0001-SO	N	4	2,4-Dinitrotoluene	810 U	110	810	330	UG/KG
SW8270C/NONE	069SS-0003M-0001-SO	N	4	2,6-Dinitrotoluene	810 U	85	810	330	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Reporting Anomalies

SDG Name: 240-17477-1_(68,69,79-SW,SS)

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8270C/NONE	069SS-0003M-0001-SO	N	4	2-Methylphenol (o-Cresol)	810 U	320	810	330	UG/KG
SW8270C/NONE	069SS-0003M-0001-SO	N	4	2-Nitroaniline	810 U	37	810	800	UG/KG
SW8270C/NONE	069SS-0003M-0001-SO	N	4	3,3'-Dichlorobenzidine	400 U	73	400	330	UG/KG
SW8270C/NONE	069SS-0003M-0001-SO	N	4	3-Nitroaniline	810 U	65	810	800	UG/KG
SW8270C/NONE	069SS-0003M-0001-SO	N	4	4-Chloro-3-Methylphenol	610 U	85	610	330	UG/KG
SW8270C/NONE	069SS-0003M-0001-SO	N	4	4-Chloroaniline	610 U	69	610	330	UG/KG
SW8270C/NONE	069SS-0003M-0001-SO	N	4	4-Nitroaniline	810 U	100	810	800	UG/KG
SW8270C/NONE	069SS-0003M-0001-SO	N	4	4-Nitrophenol	1300 U	320	1300	800	UG/KG
SW8270C/NONE	069SS-0003M-0001-SO	N	4	Benzoic acid	2700 U	1300	2700	800	UG/KG
SW8270C/NONE	069SS-0003M-0001-SO	N	4	Benzyl alcohol	1300 U	85	1300	330	UG/KG
SW8270C/NONE	069SS-0003M-0001-SO	N	4	bis(2-Chloroethoxy) Methane	400 U	89	400	330	UG/KG
SW8270C/NONE	069SS-0003M-0001-SO	N	4	bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	400 U	8.1	400	330	UG/KG
SW8270C/NONE	069SS-0003M-0001-SO	N	4	bis(2-Chloroisopropyl) Ether	400 U	38	400	330	UG/KG
SW8270C/NONE	069SS-0003M-0001-SO	N	4	Carbazole	200 U	110	200	50	UG/KG
SW8270C/NONE	069SS-0003M-0001-SO	N	4	Cresols, m & p	1600 U	81	1600	300	UG/KG
SW8270C/NONE	069SS-0003M-0001-SO	N	4	Hexachlorocyclopentadiene	1300 U	110	1300	330	UG/KG
SW8270C/NONE	069SS-0003M-0001-SO	N	4	Nitrobenzene	400 U	8.9	400	330	UG/KG
SW8270C/NONE	069SS-0004M-0001-SO	N	4	2,4,6-Trichlorophenol	590 U	320	590	330	UG/KG
SW8270C/NONE	069SS-0004M-0001-SO	N	4	2,4-Dichlorophenol	590 U	79	590	330	UG/KG
SW8270C/NONE	069SS-0004M-0001-SO	N	4	2,4-Dimethylphenol	590 U	79	590	330	UG/KG
SW8270C/NONE	069SS-0004M-0001-SO	N	4	2,4-Dinitrophenol	1300 U	320	1300	800	UG/KG
SW8270C/NONE	069SS-0004M-0001-SO	N	4	2,4-Dinitrotoluene	790 U	110	790	330	UG/KG
SW8270C/NONE	069SS-0004M-0001-SO	N	4	2,6-Dinitrotoluene	790 U	83	790	330	UG/KG
SW8270C/NONE	069SS-0004M-0001-SO	N	4	2-Methylphenol (o-Cresol)	790 U	320	790	330	UG/KG
SW8270C/NONE	069SS-0004M-0001-SO	N	4	3,3'-Dichlorobenzidine	400 U	71	400	330	UG/KG
SW8270C/NONE	069SS-0004M-0001-SO	N	4	4-Chloro-3-Methylphenol	590 U	83	590	330	UG/KG
SW8270C/NONE	069SS-0004M-0001-SO	N	4	4-Chloroaniline	590 U	67	590	330	UG/KG
SW8270C/NONE	069SS-0004M-0001-SO	N	4	4-Nitrophenol	1300 U	320	1300	800	UG/KG
SW8270C/NONE	069SS-0004M-0001-SO	N	4	Benzoic acid	2600 U	1300	2600	800	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Reporting Anomalies

SDG Name: 240-17477-1_(68,69,79-SW,SS)

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8270C/NONE	069SS-0004M-0001-SO	N	4	Benzyl alcohol	1300 U	83	1300	330	UG/KG
SW8270C/NONE	069SS-0004M-0001-SO	N	4	bis(2-Chloroethoxy) Methane	400 U	87	400	330	UG/KG
SW8270C/NONE	069SS-0004M-0001-SO	N	4	bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	400 U	7.9	400	330	UG/KG
SW8270C/NONE	069SS-0004M-0001-SO	N	4	bis(2-Chloroisopropyl) Ether	400 U	38	400	330	UG/KG
SW8270C/NONE	069SS-0004M-0001-SO	N	4	Carbazole	200 U	110	200	50	UG/KG
SW8270C/NONE	069SS-0004M-0001-SO	N	4	Cresols, m & p	1600 U	79	1600	300	UG/KG
SW8270C/NONE	069SS-0004M-0001-SO	N	4	Hexachlorocyclopentadiene	1300 U	110	1300	330	UG/KG
SW8270C/NONE	069SS-0004M-0001-SO	N	4	Nitrobenzene	400 U	8.7	400	330	UG/KG
SW8270C/NONE	079SS-0004M-0001-SO	N	1	Cresols, m & p	400 U	20	400	300	UG/KG
SW8270C/NONE	079SS-0005M-0001-SO	FD	1	Cresols, m & p	400 U	20	400	300	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Worksheet

SDG Name: 240-17477-1_(68,69,79-SW,SS)

Method: E353.2

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?		•		
Were sample reciept temperatures met?	•			
Were QAPP specified RLs achieved?	•			
Were all QAPP specified target analytes reported?	•			
Was the initial calibration curve within QAPP acceptance limits?	•			
Were the ICV/CCVs analyzed (frequency) as required in the QAPP?	•			
Were ICV/CCV results within QAPP acceptance limits?	•			
Were the ICB/CCBs analyzed (frequency) as required in the QAPP?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the ICB/CCB/method blank?	•			
Was a field blank collected and analyzed?			•	
Were target analytes reported in the field blank analyses above the MDL?			•	
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?	•			
Was a LCS prepared and analyzed with each batch?	•			
Were the LCS recoveries within QAPP acceptance limits?	•			
Was a duplicate sample prepared and analyzed with each batch?			•	
Was the duplicate RPD within QAPP acceptance limits?			•	
Was a MS/MSD pair prepared with each batch?	•			
Is the MS/MSD parent sample the one designated by the sampling team?	•			
Were the MS/MSD recoveries and RPDs within QAPP acceptance limits?	•			
Were sample concentrations within calibration range?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Method: SW6020

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were sample reciept temperatures met?	•			
Were QAPP specified RLs achieved?	•			
Were all QAPP specified target analytes reported?	•			
Was the initial calibration curve within QAPP acceptance limits?	•			
Were the ICV/CCVs analyzed (frequency) as required in the QAPP?	•			
Were ICV/CCV results within QAPP acceptance limits?	•			
Were the ICB/CCBs analyzed (frequency) as required in the QAPP?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the ICB/CCB/method blank?	•			
Was a field blank collected and analyzed?			•	
Were target analytes reported in the field blank analyses above the MDL?			•	
Was an Interference Check Standard (ICS) run at the beginning and end of every run?	•			
Was the ICS recovery within QAPP acceptance limits?	•			
If a field duplicate was analyzed, were the RPDs within criteria?		•		
Was a LCS prepared and analyzed with each batch?	•			
Were the LCS recoveries within QAPP acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			
Is the MS/MSD parent sample the one designated by the sampling team?	•			MS and Duplicate
Were the MS/MSD within QAPP acceptance limits?		•		Sample 6: Sb and Mg recovered low.
Was a serial dilution prepared and analyzed with each batch?		•		Serial dilution was not performed in this SDG.
Was the serial dilution within QAPP acceptance limits?			•	
Were sample concentrations within calibration range?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			

Method: SW7470A

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were sample reciept temperatures met?	•			
Were QAPP specified RLs achieved?	•			
Were all QAPP specified target analytes reported?	•			
Was the initial calibration curve within QAPP acceptance limits?	•			
Were the ICV/CCVs analyzed (frequency) as required in the QAPP?	•			
Were ICV/CCV results within QAPP acceptance limits?	•			
Were the ICB/CCBs analyzed (frequency) as required in the QAPP?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the ICB/CCB/method blank?		•		
Was a field blank collected and analyzed?			•	
Were target analytes reported in the field blank analyses above the MDL?			•	
Was the ICS recovery within QAPP acceptance limits?			•	Not Required
If a field duplicate was analyzed, were the RPDs within criteria?	•			Both samples were reported as non-detects.
Was a LCS prepared and analyzed with each batch?	•			
Were the LCS recoveries within QAPP acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			MS and Dup
Is the MS/MSD parent sample the one designated by the sampling team?	•			
Were the MS/MSD within QAPP acceptance limits?	•			
Were sample concentrations within calibration range?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			

Method: SW7471A

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			

Method: SW7471A				
Review Questions	**Yes**	**No**	**NA**	**Comment**
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were sample reciept temperatures met?	•			
Were QAPP specified RLs achieved?	•			
Were all QAPP specified target analytes reported?	•			
Was the initial calibration curve within QAPP acceptance limits?	•			
Were the ICV/CCVs analyzed (frequency) as required in the QAPP?	•			
Were ICV/CCV results within QAPP acceptance limits?	•			
Were the ICB/CCBs analyzed (frequency) as required in the QAPP?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the ICB/CCB/method blank?	•			Hg detected in the method blank
Was a field blank collected and analyzed?			•	
Were target analytes reported in the field blank analyses above the MDL?			•	
Was the ICS recovery within QAPP acceptance limits?			•	Not Required
If a field duplicate was analyzed, were the RPDs within criteria?	•			
Was a LCS prepared and analyzed with each batch?	•			
Were the LCS recoveries within QAPP acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			MS and Dup
Is the MS/MSD parent sample the one designated by the sampling team?	•			
Were the MS/MSD within QAPP acceptance limits?	•			
Were sample concentrations within calibration range?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			

Method: SW8081				
Review Questions	**Yes**	**No**	**NA**	**Comment**
Did Chain-of-Custody information agree with laboratory report?	•			
Were samples preserved properly and received in good condition?	•			
Were sample reciept temperatures met?	•			

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Method: SW8081

Review Questions	Yes	No	NA	Comment
Were holding times for prep and analysis met?	•			
Does the initial calibration curve consist of 5 concentration levels, with the low standard near but > MDL?	•			
Is the ICAL %RSD within acceptance limits (%D =20%) on both columns?	•			
Was a second source verification analyzed after the ICAL and all analytes within criteria (%D =20%)?	•			
Was a CCV run at the beginning of the analytical sequence and every 12 hours?	•			
Was the CCV a mid-level standard from the initial calibration curve?	•			
Was the CCV %D within criteria (%D =20%)?		•		All sample results were reported from CLP-2.
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the method blank above the MDL?		•		
Was a field blank (equipment or trip) collected and analyzed?			•	
Were target analytes reported in the field blank analyses above the MDL?			•	
Were surrogate recoveries within QAPP acceptance limits?	•			
Was an LCS/LCSD pair prepared and analyzed with each batch? (if applicable)	•			Only LCS
Were the LCS recoveries within QAPP acceptance limits?	•			
Were the LCS/LCSD RPDs within QAPP acceptance limits? (if applicable)			•	
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits (RPD = 30%) ?	•			RPD=50% (QC limits for soil)
Were the Breakdown products within QAPP acceptance limits?	•			
Is the MS/MSD parent sample the one designated by the sampling team?	•			
Were MS/MSD recoveries and RPD within QAPP acceptance limits?			•	Diluted out MS/MSD analyzed at 50x
Were all QAPP-specified target analytes reported?				
Were reported sample concentrations within calibration range?	•			
Were RPDs between primary and confirmation columns < 40%?		•		Sample7: Beta-BHC RPD=186; P1
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were sample prepration sheets present and filled out appropriately?	•			
Were instrument run logs present and filled out appropriately?	•			

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Method: SW8082

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report?	•			
Were samples preserved properly and received in good condition?	•			
Were sample reciept temperatures met?	•			
Were holding times for prep and analysis met?	•			
Does the initial calibration curve consist of 5 concentration levels, with the low standard near but > MDL?	•			
Is the ICAL %RSD within acceptance limits (%D =20%) on both columns?	•			
Was a second source verification analyzed after the ICAL and all analytes within criteria (%D =20%)?	•			
Was a CCV run at the beginning of the analytical sequence and every 12 hours?	•			
Was the CCV a mid-level standard from the initial calibration curve?	•			
Was the CCV %D within criteria (%D =20%)?	•			All sample results were reported from CLP-2.
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the method blank above the MDL?		•		
Was a field blank (equipment or trip) collected and analyzed?			•	
Were target analytes reported in the field blank analyses above the MDL?			•	
Were surrogate recoveries within QAPP acceptance limits?	•			
Was an LCS/LCSD pair prepared and analyzed with each batch? (if applicable)	•			Only LCS
Were the LCS recoveries within QAPP acceptance limits?	•			
Were the LCS/LCSD RPDs within QAPP acceptance limits? (if applicable)			•	
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits (RPD = 30%) ?	•			Both samples were reported as non-detects.
Were the Breakdown products within QAPP acceptance limits?	•			
Is the MS/MSD parent sample the one designated by the sampling team?	•			
Were MS/MSD recoveries and RPD within QAPP acceptance limits?	•			
Were all QAPP-specified target analytes reported?	•			
Were reported sample concentrations within calibration range?	•			
Were RPDs between primary and confirmation columns < 40%?	•			
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Method: SW8082

Review Questions	Yes	No	NA	Comment
Were sample prepration sheets present and filled out appropriately?	•			
Were instrument run logs present and filled out appropriately?	•			

Method: SW8260B

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were sample reciept temperatures met?	•			
Were QAPP specified PQLs achieved?				
Were all QAPP-specified target analytes reported?	•			
Was the GC/MS system properly tuned based on method criteria?	•			
Was the criteria met during each 12 hour shift (prior to ICAL and Cal Ver.)?	•			
Does the initial calibration curve consist of 5 concentration levels, with the low standard near but > MDL?	•			
Did the Calibration Check Compounds (CCCs) have a relative standard deviation within QAPP acceptance limits?	•			
Were the average response factors (RFs) for the System Performance Check Compounds (SPCCs) within QAPP acceptance limits?	•			
Were all other target analytes within criteria? OR Was the average across all target analytes within criteria? Was a different calibration option used?	•			
If a linear regression curve was used, was the correlation coefficient within criteria?	•			
Was a second source verification analyzed after the ICAL and all analytes within criteria?	•			
Was a CCV run at the beginning of the analytical sequence and every 12 hours?	•			
Was the CCV a mid-level standard from the initial calibration curve?	•			
Did the CCCs have a %Difference within QAPP acceptance limits?	•			
Were the average RFs for the SPCCs within QAPP acceptance limits?	•			
Was the average %D (difference or drift) for all target analytes within QAPP acceptance limits?	•			
Were the internal standards added to every standard, blank, matrix spike, matrix spike duplicate, and sample?	•			

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Method: SW8260B

Review Questions	Yes	No	NA	Comment
Were the retention times for all IS compounds within QAPP acceptance limits?	•			
Are the area counts of all IS compounds within QAPP acceptance limits?		•		Low DCB in samples 6 and 7.
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the method blank above the MDL?	•			
Was a field blank (equipment or trip) collected and analyzed at the required frequency?	•			
Were target analytes reported in the field blank analyses above the MDL?	•			Chloroform
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?	•			
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			Only LCS
Were the LCS/LCSD recoveries within QAPP acceptance limits?	•			
Were the LCS/LCSD RPDs within QAPP acceptance limits?			•	
Was the duplicate RPD within QAPP acceptance limits?	•			
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			
Was a MS/MSD pair prepared with each batch?	•			
Is the MS/MSD parent sample the one designated by the sampling team?	•			
Were MS/MSD recoveries and RPD within QAPP acceptance limits?		•		
Were surrogate recoveries within QAPP acceptance limits?		•		BFB %R recovered high in samples 6 and 7
Were reported sample concentrations within calibration range?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were instrument run logs present and filled out appropriately?	•			
Were sample prepration sheets present and filled out appropriately?	•			

Method: SW8270C

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?		•		Bis(2-ethylhexyl)phthalate in samples 6 and 7 were re-extracted and re-analyzed outside the holding time.
Were sample reciept temperatures met?	•			
Were QAPP specified PQLs achieved?	•			

Method: SW8270C

Review Questions	Yes	No	NA	Comment
Were all QAPP-specified target analytes reported?	•			
Was the GC/MS system properly tuned based on method criteria?	•			DFTPP
Was the criteria met during each 12 hour shift (prior to ICAL and Cal Ver.)?	•			
Does the initial calibration curve consist of 5 concentration levels, with the low standard near but > MDL?	•			
Did the Calibration Check Compounds (CCCs) have a relative standard deviation within QAPP acceptance limits?	•			
Were the average response factors (RFs) for the System Performance Check Compounds (SPCCs) within QAPP acceptance limits?	•			
Were all other target analytes within criteria? OR Was the average across all target analytes within criteria? Was a different calibration option used?	•			
If a linear regression curve was used, was the correlation coefficient within criteria?	•			
Was a second source verification analyzed after the ICAL and all analytes within criteria?		•		
Was a CCV run at the beginning of the analytical sequence and every 12 hours?	•			
Was the CCV a mid-level standard from the initial calibration curve?	•			
Did the CCCs have a %Difference within QAPP acceptance limits?	•			
Were the average RFs for the SPCCs within QAPP acceptance limits?	•			
Was the average %D (difference or drift) for all target analytes within QAPP acceptance limits?	•			
Were the internal standards added to every standard, blank, matrix spike, matrix spike duplicate, and sample?	•			
Were the retention times for all IS compounds within QAPP acceptance limits?	•			
Are the area counts of all IS compounds within QAPP acceptance limits?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the method blank above the MDL?	•			
Was a field blank (equipment or trip) collected and analyzed at the required frequency?			•	
Were target analytes reported in the field blank analyses above the MDL?			•	
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?		•		
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			Only LCS
Were the LCS/LCSD recoveries within QAPP acceptance limits?	•			
Were the LCS/LCSD RPDs within QAPP acceptance limits?			•	
Was the duplicate RPD within QAPP acceptance limits?			•	

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Method: SW8270C

Review Questions	Yes	No	NA	Comment
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			
Was a MS/MSD pair prepared with each batch?	•			
Is the MS/MSD parent sample the one designated by the sampling team?	•			
Were MS/MSD recoveries and RPD within QAPP acceptance limits?	•			Sample 4: 3,3'-Dichlorobenzidine was not recovered n MS. Sample 6: Benzoic acid and 3,3'-Dichlorobenzidine were not recovered in both MS and MSD.
Were surrogate recoveries within QAPP acceptance limits?	•			
Were reported sample concentrations within calibration range?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were instrument run logs present and filled out appropriately?	•			
Were sample prepration sheets present and filled out appropriately?	•			

Method: SW8330B

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report?	•			
Were samples preserved properly and received in good condition?	•			
Were sample reciept temperatures met?	•			
Were holding times for prep and analysis met?	•			
Does the initial calibration curve consist of 5 concentration levels, with the low standard near but > MDL?	•			
Is the ICAL %RSD within acceptance limits (%D =20%) on both columns?	•			
Was a second source verification analyzed after the ICAL and all analytes within criteria (%D =20%)?				
Was a CCV run at the beginning of the analytical sequence and every 12 hours?	•			
Was the CCV a mid-level standard from the initial calibration curve?	•			
Was the CCV %D within criteria (%D =20%)?		•		%D for RDX, NB, 2-NT, 4-NT and PETN were >20%.
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the method blank above the MDL?		•		
Was a field blank (equipment or trip) collected and analyzed?			•	
Were target analytes reported in the field blank analyses above the MDL?			•	
Were surrogate recoveries within QAPP acceptance limits?	•			

AUTOMATED DATA REVIEW SUMMARY for 240-17477-1_(68,69,79-SW,SS)

Method: SW8330B

Review Questions	Yes	No	NA	Comment
Was an LCS/LCSD pair prepared and analyzed with each batch? (if applicable)	•			Only LCS
Were the LCS recoveries within QAPP acceptance limits?	•			
Were the LCS/LCSD RPDs within QAPP acceptance limits? (if applicable)			•	
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits (RPD = 30%) ?	•			Both samples were reported as non-detects
Is the MS/MSD parent sample the one designated by the sampling team?	•			
Were MS/MSD recoveries and RPD within QAPP acceptance limits?		•		
Were all QAPP-specified target analytes reported?	•			
Were reported sample concentrations within calibration range?	•			
Were RPDs between primary and confirmation columns < 40%?			•	All samples were non-detects.
Did PDA spectra for reported compounds match associated standard spectra?			•	
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were sample prepration sheets present and filled out appropriately?	•			
Were instrument run logs present and filled out appropriately?	•			

WORKSHEET 3

Automated Data Review Summary for 240-22648-1 / 240-22660-1

This page left intentionally blank.

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1 / 240-22660-1

Facility: Ravenna Army Ammunition Plant

Event: Spring 2013 RI/SI Sampling Event

Guidance Document: Ravenna Army Ammunition Plant, Quality Assurance Project Plan, Oct. 3, 2012

Contract Laboratory: TestAmerica, Inc., North Canton, OH

Field Contractor: Environmental Chemical Corporation, Otis Ang Base, MA

Data Review Contractor: ECC

SDG: 240-22648-1, Certified - 6/12/2013 by frederickroche

QC Level: ADR

Project Manager: Al Easterday

Data Reviewer: n/a

Data Reviewer Title: Sr. QA Chemist

Date of Review Report: June 14, 2013

Second Reviewer: n/a

Completion Date of Second Reviewer:

Samples Included in SDG 240-22648-1

Analytical Method/ Leach Method	Normal Soil Samples	Normal Water Samples	Field QC Soil Samples	Field QC Water Samples
E353.2/NONE	8	1	0	0
SW6020/NONE	47	4	8	1
SW7470A/NONE		4		1
SW7471A/NONE	47		8	

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Analytical Method/ Leach Method	Normal Soil Samples	Normal Water Samples	Field QC Soil Samples	Field QC Water Samples
SW8081/NONE	8	1	0	0
SW8082/NONE	26	1	2	0
SW8260B/NONE	9	2	0	0
SW8270C/NONE	37	4	4	1
SW8330B/NONE	8	1	0	0

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

This report assesses the analytical data quality associated with the analyses listed on the preceding cover page. This assessment has been made through a combination of automated data review (ADR) and supplemental manual review, the details of which are described below. The approach taken in the review of this data set is consistent with the requirements contained in the Ravenna Army Ammunition Plant, Quality Assurance Project Plan, Oct. 3, 2012 to the extent possible. Where definitive guidance is not provided, data has been evaluated in a conservative manner using professional judgment. In cases where two qualifiers are listed as an action, such as 'J/UJ', the first qualifier applies to positive results, and the second to non-detect results.

Samples were collected by Environmental Chemical Corporation, Otis Ang Base, MA; analyses were performed by TestAmerica, Inc., North Canton, OH and were reported under sample delivery group (SDG) 240-22648-1. Results have been evaluated electronically using electronic data deliverables (EDDs) provided by the laboratory. The laboratory data summary forms (hard copy) have been reviewed during this effort and compared to the automated review output. Findings based on the automated data submission and manual data verification processes are detailed in the ADR narrative.

The following quality control elements were supported by the electronic deliverable and were evaluated during this review effort:

- Blank
- Blank - Negative
- Field Duplicate RPD
- LCS Recovery
- MS Recovery
- MS RPD
- Prep Hold Time
- Surrogate
- Test Hold Time

The following quality control elements were either not applicable to the deliverable, or were not supported by the electronic deliverable, and were therefore not included in the automated data review. Those elements required for the project were reviewed manually, as narrated in the Comment section below.

- Ambient Blank
- Calibration Blank
- Calibration Blank - Negative
- Continuing Calibration Verification
- Equipment Blank

Field Blank

Initial Calibration Verification

Lab Replicate RPD

LCS RPD

Material Blank

Trip Blank

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

A representative sampling or ten percent of sample and QC results were manually evaluated for compliance with project specific requirements and consistency with hard copy results. The following summaries were generated during the evaluation of this data set and are included in this report as applicable.

Batch – The analytical batch report is reviewed for completeness and compliance with project specific requirements. Incomplete or non-compliant run sequences are identified and their impact on data quality are discussed in the narrative.

QC Outlier – Results exceeding the evaluation criteria are reviewed for compliance with project requirements and a minimum of ten percent of the non-compliant QC values reported electronically are verified for consistency with hard-copy values.

Qualified Results – Qualified results are evaluated for compliance with project requirements and ten percent of qualified results are verified for consistency with the QC Outliers.

Rejected Results – All rejected results are evaluated for compliance with project requirements. The reason for rejection of the data is verified against hard copy data.

Field Duplicates – Field duplicate comparison results are evaluated for compliance with project requirements and ten percent of values reported are verified for consistency with the hard-copy data.

Data Submission Warnings – Warnings encountered during the data submission process are evaluated and their affect on data quality is discussed in the narrative below.

Analytical deficiencies, project non-compliance issues and inconsistencies with hard copy results observed during ADR evaluation process and their impact on data quality are summarized in the narrative below.

A total of 592 results (11.05%) out of the 5357 results (sample and field QC samples) reported are qualified based on review and 36 results (0.67%) have been rejected. Trace values are not counted as qualified results in the above count. The qualified results are detailed in the following tables and discussed in the narrative below, where appropriate.

Narrative Comments

Sites 68,73 and 79
FD pairs manually performed 068SB-0035M-0001-SO/068SB-0036M-0001-SO and 068SB-0054M-0001-SO/068SB-0053M-0001-SO for metals, PCB, and SVOCs.

Analytical Method	Comment
E353.2	

SW6020	
SW7470A	
SW7471A	
SW8081	
SW8260B	
SW8270C	
SW8330B	
SW8082	

14-Jun-2013

Reviewed by n/a, Sr. QA Chemist

Reviewed by n/a

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Reason and Comment Code Definitions

Reasons	
Code	**Definition**
A	Serial dilution
A1	Ambient Blank
B	The analyte was found in an associated blank as well as in the sample.
B2	CCB
B3	CCB - Neg
c	LCS - low
C	LCS Recovery
d	Field Duplicate RPD
D	MS RPD
D1	Lab Replicate RPD
D2	No precision available
F	Field Blank
F1	Hydrocarbon pattern does not match standard
G1	Initial Calibration RRF
G2	Initial Calibration RSD
h	Holding time exceeded by less than 2X.
H	Holding time exceeded by more than 2X.
H1	Test Hold Time
H2	Prep Hold Time
I	Surrogate recovery outside project limits.
J	CRA/CRI Recovery
K	An analyte (non-common laboratory artifact) was detected in the sample at a concentration less than 5X the concentration detected in the associated method blank.
L	Lab Blank
L1	Lab Blank - Neg
m	MS - low
M	MS Recovery
N	Blank - No Action

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Reason and Comment Code Definitions

O	ICS
P	Sample preservation/collection requirement not met.
P1	Column RPD
P2	Improper preparation/extraction
q	Encore sample holding time exceeded by less than 2X.
Q	Encore sample holding time exceeded by more than 2X.
Q1	Material Blank
R	Exceeds LinearCalibration Range
S	Internal standard
T	Trip Blank
TI	Tentatively Identified Compound
TR	Trace Level Detect
U	Receipt Temperature
V	Equipment Blank
V1	ICV
V2	CCV
V3	CCV RRF
V4	Sample Receipt Condition
W	Column breakdown (pesticides)
X	Raised reporting limit
Y	Cooler temperature greater than 10 degreec C.
y	Cooler temperature greater than 4 degrees C, but less than 10 degreec C.
Y1	False Positive
Y2	Data rejected due to radiological anomolies
Z	LCS RPD
Z2	Analyte not confirmed on second column
Z3	High percent moisture in sample.

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Flag Code and Definitions	
Flag	Definition
U	Undetected: The analyte was analyzed for, but not detected.
UJ	The analyte was not detected; however, the result is estimated due to discrepancies in meeting certain analyte-specific quality control criteria.
J	Estimated: The analyte was positively identified, the quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
R	The data are rejected due to deficiencies in meeting QC criteria and may not be used for decision making.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification".
NJ	The analysis indicates the presence of an analyte that has been “tentatively identified” and the associated numerical value represents its approximate concentration.

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Batch Report

Test Method: E353.2; Leach Method: NONE											
Analytical Batch	**Prep Batch**	**Leach Batch**	**Location**	**Matrix**	**Field Sample ID**	**Lab Sample ID**	**Calibration Ref**	**Run#/ Dil'n**	**Collection Date/Time**	**Extract Date/Time**	**Analysis Date/Time**	**Sample Type**
14024	13964	NA	LABQC	WQ	LABQC	MB 320-13864/1-B		1/1	10-Apr-2013 7:54 AM	10-Apr-2013 7:54 AM	10-Apr-2013 12:00 PM	LB
	13964	NA	LABQC	WQ	LABQC	LCS 320-13864/2-B		1/1	10-Apr-2013 7:54 AM	10-Apr-2013 7:54 AM	10-Apr-2013 12:02 PM	BS
	13964	NA	73-NLCT-DW-SW3	WS	073SW-0061-0001-SW	240-22648-18		1/1	28-Mar-2013 1:00 PM	10-Apr-2013 7:54 AM	10-Apr-2013 12:04 PM	N
	13964	NA	73-NLCT-DW-SW3	WS	073SW-0061-0002-SW	240-22648-18		1/1	28-Mar-2013 1:00 PM	10-Apr-2013 7:54 AM	10-Apr-2013 12:06 PM	MS
	13964	NA	73-NLCT-DW-SW3	WS	073SW-0061-0002-SW	240-22648-18		1/1	28-Mar-2013 1:00 PM	10-Apr-2013 7:54 AM	10-Apr-2013 12:08 PM	SD
14914	14752	NA	LABQC	SQ	LABQC	MB 320-14670/1-B		1/1	22-Apr-2013 6:13 AM	22-Apr-2013 6:13 AM	23-Apr-2013 12:45 PM	LB
	14752	NA	LABQC	SQ	LABQC	LCS 320-14670/2-B		1/1	22-Apr-2013 6:13 AM	22-Apr-2013 6:13 AM	23-Apr-2013 12:47 PM	BS
	14752	NA	73-NLCT-DW-SD3	SE	073SD-0050-0001-SD	240-22648-13		1/1	28-Mar-2013 1:05 PM	22-Apr-2013 6:13 AM	23-Apr-2013 12:49 PM	N
	14752	NA	79-2ASA-DU1-SB4	SO	079SB-0063M-0001-SO	240-22648-29		1/1	28-Mar-2013 2:37 PM	22-Apr-2013 6:13 AM	23-Apr-2013 12:51 PM	N
	14752	NA	79-2ASA-DU1-SB5	SO	079SB-0064M-0001-SO	240-22648-30		1/1	28-Mar-2013 2:00 PM	22-Apr-2013 6:13 AM	23-Apr-2013 12:53 PM	N
	14752	NA	79-2ASA-DU2-SB1	SO	079SB-0069M-0001-SO	240-22648-36		1/1	28-Mar-2013 4:15 PM	22-Apr-2013 6:13 AM	23-Apr-2013 12:55 PM	N
	14752	NA	79-2ASA-DU2-SB3	SO	079SB-0071M-0001-SO	240-22648-38		1/1	28-Mar-2013 4:34 PM	22-Apr-2013 6:13 AM	23-Apr-2013 1:05 PM	N
	14752	NA	79-2ASA-DU2-SB5	SO	079SB-0074M-0001-SO	240-22648-40		1/1	28-Mar-2013 5:20 PM	22-Apr-2013 6:13 AM	23-Apr-2013 1:07 PM	N
	14752	NA	68-ESSW-DU2-SB1	SO	068SB-0046M-0001-SO	240-22648-43		1/1	29-Mar-2013 9:37 AM	22-Apr-2013 6:13 AM	23-Apr-2013 1:09 PM	N
	14752	NA	68-ESSE-DU1-SB5	SO	068SB-0041M-0001-SO	240-22648-53		1/1	29-Mar-2013 9:12 AM	22-Apr-2013 6:13 AM	23-Apr-2013 1:11 PM	N

Test Method: SW6020; Leach Method: NONE											
Analytical Batch	**Prep Batch**	**Leach Batch**	**Location**	**Matrix**	**Field Sample ID**	**Lab Sample ID**	**Calibration Ref**	**Run#/ Dil'n**	**Collection Date/Time**	**Extract Date/Time**	**Analysis Date/Time**	**Sample Type**
70691	68743	NA	LABQC	WQ	LABQC	MB 180-68743/1-A		1/1	10-Apr-2013 7:41 AM	10-Apr-2013 7:41 AM	01-May-2013 10:14 PM	LB

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Batch Report

Test Method: SW6020; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
70691	68743	NA	LABQC	WQ	LABQC	LCS 180-68743/2-A		1/1	10-Apr-2013 7:41 AM	10-Apr-2013 7:41 AM	01-May-2013 10:22 PM	BS
	68743	NA	73-NLCT-UP-SW1	WS	073SW-0056-0001-SW	240-22648-15		1/1	28-Mar-2013 1:55 PM	10-Apr-2013 7:41 AM	01-May-2013 10:30 PM	N
	68743	NA	73-NLCT-UP-SW1	WS	073SW-0056-0002-SW	240-22648-15		1/1	28-Mar-2013 1:55 PM	10-Apr-2013 7:41 AM	01-May-2013 10:55 PM	MS
	68743	NA	73-NLCT-MD-SW2	WS	073SW-0058-0001-SW	240-22648-16		1/1	28-Mar-2013 1:30 PM	10-Apr-2013 7:41 AM	01-May-2013 11:11 PM	N
	68743	NA	73-NLCT-MD-SW2	WS	073SW-0059-0001-SW	240-22648-17		1/1	28-Mar-2013 1:31 PM	10-Apr-2013 7:41 AM	01-May-2013 11:19 PM	FD
	68743	NA	73-NLCT-DW-SW3	WS	073SW-0061-0001-SW	240-22648-18		1/1	28-Mar-2013 1:00 PM	10-Apr-2013 7:41 AM	01-May-2013 11:27 PM	N
	68743	NA	73-NLCT-DW-SW3	WS	073SW-0067-0001-SW	240-22648-21		1/1	28-Mar-2013 1:50 PM	10-Apr-2013 7:41 AM	01-May-2013 11:52 PM	N
	68756	NA	LABQC	SQ	LABQC	MB 180-68756/1-A		1/1	10-Apr-2013 9:43 AM	10-Apr-2013 9:43 AM	02-May-2013 3:09 AM	LB
	68756	NA	LABQC	SQ	LABQC	LCS 180-68756/2-A		1/1	10-Apr-2013 9:43 AM	10-Apr-2013 9:43 AM	02-May-2013 3:17 AM	BS
	68756	NA	73-SCCT-DU1-SB	SO	073SB-0016M-0001-SO	240-22648-1		1/1	28-Mar-2013 11:08 AM	10-Apr-2013 9:43 AM	02-May-2013 3:25 AM	N
	68756	NA	73-SCCT-DU1-SB	SO	073SB-0017M-0001-SO	240-22648-2		1/1	28-Mar-2013 11:09 AM	10-Apr-2013 9:43 AM	02-May-2013 3:34 AM	FD
	68756	NA	73-SCCT-DU1-SB	SO	073SB-0019M-0001-SO	240-22648-3		1/1	28-Mar-2013 11:10 AM	10-Apr-2013 9:43 AM	02-May-2013 3:42 AM	N
	68756	NA	73-SCCT-DU1-SB1	SO	073SB-0020M-0001-SO	240-22648-4		1/1	28-Mar-2013 9:52 AM	10-Apr-2013 9:43 AM	02-May-2013 3:50 AM	N
	68756	NA	73-SCCT-DU1-SB2	SO	073SB-0021M-0001-SO	240-22648-5		1/1	28-Mar-2013 10:03 AM	10-Apr-2013 9:43 AM	02-May-2013 3:58 AM	N
	68756	NA	73-SCCT-DU1-SB3	SO	073SB-0022M-0001-SO	240-22648-6		1/1	28-Mar-2013 10:54 AM	10-Apr-2013 9:43 AM	02-May-2013 4:06 AM	N
	68756	NA	73-SCCT-DU1-SB4	SO	073SB-0023M-0001-SO	240-22648-7		1/1	28-Mar-2013 11:12 AM	10-Apr-2013 9:43 AM	02-May-2013 4:15 AM	N
	68756	NA	73-SCCT-DU1-SB5	SO	073SB-0024M-0001-SO	240-22648-8		1/1	28-Mar-2013 10:07 AM	10-Apr-2013 9:43 AM	02-May-2013 4:23 AM	N
	68756	NA	73-SCCT-DU1-SB5	SO	073SB-0067M-0001-SO	240-22648-9		1/1	28-Mar-2013 11:34 AM	10-Apr-2013 9:43 AM	02-May-2013 5:20 AM	N

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Batch Report

Test Method: SW6020; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
70691	68756	NA	73-NLCT-UP-SD1	SE	073SD-0045-0001-SD	240-22648-10		1/1	28-Mar-2013 2:00 PM	10-Apr-2013 9:43 AM	02-May-2013 5:29 AM	N
	68756	NA	73-NLCT-UP-SD1	SE	073SD-0045-0002-SD	240-22648-10		1/1	28-Mar-2013 2:00 PM	10-Apr-2013 9:43 AM	02-May-2013 5:53 AM	MS
	68756	NA	73-NLCT-MD-SD2	SE	073SD-0047-0001-SD	240-22648-11		1/1	28-Mar-2013 1:25 PM	10-Apr-2013 9:43 AM	02-May-2013 6:10 AM	N
	68756	NA	73-NLCT-MD-SD2	SE	073SD-0048-0001-SD	240-22648-12		1/1	28-Mar-2013 1:25 PM	10-Apr-2013 9:43 AM	02-May-2013 6:18 AM	FD
	68756	NA	73-NLCT-DW-SD3	SE	073SD-0050-0001-SD	240-22648-13		1/1	28-Mar-2013 1:05 PM	10-Apr-2013 9:43 AM	02-May-2013 6:26 AM	N
	68756	NA	73-NLCT-DD-SD4	SE	073SD-0046-0001-SD	240-22648-14		1/1	28-Mar-2013 1:45 PM	10-Apr-2013 9:43 AM	02-May-2013 6:35 AM	N
	68756	NA	79-2ASA-DU1-SB	SO	079SB-0055M-0001-SO	240-22648-22		1/1	28-Mar-2013 3:22 PM	10-Apr-2013 9:43 AM	02-May-2013 6:59 AM	N
	68756	NA	79-2ASA-DU1-SB	SO	079SB-0057M-0001-SO	240-22648-23		1/1	28-Mar-2013 3:23 PM	10-Apr-2013 9:43 AM	02-May-2013 7:08 AM	FD
	68756	NA	79-2ASA-DU1-SB	SO	079SB-0058M-0001-SO	240-22648-24		1/1	28-Mar-2013 3:27 PM	10-Apr-2013 9:43 AM	02-May-2013 7:16 AM	N
	68756	NA	79-2ASA-DU1-SB	SO	079SB-0059M-0001-SO	240-22648-25		1/1	28-Mar-2013 3:28 PM	10-Apr-2013 9:43 AM	02-May-2013 7:24 AM	FD
	68756	NA	79-2ASA-DU1-SB1	SO	079SB-0060M-0001-SO	240-22648-26		1/1	28-Mar-2013 3:25 PM	10-Apr-2013 9:43 AM	02-May-2013 7:32 AM	N
70828	68762	NA	LABQC	SQ	LABQC	MB 180-68762/1-A		1/1	10-Apr-2013 10:05 AM	10-Apr-2013 10:05 AM	02-May-2013 5:12 PM	LB
	68762	NA	LABQC	SQ	LABQC	LCS 180-68762/2-A		1/1	10-Apr-2013 10:05 AM	10-Apr-2013 10:05 AM	02-May-2013 5:21 PM	BS
	68762	NA	79-2ASA-DU1-SB2	SO	079SB-0061M-0001-SO	240-22648-27		1/1	28-Mar-2013 3:12 PM	10-Apr-2013 10:05 AM	02-May-2013 5:29 PM	N
	68762	NA	79-2ASA-DU1-SB2	SO	079SB-0061M-0001-SO-MS	240-22648-27		1/1	28-Mar-2013 3:12 PM	10-Apr-2013 10:05 AM	02-May-2013 5:53 PM	MS
	68762	NA	79-8841-DU1-SB3	SO	079SB-0062M-0001-SO	240-22648-28		1/1	28-Mar-2013 2:50 PM	10-Apr-2013 10:05 AM	02-May-2013 6:10 PM	N
	68762	NA	79-2ASA-DU1-SB4	SO	079SB-0063M-0001-SO	240-22648-29		1/1	28-Mar-2013 2:37 PM	10-Apr-2013 10:05 AM	02-May-2013 6:18 PM	N
	68762	NA	79-2ASA-DU1-SB5	SO	079SB-0064M-0001-SO	240-22648-30		1/1	28-Mar-2013 2:00 PM	10-Apr-2013 10:05 AM	02-May-2013 6:26 PM	N

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Batch Report

Test Method: SW6020; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
70828	68762	NA	79-2ASA-DU1-SB5	SO	079SB-0075-0001-SO	240-22648-31		1/1	28-Mar-2013 2:21 PM	10-Apr-2013 10:05 AM	02-May-2013 6:51 PM	N
	68762	NA	79-2ASA-DU2-SB	SO	079SB-0065M-0001-SO	240-22648-32		1/1	28-Mar-2013 5:11 PM	10-Apr-2013 10:05 AM	02-May-2013 6:59 PM	N
	68762	NA	79-2ASA-DU2-SB	SO	079SB-0066M-0001-SO	240-22648-33		1/1	28-Mar-2013 5:10 PM	10-Apr-2013 10:05 AM	02-May-2013 7:07 PM	FD
	68762	NA	79-2ASA-DU2-SB	SO	079SB-0067M-0001-SO	240-22648-34		1/1	28-Mar-2013 5:12 PM	10-Apr-2013 10:05 AM	02-May-2013 7:15 PM	N
	68762	NA	79-2ASA-DU2-SB	SO	079SB-0068M-0001-SO	240-22648-35		1/1	28-Mar-2013 5:14 PM	10-Apr-2013 10:05 AM	02-May-2013 7:23 PM	FD
	68762	NA	79-2ASA-DU2-SB1	SO	079SB-0069M-0001-SO	240-22648-36		1/1	28-Mar-2013 4:15 PM	10-Apr-2013 10:05 AM	02-May-2013 7:32 PM	N
	68762	NA	79-2ASA-DU2-SB2	SO	079SB-0070M-0001-SO	240-22648-37		1/1	28-Mar-2013 4:30 PM	10-Apr-2013 10:05 AM	02-May-2013 7:40 PM	N
	68762	NA	79-2ASA-DU2-SB2	SO	079SB-0070M-0002-SO-MS	240-22648-37		1/1	28-Mar-2013 4:30 PM	10-Apr-2013 10:05 AM	02-May-2013 8:04 PM	MS
	68853	NA	LABQC	SQ	LABQC	MB 180-68853/1-A		1/1	11-Apr-2013 8:02 AM	11-Apr-2013 8:02 AM	02-May-2013 8:37 PM	LB
	68853	NA	LABQC	SQ	LABQC	LCS 180-68853/2-A		1/1	11-Apr-2013 8:02 AM	11-Apr-2013 8:02 AM	02-May-2013 8:46 PM	BS
	68853	NA	79-2ASA-DU2-SB3	SO	079SB-0071M-0001-SO	240-22648-38		1/1	28-Mar-2013 4:34 PM	11-Apr-2013 8:02 AM	02-May-2013 8:54 PM	N
	68853	NA	79-2ASA-DU2-SB4	SO	079SB-0072M-0001-SO	240-22648-39		1/1	28-Mar-2013 4:53 PM	11-Apr-2013 8:02 AM	02-May-2013 9:02 PM	N
	68853	NA	79-2ASA-DU2-SB4	SO	079SB-0072M-0002-SO-MS	240-22648-39		1/1	28-Mar-2013 4:53 PM	11-Apr-2013 8:02 AM	02-May-2013 9:26 PM	MS
	68853	NA	79-2ASA-DU2-SB5	SO	079SB-0074M-0001-SO	240-22648-40		1/1	28-Mar-2013 5:20 PM	11-Apr-2013 8:02 AM	02-May-2013 9:43 PM	N
	68853	NA	68-ESSW-DU2-SB	SO	068SB-0044M-0001-SO	240-22648-41		1/1	29-Mar-2013 10:21 AM	11-Apr-2013 8:02 AM	02-May-2013 10:08 PM	N
	68853	NA	68-ESSW-DU2-SB	SO	068SB-0045M-0001-SO	240-22648-42		1/1	29-Mar-2013 10:23 AM	11-Apr-2013 8:02 AM	02-May-2013 10:16 PM	N
	68853	NA	68-ESSW-DU2-SB1	SO	068SB-0046M-0001-SO	240-22648-43		1/1	29-Mar-2013 9:37 AM	11-Apr-2013 8:02 AM	02-May-2013 10:24 PM	N
	68853	NA	68-ESSW-DU2-SB2	SO	068SB-0047M-0001-SO	240-22648-44		1/1	29-Mar-2013 10:25 AM	11-Apr-2013 8:02 AM	02-May-2013 10:32 PM	N

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Batch Report

Test Method: SW6020; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
70828	68853	NA	68-ESSW-DU2-SB4	SO	068SB-0048M-0001-SO	240-22648-45		1/1	29-Mar-2013 10:07 AM	11-Apr-2013 8:02 AM	02-May-2013 10:40 PM	N
	68853	NA	68-ESSE-DU1-SB	SO	068SB-0033M-0001-SO	240-22648-46		1/1	29-Mar-2013 9:15 AM	11-Apr-2013 8:02 AM	02-May-2013 10:49 PM	N
	68853	NA	68-ESSE-DU1-SB	SO	068SB-0034M-0001-SO	240-22648-47		1/1	29-Mar-2013 9:19 AM	11-Apr-2013 8:02 AM	02-May-2013 10:57 PM	N
	68853	NA	68-ESSE-DU1-SB1	SO	068SB-0035M-0001-SO	240-22648-48		1/1	29-Mar-2013 8:26 AM	11-Apr-2013 8:02 AM	02-May-2013 11:05 PM	N
	68853	NA	68-ESSE-DU1-SB2	SO	068SB-0038M-0001-SO	240-22648-49		1/1	29-Mar-2013 9:20 AM	11-Apr-2013 8:02 AM	02-May-2013 11:13 PM	N
	68853	NA	68-ESSE-DU1-SB1	SO	068SB-0036M-0001-SO	240-22648-50		1/1	29-Mar-2013 8:27 AM	11-Apr-2013 8:02 AM	02-May-2013 11:22 PM	FD
	68853	NA	68-ESSE-DU2-SB3	SO	068SB-0039M-0001-SO	240-22648-51		1/1	29-Mar-2013 8:52 AM	11-Apr-2013 8:02 AM	02-May-2013 11:46 PM	N
	68853	NA	68-ESSE-DU1-SB4	SO	068SB-0040M-0001-SO	240-22648-52		1/1	29-Mar-2013 8:59 AM	11-Apr-2013 8:02 AM	02-May-2013 11:54 PM	N
	68853	NA	68-ESSE-DU1-SB5	SO	068SB-0041M-0001-SO	240-22648-53		1/1	29-Mar-2013 9:12 AM	11-Apr-2013 8:02 AM	03-May-2013 12:03 AM	N
	68853	NA	68-ESSE-DU1-SB1	SO	068SB-0042M-0001-SO	240-22648-54		1/1	29-Mar-2013 8:33 AM	11-Apr-2013 8:02 AM	03-May-2013 12:11 AM	N
	68853	NA	68-SS3-DU1-SB	SO	068SB-0050M-0001-SO	240-22648-55		1/1	29-Mar-2013 11:57 AM	11-Apr-2013 8:02 AM	03-May-2013 12:19 AM	N
	68853	NA	68-SS3-DU1-SB	SO	068SB-0051M-0001-SO	240-22648-56		1/1	29-Mar-2013 11:58 AM	11-Apr-2013 8:02 AM	03-May-2013 12:27 AM	N
	68853	NA	68-SS3-DU1-SB1	SO	068SB-0052M-0001-SO	240-22648-57		1/1	29-Mar-2013 12:00 PM	11-Apr-2013 8:02 AM	03-May-2013 12:36 AM	N
70691	68865	NA	LABQC	SQ	LABQC	MB 180-68865/1-A		1/1	11-Apr-2013 9:06 AM	11-Apr-2013 9:06 AM	02-May-2013 12:00 AM	LB
	68865	NA	LABQC	SQ	LABQC	LCS 180-68865/2-A		1/1	11-Apr-2013 9:06 AM	11-Apr-2013 9:06 AM	02-May-2013 12:08 AM	BS
	68865	NA	68-SS3-DU1-SB2	SO	068SB-0053M-0001-SO	240-22648-58		1/1	29-Mar-2013 11:18 AM	11-Apr-2013 9:06 AM	02-May-2013 12:17 AM	N
	68865	NA	68-SS3-DU1-SB2	SO	068SB-0054M-0001-SO	240-22648-59		1/1	29-Mar-2013 11:19 AM	11-Apr-2013 9:06 AM	02-May-2013 12:25 AM	FD
	68865	NA	68-SS3-DU1-SB3	SO	068SB-0056M-0001-SO	240-22648-60		1/1	29-Mar-2013 11:35 AM	11-Apr-2013 9:06 AM	02-May-2013 12:33 AM	N

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Batch Report

Test Method: SW6020; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
70691	68865	NA	68-SS3-DU1-SB4	SO	068SB-0057M-0001-SO	240-22648-61		1/1	29-Mar-2013 11:26 AM	11-Apr-2013 9:06 AM	02-May-2013 12:41 AM	N
	68865	NA	68-SS3-DU1-SB5	SO	068SB-0059M-0001-SO	240-22648-62		1/1	29-Mar-2013 11:47 AM	11-Apr-2013 9:06 AM	02-May-2013 12:49 AM	N

Test Method: SW7470A; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
81255	80775	NA	LABQC	WQ	LABQC	MB 240-80775/1-A		1/1	05-Apr-2013 3:45 PM	05-Apr-2013 3:45 PM	09-Apr-2013 10:48 AM	LB
	80775	NA	LABQC	WQ	LABQC	LCS 240-80775/2-A		1/1	05-Apr-2013 3:45 PM	05-Apr-2013 3:45 PM	09-Apr-2013 10:49 AM	BS
	80775	NA	73-NLCT-UP-SW1	WS	073SW-0056-0001-SW	240-22648-15		1/1	28-Mar-2013 1:55 PM	05-Apr-2013 3:45 PM	09-Apr-2013 10:51 AM	N
	80775	NA	73-NLCT-UP-SW1	WS	073SW-0056-0002-SW	240-22648-15		1/1	28-Mar-2013 1:55 PM	05-Apr-2013 3:45 PM	09-Apr-2013 10:55 AM	MS
	80775	NA	73-NLCT-MD-SW2	WS	073SW-0058-0001-SW	240-22648-16		1/1	28-Mar-2013 1:30 PM	05-Apr-2013 3:45 PM	09-Apr-2013 12:16 PM	N
	80775	NA	73-NLCT-MD-SW2	WS	073SW-0059-0001-SW	240-22648-17		1/1	28-Mar-2013 1:31 PM	05-Apr-2013 3:45 PM	09-Apr-2013 12:57 PM	FD
	80775	NA	73-NLCT-DW-SW3	WS	073SW-0061-0001-SW	240-22648-18		1/1	28-Mar-2013 1:00 PM	05-Apr-2013 3:45 PM	09-Apr-2013 12:58 PM	N
	80775	NA	73-NLCT-DW-SW3	WS	073SW-0067-0001-SW	240-22648-21		1/1	28-Mar-2013 1:50 PM	05-Apr-2013 3:45 PM	09-Apr-2013 1:00 PM	N

Test Method: SW7471A; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
81267	81005	NA	LABQC	SQ	LABQC	MB 240-81005/1-A		1/1	08-Apr-2013 2:45 PM	08-Apr-2013 2:45 PM	09-Apr-2013 10:11 AM	LB
	81005	NA	LABQC	SQ	LABQC	LCS 240-81005/2-A		1/1	08-Apr-2013 2:45 PM	08-Apr-2013 2:45 PM	09-Apr-2013 10:13 AM	BS
	81005	NA	73-SCCT-DU1-SB	SO	073SB-0016M-0001-SO	240-22648-1		1/1	28-Mar-2013 11:08 AM	08-Apr-2013 2:45 PM	09-Apr-2013 10:57 AM	N
	81005	NA	73-SCCT-DU1-SB	SO	073SB-0017M-0001-SO	240-22648-2		1/1	28-Mar-2013 11:09 AM	08-Apr-2013 2:45 PM	09-Apr-2013 10:59 AM	FD

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Batch Report

Test Method: SW7471A; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
81267	81005	NA	73-SCCT-DU1-SB	SO	073SB-0019M-0001-SO	240-22648-3		1/1	28-Mar-2013 11:10 AM	08-Apr-2013 2:45 PM	09-Apr-2013 11:01 AM	N
	81005	NA	73-SCCT-DU1-SB1	SO	073SB-0020M-0001-SO	240-22648-4		1/1	28-Mar-2013 9:52 AM	08-Apr-2013 2:45 PM	09-Apr-2013 11:03 AM	N
	81005	NA	73-SCCT-DU1-SB2	SO	073SB-0021M-0001-SO	240-22648-5		1/1	28-Mar-2013 10:03 AM	08-Apr-2013 2:45 PM	09-Apr-2013 11:05 AM	N
	81005	NA	73-SCCT-DU1-SB3	SO	073SB-0022M-0001-SO	240-22648-6		1/1	28-Mar-2013 10:54 AM	08-Apr-2013 2:45 PM	09-Apr-2013 11:07 AM	N
	81005	NA	73-SCCT-DU1-SB4	SO	073SB-0023M-0001-SO	240-22648-7		1/1	28-Mar-2013 11:12 AM	08-Apr-2013 2:45 PM	09-Apr-2013 11:12 AM	N
	81005	NA	73-SCCT-DU1-SB5	SO	073SB-0024M-0001-SO	240-22648-8		1/1	28-Mar-2013 10:07 AM	08-Apr-2013 2:45 PM	09-Apr-2013 11:14 AM	N
81523	81137	NA	LABQC	SQ	LABQC	MB 240-81137/1-A		1/1	09-Apr-2013 2:40 PM	09-Apr-2013 2:40 PM	11-Apr-2013 11:50 AM	LB
	81137	NA	LABQC	SQ	LABQC	LCS 240-81137/2-A		1/1	09-Apr-2013 2:40 PM	09-Apr-2013 2:40 PM	11-Apr-2013 11:51 AM	BS
	81137	NA	73-NLCT-UP-SD1	SE	073SD-0045-0001-SD	240-22648-10		1/1	28-Mar-2013 2:00 PM	09-Apr-2013 2:40 PM	11-Apr-2013 11:53 AM	N
	81137	NA	73-NLCT-UP-SD1	SE	073SD-0045-0002-SD	240-22648-10		1/1	28-Mar-2013 2:00 PM	09-Apr-2013 2:40 PM	11-Apr-2013 11:56 AM	MS
	81137	NA	79-2ASA-DU1-SB2	SO	079SB-0061M-0001-SO	240-22648-27		1/1	28-Mar-2013 3:12 PM	09-Apr-2013 2:40 PM	11-Apr-2013 11:57 AM	N
	81137	NA	79-2ASA-DU1-SB2	SO	079SB-0061M-0001-SO-MS	240-22648-27		1/1	28-Mar-2013 3:12 PM	09-Apr-2013 2:40 PM	11-Apr-2013 12:03 PM	MS
	81137	NA	73-SCCT-DU1-SB5	SO	073SB-0067M-0001-SO	240-22648-9		1/1	28-Mar-2013 11:34 AM	09-Apr-2013 2:40 PM	11-Apr-2013 12:05 PM	N
	81137	NA	73-NLCT-MD-SD2	SE	073SD-0047-0001-SD	240-22648-11		1/1	28-Mar-2013 1:25 PM	09-Apr-2013 2:40 PM	11-Apr-2013 12:06 PM	N
	81137	NA	73-NLCT-MD-SD2	SE	073SD-0048-0001-SD	240-22648-12		1/1	28-Mar-2013 1:25 PM	09-Apr-2013 2:40 PM	11-Apr-2013 12:07 PM	FD
	81137	NA	73-NLCT-DW-SD3	SE	073SD-0050-0001-SD	240-22648-13		1/1	28-Mar-2013 1:05 PM	09-Apr-2013 2:40 PM	11-Apr-2013 12:08 PM	N
	81137	NA	73-NLCT-DD-SD4	SE	073SD-0046-0001-SD	240-22648-14		1/1	28-Mar-2013 1:45 PM	09-Apr-2013 2:40 PM	11-Apr-2013 12:10 PM	N
	81137	NA	79-2ASA-DU1-SB	SO	079SB-0055M-0001-SO	240-22648-22		1/1	28-Mar-2013 3:22 PM	09-Apr-2013 2:40 PM	11-Apr-2013 12:12 PM	N

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Batch Report

Test Method: SW7471A; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
81523	81137	NA	79-2ASA-DU1-SB	SO	079SB-0057M-0001-SO	240-22648-23		1/1	28-Mar-2013 3:23 PM	09-Apr-2013 2:40 PM	11-Apr-2013 12:13 PM	FD
	81137	NA	79-2ASA-DU1-SB	SO	079SB-0058M-0001-SO	240-22648-24		1/1	28-Mar-2013 3:27 PM	09-Apr-2013 2:40 PM	11-Apr-2013 12:14 PM	N
	81137	NA	79-2ASA-DU1-SB	SO	079SB-0059M-0001-SO	240-22648-25		1/1	28-Mar-2013 3:28 PM	09-Apr-2013 2:40 PM	11-Apr-2013 12:16 PM	FD
	81137	NA	79-2ASA-DU1-SB1	SO	079SB-0060M-0001-SO	240-22648-26		1/1	28-Mar-2013 3:25 PM	09-Apr-2013 2:40 PM	11-Apr-2013 12:20 PM	N
	81137	NA	79-8841-DU1-SB3	SO	079SB-0062M-0001-SO	240-22648-28		1/1	28-Mar-2013 2:50 PM	09-Apr-2013 2:40 PM	11-Apr-2013 12:22 PM	N
	81137	NA	79-2ASA-DU1-SB4	SO	079SB-0063M-0001-SO	240-22648-29		1/1	28-Mar-2013 2:37 PM	09-Apr-2013 2:40 PM	11-Apr-2013 12:23 PM	N
	81137	NA	79-2ASA-DU1-SB5	SO	079SB-0064M-0001-SO	240-22648-30		1/1	28-Mar-2013 2:00 PM	09-Apr-2013 2:40 PM	11-Apr-2013 12:24 PM	N
	81137	NA	79-2ASA-DU1-SB5	SO	079SB-0075-0001-SO	240-22648-31		1/1	28-Mar-2013 2:21 PM	09-Apr-2013 2:40 PM	11-Apr-2013 12:26 PM	N
	81137	NA	79-2ASA-DU2-SB	SO	079SB-0065M-0001-SO	240-22648-32		1/1	28-Mar-2013 5:11 PM	09-Apr-2013 2:40 PM	11-Apr-2013 12:28 PM	N
	81137	NA	79-2ASA-DU2-SB	SO	079SB-0066M-0001-SO	240-22648-33		1/1	28-Mar-2013 5:10 PM	09-Apr-2013 2:40 PM	11-Apr-2013 12:29 PM	FD
	81137	NA	79-2ASA-DU2-SB	SO	079SB-0067M-0001-SO	240-22648-34		1/1	28-Mar-2013 5:12 PM	09-Apr-2013 2:40 PM	11-Apr-2013 12:31 PM	N
	81137	NA	79-2ASA-DU2-SB	SO	079SB-0068M-0001-SO	240-22648-35		1/1	28-Mar-2013 5:14 PM	09-Apr-2013 2:40 PM	11-Apr-2013 12:32 PM	FD
	81154	NA	LABQC	SQ	LABQC	MB 240-81154/1-A		1/1	09-Apr-2013 2:40 PM	09-Apr-2013 2:40 PM	11-Apr-2013 12:35 PM	LB
	81154	NA	LABQC	SQ	LABQC	LCS 240-81154/2-A		1/1	09-Apr-2013 2:40 PM	09-Apr-2013 2:40 PM	11-Apr-2013 12:40 PM	BS
	81154	NA	79-2ASA-DU2-SB2	SO	079SB-0070M-0001-SO	240-22648-37		1/1	28-Mar-2013 4:30 PM	09-Apr-2013 2:40 PM	11-Apr-2013 12:41 PM	N
	81154	NA	79-2ASA-DU2-SB2	SO	079SB-0070M-0002-SO-MS	240-22648-37		1/1	28-Mar-2013 4:30 PM	09-Apr-2013 2:40 PM	11-Apr-2013 12:44 PM	MS
	81154	NA	79-2ASA-DU2-SB4	SO	079SB-0072M-0001-SO	240-22648-39		1/1	28-Mar-2013 4:53 PM	09-Apr-2013 2:40 PM	11-Apr-2013 12:45 PM	N
	81154	NA	79-2ASA-DU2-SB4	SO	079SB-0072M-0002-SO-MS	240-22648-39		1/1	28-Mar-2013 4:53 PM	09-Apr-2013 2:40 PM	11-Apr-2013 12:48 PM	MS

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Batch Report

Test Method: SW7471A; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
81523	81154	NA	79-2ASA-DU2-SB1	SO	079SB-0069M-0001-SO	240-22648-36		1/1	28-Mar-2013 4:15 PM	09-Apr-2013 2:40 PM	11-Apr-2013 12:49 PM	N
	81154	NA	79-2ASA-DU2-SB3	SO	079SB-0071M-0001-SO	240-22648-38		1/1	28-Mar-2013 4:34 PM	09-Apr-2013 2:40 PM	11-Apr-2013 12:52 PM	N
	81154	NA	79-2ASA-DU2-SB5	SO	079SB-0074M-0001-SO	240-22648-40		1/1	28-Mar-2013 5:20 PM	09-Apr-2013 2:40 PM	11-Apr-2013 12:54 PM	N
	81154	NA	68-ESSW-DU2-SB	SO	068SB-0044M-0001-SO	240-22648-41		1/1	29-Mar-2013 10:21 AM	09-Apr-2013 2:40 PM	11-Apr-2013 12:59 PM	N
	81154	NA	68-ESSW-DU2-SB	SO	068SB-0045M-0001-SO	240-22648-42		1/1	29-Mar-2013 10:23 AM	09-Apr-2013 2:40 PM	11-Apr-2013 1:00 PM	N
	81154	NA	68-ESSW-DU2-SB1	SO	068SB-0046M-0001-SO	240-22648-43		1/1	29-Mar-2013 9:37 AM	09-Apr-2013 2:40 PM	11-Apr-2013 1:01 PM	N
	81154	NA	68-ESSW-DU2-SB2	SO	068SB-0047M-0001-SO	240-22648-44		1/1	29-Mar-2013 10:25 AM	09-Apr-2013 2:40 PM	11-Apr-2013 1:03 PM	N
	81154	NA	68-ESSW-DU2-SB4	SO	068SB-0048M-0001-SO	240-22648-45		1/1	29-Mar-2013 10:07 AM	09-Apr-2013 2:40 PM	11-Apr-2013 1:05 PM	N
	81154	NA	68-ESSE-DU1-SB	SO	068SB-0033M-0001-SO	240-22648-46		1/1	29-Mar-2013 9:15 AM	09-Apr-2013 2:40 PM	11-Apr-2013 1:07 PM	N
	81154	NA	68-ESSE-DU1-SB	SO	068SB-0034M-0001-SO	240-22648-47		1/1	29-Mar-2013 9:19 AM	09-Apr-2013 2:40 PM	11-Apr-2013 1:08 PM	N
	81154	NA	68-ESSE-DU1-SB1	SO	068SB-0035M-0001-SO	240-22648-48		1/1	29-Mar-2013 8:26 AM	09-Apr-2013 2:40 PM	11-Apr-2013 1:09 PM	N
	81154	NA	68-ESSE-DU1-SB2	SO	068SB-0038M-0001-SO	240-22648-49		1/1	29-Mar-2013 9:20 AM	09-Apr-2013 2:40 PM	11-Apr-2013 1:11 PM	N
	81154	NA	68-ESSE-DU1-SB1	SO	068SB-0036M-0001-SO	240-22648-50		1/1	29-Mar-2013 8:27 AM	09-Apr-2013 2:40 PM	11-Apr-2013 1:12 PM	FD
	81154	NA	68-ESSE-DU2-SB3	SO	068SB-0039M-0001-SO	240-22648-51		1/1	29-Mar-2013 8:52 AM	09-Apr-2013 2:40 PM	11-Apr-2013 1:17 PM	N
	81154	NA	68-ESSE-DU1-SB4	SO	068SB-0040M-0001-SO	240-22648-52		1/1	29-Mar-2013 8:59 AM	09-Apr-2013 2:40 PM	11-Apr-2013 1:18 PM	N
	81154	NA	68-ESSE-DU1-SB5	SO	068SB-0041M-0001-SO	240-22648-53		1/1	29-Mar-2013 9:12 AM	09-Apr-2013 2:40 PM	11-Apr-2013 1:20 PM	N
	81154	NA	68-ESSE-DU1-SB1	SO	068SB-0042M-0001-SO	240-22648-54		1/1	29-Mar-2013 8:33 AM	09-Apr-2013 2:40 PM	11-Apr-2013 1:21 PM	N
	81154	NA	68-SS3-DU1-SB	SO	068SB-0050M-0001-SO	240-22648-55		1/1	29-Mar-2013 11:57 AM	09-Apr-2013 2:40 PM	11-Apr-2013 1:22 PM	N

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Batch Report

Test Method: SW7471A; Leach Method: NONE												
Analytical Batch	**Prep Batch**	**Leach Batch**	**Location**	**Matrix**	**Field Sample ID**	**Lab Sample ID**	**Calibration Ref**	**Run#/ Dil'n**	**Collection Date/Time**	**Extract Date/Time**	**Analysis Date/Time**	**Sample Type**
81523	81357	NA	LABQC	SQ	LABQC	MB 240-81357/1-A		1/1	10-Apr-2013 2:15 PM	10-Apr-2013 2:15 PM	11-Apr-2013 11:05 AM	LB
	81357	NA	LABQC	SQ	LABQC	LCS 240-81357/2-A		1/1	10-Apr-2013 2:15 PM	10-Apr-2013 2:15 PM	11-Apr-2013 11:10 AM	BS
	81357	NA	68-SS3-DU1-SB	SO	068SB-0051M-0001-SO	240-22648-56		1/1	29-Mar-2013 11:58 AM	10-Apr-2013 2:15 PM	11-Apr-2013 11:28 AM	N
	81357	NA	68-SS3-DU1-SB1	SO	068SB-0052M-0001-SO	240-22648-57		1/1	29-Mar-2013 12:00 PM	10-Apr-2013 2:15 PM	11-Apr-2013 11:30 AM	N
	81357	NA	68-SS3-DU1-SB2	SO	068SB-0053M-0001-SO	240-22648-58		1/1	29-Mar-2013 11:18 AM	10-Apr-2013 2:15 PM	11-Apr-2013 11:32 AM	N
	81357	NA	68-SS3-DU1-SB2	SO	068SB-0054M-0001-SO	240-22648-59		1/1	29-Mar-2013 11:19 AM	10-Apr-2013 2:15 PM	11-Apr-2013 11:33 AM	FD
	81357	NA	68-SS3-DU1-SB3	SO	068SB-0056M-0001-SO	240-22648-60		1/1	29-Mar-2013 11:35 AM	10-Apr-2013 2:15 PM	11-Apr-2013 11:36 AM	N
	81357	NA	68-SS3-DU1-SB4	SO	068SB-0057M-0001-SO	240-22648-61		1/1	29-Mar-2013 11:26 AM	10-Apr-2013 2:15 PM	11-Apr-2013 11:37 AM	N
	81357	NA	68-SS3-DU1-SB5	SO	068SB-0059M-0001-SO	240-22648-62		1/1	29-Mar-2013 11:47 AM	10-Apr-2013 2:15 PM	11-Apr-2013 11:38 AM	N

Test Method: SW8081; Leach Method: NONE												
Analytical Batch	**Prep Batch**	**Leach Batch**	**Location**	**Matrix**	**Field Sample ID**	**Lab Sample ID**	**Calibration Ref**	**Run#/ Dil'n**	**Collection Date/Time**	**Extract Date/Time**	**Analysis Date/Time**	**Sample Type**
82389	80549	NA	73-NLCT-DW-SW3	WS	073SW-0061-0001-SW	240-22648-18		1/1	28-Mar-2013 1:00 PM	04-Apr-2013 9:39 AM	17-Apr-2013 6:37 PM	N
	80549	NA	LABQC	WQ	LABQC	MB 240-80549/3-A		1/1	04-Apr-2013 9:39 AM	04-Apr-2013 9:39 AM	17-Apr-2013 7:17 PM	LB
	80549	NA	LABQC	WQ	LABQC	LCS 240-80549/4-A		1/1	04-Apr-2013 9:39 AM	04-Apr-2013 9:39 AM	17-Apr-2013 7:37 PM	BS
82129	80978	NA	LABQC	SQ	LABQC	LCS 240-80978/18-A		1/1	08-Apr-2013 11:01 AM	08-Apr-2013 11:01 AM	16-Apr-2013 9:01 PM	BS
	80978	NA	73-NLCT-DW-SD3	SE	073SD-0050-0001-SD	240-22648-13		1/20	28-Mar-2013 1:05 PM	08-Apr-2013 11:01 AM	16-Apr-2013 11:22 PM	N
	80978	NA	79-2ASA-DU1-SB4	SO	079SB-0063M-0001-SO	240-22648-29		1/1	28-Mar-2013 2:37 PM	08-Apr-2013 11:01 AM	16-Apr-2013 11:42 PM	N
	80978	NA	LABQC	SQ	LABQC	MB 240-80978/17-A		1/1	08-Apr-2013 11:01 AM	08-Apr-2013 11:01 AM	17-Apr-2013 12:03 AM	LB

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Batch Report

Test Method: SW8081; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
82129	80978	NA	79-2ASA-DU1-SB5	SO	079SB-0064M-0001-SO	240-22648-30		1/1	28-Mar-2013 2:00 PM	08-Apr-2013 11:01 AM	17-Apr-2013 12:43 AM	N
	80978	NA	79-2ASA-DU2-SB3	SO	079SB-0071M-0001-SO	240-22648-38		1/1	28-Mar-2013 4:34 PM	08-Apr-2013 11:01 AM	17-Apr-2013 1:23 AM	N
	80978	NA	79-2ASA-DU2-SB5	SO	079SB-0074M-0001-SO	240-22648-40		1/1	28-Mar-2013 5:20 PM	08-Apr-2013 11:01 AM	17-Apr-2013 1:43 AM	N
	80978	NA	68-ESSW-DU2-SB1	SO	068SB-0046M-0001-SO	240-22648-43		1/1	29-Mar-2013 9:37 AM	08-Apr-2013 11:01 AM	17-Apr-2013 2:03 AM	N
	80978	NA	68-ESSE-DU1-SB5	SO	068SB-0041M-0001-SO	240-22648-53		1/1	29-Mar-2013 9:12 AM	08-Apr-2013 11:01 AM	17-Apr-2013 2:23 AM	N
	80978	NA	68-ESSE-DU1-SB5	SO	068SB-0041M-0001-SO	240-22648-53		1/1	29-Mar-2013 9:12 AM	08-Apr-2013 11:01 AM	17-Apr-2013 2:44 AM	MS
	80978	NA	68-ESSE-DU1-SB5	SO	068SB-0041M-0001-SO	240-22648-53		1/1	29-Mar-2013 9:12 AM	08-Apr-2013 11:01 AM	17-Apr-2013 3:04 AM	SD
82389	82127	NA	79-2ASA-DU2-SB1	SO	079SB-0069M-0001-SO	240-22648-36		1/1	28-Mar-2013 4:15 PM	16-Apr-2013 11:34 AM	17-Apr-2013 7:57 PM	N
	82127	NA	79-2ASA-DU2-SB1	SO	079SB-0069M-0002-SO	240-22648-36		1/1	28-Mar-2013 4:15 PM	16-Apr-2013 11:34 AM	17-Apr-2013 8:17 PM	MS
	82127	NA	79-2ASA-DU2-SB1	SO	079SB-0069M-0002-SO	240-22648-36		1/1	28-Mar-2013 4:15 PM	16-Apr-2013 11:34 AM	17-Apr-2013 8:38 PM	SD
	82127	NA	LABQC	SQ	LABQC	MB 240-82127/4-A		1/1	16-Apr-2013 11:34 AM	16-Apr-2013 11:34 AM	17-Apr-2013 8:58 PM	LB
	82127	NA	LABQC	SQ	LABQC	LCS 240-82127/5-A		1/1	16-Apr-2013 11:34 AM	16-Apr-2013 11:34 AM	17-Apr-2013 9:18 PM	BS

Test Method: SW8082; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
80924	80548	NA	73-NLCT-DW-SW3	WS	073SW-0061-0001-SW	240-22648-18		1/1	28-Mar-2013 1:00 PM	04-Apr-2013 9:38 AM	08-Apr-2013 2:40 PM	N
	80548	NA	LABQC	WQ	LABQC	MB 240-80548/3-A		1/1	04-Apr-2013 9:38 AM	04-Apr-2013 9:38 AM	08-Apr-2013 3:09 PM	LB
	80548	NA	LABQC	WQ	LABQC	LCS 240-80548/4-A		1/1	04-Apr-2013 9:38 AM	04-Apr-2013 9:38 AM	08-Apr-2013 3:23 PM	BS
81439	80983	NA	79-2ASA-DU1-SB4	SO	079SB-0063M-0001-SO	240-22648-29		1/1	28-Mar-2013 2:37 PM	08-Apr-2013 11:10 AM	11-Apr-2013 12:00 PM	N

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Batch Report

Test Method: SW8082; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
81439	80983	NA	79-2ASA-DU1-SB5	SO	079SB-0064M-0001-SO	240-22648-30		1/1	28-Mar-2013 2:00 PM	08-Apr-2013 11:10 AM	11-Apr-2013 12:14 PM	N
	80983	NA	LABQC	SQ	LABQC	MB 240-80983/17-A		1/1	08-Apr-2013 11:10 AM	08-Apr-2013 11:10 AM	11-Apr-2013 12:28 PM	LB
	80983	NA	79-2ASA-DU2-SB3	SO	079SB-0071M-0001-SO	240-22648-38		1/1	28-Mar-2013 4:34 PM	08-Apr-2013 11:10 AM	11-Apr-2013 1:13 PM	N
	80983	NA	79-2ASA-DU2-SB5	SO	079SB-0074M-0001-SO	240-22648-40		1/1	28-Mar-2013 5:20 PM	08-Apr-2013 11:10 AM	11-Apr-2013 1:27 PM	N
	80983	NA	68-ESSW-DU2-SB1	SO	068SB-0046M-0001-SO	240-22648-43		1/1	29-Mar-2013 9:37 AM	08-Apr-2013 11:10 AM	11-Apr-2013 1:42 PM	N
	80983	NA	68-ESSW-DU2-SB1	SO	068SB-0046M-0001-SO	240-22648-43		1/1	29-Mar-2013 9:37 AM	08-Apr-2013 11:10 AM	11-Apr-2013 1:56 PM	MS
	80983	NA	68-ESSW-DU2-SB1	SO	068SB-0046M-0001-SO	240-22648-43		1/1	29-Mar-2013 9:37 AM	08-Apr-2013 11:10 AM	11-Apr-2013 2:11 PM	SD
	80983	NA	68-ESSE-DU1-SB5	SO	068SB-0041M-0001-SO	240-22648-53		1/1	29-Mar-2013 9:12 AM	08-Apr-2013 11:10 AM	11-Apr-2013 2:26 PM	N
	80983	NA	LABQC	SQ	LABQC	LCS 240-80983/18-A		1/1	08-Apr-2013 11:10 AM	08-Apr-2013 11:10 AM	11-Apr-2013 2:40 PM	BS
81867	81544	NA	68-ESSW-DU2-SB	SO	068SB-0044M-0001-SO	240-22648-41		1/1	29-Mar-2013 10:21 AM	11-Apr-2013 11:52 AM	15-Apr-2013 11:57 AM	N
	81544	NA	68-ESSW-DU2-SB	SO	068SB-0045M-0001-SO	240-22648-42		1/1	29-Mar-2013 10:23 AM	11-Apr-2013 11:52 AM	15-Apr-2013 12:11 PM	N
	81544	NA	68-ESSW-DU2-SB2	SO	068SB-0047M-0001-SO	240-22648-44		1/1	29-Mar-2013 10:25 AM	11-Apr-2013 11:52 AM	15-Apr-2013 12:25 PM	N
	81544	NA	68-ESSW-DU2-SB4	SO	068SB-0048M-0001-SO	240-22648-45		1/1	29-Mar-2013 10:07 AM	11-Apr-2013 11:52 AM	15-Apr-2013 12:40 PM	N
	81544	NA	68-ESSE-DU1-SB	SO	068SB-0033M-0001-SO	240-22648-46		1/1	29-Mar-2013 9:15 AM	11-Apr-2013 11:52 AM	15-Apr-2013 12:55 PM	N
	81544	NA	68-ESSE-DU1-SB	SO	068SB-0034M-0001-SO	240-22648-47		1/1	29-Mar-2013 9:19 AM	11-Apr-2013 11:52 AM	15-Apr-2013 1:09 PM	N
	81544	NA	68-ESSE-DU1-SB1	SO	068SB-0035M-0001-SO	240-22648-48		1/1	29-Mar-2013 8:26 AM	11-Apr-2013 11:52 AM	15-Apr-2013 1:24 PM	N
	81544	NA	68-ESSE-DU1-SB2	SO	068SB-0038M-0001-SO	240-22648-49		1/1	29-Mar-2013 9:20 AM	11-Apr-2013 11:52 AM	15-Apr-2013 1:38 PM	N
	81544	NA	68-ESSE-DU1-SB1	SO	068SB-0036M-0001-SO	240-22648-50		1/1	29-Mar-2013 8:27 AM	11-Apr-2013 11:52 AM	15-Apr-2013 1:52 PM	FD

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Batch Report

Test Method: SW8082; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
81867	81544	NA	LABQC	SQ	LABQC	MB 240-81544/23-A		1/1	11-Apr-2013 11:52 AM	11-Apr-2013 11:52 AM	15-Apr-2013 2:07 PM	LB
	81544	NA	68-ESSE-DU2-SB3	SO	068SB-0039M-0001-SO	240-22648-51		1/1	29-Mar-2013 8:52 AM	11-Apr-2013 11:52 AM	15-Apr-2013 2:36 PM	N
	81544	NA	68-ESSE-DU1-SB4	SO	068SB-0040M-0001-SO	240-22648-52		1/1	29-Mar-2013 8:59 AM	11-Apr-2013 11:52 AM	15-Apr-2013 2:51 PM	N
	81544	NA	68-ESSE-DU1-SB1	SO	068SB-0042M-0001-SO	240-22648-54		1/1	29-Mar-2013 8:33 AM	11-Apr-2013 11:52 AM	15-Apr-2013 3:06 PM	N
	81544	NA	68-SS3-DU1-SB	SO	068SB-0050M-0001-SO	240-22648-55		1/1	29-Mar-2013 11:57 AM	11-Apr-2013 11:52 AM	15-Apr-2013 3:20 PM	N
	81544	NA	68-SS3-DU1-SB	SO	068SB-0051M-0001-SO	240-22648-56		1/1	29-Mar-2013 11:58 AM	11-Apr-2013 11:52 AM	15-Apr-2013 3:35 PM	N
	81544	NA	68-SS3-DU1-SB1	SO	068SB-0052M-0001-SO	240-22648-57		1/1	29-Mar-2013 12:00 PM	11-Apr-2013 11:52 AM	15-Apr-2013 3:49 PM	N
	81544	NA	68-SS3-DU1-SB2	SO	068SB-0053M-0001-SO	240-22648-58		1/1	29-Mar-2013 11:18 AM	11-Apr-2013 11:52 AM	15-Apr-2013 4:03 PM	N
	81544	NA	68-SS3-DU1-SB2	SO	068SB-0054M-0001-SO	240-22648-59		1/1	29-Mar-2013 11:19 AM	11-Apr-2013 11:52 AM	15-Apr-2013 4:18 PM	FD
	81544	NA	68-SS3-DU1-SB3	SO	068SB-0056M-0001-SO	240-22648-60		1/1	29-Mar-2013 11:35 AM	11-Apr-2013 11:52 AM	15-Apr-2013 4:32 PM	N
	81544	NA	LABQC	SQ	LABQC	LCS 240-81544/24-A		1/1	11-Apr-2013 11:52 AM	11-Apr-2013 11:52 AM	15-Apr-2013 4:47 PM	BS
	81544	NA	68-SS3-DU1-SB4	SO	068SB-0057M-0001-SO	240-22648-61		1/1	29-Mar-2013 11:26 AM	11-Apr-2013 11:52 AM	15-Apr-2013 5:16 PM	N
	81544	NA	68-SS3-DU1-SB5	SO	068SB-0059M-0001-SO	240-22648-62		1/1	29-Mar-2013 11:47 AM	11-Apr-2013 11:52 AM	15-Apr-2013 5:31 PM	N
	81544	NA	68-SS3-DU1-SB5	SO	068SB-0059M-0001-SO	240-22648-62		1/1	29-Mar-2013 11:47 AM	11-Apr-2013 11:52 AM	15-Apr-2013 5:45 PM	MS
	81544	NA	68-SS3-DU1-SB5	SO	068SB-0059M-0001-SO	240-22648-62		1/1	29-Mar-2013 11:47 AM	11-Apr-2013 11:52 AM	15-Apr-2013 6:00 PM	SD
82562	82117	NA	73-NLCT-DW-SD3	SE	073SD-0050-0001-SD	240-22648-13		1/1	28-Mar-2013 1:05 PM	16-Apr-2013 10:59 AM	18-Apr-2013 5:18 PM	N
	82117	NA	79-2ASA-DU2-SB1	SO	079SB-0069M-0001-SO	240-22648-36		1/1	28-Mar-2013 4:15 PM	16-Apr-2013 10:59 AM	18-Apr-2013 5:49 PM	N
	82117	NA	79-2ASA-DU2-SB1	SO	079SB-0069M-0002-SO	240-22648-36		1/1	28-Mar-2013 4:15 PM	16-Apr-2013 10:59 AM	18-Apr-2013 6:04 PM	MS

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Batch Report

Test Method: SW8082; Leach Method: NONE												
Analytical Batch	**Prep Batch**	**Leach Batch**	**Location**	**Matrix**	**Field Sample ID**	**Lab Sample ID**	**Calibration Ref**	**Run#/ Dil'n**	**Collection Date/Time**	**Extract Date/Time**	**Analysis Date/Time**	**Sample Type**
82562	82117	NA	79-2ASA-DU2-SB1	SO	079SB-0069M-0002-SO	240-22648-36		1/1	28-Mar-2013 4:15 PM	16-Apr-2013 10:59 AM	18-Apr-2013 6:20 PM	SD
	82117	NA	LABQC	SQ	LABQC	MB 240-82117/17-A		1/1	16-Apr-2013 10:59 AM	16-Apr-2013 10:59 AM	18-Apr-2013 6:36 PM	LB
	82117	NA	LABQC	SQ	LABQC	LCS 240-82117/18-A		1/1	16-Apr-2013 10:59 AM	16-Apr-2013 10:59 AM	18-Apr-2013 6:51 PM	BS
Test Method: SW8260B; Leach Method: NONE												
Analytical Batch	**Prep Batch**	**Leach Batch**	**Location**	**Matrix**	**Field Sample ID**	**Lab Sample ID**	**Calibration Ref**	**Run#/ Dil'n**	**Collection Date/Time**	**Extract Date/Time**	**Analysis Date/Time**	**Sample Type**
80741	NA	NA	LABQC	SQ	LABQC	LCS 240-80741/6		1/1	05-Apr-2013 12:04 PM		05-Apr-2013 12:04 PM	BS
	NA	NA	LABQC	SQ	LABQC	MB 240-80741/30		1/1	05-Apr-2013 1:05 PM		05-Apr-2013 1:05 PM	LB
80954	NA	NA	LABQC	SQ	LABQC	LCS 240-80954/6		1/1	08-Apr-2013 12:22 PM		08-Apr-2013 12:22 PM	BS
	NA	NA	LABQC	SQ	LABQC	MB 240-80954/7		1/1	08-Apr-2013 12:43 PM		08-Apr-2013 12:43 PM	LB
80741	80275	NA	73-NLCT-DW-SD3	SE	073SD-0050-0001-SD	240-22648-13		1/1	28-Mar-2013 1:05 PM	29-Mar-2013 7:34 PM	05-Apr-2013 5:38 PM	N
	80275	NA	79-2ASA-DU1-SB4	SO	079SB-0063M-0001-SO	240-22648-29		1/1	28-Mar-2013 2:37 PM	29-Mar-2013 7:34 PM	05-Apr-2013 5:59 PM	N
	80275	NA	79-2ASA-DU1-SB5	SO	079SB-0064M-0001-SO	240-22648-30		1/1	28-Mar-2013 2:00 PM	29-Mar-2013 7:34 PM	05-Apr-2013 6:21 PM	N
	80275	NA	79-2ASA-DU2-SB5	SO	079SB-0074M-0001-SO	240-22648-40		1/1	28-Mar-2013 5:20 PM	29-Mar-2013 7:34 PM	05-Apr-2013 7:25 PM	N
	80275	NA	68-ESSE-DU1-SB5	SO	068SB-0041M-0001-SO	240-22648-53		1/1	29-Mar-2013 9:12 AM	29-Mar-2013 7:34 PM	05-Apr-2013 8:08 PM	N
	80275	NA	68-SS3-DU1-SB4	SO	068SB-0057M-0001-SO	240-22660-30		1/1	29-Mar-2013 11:26 AM	29-Mar-2013 7:34 PM	05-Apr-2013 8:29 PM	N
80954	80275	NA	79-2ASA-DU2-SB1	SO	079SB-0069M-0001-SO	240-22648-36		1/1	28-Mar-2013 4:15 PM	29-Mar-2013 7:34 PM	08-Apr-2013 2:33 PM	N
	80275	NA	79-2ASA-DU2-SB3	SO	079SB-0071M-0001-SO	240-22648-38		1/1	28-Mar-2013 4:34 PM	29-Mar-2013 7:34 PM	08-Apr-2013 2:54 PM	N
	80275	NA	68-ESSW-DU2-SB1	SO	068SB-0046M-0001-SO	240-22648-43		1/1	29-Mar-2013 9:37 AM	29-Mar-2013 7:34 PM	08-Apr-2013 3:37 PM	N

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Batch Report

Test Method: SW8260B; Leach Method: NONE												
Analytical Batch	**Prep Batch**	**Leach Batch**	**Location**	**Matrix**	**Field Sample ID**	**Lab Sample ID**	**Calibration Ref**	**Run#/ Dil'n**	**Collection Date/Time**	**Extract Date/Time**	**Analysis Date/Time**	**Sample Type**
81013	81013	NA	LABQC	WQ	LABQC	LCS 240-81013/4		1/1	08-Apr-2013 12:50 PM	08-Apr-2013 12:50 PM	08-Apr-2013 12:50 PM	BS
	81013	NA	LABQC	WQ	LABQC	MB 240-81013/6		1/1	08-Apr-2013 1:34 PM	08-Apr-2013 1:34 PM	08-Apr-2013 1:34 PM	LB
	81013	NA	73-NLCT-DW-SW3	WS	073SW-0061-0001-SW	240-22648-18		1/1	28-Mar-2013 1:00 PM	08-Apr-2013 2:17 PM	08-Apr-2013 2:17 PM	N
	81013	NA	73-NLCT-DW-SW3	WG	073SW-0057-0001-TB	240-22648-20		1/1	29-Mar-2013 8:00 AM	08-Apr-2013 3:44 PM	08-Apr-2013 3:44 PM	N
	81013	NA	73-NLCT-DW-SW3	WS	073SW-0061-0002-SW	240-22648-18		1/1	28-Mar-2013 1:00 PM	08-Apr-2013 6:14 PM	08-Apr-2013 6:14 PM	MS
	81013	NA	73-NLCT-DW-SW3	WS	073SW-0061-0002-SW	240-22648-18		1/1	28-Mar-2013 1:00 PM	08-Apr-2013 6:36 PM	08-Apr-2013 6:36 PM	SD
Test Method: SW8270C; Leach Method: NONE												
Analytical Batch	**Prep Batch**	**Leach Batch**	**Location**	**Matrix**	**Field Sample ID**	**Lab Sample ID**	**Calibration Ref**	**Run#/ Dil'n**	**Collection Date/Time**	**Extract Date/Time**	**Analysis Date/Time**	**Sample Type**
81555	80545	NA	LABQC	WQ	LABQC	MB 240-80545/22-A		1/1	04-Apr-2013 9:26 AM	04-Apr-2013 9:26 AM	11-Apr-2013 2:38 PM	LB
	80545	NA	LABQC	WQ	LABQC	LCS 240-80545/21-A		1/1	04-Apr-2013 9:26 AM	04-Apr-2013 9:26 AM	11-Apr-2013 2:58 PM	BS
	80545	NA	73-NLCT-UP-SW1	WS	073SW-0056-0001-SW	240-22648-15		1/1	28-Mar-2013 1:55 PM	04-Apr-2013 9:26 AM	11-Apr-2013 5:38 PM	N
	80545	NA	73-NLCT-UP-SW1	WS	073SW-0056-0002-SW	240-22648-15		1/1	28-Mar-2013 1:55 PM	04-Apr-2013 9:26 AM	11-Apr-2013 5:57 PM	MS
	80545	NA	73-NLCT-UP-SW1	WS	073SW-0056-0002-SW	240-22648-15		1/1	28-Mar-2013 1:55 PM	04-Apr-2013 9:26 AM	11-Apr-2013 6:17 PM	SD
	80547	NA	LABQC	WQ	LABQC	MB 240-80547/10-A		1/1	04-Apr-2013 9:34 AM	04-Apr-2013 9:34 AM	11-Apr-2013 3:18 PM	LB
	80547	NA	LABQC	WQ	LABQC	LCS 240-80547/11-A		1/1	04-Apr-2013 9:34 AM	04-Apr-2013 9:34 AM	11-Apr-2013 3:38 PM	BS
	80547	NA	73-NLCT-MD-SW2	WS	073SW-0058-0001-SW	240-22648-16		1/1	28-Mar-2013 1:30 PM	04-Apr-2013 9:34 AM	11-Apr-2013 6:37 PM	N
	80547	NA	73-NLCT-MD-SW2	WS	073SW-0059-0001-SW	240-22648-17		1/1	28-Mar-2013 1:31 PM	04-Apr-2013 9:34 AM	11-Apr-2013 6:57 PM	FD
	80547	NA	73-NLCT-DW-SW3	WS	073SW-0061-0001-SW	240-22648-18		1/1	28-Mar-2013 1:00 PM	04-Apr-2013 9:34 AM	11-Apr-2013 7:17 PM	N

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Batch Report

Test Method: SW8270C; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
81555	80547	NA	73-NLCT-DW-SW3	WS	073SW-0067-0001-SW	240-22648-21		1/1	28-Mar-2013 1:50 PM	04-Apr-2013 9:34 AM	11-Apr-2013 7:37 PM	N
82073	81290	NA	LABQC	SQ	LABQC	MB 240-81290/19-A		1/1	10-Apr-2013 9:37 AM	10-Apr-2013 9:37 AM	16-Apr-2013 10:05 AM	LB
	81290	NA	LABQC	SQ	LABQC	LCS 240-81290/20-A		1/1	10-Apr-2013 9:37 AM	10-Apr-2013 9:37 AM	16-Apr-2013 10:28 AM	BS
	81290	NA	73-NLCT-UP-SD1	SE	073SD-0045-0001-SD	240-22648-10		1/1	28-Mar-2013 2:00 PM	10-Apr-2013 9:37 AM	16-Apr-2013 10:52 AM	N
	81290	NA	73-NLCT-UP-SD1	SE	073SD-0045-0002-SD	240-22648-10		1/1	28-Mar-2013 2:00 PM	10-Apr-2013 9:37 AM	16-Apr-2013 11:16 AM	MS
	81290	NA	73-NLCT-UP-SD1	SE	073SD-0045-0002-SD	240-22648-10		1/1	28-Mar-2013 2:00 PM	10-Apr-2013 9:37 AM	16-Apr-2013 11:40 AM	SD
	81290	NA	73-SCCT-DU1-SB1	SO	073SB-0020M-0001-SO	240-22648-4		1/1	28-Mar-2013 9:52 AM	10-Apr-2013 9:37 AM	16-Apr-2013 12:03 PM	N
	81290	NA	73-NLCT-MD-SD2	SE	073SD-0048-0001-SD	240-22648-12		1/1	28-Mar-2013 1:25 PM	10-Apr-2013 9:37 AM	16-Apr-2013 12:27 PM	FD
	81290	NA	73-NLCT-DW-SD3	SE	073SD-0050-0001-SD	240-22648-13		1/1	28-Mar-2013 1:05 PM	10-Apr-2013 9:37 AM	16-Apr-2013 12:51 PM	N
	81290	NA	73-SCCT-DU1-SB	SO	073SB-0016M-0001-SO	240-22648-1		1/1	28-Mar-2013 11:08 AM	10-Apr-2013 9:37 AM	16-Apr-2013 1:15 PM	N
	81290	NA	73-SCCT-DU1-SB	SO	073SB-0017M-0001-SO	240-22648-2		1/1	28-Mar-2013 11:09 AM	10-Apr-2013 9:37 AM	16-Apr-2013 1:39 PM	FD
	81290	NA	73-SCCT-DU1-SB	SO	073SB-0019M-0001-SO	240-22648-3		1/1	28-Mar-2013 11:10 AM	10-Apr-2013 9:37 AM	16-Apr-2013 4:02 PM	N
	81290	NA	73-SCCT-DU1-SB3	SO	073SB-0022M-0001-SO	240-22648-6		1/1	28-Mar-2013 10:54 AM	10-Apr-2013 9:37 AM	16-Apr-2013 4:26 PM	N
	81290	NA	73-SCCT-DU1-SB2	SO	073SB-0021M-0001-SO	240-22648-5		1/1	28-Mar-2013 10:03 AM	10-Apr-2013 9:37 AM	16-Apr-2013 4:50 PM	N
	81290	NA	73-NLCT-MD-SD2	SE	073SD-0047-0001-SD	240-22648-11		1/1	28-Mar-2013 1:25 PM	10-Apr-2013 9:37 AM	16-Apr-2013 5:14 PM	N
	81290	NA	73-SCCT-DU1-SB5	SO	073SB-0067M-0001-SO	240-22648-9		1/1	28-Mar-2013 11:34 AM	10-Apr-2013 9:37 AM	16-Apr-2013 5:37 PM	N
82293	81290	NA	73-SCCT-DU1-SB4	SO	073SB-0023M-0001-SO	240-22648-7		1/1	28-Mar-2013 11:12 AM	10-Apr-2013 9:37 AM	17-Apr-2013 3:09 PM	N
	81290	NA	73-SCCT-DU1-SB5	SO	073SB-0024M-0001-SO	240-22648-8		1/1	28-Mar-2013 10:07 AM	10-Apr-2013 9:37 AM	17-Apr-2013 3:32 PM	N

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Batch Report

Test Method: SW8270C; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
82487	81308	NA	LABQC	SQ	LABQC	LCS 240-81308/22-A		1/1	10-Apr-2013 10:24 AM	10-Apr-2013 10:24 AM	18-Apr-2013 3:05 PM	BS
	81308	NA	68-SS3-DU1-SB4	SO	068SB-0057M-0001-SO	240-22648-61		1/1	29-Mar-2013 11:26 AM	10-Apr-2013 10:24 AM	18-Apr-2013 3:29 PM	N
	81308	NA	68-SS3-DU1-SB4	SO	068SB-0057M-0001-SO	240-22648-61		1/1	29-Mar-2013 11:26 AM	10-Apr-2013 10:24 AM	18-Apr-2013 3:53 PM	MS
	81308	NA	68-SS3-DU1-SB4	SO	068SB-0057M-0001-SO	240-22648-61		1/1	29-Mar-2013 11:26 AM	10-Apr-2013 10:24 AM	18-Apr-2013 4:17 PM	SD
	81308	NA	LABQC	SQ	LABQC	MB 240-81308/21-A		1/1	10-Apr-2013 10:24 AM	10-Apr-2013 10:24 AM	18-Apr-2013 4:41 PM	LB
	81308	NA	68-ESSW-DU2-SB2	SO	068SB-0047M-0001-SO	240-22648-44		1/1	29-Mar-2013 10:25 AM	10-Apr-2013 10:24 AM	18-Apr-2013 5:05 PM	N
	81308	NA	68-ESSE-DU1-SB	SO	068SB-0033M-0001-SO	240-22648-46		1/1	29-Mar-2013 9:15 AM	10-Apr-2013 10:24 AM	18-Apr-2013 5:29 PM	N
	81308	NA	68-ESSE-DU1-SB	SO	068SB-0034M-0001-SO	240-22648-47		1/1	29-Mar-2013 9:19 AM	10-Apr-2013 10:24 AM	18-Apr-2013 5:53 PM	N
	81308	NA	68-ESSE-DU1-SB1	SO	068SB-0035M-0001-SO	240-22648-48		1/1	29-Mar-2013 8:26 AM	10-Apr-2013 10:24 AM	18-Apr-2013 6:17 PM	N
	81308	NA	68-ESSE-DU1-SB2	SO	068SB-0038M-0001-SO	240-22648-49		1/1	29-Mar-2013 9:20 AM	10-Apr-2013 10:24 AM	18-Apr-2013 6:40 PM	N
	81308	NA	68-ESSE-DU1-SB1	SO	068SB-0036M-0001-SO	240-22648-50		1/1	29-Mar-2013 8:27 AM	10-Apr-2013 10:24 AM	18-Apr-2013 7:04 PM	FD
	81308	NA	68-ESSE-DU2-SB3	SO	068SB-0039M-0001-SO	240-22648-51		1/1	29-Mar-2013 8:52 AM	10-Apr-2013 10:24 AM	18-Apr-2013 7:28 PM	N
	81308	NA	68-ESSE-DU1-SB4	SO	068SB-0040M-0001-SO	240-22648-52		1/1	29-Mar-2013 8:59 AM	10-Apr-2013 10:24 AM	18-Apr-2013 7:52 PM	N
	81308	NA	68-ESSE-DU1-SB5	SO	068SB-0041M-0001-SO	240-22648-53		1/1	29-Mar-2013 9:12 AM	10-Apr-2013 10:24 AM	18-Apr-2013 8:16 PM	N
	81308	NA	68-ESSE-DU1-SB1	SO	068SB-0042M-0001-SO	240-22648-54		1/1	29-Mar-2013 8:33 AM	10-Apr-2013 10:24 AM	18-Apr-2013 8:40 PM	N
	81308	NA	68-SS3-DU1-SB	SO	068SB-0050M-0001-SO	240-22648-55		1/1	29-Mar-2013 11:57 AM	10-Apr-2013 10:24 AM	18-Apr-2013 9:04 PM	N
	81308	NA	68-SS3-DU1-SB	SO	068SB-0051M-0001-SO	240-22648-56		1/1	29-Mar-2013 11:58 AM	10-Apr-2013 10:24 AM	18-Apr-2013 9:28 PM	N
	81308	NA	68-SS3-DU1-SB1	SO	068SB-0052M-0001-SO	240-22648-57		1/1	29-Mar-2013 12:00 PM	10-Apr-2013 10:24 AM	18-Apr-2013 9:51 PM	N

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Batch Report

Test Method: SW8270C; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
82487	81308	NA	68-SS3-DU1-SB2	SO	068SB-0053M-0001-SO	240-22648-58		1/1	29-Mar-2013 11:18 AM	10-Apr-2013 10:24 AM	18-Apr-2013 10:15 PM	N
	81308	NA	68-SS3-DU1-SB2	SO	068SB-0054M-0001-SO	240-22648-59		1/1	29-Mar-2013 11:19 AM	10-Apr-2013 10:24 AM	18-Apr-2013 10:39 PM	FD
	81308	NA	68-SS3-DU1-SB3	SO	068SB-0056M-0001-SO	240-22648-60		1/1	29-Mar-2013 11:35 AM	10-Apr-2013 10:24 AM	18-Apr-2013 11:03 PM	N
	81308	NA	68-SS3-DU1-SB5	SO	068SB-0059M-0001-SO	240-22648-62		1/1	29-Mar-2013 11:47 AM	10-Apr-2013 10:24 AM	18-Apr-2013 11:27 PM	N
82293	81333	NA	LABQC	SQ	LABQC	MB 240-81333/23-A		1/1	10-Apr-2013 11:28 AM	10-Apr-2013 11:28 AM	17-Apr-2013 1:34 PM	LB
	81333	NA	LABQC	SQ	LABQC	LCS 240-81333/24-A		1/1	10-Apr-2013 11:28 AM	10-Apr-2013 11:28 AM	17-Apr-2013 1:58 PM	BS
	81333	NA	73-NLCT-DD-SD4	SE	073SD-0046-0001-SD	240-22648-14		1/1	28-Mar-2013 1:45 PM	10-Apr-2013 11:28 AM	17-Apr-2013 3:56 PM	N
	81333	NA	79-2ASA-DU1-SB4	SO	079SB-0063M-0001-SO	240-22648-29		1/1	28-Mar-2013 2:37 PM	10-Apr-2013 11:28 AM	17-Apr-2013 4:20 PM	N
	81333	NA	79-2ASA-DU1-SB5	SO	079SB-0064M-0001-SO	240-22648-30		1/1	28-Mar-2013 2:00 PM	10-Apr-2013 11:28 AM	17-Apr-2013 4:44 PM	N
	81333	NA	79-2ASA-DU2-SB1	SO	079SB-0069M-0001-SO	240-22648-36		1/1	28-Mar-2013 4:15 PM	10-Apr-2013 11:28 AM	17-Apr-2013 5:07 PM	N
	81333	NA	79-2ASA-DU2-SB3	SO	079SB-0071M-0001-SO	240-22648-38		1/1	28-Mar-2013 4:34 PM	10-Apr-2013 11:28 AM	17-Apr-2013 5:31 PM	N
	81333	NA	79-2ASA-DU2-SB5	SO	079SB-0074M-0001-SO	240-22648-40		1/1	28-Mar-2013 5:20 PM	10-Apr-2013 11:28 AM	17-Apr-2013 5:55 PM	N
	81333	NA	68-ESSW-DU2-SB	SO	068SB-0044M-0001-SO	240-22648-41		1/1	29-Mar-2013 10:21 AM	10-Apr-2013 11:28 AM	17-Apr-2013 6:18 PM	N
	81333	NA	68-ESSW-DU2-SB	SO	068SB-0045M-0001-SO	240-22648-42		1/1	29-Mar-2013 10:23 AM	10-Apr-2013 11:28 AM	17-Apr-2013 6:42 PM	N
	81333	NA	68-ESSW-DU2-SB1	SO	068SB-0046M-0001-SO	240-22648-43		1/1	29-Mar-2013 9:37 AM	10-Apr-2013 11:28 AM	17-Apr-2013 7:06 PM	N
	81541	NA	LABQC	SQ	LABQC	MB 240-81541/20-A		1/1	11-Apr-2013 11:48 AM	11-Apr-2013 11:48 AM	17-Apr-2013 12:47 PM	LB
	81541	NA	LABQC	SQ	LABQC	LCS 240-81541/19-A		1/1	11-Apr-2013 11:48 AM	11-Apr-2013 11:48 AM	17-Apr-2013 1:10 PM	BS
	81541	NA	68-ESSW-DU2-SB4	SO	068SB-0048M-0001-SO	240-22648-45		1/1	29-Mar-2013 10:07 AM	11-Apr-2013 11:48 AM	17-Apr-2013 2:45 PM	N

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Batch Report

Test Method: SW8330B; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
14412	13604	NA	LABQC	WQ	LABQC	MB 320-13604/1-A		1/1	04-Apr-2013 7:31 AM	04-Apr-2013 7:31 AM	19-Apr-2013 10:12 PM	LB
	13604	NA	LABQC	WQ	LABQC	LCS 320-13604/2-A		1/1	04-Apr-2013 7:31 AM	04-Apr-2013 7:31 AM	19-Apr-2013 11:09 PM	BS
	13604	NA	73-NLCT-DW-SW3	WS	073SW-0061-0001-SW	240-22648-18		2/1	28-Mar-2013 1:00 PM	04-Apr-2013 7:31 AM	20-Apr-2013 12:06 AM	N
13918	13805	NA	LABQC	WQ	LABQC	MB 320-13805/1-A		1/1	08-Apr-2013 10:17 AM	08-Apr-2013 10:17 AM	10-Apr-2013 3:51 AM	LB
	13805	NA	LABQC	WQ	LABQC	LCS 320-13805/2-A		1/1	08-Apr-2013 10:17 AM	08-Apr-2013 10:17 AM	10-Apr-2013 4:08 AM	BS
	13805	NA	73-NLCT-DW-SW3	WS	073SW-0061-0001-SW	240-22648-18		1/1	28-Mar-2013 1:00 PM	08-Apr-2013 10:17 AM	10-Apr-2013 4:26 AM	N
14706	14065	NA	LABQC	SQ	LABQC	MB 320-14065/1-A		1/1	11-Apr-2013 8:24 AM	11-Apr-2013 8:24 AM	19-Apr-2013 6:45 PM	LB
	14065	NA	LABQC	SQ	LABQC	LCS 320-14065/2-A		1/1	11-Apr-2013 8:24 AM	11-Apr-2013 8:24 AM	19-Apr-2013 7:29 PM	BS
	14065	NA	73-NLCT-DW-SD3	SE	073SD-0050-0001-SD	240-22648-13		3/1	28-Mar-2013 1:05 PM	11-Apr-2013 8:24 AM	19-Apr-2013 8:12 PM	N
	14065	NA	79-2ASA-DU1-SB4	SO	079SB-0063M-0001-SO	240-22648-29		2/1	28-Mar-2013 2:37 PM	11-Apr-2013 8:24 AM	19-Apr-2013 8:56 PM	N
	14065	NA	79-2ASA-DU1-SB5	SO	079SB-0064M-0001-SO	240-22648-30		2/1	28-Mar-2013 2:00 PM	11-Apr-2013 8:24 AM	19-Apr-2013 9:40 PM	N
	14065	NA	79-2ASA-DU2-SB1	SO	079SB-0069M-0001-SO	240-22648-36		2/1	28-Mar-2013 4:15 PM	11-Apr-2013 8:24 AM	19-Apr-2013 10:23 PM	N
	14065	NA	79-2ASA-DU2-SB3	SO	079SB-0071M-0001-SO	240-22648-38		2/1	28-Mar-2013 4:34 PM	11-Apr-2013 8:24 AM	19-Apr-2013 11:07 PM	N
	14065	NA	79-2ASA-DU2-SB5	SO	079SB-0074M-0001-SO	240-22648-40		2/1	28-Mar-2013 5:20 PM	11-Apr-2013 8:24 AM	19-Apr-2013 11:51 PM	N
	14065	NA	68-ESSW-DU2-SB1	SO	068SB-0046M-0001-SO	240-22648-43		2/1	29-Mar-2013 9:37 AM	11-Apr-2013 8:24 AM	20-Apr-2013 12:34 AM	N
	14065	NA	68-ESSE-DU1-SB5	SO	068SB-0041M-0001-SO	240-22648-53		2/1	29-Mar-2013 9:12 AM	11-Apr-2013 8:24 AM	20-Apr-2013 1:18 AM	N
14998	14065	NA	LABQC	SQ	LABQC	MB 320-14065/1-A		2/1	11-Apr-2013 8:24 AM	11-Apr-2013 8:24 AM	25-Apr-2013 8:07 AM	LB
	14065	NA	73-NLCT-DW-SD3	SE	073SD-0050-0001-SD	240-22648-13		4/1	28-Mar-2013 1:05 PM	11-Apr-2013 8:24 AM	25-Apr-2013 9:13 AM	N

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Batch Report

Test Method: SW8330B; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
14998	14065	NA	79-2ASA-DU1-SB5	SO	079SB-0064M-0001-SO	240-22648-30		3/1	28-Mar-2013 2:00 PM	11-Apr-2013 8:24 AM	25-Apr-2013 11:25 AM	N
	14065	NA	68-ESSE-DU1-SB5	SO	068SB-0041M-0001-SO	240-22648-53		3/1	29-Mar-2013 9:12 AM	11-Apr-2013 8:24 AM	25-Apr-2013 12:32 PM	N
14432	14079	NA	LABQC	SQ	LABQC	MB 320-14079/1-A		1/1	11-Apr-2013 10:07 AM	11-Apr-2013 10:07 AM	16-Apr-2013 5:06 PM	LB
	14079	NA	LABQC	SQ	LABQC	LCS 320-14079/2-A		1/1	11-Apr-2013 10:07 AM	11-Apr-2013 10:07 AM	16-Apr-2013 5:24 PM	BS
	14079	NA	79-2ASA-DU1-SB4	SO	079SB-0063M-0001-SO	240-22648-29		1/1	28-Mar-2013 2:37 PM	11-Apr-2013 10:07 AM	16-Apr-2013 6:00 PM	N
	14079	NA	79-2ASA-DU1-SB5	SO	079SB-0064M-0001-SO	240-22648-30		1/1	28-Mar-2013 2:00 PM	11-Apr-2013 10:07 AM	16-Apr-2013 6:17 PM	N
	14079	NA	79-2ASA-DU2-SB1	SO	079SB-0069M-0001-SO	240-22648-36		1/1	28-Mar-2013 4:15 PM	11-Apr-2013 10:07 AM	16-Apr-2013 6:35 PM	N
	14079	NA	79-2ASA-DU2-SB3	SO	079SB-0071M-0001-SO	240-22648-38		1/1	28-Mar-2013 4:34 PM	11-Apr-2013 10:07 AM	16-Apr-2013 6:53 PM	N
	14079	NA	79-2ASA-DU2-SB5	SO	079SB-0074M-0001-SO	240-22648-40		1/1	28-Mar-2013 5:20 PM	11-Apr-2013 10:07 AM	16-Apr-2013 7:11 PM	N
	14079	NA	68-ESSW-DU2-SB1	SO	068SB-0046M-0001-SO	240-22648-43		1/1	29-Mar-2013 9:37 AM	11-Apr-2013 10:07 AM	16-Apr-2013 7:28 PM	N
	14079	NA	68-ESSE-DU1-SB5	SO	068SB-0041M-0001-SO	240-22648-53		1/1	29-Mar-2013 9:12 AM	11-Apr-2013 10:07 AM	16-Apr-2013 8:04 PM	N
14692	14079	NA	LABQC	SQ	LABQC	MB 320-14079/1-A		2/1	11-Apr-2013 10:07 AM	11-Apr-2013 10:07 AM	19-Apr-2013 11:59 AM	LB
	14079	NA	73-NLCT-DW-SD3	SE	073SD-0050-0001-SD	240-22648-13		2/1	28-Mar-2013 1:05 PM	11-Apr-2013 10:07 AM	19-Apr-2013 12:19 PM	N

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Field Batch Report

--No Records Found--

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

QC Outlier Report

Test/Prep/Leach	QC Element	Sample ID/ Lab Sample ID			Result (Units)	Qualifier	Warning Limits	Control Limits	Reason	Comment	Rule	Action Level
SW6020 / SW3050B/NONE	Blank	MB 180-68756/1-A (LB) / MB 180-68756/1-A	1 / 1.00	Barium	0.020 (MG/KG)	U/None	< 0.0095	< 0.88	L		1	0.0196
SW6020 / SW3050B/NONE	Blank	MB 180-68756/1-A (LB) / MB 180-68756/1-A	1 / 1.00	Calcium	2.1 (MG/KG)	U/None	< 1.2	< 8.8	L		1	2.06
SW6020 / SW3050B/NONE	Blank	MB 180-68756/1-A (LB) / MB 180-68756/1-A	1 / 1.00	Cobalt	0.0056 (MG/KG)	U/None	< 0.0021	< 0.044	L		1	0.00560
SW6020 / SW3050B/NONE	Blank	MB 180-68853/1-A (LB) / MB 180-68853/1-A	1 / 1.00	Antimony	0.089 (MG/KG)	U/None	< 0.04	< 0.17	L		1	0.0887
SW6020 / SW3050B/NONE	Blank	MB 180-68853/1-A (LB) / MB 180-68853/1-A	1 / 1.00	Barium	0.016 (MG/KG)	U/None	< 0.0093	< 0.87	L		1	0.0156
SW6020 / SW3050B/NONE	Blank	MB 180-68853/1-A (LB) / MB 180-68853/1-A	1 / 1.00	Calcium	1.9 (MG/KG)	U/None	< 1.2	< 8.7	L		1	1.85
SW6020 / SW3050B/NONE	Blank	MB 180-68853/1-A (LB) / MB 180-68853/1-A	1 / 1.00	Zinc	0.060 (MG/KG)	U/None	< 0.056	< 0.43	L		1	0.0601
SW6020 / SW3050B/NONE	Blank	MB 180-68865/1-A (LB) / MB 180-68865/1-A	1 / 1.00	Barium	0.013 (MG/KG)	U/None	< 0.0091	< 0.85	L		1	0.0125
SW6020 / SW3050B/NONE	Blank	MB 180-68865/1-A (LB) / MB 180-68865/1-A	1 / 1.00	Calcium	2.1 (MG/KG)	U/None	< 1.1	< 8.5	L		1	2.14
SW6020 / SW3050B/NONE	Blank	MB 180-68865/1-A (LB) / MB 180-68865/1-A	1 / 1.00	Manganese	0.047 (MG/KG)	U/None	< 0.014	< 0.43	L		1	0.0473
SW6020 / TOTAL/NONE	Blank	MB 180-68743/1-A (LB) / MB 180-68743/1-A	1 / 1.00	Lead	0.42 (UG/L)	U/None	< 0.15	< 1	L		1	0.419
SW6020 / TOTAL/NONE	Blank	MB 180-68743/1-A (LB) / MB 180-68743/1-A	1 / 1.00	Silver	0.62 (UG/L)	U/None	< 0.11	< 1	L		1	0.618
SW8081 / SW3540C/NONE	MS Recovery	079SB-0069M-0002-SO (SD) / 240-22648-36	1 / 1.00	alpha-Chlordane	57.2 (PERCENT)	J/UJ	65 - 120	20 - 120	M			
SW8081 / SW3540C/NONE	MS Recovery	079SB-0069M-0002-SO (SD) / 240-22648-36	1 / 1.00	Dieldrin	62.0 (PERCENT)	J/UJ	65 - 125	20 - 125	M			
SW8081 / SW3540C/NONE	MS Recovery	079SB-0069M-0002-SO (SD) / 240-22648-36	1 / 1.00	Endrin Ketone	60.8 (PERCENT)	J/UJ	65 - 135	20 - 135	M			
SW8081 / SW3540C/NONE	MS Recovery	079SB-0069M-0002-SO (SD) / 240-22648-36	1 / 1.00	gamma-Chlordane	63.5 (PERCENT)	J/UJ	65 - 125	20 - 125	M			
SW8081 / SW3540C/NONE	MS Recovery	079SB-0069M-0002-SO (SD) / 240-22648-36	1 / 1.00	Heptachlor Epoxide	63.2 (PERCENT)	J/UJ	65 - 130	20 - 130	M			
SW8081 / SW3540C/NONE	MS Recovery	079SB-0069M-0002-SO (SD) / 240-22648-36	1 / 1.00	p,p'-DDE	54.8 (PERCENT)	J/UJ	70 - 125	20 - 125	M			
SW8081 / SW3540C/NONE	MS Recovery	079SB-0069M-0002-SO (MS) / 240-22648-36	1 / 1.00	p,p'-DDE	63.9 (PERCENT)	J/UJ	70 - 125	20 - 125	M			

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

QC Outlier Report

Test/Prep/Leach	QC Element	Sample ID/ Lab Sample ID			Result (Units)	Qualifier	Warning Limits	Control Limits	Reason	Comment	Rule	Action Level
SW8260B / NONE/NONE	Blank	MB 240-80741/30 (LB) / MB 240-80741/30	1 / 1.00	Acetone	8.6 (UG/KG)	U/None	< 6.3	< 20	L		2	17.2
SW8260B / NONE/NONE	Blank	MB 240-80741/30 (LB) / MB 240-80741/30	1 / 1.00	Methylene Chloride	3.6 (UG/KG)	U/None	< 0.67	< 5	L		2	7.10
SW8260B / NONE/NONE	Blank	MB 240-80954/7 (LB) / MB 240-80954/7	1 / 1.00	Carbon Disulfide	3.1 (UG/KG)	U/None	< 0.44	< 5	L		1	3.10
SW8260B / NONE/NONE	Blank	MB 240-80954/7 (LB) / MB 240-80954/7	1 / 1.00	Methylene Chloride	14.9 (UG/KG)	U/None	< 0.67	< 5	L		2	29.8
SW8260B / SW5035/NONE	Surrogate	068SB-0041M-0001-SO (N) / 240-22648-53	1 / 1.00	1-Bromo-4-fluorobenzene (4-Bromofluorobenzene)	54.5 (PERCENT)	J/UJ	85 - 120	10 - 120	I			
SW8260B / SW5035/NONE	Surrogate	068SB-0041M-0001-SO (N) / 240-22648-53	1 / 1.00	Toluene-d8	67.1 (PERCENT)	J/UJ	85 - 115	10 - 115	I			
SW8260B / SW5035/NONE	Surrogate	068SB-0046M-0001-SO (N) / 240-22648-43	1 / 1.00	1-Bromo-4-fluorobenzene (4-Bromofluorobenzene)	82.7 (PERCENT)	J/UJ	85 - 120	10 - 120	I			
SW8260B / SW5035/NONE	Surrogate	068SB-0046M-0001-SO (N) / 240-22648-43	1 / 1.00	Toluene-d8	84.5 (PERCENT)	J/UJ	85 - 115	10 - 115	I			
SW8260B / SW5035/NONE	Surrogate	068SB-0057M-0001-SO (N) / 240-22660-30	1 / 1.00	1-Bromo-4-fluorobenzene (4-Bromofluorobenzene)	68.1 (PERCENT)	J/UJ	85 - 120	10 - 120	I			
SW8260B / SW5035/NONE	Surrogate	068SB-0057M-0001-SO (N) / 240-22660-30	1 / 1.00	Toluene-d8	75.9 (PERCENT)	J/UJ	85 - 115	10 - 115	I			
SW8260B / SW5035/NONE	Surrogate	073SD-0050-0001-SD (N) / 240-22648-13	1 / 1.00	1-Bromo-4-fluorobenzene (4-Bromofluorobenzene)	121 (PERCENT)	J/None	85 - 120	10 - 120	I			
SW8260B / SW5035/NONE	Surrogate	079SB-0063M-0001-SO (N) / 240-22648-29	1 / 1.00	1-Bromo-4-fluorobenzene (4-Bromofluorobenzene)	79.2 (PERCENT)	J/UJ	85 - 120	10 - 120	I			
SW8260B / SW5035/NONE	Surrogate	079SB-0063M-0001-SO (N) / 240-22648-29	1 / 1.00	Toluene-d8	81.4 (PERCENT)	J/UJ	85 - 115	10 - 115	I			
SW8260B / SW5035/NONE	Surrogate	079SB-0064M-0001-SO (N) / 240-22648-30	1 / 1.00	1-Bromo-4-fluorobenzene (4-Bromofluorobenzene)	77.6 (PERCENT)	J/UJ	85 - 120	10 - 120	I			
SW8260B / SW5035/NONE	Surrogate	079SB-0064M-0001-SO (N) / 240-22648-30	1 / 1.00	Toluene-d8	79.6 (PERCENT)	J/UJ	85 - 115	10 - 115	I			
SW8260B / SW5035/NONE	Surrogate	079SB-0074M-0001-SO (N) / 240-22648-40	1 / 1.00	1-Bromo-4-fluorobenzene (4-Bromofluorobenzene)	71.4 (PERCENT)	J/UJ	85 - 120	10 - 120	I			
SW8260B / SW5035/NONE	Surrogate	079SB-0074M-0001-SO (N) / 240-22648-40	1 / 1.00	Toluene-d8	75.1 (PERCENT)	J/UJ	85 - 115	10 - 115	I			
SW8270C / SW3510/NONE	MS Recovery	073SW-0056-0002-SW (MS) / 240-22648-15	1 / 1.00	3,3'-Dichlorobenzidine	2.5 (PERCENT)	J/UJ	20 - 110	20 - 110	M			
SW8270C / SW3510/NONE	MS Recovery	073SW-0056-0002-SW (SD) / 240-22648-15	1 / 1.00	3,3'-Dichlorobenzidine	3.1 (PERCENT)	J/UJ	20 - 110	20 - 110	M			

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

QC Outlier Report

Test/Prep/Leach	QC Element	Sample ID/ Lab Sample ID			Result (Units)	Qualifier	Warning Limits	Control Limits	Reason	Comment	Rule	Action Level
SW8270C / SW3510/NONE	Surrogate	073SW-0067-0001-SW (N) / 240-22648-21	1 / 1.00	Terphenyl-d14	48.1 (PERCENT)	J/UJ	50 - 135	10 - 135	I			
SW8270C / SW3550/NONE	Blank	MB 240-81290/19-A (LB) / MB 240-81290/19-A	1 / 1.00	bis(2-Ethylhexyl) Phthalate	28.2 (UG/KG)	U/None	< 19	< 50	L		5	141
SW8270C / SW3550/NONE	Blank	MB 240-81290/19-A (LB) / MB 240-81290/19-A	1 / 1.00	Di-n-Butyl Phthalate	15.5 (UG/KG)	U/None	< 15	< 50	L		1	15.5
SW8270C / SW3550/NONE	Blank	MB 240-81308/21-A (LB) / MB 240-81308/21-A	1 / 1.00	bis(2-Ethylhexyl) Phthalate	22.4 (UG/KG)	U/None	< 19	< 70	L		5	112
SW8270C / SW3550/NONE	MS Recovery	073SD-0045-0002-SD (MS) / 240-22648-10	1 / 1.00	3,3'-Dichlorobenzidine	0.0000 (PERCENT)	J/UJ	10 - 130	10 - 130	M			
SW8270C / SW3550/NONE	MS Recovery	073SD-0045-0002-SD (SD) / 240-22648-10	1 / 1.00	3,3'-Dichlorobenzidine	0.0000 (PERCENT)	J/UJ	10 - 130	10 - 130	M			
SW8270C / SW3550/NONE	MS Recovery	073SD-0045-0002-SD (SD) / 240-22648-10	1 / 1.00	3-Nitroaniline	19.9 (PERCENT)	J/UJ	25 - 110	25 - 110	M			
SW8270C / SW3550/NONE	MS Recovery	073SD-0045-0002-SD (MS) / 240-22648-10	1 / 1.00	3-Nitroaniline	5.4 (PERCENT)	J/UJ	25 - 110	25 - 110	M			
SW8270C / SW3550/NONE	MS Recovery	073SD-0045-0002-SD (MS) / 240-22648-10	1 / 1.00	4-Chloroaniline	0.0000 (PERCENT)	J/UJ	10 - 100	10 - 100	M			
SW8270C / SW3550/NONE	MS Recovery	073SD-0045-0002-SD (MS) / 240-22648-10	1 / 1.00	4-Nitroaniline	13.3 (PERCENT)	J/UJ	35 - 115	35 - 115	M			
SW8270C / SW3550/NONE	MS Recovery	073SD-0045-0002-SD (SD) / 240-22648-10	1 / 1.00	4-Nitroaniline	31.1 (PERCENT)	J/UJ	35 - 115	35 - 115	M			
SW8270C / SW3550/NONE	MS Recovery	073SD-0045-0002-SD (SD) / 240-22648-10	1 / 1.00	Benzoic acid	122 (PERCENT)	J/None	< 110	< 110	M			
SW8270C / SW3550/NONE	MS Recovery	073SD-0045-0002-SD (MS) / 240-22648-10	1 / 1.00	Benzoic acid	127 (PERCENT)	J/None	< 110	< 110	M			
SW8270C / SW3550/NONE	MS Recovery	073SD-0045-0002-SD (SD) / 240-22648-10	1 / 1.00	Hexachloroethane	18.5 (PERCENT)	J/UJ	35 - 110	35 - 110	M			
SW8270C / SW3550/NONE	MS Recovery	073SD-0045-0002-SD (MS) / 240-22648-10	1 / 1.00	Hexachloroethane	19.7 (PERCENT)	J/UJ	35 - 110	35 - 110	M			
SW8330B / METHOD/NONE	Blank	MB 320-14065/1-A (LB) / MB 320-14065/1-A	2 / 1.00	Tetryl	0.012 (MG/KG)	U/None	< 0.01	< 0.25	L		1	0.0121

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Qualified Results

											Reason
E353.2/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	Nitrocellulose	5.0	0.87	0.87 J		MG/KG	TR
E353.2/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	Nitrocellulose	5.0	2.2	2.2 J		MG/KG	TR
E353.2/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	Nitrocellulose	4.9	1.5	1.5 J		MG/KG	TR
E353.2/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Nitrocellulose	4.7	1.4	1.4 J		MG/KG	TR
E353.2/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	Nitrocellulose	5.0	1.5	1.5 J		MG/KG	TR
E353.2/NONE	SO	079SB-0071M-0001-SO	240-22648-38	N	Nitrocellulose	5.0	0.95	0.95 J		MG/KG	TR
Test Leach	**Matrix**	**FieldSample ID**	**LabSample ID**			**RL**	**Lab Result**	**Qualified Result**	**Bias**	**Units**	**Reason**
SW6020/NONE	SO	068SB-0033M-0001-SO	240-22648-46	N	Antimony	0.17	0.17	0.17 UJ		MG/KG	m
SW6020/NONE	SO	068SB-0033M-0001-SO	240-22648-46	N	Calcium	8.7	2100	2100 J		MG/KG	M
SW6020/NONE	SO	068SB-0033M-0001-SO	240-22648-46	N	Selenium	0.43	0.33	0.33 J		MG/KG	TR
SW6020/NONE	SO	068SB-0033M-0001-SO	240-22648-46	N	Silver	0.087	0.028	0.028 J		MG/KG	TR
SW6020/NONE	SO	068SB-0033M-0001-SO	240-22648-46	N	Zinc	0.43	61.0	61.0 J		MG/KG	A
SW6020/NONE	SO	068SB-0034M-0001-SO	240-22648-47	N	Antimony	0.18	0.18	0.18 UJ		MG/KG	m
SW6020/NONE	SO	068SB-0034M-0001-SO	240-22648-47	N	Calcium	8.9	2300	2300 J		MG/KG	M
SW6020/NONE	SO	068SB-0034M-0001-SO	240-22648-47	N	Selenium	0.45	0.27	0.27 J		MG/KG	TR
SW6020/NONE	SO	068SB-0034M-0001-SO	240-22648-47	N	Silver	0.089	0.023	0.023 J		MG/KG	TR
SW6020/NONE	SO	068SB-0034M-0001-SO	240-22648-47	N	Zinc	0.45	56.0	56.0 J		MG/KG	A
SW6020/NONE	SO	068SB-0035M-0001-SO	240-22648-48	N	Antimony	0.18	0.18	0.18 UJ		MG/KG	m
SW6020/NONE	SO	068SB-0035M-0001-SO	240-22648-48	N	Calcium	9.0	2300	2300 J		MG/KG	M
SW6020/NONE	SO	068SB-0035M-0001-SO	240-22648-48	N	Manganese	0.45	360	360 J		MG/KG	d
SW6020/NONE	SO	068SB-0035M-0001-SO	240-22648-48	N	Selenium	0.45	0.29	0.29 J		MG/KG	TR
SW6020/NONE	SO	068SB-0035M-0001-SO	240-22648-48	N	Silver	0.090	0.031	0.031 J		MG/KG	TR
SW6020/NONE	SO	068SB-0035M-0001-SO	240-22648-48	N	Zinc	0.45	53.0	53.0 J		MG/KG	A
SW6020/NONE	SO	068SB-0036M-0001-SO	240-22648-50	FD	Antimony	0.19	0.19	0.19 UJ		MG/KG	m
SW6020/NONE	SO	068SB-0036M-0001-SO	240-22648-50	FD	Calcium	9.6	1900	1900 J		MG/KG	M
SW6020/NONE	SO	068SB-0036M-0001-SO	240-22648-50	FD	Manganese	0.48	620	620 J		MG/KG	d
SW6020/NONE	SO	068SB-0036M-0001-SO	240-22648-50	FD	Selenium	0.48	0.35	0.35 J		MG/KG	TR
SW6020/NONE	SO	068SB-0036M-0001-SO	240-22648-50	FD	Silver	0.096	0.028	0.028 J		MG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID			RL	Lab Result	Qualified Result	Bias	Units	Reason
SW6020/NONE	SO	068SB-0036M-0001-SO	240-22648-50	FD	Zinc	0.48	55.0	55.0 J		MG/KG	A
SW6020/NONE	SO	068SB-0038M-0001-SO	240-22648-49	N	Antimony	0.19	0.044	0.19 UJ	+	MG/KG	L/m
SW6020/NONE	SO	068SB-0038M-0001-SO	240-22648-49	N	Calcium	9.5	1600	1600 J		MG/KG	M
SW6020/NONE	SO	068SB-0038M-0001-SO	240-22648-49	N	Selenium	0.48	0.31	0.31 J		MG/KG	TR
SW6020/NONE	SO	068SB-0038M-0001-SO	240-22648-49	N	Silver	0.095	0.018	0.018 J		MG/KG	TR
SW6020/NONE	SO	068SB-0038M-0001-SO	240-22648-49	N	Zinc	0.48	54.0	54.0 J		MG/KG	A
SW6020/NONE	SO	068SB-0039M-0001-SO	240-22648-51	N	Antimony	0.19	0.19	0.19 UJ		MG/KG	m
SW6020/NONE	SO	068SB-0039M-0001-SO	240-22648-51	N	Calcium	9.7	2800	2800 J		MG/KG	M
SW6020/NONE	SO	068SB-0039M-0001-SO	240-22648-51	N	Selenium	0.49	0.30	0.30 J		MG/KG	TR
SW6020/NONE	SO	068SB-0039M-0001-SO	240-22648-51	N	Silver	0.097	0.026	0.026 J		MG/KG	TR
SW6020/NONE	SO	068SB-0039M-0001-SO	240-22648-51	N	Zinc	0.49	47.0	47.0 J		MG/KG	A
SW6020/NONE	SO	068SB-0040M-0001-SO	240-22648-52	N	Antimony	0.19	0.045	0.19 UJ	+	MG/KG	L/m
SW6020/NONE	SO	068SB-0040M-0001-SO	240-22648-52	N	Calcium	9.5	1900	1900 J		MG/KG	M
SW6020/NONE	SO	068SB-0040M-0001-SO	240-22648-52	N	Silver	0.095	0.028	0.028 J		MG/KG	TR
SW6020/NONE	SO	068SB-0040M-0001-SO	240-22648-52	N	Zinc	0.48	58.0	58.0 J		MG/KG	A
SW6020/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	Antimony	0.18	0.18	0.18 UJ		MG/KG	m
SW6020/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	Calcium	8.9	2200	2200 J		MG/KG	M
SW6020/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	Silver	0.089	0.026	0.026 J		MG/KG	TR
SW6020/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	Zinc	0.45	37.0	37.0 J		MG/KG	A
SW6020/NONE	SO	068SB-0042M-0001-SO	240-22648-54	N	Antimony	0.18	0.18	0.18 UJ		MG/KG	m
SW6020/NONE	SO	068SB-0042M-0001-SO	240-22648-54	N	Calcium	9.2	8100	8100 J		MG/KG	M
SW6020/NONE	SO	068SB-0042M-0001-SO	240-22648-54	N	Silver	0.092	0.031	0.031 J		MG/KG	TR
SW6020/NONE	SO	068SB-0042M-0001-SO	240-22648-54	N	Zinc	0.46	40.0	40.0 J		MG/KG	A
SW6020/NONE	SO	068SB-0044M-0001-SO	240-22648-41	N	Antimony	0.18	0.046	0.18 UJ	+	MG/KG	L/m
SW6020/NONE	SO	068SB-0044M-0001-SO	240-22648-41	N	Calcium	8.8	1200	1200 J		MG/KG	M
SW6020/NONE	SO	068SB-0044M-0001-SO	240-22648-41	N	Selenium	0.44	0.31	0.31 J		MG/KG	TR
SW6020/NONE	SO	068SB-0044M-0001-SO	240-22648-41	N	Silver	0.088	0.022	0.022 J		MG/KG	TR
SW6020/NONE	SO	068SB-0044M-0001-SO	240-22648-41	N	Zinc	0.44	48.0	48.0 J		MG/KG	A
SW6020/NONE	SO	068SB-0045M-0001-SO	240-22648-42	N	Antimony	0.19	0.19	0.19 UJ		MG/KG	m

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID			RL	Lab Result	Qualified Result	Bias	Units	Reason
SW6020/NONE	SO	068SB-0045M-0001-SO	240-22648-42	N	Calcium	9.7	5500	5500 J		MG/KG	M
SW6020/NONE	SO	068SB-0045M-0001-SO	240-22648-42	N	Selenium	0.49	0.26	0.26 J		MG/KG	TR
SW6020/NONE	SO	068SB-0045M-0001-SO	240-22648-42	N	Silver	0.097	0.020	0.020 J		MG/KG	TR
SW6020/NONE	SO	068SB-0045M-0001-SO	240-22648-42	N	Zinc	0.49	59.0	59.0 J		MG/KG	A
SW6020/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	Antimony	0.19	0.19	0.19 UJ		MG/KG	m
SW6020/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	Calcium	9.5	930	930 J		MG/KG	M
SW6020/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	Selenium	0.48	0.25	0.25 J		MG/KG	TR
SW6020/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	Silver	0.095	0.016	0.016 J		MG/KG	TR
SW6020/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	Zinc	0.48	47.0	47.0 J		MG/KG	A
SW6020/NONE	SO	068SB-0047M-0001-SO	240-22648-44	N	Antimony	0.18	0.18	0.18 UJ		MG/KG	m
SW6020/NONE	SO	068SB-0047M-0001-SO	240-22648-44	N	Calcium	9.2	4800	4800 J		MG/KG	M
SW6020/NONE	SO	068SB-0047M-0001-SO	240-22648-44	N	Selenium	0.46	0.25	0.25 J		MG/KG	TR
SW6020/NONE	SO	068SB-0047M-0001-SO	240-22648-44	N	Silver	0.092	0.029	0.029 J		MG/KG	TR
SW6020/NONE	SO	068SB-0047M-0001-SO	240-22648-44	N	Zinc	0.46	52.0	52.0 J		MG/KG	A
SW6020/NONE	SO	068SB-0048M-0001-SO	240-22648-45	N	Antimony	0.19	0.19	0.19 UJ		MG/KG	m
SW6020/NONE	SO	068SB-0048M-0001-SO	240-22648-45	N	Calcium	9.3	2400	2400 J		MG/KG	M
SW6020/NONE	SO	068SB-0048M-0001-SO	240-22648-45	N	Selenium	0.47	0.29	0.29 J		MG/KG	TR
SW6020/NONE	SO	068SB-0048M-0001-SO	240-22648-45	N	Silver	0.093	0.023	0.023 J		MG/KG	TR
SW6020/NONE	SO	068SB-0048M-0001-SO	240-22648-45	N	Zinc	0.47	56.0	56.0 J		MG/KG	A
SW6020/NONE	SO	068SB-0050M-0001-SO	240-22648-55	N	Antimony	0.18	0.18	0.18 UJ		MG/KG	m
SW6020/NONE	SO	068SB-0050M-0001-SO	240-22648-55	N	Calcium	9.2	4500	4500 J		MG/KG	M
SW6020/NONE	SO	068SB-0050M-0001-SO	240-22648-55	N	Silver	0.092	0.023	0.023 J		MG/KG	TR
SW6020/NONE	SO	068SB-0050M-0001-SO	240-22648-55	N	Zinc	0.46	36.0	36.0 J		MG/KG	A
SW6020/NONE	SO	068SB-0051M-0001-SO	240-22648-56	N	Antimony	0.19	0.048	0.19 UJ	+	MG/KG	L/m
SW6020/NONE	SO	068SB-0051M-0001-SO	240-22648-56	N	Calcium	9.4	3300	3300 J		MG/KG	M
SW6020/NONE	SO	068SB-0051M-0001-SO	240-22648-56	N	Silver	0.094	0.019	0.019 J		MG/KG	TR
SW6020/NONE	SO	068SB-0051M-0001-SO	240-22648-56	N	Zinc	0.47	32.0	32.0 J		MG/KG	A
SW6020/NONE	SO	068SB-0052M-0001-SO	240-22648-57	N	Antimony	0.18	0.049	0.18 UJ	+	MG/KG	L/m
SW6020/NONE	SO	068SB-0052M-0001-SO	240-22648-57	N	Calcium	9.0	760	760 J		MG/KG	M

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID			RL	Lab Result	Qualified Result	Bias	Units	Reason
SW6020/NONE	SO	068SB-0052M-0001-SO	240-22648-57	N	Silver	0.090	0.014	0.014 J		MG/KG	TR
SW6020/NONE	SO	068SB-0052M-0001-SO	240-22648-57	N	Zinc	0.45	33.0	33.0 J		MG/KG	A
SW6020/NONE	SO	068SB-0053M-0001-SO	240-22648-58	N	Antimony	0.18	0.046	0.046 J		MG/KG	TR
SW6020/NONE	SO	068SB-0053M-0001-SO	240-22648-58	N	Calcium	9.1	3400	3400 J		MG/KG	d
SW6020/NONE	SO	068SB-0053M-0001-SO	240-22648-58	N	Selenium	0.45	0.29	0.29 J		MG/KG	TR
SW6020/NONE	SO	068SB-0053M-0001-SO	240-22648-58	N	Silver	0.091	0.028	0.028 J		MG/KG	TR
SW6020/NONE	SO	068SB-0054M-0001-SO	240-22648-59	FD	Antimony	0.19	0.054	0.054 J		MG/KG	TR
SW6020/NONE	SO	068SB-0054M-0001-SO	240-22648-59	FD	Calcium	9.7	910	910 J		MG/KG	d
SW6020/NONE	SO	068SB-0054M-0001-SO	240-22648-59	FD	Selenium	0.49	0.29	0.29 J		MG/KG	TR
SW6020/NONE	SO	068SB-0054M-0001-SO	240-22648-59	FD	Silver	0.097	0.028	0.028 J		MG/KG	TR
SW6020/NONE	SO	068SB-0056M-0001-SO	240-22648-60	N	Antimony	0.20	0.059	0.059 J		MG/KG	TR
SW6020/NONE	SO	068SB-0056M-0001-SO	240-22648-60	N	Selenium	0.50	0.16	0.16 J		MG/KG	TR
SW6020/NONE	SO	068SB-0056M-0001-SO	240-22648-60	N	Silver	0.099	0.026	0.026 J		MG/KG	TR
SW6020/NONE	SO	068SB-0057M-0001-SO	240-22648-61	N	Antimony	0.17	0.042	0.042 J		MG/KG	TR
SW6020/NONE	SO	068SB-0057M-0001-SO	240-22648-61	N	Selenium	0.43	0.22	0.22 J		MG/KG	TR
SW6020/NONE	SO	068SB-0057M-0001-SO	240-22648-61	N	Silver	0.086	0.035	0.035 J		MG/KG	TR
SW6020/NONE	SO	068SB-0059M-0001-SO	240-22648-62	N	Selenium	0.46	0.28	0.28 J		MG/KG	TR
SW6020/NONE	SO	068SB-0059M-0001-SO	240-22648-62	N	Silver	0.093	0.031	0.031 J		MG/KG	TR
SW6020/NONE	SO	073SB-0016M-0001-SO	240-22648-1	N	Antimony	0.20	0.047	0.047 J		MG/KG	TR/m
SW6020/NONE	SO	073SB-0016M-0001-SO	240-22648-1	N	Manganese	0.50	360	360 J		MG/KG	D1
SW6020/NONE	SO	073SB-0016M-0001-SO	240-22648-1	N	Selenium	0.50	0.25	0.25 J		MG/KG	TR
SW6020/NONE	SO	073SB-0016M-0001-SO	240-22648-1	N	Thallium	0.10	0.091	0.091 J		MG/KG	TR
SW6020/NONE	SO	073SB-0016M-0001-SO	240-22648-1	N	Zinc	0.50	43.0	43.0 J		MG/KG	A
SW6020/NONE	SO	073SB-0017M-0001-SO	240-22648-2	FD	Antimony	0.20	0.20	0.20 UJ		MG/KG	m
SW6020/NONE	SO	073SB-0017M-0001-SO	240-22648-2	FD	Manganese	0.50	400	400 J		MG/KG	D1
SW6020/NONE	SO	073SB-0017M-0001-SO	240-22648-2	FD	Selenium	0.50	0.26	0.26 J		MG/KG	TR
SW6020/NONE	SO	073SB-0017M-0001-SO	240-22648-2	FD	Thallium	0.099	0.084	0.084 J		MG/KG	TR
SW6020/NONE	SO	073SB-0017M-0001-SO	240-22648-2	FD	Zinc	0.50	42.0	42.0 J		MG/KG	A
SW6020/NONE	SO	073SB-0019M-0001-SO	240-22648-3	N	Antimony	0.20	0.20	0.20 UJ		MG/KG	m

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID			RL	Lab Result	Qualified Result	Bias	Units	Reason
SW6020/NONE	SO	073SB-0019M-0001-SO	240-22648-3	N	Manganese	0.49	120	120 J		MG/KG	D1
SW6020/NONE	SO	073SB-0019M-0001-SO	240-22648-3	N	Selenium	0.49	0.24	0.24 J		MG/KG	TR
SW6020/NONE	SO	073SB-0019M-0001-SO	240-22648-3	N	Silver	0.098	0.021	0.021 J		MG/KG	TR
SW6020/NONE	SO	073SB-0019M-0001-SO	240-22648-3	N	Thallium	0.098	0.059	0.059 J		MG/KG	TR
SW6020/NONE	SO	073SB-0019M-0001-SO	240-22648-3	N	Zinc	0.49	29.0	29.0 J		MG/KG	A
SW6020/NONE	SO	073SB-0020M-0001-SO	240-22648-4	N	Antimony	0.20	0.20	0.20 UJ		MG/KG	m
SW6020/NONE	SO	073SB-0020M-0001-SO	240-22648-4	N	Manganese	0.50	250	250 J		MG/KG	D1
SW6020/NONE	SO	073SB-0020M-0001-SO	240-22648-4	N	Selenium	0.50	0.23	0.23 J		MG/KG	TR
SW6020/NONE	SO	073SB-0020M-0001-SO	240-22648-4	N	Silver	0.099	0.033	0.033 J		MG/KG	TR
SW6020/NONE	SO	073SB-0020M-0001-SO	240-22648-4	N	Thallium	0.099	0.069	0.069 J		MG/KG	TR
SW6020/NONE	SO	073SB-0020M-0001-SO	240-22648-4	N	Zinc	0.50	35.0	35.0 J		MG/KG	A
SW6020/NONE	SO	073SB-0021M-0001-SO	240-22648-5	N	Antimony	0.20	0.20	0.20 UJ		MG/KG	m
SW6020/NONE	SO	073SB-0021M-0001-SO	240-22648-5	N	Manganese	0.49	300	300 J		MG/KG	D1
SW6020/NONE	SO	073SB-0021M-0001-SO	240-22648-5	N	Selenium	0.49	0.33	0.33 J		MG/KG	TR
SW6020/NONE	SO	073SB-0021M-0001-SO	240-22648-5	N	Silver	0.098	0.027	0.027 J		MG/KG	TR
SW6020/NONE	SO	073SB-0021M-0001-SO	240-22648-5	N	Thallium	0.098	0.076	0.076 J		MG/KG	TR
SW6020/NONE	SO	073SB-0021M-0001-SO	240-22648-5	N	Zinc	0.49	33.0	33.0 J		MG/KG	A
SW6020/NONE	SO	073SB-0022M-0001-SO	240-22648-6	N	Antimony	0.19	0.19	0.19 UJ		MG/KG	m
SW6020/NONE	SO	073SB-0022M-0001-SO	240-22648-6	N	Manganese	0.48	170	170 J		MG/KG	D1
SW6020/NONE	SO	073SB-0022M-0001-SO	240-22648-6	N	Selenium	0.48	0.16	0.16 J		MG/KG	TR
SW6020/NONE	SO	073SB-0022M-0001-SO	240-22648-6	N	Silver	0.095	0.041	0.041 J		MG/KG	TR
SW6020/NONE	SO	073SB-0022M-0001-SO	240-22648-6	N	Thallium	0.095	0.072	0.072 J		MG/KG	TR
SW6020/NONE	SO	073SB-0022M-0001-SO	240-22648-6	N	Zinc	0.48	30.0	30.0 J		MG/KG	A
SW6020/NONE	SO	073SB-0023M-0001-SO	240-22648-7	N	Antimony	0.20	0.20	0.20 UJ		MG/KG	m
SW6020/NONE	SO	073SB-0023M-0001-SO	240-22648-7	N	Manganese	0.50	360	360 J		MG/KG	D1
SW6020/NONE	SO	073SB-0023M-0001-SO	240-22648-7	N	Selenium	0.50	0.26	0.26 J		MG/KG	TR
SW6020/NONE	SO	073SB-0023M-0001-SO	240-22648-7	N	Zinc	0.50	43.0	43.0 J		MG/KG	A
SW6020/NONE	SO	073SB-0024M-0001-SO	240-22648-8	N	Antimony	0.19	0.19	0.19 UJ		MG/KG	m
SW6020/NONE	SO	073SB-0024M-0001-SO	240-22648-8	N	Manganese	0.48	250	250 J		MG/KG	D1

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID			RL	Lab Result	Qualified Result	Bias	Units	Reason
SW6020/NONE	SO	073SB-0024M-0001-SO	240-22648-8	N	Selenium	0.48	0.25	0.25 J		MG/KG	TR
SW6020/NONE	SO	073SB-0024M-0001-SO	240-22648-8	N	Silver	0.095	0.074	0.074 J		MG/KG	TR
SW6020/NONE	SO	073SB-0024M-0001-SO	240-22648-8	N	Thallium	0.095	0.085	0.085 J		MG/KG	TR
SW6020/NONE	SO	073SB-0024M-0001-SO	240-22648-8	N	Zinc	0.48	40.0	40.0 J		MG/KG	A
SW6020/NONE	SO	073SB-0067M-0001-SO	240-22648-9	N	Antimony	0.22	0.22	0.22 UJ		MG/KG	m
SW6020/NONE	SO	073SB-0067M-0001-SO	240-22648-9	N	Cadmium	0.11	0.093	0.093 J		MG/KG	TR
SW6020/NONE	SO	073SB-0067M-0001-SO	240-22648-9	N	Manganese	0.56	150	150 J		MG/KG	D1
SW6020/NONE	SO	073SB-0067M-0001-SO	240-22648-9	N	Selenium	0.56	0.24	0.24 J		MG/KG	TR
SW6020/NONE	SO	073SB-0067M-0001-SO	240-22648-9	N	Silver	0.11	0.016	0.016 J		MG/KG	TR
SW6020/NONE	SO	073SB-0067M-0001-SO	240-22648-9	N	Thallium	0.11	0.077	0.077 J		MG/KG	TR
SW6020/NONE	SO	073SB-0067M-0001-SO	240-22648-9	N	Zinc	0.56	30.0	30.0 J		MG/KG	A
SW6020/NONE	SE	073SD-0045-0001-SD	240-22648-10	N	Antimony	0.49	0.49	0.49 UJ		MG/KG	m
SW6020/NONE	SE	073SD-0045-0001-SD	240-22648-10	N	Manganese	1.2	2300	2300 J		MG/KG	D1
SW6020/NONE	SE	073SD-0045-0001-SD	240-22648-10	N	Selenium	1.2	0.87	0.87 J		MG/KG	TR
SW6020/NONE	SE	073SD-0045-0001-SD	240-22648-10	N	Silver	0.24	0.090	0.090 J		MG/KG	TR
SW6020/NONE	SE	073SD-0045-0001-SD	240-22648-10	N	Thallium	0.24	0.22	0.22 J		MG/KG	TR
SW6020/NONE	SE	073SD-0045-0001-SD	240-22648-10	N	Zinc	1.2	84.0	84.0 J		MG/KG	A
SW6020/NONE	SE	073SD-0046-0001-SD	240-22648-14	N	Antimony	0.51	0.17	0.17 J		MG/KG	TR/m
SW6020/NONE	SE	073SD-0046-0001-SD	240-22648-14	N	Manganese	1.3	330	330 J		MG/KG	D1
SW6020/NONE	SE	073SD-0046-0001-SD	240-22648-14	N	Silver	0.26	0.067	0.067 J		MG/KG	TR
SW6020/NONE	SE	073SD-0046-0001-SD	240-22648-14	N	Thallium	0.26	0.15	0.15 J		MG/KG	TR
SW6020/NONE	SE	073SD-0046-0001-SD	240-22648-14	N	Zinc	1.3	78.0	78.0 J		MG/KG	A
SW6020/NONE	SE	073SD-0047-0001-SD	240-22648-11	N	Antimony	0.30	0.18	0.18 J		MG/KG	TR/m
SW6020/NONE	SE	073SD-0047-0001-SD	240-22648-11	N	Manganese	0.76	2300	2300 J		MG/KG	D1
SW6020/NONE	SE	073SD-0047-0001-SD	240-22648-11	N	Selenium	0.76	0.71	0.71 J		MG/KG	TR
SW6020/NONE	SE	073SD-0047-0001-SD	240-22648-11	N	Silver	0.15	0.043	0.043 J		MG/KG	TR
SW6020/NONE	SE	073SD-0047-0001-SD	240-22648-11	N	Thallium	0.15	0.11	0.11 J		MG/KG	TR
SW6020/NONE	SE	073SD-0047-0001-SD	240-22648-11	N	Zinc	0.76	49.0	49.0 J		MG/KG	A
SW6020/NONE	SE	073SD-0048-0001-SD	240-22648-12	FD	Antimony	0.31	0.072	0.072 J		MG/KG	TR/m

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID			RL	Lab Result	Qualified Result	Bias	Units	Reason
SW6020/NONE	SE	073SD-0048-0001-SD	240-22648-12	FD	Manganese	0.77	2900	2900 J		MG/KG	D1
SW6020/NONE	SE	073SD-0048-0001-SD	240-22648-12	FD	Silver	0.15	0.039	0.039 J		MG/KG	TR
SW6020/NONE	SE	073SD-0048-0001-SD	240-22648-12	FD	Thallium	0.15	0.13	0.13 J		MG/KG	TR
SW6020/NONE	SE	073SD-0048-0001-SD	240-22648-12	FD	Zinc	0.77	54.0	54.0 J		MG/KG	A
SW6020/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	Antimony	0.30	0.30	0.30 UJ		MG/KG	m
SW6020/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	Manganese	0.76	580	580 J		MG/KG	D1
SW6020/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	Selenium	0.76	0.43	0.43 J		MG/KG	TR
SW6020/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	Silver	0.15	0.034	0.034 J		MG/KG	TR
SW6020/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	Thallium	0.15	0.090	0.090 J		MG/KG	TR
SW6020/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	Zinc	0.76	54.0	54.0 J		MG/KG	A
SW6020/NONE	WS	073SW-0056-0001-SW	240-22648-15	N	Cobalt	0.50	0.090	0.50 U	+	UG/L	B2
SW6020/NONE	WS	073SW-0056-0001-SW	240-22648-15	N	Lead	1.0	0.47	1.0 U	+	UG/L	L
SW6020/NONE	WS	073SW-0056-0001-SW	240-22648-15	N	Nickel	1.0	0.40	0.40 J		UG/L	TR
SW6020/NONE	WS	073SW-0056-0001-SW	240-22648-15	N	Silver	1.0	2.5	2.5 J		UG/L	D1
SW6020/NONE	WS	073SW-0056-0001-SW	240-22648-15	N	Zinc	5.0	1.8	1.8 J		UG/L	TR
SW6020/NONE	WS	073SW-0058-0001-SW	240-22648-16	N	Antimony	2.0	0.90	0.90 J		UG/L	TR
SW6020/NONE	WS	073SW-0058-0001-SW	240-22648-16	N	Chromium	2.0	1.8	1.8 J		UG/L	TR
SW6020/NONE	WS	073SW-0058-0001-SW	240-22648-16	N	Cobalt	0.50	0.17	0.50 U	+	UG/L	B2
SW6020/NONE	WS	073SW-0058-0001-SW	240-22648-16	N	Lead	1.0	0.49	1.0 U	+	UG/L	L
SW6020/NONE	WS	073SW-0058-0001-SW	240-22648-16	N	Nickel	1.0	0.32	0.32 J		UG/L	TR
SW6020/NONE	WS	073SW-0058-0001-SW	240-22648-16	N	Silver	1.0	0.86	1.0 UJ	+	UG/L	L/D1
SW6020/NONE	WS	073SW-0058-0001-SW	240-22648-16	N	Zinc	5.0	3.2	3.2 J		UG/L	TR
SW6020/NONE	WS	073SW-0059-0001-SW	240-22648-17	FD	Arsenic	1.0	0.66	0.66 J		UG/L	TR
SW6020/NONE	WS	073SW-0059-0001-SW	240-22648-17	FD	Beryllium	1.0	0.057	0.057 J		UG/L	TR
SW6020/NONE	WS	073SW-0059-0001-SW	240-22648-17	FD	Chromium	2.0	1.4	1.4 J		UG/L	TR
SW6020/NONE	WS	073SW-0059-0001-SW	240-22648-17	FD	Cobalt	0.50	0.22	0.50 U	+	UG/L	B2
SW6020/NONE	WS	073SW-0059-0001-SW	240-22648-17	FD	Lead	1.0	0.57	1.0 U	+	UG/L	L
SW6020/NONE	WS	073SW-0059-0001-SW	240-22648-17	FD	Nickel	1.0	0.33	0.33 J		UG/L	TR
SW6020/NONE	WS	073SW-0059-0001-SW	240-22648-17	FD	Silver	1.0	0.47	1.0 UJ	+	UG/L	L/D1

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID			RL	Lab Result	Qualified Result	Bias	Units	Reason
SW6020/NONE	WS	073SW-0059-0001-SW	240-22648-17	FD	Zinc	5.0	3.1	3.1 J		UG/L	TR
SW6020/NONE	WS	073SW-0061-0001-SW	240-22648-18	N	Chromium	2.0	1.7	1.7 J		UG/L	TR
SW6020/NONE	WS	073SW-0061-0001-SW	240-22648-18	N	Cobalt	0.50	0.064	0.50 U	+	UG/L	B2
SW6020/NONE	WS	073SW-0061-0001-SW	240-22648-18	N	Lead	1.0	0.19	1.0 U	+	UG/L	L
SW6020/NONE	WS	073SW-0061-0001-SW	240-22648-18	N	Nickel	1.0	0.19	0.19 J		UG/L	TR
SW6020/NONE	WS	073SW-0061-0001-SW	240-22648-18	N	Silver	1.0	0.36	1.0 UJ	+	UG/L	L/D1
SW6020/NONE	WS	073SW-0061-0001-SW	240-22648-18	N	Zinc	5.0	1.9	1.9 J		UG/L	TR
SW6020/NONE	WS	073SW-0067-0001-SW	240-22648-21	N	Antimony	2.0	0.46	0.46 J		UG/L	TR
SW6020/NONE	WS	073SW-0067-0001-SW	240-22648-21	N	Beryllium	1.0	0.83	0.83 J		UG/L	TR
SW6020/NONE	WS	073SW-0067-0001-SW	240-22648-21	N	Silver	1.0	0.27	1.0 UJ	+	UG/L	L/D1
SW6020/NONE	SO	079SB-0055M-0001-SO	240-22648-22	N	Antimony	0.19	0.19	0.19 UJ		MG/KG	m
SW6020/NONE	SO	079SB-0055M-0001-SO	240-22648-22	N	Manganese	0.49	330	330 J		MG/KG	D1
SW6020/NONE	SO	079SB-0055M-0001-SO	240-22648-22	N	Selenium	0.49	0.34	0.34 J		MG/KG	TR
SW6020/NONE	SO	079SB-0055M-0001-SO	240-22648-22	N	Silver	0.097	0.027	0.027 J		MG/KG	TR
SW6020/NONE	SO	079SB-0055M-0001-SO	240-22648-22	N	Zinc	0.49	58.0	58.0 J		MG/KG	A
SW6020/NONE	SO	079SB-0057M-0001-SO	240-22648-23	FD	Antimony	0.19	0.19	0.19 UJ		MG/KG	m
SW6020/NONE	SO	079SB-0057M-0001-SO	240-22648-23	FD	Manganese	0.48	410	410 J		MG/KG	D1
SW6020/NONE	SO	079SB-0057M-0001-SO	240-22648-23	FD	Selenium	0.48	0.32	0.32 J		MG/KG	TR
SW6020/NONE	SO	079SB-0057M-0001-SO	240-22648-23	FD	Silver	0.096	0.023	0.023 J		MG/KG	TR
SW6020/NONE	SO	079SB-0057M-0001-SO	240-22648-23	FD	Zinc	0.48	50.0	50.0 J		MG/KG	A
SW6020/NONE	SO	079SB-0058M-0001-SO	240-22648-24	N	Antimony	0.20	0.20	0.20 UJ		MG/KG	m
SW6020/NONE	SO	079SB-0058M-0001-SO	240-22648-24	N	Manganese	0.49	350	350 J		MG/KG	D1
SW6020/NONE	SO	079SB-0058M-0001-SO	240-22648-24	N	Selenium	0.49	0.25	0.25 J		MG/KG	TR
SW6020/NONE	SO	079SB-0058M-0001-SO	240-22648-24	N	Silver	0.098	0.033	0.033 J		MG/KG	TR
SW6020/NONE	SO	079SB-0058M-0001-SO	240-22648-24	N	Zinc	0.49	48.0	48.0 J		MG/KG	A
SW6020/NONE	SO	079SB-0059M-0001-SO	240-22648-25	FD	Antimony	0.19	0.19	0.19 UJ		MG/KG	m
SW6020/NONE	SO	079SB-0059M-0001-SO	240-22648-25	FD	Manganese	0.48	350	350 J		MG/KG	D1
SW6020/NONE	SO	079SB-0059M-0001-SO	240-22648-25	FD	Selenium	0.48	0.28	0.28 J		MG/KG	TR
SW6020/NONE	SO	079SB-0059M-0001-SO	240-22648-25	FD	Silver	0.096	0.031	0.031 J		MG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID			RL	Lab Result	Qualified Result	Bias	Units	Reason
SW6020/NONE	SO	079SB-0059M-0001-SO	240-22648-25	FD	Zinc	0.48	49.0	49.0 J		MG/KG	A
SW6020/NONE	SO	079SB-0060M-0001-SO	240-22648-26	N	Antimony	0.19	0.19	0.19 UJ		MG/KG	m
SW6020/NONE	SO	079SB-0060M-0001-SO	240-22648-26	N	Manganese	0.48	300	300 J		MG/KG	D1
SW6020/NONE	SO	079SB-0060M-0001-SO	240-22648-26	N	Selenium	0.48	0.32	0.32 J		MG/KG	TR
SW6020/NONE	SO	079SB-0060M-0001-SO	240-22648-26	N	Silver	0.096	0.021	0.021 J		MG/KG	TR
SW6020/NONE	SO	079SB-0060M-0001-SO	240-22648-26	N	Zinc	0.48	44.0	44.0 J		MG/KG	A
SW6020/NONE	SO	079SB-0061M-0001-SO	240-22648-27	N	Antimony	0.19	0.19	0.19 UJ		MG/KG	m
SW6020/NONE	SO	079SB-0061M-0001-SO	240-22648-27	N	Beryllium	0.096	0.56	0.56 J		MG/KG	A
SW6020/NONE	SO	079SB-0061M-0001-SO	240-22648-27	N	Calcium	9.6	8600	8600 J		MG/KG	M
SW6020/NONE	SO	079SB-0061M-0001-SO	240-22648-27	N	Selenium	0.48	0.26	0.26 J		MG/KG	TR
SW6020/NONE	SO	079SB-0061M-0001-SO	240-22648-27	N	Silver	0.096	0.037	0.037 J		MG/KG	TR
SW6020/NONE	SO	079SB-0061M-0001-SO	240-22648-27	N	Zinc	0.48	50.0	50.0 J		MG/KG	A
SW6020/NONE	SO	079SB-0062M-0001-SO	240-22648-28	N	Antimony	0.19	0.11	0.11 J		MG/KG	TR/m
SW6020/NONE	SO	079SB-0062M-0001-SO	240-22648-28	N	Beryllium	0.095	0.64	0.64 J		MG/KG	A
SW6020/NONE	SO	079SB-0062M-0001-SO	240-22648-28	N	Calcium	9.5	8900	8900 J		MG/KG	M
SW6020/NONE	SO	079SB-0062M-0001-SO	240-22648-28	N	Selenium	0.48	0.27	0.27 J		MG/KG	TR
SW6020/NONE	SO	079SB-0062M-0001-SO	240-22648-28	N	Silver	0.095	0.031	0.031 J		MG/KG	TR
SW6020/NONE	SO	079SB-0062M-0001-SO	240-22648-28	N	Zinc	0.48	53.0	53.0 J		MG/KG	A
SW6020/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	Antimony	0.20	0.060	0.060 J		MG/KG	TR/m
SW6020/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	Beryllium	0.10	0.56	0.56 J		MG/KG	A
SW6020/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	Calcium	10.0	17000	17000 J		MG/KG	M
SW6020/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	Selenium	0.50	0.24	0.24 J		MG/KG	TR
SW6020/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	Silver	0.10	0.032	0.032 J		MG/KG	TR
SW6020/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	Zinc	0.50	52.0	52.0 J		MG/KG	A
SW6020/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Antimony	0.20	0.20	0.20 UJ		MG/KG	m
SW6020/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Beryllium	0.10	0.58	0.58 J		MG/KG	A
SW6020/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Calcium	10.0	6500	6500 J		MG/KG	M
SW6020/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Selenium	0.50	0.26	0.26 J		MG/KG	TR
SW6020/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Silver	0.10	0.029	0.029 J		MG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID			RL	Lab Result	Qualified Result	Bias	Units	Reason
SW6020/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Zinc	0.50	48.0	48.0 J		MG/KG	A
SW6020/NONE	SO	079SB-0065M-0001-SO	240-22648-32	N	Antimony	0.19	0.19	0.19 UJ		MG/KG	m
SW6020/NONE	SO	079SB-0065M-0001-SO	240-22648-32	N	Beryllium	0.095	0.54	0.54 J		MG/KG	A
SW6020/NONE	SO	079SB-0065M-0001-SO	240-22648-32	N	Calcium	9.5	1000	1000 J		MG/KG	M
SW6020/NONE	SO	079SB-0065M-0001-SO	240-22648-32	N	Selenium	0.48	0.25	0.25 J		MG/KG	TR
SW6020/NONE	SO	079SB-0065M-0001-SO	240-22648-32	N	Silver	0.095	0.031	0.031 J		MG/KG	TR
SW6020/NONE	SO	079SB-0065M-0001-SO	240-22648-32	N	Zinc	0.48	52.0	52.0 J		MG/KG	A
SW6020/NONE	SO	079SB-0066M-0001-SO	240-22648-33	FD	Antimony	0.20	0.20	0.20 UJ		MG/KG	m
SW6020/NONE	SO	079SB-0066M-0001-SO	240-22648-33	FD	Beryllium	0.10	0.58	0.58 J		MG/KG	A
SW6020/NONE	SO	079SB-0066M-0001-SO	240-22648-33	FD	Calcium	10.0	940	940 J		MG/KG	M
SW6020/NONE	SO	079SB-0066M-0001-SO	240-22648-33	FD	Selenium	0.50	0.25	0.25 J		MG/KG	TR
SW6020/NONE	SO	079SB-0066M-0001-SO	240-22648-33	FD	Silver	0.10	0.030	0.030 J		MG/KG	TR
SW6020/NONE	SO	079SB-0066M-0001-SO	240-22648-33	FD	Zinc	0.50	56.0	56.0 J		MG/KG	A
SW6020/NONE	SO	079SB-0067M-0001-SO	240-22648-34	N	Antimony	0.20	0.20	0.20 UJ		MG/KG	m
SW6020/NONE	SO	079SB-0067M-0001-SO	240-22648-34	N	Beryllium	0.098	0.51	0.51 J		MG/KG	A
SW6020/NONE	SO	079SB-0067M-0001-SO	240-22648-34	N	Calcium	9.8	14000	14000 J		MG/KG	M
SW6020/NONE	SO	079SB-0067M-0001-SO	240-22648-34	N	Selenium	0.49	0.24	0.24 J		MG/KG	TR
SW6020/NONE	SO	079SB-0067M-0001-SO	240-22648-34	N	Silver	0.098	0.025	0.025 J		MG/KG	TR
SW6020/NONE	SO	079SB-0067M-0001-SO	240-22648-34	N	Zinc	0.49	53.0	53.0 J		MG/KG	A
SW6020/NONE	SO	079SB-0068M-0001-SO	240-22648-35	FD	Antimony	0.20	0.20	0.20 UJ		MG/KG	m
SW6020/NONE	SO	079SB-0068M-0001-SO	240-22648-35	FD	Beryllium	0.099	0.51	0.51 J		MG/KG	A
SW6020/NONE	SO	079SB-0068M-0001-SO	240-22648-35	FD	Calcium	9.9	12000	12000 J		MG/KG	M
SW6020/NONE	SO	079SB-0068M-0001-SO	240-22648-35	FD	Selenium	0.50	0.23	0.23 J		MG/KG	TR
SW6020/NONE	SO	079SB-0068M-0001-SO	240-22648-35	FD	Silver	0.099	0.032	0.032 J		MG/KG	TR
SW6020/NONE	SO	079SB-0068M-0001-SO	240-22648-35	FD	Zinc	0.50	52.0	52.0 J		MG/KG	A
SW6020/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	Antimony	0.19	0.19	0.19 UJ		MG/KG	m
SW6020/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	Beryllium	0.096	0.51	0.51 J		MG/KG	A
SW6020/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	Calcium	9.6	9700	9700 J		MG/KG	M
SW6020/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	Selenium	0.48	0.23	0.23 J		MG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID			RL	Lab Result	Qualified Result	Bias	Units	Reason
SW6020/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	Silver	0.096	0.026	0.026 J		MG/KG	TR
SW6020/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	Zinc	0.48	48.0	48.0 J		MG/KG	A
SW6020/NONE	SO	079SB-0070M-0001-SO	240-22648-37	N	Antimony	0.20	0.20	0.20 UJ		MG/KG	m
SW6020/NONE	SO	079SB-0070M-0001-SO	240-22648-37	N	Beryllium	0.098	0.54	0.54 J		MG/KG	A
SW6020/NONE	SO	079SB-0070M-0001-SO	240-22648-37	N	Calcium	9.8	7600	7600 J		MG/KG	M
SW6020/NONE	SO	079SB-0070M-0001-SO	240-22648-37	N	Selenium	0.49	0.21	0.21 J		MG/KG	TR
SW6020/NONE	SO	079SB-0070M-0001-SO	240-22648-37	N	Silver	0.098	0.029	0.029 J		MG/KG	TR
SW6020/NONE	SO	079SB-0070M-0001-SO	240-22648-37	N	Zinc	0.49	62.0	62.0 J		MG/KG	A
SW6020/NONE	SO	079SB-0071M-0001-SO	240-22648-38	N	Antimony	0.18	0.051	0.18 UJ	+	MG/KG	L/m
SW6020/NONE	SO	079SB-0071M-0001-SO	240-22648-38	N	Calcium	8.8	8800	8800 J		MG/KG	M
SW6020/NONE	SO	079SB-0071M-0001-SO	240-22648-38	N	Selenium	0.44	0.27	0.27 J		MG/KG	TR
SW6020/NONE	SO	079SB-0071M-0001-SO	240-22648-38	N	Silver	0.088	0.027	0.027 J		MG/KG	TR
SW6020/NONE	SO	079SB-0071M-0001-SO	240-22648-38	N	Zinc	0.44	50.0	50.0 J		MG/KG	A
SW6020/NONE	SO	079SB-0072M-0001-SO	240-22648-39	N	Antimony	0.19	0.046	0.19 UJ	+	MG/KG	L/m
SW6020/NONE	SO	079SB-0072M-0001-SO	240-22648-39	N	Calcium	9.5	13000	13000 J		MG/KG	M
SW6020/NONE	SO	079SB-0072M-0001-SO	240-22648-39	N	Selenium	0.48	0.25	0.25 J		MG/KG	TR
SW6020/NONE	SO	079SB-0072M-0001-SO	240-22648-39	N	Silver	0.095	0.026	0.026 J		MG/KG	TR
SW6020/NONE	SO	079SB-0072M-0001-SO	240-22648-39	N	Zinc	0.48	57.0	57.0 J		MG/KG	A
SW6020/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Antimony	0.18	0.17	0.18 UJ	+	MG/KG	L/m
SW6020/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Calcium	9.2	3600	3600 J		MG/KG	M
SW6020/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Selenium	0.46	0.25	0.25 J		MG/KG	TR
SW6020/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Silver	0.092	0.027	0.027 J		MG/KG	TR
SW6020/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Zinc	0.46	49.0	49.0 J		MG/KG	A
SW6020/NONE	SO	079SB-0075-0001-SO	240-22648-31	N	Antimony	0.24	0.10	0.10 J		MG/KG	TR/m
SW6020/NONE	SO	079SB-0075-0001-SO	240-22648-31	N	Beryllium	0.12	0.15	0.15 J		MG/KG	A
SW6020/NONE	SO	079SB-0075-0001-SO	240-22648-31	N	Calcium	12.0	8300	8300 J		MG/KG	M
SW6020/NONE	SO	079SB-0075-0001-SO	240-22648-31	N	Selenium	0.60	0.15	0.15 J		MG/KG	TR
SW6020/NONE	SO	079SB-0075-0001-SO	240-22648-31	N	Silver	0.12	0.038	0.038 J		MG/KG	TR
SW6020/NONE	SO	079SB-0075-0001-SO	240-22648-31	N	Thallium	0.12	0.090	0.090 J		MG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID			RL	Lab Result	Qualified Result	Bias	Units	Reason
SW6020/NONE	SO	079SB-0075-0001-SO	240-22648-31	N	Zinc	0.60	62.0	62.0 J		MG/KG	A
Test Leach	**Matrix**	**FieldSample ID**	**LabSample ID**			**RL**	**Lab Result**	**Qualified Result**	**Bias**	**Units**	**Reason**
SW7471A/NONE	SO	068SB-0033M-0001-SO	240-22648-46	N	Mercury	0.10	0.052	0.052 J		MG/KG	TR
SW7471A/NONE	SO	068SB-0034M-0001-SO	240-22648-47	N	Mercury	0.10	0.015	0.015 J		MG/KG	TR
SW7471A/NONE	SO	068SB-0035M-0001-SO	240-22648-48	N	Mercury	0.11	0.015	0.015 J		MG/KG	TR
SW7471A/NONE	SO	068SB-0036M-0001-SO	240-22648-50	FD	Mercury	0.10	0.019	0.019 J		MG/KG	TR
SW7471A/NONE	SO	068SB-0038M-0001-SO	240-22648-49	N	Mercury	0.092	0.020	0.020 J		MG/KG	TR
SW7471A/NONE	SO	068SB-0039M-0001-SO	240-22648-51	N	Mercury	0.10	0.017	0.017 J		MG/KG	TR
SW7471A/NONE	SO	068SB-0040M-0001-SO	240-22648-52	N	Mercury	0.097	0.018	0.018 J		MG/KG	TR
SW7471A/NONE	SO	068SB-0044M-0001-SO	240-22648-41	N	Mercury	0.10	0.019	0.019 J		MG/KG	TR
SW7471A/NONE	SO	068SB-0050M-0001-SO	240-22648-55	N	Mercury	0.10	0.019	0.019 J		MG/KG	TR
SW7471A/NONE	SO	068SB-0053M-0001-SO	240-22648-58	N	Mercury	0.10	0.015	0.015 J		MG/KG	TR
SW7471A/NONE	SO	068SB-0054M-0001-SO	240-22648-59	FD	Mercury	0.086	0.014	0.014 J		MG/KG	TR
SW7471A/NONE	SO	073SB-0016M-0001-SO	240-22648-1	N	Mercury	0.11	0.030	0.030 J		MG/KG	TR
SW7471A/NONE	SO	073SB-0017M-0001-SO	240-22648-2	FD	Mercury	0.11	0.028	0.028 J		MG/KG	TR
SW7471A/NONE	SO	073SB-0019M-0001-SO	240-22648-3	N	Mercury	0.10	0.018	0.018 J		MG/KG	TR
SW7471A/NONE	SO	073SB-0020M-0001-SO	240-22648-4	N	Mercury	0.090	0.024	0.024 J		MG/KG	TR
SW7471A/NONE	SO	073SB-0021M-0001-SO	240-22648-5	N	Mercury	0.10	0.028	0.028 J		MG/KG	TR
SW7471A/NONE	SO	073SB-0022M-0001-SO	240-22648-6	N	Mercury	0.092	0.015	0.015 J		MG/KG	TR
SW7471A/NONE	SO	073SB-0023M-0001-SO	240-22648-7	N	Mercury	0.11	0.025	0.025 J		MG/KG	TR
SW7471A/NONE	SO	073SB-0024M-0001-SO	240-22648-8	N	Mercury	0.090	0.030	0.030 J		MG/KG	TR
SW7471A/NONE	SE	073SD-0045-0001-SD	240-22648-10	N	Mercury	0.28	0.072	0.072 J		MG/KG	TR
SW7471A/NONE	SE	073SD-0046-0001-SD	240-22648-14	N	Mercury	0.29	0.10	0.10 J		MG/KG	TR
SW7471A/NONE	SE	073SD-0047-0001-SD	240-22648-11	N	Mercury	0.14	0.035	0.035 J		MG/KG	TR
SW7471A/NONE	SE	073SD-0048-0001-SD	240-22648-12	FD	Mercury	0.16	0.032	0.032 J		MG/KG	TR
SW7471A/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	Mercury	0.16	0.041	0.041 J		MG/KG	TR
SW7471A/NONE	SO	079SB-0055M-0001-SO	240-22648-22	N	Mercury	0.095	0.029	0.029 J		MG/KG	TR
SW7471A/NONE	SO	079SB-0057M-0001-SO	240-22648-23	FD	Mercury	0.10	0.023	0.023 J		MG/KG	TR
SW7471A/NONE	SO	079SB-0060M-0001-SO	240-22648-26	N	Mercury	0.11	0.021	0.021 J		MG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID			RL	Lab Result	Qualified Result	Bias	Units	Reason
SW7471A/NONE	SO	079SB-0062M-0001-SO	240-22648-28	N	Mercury	0.11	0.015	0.015 J		MG/KG	TR
SW7471A/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Mercury	0.092	0.014	0.014 J		MG/KG	TR
SW7471A/NONE	SO	079SB-0065M-0001-SO	240-22648-32	N	Mercury	0.092	0.017	0.017 J		MG/KG	TR
SW7471A/NONE	SO	079SB-0066M-0001-SO	240-22648-33	FD	Mercury	0.095	0.021	0.021 J		MG/KG	TR
SW7471A/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Mercury	0.095	0.016	0.016 J		MG/KG	TR
Test Leach	**Matrix**	**FieldSample ID**	**LabSample ID**			**RL**	**Lab Result**	**Qualified Result**	**Bias**	**Units**	**Reason**
SW8081/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	alpha-BHC (alpha-Hexachlorocyclohexane)	2.5	0.80	2.5 U		UG/KG	P1/Y1
SW8081/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	Heptachlor	3.5	3.5	3.5 UJ		UG/KG	V2
SW8081/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	Methoxychlor	5.0	5.0	5.0 UJ		UG/KG	V2
SW8081/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	Toxaphene	67.0	67.0	67.0 UJ		UG/KG	V1
SW8081/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	Heptachlor	3.5	3.5	3.5 UJ		UG/KG	V2
SW8081/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	Methoxychlor	5.1	5.1	5.1 UJ		UG/KG	V2
SW8081/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	Toxaphene	68.0	68.0	68.0 UJ		UG/KG	V1
SW8081/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	Methoxychlor	150	150	150 UJ		UG/KG	V2
SW8081/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	Toxaphene	2000	2000	2000 UJ		UG/KG	V1
SW8081/NONE	WS	073SW-0061-0001-SW	240-22648-18	N	Toxaphene	2.1	2.1	2.1 UJ		UG/L	V1
SW8081/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	Methoxychlor	5.0	5.0	5.0 UJ		UG/KG	V2
SW8081/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	Toxaphene	66.0	66.0	66.0 UJ		UG/KG	V1
SW8081/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Heptachlor	3.5	3.5	3.5 UJ		UG/KG	V2
SW8081/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Methoxychlor	4.9	4.9	4.9 UJ		UG/KG	V2
SW8081/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Toxaphene	66.0	66.0	66.0 UJ		UG/KG	V1
SW8081/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	Aldrin	4.0	4.0	4.0 UJ		UG/KG	h
SW8081/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	alpha-BHC (alpha-Hexachlorocyclohexane)	2.5	2.5	2.5 UJ		UG/KG	h
SW8081/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	alpha-Chlordane	3.0	3.0	3.0 UJ	-	UG/KG	M/h
SW8081/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	alpha-Endosulfan	1.7	1.7	1.7 UJ		UG/KG	h
SW8081/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	beta-BHC (beta-Hexachlorocyclohexane)	3.5	3.5	3.5 UJ		UG/KG	h
SW8081/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	beta-Endosulfan	2.5	2.5	2.5 UJ		UG/KG	h
SW8081/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	delta-BHC (delta-Hexachlorocyclohexane)	4.0	4.0	4.0 UJ		UG/KG	h
SW8081/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	Dieldrin	1.7	1.7	1.7 UJ	-	UG/KG	M/h

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Qualified Results

											Reason
SW8081/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	Endosulfan Sulfate	3.0	3.0	3.0 UJ		UG/KG	h
SW8081/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	Endrin	1.7	1.7	1.7 UJ		UG/KG	h
SW8081/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	Endrin Aldehyde	3.0	3.0	3.0 UJ		UG/KG	h
SW8081/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	Endrin Ketone	2.0	2.0	2.0 UJ	-	UG/KG	M/h
SW8081/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	gamma-BHC (Lindane)	2.5	2.5	2.5 UJ		UG/KG	h
SW8081/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	gamma-Chlordane	1.7	1.7	1.7 UJ	-	UG/KG	M/h
SW8081/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	Heptachlor	3.5	3.5	3.5 UJ		UG/KG	V2/h
SW8081/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	Heptachlor Epoxide	2.5	2.5	2.5 UJ	-	UG/KG	M/h
SW8081/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	Methoxychlor	5.1	5.1	5.1 UJ		UG/KG	V2/h
SW8081/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	p,p'-DDD	2.0	2.0	2.0 UJ		UG/KG	h
SW8081/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	p,p'-DDE	1.7	1.7	1.7 UJ	-	UG/KG	M/h
SW8081/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	p,p'-DDT	2.0	2.0	2.0 UJ		UG/KG	h
SW8081/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	Toxaphene	68.0	68.0	68.0 UJ		UG/KG	V1/h
SW8081/NONE	SO	079SB-0071M-0001-SO	240-22648-38	N	Heptachlor	3.5	3.5	3.5 UJ		UG/KG	V2
SW8081/NONE	SO	079SB-0071M-0001-SO	240-22648-38	N	Methoxychlor	5.0	5.0	5.0 UJ		UG/KG	V2
SW8081/NONE	SO	079SB-0071M-0001-SO	240-22648-38	N	Toxaphene	66.0	66.0	66.0 UJ		UG/KG	V1
SW8081/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Heptachlor	3.5	3.5	3.5 UJ		UG/KG	V2
SW8081/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Methoxychlor	5.1	5.1	5.1 UJ		UG/KG	V2
SW8081/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Toxaphene	68.0	68.0	68.0 UJ		UG/KG	V1
Test Leach	**Matrix**	**FieldSample ID**	**LabSample ID**			**RL**	**Lab Result**	**Qualified Result**	**Bias**	**Units**	**Reason**
SW8082/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	PCB-1016 (Arochlor 1016)	97.0	97.0	97.0 UJ		UG/KG	h
SW8082/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	PCB-1221 (Arochlor 1221)	75.0	75.0	75.0 UJ		UG/KG	h
SW8082/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	PCB-1232 (Arochlor 1232)	67.0	67.0	67.0 UJ		UG/KG	h
SW8082/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	PCB-1242 (Arochlor 1242)	60.0	60.0	60.0 UJ		UG/KG	h
SW8082/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	PCB-1248 (Arochlor 1248)	82.0	82.0	82.0 UJ		UG/KG	h
SW8082/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	PCB-1254 (Arochlor 1254)	82.0	82.0	82.0 UJ		UG/KG	h
SW8082/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	PCB-1260 (Arochlor 1260)	82.0	82.0	82.0 UJ		UG/KG	h
SW8082/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	PCB-1016 (Arochlor 1016)	66.0	66.0	66.0 UJ		UG/KG	h
SW8082/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	PCB-1221 (Arochlor 1221)	51.0	51.0	51.0 UJ		UG/KG	h

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID			RL	Lab Result	Qualified Result	Bias	Units	Reason
SW8082/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	PCB-1232 (Arochlor 1232)	46.0	46.0	46.0 UJ		UG/KG	h
SW8082/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	PCB-1242 (Arochlor 1242)	40.0	40.0	40.0 UJ		UG/KG	h
SW8082/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	PCB-1248 (Arochlor 1248)	56.0	56.0	56.0 UJ		UG/KG	h
SW8082/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	PCB-1254 (Arochlor 1254)	56.0	56.0	56.0 UJ		UG/KG	h
SW8082/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	PCB-1260 (Arochlor 1260)	56.0	56.0	56.0 UJ		UG/KG	h
Test Leach	**Matrix**	**FieldSample ID**	**LabSample ID**			**RL**	**Lab Result**	**Qualified Result**	**Bias**	**Units**	**Reason**
SW8260B/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	1,1,1-Trichloroethane	4.8	4.8	4.8 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	1,1,2,2-Tetrachloroethane	4.8	4.8	4.8 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	1,1,2-Trichloroethane	4.8	4.8	4.8 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	1,1-Dichloroethane	4.8	4.8	4.8 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	1,1-Dichloroethene	4.8	4.8	4.8 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	1,2-Dibromoethane (EDB)	4.8	4.8	4.8 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	1,2-Dichloroethane	4.8	4.8	4.8 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	1,2-Dichloroethene	9.5	9.5	9.5 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	1,2-Dichloropropane	4.8	4.8	4.8 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	2-Butanone (MEK)	19.0	19.0	19.0 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	2-Hexanone	19.0	19.0	19.0 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	4-Methyl-2-pentanone (MIBK)	19.0	19.0	19.0 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	Acetone	19.0	19.0	19.0 UJ		UG/KG	I
SW8260B/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	Benzene	4.8	4.8	4.8 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	Bromochloromethane	4.8	4.8	4.8 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	Bromodichloromethane	4.8	4.8	4.8 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	Bromoform	4.8	4.8	4.8 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	Bromomethane	4.8	4.8	4.8 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	Carbon Disulfide	4.8	3.1	3.1 J	-	UG/KG	I/TR
SW8260B/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	Carbon Tetrachloride	4.8	4.8	4.8 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	Chlorobenzene	4.8	4.8	4.8 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	Chloroethane	4.8	4.8	4.8 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	Chloroform	4.8	4.8	4.8 UJ	-	UG/KG	I

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID			RL	Lab Result	Qualified Result	Bias	Units	Reason
SW8260B/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	Chloromethane	4.8	4.8	4.8 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	cis-1,3-Dichloropropene	4.8	4.8	4.8 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	Dibromochloromethane	4.8	4.8	4.8 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	Ethylbenzene	4.8	4.8	4.8 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	Methylene Chloride	4.8	1.8	4.8 UJ		UG/KG	L/I
SW8260B/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	Styrene	4.8	4.8	4.8 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	Tetrachloroethene (PCE)	4.8	4.8	4.8 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	Toluene	4.8	4.8	4.8 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	trans-1,3-Dichloropropene	4.8	4.8	4.8 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	Trichloroethene (TCE)	4.8	4.8	4.8 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	Vinyl Chloride	4.8	4.8	4.8 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	Xylenes, Total	9.5	9.5	9.5 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	1,1,1-Trichloroethane	5.7	5.7	5.7 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	1,1,2,2-Tetrachloroethane	5.7	5.7	5.7 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	1,1,2-Trichloroethane	5.7	5.7	5.7 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	1,1-Dichloroethane	5.7	5.7	5.7 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	1,1-Dichloroethene	5.7	5.7	5.7 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	1,2-Dibromoethane (EDB)	5.7	5.7	5.7 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	1,2-Dichloroethane	5.7	5.7	5.7 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	1,2-Dichloroethene	11.0	11.0	11.0 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	1,2-Dichloropropane	5.7	5.7	5.7 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	2-Butanone (MEK)	23.0	23.0	23.0 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	2-Hexanone	23.0	23.0	23.0 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	4-Methyl-2-pentanone (MIBK)	23.0	23.0	23.0 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	Acetone	23.0	23.0	23.0 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	Benzene	5.7	5.7	5.7 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	Bromochloromethane	5.7	5.7	5.7 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	Bromodichloromethane	5.7	5.7	5.7 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	Bromoform	5.7	5.7	5.7 UJ	-	UG/KG	I

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID			RL	Lab Result	Qualified Result	Bias	Units	Reason
SW8260B/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	Bromomethane	5.7	5.7	5.7 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	Carbon Disulfide	5.7	5.7	5.7 UJ		UG/KG	I
SW8260B/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	Carbon Tetrachloride	5.7	5.7	5.7 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	Chlorobenzene	5.7	5.7	5.7 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	Chloroethane	5.7	5.7	5.7 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	Chloroform	5.7	5.7	5.7 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	Chloromethane	5.7	5.7	5.7 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	cis-1,3-Dichloropropene	5.7	5.7	5.7 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	Dibromochloromethane	5.7	5.7	5.7 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	Ethylbenzene	5.7	5.7	5.7 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	Methylene Chloride	5.7	1.7	5.7 UJ		UG/KG	L/I
SW8260B/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	Styrene	5.7	5.7	5.7 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	Tetrachloroethene (PCE)	5.7	5.7	5.7 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	Toluene	5.7	5.7	5.7 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	trans-1,3-Dichloropropene	5.7	5.7	5.7 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	Trichloroethene (TCE)	5.7	5.7	5.7 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	Vinyl Chloride	5.7	5.7	5.7 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	Xylenes, Total	11.0	11.0	11.0 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0057M-0001-SO	240-22660-30	N	1,1,1-Trichloroethane	5.1	5.1	5.1 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0057M-0001-SO	240-22660-30	N	1,1,2,2-Tetrachloroethane	5.1	5.1	5.1 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0057M-0001-SO	240-22660-30	N	1,1,2-Trichloroethane	5.1	5.1	5.1 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0057M-0001-SO	240-22660-30	N	1,1-Dichloroethane	5.1	5.1	5.1 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0057M-0001-SO	240-22660-30	N	1,1-Dichloroethene	5.1	5.1	5.1 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0057M-0001-SO	240-22660-30	N	1,2-Dibromoethane (EDB)	5.1	5.1	5.1 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0057M-0001-SO	240-22660-30	N	1,2-Dichloroethane	5.1	5.1	5.1 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0057M-0001-SO	240-22660-30	N	1,2-Dichloroethene	10.0	10.0	10.0 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0057M-0001-SO	240-22660-30	N	1,2-Dichloropropane	5.1	5.1	5.1 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0057M-0001-SO	240-22660-30	N	2-Butanone (MEK)	21.0	21.0	21.0 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0057M-0001-SO	240-22660-30	N	2-Hexanone	21.0	21.0	21.0 UJ	-	UG/KG	I

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID			RL	Lab Result	Qualified Result	Bias	Units	Reason
SW8260B/NONE	SO	068SB-0057M-0001-SO	240-22660-30	N	4-Methyl-2-pentanone (MIBK)	21.0	21.0	21.0 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0057M-0001-SO	240-22660-30	N	Acetone	21.0	21.0	21.0 UJ		UG/KG	I
SW8260B/NONE	SO	068SB-0057M-0001-SO	240-22660-30	N	Benzene	5.1	5.1	5.1 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0057M-0001-SO	240-22660-30	N	Bromochloromethane	5.1	5.1	5.1 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0057M-0001-SO	240-22660-30	N	Bromodichloromethane	5.1	5.1	5.1 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0057M-0001-SO	240-22660-30	N	Bromoform	5.1	5.1	5.1 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0057M-0001-SO	240-22660-30	N	Bromomethane	5.1	5.1	5.1 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0057M-0001-SO	240-22660-30	N	Carbon Disulfide	5.1	5.1	5.1 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0057M-0001-SO	240-22660-30	N	Carbon Tetrachloride	5.1	5.1	5.1 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0057M-0001-SO	240-22660-30	N	Chlorobenzene	5.1	5.1	5.1 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0057M-0001-SO	240-22660-30	N	Chloroethane	5.1	5.1	5.1 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0057M-0001-SO	240-22660-30	N	Chloroform	5.1	5.1	5.1 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0057M-0001-SO	240-22660-30	N	Chloromethane	5.1	5.1	5.1 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0057M-0001-SO	240-22660-30	N	cis-1,3-Dichloropropene	5.1	5.1	5.1 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0057M-0001-SO	240-22660-30	N	Dibromochloromethane	5.1	5.1	5.1 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0057M-0001-SO	240-22660-30	N	Ethylbenzene	5.1	5.1	5.1 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0057M-0001-SO	240-22660-30	N	Methylene Chloride	5.1	1.6	5.1 UJ		UG/KG	L/I
SW8260B/NONE	SO	068SB-0057M-0001-SO	240-22660-30	N	Styrene	5.1	5.1	5.1 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0057M-0001-SO	240-22660-30	N	Tetrachloroethene (PCE)	5.1	5.1	5.1 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0057M-0001-SO	240-22660-30	N	Toluene	5.1	5.1	5.1 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0057M-0001-SO	240-22660-30	N	trans-1,3-Dichloropropene	5.1	5.1	5.1 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0057M-0001-SO	240-22660-30	N	Trichloroethene (TCE)	5.1	5.1	5.1 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0057M-0001-SO	240-22660-30	N	Vinyl Chloride	5.1	5.1	5.1 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0057M-0001-SO	240-22660-30	N	Xylenes, Total	10.0	10.0	10.0 UJ	-	UG/KG	I
SW8260B/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	2-Butanone (MEK)	29.0	2.7	2.7 J	+	UG/KG	I/TR
SW8260B/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	Carbon Disulfide	7.1	4.5	4.5 J	+	UG/KG	I/TR
SW8260B/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	Methylene Chloride	7.1	1.6	7.1 U	+	UG/KG	L
SW8260B/NONE	WG	073SW-0057-0001-TB	240-22648-20	N	Acetone	10.0	7.0	7.0 J		UG/L	TR/J
SW8260B/NONE	WS	073SW-0061-0001-SW	240-22648-18	N	Acetone	10.0	1.9	10.0 UJ	+	UG/L	T/J

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID			RL	Lab Result	Qualified Result	Bias	Units	Reason
SW8260B/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	1,1,1-Trichloroethane	4.7	4.7	4.7 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	1,1,2,2-Tetrachloroethane	4.7	4.7	4.7 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	1,1,2-Trichloroethane	4.7	4.7	4.7 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	1,1-Dichloroethane	4.7	4.7	4.7 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	1,1-Dichloroethene	4.7	4.7	4.7 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	1,2-Dibromoethane (EDB)	4.7	4.7	4.7 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	1,2-Dichloroethane	4.7	4.7	4.7 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	1,2-Dichloroethene	9.3	9.3	9.3 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	1,2-Dichloropropane	4.7	4.7	4.7 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	2-Butanone (MEK)	19.0	19.0	19.0 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	2-Hexanone	19.0	19.0	19.0 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	4-Methyl-2-pentanone (MIBK)	19.0	19.0	19.0 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	Acetone	19.0	19.0	19.0 UJ		UG/KG	I
SW8260B/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	Benzene	4.7	4.7	4.7 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	Bromochloromethane	4.7	4.7	4.7 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	Bromodichloromethane	4.7	4.7	4.7 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	Bromoform	4.7	4.7	4.7 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	Bromomethane	4.7	4.7	4.7 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	Carbon Disulfide	4.7	4.7	4.7 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	Carbon Tetrachloride	4.7	4.7	4.7 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	Chlorobenzene	4.7	4.7	4.7 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	Chloroethane	4.7	4.7	4.7 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	Chloroform	4.7	4.7	4.7 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	Chloromethane	4.7	4.7	4.7 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	cis-1,3-Dichloropropene	4.7	4.7	4.7 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	Dibromochloromethane	4.7	4.7	4.7 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	Ethylbenzene	4.7	4.7	4.7 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	Methylene Chloride	4.7	2.0	4.7 UJ		UG/KG	L/I
SW8260B/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	Styrene	4.7	4.7	4.7 UJ	-	UG/KG	I

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID			RL	Lab Result	Qualified Result	Bias	Units	Reason
SW8260B/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	Tetrachloroethene (PCE)	4.7	4.7	4.7 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	Toluene	4.7	4.7	4.7 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	trans-1,3-Dichloropropene	4.7	4.7	4.7 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	Trichloroethene (TCE)	4.7	4.7	4.7 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	Vinyl Chloride	4.7	4.7	4.7 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	Xylenes, Total	9.3	9.3	9.3 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	1,1,1-Trichloroethane	4.9	4.9	4.9 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	1,1,2,2-Tetrachloroethane	4.9	4.9	4.9 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	1,1,2-Trichloroethane	4.9	4.9	4.9 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	1,1-Dichloroethane	4.9	4.9	4.9 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	1,1-Dichloroethene	4.9	4.9	4.9 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	1,2-Dibromoethane (EDB)	4.9	4.9	4.9 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	1,2-Dichloroethane	4.9	4.9	4.9 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	1,2-Dichloroethene	9.8	9.8	9.8 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	1,2-Dichloropropane	4.9	4.9	4.9 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	2-Butanone (MEK)	20.0	20.0	20.0 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	2-Hexanone	20.0	20.0	20.0 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	4-Methyl-2-pentanone (MIBK)	20.0	20.0	20.0 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Acetone	20.0	20.0	20.0 UJ		UG/KG	I
SW8260B/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Benzene	4.9	4.9	4.9 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Bromochloromethane	4.9	4.9	4.9 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Bromodichloromethane	4.9	4.9	4.9 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Bromoform	4.9	4.9	4.9 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Bromomethane	4.9	4.9	4.9 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Carbon Disulfide	4.9	4.9	4.9 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Carbon Tetrachloride	4.9	4.9	4.9 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Chlorobenzene	4.9	4.9	4.9 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Chloroethane	4.9	4.9	4.9 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Chloroform	4.9	4.9	4.9 UJ	-	UG/KG	I

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID			RL	Lab Result	Qualified Result	Bias	Units	Reason
SW8260B/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Chloromethane	4.9	4.9	4.9 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	cis-1,3-Dichloropropene	4.9	4.9	4.9 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Dibromochloromethane	4.9	4.9	4.9 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Ethylbenzene	4.9	4.9	4.9 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Methylene Chloride	4.9	1.9	4.9 UJ		UG/KG	L/I
SW8260B/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Styrene	4.9	4.9	4.9 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Tetrachloroethene (PCE)	4.9	4.9	4.9 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Toluene	4.9	4.9	4.9 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	trans-1,3-Dichloropropene	4.9	4.9	4.9 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Trichloroethene (TCE)	4.9	4.9	4.9 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Vinyl Chloride	4.9	4.9	4.9 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Xylenes, Total	9.8	9.8	9.8 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	Methylene Chloride	5.2	2.0	5.2 U	+	UG/KG	L
SW8260B/NONE	SO	079SB-0071M-0001-SO	240-22648-38	N	Methylene Chloride	5.1	3.2	5.1 U	+	UG/KG	L
SW8260B/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	1,1,1-Trichloroethane	5.5	5.5	5.5 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	1,1,2,2-Tetrachloroethane	5.5	5.5	5.5 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	1,1,2-Trichloroethane	5.5	5.5	5.5 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	1,1-Dichloroethane	5.5	5.5	5.5 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	1,1-Dichloroethene	5.5	5.5	5.5 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	1,2-Dibromoethane (EDB)	5.5	5.5	5.5 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	1,2-Dichloroethane	5.5	5.5	5.5 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	1,2-Dichloroethene	11.0	11.0	11.0 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	1,2-Dichloropropane	5.5	5.5	5.5 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	2-Butanone (MEK)	22.0	22.0	22.0 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	2-Hexanone	22.0	22.0	22.0 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	4-Methyl-2-pentanone (MIBK)	22.0	22.0	22.0 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Acetone	22.0	22.0	22.0 UJ		UG/KG	I
SW8260B/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Benzene	5.5	5.5	5.5 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Bromochloromethane	5.5	5.5	5.5 UJ	-	UG/KG	I

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Qualified Results

											Reason
SW8260B/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Bromodichloromethane	5.5	5.5	5.5 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Bromoform	5.5	5.5	5.5 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Bromomethane	5.5	5.5	5.5 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Carbon Disulfide	5.5	5.5	5.5 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Carbon Tetrachloride	5.5	5.5	5.5 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Chlorobenzene	5.5	5.5	5.5 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Chloroethane	5.5	5.5	5.5 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Chloroform	5.5	5.5	5.5 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Chloromethane	5.5	5.5	5.5 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	cis-1,3-Dichloropropene	5.5	5.5	5.5 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Dibromochloromethane	5.5	5.5	5.5 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Ethylbenzene	5.5	5.5	5.5 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Methylene Chloride	5.5	1.9	5.5 UJ		UG/KG	L/I
SW8260B/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Styrene	5.5	5.5	5.5 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Tetrachloroethene (PCE)	5.5	5.5	5.5 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Toluene	5.5	5.5	5.5 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	trans-1,3-Dichloropropene	5.5	5.5	5.5 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Trichloroethene (TCE)	5.5	5.5	5.5 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Vinyl Chloride	5.5	5.5	5.5 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Xylenes, Total	11.0	11.0	11.0 UJ	-	UG/KG	I
Test Leach	**Matrix**	**FieldSample ID**	**LabSample ID**			**RL**	**Lab Result**	**Qualified Result**	**Bias**	**Units**	**Reason**
SW8270C/NONE	SO	068SB-0033M-0001-SO	240-22648-46	N	2,4-Dinitrophenol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SO	068SB-0033M-0001-SO	240-22648-46	N	Benzyl alcohol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SO	068SB-0033M-0001-SO	240-22648-46	N	bis(2-Ethylhexyl) Phthalate	140	140	140 U	+	UG/KG	L
SW8270C/NONE	SO	068SB-0033M-0001-SO	240-22648-46	N	Fluoranthene	6.7	5.4	5.4 J		UG/KG	TR
SW8270C/NONE	SO	068SB-0033M-0001-SO	240-22648-46	N	Naphthalene	6.7	4.9	4.9 J		UG/KG	TR
SW8270C/NONE	SO	068SB-0033M-0001-SO	240-22648-46	N	Pyrene	6.7	5.1	5.1 J		UG/KG	TR
SW8270C/NONE	SO	068SB-0034M-0001-SO	240-22648-47	N	2,4-Dinitrophenol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SO	068SB-0034M-0001-SO	240-22648-47	N	Benzyl alcohol	330	330	330 UJ		UG/KG	J

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID			RL	Lab Result	Qualified Result	Bias	Units	Reason
SW8270C/NONE	SO	068SB-0034M-0001-SO	240-22648-47	N	bis(2-Ethylhexyl) Phthalate	110	110	110 U	+	UG/KG	L
SW8270C/NONE	SO	068SB-0034M-0001-SO	240-22648-47	N	Phenanthrene	6.6	4.6	4.6 J		UG/KG	TR
SW8270C/NONE	SO	068SB-0035M-0001-SO	240-22648-48	N	2,4-Dinitrophenol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SO	068SB-0035M-0001-SO	240-22648-48	N	Benzyl alcohol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SO	068SB-0035M-0001-SO	240-22648-48	N	bis(2-Ethylhexyl) Phthalate	73.0	73.0	73.0 U	+	UG/KG	L
SW8270C/NONE	SO	068SB-0035M-0001-SO	240-22648-48	N	Phenanthrene	6.6	4.6	4.6 J		UG/KG	TR
SW8270C/NONE	SO	068SB-0036M-0001-SO	240-22648-50	FD	2,4-Dinitrophenol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SO	068SB-0036M-0001-SO	240-22648-50	FD	2-Methylnaphthalene	6.7	6.5	6.5 J		UG/KG	TR
SW8270C/NONE	SO	068SB-0036M-0001-SO	240-22648-50	FD	Benzyl alcohol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SO	068SB-0036M-0001-SO	240-22648-50	FD	bis(2-Ethylhexyl) Phthalate	70.0	55.0	70.0 U	+	UG/KG	L
SW8270C/NONE	SO	068SB-0038M-0001-SO	240-22648-49	N	2,4-Dinitrophenol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SO	068SB-0038M-0001-SO	240-22648-49	N	Benzyl alcohol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SO	068SB-0038M-0001-SO	240-22648-49	N	bis(2-Ethylhexyl) Phthalate	120	120	120 U	+	UG/KG	L
SW8270C/NONE	SO	068SB-0039M-0001-SO	240-22648-51	N	2,4-Dinitrophenol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SO	068SB-0039M-0001-SO	240-22648-51	N	Benzyl alcohol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SO	068SB-0039M-0001-SO	240-22648-51	N	bis(2-Ethylhexyl) Phthalate	69.0	64.0	69.0 U	+	UG/KG	L
SW8270C/NONE	SO	068SB-0039M-0001-SO	240-22648-51	N	Di-n-Butyl Phthalate	69.0	22.0	22.0 J		UG/KG	TR
SW8270C/NONE	SO	068SB-0040M-0001-SO	240-22648-52	N	2,4-Dinitrophenol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SO	068SB-0040M-0001-SO	240-22648-52	N	2-Methylnaphthalene	6.7	5.8	5.8 J		UG/KG	TR
SW8270C/NONE	SO	068SB-0040M-0001-SO	240-22648-52	N	Benzyl alcohol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SO	068SB-0040M-0001-SO	240-22648-52	N	bis(2-Ethylhexyl) Phthalate	71.0	35.0	71.0 U	+	UG/KG	L
SW8270C/NONE	SO	068SB-0040M-0001-SO	240-22648-52	N	Fluoranthene	6.7	3.5	3.5 J		UG/KG	TR
SW8270C/NONE	SO	068SB-0040M-0001-SO	240-22648-52	N	Phenanthrene	6.7	6.1	6.1 J		UG/KG	TR
SW8270C/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	2,4-Dinitrophenol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	Benzyl alcohol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	bis(2-Ethylhexyl) Phthalate	70.0	66.0	70.0 U	+	UG/KG	L
SW8270C/NONE	SO	068SB-0042M-0001-SO	240-22648-54	N	2,4-Dinitrophenol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SO	068SB-0042M-0001-SO	240-22648-54	N	Benzo(b)fluoranthene	6.7	5.1	5.1 J		UG/KG	TR
SW8270C/NONE	SO	068SB-0042M-0001-SO	240-22648-54	N	Benzyl alcohol	330	330	330 UJ		UG/KG	J

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID			RL	Lab Result	Qualified Result	Bias	Units	Reason
SW8270C/NONE	SO	068SB-0042M-0001-SO	240-22648-54	N	bis(2-Ethylhexyl) Phthalate	120	120	120 U	+	UG/KG	L
SW8270C/NONE	SO	068SB-0044M-0001-SO	240-22648-41	N	Benzoic acid	670	670	670 R		UG/KG	c
SW8270C/NONE	SO	068SB-0044M-0001-SO	240-22648-41	N	Benzyl alcohol	340	340	340 UJ		UG/KG	J
SW8270C/NONE	SO	068SB-0044M-0001-SO	240-22648-41	N	Hexachloroethane	51.0	51.0	51.0 UJ		UG/KG	J
SW8270C/NONE	SO	068SB-0044M-0001-SO	240-22648-41	N	Phenanthrene	6.8	5.0	5.0 J		UG/KG	TR
SW8270C/NONE	SO	068SB-0045M-0001-SO	240-22648-42	N	2-Methylnaphthalene	6.7	6.1	6.1 J		UG/KG	TR
SW8270C/NONE	SO	068SB-0045M-0001-SO	240-22648-42	N	Benzoic acid	660	660	660 R		UG/KG	c
SW8270C/NONE	SO	068SB-0045M-0001-SO	240-22648-42	N	Benzyl alcohol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SO	068SB-0045M-0001-SO	240-22648-42	N	Hexachloroethane	50.0	50.0	50.0 UJ		UG/KG	J
SW8270C/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	1,4-Dichlorobenzene	49.0	20.0	20.0 J		UG/KG	TR
SW8270C/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	Benzoic acid	650	650	650 R		UG/KG	c
SW8270C/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	Benzyl alcohol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	Hexachloroethane	49.0	49.0	49.0 UJ		UG/KG	J
SW8270C/NONE	SO	068SB-0047M-0001-SO	240-22648-44	N	2,4-Dinitrophenol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SO	068SB-0047M-0001-SO	240-22648-44	N	Benzyl alcohol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SO	068SB-0047M-0001-SO	240-22648-44	N	bis(2-Ethylhexyl) Phthalate	70.0	61.0	70.0 U	+	UG/KG	L
SW8270C/NONE	SO	068SB-0047M-0001-SO	240-22648-44	N	Phenanthrene	6.6	4.3	4.3 J		UG/KG	TR
SW8270C/NONE	SO	068SB-0048M-0001-SO	240-22648-45	N	2-Methylnaphthalene	6.7	6.4	6.4 J		UG/KG	TR
SW8270C/NONE	SO	068SB-0048M-0001-SO	240-22648-45	N	Benzyl alcohol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SO	068SB-0048M-0001-SO	240-22648-45	N	bis(2-Ethylhexyl) Phthalate	71.0	33.0	33.0 J		UG/KG	TR
SW8270C/NONE	SO	068SB-0048M-0001-SO	240-22648-45	N	Hexachloroethane	50.0	50.0	50.0 UJ		UG/KG	J
SW8270C/NONE	SO	068SB-0050M-0001-SO	240-22648-55	N	2,4-Dinitrophenol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SO	068SB-0050M-0001-SO	240-22648-55	N	2-Methylnaphthalene	6.7	5.7	5.7 J		UG/KG	TR
SW8270C/NONE	SO	068SB-0050M-0001-SO	240-22648-55	N	Benzyl alcohol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SO	068SB-0050M-0001-SO	240-22648-55	N	bis(2-Ethylhexyl) Phthalate	110	110	110 U	+	UG/KG	L
SW8270C/NONE	SO	068SB-0050M-0001-SO	240-22648-55	N	Pyrene	6.7	3.4	3.4 J		UG/KG	TR
SW8270C/NONE	SO	068SB-0051M-0001-SO	240-22648-56	N	2,4-Dinitrophenol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SO	068SB-0051M-0001-SO	240-22648-56	N	2-Methylnaphthalene	6.7	6.5	6.5 J		UG/KG	TR
SW8270C/NONE	SO	068SB-0051M-0001-SO	240-22648-56	N	Benzyl alcohol	330	330	330 UJ		UG/KG	J

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID			RL	Lab Result	Qualified Result	Bias	Units	Reason
SW8270C/NONE	SO	068SB-0051M-0001-SO	240-22648-56	N	bis(2-Ethylhexyl) Phthalate	84.0	84.0	84.0 U	+	UG/KG	L
SW8270C/NONE	SO	068SB-0052M-0001-SO	240-22648-57	N	2,4-Dinitrophenol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SO	068SB-0052M-0001-SO	240-22648-57	N	2-Methylnaphthalene	6.6	5.7	5.7 J		UG/KG	TR
SW8270C/NONE	SO	068SB-0052M-0001-SO	240-22648-57	N	Benzyl alcohol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SO	068SB-0052M-0001-SO	240-22648-57	N	bis(2-Ethylhexyl) Phthalate	91.0	91.0	91.0 U	+	UG/KG	L
SW8270C/NONE	SO	068SB-0052M-0001-SO	240-22648-57	N	Dibenzofuran	50.0	17.0	17.0 J		UG/KG	TR
SW8270C/NONE	SO	068SB-0053M-0001-SO	240-22648-58	N	2,4-Dinitrophenol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SO	068SB-0053M-0001-SO	240-22648-58	N	2-Methylnaphthalene	6.6	4.4	4.4 J		UG/KG	TR
SW8270C/NONE	SO	068SB-0053M-0001-SO	240-22648-58	N	Benzyl alcohol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SO	068SB-0053M-0001-SO	240-22648-58	N	bis(2-Ethylhexyl) Phthalate	74.0	74.0	74.0 U	+	UG/KG	L
SW8270C/NONE	SO	068SB-0054M-0001-SO	240-22648-59	FD	2,4-Dinitrophenol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SO	068SB-0054M-0001-SO	240-22648-59	FD	Benzyl alcohol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SO	068SB-0054M-0001-SO	240-22648-59	FD	bis(2-Ethylhexyl) Phthalate	70.0	46.0	70.0 U	+	UG/KG	L
SW8270C/NONE	SO	068SB-0054M-0001-SO	240-22648-59	FD	Phenanthrene	6.6	5.4	5.4 J		UG/KG	TR
SW8270C/NONE	SO	068SB-0056M-0001-SO	240-22648-60	N	2,4-Dinitrophenol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SO	068SB-0056M-0001-SO	240-22648-60	N	Benzyl alcohol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SO	068SB-0056M-0001-SO	240-22648-60	N	bis(2-Ethylhexyl) Phthalate	90.0	90.0	90.0 U	+	UG/KG	L
SW8270C/NONE	SO	068SB-0057M-0001-SO	240-22648-61	N	2,4-Dinitrophenol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SO	068SB-0057M-0001-SO	240-22648-61	N	Benzoic acid	670	670	670 R		UG/KG	m
SW8270C/NONE	SO	068SB-0057M-0001-SO	240-22648-61	N	Benzyl alcohol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SO	068SB-0057M-0001-SO	240-22648-61	N	bis(2-Ethylhexyl) Phthalate	80.0	80.0	80.0 U	+	UG/KG	L
SW8270C/NONE	SO	068SB-0057M-0001-SO	240-22648-61	N	Dibenzofuran	51.0	17.0	17.0 J		UG/KG	TR
SW8270C/NONE	SO	068SB-0059M-0001-SO	240-22648-62	N	2,4-Dinitrophenol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SO	068SB-0059M-0001-SO	240-22648-62	N	Benzyl alcohol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SO	068SB-0059M-0001-SO	240-22648-62	N	bis(2-Ethylhexyl) Phthalate	120	120	120 U	+	UG/KG	L
SW8270C/NONE	SO	073SB-0016M-0001-SO	240-22648-1	N	1,4-Dichlorobenzene	50.0	28.0	28.0 J		UG/KG	TR
SW8270C/NONE	SO	073SB-0016M-0001-SO	240-22648-1	N	Benzoic acid	660	660	660 R		UG/KG	c
SW8270C/NONE	SO	073SB-0016M-0001-SO	240-22648-1	N	bis(2-Ethylhexyl) Phthalate	89.0	89.0	89.0 U	+	UG/KG	L
SW8270C/NONE	SO	073SB-0016M-0001-SO	240-22648-1	N	Dibenzofuran	50.0	14.0	14.0 J		UG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID			RL	Lab Result	Qualified Result	Bias	Units	Reason
SW8270C/NONE	SO	073SB-0016M-0001-SO	240-22648-1	N	Di-n-Butyl Phthalate	50.0	23.0	50.0 U	+	UG/KG	L
SW8270C/NONE	SO	073SB-0016M-0001-SO	240-22648-1	N	Fluorene	6.6	5.9	5.9 J		UG/KG	TR
SW8270C/NONE	SO	073SB-0016M-0001-SO	240-22648-1	N	Hexachloroethane	50.0	50.0	50.0 UJ		UG/KG	J
SW8270C/NONE	SO	073SB-0016M-0001-SO	240-22648-1	N	Isophorone	50.0	18.0	18.0 J		UG/KG	TR
SW8270C/NONE	SO	073SB-0017M-0001-SO	240-22648-2	FD	1,4-Dichlorobenzene	49.0	24.0	24.0 J		UG/KG	TR
SW8270C/NONE	SO	073SB-0017M-0001-SO	240-22648-2	FD	Acenaphthylene	6.6	4.8	4.8 J		UG/KG	TR
SW8270C/NONE	SO	073SB-0017M-0001-SO	240-22648-2	FD	Benzoic acid	650	650	650 R		UG/KG	c
SW8270C/NONE	SO	073SB-0017M-0001-SO	240-22648-2	FD	Benzyl alcohol	330	37.0	37.0 J		UG/KG	TR
SW8270C/NONE	SO	073SB-0017M-0001-SO	240-22648-2	FD	bis(2-Ethylhexyl) Phthalate	68.0	68.0	68.0 U	+	UG/KG	L
SW8270C/NONE	SO	073SB-0017M-0001-SO	240-22648-2	FD	Dibenzofuran	49.0	11.0	11.0 J		UG/KG	TR
SW8270C/NONE	SO	073SB-0017M-0001-SO	240-22648-2	FD	Di-n-Butyl Phthalate	49.0	20.0	49.0 U	+	UG/KG	L
SW8270C/NONE	SO	073SB-0017M-0001-SO	240-22648-2	FD	Hexachloroethane	49.0	49.0	49.0 UJ		UG/KG	J
SW8270C/NONE	SO	073SB-0017M-0001-SO	240-22648-2	FD	Isophorone	49.0	23.0	23.0 J		UG/KG	TR
SW8270C/NONE	SO	073SB-0019M-0001-SO	240-22648-3	N	1,4-Dichlorobenzene	50.0	21.0	21.0 J		UG/KG	TR
SW8270C/NONE	SO	073SB-0019M-0001-SO	240-22648-3	N	Benzoic acid	650	650	650 R		UG/KG	c
SW8270C/NONE	SO	073SB-0019M-0001-SO	240-22648-3	N	bis(2-Ethylhexyl) Phthalate	50.0	45.0	50.0 U	+	UG/KG	L
SW8270C/NONE	SO	073SB-0019M-0001-SO	240-22648-3	N	Di-n-Butyl Phthalate	50.0	15.0	50.0 U	+	UG/KG	L
SW8270C/NONE	SO	073SB-0019M-0001-SO	240-22648-3	N	Hexachloroethane	50.0	50.0	50.0 UJ		UG/KG	J
SW8270C/NONE	SO	073SB-0019M-0001-SO	240-22648-3	N	Pyrene	6.6	3.9	3.9 J		UG/KG	TR
SW8270C/NONE	SO	073SB-0020M-0001-SO	240-22648-4	N	1,4-Dichlorobenzene	50.0	20.0	20.0 J		UG/KG	TR
SW8270C/NONE	SO	073SB-0020M-0001-SO	240-22648-4	N	Benzoic acid	660	660	660 R		UG/KG	c
SW8270C/NONE	SO	073SB-0020M-0001-SO	240-22648-4	N	Benzyl alcohol	330	130	130 J		UG/KG	TR
SW8270C/NONE	SO	073SB-0020M-0001-SO	240-22648-4	N	bis(2-Ethylhexyl) Phthalate	92.0	92.0	92.0 U	+	UG/KG	L
SW8270C/NONE	SO	073SB-0020M-0001-SO	240-22648-4	N	Dibenzofuran	50.0	8.4	8.4 J		UG/KG	TR
SW8270C/NONE	SO	073SB-0020M-0001-SO	240-22648-4	N	Di-n-Butyl Phthalate	50.0	26.0	50.0 U	+	UG/KG	L
SW8270C/NONE	SO	073SB-0020M-0001-SO	240-22648-4	N	Fluorene	6.7	4.4	4.4 J		UG/KG	TR
SW8270C/NONE	SO	073SB-0020M-0001-SO	240-22648-4	N	Hexachloroethane	50.0	50.0	50.0 UJ		UG/KG	J
SW8270C/NONE	SO	073SB-0020M-0001-SO	240-22648-4	N	Isophorone	50.0	16.0	16.0 J		UG/KG	TR
SW8270C/NONE	SO	073SB-0021M-0001-SO	240-22648-5	N	1,4-Dichlorobenzene	50.0	23.0	23.0 J		UG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID			RL	Lab Result	Qualified Result	Bias	Units	Reason
SW8270C/NONE	SO	073SB-0021M-0001-SO	240-22648-5	N	Benzo(g,h,i)perylene	6.7	6.4	6.4 J		UG/KG	TR
SW8270C/NONE	SO	073SB-0021M-0001-SO	240-22648-5	N	Benzo(k)fluoranthene	6.7	4.5	4.5 J		UG/KG	TR
SW8270C/NONE	SO	073SB-0021M-0001-SO	240-22648-5	N	Benzoic acid	660	660	660 R		UG/KG	c
SW8270C/NONE	SO	073SB-0021M-0001-SO	240-22648-5	N	bis(2-Ethylhexyl) Phthalate	69.0	69.0	69.0 U	+	UG/KG	L
SW8270C/NONE	SO	073SB-0021M-0001-SO	240-22648-5	N	Dibenzofuran	50.0	6.5	6.5 J		UG/KG	TR
SW8270C/NONE	SO	073SB-0021M-0001-SO	240-22648-5	N	Hexachloroethane	50.0	50.0	50.0 UJ		UG/KG	J
SW8270C/NONE	SO	073SB-0021M-0001-SO	240-22648-5	N	Indeno(1,2,3-c,d)pyrene	6.7	6.2	6.2 J		UG/KG	TR
SW8270C/NONE	SO	073SB-0021M-0001-SO	240-22648-5	N	Isophorone	50.0	19.0	19.0 J		UG/KG	TR
SW8270C/NONE	SO	073SB-0022M-0001-SO	240-22648-6	N	Benzo(g,h,i)perylene	6.6	5.4	5.4 J		UG/KG	TR
SW8270C/NONE	SO	073SB-0022M-0001-SO	240-22648-6	N	Benzoic acid	660	660	660 R		UG/KG	c
SW8270C/NONE	SO	073SB-0022M-0001-SO	240-22648-6	N	bis(2-Ethylhexyl) Phthalate	50.0	45.0	50.0 U	+	UG/KG	L
SW8270C/NONE	SO	073SB-0022M-0001-SO	240-22648-6	N	Chrysene	6.6	6.1	6.1 J		UG/KG	TR
SW8270C/NONE	SO	073SB-0022M-0001-SO	240-22648-6	N	Dibenzofuran	50.0	5.0	5.0 J		UG/KG	TR
SW8270C/NONE	SO	073SB-0022M-0001-SO	240-22648-6	N	Hexachloroethane	50.0	50.0	50.0 UJ		UG/KG	J
SW8270C/NONE	SO	073SB-0023M-0001-SO	240-22648-7	N	1,4-Dichlorobenzene	50.0	35.0	35.0 J		UG/KG	TR
SW8270C/NONE	SO	073SB-0023M-0001-SO	240-22648-7	N	Acenaphthylene	6.6	3.3	3.3 J		UG/KG	TR
SW8270C/NONE	SO	073SB-0023M-0001-SO	240-22648-7	N	Benzoic acid	660	660	660 R		UG/KG	c
SW8270C/NONE	SO	073SB-0023M-0001-SO	240-22648-7	N	Benzyl alcohol	330	34.0	34.0 J		UG/KG	TR
SW8270C/NONE	SO	073SB-0023M-0001-SO	240-22648-7	N	bis(2-Ethylhexyl) Phthalate	70.0	70.0	70.0 U	+	UG/KG	L
SW8270C/NONE	SO	073SB-0023M-0001-SO	240-22648-7	N	Dibenzofuran	50.0	12.0	12.0 J		UG/KG	TR
SW8270C/NONE	SO	073SB-0023M-0001-SO	240-22648-7	N	Di-n-Butyl Phthalate	70.0	15.0	70.0 U	+	UG/KG	L
SW8270C/NONE	SO	073SB-0023M-0001-SO	240-22648-7	N	Fluorene	6.6	6.0	6.0 J		UG/KG	TR
SW8270C/NONE	SO	073SB-0023M-0001-SO	240-22648-7	N	Isophorone	50.0	13.0	13.0 J		UG/KG	TR
SW8270C/NONE	SO	073SB-0024M-0001-SO	240-22648-8	N	1,4-Dichlorobenzene	50.0	24.0	24.0 J		UG/KG	TR
SW8270C/NONE	SO	073SB-0024M-0001-SO	240-22648-8	N	Acenaphthylene	6.7	4.6	4.6 J		UG/KG	TR
SW8270C/NONE	SO	073SB-0024M-0001-SO	240-22648-8	N	Anthracene	6.7	4.5	4.5 J		UG/KG	TR
SW8270C/NONE	SO	073SB-0024M-0001-SO	240-22648-8	N	Benzoic acid	660	660	660 R		UG/KG	c
SW8270C/NONE	SO	073SB-0024M-0001-SO	240-22648-8	N	bis(2-Ethylhexyl) Phthalate	76.0	76.0	76.0 U	+	UG/KG	L
SW8270C/NONE	SO	073SB-0024M-0001-SO	240-22648-8	N	Dibenzofuran	50.0	8.5	8.5 J		UG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID			RL	Lab Result	Qualified Result	Bias	Units	Reason
SW8270C/NONE	SO	073SB-0024M-0001-SO	240-22648-8	N	Fluorene	6.7	4.5	4.5 J		UG/KG	TR
SW8270C/NONE	SO	073SB-0024M-0001-SO	240-22648-8	N	Isophorone	50.0	14.0	14.0 J		UG/KG	TR
SW8270C/NONE	SO	073SB-0067M-0001-SO	240-22648-9	N	Benzoic acid	760	760	760 R		UG/KG	c
SW8270C/NONE	SO	073SB-0067M-0001-SO	240-22648-9	N	Benzyl alcohol	380	80.0	80.0 J		UG/KG	TR
SW8270C/NONE	SO	073SB-0067M-0001-SO	240-22648-9	N	bis(2-Ethylhexyl) Phthalate	57.0	38.0	57.0 U	+	UG/KG	L
SW8270C/NONE	SE	073SD-0045-0001-SD	240-22648-10	N	2-Methylnaphthalene	17.0	16.0	16.0 J		UG/KG	TR
SW8270C/NONE	SE	073SD-0045-0001-SD	240-22648-10	N	3,3'-Dichlorobenzidine	260	260	260 R	-	UG/KG	m
SW8270C/NONE	SE	073SD-0045-0001-SD	240-22648-10	N	3-Nitroaniline	510	510	510 R	-	UG/KG	m
SW8270C/NONE	SE	073SD-0045-0001-SD	240-22648-10	N	4-Chloroaniline	380	380	380 R	-	UG/KG	m
SW8270C/NONE	SE	073SD-0045-0001-SD	240-22648-10	N	4-Nitroaniline	510	510	510 UJ	-	UG/KG	M
SW8270C/NONE	SE	073SD-0045-0001-SD	240-22648-10	N	Anthracene	17.0	10.0	10.0 J		UG/KG	TR
SW8270C/NONE	SE	073SD-0045-0001-SD	240-22648-10	N	Benzoic acid	1700	1700	1700 R		UG/KG	c
SW8270C/NONE	SE	073SD-0045-0001-SD	240-22648-10	N	Benzyl alcohol	840	260	260 J		UG/KG	TR
SW8270C/NONE	SE	073SD-0045-0001-SD	240-22648-10	N	bis(2-Ethylhexyl) Phthalate	190	190	190 U	+	UG/KG	L
SW8270C/NONE	SE	073SD-0045-0001-SD	240-22648-10	N	Dibenzofuran	130	45.0	45.0 J		UG/KG	TR
SW8270C/NONE	SE	073SD-0045-0001-SD	240-22648-10	N	Di-n-Butyl Phthalate	130	53.0	130 U	+	UG/KG	L
SW8270C/NONE	SE	073SD-0045-0001-SD	240-22648-10	N	Hexachloroethane	130	130	130 UJ	-	UG/KG	M
SW8270C/NONE	SE	073SD-0045-0001-SD	240-22648-10	N	Naphthalene	17.0	12.0	12.0 J		UG/KG	TR
SW8270C/NONE	SE	073SD-0046-0001-SD	240-22648-14	N	Benzoic acid	1800	1400	1400 J		UG/KG	TR/c
SW8270C/NONE	SE	073SD-0046-0001-SD	240-22648-14	N	Benzyl alcohol	880	880	880 UJ		UG/KG	J
SW8270C/NONE	SE	073SD-0046-0001-SD	240-22648-14	N	bis(2-Ethylhexyl) Phthalate	190	77.0	77.0 J		UG/KG	TR
SW8270C/NONE	SE	073SD-0046-0001-SD	240-22648-14	N	Dibenzofuran	130	35.0	35.0 J		UG/KG	TR
SW8270C/NONE	SE	073SD-0046-0001-SD	240-22648-14	N	Hexachloroethane	130	130	130 UJ		UG/KG	J
SW8270C/NONE	SE	073SD-0047-0001-SD	240-22648-11	N	Benzo(a)anthracene	10.0	7.6	7.6 J		UG/KG	TR
SW8270C/NONE	SE	073SD-0047-0001-SD	240-22648-11	N	Benzo(b)fluoranthene	10.0	8.2	8.2 J		UG/KG	TR
SW8270C/NONE	SE	073SD-0047-0001-SD	240-22648-11	N	Benzoic acid	990	990	990 R		UG/KG	c
SW8270C/NONE	SE	073SD-0047-0001-SD	240-22648-11	N	Benzyl alcohol	500	59.0	59.0 J		UG/KG	TR
SW8270C/NONE	SE	073SD-0047-0001-SD	240-22648-11	N	bis(2-Ethylhexyl) Phthalate	160	160	160 U	+	UG/KG	L
SW8270C/NONE	SE	073SD-0047-0001-SD	240-22648-11	N	Chrysene	10.0	5.4	5.4 J		UG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID			RL	Lab Result	Qualified Result	Bias	Units	Reason
SW8270C/NONE	SE	073SD-0047-0001-SD	240-22648-11	N	Hexachloroethane	75.0	75.0	75.0 UJ		UG/KG	J
SW8270C/NONE	SE	073SD-0047-0001-SD	240-22648-11	N	Pyrene	10.0	8.3	8.3 J		UG/KG	TR
SW8270C/NONE	SE	073SD-0048-0001-SD	240-22648-12	FD	2-Methylnaphthalene	10.0	7.4	7.4 J		UG/KG	TR
SW8270C/NONE	SE	073SD-0048-0001-SD	240-22648-12	FD	Benzoic acid	1000	1000	1000 R		UG/KG	c
SW8270C/NONE	SE	073SD-0048-0001-SD	240-22648-12	FD	Benzyl alcohol	510	150	150 J		UG/KG	TR
SW8270C/NONE	SE	073SD-0048-0001-SD	240-22648-12	FD	bis(2-Ethylhexyl) Phthalate	77.0	60.0	77.0 U	+	UG/KG	L
SW8270C/NONE	SE	073SD-0048-0001-SD	240-22648-12	FD	Di-n-Butyl Phthalate	77.0	23.0	77.0 U	+	UG/KG	L
SW8270C/NONE	SE	073SD-0048-0001-SD	240-22648-12	FD	Hexachloroethane	77.0	77.0	77.0 UJ		UG/KG	J
SW8270C/NONE	SE	073SD-0048-0001-SD	240-22648-12	FD	Pyrene	10.0	8.2	8.2 J		UG/KG	TR
SW8270C/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	2-Methylnaphthalene	10.0	7.3	7.3 J		UG/KG	TR
SW8270C/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	Benzo(k)fluoranthene	10.0	6.8	6.8 J		UG/KG	TR
SW8270C/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	Benzoic acid	990	990	990 R		UG/KG	c
SW8270C/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	bis(2-Ethylhexyl) Phthalate	75.0	75.0	75.0 U	+	UG/KG	L
SW8270C/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	Dibenzofuran	75.0	18.0	18.0 J		UG/KG	TR
SW8270C/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	Indeno(1,2,3-c,d)pyrene	10.0	8.1	8.1 J		UG/KG	TR
SW8270C/NONE	WS	073SW-0056-0001-SW	240-22648-15	N	3,3'-Dichlorobenzidine	5.3	5.3	5.3 R	-	UG/L	m
SW8270C/NONE	WS	073SW-0056-0001-SW	240-22648-15	N	Benzoic acid	27.0	27.0	27.0 R		UG/L	c
SW8270C/NONE	WS	073SW-0056-0001-SW	240-22648-15	N	bis(2-Ethylhexyl) Phthalate	2.1	0.94	0.94 J		UG/L	TR
SW8270C/NONE	WS	073SW-0056-0001-SW	240-22648-15	N	Hexachlorocyclopentadiene	11.0	11.0	11.0 R		UG/L	c
SW8270C/NONE	WS	073SW-0058-0001-SW	240-22648-16	N	Benzoic acid	26.0	26.0	26.0 R		UG/L	c
SW8270C/NONE	WS	073SW-0058-0001-SW	240-22648-16	N	bis(2-Ethylhexyl) Phthalate	2.1	1.4	1.4 J		UG/L	TR
SW8270C/NONE	WS	073SW-0058-0001-SW	240-22648-16	N	Hexachlorocyclopentadiene	10.0	10.0	10.0 R		UG/L	c
SW8270C/NONE	WS	073SW-0059-0001-SW	240-22648-17	FD	Benzoic acid	27.0	27.0	27.0 R		UG/L	c
SW8270C/NONE	WS	073SW-0059-0001-SW	240-22648-17	FD	Hexachlorocyclopentadiene	11.0	11.0	11.0 R		UG/L	c
SW8270C/NONE	WS	073SW-0061-0001-SW	240-22648-18	N	Benzoic acid	26.0	26.0	26.0 R		UG/L	c
SW8270C/NONE	WS	073SW-0061-0001-SW	240-22648-18	N	Hexachlorocyclopentadiene	10.0	10.0	10.0 R		UG/L	c
SW8270C/NONE	WS	073SW-0067-0001-SW	240-22648-21	N	2-Methylphenol (o-Cresol)	1.0	0.84	0.84 J		UG/L	TR
SW8270C/NONE	WS	073SW-0067-0001-SW	240-22648-21	N	Benzoic acid	26.0	26.0	26.0 R		UG/L	c
SW8270C/NONE	WS	073SW-0067-0001-SW	240-22648-21	N	Cresols, m & p	2.1	1.9	1.9 J		UG/L	TR

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID			RL	Lab Result	Qualified Result	Bias	Units	Reason
SW8270C/NONE	WS	073SW-0067-0001-SW	240-22648-21	N	Fluoranthene	0.21	0.15	0.15 J		UG/L	TR
SW8270C/NONE	WS	073SW-0067-0001-SW	240-22648-21	N	Hexachlorocyclopentadiene	10.0	10.0	10.0 R		UG/L	c
SW8270C/NONE	WS	073SW-0067-0001-SW	240-22648-21	N	Pyrene	0.21	0.12	0.12 J		UG/L	TR
SW8270C/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	1,4-Dichlorobenzene	51.0	25.0	25.0 J		UG/KG	TR
SW8270C/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	Benzoic acid	670	670	670 R		UG/KG	c
SW8270C/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	Benzyl alcohol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	Hexachloroethane	51.0	51.0	51.0 UJ		UG/KG	J
SW8270C/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	1,4-Dichlorobenzene	50.0	23.0	23.0 J		UG/KG	TR
SW8270C/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Benzoic acid	660	660	660 R		UG/KG	c
SW8270C/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Benzyl alcohol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Hexachloroethane	50.0	50.0	50.0 UJ		UG/KG	J
SW8270C/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Isophorone	50.0	14.0	14.0 J		UG/KG	TR
SW8270C/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	Benzoic acid	660	660	660 R		UG/KG	c
SW8270C/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	Benzyl alcohol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	Hexachloroethane	50.0	50.0	50.0 UJ		UG/KG	J
SW8270C/NONE	SO	079SB-0071M-0001-SO	240-22648-38	N	Benzo(a)anthracene	6.7	5.9	5.9 J		UG/KG	TR
SW8270C/NONE	SO	079SB-0071M-0001-SO	240-22648-38	N	Benzo(a)pyrene	6.7	4.4	4.4 J		UG/KG	TR
SW8270C/NONE	SO	079SB-0071M-0001-SO	240-22648-38	N	Benzo(k)fluoranthene	6.7	3.4	3.4 J		UG/KG	TR
SW8270C/NONE	SO	079SB-0071M-0001-SO	240-22648-38	N	Benzoic acid	660	660	660 R		UG/KG	c
SW8270C/NONE	SO	079SB-0071M-0001-SO	240-22648-38	N	Benzyl alcohol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SO	079SB-0071M-0001-SO	240-22648-38	N	Hexachloroethane	50.0	50.0	50.0 UJ		UG/KG	J
SW8270C/NONE	SO	079SB-0071M-0001-SO	240-22648-38	N	Phenanthrene	6.7	4.2	4.2 J		UG/KG	TR
SW8270C/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Anthracene	6.7	4.9	4.9 J		UG/KG	TR
SW8270C/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Benzoic acid	660	660	660 R		UG/KG	c
SW8270C/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Benzyl alcohol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	bis(2-Ethylhexyl) Phthalate	70.0	67.0	67.0 J		UG/KG	TR
SW8270C/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Hexachloroethane	50.0	50.0	50.0 UJ		UG/KG	J

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
E353.2/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	Nitrocellulose	5.0	0.87	0.87 J	MG/KG	TR
E353.2/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	Nitrocellulose	5.0	2.2	2.2 J	MG/KG	TR
E353.2/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	Nitrocellulose	4.9	1.5	1.5 J	MG/KG	TR
E353.2/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Nitrocellulose	4.7	1.4	1.4 J	MG/KG	TR
E353.2/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	Nitrocellulose	5.0	1.5	1.5 J	MG/KG	TR
E353.2/NONE	SO	079SB-0071M-0001-SO	240-22648-38	N	Nitrocellulose	5.0	0.95	0.95 J	MG/KG	TR

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	068SB-0033M-0001-SO	240-22648-46	N	Silver	0.087	0.028	0.028 J	MG/KG	TR
SW6020/NONE	SO	068SB-0033M-0001-SO	240-22648-46	N	Aluminum	2.6	12000	12000	MG/KG	
SW6020/NONE	SO	068SB-0033M-0001-SO	240-22648-46	N	Arsenic	0.087	9.4	9.4	MG/KG	
SW6020/NONE	SO	068SB-0033M-0001-SO	240-22648-46	N	Barium	0.87	60.0	60.0	MG/KG	
SW6020/NONE	SO	068SB-0033M-0001-SO	240-22648-46	N	Beryllium	0.087	0.52	0.52	MG/KG	
SW6020/NONE	SO	068SB-0033M-0001-SO	240-22648-46	N	Calcium	8.7	2100	2100 J	MG/KG	M
SW6020/NONE	SO	068SB-0033M-0001-SO	240-22648-46	N	Cadmium	0.087	0.17	0.17	MG/KG	
SW6020/NONE	SO	068SB-0033M-0001-SO	240-22648-46	N	Cobalt	0.043	9.9	9.9	MG/KG	
SW6020/NONE	SO	068SB-0033M-0001-SO	240-22648-46	N	Chromium	0.17	15.0	15.0	MG/KG	
SW6020/NONE	SO	068SB-0033M-0001-SO	240-22648-46	N	Copper	0.17	17.0	17.0	MG/KG	
SW6020/NONE	SO	068SB-0033M-0001-SO	240-22648-46	N	Iron	4.3	24000	24000	MG/KG	
SW6020/NONE	SO	068SB-0033M-0001-SO	240-22648-46	N	Potassium	8.7	960	960	MG/KG	
SW6020/NONE	SO	068SB-0033M-0001-SO	240-22648-46	N	Magnesium	8.7	2700	2700	MG/KG	
SW6020/NONE	SO	068SB-0033M-0001-SO	240-22648-46	N	Manganese	0.43	480	480	MG/KG	
SW6020/NONE	SO	068SB-0033M-0001-SO	240-22648-46	N	Sodium	8.7	37.0	37.0	MG/KG	
SW6020/NONE	SO	068SB-0033M-0001-SO	240-22648-46	N	Nickel	0.087	19.0	19.0	MG/KG	
SW6020/NONE	SO	068SB-0033M-0001-SO	240-22648-46	N	Lead	0.087	12.0	12.0	MG/KG	
SW6020/NONE	SO	068SB-0033M-0001-SO	240-22648-46	N	Selenium	0.43	0.33	0.33 J	MG/KG	TR
SW6020/NONE	SO	068SB-0033M-0001-SO	240-22648-46	N	Thallium	0.087	0.15	0.15	MG/KG	
SW6020/NONE	SO	068SB-0033M-0001-SO	240-22648-46	N	Vanadium	0.087	19.0	19.0	MG/KG	
SW6020/NONE	SO	068SB-0033M-0001-SO	240-22648-46	N	Zinc	0.43	61.0	61.0 J	MG/KG	A

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	068SB-0034M-0001-SO	240-22648-47	N	Silver	0.089	0.023	0.023 J	MG/KG	TR
SW6020/NONE	SO	068SB-0034M-0001-SO	240-22648-47	N	Aluminum	2.7	10000	10000	MG/KG	
SW6020/NONE	SO	068SB-0034M-0001-SO	240-22648-47	N	Arsenic	0.089	12.0	12.0	MG/KG	
SW6020/NONE	SO	068SB-0034M-0001-SO	240-22648-47	N	Barium	0.89	64.0	64.0	MG/KG	
SW6020/NONE	SO	068SB-0034M-0001-SO	240-22648-47	N	Beryllium	0.089	0.54	0.54	MG/KG	
SW6020/NONE	SO	068SB-0034M-0001-SO	240-22648-47	N	Calcium	8.9	2300	2300 J	MG/KG	M
SW6020/NONE	SO	068SB-0034M-0001-SO	240-22648-47	N	Cadmium	0.089	0.15	0.15	MG/KG	
SW6020/NONE	SO	068SB-0034M-0001-SO	240-22648-47	N	Cobalt	0.045	11.0	11.0	MG/KG	
SW6020/NONE	SO	068SB-0034M-0001-SO	240-22648-47	N	Chromium	0.18	15.0	15.0	MG/KG	
SW6020/NONE	SO	068SB-0034M-0001-SO	240-22648-47	N	Copper	0.18	21.0	21.0	MG/KG	
SW6020/NONE	SO	068SB-0034M-0001-SO	240-22648-47	N	Iron	4.5	26000	26000	MG/KG	
SW6020/NONE	SO	068SB-0034M-0001-SO	240-22648-47	N	Potassium	8.9	1100	1100	MG/KG	
SW6020/NONE	SO	068SB-0034M-0001-SO	240-22648-47	N	Magnesium	8.9	3600	3600	MG/KG	
SW6020/NONE	SO	068SB-0034M-0001-SO	240-22648-47	N	Manganese	0.45	350	350	MG/KG	
SW6020/NONE	SO	068SB-0034M-0001-SO	240-22648-47	N	Sodium	8.9	45.0	45.0	MG/KG	
SW6020/NONE	SO	068SB-0034M-0001-SO	240-22648-47	N	Nickel	0.089	28.0	28.0	MG/KG	
SW6020/NONE	SO	068SB-0034M-0001-SO	240-22648-47	N	Lead	0.089	12.0	12.0	MG/KG	
SW6020/NONE	SO	068SB-0034M-0001-SO	240-22648-47	N	Selenium	0.45	0.27	0.27 J	MG/KG	TR
SW6020/NONE	SO	068SB-0034M-0001-SO	240-22648-47	N	Thallium	0.089	0.14	0.14	MG/KG	
SW6020/NONE	SO	068SB-0034M-0001-SO	240-22648-47	N	Vanadium	0.089	16.0	16.0	MG/KG	
SW6020/NONE	SO	068SB-0034M-0001-SO	240-22648-47	N	Zinc	0.45	56.0	56.0 J	MG/KG	A
SW6020/NONE	SO	068SB-0035M-0001-SO	240-22648-48	N	Silver	0.090	0.031	0.031 J	MG/KG	TR
SW6020/NONE	SO	068SB-0035M-0001-SO	240-22648-48	N	Aluminum	2.7	12000	12000	MG/KG	
SW6020/NONE	SO	068SB-0035M-0001-SO	240-22648-48	N	Arsenic	0.090	11.0	11.0	MG/KG	
SW6020/NONE	SO	068SB-0035M-0001-SO	240-22648-48	N	Barium	0.90	64.0	64.0	MG/KG	
SW6020/NONE	SO	068SB-0035M-0001-SO	240-22648-48	N	Beryllium	0.090	0.56	0.56	MG/KG	
SW6020/NONE	SO	068SB-0035M-0001-SO	240-22648-48	N	Calcium	9.0	2300	2300 J	MG/KG	M
SW6020/NONE	SO	068SB-0035M-0001-SO	240-22648-48	N	Cadmium	0.090	0.14	0.14	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	068SB-0035M-0001-SO	240-22648-48	N	Cobalt	0.045	10.0	10.0	MG/KG	
SW6020/NONE	SO	068SB-0035M-0001-SO	240-22648-48	N	Chromium	0.18	16.0	16.0	MG/KG	
SW6020/NONE	SO	068SB-0035M-0001-SO	240-22648-48	N	Copper	0.18	19.0	19.0	MG/KG	
SW6020/NONE	SO	068SB-0035M-0001-SO	240-22648-48	N	Iron	4.5	26000	26000	MG/KG	
SW6020/NONE	SO	068SB-0035M-0001-SO	240-22648-48	N	Potassium	9.0	1200	1200	MG/KG	
SW6020/NONE	SO	068SB-0035M-0001-SO	240-22648-48	N	Magnesium	9.0	3300	3300	MG/KG	
SW6020/NONE	SO	068SB-0035M-0001-SO	240-22648-48	N	Manganese	0.45	360	360 J	MG/KG	d
SW6020/NONE	SO	068SB-0035M-0001-SO	240-22648-48	N	Sodium	9.0	41.0	41.0	MG/KG	
SW6020/NONE	SO	068SB-0035M-0001-SO	240-22648-48	N	Nickel	0.090	24.0	24.0	MG/KG	
SW6020/NONE	SO	068SB-0035M-0001-SO	240-22648-48	N	Lead	0.090	13.0	13.0	MG/KG	
SW6020/NONE	SO	068SB-0035M-0001-SO	240-22648-48	N	Selenium	0.45	0.29	0.29 J	MG/KG	TR
SW6020/NONE	SO	068SB-0035M-0001-SO	240-22648-48	N	Thallium	0.090	0.16	0.16	MG/KG	
SW6020/NONE	SO	068SB-0035M-0001-SO	240-22648-48	N	Vanadium	0.090	18.0	18.0	MG/KG	
SW6020/NONE	SO	068SB-0035M-0001-SO	240-22648-48	N	Zinc	0.45	53.0	53.0 J	MG/KG	A
SW6020/NONE	SO	068SB-0036M-0001-SO	240-22648-50	FD	Silver	0.096	0.028	0.028 J	MG/KG	TR
SW6020/NONE	SO	068SB-0036M-0001-SO	240-22648-50	FD	Aluminum	2.9	11000	11000	MG/KG	
SW6020/NONE	SO	068SB-0036M-0001-SO	240-22648-50	FD	Arsenic	0.096	9.4	9.4	MG/KG	
SW6020/NONE	SO	068SB-0036M-0001-SO	240-22648-50	FD	Barium	0.96	63.0	63.0	MG/KG	
SW6020/NONE	SO	068SB-0036M-0001-SO	240-22648-50	FD	Beryllium	0.096	0.55	0.55	MG/KG	
SW6020/NONE	SO	068SB-0036M-0001-SO	240-22648-50	FD	Calcium	9.6	1900	1900 J	MG/KG	M
SW6020/NONE	SO	068SB-0036M-0001-SO	240-22648-50	FD	Cadmium	0.096	0.16	0.16	MG/KG	
SW6020/NONE	SO	068SB-0036M-0001-SO	240-22648-50	FD	Cobalt	0.048	16.0	16.0	MG/KG	
SW6020/NONE	SO	068SB-0036M-0001-SO	240-22648-50	FD	Chromium	0.19	15.0	15.0	MG/KG	
SW6020/NONE	SO	068SB-0036M-0001-SO	240-22648-50	FD	Copper	0.19	16.0	16.0	MG/KG	
SW6020/NONE	SO	068SB-0036M-0001-SO	240-22648-50	FD	Iron	4.8	24000	24000	MG/KG	
SW6020/NONE	SO	068SB-0036M-0001-SO	240-22648-50	FD	Potassium	9.6	1100	1100	MG/KG	
SW6020/NONE	SO	068SB-0036M-0001-SO	240-22648-50	FD	Magnesium	9.6	2900	2900	MG/KG	
SW6020/NONE	SO	068SB-0036M-0001-SO	240-22648-50	FD	Manganese	0.48	620	620 J	MG/KG	d

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	068SB-0036M-0001-SO	240-22648-50	FD	Sodium	9.6	38.0	38.0	MG/KG	
SW6020/NONE	SO	068SB-0036M-0001-SO	240-22648-50	FD	Nickel	0.096	22.0	22.0	MG/KG	
SW6020/NONE	SO	068SB-0036M-0001-SO	240-22648-50	FD	Lead	0.096	15.0	15.0	MG/KG	
SW6020/NONE	SO	068SB-0036M-0001-SO	240-22648-50	FD	Selenium	0.48	0.35	0.35 J	MG/KG	TR
SW6020/NONE	SO	068SB-0036M-0001-SO	240-22648-50	FD	Thallium	0.096	0.15	0.15	MG/KG	
SW6020/NONE	SO	068SB-0036M-0001-SO	240-22648-50	FD	Vanadium	0.096	19.0	19.0	MG/KG	
SW6020/NONE	SO	068SB-0036M-0001-SO	240-22648-50	FD	Zinc	0.48	55.0	55.0 J	MG/KG	A
SW6020/NONE	SO	068SB-0038M-0001-SO	240-22648-49	N	Silver	0.095	0.018	0.018 J	MG/KG	TR
SW6020/NONE	SO	068SB-0038M-0001-SO	240-22648-49	N	Aluminum	2.9	10000	10000	MG/KG	
SW6020/NONE	SO	068SB-0038M-0001-SO	240-22648-49	N	Arsenic	0.095	11.0	11.0	MG/KG	
SW6020/NONE	SO	068SB-0038M-0001-SO	240-22648-49	N	Barium	0.95	43.0	43.0	MG/KG	
SW6020/NONE	SO	068SB-0038M-0001-SO	240-22648-49	N	Beryllium	0.095	0.46	0.46	MG/KG	
SW6020/NONE	SO	068SB-0038M-0001-SO	240-22648-49	N	Calcium	9.5	1600	1600 J	MG/KG	M
SW6020/NONE	SO	068SB-0038M-0001-SO	240-22648-49	N	Cadmium	0.095	0.10	0.10	MG/KG	
SW6020/NONE	SO	068SB-0038M-0001-SO	240-22648-49	N	Cobalt	0.048	8.9	8.9	MG/KG	
SW6020/NONE	SO	068SB-0038M-0001-SO	240-22648-49	N	Chromium	0.19	13.0	13.0	MG/KG	
SW6020/NONE	SO	068SB-0038M-0001-SO	240-22648-49	N	Copper	0.19	20.0	20.0	MG/KG	
SW6020/NONE	SO	068SB-0038M-0001-SO	240-22648-49	N	Iron	4.8	26000	26000	MG/KG	
SW6020/NONE	SO	068SB-0038M-0001-SO	240-22648-49	N	Potassium	9.5	780	780	MG/KG	
SW6020/NONE	SO	068SB-0038M-0001-SO	240-22648-49	N	Magnesium	9.5	2400	2400	MG/KG	
SW6020/NONE	SO	068SB-0038M-0001-SO	240-22648-49	N	Manganese	0.48	300	300	MG/KG	
SW6020/NONE	SO	068SB-0038M-0001-SO	240-22648-49	N	Sodium	9.5	31.0	31.0	MG/KG	
SW6020/NONE	SO	068SB-0038M-0001-SO	240-22648-49	N	Nickel	0.095	17.0	17.0	MG/KG	
SW6020/NONE	SO	068SB-0038M-0001-SO	240-22648-49	N	Lead	0.095	13.0	13.0	MG/KG	
SW6020/NONE	SO	068SB-0038M-0001-SO	240-22648-49	N	Selenium	0.48	0.31	0.31 J	MG/KG	TR
SW6020/NONE	SO	068SB-0038M-0001-SO	240-22648-49	N	Thallium	0.095	0.13	0.13	MG/KG	
SW6020/NONE	SO	068SB-0038M-0001-SO	240-22648-49	N	Vanadium	0.095	16.0	16.0	MG/KG	
SW6020/NONE	SO	068SB-0038M-0001-SO	240-22648-49	N	Zinc	0.48	54.0	54.0 J	MG/KG	A

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	068SB-0039M-0001-SO	240-22648-51	N	Silver	0.097	0.026	0.026 J	MG/KG	TR
SW6020/NONE	SO	068SB-0039M-0001-SO	240-22648-51	N	Aluminum	2.9	12000	12000	MG/KG	
SW6020/NONE	SO	068SB-0039M-0001-SO	240-22648-51	N	Arsenic	0.097	10.0	10.0	MG/KG	
SW6020/NONE	SO	068SB-0039M-0001-SO	240-22648-51	N	Barium	0.97	65.0	65.0	MG/KG	
SW6020/NONE	SO	068SB-0039M-0001-SO	240-22648-51	N	Beryllium	0.097	0.50	0.50	MG/KG	
SW6020/NONE	SO	068SB-0039M-0001-SO	240-22648-51	N	Calcium	9.7	2800	2800 J	MG/KG	M
SW6020/NONE	SO	068SB-0039M-0001-SO	240-22648-51	N	Cadmium	0.097	0.13	0.13	MG/KG	
SW6020/NONE	SO	068SB-0039M-0001-SO	240-22648-51	N	Cobalt	0.049	9.5	9.5	MG/KG	
SW6020/NONE	SO	068SB-0039M-0001-SO	240-22648-51	N	Chromium	0.19	16.0	16.0	MG/KG	
SW6020/NONE	SO	068SB-0039M-0001-SO	240-22648-51	N	Copper	0.19	18.0	18.0	MG/KG	
SW6020/NONE	SO	068SB-0039M-0001-SO	240-22648-51	N	Iron	4.9	25000	25000	MG/KG	
SW6020/NONE	SO	068SB-0039M-0001-SO	240-22648-51	N	Potassium	9.7	1300	1300	MG/KG	
SW6020/NONE	SO	068SB-0039M-0001-SO	240-22648-51	N	Magnesium	9.7	3700	3700	MG/KG	
SW6020/NONE	SO	068SB-0039M-0001-SO	240-22648-51	N	Manganese	0.49	250	250	MG/KG	
SW6020/NONE	SO	068SB-0039M-0001-SO	240-22648-51	N	Sodium	9.7	47.0	47.0	MG/KG	
SW6020/NONE	SO	068SB-0039M-0001-SO	240-22648-51	N	Nickel	0.097	25.0	25.0	MG/KG	
SW6020/NONE	SO	068SB-0039M-0001-SO	240-22648-51	N	Lead	0.097	11.0	11.0	MG/KG	
SW6020/NONE	SO	068SB-0039M-0001-SO	240-22648-51	N	Selenium	0.49	0.30	0.30 J	MG/KG	TR
SW6020/NONE	SO	068SB-0039M-0001-SO	240-22648-51	N	Thallium	0.097	0.16	0.16	MG/KG	
SW6020/NONE	SO	068SB-0039M-0001-SO	240-22648-51	N	Vanadium	0.097	19.0	19.0	MG/KG	
SW6020/NONE	SO	068SB-0039M-0001-SO	240-22648-51	N	Zinc	0.49	47.0	47.0 J	MG/KG	A
SW6020/NONE	SO	068SB-0040M-0001-SO	240-22648-52	N	Silver	0.095	0.028	0.028 J	MG/KG	TR
SW6020/NONE	SO	068SB-0040M-0001-SO	240-22648-52	N	Aluminum	2.9	11000	11000	MG/KG	
SW6020/NONE	SO	068SB-0040M-0001-SO	240-22648-52	N	Arsenic	0.095	6.5	6.5	MG/KG	
SW6020/NONE	SO	068SB-0040M-0001-SO	240-22648-52	N	Barium	0.95	60.0	60.0	MG/KG	
SW6020/NONE	SO	068SB-0040M-0001-SO	240-22648-52	N	Beryllium	0.095	0.50	0.50	MG/KG	
SW6020/NONE	SO	068SB-0040M-0001-SO	240-22648-52	N	Calcium	9.5	1900	1900 J	MG/KG	M
SW6020/NONE	SO	068SB-0040M-0001-SO	240-22648-52	N	Cadmium	0.095	0.15	0.15	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	068SB-0040M-0001-SO	240-22648-52	N	Cobalt	0.048	8.7	8.7	MG/KG	
SW6020/NONE	SO	068SB-0040M-0001-SO	240-22648-52	N	Chromium	0.19	14.0	14.0	MG/KG	
SW6020/NONE	SO	068SB-0040M-0001-SO	240-22648-52	N	Copper	0.19	14.0	14.0	MG/KG	
SW6020/NONE	SO	068SB-0040M-0001-SO	240-22648-52	N	Iron	4.8	21000	21000	MG/KG	
SW6020/NONE	SO	068SB-0040M-0001-SO	240-22648-52	N	Potassium	9.5	1200	1200	MG/KG	
SW6020/NONE	SO	068SB-0040M-0001-SO	240-22648-52	N	Magnesium	9.5	3100	3100	MG/KG	
SW6020/NONE	SO	068SB-0040M-0001-SO	240-22648-52	N	Manganese	0.48	310	310	MG/KG	
SW6020/NONE	SO	068SB-0040M-0001-SO	240-22648-52	N	Sodium	9.5	47.0	47.0	MG/KG	
SW6020/NONE	SO	068SB-0040M-0001-SO	240-22648-52	N	Nickel	0.095	19.0	19.0	MG/KG	
SW6020/NONE	SO	068SB-0040M-0001-SO	240-22648-52	N	Lead	0.095	13.0	13.0	MG/KG	
SW6020/NONE	SO	068SB-0040M-0001-SO	240-22648-52	N	Thallium	0.095	0.15	0.15	MG/KG	
SW6020/NONE	SO	068SB-0040M-0001-SO	240-22648-52	N	Vanadium	0.095	16.0	16.0	MG/KG	
SW6020/NONE	SO	068SB-0040M-0001-SO	240-22648-52	N	Zinc	0.48	58.0	58.0 J	MG/KG	A
SW6020/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	Silver	0.089	0.026	0.026 J	MG/KG	TR
SW6020/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	Aluminum	2.7	12000	12000	MG/KG	
SW6020/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	Arsenic	0.089	7.4	7.4	MG/KG	
SW6020/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	Barium	0.89	65.0	65.0	MG/KG	
SW6020/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	Beryllium	0.089	0.61	0.61	MG/KG	
SW6020/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	Calcium	8.9	2200	2200 J	MG/KG	M
SW6020/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	Cadmium	0.089	0.14	0.14	MG/KG	
SW6020/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	Cobalt	0.045	9.6	9.6	MG/KG	
SW6020/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	Chromium	0.18	15.0	15.0	MG/KG	
SW6020/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	Copper	0.18	15.0	15.0	MG/KG	
SW6020/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	Iron	4.5	22000	22000	MG/KG	
SW6020/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	Potassium	8.9	1300	1300	MG/KG	
SW6020/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	Magnesium	8.9	3800	3800	MG/KG	
SW6020/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	Manganese	0.45	280	280	MG/KG	
SW6020/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	Sodium	8.9	52.0	52.0	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	Nickel	0.089	22.0	22.0	MG/KG	
SW6020/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	Lead	0.089	12.0	12.0	MG/KG	
SW6020/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	Thallium	0.089	0.16	0.16	MG/KG	
SW6020/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	Vanadium	0.089	17.0	17.0	MG/KG	
SW6020/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	Zinc	0.45	37.0	37.0 J	MG/KG	A
SW6020/NONE	SO	068SB-0042M-0001-SO	240-22648-54	N	Silver	0.092	0.031	0.031 J	MG/KG	TR
SW6020/NONE	SO	068SB-0042M-0001-SO	240-22648-54	N	Aluminum	2.8	12000	12000	MG/KG	
SW6020/NONE	SO	068SB-0042M-0001-SO	240-22648-54	N	Arsenic	0.092	7.9	7.9	MG/KG	
SW6020/NONE	SO	068SB-0042M-0001-SO	240-22648-54	N	Barium	0.92	55.0	55.0	MG/KG	
SW6020/NONE	SO	068SB-0042M-0001-SO	240-22648-54	N	Beryllium	0.092	0.66	0.66	MG/KG	
SW6020/NONE	SO	068SB-0042M-0001-SO	240-22648-54	N	Calcium	9.2	8100	8100 J	MG/KG	M
SW6020/NONE	SO	068SB-0042M-0001-SO	240-22648-54	N	Cadmium	0.092	0.15	0.15	MG/KG	
SW6020/NONE	SO	068SB-0042M-0001-SO	240-22648-54	N	Cobalt	0.046	9.6	9.6	MG/KG	
SW6020/NONE	SO	068SB-0042M-0001-SO	240-22648-54	N	Chromium	0.18	15.0	15.0	MG/KG	
SW6020/NONE	SO	068SB-0042M-0001-SO	240-22648-54	N	Copper	0.18	13.0	13.0	MG/KG	
SW6020/NONE	SO	068SB-0042M-0001-SO	240-22648-54	N	Iron	4.6	23000	23000	MG/KG	
SW6020/NONE	SO	068SB-0042M-0001-SO	240-22648-54	N	Potassium	9.2	1600	1600	MG/KG	
SW6020/NONE	SO	068SB-0042M-0001-SO	240-22648-54	N	Magnesium	9.2	5200	5200	MG/KG	
SW6020/NONE	SO	068SB-0042M-0001-SO	240-22648-54	N	Manganese	0.46	370	370	MG/KG	
SW6020/NONE	SO	068SB-0042M-0001-SO	240-22648-54	N	Sodium	9.2	75.0	75.0	MG/KG	
SW6020/NONE	SO	068SB-0042M-0001-SO	240-22648-54	N	Nickel	0.092	21.0	21.0	MG/KG	
SW6020/NONE	SO	068SB-0042M-0001-SO	240-22648-54	N	Lead	0.092	12.0	12.0	MG/KG	
SW6020/NONE	SO	068SB-0042M-0001-SO	240-22648-54	N	Thallium	0.092	0.14	0.14	MG/KG	
SW6020/NONE	SO	068SB-0042M-0001-SO	240-22648-54	N	Vanadium	0.092	16.0	16.0	MG/KG	
SW6020/NONE	SO	068SB-0042M-0001-SO	240-22648-54	N	Zinc	0.46	40.0	40.0 J	MG/KG	A
SW6020/NONE	SO	068SB-0044M-0001-SO	240-22648-41	N	Silver	0.088	0.022	0.022 J	MG/KG	TR
SW6020/NONE	SO	068SB-0044M-0001-SO	240-22648-41	N	Aluminum	2.6	12000	12000	MG/KG	
SW6020/NONE	SO	068SB-0044M-0001-SO	240-22648-41	N	Arsenic	0.088	9.9	9.9	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	068SB-0044M-0001-SO	240-22648-41	N	Barium	0.88	61.0	61.0	MG/KG	
SW6020/NONE	SO	068SB-0044M-0001-SO	240-22648-41	N	Beryllium	0.088	0.54	0.54	MG/KG	
SW6020/NONE	SO	068SB-0044M-0001-SO	240-22648-41	N	Calcium	8.8	1200	1200 J	MG/KG	M
SW6020/NONE	SO	068SB-0044M-0001-SO	240-22648-41	N	Cadmium	0.088	0.12	0.12	MG/KG	
SW6020/NONE	SO	068SB-0044M-0001-SO	240-22648-41	N	Cobalt	0.044	9.4	9.4	MG/KG	
SW6020/NONE	SO	068SB-0044M-0001-SO	240-22648-41	N	Chromium	0.18	16.0	16.0	MG/KG	
SW6020/NONE	SO	068SB-0044M-0001-SO	240-22648-41	N	Copper	0.18	18.0	18.0	MG/KG	
SW6020/NONE	SO	068SB-0044M-0001-SO	240-22648-41	N	Iron	4.4	25000	25000	MG/KG	
SW6020/NONE	SO	068SB-0044M-0001-SO	240-22648-41	N	Potassium	8.8	1000	1000	MG/KG	
SW6020/NONE	SO	068SB-0044M-0001-SO	240-22648-41	N	Magnesium	8.8	3000	3000	MG/KG	
SW6020/NONE	SO	068SB-0044M-0001-SO	240-22648-41	N	Manganese	0.44	280	280	MG/KG	
SW6020/NONE	SO	068SB-0044M-0001-SO	240-22648-41	N	Sodium	8.8	36.0	36.0	MG/KG	
SW6020/NONE	SO	068SB-0044M-0001-SO	240-22648-41	N	Nickel	0.088	22.0	22.0	MG/KG	
SW6020/NONE	SO	068SB-0044M-0001-SO	240-22648-41	N	Lead	0.088	12.0	12.0	MG/KG	
SW6020/NONE	SO	068SB-0044M-0001-SO	240-22648-41	N	Selenium	0.44	0.31	0.31 J	MG/KG	TR
SW6020/NONE	SO	068SB-0044M-0001-SO	240-22648-41	N	Thallium	0.088	0.15	0.15	MG/KG	
SW6020/NONE	SO	068SB-0044M-0001-SO	240-22648-41	N	Vanadium	0.088	19.0	19.0	MG/KG	
SW6020/NONE	SO	068SB-0044M-0001-SO	240-22648-41	N	Zinc	0.44	48.0	48.0 J	MG/KG	A
SW6020/NONE	SO	068SB-0045M-0001-SO	240-22648-42	N	Silver	0.097	0.020	0.020 J	MG/KG	TR
SW6020/NONE	SO	068SB-0045M-0001-SO	240-22648-42	N	Aluminum	2.9	11000	11000	MG/KG	
SW6020/NONE	SO	068SB-0045M-0001-SO	240-22648-42	N	Arsenic	0.097	13.0	13.0	MG/KG	
SW6020/NONE	SO	068SB-0045M-0001-SO	240-22648-42	N	Barium	0.97	56.0	56.0	MG/KG	
SW6020/NONE	SO	068SB-0045M-0001-SO	240-22648-42	N	Beryllium	0.097	0.54	0.54	MG/KG	
SW6020/NONE	SO	068SB-0045M-0001-SO	240-22648-42	N	Calcium	9.7	5500	5500 J	MG/KG	M
SW6020/NONE	SO	068SB-0045M-0001-SO	240-22648-42	N	Cadmium	0.097	0.14	0.14	MG/KG	
SW6020/NONE	SO	068SB-0045M-0001-SO	240-22648-42	N	Cobalt	0.049	12.0	12.0	MG/KG	
SW6020/NONE	SO	068SB-0045M-0001-SO	240-22648-42	N	Chromium	0.19	16.0	16.0	MG/KG	
SW6020/NONE	SO	068SB-0045M-0001-SO	240-22648-42	N	Copper	0.19	20.0	20.0	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	068SB-0045M-0001-SO	240-22648-42	N	Iron	4.9	27000	27000	MG/KG	
SW6020/NONE	SO	068SB-0045M-0001-SO	240-22648-42	N	Potassium	9.7	1400	1400	MG/KG	
SW6020/NONE	SO	068SB-0045M-0001-SO	240-22648-42	N	Magnesium	9.7	4500	4500	MG/KG	
SW6020/NONE	SO	068SB-0045M-0001-SO	240-22648-42	N	Manganese	0.49	380	380	MG/KG	
SW6020/NONE	SO	068SB-0045M-0001-SO	240-22648-42	N	Sodium	9.7	57.0	57.0	MG/KG	
SW6020/NONE	SO	068SB-0045M-0001-SO	240-22648-42	N	Nickel	0.097	28.0	28.0	MG/KG	
SW6020/NONE	SO	068SB-0045M-0001-SO	240-22648-42	N	Lead	0.097	13.0	13.0	MG/KG	
SW6020/NONE	SO	068SB-0045M-0001-SO	240-22648-42	N	Selenium	0.49	0.26	0.26 J	MG/KG	TR
SW6020/NONE	SO	068SB-0045M-0001-SO	240-22648-42	N	Thallium	0.097	0.15	0.15	MG/KG	
SW6020/NONE	SO	068SB-0045M-0001-SO	240-22648-42	N	Vanadium	0.097	16.0	16.0	MG/KG	
SW6020/NONE	SO	068SB-0045M-0001-SO	240-22648-42	N	Zinc	0.49	59.0	59.0 J	MG/KG	A
SW6020/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	Silver	0.095	0.016	0.016 J	MG/KG	TR
SW6020/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	Aluminum	2.9	12000	12000	MG/KG	
SW6020/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	Arsenic	0.095	11.0	11.0	MG/KG	
SW6020/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	Barium	0.95	57.0	57.0	MG/KG	
SW6020/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	Beryllium	0.095	0.56	0.56	MG/KG	
SW6020/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	Calcium	9.5	930	930 J	MG/KG	M
SW6020/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	Cadmium	0.095	0.13	0.13	MG/KG	
SW6020/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	Cobalt	0.048	11.0	11.0	MG/KG	
SW6020/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	Chromium	0.19	15.0	15.0	MG/KG	
SW6020/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	Copper	0.19	19.0	19.0	MG/KG	
SW6020/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	Iron	4.8	27000	27000	MG/KG	
SW6020/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	Potassium	9.5	1200	1200	MG/KG	
SW6020/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	Magnesium	9.5	3100	3100	MG/KG	
SW6020/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	Manganese	0.48	300	300	MG/KG	
SW6020/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	Sodium	9.5	40.0	40.0	MG/KG	
SW6020/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	Nickel	0.095	23.0	23.0	MG/KG	
SW6020/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	Lead	0.095	13.0	13.0	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	Selenium	0.48	0.25	0.25 J	MG/KG	TR
SW6020/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	Thallium	0.095	0.16	0.16	MG/KG	
SW6020/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	Vanadium	0.095	18.0	18.0	MG/KG	
SW6020/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	Zinc	0.48	47.0	47.0 J	MG/KG	A
SW6020/NONE	SO	068SB-0047M-0001-SO	240-22648-44	N	Silver	0.092	0.029	0.029 J	MG/KG	TR
SW6020/NONE	SO	068SB-0047M-0001-SO	240-22648-44	N	Aluminum	2.8	12000	12000	MG/KG	
SW6020/NONE	SO	068SB-0047M-0001-SO	240-22648-44	N	Arsenic	0.092	11.0	11.0	MG/KG	
SW6020/NONE	SO	068SB-0047M-0001-SO	240-22648-44	N	Barium	0.92	61.0	61.0	MG/KG	
SW6020/NONE	SO	068SB-0047M-0001-SO	240-22648-44	N	Beryllium	0.092	0.58	0.58	MG/KG	
SW6020/NONE	SO	068SB-0047M-0001-SO	240-22648-44	N	Calcium	9.2	4800	4800 J	MG/KG	M
SW6020/NONE	SO	068SB-0047M-0001-SO	240-22648-44	N	Cadmium	0.092	0.13	0.13	MG/KG	
SW6020/NONE	SO	068SB-0047M-0001-SO	240-22648-44	N	Cobalt	0.046	11.0	11.0	MG/KG	
SW6020/NONE	SO	068SB-0047M-0001-SO	240-22648-44	N	Chromium	0.18	16.0	16.0	MG/KG	
SW6020/NONE	SO	068SB-0047M-0001-SO	240-22648-44	N	Copper	0.18	20.0	20.0	MG/KG	
SW6020/NONE	SO	068SB-0047M-0001-SO	240-22648-44	N	Iron	4.6	26000	26000	MG/KG	
SW6020/NONE	SO	068SB-0047M-0001-SO	240-22648-44	N	Potassium	9.2	1400	1400	MG/KG	
SW6020/NONE	SO	068SB-0047M-0001-SO	240-22648-44	N	Magnesium	9.2	4300	4300	MG/KG	
SW6020/NONE	SO	068SB-0047M-0001-SO	240-22648-44	N	Manganese	0.46	300	300	MG/KG	
SW6020/NONE	SO	068SB-0047M-0001-SO	240-22648-44	N	Sodium	9.2	56.0	56.0	MG/KG	
SW6020/NONE	SO	068SB-0047M-0001-SO	240-22648-44	N	Nickel	0.092	26.0	26.0	MG/KG	
SW6020/NONE	SO	068SB-0047M-0001-SO	240-22648-44	N	Lead	0.092	12.0	12.0	MG/KG	
SW6020/NONE	SO	068SB-0047M-0001-SO	240-22648-44	N	Selenium	0.46	0.25	0.25 J	MG/KG	TR
SW6020/NONE	SO	068SB-0047M-0001-SO	240-22648-44	N	Thallium	0.092	0.15	0.15	MG/KG	
SW6020/NONE	SO	068SB-0047M-0001-SO	240-22648-44	N	Vanadium	0.092	18.0	18.0	MG/KG	
SW6020/NONE	SO	068SB-0047M-0001-SO	240-22648-44	N	Zinc	0.46	52.0	52.0 J	MG/KG	A
SW6020/NONE	SO	068SB-0048M-0001-SO	240-22648-45	N	Silver	0.093	0.023	0.023 J	MG/KG	TR
SW6020/NONE	SO	068SB-0048M-0001-SO	240-22648-45	N	Aluminum	2.8	12000	12000	MG/KG	
SW6020/NONE	SO	068SB-0048M-0001-SO	240-22648-45	N	Arsenic	0.093	12.0	12.0	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	068SB-0048M-0001-SO	240-22648-45	N	Barium	0.93	63.0	63.0	MG/KG	
SW6020/NONE	SO	068SB-0048M-0001-SO	240-22648-45	N	Beryllium	0.093	0.59	0.59	MG/KG	
SW6020/NONE	SO	068SB-0048M-0001-SO	240-22648-45	N	Calcium	9.3	2400	2400 J	MG/KG	M
SW6020/NONE	SO	068SB-0048M-0001-SO	240-22648-45	N	Cadmium	0.093	0.15	0.15	MG/KG	
SW6020/NONE	SO	068SB-0048M-0001-SO	240-22648-45	N	Cobalt	0.047	11.0	11.0	MG/KG	
SW6020/NONE	SO	068SB-0048M-0001-SO	240-22648-45	N	Chromium	0.19	16.0	16.0	MG/KG	
SW6020/NONE	SO	068SB-0048M-0001-SO	240-22648-45	N	Copper	0.19	21.0	21.0	MG/KG	
SW6020/NONE	SO	068SB-0048M-0001-SO	240-22648-45	N	Iron	4.7	27000	27000	MG/KG	
SW6020/NONE	SO	068SB-0048M-0001-SO	240-22648-45	N	Potassium	9.3	1300	1300	MG/KG	
SW6020/NONE	SO	068SB-0048M-0001-SO	240-22648-45	N	Magnesium	9.3	3800	3800	MG/KG	
SW6020/NONE	SO	068SB-0048M-0001-SO	240-22648-45	N	Manganese	0.47	340	340	MG/KG	
SW6020/NONE	SO	068SB-0048M-0001-SO	240-22648-45	N	Sodium	9.3	46.0	46.0	MG/KG	
SW6020/NONE	SO	068SB-0048M-0001-SO	240-22648-45	N	Nickel	0.093	27.0	27.0	MG/KG	
SW6020/NONE	SO	068SB-0048M-0001-SO	240-22648-45	N	Lead	0.093	13.0	13.0	MG/KG	
SW6020/NONE	SO	068SB-0048M-0001-SO	240-22648-45	N	Selenium	0.47	0.29	0.29 J	MG/KG	TR
SW6020/NONE	SO	068SB-0048M-0001-SO	240-22648-45	N	Thallium	0.093	0.16	0.16	MG/KG	
SW6020/NONE	SO	068SB-0048M-0001-SO	240-22648-45	N	Vanadium	0.093	17.0	17.0	MG/KG	
SW6020/NONE	SO	068SB-0048M-0001-SO	240-22648-45	N	Zinc	0.47	56.0	56.0 J	MG/KG	A
SW6020/NONE	SO	068SB-0050M-0001-SO	240-22648-55	N	Silver	0.092	0.023	0.023 J	MG/KG	TR
SW6020/NONE	SO	068SB-0050M-0001-SO	240-22648-55	N	Aluminum	2.8	9800	9800	MG/KG	
SW6020/NONE	SO	068SB-0050M-0001-SO	240-22648-55	N	Arsenic	0.092	8.0	8.0	MG/KG	
SW6020/NONE	SO	068SB-0050M-0001-SO	240-22648-55	N	Barium	0.92	54.0	54.0	MG/KG	
SW6020/NONE	SO	068SB-0050M-0001-SO	240-22648-55	N	Beryllium	0.092	0.46	0.46	MG/KG	
SW6020/NONE	SO	068SB-0050M-0001-SO	240-22648-55	N	Calcium	9.2	4500	4500 J	MG/KG	M
SW6020/NONE	SO	068SB-0050M-0001-SO	240-22648-55	N	Cadmium	0.092	0.11	0.11	MG/KG	
SW6020/NONE	SO	068SB-0050M-0001-SO	240-22648-55	N	Cobalt	0.046	8.4	8.4	MG/KG	
SW6020/NONE	SO	068SB-0050M-0001-SO	240-22648-55	N	Chromium	0.18	12.0	12.0	MG/KG	
SW6020/NONE	SO	068SB-0050M-0001-SO	240-22648-55	N	Copper	0.18	14.0	14.0	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	068SB-0050M-0001-SO	240-22648-55	N	Iron	4.6	20000	20000	MG/KG	
SW6020/NONE	SO	068SB-0050M-0001-SO	240-22648-55	N	Potassium	9.2	920	920	MG/KG	
SW6020/NONE	SO	068SB-0050M-0001-SO	240-22648-55	N	Magnesium	9.2	2800	2800	MG/KG	
SW6020/NONE	SO	068SB-0050M-0001-SO	240-22648-55	N	Manganese	0.46	410	410	MG/KG	
SW6020/NONE	SO	068SB-0050M-0001-SO	240-22648-55	N	Sodium	9.2	40.0	40.0	MG/KG	
SW6020/NONE	SO	068SB-0050M-0001-SO	240-22648-55	N	Nickel	0.092	17.0	17.0	MG/KG	
SW6020/NONE	SO	068SB-0050M-0001-SO	240-22648-55	N	Lead	0.092	12.0	12.0	MG/KG	
SW6020/NONE	SO	068SB-0050M-0001-SO	240-22648-55	N	Thallium	0.092	0.13	0.13	MG/KG	
SW6020/NONE	SO	068SB-0050M-0001-SO	240-22648-55	N	Vanadium	0.092	15.0	15.0	MG/KG	
SW6020/NONE	SO	068SB-0050M-0001-SO	240-22648-55	N	Zinc	0.46	36.0	36.0 J	MG/KG	A
SW6020/NONE	SO	068SB-0051M-0001-SO	240-22648-56	N	Silver	0.094	0.019	0.019 J	MG/KG	TR
SW6020/NONE	SO	068SB-0051M-0001-SO	240-22648-56	N	Aluminum	2.8	6500	6500	MG/KG	
SW6020/NONE	SO	068SB-0051M-0001-SO	240-22648-56	N	Arsenic	0.094	7.8	7.8	MG/KG	
SW6020/NONE	SO	068SB-0051M-0001-SO	240-22648-56	N	Barium	0.94	31.0	31.0	MG/KG	
SW6020/NONE	SO	068SB-0051M-0001-SO	240-22648-56	N	Beryllium	0.094	0.32	0.32	MG/KG	
SW6020/NONE	SO	068SB-0051M-0001-SO	240-22648-56	N	Calcium	9.4	3300	3300 J	MG/KG	M
SW6020/NONE	SO	068SB-0051M-0001-SO	240-22648-56	N	Cadmium	0.094	0.10	0.10	MG/KG	
SW6020/NONE	SO	068SB-0051M-0001-SO	240-22648-56	N	Cobalt	0.047	5.9	5.9	MG/KG	
SW6020/NONE	SO	068SB-0051M-0001-SO	240-22648-56	N	Chromium	0.19	8.5	8.5	MG/KG	
SW6020/NONE	SO	068SB-0051M-0001-SO	240-22648-56	N	Copper	0.19	14.0	14.0	MG/KG	
SW6020/NONE	SO	068SB-0051M-0001-SO	240-22648-56	N	Iron	4.7	16000	16000	MG/KG	
SW6020/NONE	SO	068SB-0051M-0001-SO	240-22648-56	N	Potassium	9.4	870	870	MG/KG	
SW6020/NONE	SO	068SB-0051M-0001-SO	240-22648-56	N	Magnesium	9.4	2600	2600	MG/KG	
SW6020/NONE	SO	068SB-0051M-0001-SO	240-22648-56	N	Manganese	0.47	300	300	MG/KG	
SW6020/NONE	SO	068SB-0051M-0001-SO	240-22648-56	N	Sodium	9.4	43.0	43.0	MG/KG	
SW6020/NONE	SO	068SB-0051M-0001-SO	240-22648-56	N	Nickel	0.094	14.0	14.0	MG/KG	
SW6020/NONE	SO	068SB-0051M-0001-SO	240-22648-56	N	Lead	0.094	9.6	9.6	MG/KG	
SW6020/NONE	SO	068SB-0051M-0001-SO	240-22648-56	N	Thallium	0.094	0.096	0.096	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	068SB-0051M-0001-SO	240-22648-56	N	Vanadium	0.094	9.7	9.7	MG/KG	
SW6020/NONE	SO	068SB-0051M-0001-SO	240-22648-56	N	Zinc	0.47	32.0	32.0 J	MG/KG	A
SW6020/NONE	SO	068SB-0052M-0001-SO	240-22648-57	N	Silver	0.090	0.014	0.014 J	MG/KG	TR
SW6020/NONE	SO	068SB-0052M-0001-SO	240-22648-57	N	Aluminum	2.7	7500	7500	MG/KG	
SW6020/NONE	SO	068SB-0052M-0001-SO	240-22648-57	N	Arsenic	0.090	12.0	12.0	MG/KG	
SW6020/NONE	SO	068SB-0052M-0001-SO	240-22648-57	N	Barium	0.90	32.0	32.0	MG/KG	
SW6020/NONE	SO	068SB-0052M-0001-SO	240-22648-57	N	Beryllium	0.090	0.36	0.36	MG/KG	
SW6020/NONE	SO	068SB-0052M-0001-SO	240-22648-57	N	Calcium	9.0	760	760 J	MG/KG	M
SW6020/NONE	SO	068SB-0052M-0001-SO	240-22648-57	N	Cadmium	0.090	0.12	0.12	MG/KG	
SW6020/NONE	SO	068SB-0052M-0001-SO	240-22648-57	N	Cobalt	0.045	6.9	6.9	MG/KG	
SW6020/NONE	SO	068SB-0052M-0001-SO	240-22648-57	N	Chromium	0.18	9.5	9.5	MG/KG	
SW6020/NONE	SO	068SB-0052M-0001-SO	240-22648-57	N	Copper	0.18	14.0	14.0	MG/KG	
SW6020/NONE	SO	068SB-0052M-0001-SO	240-22648-57	N	Iron	4.5	18000	18000	MG/KG	
SW6020/NONE	SO	068SB-0052M-0001-SO	240-22648-57	N	Potassium	9.0	850	850	MG/KG	
SW6020/NONE	SO	068SB-0052M-0001-SO	240-22648-57	N	Magnesium	9.0	2100	2100	MG/KG	
SW6020/NONE	SO	068SB-0052M-0001-SO	240-22648-57	N	Manganese	0.45	320	320	MG/KG	
SW6020/NONE	SO	068SB-0052M-0001-SO	240-22648-57	N	Sodium	9.0	33.0	33.0	MG/KG	
SW6020/NONE	SO	068SB-0052M-0001-SO	240-22648-57	N	Nickel	0.090	15.0	15.0	MG/KG	
SW6020/NONE	SO	068SB-0052M-0001-SO	240-22648-57	N	Lead	0.090	11.0	11.0	MG/KG	
SW6020/NONE	SO	068SB-0052M-0001-SO	240-22648-57	N	Thallium	0.090	0.11	0.11	MG/KG	
SW6020/NONE	SO	068SB-0052M-0001-SO	240-22648-57	N	Vanadium	0.090	11.0	11.0	MG/KG	
SW6020/NONE	SO	068SB-0052M-0001-SO	240-22648-57	N	Zinc	0.45	33.0	33.0 J	MG/KG	A
SW6020/NONE	SO	068SB-0053M-0001-SO	240-22648-58	N	Silver	0.091	0.028	0.028 J	MG/KG	TR
SW6020/NONE	SO	068SB-0053M-0001-SO	240-22648-58	N	Aluminum	2.7	8700	8700	MG/KG	
SW6020/NONE	SO	068SB-0053M-0001-SO	240-22648-58	N	Arsenic	0.091	11.0	11.0	MG/KG	
SW6020/NONE	SO	068SB-0053M-0001-SO	240-22648-58	N	Barium	0.91	53.0	53.0	MG/KG	
SW6020/NONE	SO	068SB-0053M-0001-SO	240-22648-58	N	Beryllium	0.091	0.50	0.50	MG/KG	
SW6020/NONE	SO	068SB-0053M-0001-SO	240-22648-58	N	Calcium	9.1	3400	3400 J	MG/KG	d

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	068SB-0053M-0001-SO	240-22648-58	N	Cadmium	0.091	0.12	0.12	MG/KG	
SW6020/NONE	SO	068SB-0053M-0001-SO	240-22648-58	N	Cobalt	0.045	8.6	8.6	MG/KG	
SW6020/NONE	SO	068SB-0053M-0001-SO	240-22648-58	N	Chromium	0.18	12.0	12.0	MG/KG	
SW6020/NONE	SO	068SB-0053M-0001-SO	240-22648-58	N	Copper	0.18	16.0	16.0	MG/KG	
SW6020/NONE	SO	068SB-0053M-0001-SO	240-22648-58	N	Iron	4.5	21000	21000	MG/KG	
SW6020/NONE	SO	068SB-0053M-0001-SO	240-22648-58	N	Potassium	9.1	770	770	MG/KG	
SW6020/NONE	SO	068SB-0053M-0001-SO	240-22648-58	N	Magnesium	9.1	2400	2400	MG/KG	
SW6020/NONE	SO	068SB-0053M-0001-SO	240-22648-58	N	Manganese	0.45	370	370	MG/KG	
SW6020/NONE	SO	068SB-0053M-0001-SO	240-22648-58	N	Sodium	9.1	44.0	44.0	MG/KG	
SW6020/NONE	SO	068SB-0053M-0001-SO	240-22648-58	N	Nickel	0.091	18.0	18.0	MG/KG	
SW6020/NONE	SO	068SB-0053M-0001-SO	240-22648-58	N	Lead	0.091	13.0	13.0	MG/KG	
SW6020/NONE	SO	068SB-0053M-0001-SO	240-22648-58	N	Antimony	0.18	0.046	0.046 J	MG/KG	TR
SW6020/NONE	SO	068SB-0053M-0001-SO	240-22648-58	N	Selenium	0.45	0.29	0.29 J	MG/KG	TR
SW6020/NONE	SO	068SB-0053M-0001-SO	240-22648-58	N	Thallium	0.091	0.12	0.12	MG/KG	
SW6020/NONE	SO	068SB-0053M-0001-SO	240-22648-58	N	Vanadium	0.091	15.0	15.0	MG/KG	
SW6020/NONE	SO	068SB-0053M-0001-SO	240-22648-58	N	Zinc	0.45	40.0	40.0	MG/KG	
SW6020/NONE	SO	068SB-0054M-0001-SO	240-22648-59	FD	Silver	0.097	0.028	0.028 J	MG/KG	TR
SW6020/NONE	SO	068SB-0054M-0001-SO	240-22648-59	FD	Aluminum	2.9	8400	8400	MG/KG	
SW6020/NONE	SO	068SB-0054M-0001-SO	240-22648-59	FD	Arsenic	0.097	12.0	12.0	MG/KG	
SW6020/NONE	SO	068SB-0054M-0001-SO	240-22648-59	FD	Barium	0.97	58.0	58.0	MG/KG	
SW6020/NONE	SO	068SB-0054M-0001-SO	240-22648-59	FD	Beryllium	0.097	0.47	0.47	MG/KG	
SW6020/NONE	SO	068SB-0054M-0001-SO	240-22648-59	FD	Calcium	9.7	910	910 J	MG/KG	d
SW6020/NONE	SO	068SB-0054M-0001-SO	240-22648-59	FD	Cadmium	0.097	0.13	0.13	MG/KG	
SW6020/NONE	SO	068SB-0054M-0001-SO	240-22648-59	FD	Cobalt	0.049	9.1	9.1	MG/KG	
SW6020/NONE	SO	068SB-0054M-0001-SO	240-22648-59	FD	Chromium	0.19	12.0	12.0	MG/KG	
SW6020/NONE	SO	068SB-0054M-0001-SO	240-22648-59	FD	Copper	0.19	18.0	18.0	MG/KG	
SW6020/NONE	SO	068SB-0054M-0001-SO	240-22648-59	FD	Iron	4.9	21000	21000	MG/KG	
SW6020/NONE	SO	068SB-0054M-0001-SO	240-22648-59	FD	Potassium	9.7	870	870	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	068SB-0054M-0001-SO	240-22648-59	FD	Magnesium	9.7	2300	2300	MG/KG	
SW6020/NONE	SO	068SB-0054M-0001-SO	240-22648-59	FD	Manganese	0.49	310	310	MG/KG	
SW6020/NONE	SO	068SB-0054M-0001-SO	240-22648-59	FD	Sodium	9.7	37.0	37.0	MG/KG	
SW6020/NONE	SO	068SB-0054M-0001-SO	240-22648-59	FD	Nickel	0.097	20.0	20.0	MG/KG	
SW6020/NONE	SO	068SB-0054M-0001-SO	240-22648-59	FD	Lead	0.097	15.0	15.0	MG/KG	
SW6020/NONE	SO	068SB-0054M-0001-SO	240-22648-59	FD	Antimony	0.19	0.054	0.054 J	MG/KG	TR
SW6020/NONE	SO	068SB-0054M-0001-SO	240-22648-59	FD	Selenium	0.49	0.29	0.29 J	MG/KG	TR
SW6020/NONE	SO	068SB-0054M-0001-SO	240-22648-59	FD	Thallium	0.097	0.13	0.13	MG/KG	
SW6020/NONE	SO	068SB-0054M-0001-SO	240-22648-59	FD	Vanadium	0.097	14.0	14.0	MG/KG	
SW6020/NONE	SO	068SB-0054M-0001-SO	240-22648-59	FD	Zinc	0.49	42.0	42.0	MG/KG	
SW6020/NONE	SO	068SB-0056M-0001-SO	240-22648-60	N	Silver	0.099	0.026	0.026 J	MG/KG	TR
SW6020/NONE	SO	068SB-0056M-0001-SO	240-22648-60	N	Aluminum	3.0	7100	7100	MG/KG	
SW6020/NONE	SO	068SB-0056M-0001-SO	240-22648-60	N	Arsenic	0.099	14.0	14.0	MG/KG	
SW6020/NONE	SO	068SB-0056M-0001-SO	240-22648-60	N	Barium	0.99	39.0	39.0	MG/KG	
SW6020/NONE	SO	068SB-0056M-0001-SO	240-22648-60	N	Beryllium	0.099	0.39	0.39	MG/KG	
SW6020/NONE	SO	068SB-0056M-0001-SO	240-22648-60	N	Calcium	9.9	3100	3100	MG/KG	
SW6020/NONE	SO	068SB-0056M-0001-SO	240-22648-60	N	Cadmium	0.099	0.13	0.13	MG/KG	
SW6020/NONE	SO	068SB-0056M-0001-SO	240-22648-60	N	Cobalt	0.050	9.1	9.1	MG/KG	
SW6020/NONE	SO	068SB-0056M-0001-SO	240-22648-60	N	Chromium	0.20	11.0	11.0	MG/KG	
SW6020/NONE	SO	068SB-0056M-0001-SO	240-22648-60	N	Copper	0.20	19.0	19.0	MG/KG	
SW6020/NONE	SO	068SB-0056M-0001-SO	240-22648-60	N	Iron	5.0	22000	22000	MG/KG	
SW6020/NONE	SO	068SB-0056M-0001-SO	240-22648-60	N	Potassium	9.9	1000	1000	MG/KG	
SW6020/NONE	SO	068SB-0056M-0001-SO	240-22648-60	N	Magnesium	9.9	3100	3100	MG/KG	
SW6020/NONE	SO	068SB-0056M-0001-SO	240-22648-60	N	Manganese	0.50	310	310	MG/KG	
SW6020/NONE	SO	068SB-0056M-0001-SO	240-22648-60	N	Sodium	9.9	44.0	44.0	MG/KG	
SW6020/NONE	SO	068SB-0056M-0001-SO	240-22648-60	N	Nickel	0.099	23.0	23.0	MG/KG	
SW6020/NONE	SO	068SB-0056M-0001-SO	240-22648-60	N	Lead	0.099	12.0	12.0	MG/KG	
SW6020/NONE	SO	068SB-0056M-0001-SO	240-22648-60	N	Antimony	0.20	0.059	0.059 J	MG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	068SB-0056M-0001-SO	240-22648-60	N	Selenium	0.50	0.16	0.16 J	MG/KG	TR
SW6020/NONE	SO	068SB-0056M-0001-SO	240-22648-60	N	Thallium	0.099	0.11	0.11	MG/KG	
SW6020/NONE	SO	068SB-0056M-0001-SO	240-22648-60	N	Vanadium	0.099	12.0	12.0	MG/KG	
SW6020/NONE	SO	068SB-0056M-0001-SO	240-22648-60	N	Zinc	0.50	47.0	47.0	MG/KG	
SW6020/NONE	SO	068SB-0057M-0001-SO	240-22648-61	N	Silver	0.086	0.035	0.035 J	MG/KG	TR
SW6020/NONE	SO	068SB-0057M-0001-SO	240-22648-61	N	Aluminum	2.6	7300	7300	MG/KG	
SW6020/NONE	SO	068SB-0057M-0001-SO	240-22648-61	N	Arsenic	0.086	9.5	9.5	MG/KG	
SW6020/NONE	SO	068SB-0057M-0001-SO	240-22648-61	N	Barium	0.86	50.0	50.0	MG/KG	
SW6020/NONE	SO	068SB-0057M-0001-SO	240-22648-61	N	Beryllium	0.086	0.38	0.38	MG/KG	
SW6020/NONE	SO	068SB-0057M-0001-SO	240-22648-61	N	Calcium	8.6	5700	5700	MG/KG	
SW6020/NONE	SO	068SB-0057M-0001-SO	240-22648-61	N	Cadmium	0.086	0.12	0.12	MG/KG	
SW6020/NONE	SO	068SB-0057M-0001-SO	240-22648-61	N	Cobalt	0.043	7.5	7.5	MG/KG	
SW6020/NONE	SO	068SB-0057M-0001-SO	240-22648-61	N	Chromium	0.17	11.0	11.0	MG/KG	
SW6020/NONE	SO	068SB-0057M-0001-SO	240-22648-61	N	Copper	0.17	17.0	17.0	MG/KG	
SW6020/NONE	SO	068SB-0057M-0001-SO	240-22648-61	N	Iron	4.3	19000	19000	MG/KG	
SW6020/NONE	SO	068SB-0057M-0001-SO	240-22648-61	N	Potassium	8.6	780	780	MG/KG	
SW6020/NONE	SO	068SB-0057M-0001-SO	240-22648-61	N	Magnesium	8.6	3200	3200	MG/KG	
SW6020/NONE	SO	068SB-0057M-0001-SO	240-22648-61	N	Manganese	0.43	220	220	MG/KG	
SW6020/NONE	SO	068SB-0057M-0001-SO	240-22648-61	N	Sodium	8.6	43.0	43.0	MG/KG	
SW6020/NONE	SO	068SB-0057M-0001-SO	240-22648-61	N	Nickel	0.086	19.0	19.0	MG/KG	
SW6020/NONE	SO	068SB-0057M-0001-SO	240-22648-61	N	Lead	0.086	11.0	11.0	MG/KG	
SW6020/NONE	SO	068SB-0057M-0001-SO	240-22648-61	N	Antimony	0.17	0.042	0.042 J	MG/KG	TR
SW6020/NONE	SO	068SB-0057M-0001-SO	240-22648-61	N	Selenium	0.43	0.22	0.22 J	MG/KG	TR
SW6020/NONE	SO	068SB-0057M-0001-SO	240-22648-61	N	Thallium	0.086	0.11	0.11	MG/KG	
SW6020/NONE	SO	068SB-0057M-0001-SO	240-22648-61	N	Vanadium	0.086	13.0	13.0	MG/KG	
SW6020/NONE	SO	068SB-0057M-0001-SO	240-22648-61	N	Zinc	0.43	40.0	40.0	MG/KG	
SW6020/NONE	SO	068SB-0059M-0001-SO	240-22648-62	N	Silver	0.093	0.031	0.031 J	MG/KG	TR
SW6020/NONE	SO	068SB-0059M-0001-SO	240-22648-62	N	Aluminum	2.8	8500	8500	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	068SB-0059M-0001-SO	240-22648-62	N	Arsenic	0.093	12.0	12.0	MG/KG	
SW6020/NONE	SO	068SB-0059M-0001-SO	240-22648-62	N	Barium	0.93	50.0	50.0	MG/KG	
SW6020/NONE	SO	068SB-0059M-0001-SO	240-22648-62	N	Beryllium	0.093	0.46	0.46	MG/KG	
SW6020/NONE	SO	068SB-0059M-0001-SO	240-22648-62	N	Calcium	9.3	1500	1500	MG/KG	
SW6020/NONE	SO	068SB-0059M-0001-SO	240-22648-62	N	Cadmium	0.093	0.13	0.13	MG/KG	
SW6020/NONE	SO	068SB-0059M-0001-SO	240-22648-62	N	Cobalt	0.046	9.2	9.2	MG/KG	
SW6020/NONE	SO	068SB-0059M-0001-SO	240-22648-62	N	Chromium	0.19	12.0	12.0	MG/KG	
SW6020/NONE	SO	068SB-0059M-0001-SO	240-22648-62	N	Copper	0.19	18.0	18.0	MG/KG	
SW6020/NONE	SO	068SB-0059M-0001-SO	240-22648-62	N	Iron	4.6	23000	23000	MG/KG	
SW6020/NONE	SO	068SB-0059M-0001-SO	240-22648-62	N	Potassium	9.3	930	930	MG/KG	
SW6020/NONE	SO	068SB-0059M-0001-SO	240-22648-62	N	Magnesium	9.3	2400	2400	MG/KG	
SW6020/NONE	SO	068SB-0059M-0001-SO	240-22648-62	N	Manganese	0.46	540	540	MG/KG	
SW6020/NONE	SO	068SB-0059M-0001-SO	240-22648-62	N	Sodium	9.3	35.0	35.0	MG/KG	
SW6020/NONE	SO	068SB-0059M-0001-SO	240-22648-62	N	Nickel	0.093	20.0	20.0	MG/KG	
SW6020/NONE	SO	068SB-0059M-0001-SO	240-22648-62	N	Lead	0.093	13.0	13.0	MG/KG	
SW6020/NONE	SO	068SB-0059M-0001-SO	240-22648-62	N	Selenium	0.46	0.28	0.28 J	MG/KG	TR
SW6020/NONE	SO	068SB-0059M-0001-SO	240-22648-62	N	Thallium	0.093	0.13	0.13	MG/KG	
SW6020/NONE	SO	068SB-0059M-0001-SO	240-22648-62	N	Vanadium	0.093	15.0	15.0	MG/KG	
SW6020/NONE	SO	068SB-0059M-0001-SO	240-22648-62	N	Zinc	0.46	49.0	49.0	MG/KG	
SW6020/NONE	SO	073SB-0016M-0001-SO	240-22648-1	N	Silver	0.10	0.24	0.24	MG/KG	
SW6020/NONE	SO	073SB-0016M-0001-SO	240-22648-1	N	Aluminum	3.0	5500	5500	MG/KG	
SW6020/NONE	SO	073SB-0016M-0001-SO	240-22648-1	N	Arsenic	0.10	7.3	7.3	MG/KG	
SW6020/NONE	SO	073SB-0016M-0001-SO	240-22648-1	N	Barium	1.0	50.0	50.0	MG/KG	
SW6020/NONE	SO	073SB-0016M-0001-SO	240-22648-1	N	Beryllium	0.10	0.38	0.38	MG/KG	
SW6020/NONE	SO	073SB-0016M-0001-SO	240-22648-1	N	Calcium	10.0	5500	5500	MG/KG	
SW6020/NONE	SO	073SB-0016M-0001-SO	240-22648-1	N	Cadmium	0.10	0.20	0.20	MG/KG	
SW6020/NONE	SO	073SB-0016M-0001-SO	240-22648-1	N	Cobalt	0.050	6.6	6.6	MG/KG	
SW6020/NONE	SO	073SB-0016M-0001-SO	240-22648-1	N	Chromium	0.20	9.6	9.6	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	073SB-0016M-0001-SO	240-22648-1	N	Copper	0.20	12.0	12.0	MG/KG	
SW6020/NONE	SO	073SB-0016M-0001-SO	240-22648-1	N	Iron	5.0	14000	14000	MG/KG	
SW6020/NONE	SO	073SB-0016M-0001-SO	240-22648-1	N	Potassium	10.0	560	560	MG/KG	
SW6020/NONE	SO	073SB-0016M-0001-SO	240-22648-1	N	Magnesium	10.0	1800	1800	MG/KG	
SW6020/NONE	SO	073SB-0016M-0001-SO	240-22648-1	N	Manganese	0.50	360	360 J	MG/KG	D1
SW6020/NONE	SO	073SB-0016M-0001-SO	240-22648-1	N	Sodium	10.0	32.0	32.0	MG/KG	
SW6020/NONE	SO	073SB-0016M-0001-SO	240-22648-1	N	Nickel	0.10	15.0	15.0	MG/KG	
SW6020/NONE	SO	073SB-0016M-0001-SO	240-22648-1	N	Lead	0.10	11.0	11.0	MG/KG	
SW6020/NONE	SO	073SB-0016M-0001-SO	240-22648-1	N	Antimony	0.20	0.047	0.047 J	MG/KG	TR/m
SW6020/NONE	SO	073SB-0016M-0001-SO	240-22648-1	N	Selenium	0.50	0.25	0.25 J	MG/KG	TR
SW6020/NONE	SO	073SB-0016M-0001-SO	240-22648-1	N	Thallium	0.10	0.091	0.091 J	MG/KG	TR
SW6020/NONE	SO	073SB-0016M-0001-SO	240-22648-1	N	Vanadium	0.10	9.8	9.8	MG/KG	
SW6020/NONE	SO	073SB-0016M-0001-SO	240-22648-1	N	Zinc	0.50	43.0	43.0 J	MG/KG	A
SW6020/NONE	SO	073SB-0017M-0001-SO	240-22648-2	FD	Silver	0.099	0.23	0.23	MG/KG	
SW6020/NONE	SO	073SB-0017M-0001-SO	240-22648-2	FD	Aluminum	3.0	5300	5300	MG/KG	
SW6020/NONE	SO	073SB-0017M-0001-SO	240-22648-2	FD	Arsenic	0.099	6.6	6.6	MG/KG	
SW6020/NONE	SO	073SB-0017M-0001-SO	240-22648-2	FD	Barium	0.99	48.0	48.0	MG/KG	
SW6020/NONE	SO	073SB-0017M-0001-SO	240-22648-2	FD	Beryllium	0.099	0.36	0.36	MG/KG	
SW6020/NONE	SO	073SB-0017M-0001-SO	240-22648-2	FD	Calcium	9.9	2000	2000	MG/KG	
SW6020/NONE	SO	073SB-0017M-0001-SO	240-22648-2	FD	Cadmium	0.099	0.19	0.19	MG/KG	
SW6020/NONE	SO	073SB-0017M-0001-SO	240-22648-2	FD	Cobalt	0.050	6.3	6.3	MG/KG	
SW6020/NONE	SO	073SB-0017M-0001-SO	240-22648-2	FD	Chromium	0.20	8.8	8.8	MG/KG	
SW6020/NONE	SO	073SB-0017M-0001-SO	240-22648-2	FD	Copper	0.20	11.0	11.0	MG/KG	
SW6020/NONE	SO	073SB-0017M-0001-SO	240-22648-2	FD	Iron	5.0	14000	14000	MG/KG	
SW6020/NONE	SO	073SB-0017M-0001-SO	240-22648-2	FD	Potassium	9.9	540	540	MG/KG	
SW6020/NONE	SO	073SB-0017M-0001-SO	240-22648-2	FD	Magnesium	9.9	1600	1600	MG/KG	
SW6020/NONE	SO	073SB-0017M-0001-SO	240-22648-2	FD	Manganese	0.50	400	400 J	MG/KG	D1
SW6020/NONE	SO	073SB-0017M-0001-SO	240-22648-2	FD	Sodium	9.9	33.0	33.0	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	073SB-0017M-0001-SO	240-22648-2	FD	Nickel	0.099	14.0	14.0	MG/KG	
SW6020/NONE	SO	073SB-0017M-0001-SO	240-22648-2	FD	Lead	0.099	10.0	10.0	MG/KG	
SW6020/NONE	SO	073SB-0017M-0001-SO	240-22648-2	FD	Selenium	0.50	0.26	0.26 J	MG/KG	TR
SW6020/NONE	SO	073SB-0017M-0001-SO	240-22648-2	FD	Thallium	0.099	0.084	0.084 J	MG/KG	TR
SW6020/NONE	SO	073SB-0017M-0001-SO	240-22648-2	FD	Vanadium	0.099	9.3	9.3	MG/KG	
SW6020/NONE	SO	073SB-0017M-0001-SO	240-22648-2	FD	Zinc	0.50	42.0	42.0 J	MG/KG	A
SW6020/NONE	SO	073SB-0019M-0001-SO	240-22648-3	N	Silver	0.098	0.021	0.021 J	MG/KG	TR
SW6020/NONE	SO	073SB-0019M-0001-SO	240-22648-3	N	Aluminum	2.9	4100	4100	MG/KG	
SW6020/NONE	SO	073SB-0019M-0001-SO	240-22648-3	N	Arsenic	0.098	5.0	5.0	MG/KG	
SW6020/NONE	SO	073SB-0019M-0001-SO	240-22648-3	N	Barium	0.98	36.0	36.0	MG/KG	
SW6020/NONE	SO	073SB-0019M-0001-SO	240-22648-3	N	Beryllium	0.098	0.27	0.27	MG/KG	
SW6020/NONE	SO	073SB-0019M-0001-SO	240-22648-3	N	Calcium	9.8	1100	1100	MG/KG	
SW6020/NONE	SO	073SB-0019M-0001-SO	240-22648-3	N	Cadmium	0.098	0.12	0.12	MG/KG	
SW6020/NONE	SO	073SB-0019M-0001-SO	240-22648-3	N	Cobalt	0.049	4.8	4.8	MG/KG	
SW6020/NONE	SO	073SB-0019M-0001-SO	240-22648-3	N	Chromium	0.20	6.7	6.7	MG/KG	
SW6020/NONE	SO	073SB-0019M-0001-SO	240-22648-3	N	Copper	0.20	7.3	7.3	MG/KG	
SW6020/NONE	SO	073SB-0019M-0001-SO	240-22648-3	N	Iron	4.9	9500	9500	MG/KG	
SW6020/NONE	SO	073SB-0019M-0001-SO	240-22648-3	N	Potassium	9.8	480	480	MG/KG	
SW6020/NONE	SO	073SB-0019M-0001-SO	240-22648-3	N	Magnesium	9.8	1300	1300	MG/KG	
SW6020/NONE	SO	073SB-0019M-0001-SO	240-22648-3	N	Manganese	0.49	120	120 J	MG/KG	D1
SW6020/NONE	SO	073SB-0019M-0001-SO	240-22648-3	N	Sodium	9.8	31.0	31.0	MG/KG	
SW6020/NONE	SO	073SB-0019M-0001-SO	240-22648-3	N	Nickel	0.098	12.0	12.0	MG/KG	
SW6020/NONE	SO	073SB-0019M-0001-SO	240-22648-3	N	Lead	0.098	6.4	6.4	MG/KG	
SW6020/NONE	SO	073SB-0019M-0001-SO	240-22648-3	N	Selenium	0.49	0.24	0.24 J	MG/KG	TR
SW6020/NONE	SO	073SB-0019M-0001-SO	240-22648-3	N	Thallium	0.098	0.059	0.059 J	MG/KG	TR
SW6020/NONE	SO	073SB-0019M-0001-SO	240-22648-3	N	Vanadium	0.098	7.4	7.4	MG/KG	
SW6020/NONE	SO	073SB-0019M-0001-SO	240-22648-3	N	Zinc	0.49	29.0	29.0 J	MG/KG	A
SW6020/NONE	SO	073SB-0020M-0001-SO	240-22648-4	N	Silver	0.099	0.033	0.033 J	MG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	073SB-0020M-0001-SO	240-22648-4	N	Aluminum	3.0	4800	4800	MG/KG	
SW6020/NONE	SO	073SB-0020M-0001-SO	240-22648-4	N	Arsenic	0.099	6.1	6.1	MG/KG	
SW6020/NONE	SO	073SB-0020M-0001-SO	240-22648-4	N	Barium	0.99	36.0	36.0	MG/KG	
SW6020/NONE	SO	073SB-0020M-0001-SO	240-22648-4	N	Beryllium	0.099	0.31	0.31	MG/KG	
SW6020/NONE	SO	073SB-0020M-0001-SO	240-22648-4	N	Calcium	9.9	1200	1200	MG/KG	
SW6020/NONE	SO	073SB-0020M-0001-SO	240-22648-4	N	Cadmium	0.099	0.14	0.14	MG/KG	
SW6020/NONE	SO	073SB-0020M-0001-SO	240-22648-4	N	Cobalt	0.050	5.6	5.6	MG/KG	
SW6020/NONE	SO	073SB-0020M-0001-SO	240-22648-4	N	Chromium	0.20	7.5	7.5	MG/KG	
SW6020/NONE	SO	073SB-0020M-0001-SO	240-22648-4	N	Copper	0.20	8.7	8.7	MG/KG	
SW6020/NONE	SO	073SB-0020M-0001-SO	240-22648-4	N	Iron	5.0	12000	12000	MG/KG	
SW6020/NONE	SO	073SB-0020M-0001-SO	240-22648-4	N	Potassium	9.9	420	420	MG/KG	
SW6020/NONE	SO	073SB-0020M-0001-SO	240-22648-4	N	Magnesium	9.9	1300	1300	MG/KG	
SW6020/NONE	SO	073SB-0020M-0001-SO	240-22648-4	N	Manganese	0.50	250	250 J	MG/KG	D1
SW6020/NONE	SO	073SB-0020M-0001-SO	240-22648-4	N	Sodium	9.9	28.0	28.0	MG/KG	
SW6020/NONE	SO	073SB-0020M-0001-SO	240-22648-4	N	Nickel	0.099	11.0	11.0	MG/KG	
SW6020/NONE	SO	073SB-0020M-0001-SO	240-22648-4	N	Lead	0.099	8.5	8.5	MG/KG	
SW6020/NONE	SO	073SB-0020M-0001-SO	240-22648-4	N	Selenium	0.50	0.23	0.23 J	MG/KG	TR
SW6020/NONE	SO	073SB-0020M-0001-SO	240-22648-4	N	Thallium	0.099	0.069	0.069 J	MG/KG	TR
SW6020/NONE	SO	073SB-0020M-0001-SO	240-22648-4	N	Vanadium	0.099	8.4	8.4	MG/KG	
SW6020/NONE	SO	073SB-0020M-0001-SO	240-22648-4	N	Zinc	0.50	35.0	35.0 J	MG/KG	A
SW6020/NONE	SO	073SB-0021M-0001-SO	240-22648-5	N	Silver	0.098	0.027	0.027 J	MG/KG	TR
SW6020/NONE	SO	073SB-0021M-0001-SO	240-22648-5	N	Aluminum	2.9	5100	5100	MG/KG	
SW6020/NONE	SO	073SB-0021M-0001-SO	240-22648-5	N	Arsenic	0.098	6.4	6.4	MG/KG	
SW6020/NONE	SO	073SB-0021M-0001-SO	240-22648-5	N	Barium	0.98	49.0	49.0	MG/KG	
SW6020/NONE	SO	073SB-0021M-0001-SO	240-22648-5	N	Beryllium	0.098	0.34	0.34	MG/KG	
SW6020/NONE	SO	073SB-0021M-0001-SO	240-22648-5	N	Calcium	9.8	2400	2400	MG/KG	
SW6020/NONE	SO	073SB-0021M-0001-SO	240-22648-5	N	Cadmium	0.098	0.14	0.14	MG/KG	
SW6020/NONE	SO	073SB-0021M-0001-SO	240-22648-5	N	Cobalt	0.049	5.2	5.2	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	073SB-0021M-0001-SO	240-22648-5	N	Chromium	0.20	7.3	7.3	MG/KG	
SW6020/NONE	SO	073SB-0021M-0001-SO	240-22648-5	N	Copper	0.20	8.1	8.1	MG/KG	
SW6020/NONE	SO	073SB-0021M-0001-SO	240-22648-5	N	Iron	4.9	12000	12000	MG/KG	
SW6020/NONE	SO	073SB-0021M-0001-SO	240-22648-5	N	Potassium	9.8	420	420	MG/KG	
SW6020/NONE	SO	073SB-0021M-0001-SO	240-22648-5	N	Magnesium	9.8	1300	1300	MG/KG	
SW6020/NONE	SO	073SB-0021M-0001-SO	240-22648-5	N	Manganese	0.49	300	300 J	MG/KG	D1
SW6020/NONE	SO	073SB-0021M-0001-SO	240-22648-5	N	Sodium	9.8	33.0	33.0	MG/KG	
SW6020/NONE	SO	073SB-0021M-0001-SO	240-22648-5	N	Nickel	0.098	12.0	12.0	MG/KG	
SW6020/NONE	SO	073SB-0021M-0001-SO	240-22648-5	N	Lead	0.098	8.1	8.1	MG/KG	
SW6020/NONE	SO	073SB-0021M-0001-SO	240-22648-5	N	Selenium	0.49	0.33	0.33 J	MG/KG	TR
SW6020/NONE	SO	073SB-0021M-0001-SO	240-22648-5	N	Thallium	0.098	0.076	0.076 J	MG/KG	TR
SW6020/NONE	SO	073SB-0021M-0001-SO	240-22648-5	N	Vanadium	0.098	8.7	8.7	MG/KG	
SW6020/NONE	SO	073SB-0021M-0001-SO	240-22648-5	N	Zinc	0.49	33.0	33.0 J	MG/KG	A
SW6020/NONE	SO	073SB-0022M-0001-SO	240-22648-6	N	Silver	0.095	0.041	0.041 J	MG/KG	TR
SW6020/NONE	SO	073SB-0022M-0001-SO	240-22648-6	N	Aluminum	2.9	3900	3900	MG/KG	
SW6020/NONE	SO	073SB-0022M-0001-SO	240-22648-6	N	Arsenic	0.095	4.4	4.4	MG/KG	
SW6020/NONE	SO	073SB-0022M-0001-SO	240-22648-6	N	Barium	0.95	31.0	31.0	MG/KG	
SW6020/NONE	SO	073SB-0022M-0001-SO	240-22648-6	N	Beryllium	0.095	0.25	0.25	MG/KG	
SW6020/NONE	SO	073SB-0022M-0001-SO	240-22648-6	N	Calcium	9.5	1500	1500	MG/KG	
SW6020/NONE	SO	073SB-0022M-0001-SO	240-22648-6	N	Cadmium	0.095	0.12	0.12	MG/KG	
SW6020/NONE	SO	073SB-0022M-0001-SO	240-22648-6	N	Cobalt	0.048	4.8	4.8	MG/KG	
SW6020/NONE	SO	073SB-0022M-0001-SO	240-22648-6	N	Chromium	0.19	7.2	7.2	MG/KG	
SW6020/NONE	SO	073SB-0022M-0001-SO	240-22648-6	N	Copper	0.19	8.0	8.0	MG/KG	
SW6020/NONE	SO	073SB-0022M-0001-SO	240-22648-6	N	Iron	4.8	10000	10000	MG/KG	
SW6020/NONE	SO	073SB-0022M-0001-SO	240-22648-6	N	Potassium	9.5	550	550	MG/KG	
SW6020/NONE	SO	073SB-0022M-0001-SO	240-22648-6	N	Magnesium	9.5	1200	1200	MG/KG	
SW6020/NONE	SO	073SB-0022M-0001-SO	240-22648-6	N	Manganese	0.48	170	170 J	MG/KG	D1
SW6020/NONE	SO	073SB-0022M-0001-SO	240-22648-6	N	Sodium	9.5	27.0	27.0	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	073SB-0022M-0001-SO	240-22648-6	N	Nickel	0.095	12.0	12.0	MG/KG	
SW6020/NONE	SO	073SB-0022M-0001-SO	240-22648-6	N	Lead	0.095	7.5	7.5	MG/KG	
SW6020/NONE	SO	073SB-0022M-0001-SO	240-22648-6	N	Selenium	0.48	0.16	0.16 J	MG/KG	TR
SW6020/NONE	SO	073SB-0022M-0001-SO	240-22648-6	N	Thallium	0.095	0.072	0.072 J	MG/KG	TR
SW6020/NONE	SO	073SB-0022M-0001-SO	240-22648-6	N	Vanadium	0.095	7.4	7.4	MG/KG	
SW6020/NONE	SO	073SB-0022M-0001-SO	240-22648-6	N	Zinc	0.48	30.0	30.0 J	MG/KG	A
SW6020/NONE	SO	073SB-0023M-0001-SO	240-22648-7	N	Silver	0.099	0.38	0.38	MG/KG	
SW6020/NONE	SO	073SB-0023M-0001-SO	240-22648-7	N	Aluminum	3.0	6200	6200	MG/KG	
SW6020/NONE	SO	073SB-0023M-0001-SO	240-22648-7	N	Arsenic	0.099	12.0	12.0	MG/KG	
SW6020/NONE	SO	073SB-0023M-0001-SO	240-22648-7	N	Barium	0.99	35.0	35.0	MG/KG	
SW6020/NONE	SO	073SB-0023M-0001-SO	240-22648-7	N	Beryllium	0.099	0.37	0.37	MG/KG	
SW6020/NONE	SO	073SB-0023M-0001-SO	240-22648-7	N	Calcium	9.9	3100	3100	MG/KG	
SW6020/NONE	SO	073SB-0023M-0001-SO	240-22648-7	N	Cadmium	0.099	0.20	0.20	MG/KG	
SW6020/NONE	SO	073SB-0023M-0001-SO	240-22648-7	N	Cobalt	0.050	8.6	8.6	MG/KG	
SW6020/NONE	SO	073SB-0023M-0001-SO	240-22648-7	N	Chromium	0.20	11.0	11.0	MG/KG	
SW6020/NONE	SO	073SB-0023M-0001-SO	240-22648-7	N	Copper	0.20	14.0	14.0	MG/KG	
SW6020/NONE	SO	073SB-0023M-0001-SO	240-22648-7	N	Iron	5.0	17000	17000	MG/KG	
SW6020/NONE	SO	073SB-0023M-0001-SO	240-22648-7	N	Potassium	9.9	980	980	MG/KG	
SW6020/NONE	SO	073SB-0023M-0001-SO	240-22648-7	N	Magnesium	9.9	3000	3000	MG/KG	
SW6020/NONE	SO	073SB-0023M-0001-SO	240-22648-7	N	Manganese	0.50	360	360 J	MG/KG	D1
SW6020/NONE	SO	073SB-0023M-0001-SO	240-22648-7	N	Sodium	9.9	55.0	55.0	MG/KG	
SW6020/NONE	SO	073SB-0023M-0001-SO	240-22648-7	N	Nickel	0.099	20.0	20.0	MG/KG	
SW6020/NONE	SO	073SB-0023M-0001-SO	240-22648-7	N	Lead	0.099	11.0	11.0	MG/KG	
SW6020/NONE	SO	073SB-0023M-0001-SO	240-22648-7	N	Selenium	0.50	0.26	0.26 J	MG/KG	TR
SW6020/NONE	SO	073SB-0023M-0001-SO	240-22648-7	N	Thallium	0.099	0.099	0.099	MG/KG	
SW6020/NONE	SO	073SB-0023M-0001-SO	240-22648-7	N	Vanadium	0.099	10.0	10.0	MG/KG	
SW6020/NONE	SO	073SB-0023M-0001-SO	240-22648-7	N	Zinc	0.50	43.0	43.0 J	MG/KG	A
SW6020/NONE	SO	073SB-0024M-0001-SO	240-22648-8	N	Silver	0.095	0.074	0.074 J	MG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	073SB-0024M-0001-SO	240-22648-8	N	Aluminum	2.9	5500	5500	MG/KG	
SW6020/NONE	SO	073SB-0024M-0001-SO	240-22648-8	N	Arsenic	0.095	5.6	5.6	MG/KG	
SW6020/NONE	SO	073SB-0024M-0001-SO	240-22648-8	N	Barium	0.95	56.0	56.0	MG/KG	
SW6020/NONE	SO	073SB-0024M-0001-SO	240-22648-8	N	Beryllium	0.095	0.36	0.36	MG/KG	
SW6020/NONE	SO	073SB-0024M-0001-SO	240-22648-8	N	Calcium	9.5	1600	1600	MG/KG	
SW6020/NONE	SO	073SB-0024M-0001-SO	240-22648-8	N	Cadmium	0.095	0.18	0.18	MG/KG	
SW6020/NONE	SO	073SB-0024M-0001-SO	240-22648-8	N	Cobalt	0.048	5.5	5.5	MG/KG	
SW6020/NONE	SO	073SB-0024M-0001-SO	240-22648-8	N	Chromium	0.19	9.8	9.8	MG/KG	
SW6020/NONE	SO	073SB-0024M-0001-SO	240-22648-8	N	Copper	0.19	9.7	9.7	MG/KG	
SW6020/NONE	SO	073SB-0024M-0001-SO	240-22648-8	N	Iron	4.8	13000	13000	MG/KG	
SW6020/NONE	SO	073SB-0024M-0001-SO	240-22648-8	N	Potassium	9.5	520	520	MG/KG	
SW6020/NONE	SO	073SB-0024M-0001-SO	240-22648-8	N	Magnesium	9.5	1500	1500	MG/KG	
SW6020/NONE	SO	073SB-0024M-0001-SO	240-22648-8	N	Manganese	0.48	250	250 J	MG/KG	D1
SW6020/NONE	SO	073SB-0024M-0001-SO	240-22648-8	N	Sodium	9.5	34.0	34.0	MG/KG	
SW6020/NONE	SO	073SB-0024M-0001-SO	240-22648-8	N	Nickel	0.095	14.0	14.0	MG/KG	
SW6020/NONE	SO	073SB-0024M-0001-SO	240-22648-8	N	Lead	0.095	16.0	16.0	MG/KG	
SW6020/NONE	SO	073SB-0024M-0001-SO	240-22648-8	N	Selenium	0.48	0.25	0.25 J	MG/KG	TR
SW6020/NONE	SO	073SB-0024M-0001-SO	240-22648-8	N	Thallium	0.095	0.085	0.085 J	MG/KG	TR
SW6020/NONE	SO	073SB-0024M-0001-SO	240-22648-8	N	Vanadium	0.095	9.8	9.8	MG/KG	
SW6020/NONE	SO	073SB-0024M-0001-SO	240-22648-8	N	Zinc	0.48	40.0	40.0 J	MG/KG	A
SW6020/NONE	SO	073SB-0067M-0001-SO	240-22648-9	N	Silver	0.11	0.016	0.016 J	MG/KG	TR
SW6020/NONE	SO	073SB-0067M-0001-SO	240-22648-9	N	Aluminum	3.4	5400	5400	MG/KG	
SW6020/NONE	SO	073SB-0067M-0001-SO	240-22648-9	N	Arsenic	0.11	9.3	9.3	MG/KG	
SW6020/NONE	SO	073SB-0067M-0001-SO	240-22648-9	N	Barium	1.1	25.0	25.0	MG/KG	
SW6020/NONE	SO	073SB-0067M-0001-SO	240-22648-9	N	Beryllium	0.11	0.29	0.29	MG/KG	
SW6020/NONE	SO	073SB-0067M-0001-SO	240-22648-9	N	Calcium	11.0	3100	3100	MG/KG	
SW6020/NONE	SO	073SB-0067M-0001-SO	240-22648-9	N	Cadmium	0.11	0.093	0.093 J	MG/KG	TR
SW6020/NONE	SO	073SB-0067M-0001-SO	240-22648-9	N	Cobalt	0.056	6.8	6.8	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	073SB-0067M-0001-SO	240-22648-9	N	Chromium	0.22	8.2	8.2	MG/KG	
SW6020/NONE	SO	073SB-0067M-0001-SO	240-22648-9	N	Copper	0.22	10.0	10.0	MG/KG	
SW6020/NONE	SO	073SB-0067M-0001-SO	240-22648-9	N	Iron	5.6	15000	15000	MG/KG	
SW6020/NONE	SO	073SB-0067M-0001-SO	240-22648-9	N	Potassium	11.0	1100	1100	MG/KG	
SW6020/NONE	SO	073SB-0067M-0001-SO	240-22648-9	N	Magnesium	11.0	2900	2900	MG/KG	
SW6020/NONE	SO	073SB-0067M-0001-SO	240-22648-9	N	Manganese	0.56	150	150 J	MG/KG	D1
SW6020/NONE	SO	073SB-0067M-0001-SO	240-22648-9	N	Sodium	11.0	69.0	69.0	MG/KG	
SW6020/NONE	SO	073SB-0067M-0001-SO	240-22648-9	N	Nickel	0.11	16.0	16.0	MG/KG	
SW6020/NONE	SO	073SB-0067M-0001-SO	240-22648-9	N	Lead	0.11	6.3	6.3	MG/KG	
SW6020/NONE	SO	073SB-0067M-0001-SO	240-22648-9	N	Selenium	0.56	0.24	0.24 J	MG/KG	TR
SW6020/NONE	SO	073SB-0067M-0001-SO	240-22648-9	N	Thallium	0.11	0.077	0.077 J	MG/KG	TR
SW6020/NONE	SO	073SB-0067M-0001-SO	240-22648-9	N	Vanadium	0.11	8.5	8.5	MG/KG	
SW6020/NONE	SO	073SB-0067M-0001-SO	240-22648-9	N	Zinc	0.56	30.0	30.0 J	MG/KG	A
SW6020/NONE	SE	073SD-0045-0001-SD	240-22648-10	N	Silver	0.24	0.090	0.090 J	MG/KG	TR
SW6020/NONE	SE	073SD-0045-0001-SD	240-22648-10	N	Aluminum	7.3	12000	12000	MG/KG	
SW6020/NONE	SE	073SD-0045-0001-SD	240-22648-10	N	Arsenic	0.24	11.0	11.0	MG/KG	
SW6020/NONE	SE	073SD-0045-0001-SD	240-22648-10	N	Barium	2.4	140	140	MG/KG	
SW6020/NONE	SE	073SD-0045-0001-SD	240-22648-10	N	Beryllium	0.24	0.64	0.64	MG/KG	
SW6020/NONE	SE	073SD-0045-0001-SD	240-22648-10	N	Calcium	24.0	4000	4000	MG/KG	
SW6020/NONE	SE	073SD-0045-0001-SD	240-22648-10	N	Cadmium	0.24	0.71	0.71	MG/KG	
SW6020/NONE	SE	073SD-0045-0001-SD	240-22648-10	N	Cobalt	0.12	9.9	9.9	MG/KG	
SW6020/NONE	SE	073SD-0045-0001-SD	240-22648-10	N	Chromium	0.49	15.0	15.0	MG/KG	
SW6020/NONE	SE	073SD-0045-0001-SD	240-22648-10	N	Copper	0.49	19.0	19.0	MG/KG	
SW6020/NONE	SE	073SD-0045-0001-SD	240-22648-10	N	Iron	12.0	27000	27000	MG/KG	
SW6020/NONE	SE	073SD-0045-0001-SD	240-22648-10	N	Potassium	24.0	730	730	MG/KG	
SW6020/NONE	SE	073SD-0045-0001-SD	240-22648-10	N	Magnesium	24.0	2400	2400	MG/KG	
SW6020/NONE	SE	073SD-0045-0001-SD	240-22648-10	N	Manganese	1.2	2300	2300 J	MG/KG	D1
SW6020/NONE	SE	073SD-0045-0001-SD	240-22648-10	N	Sodium	24.0	110	110	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SE	073SD-0045-0001-SD	240-22648-10	N	Nickel	0.24	20.0	20.0	MG/KG	
SW6020/NONE	SE	073SD-0045-0001-SD	240-22648-10	N	Lead	0.24	21.0	21.0	MG/KG	
SW6020/NONE	SE	073SD-0045-0001-SD	240-22648-10	N	Selenium	1.2	0.87	0.87 J	MG/KG	TR
SW6020/NONE	SE	073SD-0045-0001-SD	240-22648-10	N	Thallium	0.24	0.22	0.22 J	MG/KG	TR
SW6020/NONE	SE	073SD-0045-0001-SD	240-22648-10	N	Vanadium	0.24	21.0	21.0	MG/KG	
SW6020/NONE	SE	073SD-0045-0001-SD	240-22648-10	N	Zinc	1.2	84.0	84.0 J	MG/KG	A
SW6020/NONE	SE	073SD-0046-0001-SD	240-22648-14	N	Silver	0.26	0.067	0.067 J	MG/KG	TR
SW6020/NONE	SE	073SD-0046-0001-SD	240-22648-14	N	Aluminum	7.7	7900	7900	MG/KG	
SW6020/NONE	SE	073SD-0046-0001-SD	240-22648-14	N	Arsenic	0.26	7.3	7.3	MG/KG	
SW6020/NONE	SE	073SD-0046-0001-SD	240-22648-14	N	Barium	2.6	140	140	MG/KG	
SW6020/NONE	SE	073SD-0046-0001-SD	240-22648-14	N	Beryllium	0.26	0.66	0.66	MG/KG	
SW6020/NONE	SE	073SD-0046-0001-SD	240-22648-14	N	Calcium	26.0	5200	5200	MG/KG	
SW6020/NONE	SE	073SD-0046-0001-SD	240-22648-14	N	Cadmium	0.26	0.83	0.83	MG/KG	
SW6020/NONE	SE	073SD-0046-0001-SD	240-22648-14	N	Cobalt	0.13	8.2	8.2	MG/KG	
SW6020/NONE	SE	073SD-0046-0001-SD	240-22648-14	N	Chromium	0.51	12.0	12.0	MG/KG	
SW6020/NONE	SE	073SD-0046-0001-SD	240-22648-14	N	Copper	0.51	20.0	20.0	MG/KG	
SW6020/NONE	SE	073SD-0046-0001-SD	240-22648-14	N	Iron	13.0	17000	17000	MG/KG	
SW6020/NONE	SE	073SD-0046-0001-SD	240-22648-14	N	Potassium	26.0	860	860	MG/KG	
SW6020/NONE	SE	073SD-0046-0001-SD	240-22648-14	N	Magnesium	26.0	2000	2000	MG/KG	
SW6020/NONE	SE	073SD-0046-0001-SD	240-22648-14	N	Manganese	1.3	330	330 J	MG/KG	D1
SW6020/NONE	SE	073SD-0046-0001-SD	240-22648-14	N	Sodium	26.0	57.0	57.0	MG/KG	
SW6020/NONE	SE	073SD-0046-0001-SD	240-22648-14	N	Nickel	0.26	20.0	20.0	MG/KG	
SW6020/NONE	SE	073SD-0046-0001-SD	240-22648-14	N	Lead	0.26	22.0	22.0	MG/KG	
SW6020/NONE	SE	073SD-0046-0001-SD	240-22648-14	N	Antimony	0.51	0.17	0.17 J	MG/KG	TR/m
SW6020/NONE	SE	073SD-0046-0001-SD	240-22648-14	N	Selenium	1.3	1.7	1.7	MG/KG	
SW6020/NONE	SE	073SD-0046-0001-SD	240-22648-14	N	Thallium	0.26	0.15	0.15 J	MG/KG	TR
SW6020/NONE	SE	073SD-0046-0001-SD	240-22648-14	N	Vanadium	0.26	17.0	17.0	MG/KG	
SW6020/NONE	SE	073SD-0046-0001-SD	240-22648-14	N	Zinc	1.3	78.0	78.0 J	MG/KG	A

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SE	073SD-0047-0001-SD	240-22648-11	N	Silver	0.15	0.043	0.043 J	MG/KG	TR
SW6020/NONE	SE	073SD-0047-0001-SD	240-22648-11	N	Aluminum	4.5	9600	9600	MG/KG	
SW6020/NONE	SE	073SD-0047-0001-SD	240-22648-11	N	Arsenic	0.15	7.6	7.6	MG/KG	
SW6020/NONE	SE	073SD-0047-0001-SD	240-22648-11	N	Barium	1.5	180	180	MG/KG	
SW6020/NONE	SE	073SD-0047-0001-SD	240-22648-11	N	Beryllium	0.15	0.93	0.93	MG/KG	
SW6020/NONE	SE	073SD-0047-0001-SD	240-22648-11	N	Calcium	15.0	12000	12000	MG/KG	
SW6020/NONE	SE	073SD-0047-0001-SD	240-22648-11	N	Cadmium	0.15	0.89	0.89	MG/KG	
SW6020/NONE	SE	073SD-0047-0001-SD	240-22648-11	N	Cobalt	0.076	11.0	11.0	MG/KG	
SW6020/NONE	SE	073SD-0047-0001-SD	240-22648-11	N	Chromium	0.30	9.4	9.4	MG/KG	
SW6020/NONE	SE	073SD-0047-0001-SD	240-22648-11	N	Copper	0.30	9.2	9.2	MG/KG	
SW6020/NONE	SE	073SD-0047-0001-SD	240-22648-11	N	Iron	7.6	17000	17000	MG/KG	
SW6020/NONE	SE	073SD-0047-0001-SD	240-22648-11	N	Potassium	15.0	490	490	MG/KG	
SW6020/NONE	SE	073SD-0047-0001-SD	240-22648-11	N	Magnesium	15.0	2800	2800	MG/KG	
SW6020/NONE	SE	073SD-0047-0001-SD	240-22648-11	N	Manganese	0.76	2300	2300 J	MG/KG	D1
SW6020/NONE	SE	073SD-0047-0001-SD	240-22648-11	N	Sodium	15.0	80.0	80.0	MG/KG	
SW6020/NONE	SE	073SD-0047-0001-SD	240-22648-11	N	Nickel	0.15	21.0	21.0	MG/KG	
SW6020/NONE	SE	073SD-0047-0001-SD	240-22648-11	N	Lead	0.15	13.0	13.0	MG/KG	
SW6020/NONE	SE	073SD-0047-0001-SD	240-22648-11	N	Antimony	0.30	0.18	0.18 J	MG/KG	TR/m
SW6020/NONE	SE	073SD-0047-0001-SD	240-22648-11	N	Selenium	0.76	0.71	0.71 J	MG/KG	TR
SW6020/NONE	SE	073SD-0047-0001-SD	240-22648-11	N	Thallium	0.15	0.11	0.11 J	MG/KG	TR
SW6020/NONE	SE	073SD-0047-0001-SD	240-22648-11	N	Vanadium	0.15	17.0	17.0	MG/KG	
SW6020/NONE	SE	073SD-0047-0001-SD	240-22648-11	N	Zinc	0.76	49.0	49.0 J	MG/KG	A
SW6020/NONE	SE	073SD-0048-0001-SD	240-22648-12	FD	Silver	0.15	0.039	0.039 J	MG/KG	TR
SW6020/NONE	SE	073SD-0048-0001-SD	240-22648-12	FD	Aluminum	4.6	8800	8800	MG/KG	
SW6020/NONE	SE	073SD-0048-0001-SD	240-22648-12	FD	Arsenic	0.15	10.0	10.0	MG/KG	
SW6020/NONE	SE	073SD-0048-0001-SD	240-22648-12	FD	Barium	1.5	180	180	MG/KG	
SW6020/NONE	SE	073SD-0048-0001-SD	240-22648-12	FD	Beryllium	0.15	0.94	0.94	MG/KG	
SW6020/NONE	SE	073SD-0048-0001-SD	240-22648-12	FD	Calcium	15.0	9800	9800	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SE	073SD-0048-0001-SD	240-22648-12	FD	Cadmium	0.15	0.79	0.79	MG/KG	
SW6020/NONE	SE	073SD-0048-0001-SD	240-22648-12	FD	Cobalt	0.077	13.0	13.0	MG/KG	
SW6020/NONE	SE	073SD-0048-0001-SD	240-22648-12	FD	Chromium	0.31	8.2	8.2	MG/KG	
SW6020/NONE	SE	073SD-0048-0001-SD	240-22648-12	FD	Copper	0.31	9.7	9.7	MG/KG	
SW6020/NONE	SE	073SD-0048-0001-SD	240-22648-12	FD	Iron	7.7	16000	16000	MG/KG	
SW6020/NONE	SE	073SD-0048-0001-SD	240-22648-12	FD	Potassium	15.0	500	500	MG/KG	
SW6020/NONE	SE	073SD-0048-0001-SD	240-22648-12	FD	Magnesium	15.0	2400	2400	MG/KG	
SW6020/NONE	SE	073SD-0048-0001-SD	240-22648-12	FD	Manganese	0.77	2900	2900 J	MG/KG	D1
SW6020/NONE	SE	073SD-0048-0001-SD	240-22648-12	FD	Sodium	15.0	93.0	93.0	MG/KG	
SW6020/NONE	SE	073SD-0048-0001-SD	240-22648-12	FD	Nickel	0.15	21.0	21.0	MG/KG	
SW6020/NONE	SE	073SD-0048-0001-SD	240-22648-12	FD	Lead	0.15	13.0	13.0	MG/KG	
SW6020/NONE	SE	073SD-0048-0001-SD	240-22648-12	FD	Antimony	0.31	0.072	0.072 J	MG/KG	TR/m
SW6020/NONE	SE	073SD-0048-0001-SD	240-22648-12	FD	Selenium	0.77	0.78	0.78	MG/KG	
SW6020/NONE	SE	073SD-0048-0001-SD	240-22648-12	FD	Thallium	0.15	0.13	0.13 J	MG/KG	TR
SW6020/NONE	SE	073SD-0048-0001-SD	240-22648-12	FD	Vanadium	0.15	17.0	17.0	MG/KG	
SW6020/NONE	SE	073SD-0048-0001-SD	240-22648-12	FD	Zinc	0.77	54.0	54.0 J	MG/KG	A
SW6020/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	Silver	0.15	0.034	0.034 J	MG/KG	TR
SW6020/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	Aluminum	4.6	5700	5700	MG/KG	
SW6020/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	Arsenic	0.15	4.6	4.6	MG/KG	
SW6020/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	Barium	1.5	64.0	64.0	MG/KG	
SW6020/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	Beryllium	0.15	0.39	0.39	MG/KG	
SW6020/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	Calcium	15.0	2000	2000	MG/KG	
SW6020/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	Cadmium	0.15	0.35	0.35	MG/KG	
SW6020/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	Cobalt	0.076	6.4	6.4	MG/KG	
SW6020/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	Chromium	0.30	7.7	7.7	MG/KG	
SW6020/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	Copper	0.30	11.0	11.0	MG/KG	
SW6020/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	Iron	7.6	12000	12000	MG/KG	
SW6020/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	Potassium	15.0	500	500	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	Magnesium	15.0	1500	1500	MG/KG	
SW6020/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	Manganese	0.76	580	580 J	MG/KG	D1
SW6020/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	Sodium	15.0	66.0	66.0	MG/KG	
SW6020/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	Nickel	0.15	13.0	13.0	MG/KG	
SW6020/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	Lead	0.15	12.0	12.0	MG/KG	
SW6020/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	Selenium	0.76	0.43	0.43 J	MG/KG	TR
SW6020/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	Thallium	0.15	0.090	0.090 J	MG/KG	TR
SW6020/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	Vanadium	0.15	11.0	11.0	MG/KG	
SW6020/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	Zinc	0.76	54.0	54.0 J	MG/KG	A
SW6020/NONE	WS	073SW-0056-0001-SW	240-22648-15	N	Silver	1.0	2.5	2.5 J	UG/L	D1
SW6020/NONE	WS	073SW-0056-0001-SW	240-22648-15	N	Aluminum	30.0	150	150	UG/L	
SW6020/NONE	WS	073SW-0056-0001-SW	240-22648-15	N	Barium	10.0	15.0	15.0	UG/L	
SW6020/NONE	WS	073SW-0056-0001-SW	240-22648-15	N	Calcium	100	26000	26000	UG/L	
SW6020/NONE	WS	073SW-0056-0001-SW	240-22648-15	N	Chromium	2.0	2.4	2.4	UG/L	
SW6020/NONE	WS	073SW-0056-0001-SW	240-22648-15	N	Copper	2.0	2.6	2.6	UG/L	
SW6020/NONE	WS	073SW-0056-0001-SW	240-22648-15	N	Iron	50.0	410	410	UG/L	
SW6020/NONE	WS	073SW-0056-0001-SW	240-22648-15	N	Potassium	100	1500	1500	UG/L	
SW6020/NONE	WS	073SW-0056-0001-SW	240-22648-15	N	Magnesium	100	6400	6400	UG/L	
SW6020/NONE	WS	073SW-0056-0001-SW	240-22648-15	N	Manganese	5.0	95.0	95.0	UG/L	
SW6020/NONE	WS	073SW-0056-0001-SW	240-22648-15	N	Sodium	100	20000	20000	UG/L	
SW6020/NONE	WS	073SW-0056-0001-SW	240-22648-15	N	Nickel	1.0	0.40	0.40 J	UG/L	TR
SW6020/NONE	WS	073SW-0056-0001-SW	240-22648-15	N	Zinc	5.0	1.8	1.8 J	UG/L	TR
SW6020/NONE	WS	073SW-0058-0001-SW	240-22648-16	N	Aluminum	30.0	130	130	UG/L	
SW6020/NONE	WS	073SW-0058-0001-SW	240-22648-16	N	Barium	10.0	18.0	18.0	UG/L	
SW6020/NONE	WS	073SW-0058-0001-SW	240-22648-16	N	Calcium	100	28000	28000	UG/L	
SW6020/NONE	WS	073SW-0058-0001-SW	240-22648-16	N	Chromium	2.0	1.8	1.8 J	UG/L	TR
SW6020/NONE	WS	073SW-0058-0001-SW	240-22648-16	N	Copper	2.0	2.3	2.3	UG/L	
SW6020/NONE	WS	073SW-0058-0001-SW	240-22648-16	N	Iron	50.0	650	650	UG/L	

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	WS	073SW-0058-0001-SW	240-22648-16	N	Potassium	100	1300	1300	UG/L	
SW6020/NONE	WS	073SW-0058-0001-SW	240-22648-16	N	Magnesium	100	6200	6200	UG/L	
SW6020/NONE	WS	073SW-0058-0001-SW	240-22648-16	N	Manganese	5.0	160	160	UG/L	
SW6020/NONE	WS	073SW-0058-0001-SW	240-22648-16	N	Sodium	100	18000	18000	UG/L	
SW6020/NONE	WS	073SW-0058-0001-SW	240-22648-16	N	Nickel	1.0	0.32	0.32 J	UG/L	TR
SW6020/NONE	WS	073SW-0058-0001-SW	240-22648-16	N	Antimony	2.0	0.90	0.90 J	UG/L	TR
SW6020/NONE	WS	073SW-0058-0001-SW	240-22648-16	N	Zinc	5.0	3.2	3.2 J	UG/L	TR
SW6020/NONE	WS	073SW-0059-0001-SW	240-22648-17	FD	Aluminum	30.0	140	140	UG/L	
SW6020/NONE	WS	073SW-0059-0001-SW	240-22648-17	FD	Arsenic	1.0	0.66	0.66 J	UG/L	TR
SW6020/NONE	WS	073SW-0059-0001-SW	240-22648-17	FD	Barium	10.0	20.0	20.0	UG/L	
SW6020/NONE	WS	073SW-0059-0001-SW	240-22648-17	FD	Beryllium	1.0	0.057	0.057 J	UG/L	TR
SW6020/NONE	WS	073SW-0059-0001-SW	240-22648-17	FD	Calcium	100	28000	28000	UG/L	
SW6020/NONE	WS	073SW-0059-0001-SW	240-22648-17	FD	Chromium	2.0	1.4	1.4 J	UG/L	TR
SW6020/NONE	WS	073SW-0059-0001-SW	240-22648-17	FD	Copper	2.0	2.0	2.0	UG/L	
SW6020/NONE	WS	073SW-0059-0001-SW	240-22648-17	FD	Iron	50.0	840	840	UG/L	
SW6020/NONE	WS	073SW-0059-0001-SW	240-22648-17	FD	Potassium	100	1300	1300	UG/L	
SW6020/NONE	WS	073SW-0059-0001-SW	240-22648-17	FD	Magnesium	100	6200	6200	UG/L	
SW6020/NONE	WS	073SW-0059-0001-SW	240-22648-17	FD	Manganese	5.0	200	200	UG/L	
SW6020/NONE	WS	073SW-0059-0001-SW	240-22648-17	FD	Sodium	100	18000	18000	UG/L	
SW6020/NONE	WS	073SW-0059-0001-SW	240-22648-17	FD	Nickel	1.0	0.33	0.33 J	UG/L	TR
SW6020/NONE	WS	073SW-0059-0001-SW	240-22648-17	FD	Zinc	5.0	3.1	3.1 J	UG/L	TR
SW6020/NONE	WS	073SW-0061-0001-SW	240-22648-18	N	Aluminum	30.0	91.0	91.0	UG/L	
SW6020/NONE	WS	073SW-0061-0001-SW	240-22648-18	N	Barium	10.0	14.0	14.0	UG/L	
SW6020/NONE	WS	073SW-0061-0001-SW	240-22648-18	N	Calcium	100	27000	27000	UG/L	
SW6020/NONE	WS	073SW-0061-0001-SW	240-22648-18	N	Chromium	2.0	1.7	1.7 J	UG/L	TR
SW6020/NONE	WS	073SW-0061-0001-SW	240-22648-18	N	Copper	2.0	2.1	2.1	UG/L	
SW6020/NONE	WS	073SW-0061-0001-SW	240-22648-18	N	Iron	50.0	330	330	UG/L	
SW6020/NONE	WS	073SW-0061-0001-SW	240-22648-18	N	Potassium	100	1300	1300	UG/L	

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	WS	073SW-0061-0001-SW	240-22648-18	N	Magnesium	100	6100	6100	UG/L	
SW6020/NONE	WS	073SW-0061-0001-SW	240-22648-18	N	Manganese	5.0	96.0	96.0	UG/L	
SW6020/NONE	WS	073SW-0061-0001-SW	240-22648-18	N	Sodium	100	18000	18000	UG/L	
SW6020/NONE	WS	073SW-0061-0001-SW	240-22648-18	N	Nickel	1.0	0.19	0.19 J	UG/L	TR
SW6020/NONE	WS	073SW-0061-0001-SW	240-22648-18	N	Zinc	5.0	1.9	1.9 J	UG/L	TR
SW6020/NONE	WS	073SW-0067-0001-SW	240-22648-21	N	Aluminum	30.0	2000	2000	UG/L	
SW6020/NONE	WS	073SW-0067-0001-SW	240-22648-21	N	Arsenic	1.0	13.0	13.0	UG/L	
SW6020/NONE	WS	073SW-0067-0001-SW	240-22648-21	N	Barium	10.0	560	560	UG/L	
SW6020/NONE	WS	073SW-0067-0001-SW	240-22648-21	N	Beryllium	1.0	0.83	0.83 J	UG/L	TR
SW6020/NONE	WS	073SW-0067-0001-SW	240-22648-21	N	Calcium	100	100000	100000	UG/L	
SW6020/NONE	WS	073SW-0067-0001-SW	240-22648-21	N	Cadmium	1.0	2.1	2.1	UG/L	
SW6020/NONE	WS	073SW-0067-0001-SW	240-22648-21	N	Cobalt	0.50	20.0	20.0	UG/L	
SW6020/NONE	WS	073SW-0067-0001-SW	240-22648-21	N	Chromium	2.0	2.7	2.7	UG/L	
SW6020/NONE	WS	073SW-0067-0001-SW	240-22648-21	N	Copper	2.0	20.0	20.0	UG/L	
SW6020/NONE	WS	073SW-0067-0001-SW	240-22648-21	N	Iron	50.0	44000	44000	UG/L	
SW6020/NONE	WS	073SW-0067-0001-SW	240-22648-21	N	Potassium	100	1300	1300	UG/L	
SW6020/NONE	WS	073SW-0067-0001-SW	240-22648-21	N	Magnesium	100	9800	9800	UG/L	
SW6020/NONE	WS	073SW-0067-0001-SW	240-22648-21	N	Manganese	5.0	13000	13000	UG/L	
SW6020/NONE	WS	073SW-0067-0001-SW	240-22648-21	N	Sodium	100	1500	1500	UG/L	
SW6020/NONE	WS	073SW-0067-0001-SW	240-22648-21	N	Nickel	1.0	12.0	12.0	UG/L	
SW6020/NONE	WS	073SW-0067-0001-SW	240-22648-21	N	Lead	1.0	12.0	12.0	UG/L	
SW6020/NONE	WS	073SW-0067-0001-SW	240-22648-21	N	Antimony	2.0	0.46	0.46 J	UG/L	TR
SW6020/NONE	WS	073SW-0067-0001-SW	240-22648-21	N	Vanadium	1.0	11.0	11.0	UG/L	
SW6020/NONE	WS	073SW-0067-0001-SW	240-22648-21	N	Zinc	5.0	97.0	97.0	UG/L	
SW6020/NONE	SO	079SB-0055M-0001-SO	240-22648-22	N	Silver	0.097	0.027	0.027 J	MG/KG	TR
SW6020/NONE	SO	079SB-0055M-0001-SO	240-22648-22	N	Aluminum	2.9	12000	12000	MG/KG	
SW6020/NONE	SO	079SB-0055M-0001-SO	240-22648-22	N	Arsenic	0.097	10.0	10.0	MG/KG	
SW6020/NONE	SO	079SB-0055M-0001-SO	240-22648-22	N	Barium	0.97	88.0	88.0	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	079SB-0055M-0001-SO	240-22648-22	N	Beryllium	0.097	0.66	0.66	MG/KG	
SW6020/NONE	SO	079SB-0055M-0001-SO	240-22648-22	N	Calcium	9.7	1300	1300	MG/KG	
SW6020/NONE	SO	079SB-0055M-0001-SO	240-22648-22	N	Cadmium	0.097	0.21	0.21	MG/KG	
SW6020/NONE	SO	079SB-0055M-0001-SO	240-22648-22	N	Cobalt	0.049	13.0	13.0	MG/KG	
SW6020/NONE	SO	079SB-0055M-0001-SO	240-22648-22	N	Chromium	0.19	17.0	17.0	MG/KG	
SW6020/NONE	SO	079SB-0055M-0001-SO	240-22648-22	N	Copper	0.19	19.0	19.0	MG/KG	
SW6020/NONE	SO	079SB-0055M-0001-SO	240-22648-22	N	Iron	4.9	26000	26000	MG/KG	
SW6020/NONE	SO	079SB-0055M-0001-SO	240-22648-22	N	Potassium	9.7	1000	1000	MG/KG	
SW6020/NONE	SO	079SB-0055M-0001-SO	240-22648-22	N	Magnesium	9.7	3500	3500	MG/KG	
SW6020/NONE	SO	079SB-0055M-0001-SO	240-22648-22	N	Manganese	0.49	330	330 J	MG/KG	D1
SW6020/NONE	SO	079SB-0055M-0001-SO	240-22648-22	N	Sodium	9.7	50.0	50.0	MG/KG	
SW6020/NONE	SO	079SB-0055M-0001-SO	240-22648-22	N	Nickel	0.097	29.0	29.0	MG/KG	
SW6020/NONE	SO	079SB-0055M-0001-SO	240-22648-22	N	Lead	0.097	12.0	12.0	MG/KG	
SW6020/NONE	SO	079SB-0055M-0001-SO	240-22648-22	N	Selenium	0.49	0.34	0.34 J	MG/KG	TR
SW6020/NONE	SO	079SB-0055M-0001-SO	240-22648-22	N	Thallium	0.097	0.16	0.16	MG/KG	
SW6020/NONE	SO	079SB-0055M-0001-SO	240-22648-22	N	Vanadium	0.097	20.0	20.0	MG/KG	
SW6020/NONE	SO	079SB-0055M-0001-SO	240-22648-22	N	Zinc	0.49	58.0	58.0 J	MG/KG	A
SW6020/NONE	SO	079SB-0057M-0001-SO	240-22648-23	FD	Silver	0.096	0.023	0.023 J	MG/KG	TR
SW6020/NONE	SO	079SB-0057M-0001-SO	240-22648-23	FD	Aluminum	2.9	11000	11000	MG/KG	
SW6020/NONE	SO	079SB-0057M-0001-SO	240-22648-23	FD	Arsenic	0.096	8.8	8.8	MG/KG	
SW6020/NONE	SO	079SB-0057M-0001-SO	240-22648-23	FD	Barium	0.96	81.0	81.0	MG/KG	
SW6020/NONE	SO	079SB-0057M-0001-SO	240-22648-23	FD	Beryllium	0.096	0.68	0.68	MG/KG	
SW6020/NONE	SO	079SB-0057M-0001-SO	240-22648-23	FD	Calcium	9.6	1800	1800	MG/KG	
SW6020/NONE	SO	079SB-0057M-0001-SO	240-22648-23	FD	Cadmium	0.096	0.20	0.20	MG/KG	
SW6020/NONE	SO	079SB-0057M-0001-SO	240-22648-23	FD	Cobalt	0.048	17.0	17.0	MG/KG	
SW6020/NONE	SO	079SB-0057M-0001-SO	240-22648-23	FD	Chromium	0.19	16.0	16.0	MG/KG	
SW6020/NONE	SO	079SB-0057M-0001-SO	240-22648-23	FD	Copper	0.19	19.0	19.0	MG/KG	
SW6020/NONE	SO	079SB-0057M-0001-SO	240-22648-23	FD	Iron	4.8	25000	25000	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	079SB-0057M-0001-SO	240-22648-23	FD	Potassium	9.6	970	970	MG/KG	
SW6020/NONE	SO	079SB-0057M-0001-SO	240-22648-23	FD	Magnesium	9.6	3500	3500	MG/KG	
SW6020/NONE	SO	079SB-0057M-0001-SO	240-22648-23	FD	Manganese	0.48	410	410 J	MG/KG	D1
SW6020/NONE	SO	079SB-0057M-0001-SO	240-22648-23	FD	Sodium	9.6	46.0	46.0	MG/KG	
SW6020/NONE	SO	079SB-0057M-0001-SO	240-22648-23	FD	Nickel	0.096	29.0	29.0	MG/KG	
SW6020/NONE	SO	079SB-0057M-0001-SO	240-22648-23	FD	Lead	0.096	14.0	14.0	MG/KG	
SW6020/NONE	SO	079SB-0057M-0001-SO	240-22648-23	FD	Selenium	0.48	0.32	0.32 J	MG/KG	TR
SW6020/NONE	SO	079SB-0057M-0001-SO	240-22648-23	FD	Thallium	0.096	0.16	0.16	MG/KG	
SW6020/NONE	SO	079SB-0057M-0001-SO	240-22648-23	FD	Vanadium	0.096	19.0	19.0	MG/KG	
SW6020/NONE	SO	079SB-0057M-0001-SO	240-22648-23	FD	Zinc	0.48	50.0	50.0 J	MG/KG	A
SW6020/NONE	SO	079SB-0058M-0001-SO	240-22648-24	N	Silver	0.098	0.033	0.033 J	MG/KG	TR
SW6020/NONE	SO	079SB-0058M-0001-SO	240-22648-24	N	Aluminum	2.9	10000	10000	MG/KG	
SW6020/NONE	SO	079SB-0058M-0001-SO	240-22648-24	N	Arsenic	0.098	9.1	9.1	MG/KG	
SW6020/NONE	SO	079SB-0058M-0001-SO	240-22648-24	N	Barium	0.98	72.0	72.0	MG/KG	
SW6020/NONE	SO	079SB-0058M-0001-SO	240-22648-24	N	Beryllium	0.098	0.52	0.52	MG/KG	
SW6020/NONE	SO	079SB-0058M-0001-SO	240-22648-24	N	Calcium	9.8	18000	18000	MG/KG	
SW6020/NONE	SO	079SB-0058M-0001-SO	240-22648-24	N	Cadmium	0.098	0.17	0.17	MG/KG	
SW6020/NONE	SO	079SB-0058M-0001-SO	240-22648-24	N	Cobalt	0.049	11.0	11.0	MG/KG	
SW6020/NONE	SO	079SB-0058M-0001-SO	240-22648-24	N	Chromium	0.20	16.0	16.0	MG/KG	
SW6020/NONE	SO	079SB-0058M-0001-SO	240-22648-24	N	Copper	0.20	19.0	19.0	MG/KG	
SW6020/NONE	SO	079SB-0058M-0001-SO	240-22648-24	N	Iron	4.9	23000	23000	MG/KG	
SW6020/NONE	SO	079SB-0058M-0001-SO	240-22648-24	N	Potassium	9.8	1300	1300	MG/KG	
SW6020/NONE	SO	079SB-0058M-0001-SO	240-22648-24	N	Magnesium	9.8	5200	5200	MG/KG	
SW6020/NONE	SO	079SB-0058M-0001-SO	240-22648-24	N	Manganese	0.49	350	350 J	MG/KG	D1
SW6020/NONE	SO	079SB-0058M-0001-SO	240-22648-24	N	Sodium	9.8	74.0	74.0	MG/KG	
SW6020/NONE	SO	079SB-0058M-0001-SO	240-22648-24	N	Nickel	0.098	28.0	28.0	MG/KG	
SW6020/NONE	SO	079SB-0058M-0001-SO	240-22648-24	N	Lead	0.098	11.0	11.0	MG/KG	
SW6020/NONE	SO	079SB-0058M-0001-SO	240-22648-24	N	Selenium	0.49	0.25	0.25 J	MG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	079SB-0058M-0001-SO	240-22648-24	N	Thallium	0.098	0.16	0.16	MG/KG	
SW6020/NONE	SO	079SB-0058M-0001-SO	240-22648-24	N	Vanadium	0.098	18.0	18.0	MG/KG	
SW6020/NONE	SO	079SB-0058M-0001-SO	240-22648-24	N	Zinc	0.49	48.0	48.0 J	MG/KG	A
SW6020/NONE	SO	079SB-0059M-0001-SO	240-22648-25	FD	Silver	0.096	0.031	0.031 J	MG/KG	TR
SW6020/NONE	SO	079SB-0059M-0001-SO	240-22648-25	FD	Aluminum	2.9	11000	11000	MG/KG	
SW6020/NONE	SO	079SB-0059M-0001-SO	240-22648-25	FD	Arsenic	0.096	8.8	8.8	MG/KG	
SW6020/NONE	SO	079SB-0059M-0001-SO	240-22648-25	FD	Barium	0.96	71.0	71.0	MG/KG	
SW6020/NONE	SO	079SB-0059M-0001-SO	240-22648-25	FD	Beryllium	0.096	0.53	0.53	MG/KG	
SW6020/NONE	SO	079SB-0059M-0001-SO	240-22648-25	FD	Calcium	9.6	19000	19000	MG/KG	
SW6020/NONE	SO	079SB-0059M-0001-SO	240-22648-25	FD	Cadmium	0.096	0.18	0.18	MG/KG	
SW6020/NONE	SO	079SB-0059M-0001-SO	240-22648-25	FD	Cobalt	0.048	11.0	11.0	MG/KG	
SW6020/NONE	SO	079SB-0059M-0001-SO	240-22648-25	FD	Chromium	0.19	17.0	17.0	MG/KG	
SW6020/NONE	SO	079SB-0059M-0001-SO	240-22648-25	FD	Copper	0.19	20.0	20.0	MG/KG	
SW6020/NONE	SO	079SB-0059M-0001-SO	240-22648-25	FD	Iron	4.8	24000	24000	MG/KG	
SW6020/NONE	SO	079SB-0059M-0001-SO	240-22648-25	FD	Potassium	9.6	1300	1300	MG/KG	
SW6020/NONE	SO	079SB-0059M-0001-SO	240-22648-25	FD	Magnesium	9.6	5500	5500	MG/KG	
SW6020/NONE	SO	079SB-0059M-0001-SO	240-22648-25	FD	Manganese	0.48	350	350 J	MG/KG	D1
SW6020/NONE	SO	079SB-0059M-0001-SO	240-22648-25	FD	Sodium	9.6	76.0	76.0	MG/KG	
SW6020/NONE	SO	079SB-0059M-0001-SO	240-22648-25	FD	Nickel	0.096	28.0	28.0	MG/KG	
SW6020/NONE	SO	079SB-0059M-0001-SO	240-22648-25	FD	Lead	0.096	11.0	11.0	MG/KG	
SW6020/NONE	SO	079SB-0059M-0001-SO	240-22648-25	FD	Selenium	0.48	0.28	0.28 J	MG/KG	TR
SW6020/NONE	SO	079SB-0059M-0001-SO	240-22648-25	FD	Thallium	0.096	0.16	0.16	MG/KG	
SW6020/NONE	SO	079SB-0059M-0001-SO	240-22648-25	FD	Vanadium	0.096	18.0	18.0	MG/KG	
SW6020/NONE	SO	079SB-0059M-0001-SO	240-22648-25	FD	Zinc	0.48	49.0	49.0 J	MG/KG	A
SW6020/NONE	SO	079SB-0060M-0001-SO	240-22648-26	N	Silver	0.096	0.021	0.021 J	MG/KG	TR
SW6020/NONE	SO	079SB-0060M-0001-SO	240-22648-26	N	Aluminum	2.9	8400	8400	MG/KG	
SW6020/NONE	SO	079SB-0060M-0001-SO	240-22648-26	N	Arsenic	0.096	9.7	9.7	MG/KG	
SW6020/NONE	SO	079SB-0060M-0001-SO	240-22648-26	N	Barium	0.96	62.0	62.0	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	079SB-0060M-0001-SO	240-22648-26	N	Beryllium	0.096	0.44	0.44	MG/KG	
SW6020/NONE	SO	079SB-0060M-0001-SO	240-22648-26	N	Calcium	9.6	900	900	MG/KG	
SW6020/NONE	SO	079SB-0060M-0001-SO	240-22648-26	N	Cadmium	0.096	0.16	0.16	MG/KG	
SW6020/NONE	SO	079SB-0060M-0001-SO	240-22648-26	N	Cobalt	0.048	8.2	8.2	MG/KG	
SW6020/NONE	SO	079SB-0060M-0001-SO	240-22648-26	N	Chromium	0.19	12.0	12.0	MG/KG	
SW6020/NONE	SO	079SB-0060M-0001-SO	240-22648-26	N	Copper	0.19	17.0	17.0	MG/KG	
SW6020/NONE	SO	079SB-0060M-0001-SO	240-22648-26	N	Iron	4.8	20000	20000	MG/KG	
SW6020/NONE	SO	079SB-0060M-0001-SO	240-22648-26	N	Potassium	9.6	700	700	MG/KG	
SW6020/NONE	SO	079SB-0060M-0001-SO	240-22648-26	N	Magnesium	9.6	2300	2300	MG/KG	
SW6020/NONE	SO	079SB-0060M-0001-SO	240-22648-26	N	Manganese	0.48	300	300 J	MG/KG	D1
SW6020/NONE	SO	079SB-0060M-0001-SO	240-22648-26	N	Sodium	9.6	33.0	33.0	MG/KG	
SW6020/NONE	SO	079SB-0060M-0001-SO	240-22648-26	N	Nickel	0.096	22.0	22.0	MG/KG	
SW6020/NONE	SO	079SB-0060M-0001-SO	240-22648-26	N	Lead	0.096	11.0	11.0	MG/KG	
SW6020/NONE	SO	079SB-0060M-0001-SO	240-22648-26	N	Selenium	0.48	0.32	0.32 J	MG/KG	TR
SW6020/NONE	SO	079SB-0060M-0001-SO	240-22648-26	N	Thallium	0.096	0.12	0.12	MG/KG	
SW6020/NONE	SO	079SB-0060M-0001-SO	240-22648-26	N	Vanadium	0.096	15.0	15.0	MG/KG	
SW6020/NONE	SO	079SB-0060M-0001-SO	240-22648-26	N	Zinc	0.48	44.0	44.0 J	MG/KG	A
SW6020/NONE	SO	079SB-0061M-0001-SO	240-22648-27	N	Silver	0.096	0.037	0.037 J	MG/KG	TR
SW6020/NONE	SO	079SB-0061M-0001-SO	240-22648-27	N	Aluminum	2.9	11000	11000	MG/KG	
SW6020/NONE	SO	079SB-0061M-0001-SO	240-22648-27	N	Arsenic	0.096	8.8	8.8	MG/KG	
SW6020/NONE	SO	079SB-0061M-0001-SO	240-22648-27	N	Barium	0.96	79.0	79.0	MG/KG	
SW6020/NONE	SO	079SB-0061M-0001-SO	240-22648-27	N	Beryllium	0.096	0.56	0.56 J	MG/KG	A
SW6020/NONE	SO	079SB-0061M-0001-SO	240-22648-27	N	Calcium	9.6	8600	8600 J	MG/KG	M
SW6020/NONE	SO	079SB-0061M-0001-SO	240-22648-27	N	Cadmium	0.096	0.20	0.20	MG/KG	
SW6020/NONE	SO	079SB-0061M-0001-SO	240-22648-27	N	Cobalt	0.048	10.0	10.0	MG/KG	
SW6020/NONE	SO	079SB-0061M-0001-SO	240-22648-27	N	Chromium	0.19	17.0	17.0	MG/KG	
SW6020/NONE	SO	079SB-0061M-0001-SO	240-22648-27	N	Copper	0.19	18.0	18.0	MG/KG	
SW6020/NONE	SO	079SB-0061M-0001-SO	240-22648-27	N	Iron	4.8	24000	24000	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	079SB-0061M-0001-SO	240-22648-27	N	Potassium	9.6	1300	1300	MG/KG	
SW6020/NONE	SO	079SB-0061M-0001-SO	240-22648-27	N	Magnesium	9.6	3900	3900	MG/KG	
SW6020/NONE	SO	079SB-0061M-0001-SO	240-22648-27	N	Manganese	0.48	350	350	MG/KG	
SW6020/NONE	SO	079SB-0061M-0001-SO	240-22648-27	N	Sodium	9.6	51.0	51.0	MG/KG	
SW6020/NONE	SO	079SB-0061M-0001-SO	240-22648-27	N	Nickel	0.096	27.0	27.0	MG/KG	
SW6020/NONE	SO	079SB-0061M-0001-SO	240-22648-27	N	Lead	0.096	11.0	11.0	MG/KG	
SW6020/NONE	SO	079SB-0061M-0001-SO	240-22648-27	N	Selenium	0.48	0.26	0.26 J	MG/KG	TR
SW6020/NONE	SO	079SB-0061M-0001-SO	240-22648-27	N	Thallium	0.096	0.17	0.17	MG/KG	
SW6020/NONE	SO	079SB-0061M-0001-SO	240-22648-27	N	Vanadium	0.096	19.0	19.0	MG/KG	
SW6020/NONE	SO	079SB-0061M-0001-SO	240-22648-27	N	Zinc	0.48	50.0	50.0 J	MG/KG	A
SW6020/NONE	SO	079SB-0062M-0001-SO	240-22648-28	N	Silver	0.095	0.031	0.031 J	MG/KG	TR
SW6020/NONE	SO	079SB-0062M-0001-SO	240-22648-28	N	Aluminum	2.9	12000	12000	MG/KG	
SW6020/NONE	SO	079SB-0062M-0001-SO	240-22648-28	N	Arsenic	0.095	9.0	9.0	MG/KG	
SW6020/NONE	SO	079SB-0062M-0001-SO	240-22648-28	N	Barium	0.95	72.0	72.0	MG/KG	
SW6020/NONE	SO	079SB-0062M-0001-SO	240-22648-28	N	Beryllium	0.095	0.64	0.64 J	MG/KG	A
SW6020/NONE	SO	079SB-0062M-0001-SO	240-22648-28	N	Calcium	9.5	8900	8900 J	MG/KG	M
SW6020/NONE	SO	079SB-0062M-0001-SO	240-22648-28	N	Cadmium	0.095	0.17	0.17	MG/KG	
SW6020/NONE	SO	079SB-0062M-0001-SO	240-22648-28	N	Cobalt	0.048	12.0	12.0	MG/KG	
SW6020/NONE	SO	079SB-0062M-0001-SO	240-22648-28	N	Chromium	0.19	18.0	18.0	MG/KG	
SW6020/NONE	SO	079SB-0062M-0001-SO	240-22648-28	N	Copper	0.19	20.0	20.0	MG/KG	
SW6020/NONE	SO	079SB-0062M-0001-SO	240-22648-28	N	Iron	4.8	25000	25000	MG/KG	
SW6020/NONE	SO	079SB-0062M-0001-SO	240-22648-28	N	Potassium	9.5	1400	1400	MG/KG	
SW6020/NONE	SO	079SB-0062M-0001-SO	240-22648-28	N	Magnesium	9.5	4800	4800	MG/KG	
SW6020/NONE	SO	079SB-0062M-0001-SO	240-22648-28	N	Manganese	0.48	300	300	MG/KG	
SW6020/NONE	SO	079SB-0062M-0001-SO	240-22648-28	N	Sodium	9.5	59.0	59.0	MG/KG	
SW6020/NONE	SO	079SB-0062M-0001-SO	240-22648-28	N	Nickel	0.095	28.0	28.0	MG/KG	
SW6020/NONE	SO	079SB-0062M-0001-SO	240-22648-28	N	Lead	0.095	12.0	12.0	MG/KG	
SW6020/NONE	SO	079SB-0062M-0001-SO	240-22648-28	N	Antimony	0.19	0.11	0.11 J	MG/KG	TR/m

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	079SB-0062M-0001-SO	240-22648-28	N	Selenium	0.48	0.27	0.27 J	MG/KG	TR
SW6020/NONE	SO	079SB-0062M-0001-SO	240-22648-28	N	Thallium	0.095	0.18	0.18	MG/KG	
SW6020/NONE	SO	079SB-0062M-0001-SO	240-22648-28	N	Vanadium	0.095	20.0	20.0	MG/KG	
SW6020/NONE	SO	079SB-0062M-0001-SO	240-22648-28	N	Zinc	0.48	53.0	53.0 J	MG/KG	A
SW6020/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	Silver	0.10	0.032	0.032 J	MG/KG	TR
SW6020/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	Aluminum	3.0	11000	11000	MG/KG	
SW6020/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	Arsenic	0.10	9.8	9.8	MG/KG	
SW6020/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	Barium	1.0	66.0	66.0	MG/KG	
SW6020/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	Beryllium	0.10	0.56	0.56 J	MG/KG	A
SW6020/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	Calcium	10.0	17000	17000 J	MG/KG	M
SW6020/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	Cadmium	0.10	0.20	0.20	MG/KG	
SW6020/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	Cobalt	0.050	12.0	12.0	MG/KG	
SW6020/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	Chromium	0.20	16.0	16.0	MG/KG	
SW6020/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	Copper	0.20	20.0	20.0	MG/KG	
SW6020/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	Iron	5.0	25000	25000	MG/KG	
SW6020/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	Potassium	10.0	1400	1400	MG/KG	
SW6020/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	Magnesium	10.0	6000	6000	MG/KG	
SW6020/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	Manganese	0.50	320	320	MG/KG	
SW6020/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	Sodium	10.0	87.0	87.0	MG/KG	
SW6020/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	Nickel	0.10	27.0	27.0	MG/KG	
SW6020/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	Lead	0.10	11.0	11.0	MG/KG	
SW6020/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	Antimony	0.20	0.060	0.060 J	MG/KG	TR/m
SW6020/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	Selenium	0.50	0.24	0.24 J	MG/KG	TR
SW6020/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	Thallium	0.10	0.17	0.17	MG/KG	
SW6020/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	Vanadium	0.10	18.0	18.0	MG/KG	
SW6020/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	Zinc	0.50	52.0	52.0 J	MG/KG	A
SW6020/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Silver	0.10	0.029	0.029 J	MG/KG	TR
SW6020/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Aluminum	3.0	11000	11000	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Arsenic	0.10	9.2	9.2	MG/KG	
SW6020/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Barium	1.0	76.0	76.0	MG/KG	
SW6020/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Beryllium	0.10	0.58	0.58 J	MG/KG	A
SW6020/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Calcium	10.0	6500	6500 J	MG/KG	M
SW6020/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Cadmium	0.10	0.14	0.14	MG/KG	
SW6020/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Cobalt	0.050	12.0	12.0	MG/KG	
SW6020/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Chromium	0.20	15.0	15.0	MG/KG	
SW6020/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Copper	0.20	18.0	18.0	MG/KG	
SW6020/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Iron	5.0	24000	24000	MG/KG	
SW6020/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Potassium	10.0	1000	1000	MG/KG	
SW6020/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Magnesium	10.0	3900	3900	MG/KG	
SW6020/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Manganese	0.50	330	330	MG/KG	
SW6020/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Sodium	10.0	58.0	58.0	MG/KG	
SW6020/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Nickel	0.10	23.0	23.0	MG/KG	
SW6020/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Lead	0.10	11.0	11.0	MG/KG	
SW6020/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Selenium	0.50	0.26	0.26 J	MG/KG	TR
SW6020/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Thallium	0.10	0.16	0.16	MG/KG	
SW6020/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Vanadium	0.10	18.0	18.0	MG/KG	
SW6020/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Zinc	0.50	48.0	48.0 J	MG/KG	A
SW6020/NONE	SO	079SB-0065M-0001-SO	240-22648-32	N	Silver	0.095	0.031	0.031 J	MG/KG	TR
SW6020/NONE	SO	079SB-0065M-0001-SO	240-22648-32	N	Aluminum	2.9	11000	11000	MG/KG	
SW6020/NONE	SO	079SB-0065M-0001-SO	240-22648-32	N	Arsenic	0.095	9.4	9.4	MG/KG	
SW6020/NONE	SO	079SB-0065M-0001-SO	240-22648-32	N	Barium	0.95	67.0	67.0	MG/KG	
SW6020/NONE	SO	079SB-0065M-0001-SO	240-22648-32	N	Beryllium	0.095	0.54	0.54 J	MG/KG	A
SW6020/NONE	SO	079SB-0065M-0001-SO	240-22648-32	N	Calcium	9.5	1000	1000 J	MG/KG	M
SW6020/NONE	SO	079SB-0065M-0001-SO	240-22648-32	N	Cadmium	0.095	0.14	0.14	MG/KG	
SW6020/NONE	SO	079SB-0065M-0001-SO	240-22648-32	N	Cobalt	0.048	10.0	10.0	MG/KG	
SW6020/NONE	SO	079SB-0065M-0001-SO	240-22648-32	N	Chromium	0.19	15.0	15.0	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	079SB-0065M-0001-SO	240-22648-32	N	Copper	0.19	18.0	18.0	MG/KG	
SW6020/NONE	SO	079SB-0065M-0001-SO	240-22648-32	N	Iron	4.8	24000	24000	MG/KG	
SW6020/NONE	SO	079SB-0065M-0001-SO	240-22648-32	N	Potassium	9.5	930	930	MG/KG	
SW6020/NONE	SO	079SB-0065M-0001-SO	240-22648-32	N	Magnesium	9.5	3200	3200	MG/KG	
SW6020/NONE	SO	079SB-0065M-0001-SO	240-22648-32	N	Manganese	0.48	260	260	MG/KG	
SW6020/NONE	SO	079SB-0065M-0001-SO	240-22648-32	N	Sodium	9.5	52.0	52.0	MG/KG	
SW6020/NONE	SO	079SB-0065M-0001-SO	240-22648-32	N	Nickel	0.095	24.0	24.0	MG/KG	
SW6020/NONE	SO	079SB-0065M-0001-SO	240-22648-32	N	Lead	0.095	12.0	12.0	MG/KG	
SW6020/NONE	SO	079SB-0065M-0001-SO	240-22648-32	N	Selenium	0.48	0.25	0.25 J	MG/KG	TR
SW6020/NONE	SO	079SB-0065M-0001-SO	240-22648-32	N	Thallium	0.095	0.15	0.15	MG/KG	
SW6020/NONE	SO	079SB-0065M-0001-SO	240-22648-32	N	Vanadium	0.095	17.0	17.0	MG/KG	
SW6020/NONE	SO	079SB-0065M-0001-SO	240-22648-32	N	Zinc	0.48	52.0	52.0 J	MG/KG	A
SW6020/NONE	SO	079SB-0066M-0001-SO	240-22648-33	FD	Silver	0.10	0.030	0.030 J	MG/KG	TR
SW6020/NONE	SO	079SB-0066M-0001-SO	240-22648-33	FD	Aluminum	3.0	12000	12000	MG/KG	
SW6020/NONE	SO	079SB-0066M-0001-SO	240-22648-33	FD	Arsenic	0.10	8.2	8.2	MG/KG	
SW6020/NONE	SO	079SB-0066M-0001-SO	240-22648-33	FD	Barium	1.0	65.0	65.0	MG/KG	
SW6020/NONE	SO	079SB-0066M-0001-SO	240-22648-33	FD	Beryllium	0.10	0.58	0.58 J	MG/KG	A
SW6020/NONE	SO	079SB-0066M-0001-SO	240-22648-33	FD	Calcium	10.0	940	940 J	MG/KG	M
SW6020/NONE	SO	079SB-0066M-0001-SO	240-22648-33	FD	Cadmium	0.10	0.15	0.15	MG/KG	
SW6020/NONE	SO	079SB-0066M-0001-SO	240-22648-33	FD	Cobalt	0.050	10.0	10.0	MG/KG	
SW6020/NONE	SO	079SB-0066M-0001-SO	240-22648-33	FD	Chromium	0.20	15.0	15.0	MG/KG	
SW6020/NONE	SO	079SB-0066M-0001-SO	240-22648-33	FD	Copper	0.20	21.0	21.0	MG/KG	
SW6020/NONE	SO	079SB-0066M-0001-SO	240-22648-33	FD	Iron	5.0	25000	25000	MG/KG	
SW6020/NONE	SO	079SB-0066M-0001-SO	240-22648-33	FD	Potassium	10.0	860	860	MG/KG	
SW6020/NONE	SO	079SB-0066M-0001-SO	240-22648-33	FD	Magnesium	10.0	3100	3100	MG/KG	
SW6020/NONE	SO	079SB-0066M-0001-SO	240-22648-33	FD	Manganese	0.50	330	330	MG/KG	
SW6020/NONE	SO	079SB-0066M-0001-SO	240-22648-33	FD	Sodium	10.0	51.0	51.0	MG/KG	
SW6020/NONE	SO	079SB-0066M-0001-SO	240-22648-33	FD	Nickel	0.10	22.0	22.0	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	079SB-0066M-0001-SO	240-22648-33	FD	Lead	0.10	13.0	13.0	MG/KG	
SW6020/NONE	SO	079SB-0066M-0001-SO	240-22648-33	FD	Selenium	0.50	0.25	0.25 J	MG/KG	TR
SW6020/NONE	SO	079SB-0066M-0001-SO	240-22648-33	FD	Thallium	0.10	0.16	0.16	MG/KG	
SW6020/NONE	SO	079SB-0066M-0001-SO	240-22648-33	FD	Vanadium	0.10	18.0	18.0	MG/KG	
SW6020/NONE	SO	079SB-0066M-0001-SO	240-22648-33	FD	Zinc	0.50	56.0	56.0 J	MG/KG	A
SW6020/NONE	SO	079SB-0067M-0001-SO	240-22648-34	N	Silver	0.098	0.025	0.025 J	MG/KG	TR
SW6020/NONE	SO	079SB-0067M-0001-SO	240-22648-34	N	Aluminum	2.9	10000	10000	MG/KG	
SW6020/NONE	SO	079SB-0067M-0001-SO	240-22648-34	N	Arsenic	0.098	10.0	10.0	MG/KG	
SW6020/NONE	SO	079SB-0067M-0001-SO	240-22648-34	N	Barium	0.98	57.0	57.0	MG/KG	
SW6020/NONE	SO	079SB-0067M-0001-SO	240-22648-34	N	Beryllium	0.098	0.51	0.51 J	MG/KG	A
SW6020/NONE	SO	079SB-0067M-0001-SO	240-22648-34	N	Calcium	9.8	14000	14000 J	MG/KG	M
SW6020/NONE	SO	079SB-0067M-0001-SO	240-22648-34	N	Cadmium	0.098	0.17	0.17	MG/KG	
SW6020/NONE	SO	079SB-0067M-0001-SO	240-22648-34	N	Cobalt	0.049	11.0	11.0	MG/KG	
SW6020/NONE	SO	079SB-0067M-0001-SO	240-22648-34	N	Chromium	0.20	15.0	15.0	MG/KG	
SW6020/NONE	SO	079SB-0067M-0001-SO	240-22648-34	N	Copper	0.20	18.0	18.0	MG/KG	
SW6020/NONE	SO	079SB-0067M-0001-SO	240-22648-34	N	Iron	4.9	23000	23000	MG/KG	
SW6020/NONE	SO	079SB-0067M-0001-SO	240-22648-34	N	Potassium	9.8	1200	1200	MG/KG	
SW6020/NONE	SO	079SB-0067M-0001-SO	240-22648-34	N	Magnesium	9.8	6000	6000	MG/KG	
SW6020/NONE	SO	079SB-0067M-0001-SO	240-22648-34	N	Manganese	0.49	330	330	MG/KG	
SW6020/NONE	SO	079SB-0067M-0001-SO	240-22648-34	N	Sodium	9.8	77.0	77.0	MG/KG	
SW6020/NONE	SO	079SB-0067M-0001-SO	240-22648-34	N	Nickel	0.098	26.0	26.0	MG/KG	
SW6020/NONE	SO	079SB-0067M-0001-SO	240-22648-34	N	Lead	0.098	11.0	11.0	MG/KG	
SW6020/NONE	SO	079SB-0067M-0001-SO	240-22648-34	N	Selenium	0.49	0.24	0.24 J	MG/KG	TR
SW6020/NONE	SO	079SB-0067M-0001-SO	240-22648-34	N	Thallium	0.098	0.14	0.14	MG/KG	
SW6020/NONE	SO	079SB-0067M-0001-SO	240-22648-34	N	Vanadium	0.098	16.0	16.0	MG/KG	
SW6020/NONE	SO	079SB-0067M-0001-SO	240-22648-34	N	Zinc	0.49	53.0	53.0 J	MG/KG	A
SW6020/NONE	SO	079SB-0068M-0001-SO	240-22648-35	FD	Silver	0.099	0.032	0.032 J	MG/KG	TR
SW6020/NONE	SO	079SB-0068M-0001-SO	240-22648-35	FD	Aluminum	3.0	10000	10000	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	079SB-0068M-0001-SO	240-22648-35	FD	Arsenic	0.099	11.0	11.0	MG/KG	
SW6020/NONE	SO	079SB-0068M-0001-SO	240-22648-35	FD	Barium	0.99	59.0	59.0	MG/KG	
SW6020/NONE	SO	079SB-0068M-0001-SO	240-22648-35	FD	Beryllium	0.099	0.51	0.51 J	MG/KG	A
SW6020/NONE	SO	079SB-0068M-0001-SO	240-22648-35	FD	Calcium	9.9	12000	12000 J	MG/KG	M
SW6020/NONE	SO	079SB-0068M-0001-SO	240-22648-35	FD	Cadmium	0.099	0.18	0.18	MG/KG	
SW6020/NONE	SO	079SB-0068M-0001-SO	240-22648-35	FD	Cobalt	0.050	11.0	11.0	MG/KG	
SW6020/NONE	SO	079SB-0068M-0001-SO	240-22648-35	FD	Chromium	0.20	15.0	15.0	MG/KG	
SW6020/NONE	SO	079SB-0068M-0001-SO	240-22648-35	FD	Copper	0.20	19.0	19.0	MG/KG	
SW6020/NONE	SO	079SB-0068M-0001-SO	240-22648-35	FD	Iron	5.0	24000	24000	MG/KG	
SW6020/NONE	SO	079SB-0068M-0001-SO	240-22648-35	FD	Potassium	9.9	1200	1200	MG/KG	
SW6020/NONE	SO	079SB-0068M-0001-SO	240-22648-35	FD	Magnesium	9.9	5500	5500	MG/KG	
SW6020/NONE	SO	079SB-0068M-0001-SO	240-22648-35	FD	Manganese	0.50	340	340	MG/KG	
SW6020/NONE	SO	079SB-0068M-0001-SO	240-22648-35	FD	Sodium	9.9	69.0	69.0	MG/KG	
SW6020/NONE	SO	079SB-0068M-0001-SO	240-22648-35	FD	Nickel	0.099	27.0	27.0	MG/KG	
SW6020/NONE	SO	079SB-0068M-0001-SO	240-22648-35	FD	Lead	0.099	11.0	11.0	MG/KG	
SW6020/NONE	SO	079SB-0068M-0001-SO	240-22648-35	FD	Selenium	0.50	0.23	0.23 J	MG/KG	TR
SW6020/NONE	SO	079SB-0068M-0001-SO	240-22648-35	FD	Thallium	0.099	0.15	0.15	MG/KG	
SW6020/NONE	SO	079SB-0068M-0001-SO	240-22648-35	FD	Vanadium	0.099	16.0	16.0	MG/KG	
SW6020/NONE	SO	079SB-0068M-0001-SO	240-22648-35	FD	Zinc	0.50	52.0	52.0 J	MG/KG	A
SW6020/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	Silver	0.096	0.026	0.026 J	MG/KG	TR
SW6020/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	Aluminum	2.9	11000	11000	MG/KG	
SW6020/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	Arsenic	0.096	9.2	9.2	MG/KG	
SW6020/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	Barium	0.96	59.0	59.0	MG/KG	
SW6020/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	Beryllium	0.096	0.51	0.51 J	MG/KG	A
SW6020/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	Calcium	9.6	9700	9700 J	MG/KG	M
SW6020/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	Cadmium	0.096	0.14	0.14	MG/KG	
SW6020/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	Cobalt	0.048	11.0	11.0	MG/KG	
SW6020/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	Chromium	0.19	15.0	15.0	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	Copper	0.19	18.0	18.0	MG/KG	
SW6020/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	Iron	4.8	23000	23000	MG/KG	
SW6020/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	Potassium	9.6	1100	1100	MG/KG	
SW6020/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	Magnesium	9.6	5100	5100	MG/KG	
SW6020/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	Manganese	0.48	300	300	MG/KG	
SW6020/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	Sodium	9.6	63.0	63.0	MG/KG	
SW6020/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	Nickel	0.096	25.0	25.0	MG/KG	
SW6020/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	Lead	0.096	11.0	11.0	MG/KG	
SW6020/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	Selenium	0.48	0.23	0.23 J	MG/KG	TR
SW6020/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	Thallium	0.096	0.15	0.15	MG/KG	
SW6020/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	Vanadium	0.096	17.0	17.0	MG/KG	
SW6020/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	Zinc	0.48	48.0	48.0 J	MG/KG	A
SW6020/NONE	SO	079SB-0070M-0001-SO	240-22648-37	N	Silver	0.098	0.029	0.029 J	MG/KG	TR
SW6020/NONE	SO	079SB-0070M-0001-SO	240-22648-37	N	Aluminum	2.9	11000	11000	MG/KG	
SW6020/NONE	SO	079SB-0070M-0001-SO	240-22648-37	N	Arsenic	0.098	10.0	10.0	MG/KG	
SW6020/NONE	SO	079SB-0070M-0001-SO	240-22648-37	N	Barium	0.98	60.0	60.0	MG/KG	
SW6020/NONE	SO	079SB-0070M-0001-SO	240-22648-37	N	Beryllium	0.098	0.54	0.54 J	MG/KG	A
SW6020/NONE	SO	079SB-0070M-0001-SO	240-22648-37	N	Calcium	9.8	7600	7600 J	MG/KG	M
SW6020/NONE	SO	079SB-0070M-0001-SO	240-22648-37	N	Cadmium	0.098	0.16	0.16	MG/KG	
SW6020/NONE	SO	079SB-0070M-0001-SO	240-22648-37	N	Cobalt	0.049	10.0	10.0	MG/KG	
SW6020/NONE	SO	079SB-0070M-0001-SO	240-22648-37	N	Chromium	0.20	15.0	15.0	MG/KG	
SW6020/NONE	SO	079SB-0070M-0001-SO	240-22648-37	N	Copper	0.20	18.0	18.0	MG/KG	
SW6020/NONE	SO	079SB-0070M-0001-SO	240-22648-37	N	Iron	4.9	24000	24000	MG/KG	
SW6020/NONE	SO	079SB-0070M-0001-SO	240-22648-37	N	Potassium	9.8	1100	1100	MG/KG	
SW6020/NONE	SO	079SB-0070M-0001-SO	240-22648-37	N	Magnesium	9.8	4300	4300	MG/KG	
SW6020/NONE	SO	079SB-0070M-0001-SO	240-22648-37	N	Manganese	0.49	260	260	MG/KG	
SW6020/NONE	SO	079SB-0070M-0001-SO	240-22648-37	N	Sodium	9.8	50.0	50.0	MG/KG	
SW6020/NONE	SO	079SB-0070M-0001-SO	240-22648-37	N	Nickel	0.098	25.0	25.0	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	079SB-0070M-0001-SO	240-22648-37	N	Lead	0.098	11.0	11.0	MG/KG	
SW6020/NONE	SO	079SB-0070M-0001-SO	240-22648-37	N	Selenium	0.49	0.21	0.21 J	MG/KG	TR
SW6020/NONE	SO	079SB-0070M-0001-SO	240-22648-37	N	Thallium	0.098	0.15	0.15	MG/KG	
SW6020/NONE	SO	079SB-0070M-0001-SO	240-22648-37	N	Vanadium	0.098	17.0	17.0	MG/KG	
SW6020/NONE	SO	079SB-0070M-0001-SO	240-22648-37	N	Zinc	0.49	62.0	62.0 J	MG/KG	A
SW6020/NONE	SO	079SB-0071M-0001-SO	240-22648-38	N	Silver	0.088	0.027	0.027 J	MG/KG	TR
SW6020/NONE	SO	079SB-0071M-0001-SO	240-22648-38	N	Aluminum	2.6	12000	12000	MG/KG	
SW6020/NONE	SO	079SB-0071M-0001-SO	240-22648-38	N	Arsenic	0.088	11.0	11.0	MG/KG	
SW6020/NONE	SO	079SB-0071M-0001-SO	240-22648-38	N	Barium	0.88	68.0	68.0	MG/KG	
SW6020/NONE	SO	079SB-0071M-0001-SO	240-22648-38	N	Beryllium	0.088	0.56	0.56	MG/KG	
SW6020/NONE	SO	079SB-0071M-0001-SO	240-22648-38	N	Calcium	8.8	8800	8800 J	MG/KG	M
SW6020/NONE	SO	079SB-0071M-0001-SO	240-22648-38	N	Cadmium	0.088	0.15	0.15	MG/KG	
SW6020/NONE	SO	079SB-0071M-0001-SO	240-22648-38	N	Cobalt	0.044	11.0	11.0	MG/KG	
SW6020/NONE	SO	079SB-0071M-0001-SO	240-22648-38	N	Chromium	0.18	16.0	16.0	MG/KG	
SW6020/NONE	SO	079SB-0071M-0001-SO	240-22648-38	N	Copper	0.18	18.0	18.0	MG/KG	
SW6020/NONE	SO	079SB-0071M-0001-SO	240-22648-38	N	Iron	4.4	25000	25000	MG/KG	
SW6020/NONE	SO	079SB-0071M-0001-SO	240-22648-38	N	Potassium	8.8	1200	1200	MG/KG	
SW6020/NONE	SO	079SB-0071M-0001-SO	240-22648-38	N	Magnesium	8.8	4700	4700	MG/KG	
SW6020/NONE	SO	079SB-0071M-0001-SO	240-22648-38	N	Manganese	0.44	370	370	MG/KG	
SW6020/NONE	SO	079SB-0071M-0001-SO	240-22648-38	N	Sodium	8.8	57.0	57.0	MG/KG	
SW6020/NONE	SO	079SB-0071M-0001-SO	240-22648-38	N	Nickel	0.088	24.0	24.0	MG/KG	
SW6020/NONE	SO	079SB-0071M-0001-SO	240-22648-38	N	Lead	0.088	16.0	16.0	MG/KG	
SW6020/NONE	SO	079SB-0071M-0001-SO	240-22648-38	N	Selenium	0.44	0.27	0.27 J	MG/KG	TR
SW6020/NONE	SO	079SB-0071M-0001-SO	240-22648-38	N	Thallium	0.088	0.16	0.16	MG/KG	
SW6020/NONE	SO	079SB-0071M-0001-SO	240-22648-38	N	Vanadium	0.088	19.0	19.0	MG/KG	
SW6020/NONE	SO	079SB-0071M-0001-SO	240-22648-38	N	Zinc	0.44	50.0	50.0 J	MG/KG	A
SW6020/NONE	SO	079SB-0072M-0001-SO	240-22648-39	N	Silver	0.095	0.026	0.026 J	MG/KG	TR
SW6020/NONE	SO	079SB-0072M-0001-SO	240-22648-39	N	Aluminum	2.9	13000	13000	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	079SB-0072M-0001-SO	240-22648-39	N	Arsenic	0.095	11.0	11.0	MG/KG	
SW6020/NONE	SO	079SB-0072M-0001-SO	240-22648-39	N	Barium	0.95	67.0	67.0	MG/KG	
SW6020/NONE	SO	079SB-0072M-0001-SO	240-22648-39	N	Beryllium	0.095	0.63	0.63	MG/KG	
SW6020/NONE	SO	079SB-0072M-0001-SO	240-22648-39	N	Calcium	9.5	13000	13000 J	MG/KG	M
SW6020/NONE	SO	079SB-0072M-0001-SO	240-22648-39	N	Cadmium	0.095	0.15	0.15	MG/KG	
SW6020/NONE	SO	079SB-0072M-0001-SO	240-22648-39	N	Cobalt	0.048	11.0	11.0	MG/KG	
SW6020/NONE	SO	079SB-0072M-0001-SO	240-22648-39	N	Chromium	0.19	17.0	17.0	MG/KG	
SW6020/NONE	SO	079SB-0072M-0001-SO	240-22648-39	N	Copper	0.19	19.0	19.0	MG/KG	
SW6020/NONE	SO	079SB-0072M-0001-SO	240-22648-39	N	Iron	4.8	26000	26000	MG/KG	
SW6020/NONE	SO	079SB-0072M-0001-SO	240-22648-39	N	Potassium	9.5	1400	1400	MG/KG	
SW6020/NONE	SO	079SB-0072M-0001-SO	240-22648-39	N	Magnesium	9.5	5100	5100	MG/KG	
SW6020/NONE	SO	079SB-0072M-0001-SO	240-22648-39	N	Manganese	0.48	310	310	MG/KG	
SW6020/NONE	SO	079SB-0072M-0001-SO	240-22648-39	N	Sodium	9.5	76.0	76.0	MG/KG	
SW6020/NONE	SO	079SB-0072M-0001-SO	240-22648-39	N	Nickel	0.095	26.0	26.0	MG/KG	
SW6020/NONE	SO	079SB-0072M-0001-SO	240-22648-39	N	Lead	0.095	12.0	12.0	MG/KG	
SW6020/NONE	SO	079SB-0072M-0001-SO	240-22648-39	N	Selenium	0.48	0.25	0.25 J	MG/KG	TR
SW6020/NONE	SO	079SB-0072M-0001-SO	240-22648-39	N	Thallium	0.095	0.18	0.18	MG/KG	
SW6020/NONE	SO	079SB-0072M-0001-SO	240-22648-39	N	Vanadium	0.095	19.0	19.0	MG/KG	
SW6020/NONE	SO	079SB-0072M-0001-SO	240-22648-39	N	Zinc	0.48	57.0	57.0 J	MG/KG	A
SW6020/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Silver	0.092	0.027	0.027 J	MG/KG	TR
SW6020/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Aluminum	2.8	12000	12000	MG/KG	
SW6020/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Arsenic	0.092	9.9	9.9	MG/KG	
SW6020/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Barium	0.92	67.0	67.0	MG/KG	
SW6020/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Beryllium	0.092	0.56	0.56	MG/KG	
SW6020/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Calcium	9.2	3600	3600 J	MG/KG	M
SW6020/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Cadmium	0.092	0.13	0.13	MG/KG	
SW6020/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Cobalt	0.046	11.0	11.0	MG/KG	
SW6020/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Chromium	0.18	16.0	16.0	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Copper	0.18	18.0	18.0	MG/KG	
SW6020/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Iron	4.6	24000	24000	MG/KG	
SW6020/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Potassium	9.2	1300	1300	MG/KG	
SW6020/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Magnesium	9.2	4500	4500	MG/KG	
SW6020/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Manganese	0.46	350	350	MG/KG	
SW6020/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Sodium	9.2	93.0	93.0	MG/KG	
SW6020/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Nickel	0.092	25.0	25.0	MG/KG	
SW6020/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Lead	0.092	12.0	12.0	MG/KG	
SW6020/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Selenium	0.46	0.25	0.25 J	MG/KG	TR
SW6020/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Thallium	0.092	0.17	0.17	MG/KG	
SW6020/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Vanadium	0.092	19.0	19.0	MG/KG	
SW6020/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Zinc	0.46	49.0	49.0 J	MG/KG	A
SW6020/NONE	SO	079SB-0075-0001-SO	240-22648-31	N	Silver	0.12	0.038	0.038 J	MG/KG	TR
SW6020/NONE	SO	079SB-0075-0001-SO	240-22648-31	N	Aluminum	3.6	3100	3100	MG/KG	
SW6020/NONE	SO	079SB-0075-0001-SO	240-22648-31	N	Arsenic	0.12	11.0	11.0	MG/KG	
SW6020/NONE	SO	079SB-0075-0001-SO	240-22648-31	N	Barium	1.2	11.0	11.0	MG/KG	
SW6020/NONE	SO	079SB-0075-0001-SO	240-22648-31	N	Beryllium	0.12	0.15	0.15 J	MG/KG	A
SW6020/NONE	SO	079SB-0075-0001-SO	240-22648-31	N	Calcium	12.0	8300	8300 J	MG/KG	M
SW6020/NONE	SO	079SB-0075-0001-SO	240-22648-31	N	Cadmium	0.12	0.14	0.14	MG/KG	
SW6020/NONE	SO	079SB-0075-0001-SO	240-22648-31	N	Cobalt	0.060	4.4	4.4	MG/KG	
SW6020/NONE	SO	079SB-0075-0001-SO	240-22648-31	N	Chromium	0.24	4.8	4.8	MG/KG	
SW6020/NONE	SO	079SB-0075-0001-SO	240-22648-31	N	Copper	0.24	24.0	24.0	MG/KG	
SW6020/NONE	SO	079SB-0075-0001-SO	240-22648-31	N	Iron	6.0	14000	14000	MG/KG	
SW6020/NONE	SO	079SB-0075-0001-SO	240-22648-31	N	Potassium	12.0	520	520	MG/KG	
SW6020/NONE	SO	079SB-0075-0001-SO	240-22648-31	N	Magnesium	12.0	3000	3000	MG/KG	
SW6020/NONE	SO	079SB-0075-0001-SO	240-22648-31	N	Manganese	0.60	170	170	MG/KG	
SW6020/NONE	SO	079SB-0075-0001-SO	240-22648-31	N	Sodium	12.0	42.0	42.0	MG/KG	
SW6020/NONE	SO	079SB-0075-0001-SO	240-22648-31	N	Nickel	0.12	11.0	11.0	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	079SB-0075-0001-SO	240-22648-31	N	Lead	0.12	15.0	15.0	MG/KG	
SW6020/NONE	SO	079SB-0075-0001-SO	240-22648-31	N	Antimony	0.24	0.10	0.10 J	MG/KG	TR/m
SW6020/NONE	SO	079SB-0075-0001-SO	240-22648-31	N	Selenium	0.60	0.15	0.15 J	MG/KG	TR
SW6020/NONE	SO	079SB-0075-0001-SO	240-22648-31	N	Thallium	0.12	0.090	0.090 J	MG/KG	TR
SW6020/NONE	SO	079SB-0075-0001-SO	240-22648-31	N	Vanadium	0.12	6.1	6.1	MG/KG	
SW6020/NONE	SO	079SB-0075-0001-SO	240-22648-31	N	Zinc	0.60	62.0	62.0 J	MG/KG	A

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW7470A/NONE	WS	073SW-0067-0001-SW	240-22648-21	N	Mercury	0.20	0.24	0.24	UG/L	

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW7471A/NONE	SO	068SB-0033M-0001-SO	240-22648-46	N	Mercury	0.10	0.052	0.052 J	MG/KG	TR
SW7471A/NONE	SO	068SB-0034M-0001-SO	240-22648-47	N	Mercury	0.10	0.015	0.015 J	MG/KG	TR
SW7471A/NONE	SO	068SB-0035M-0001-SO	240-22648-48	N	Mercury	0.11	0.015	0.015 J	MG/KG	TR
SW7471A/NONE	SO	068SB-0036M-0001-SO	240-22648-50	FD	Mercury	0.10	0.019	0.019 J	MG/KG	TR
SW7471A/NONE	SO	068SB-0038M-0001-SO	240-22648-49	N	Mercury	0.092	0.020	0.020 J	MG/KG	TR
SW7471A/NONE	SO	068SB-0039M-0001-SO	240-22648-51	N	Mercury	0.10	0.017	0.017 J	MG/KG	TR
SW7471A/NONE	SO	068SB-0040M-0001-SO	240-22648-52	N	Mercury	0.097	0.018	0.018 J	MG/KG	TR
SW7471A/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	Mercury	0.098	0.21	0.21	MG/KG	
SW7471A/NONE	SO	068SB-0044M-0001-SO	240-22648-41	N	Mercury	0.10	0.019	0.019 J	MG/KG	TR
SW7471A/NONE	SO	068SB-0050M-0001-SO	240-22648-55	N	Mercury	0.10	0.019	0.019 J	MG/KG	TR
SW7471A/NONE	SO	068SB-0053M-0001-SO	240-22648-58	N	Mercury	0.10	0.015	0.015 J	MG/KG	TR
SW7471A/NONE	SO	068SB-0054M-0001-SO	240-22648-59	FD	Mercury	0.086	0.014	0.014 J	MG/KG	TR
SW7471A/NONE	SO	073SB-0016M-0001-SO	240-22648-1	N	Mercury	0.11	0.030	0.030 J	MG/KG	TR
SW7471A/NONE	SO	073SB-0017M-0001-SO	240-22648-2	FD	Mercury	0.11	0.028	0.028 J	MG/KG	TR
SW7471A/NONE	SO	073SB-0019M-0001-SO	240-22648-3	N	Mercury	0.10	0.018	0.018 J	MG/KG	TR
SW7471A/NONE	SO	073SB-0020M-0001-SO	240-22648-4	N	Mercury	0.090	0.024	0.024 J	MG/KG	TR
SW7471A/NONE	SO	073SB-0021M-0001-SO	240-22648-5	N	Mercury	0.10	0.028	0.028 J	MG/KG	TR
SW7471A/NONE	SO	073SB-0022M-0001-SO	240-22648-6	N	Mercury	0.092	0.015	0.015 J	MG/KG	TR
SW7471A/NONE	SO	073SB-0023M-0001-SO	240-22648-7	N	Mercury	0.11	0.025	0.025 J	MG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW7471A/NONE	SO	073SB-0024M-0001-SO	240-22648-8	N	Mercury	0.090	0.030	0.030 J	MG/KG	TR
SW7471A/NONE	SE	073SD-0045-0001-SD	240-22648-10	N	Mercury	0.28	0.072	0.072 J	MG/KG	TR
SW7471A/NONE	SE	073SD-0046-0001-SD	240-22648-14	N	Mercury	0.29	0.10	0.10 J	MG/KG	TR
SW7471A/NONE	SE	073SD-0047-0001-SD	240-22648-11	N	Mercury	0.14	0.035	0.035 J	MG/KG	TR
SW7471A/NONE	SE	073SD-0048-0001-SD	240-22648-12	FD	Mercury	0.16	0.032	0.032 J	MG/KG	TR
SW7471A/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	Mercury	0.16	0.041	0.041 J	MG/KG	TR
SW7471A/NONE	SO	079SB-0055M-0001-SO	240-22648-22	N	Mercury	0.095	0.029	0.029 J	MG/KG	TR
SW7471A/NONE	SO	079SB-0057M-0001-SO	240-22648-23	FD	Mercury	0.10	0.023	0.023 J	MG/KG	TR
SW7471A/NONE	SO	079SB-0060M-0001-SO	240-22648-26	N	Mercury	0.11	0.021	0.021 J	MG/KG	TR
SW7471A/NONE	SO	079SB-0062M-0001-SO	240-22648-28	N	Mercury	0.11	0.015	0.015 J	MG/KG	TR
SW7471A/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Mercury	0.092	0.014	0.014 J	MG/KG	TR
SW7471A/NONE	SO	079SB-0065M-0001-SO	240-22648-32	N	Mercury	0.092	0.017	0.017 J	MG/KG	TR
SW7471A/NONE	SO	079SB-0066M-0001-SO	240-22648-33	FD	Mercury	0.095	0.021	0.021 J	MG/KG	TR
SW7471A/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Mercury	0.095	0.016	0.016 J	MG/KG	TR

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8260B/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	Carbon Disulfide	4.8	3.1	3.1 J -	UG/KG	I/TR
SW8260B/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	Carbon Disulfide	7.1	4.5	4.5 J +	UG/KG	I/TR
SW8260B/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	2-Butanone (MEK)	29.0	2.7	2.7 J +	UG/KG	I/TR
SW8260B/NONE	WG	073SW-0057-0001-TB	240-22648-20	N	Acetone	10.0	7.0	7.0 J	UG/L	TR/J
SW8260B/NONE	WG	073SW-0057-0001-TB	240-22648-20	N	Methylene Chloride	1.0	1.2	1.2	UG/L	

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8270C/NONE	SO	068SB-0033M-0001-SO	240-22648-46	N	Fluoranthene	6.7	5.4	5.4 J	UG/KG	TR
SW8270C/NONE	SO	068SB-0033M-0001-SO	240-22648-46	N	Naphthalene	6.7	4.9	4.9 J	UG/KG	TR
SW8270C/NONE	SO	068SB-0033M-0001-SO	240-22648-46	N	Phenanthrene	6.7	6.7	6.7	UG/KG	
SW8270C/NONE	SO	068SB-0033M-0001-SO	240-22648-46	N	Pyrene	6.7	5.1	5.1 J	UG/KG	TR
SW8270C/NONE	SO	068SB-0034M-0001-SO	240-22648-47	N	2-Methylnaphthalene	6.6	11.0	11.0	UG/KG	
SW8270C/NONE	SO	068SB-0034M-0001-SO	240-22648-47	N	Naphthalene	6.6	13.0	13.0	UG/KG	
SW8270C/NONE	SO	068SB-0034M-0001-SO	240-22648-47	N	Phenanthrene	6.6	4.6	4.6 J	UG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8270C/NONE	SO	068SB-0035M-0001-SO	240-22648-48	N	2-Methylnaphthalene	6.6	7.8	7.8	UG/KG	
SW8270C/NONE	SO	068SB-0035M-0001-SO	240-22648-48	N	Naphthalene	6.6	10.0	10.0	UG/KG	
SW8270C/NONE	SO	068SB-0035M-0001-SO	240-22648-48	N	Phenanthrene	6.6	4.6	4.6 J	UG/KG	TR
SW8270C/NONE	SO	068SB-0036M-0001-SO	240-22648-50	FD	2-Methylnaphthalene	6.7	6.5	6.5 J	UG/KG	TR
SW8270C/NONE	SO	068SB-0036M-0001-SO	240-22648-50	FD	Naphthalene	6.7	8.3	8.3	UG/KG	
SW8270C/NONE	SO	068SB-0038M-0001-SO	240-22648-49	N	2-Methylnaphthalene	6.6	9.1	9.1	UG/KG	
SW8270C/NONE	SO	068SB-0038M-0001-SO	240-22648-49	N	Naphthalene	6.6	10.0	10.0	UG/KG	
SW8270C/NONE	SO	068SB-0039M-0001-SO	240-22648-51	N	Di-n-Butyl Phthalate	69.0	22.0	22.0 J	UG/KG	TR
SW8270C/NONE	SO	068SB-0039M-0001-SO	240-22648-51	N	2-Methylnaphthalene	6.6	11.0	11.0	UG/KG	
SW8270C/NONE	SO	068SB-0039M-0001-SO	240-22648-51	N	Naphthalene	6.6	13.0	13.0	UG/KG	
SW8270C/NONE	SO	068SB-0040M-0001-SO	240-22648-52	N	Benzo(a)pyrene	6.7	39.0	39.0	UG/KG	
SW8270C/NONE	SO	068SB-0040M-0001-SO	240-22648-52	N	Fluoranthene	6.7	3.5	3.5 J	UG/KG	TR
SW8270C/NONE	SO	068SB-0040M-0001-SO	240-22648-52	N	2-Methylnaphthalene	6.7	5.8	5.8 J	UG/KG	TR
SW8270C/NONE	SO	068SB-0040M-0001-SO	240-22648-52	N	Naphthalene	6.7	7.1	7.1	UG/KG	
SW8270C/NONE	SO	068SB-0040M-0001-SO	240-22648-52	N	Phenanthrene	6.7	6.1	6.1 J	UG/KG	TR
SW8270C/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	2-Methylnaphthalene	6.7	13.0	13.0	UG/KG	
SW8270C/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	Naphthalene	6.7	14.0	14.0	UG/KG	
SW8270C/NONE	SO	068SB-0041M-0001-SO	240-22648-53	N	Phenanthrene	6.7	10.0	10.0	UG/KG	
SW8270C/NONE	SO	068SB-0042M-0001-SO	240-22648-54	N	Benzo(b)fluoranthene	6.7	5.1	5.1 J	UG/KG	TR
SW8270C/NONE	SO	068SB-0042M-0001-SO	240-22648-54	N	2-Methylnaphthalene	6.7	14.0	14.0	UG/KG	
SW8270C/NONE	SO	068SB-0042M-0001-SO	240-22648-54	N	Naphthalene	6.7	14.0	14.0	UG/KG	
SW8270C/NONE	SO	068SB-0044M-0001-SO	240-22648-41	N	bis(2-Ethylhexyl) Phthalate	71.0	120	120	UG/KG	
SW8270C/NONE	SO	068SB-0044M-0001-SO	240-22648-41	N	2-Methylnaphthalene	6.8	12.0	12.0	UG/KG	
SW8270C/NONE	SO	068SB-0044M-0001-SO	240-22648-41	N	Naphthalene	6.8	14.0	14.0	UG/KG	
SW8270C/NONE	SO	068SB-0044M-0001-SO	240-22648-41	N	Phenanthrene	6.8	5.0	5.0 J	UG/KG	TR
SW8270C/NONE	SO	068SB-0045M-0001-SO	240-22648-42	N	bis(2-Ethylhexyl) Phthalate	70.0	96.0	96.0	UG/KG	
SW8270C/NONE	SO	068SB-0045M-0001-SO	240-22648-42	N	2-Methylnaphthalene	6.7	6.1	6.1 J	UG/KG	TR
SW8270C/NONE	SO	068SB-0045M-0001-SO	240-22648-42	N	Naphthalene	6.7	7.7	7.7	UG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8270C/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	bis(2-Ethylhexyl) Phthalate	69.0	110	110	UG/KG	
SW8270C/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	1,4-Dichlorobenzene	49.0	20.0	20.0 J	UG/KG	TR
SW8270C/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	2-Methylnaphthalene	6.6	12.0	12.0	UG/KG	
SW8270C/NONE	SO	068SB-0046M-0001-SO	240-22648-43	N	Naphthalene	6.6	17.0	17.0	UG/KG	
SW8270C/NONE	SO	068SB-0047M-0001-SO	240-22648-44	N	2-Methylnaphthalene	6.6	7.2	7.2	UG/KG	
SW8270C/NONE	SO	068SB-0047M-0001-SO	240-22648-44	N	Naphthalene	6.6	9.0	9.0	UG/KG	
SW8270C/NONE	SO	068SB-0047M-0001-SO	240-22648-44	N	Phenanthrene	6.6	4.3	4.3 J	UG/KG	TR
SW8270C/NONE	SO	068SB-0048M-0001-SO	240-22648-45	N	bis(2-Ethylhexyl) Phthalate	71.0	33.0	33.0 J	UG/KG	TR
SW8270C/NONE	SO	068SB-0048M-0001-SO	240-22648-45	N	2-Methylnaphthalene	6.7	6.4	6.4 J	UG/KG	TR
SW8270C/NONE	SO	068SB-0048M-0001-SO	240-22648-45	N	Naphthalene	6.7	10.0	10.0	UG/KG	
SW8270C/NONE	SO	068SB-0050M-0001-SO	240-22648-55	N	2-Methylnaphthalene	6.7	5.7	5.7 J	UG/KG	TR
SW8270C/NONE	SO	068SB-0050M-0001-SO	240-22648-55	N	Naphthalene	6.7	7.7	7.7	UG/KG	
SW8270C/NONE	SO	068SB-0050M-0001-SO	240-22648-55	N	Phenanthrene	6.7	7.0	7.0	UG/KG	
SW8270C/NONE	SO	068SB-0050M-0001-SO	240-22648-55	N	Pyrene	6.7	3.4	3.4 J	UG/KG	TR
SW8270C/NONE	SO	068SB-0051M-0001-SO	240-22648-56	N	2-Methylnaphthalene	6.7	6.5	6.5 J	UG/KG	TR
SW8270C/NONE	SO	068SB-0051M-0001-SO	240-22648-56	N	Naphthalene	6.7	9.2	9.2	UG/KG	
SW8270C/NONE	SO	068SB-0051M-0001-SO	240-22648-56	N	Phenanthrene	6.7	8.3	8.3	UG/KG	
SW8270C/NONE	SO	068SB-0052M-0001-SO	240-22648-57	N	Dibenzofuran	50.0	17.0	17.0 J	UG/KG	TR
SW8270C/NONE	SO	068SB-0052M-0001-SO	240-22648-57	N	Fluorene	6.6	13.0	13.0	UG/KG	
SW8270C/NONE	SO	068SB-0052M-0001-SO	240-22648-57	N	2-Methylnaphthalene	6.6	5.7	5.7 J	UG/KG	TR
SW8270C/NONE	SO	068SB-0052M-0001-SO	240-22648-57	N	Naphthalene	6.6	7.3	7.3	UG/KG	
SW8270C/NONE	SO	068SB-0052M-0001-SO	240-22648-57	N	Phenanthrene	6.6	13.0	13.0	UG/KG	
SW8270C/NONE	SO	068SB-0053M-0001-SO	240-22648-58	N	2-Methylnaphthalene	6.6	4.4	4.4 J	UG/KG	TR
SW8270C/NONE	SO	068SB-0054M-0001-SO	240-22648-59	FD	2-Methylnaphthalene	6.6	9.6	9.6	UG/KG	
SW8270C/NONE	SO	068SB-0054M-0001-SO	240-22648-59	FD	Phenanthrene	6.6	5.4	5.4 J	UG/KG	TR
SW8270C/NONE	SO	068SB-0056M-0001-SO	240-22648-60	N	2-Methylnaphthalene	6.6	7.5	7.5	UG/KG	
SW8270C/NONE	SO	068SB-0056M-0001-SO	240-22648-60	N	Naphthalene	6.6	8.7	8.7	UG/KG	
SW8270C/NONE	SO	068SB-0057M-0001-SO	240-22648-61	N	Dibenzofuran	51.0	17.0	17.0 J	UG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8270C/NONE	SO	068SB-0057M-0001-SO	240-22648-61	N	Fluorene	6.8	13.0	13.0	UG/KG	
SW8270C/NONE	SO	068SB-0057M-0001-SO	240-22648-61	N	2-Methylnaphthalene	6.8	12.0	12.0	UG/KG	
SW8270C/NONE	SO	068SB-0057M-0001-SO	240-22648-61	N	Naphthalene	6.8	12.0	12.0	UG/KG	
SW8270C/NONE	SO	068SB-0057M-0001-SO	240-22648-61	N	Phenanthrene	6.8	15.0	15.0	UG/KG	
SW8270C/NONE	SO	068SB-0059M-0001-SO	240-22648-62	N	2-Methylnaphthalene	6.7	8.8	8.8	UG/KG	
SW8270C/NONE	SO	068SB-0059M-0001-SO	240-22648-62	N	Naphthalene	6.7	12.0	12.0	UG/KG	
SW8270C/NONE	SO	073SB-0016M-0001-SO	240-22648-1	N	Acenaphthylene	6.6	9.4	9.4	UG/KG	
SW8270C/NONE	SO	073SB-0016M-0001-SO	240-22648-1	N	Anthracene	6.6	16.0	16.0	UG/KG	
SW8270C/NONE	SO	073SB-0016M-0001-SO	240-22648-1	N	Benzo(a)anthracene	6.6	77.0	77.0	UG/KG	
SW8270C/NONE	SO	073SB-0016M-0001-SO	240-22648-1	N	Benzo(a)pyrene	6.6	62.0	62.0	UG/KG	
SW8270C/NONE	SO	073SB-0016M-0001-SO	240-22648-1	N	Benzo(b)fluoranthene	6.6	110	110	UG/KG	
SW8270C/NONE	SO	073SB-0016M-0001-SO	240-22648-1	N	Benzo(g,h,i)perylene	6.6	38.0	38.0	UG/KG	
SW8270C/NONE	SO	073SB-0016M-0001-SO	240-22648-1	N	Benzo(k)fluoranthene	6.6	27.0	27.0	UG/KG	
SW8270C/NONE	SO	073SB-0016M-0001-SO	240-22648-1	N	Chrysene	6.6	77.0	77.0	UG/KG	
SW8270C/NONE	SO	073SB-0016M-0001-SO	240-22648-1	N	Dibenzofuran	50.0	14.0	14.0 J	UG/KG	TR
SW8270C/NONE	SO	073SB-0016M-0001-SO	240-22648-1	N	1,4-Dichlorobenzene	50.0	28.0	28.0 J	UG/KG	TR
SW8270C/NONE	SO	073SB-0016M-0001-SO	240-22648-1	N	Fluorene	6.6	5.9	5.9 J	UG/KG	TR
SW8270C/NONE	SO	073SB-0016M-0001-SO	240-22648-1	N	Fluoranthene	6.6	130	130	UG/KG	
SW8270C/NONE	SO	073SB-0016M-0001-SO	240-22648-1	N	Indeno(1,2,3-c,d)pyrene	6.6	33.0	33.0	UG/KG	
SW8270C/NONE	SO	073SB-0016M-0001-SO	240-22648-1	N	Isophorone	50.0	18.0	18.0 J	UG/KG	TR
SW8270C/NONE	SO	073SB-0016M-0001-SO	240-22648-1	N	2-Methylnaphthalene	6.6	60.0	60.0	UG/KG	
SW8270C/NONE	SO	073SB-0016M-0001-SO	240-22648-1	N	Naphthalene	6.6	51.0	51.0	UG/KG	
SW8270C/NONE	SO	073SB-0016M-0001-SO	240-22648-1	N	Phenanthrene	6.6	62.0	62.0	UG/KG	
SW8270C/NONE	SO	073SB-0016M-0001-SO	240-22648-1	N	Pyrene	6.6	100	100	UG/KG	
SW8270C/NONE	SO	073SB-0017M-0001-SO	240-22648-2	FD	Acenaphthylene	6.6	4.8	4.8 J	UG/KG	TR
SW8270C/NONE	SO	073SB-0017M-0001-SO	240-22648-2	FD	Anthracene	6.6	25.0	25.0	UG/KG	
SW8270C/NONE	SO	073SB-0017M-0001-SO	240-22648-2	FD	Benzo(a)anthracene	6.6	70.0	70.0	UG/KG	
SW8270C/NONE	SO	073SB-0017M-0001-SO	240-22648-2	FD	Benzo(a)pyrene	6.6	58.0	58.0	UG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8270C/NONE	SO	073SB-0017M-0001-SO	240-22648-2	FD	Benzo(b)fluoranthene	6.6	85.0	85.0	UG/KG	
SW8270C/NONE	SO	073SB-0017M-0001-SO	240-22648-2	FD	Benzo(g,h,i)perylene	6.6	32.0	32.0	UG/KG	
SW8270C/NONE	SO	073SB-0017M-0001-SO	240-22648-2	FD	Benzo(k)fluoranthene	6.6	31.0	31.0	UG/KG	
SW8270C/NONE	SO	073SB-0017M-0001-SO	240-22648-2	FD	Benzyl alcohol	330	37.0	37.0 J	UG/KG	TR
SW8270C/NONE	SO	073SB-0017M-0001-SO	240-22648-2	FD	Chrysene	6.6	67.0	67.0	UG/KG	
SW8270C/NONE	SO	073SB-0017M-0001-SO	240-22648-2	FD	Dibenzofuran	49.0	11.0	11.0 J	UG/KG	TR
SW8270C/NONE	SO	073SB-0017M-0001-SO	240-22648-2	FD	1,4-Dichlorobenzene	49.0	24.0	24.0 J	UG/KG	TR
SW8270C/NONE	SO	073SB-0017M-0001-SO	240-22648-2	FD	Fluorene	6.6	9.6	9.6	UG/KG	
SW8270C/NONE	SO	073SB-0017M-0001-SO	240-22648-2	FD	Fluoranthene	6.6	150	150	UG/KG	
SW8270C/NONE	SO	073SB-0017M-0001-SO	240-22648-2	FD	Indeno(1,2,3-c,d)pyrene	6.6	31.0	31.0	UG/KG	
SW8270C/NONE	SO	073SB-0017M-0001-SO	240-22648-2	FD	Isophorone	49.0	23.0	23.0 J	UG/KG	TR
SW8270C/NONE	SO	073SB-0017M-0001-SO	240-22648-2	FD	2-Methylnaphthalene	6.6	36.0	36.0	UG/KG	
SW8270C/NONE	SO	073SB-0017M-0001-SO	240-22648-2	FD	Naphthalene	6.6	34.0	34.0	UG/KG	
SW8270C/NONE	SO	073SB-0017M-0001-SO	240-22648-2	FD	Phenanthrene	6.6	87.0	87.0	UG/KG	
SW8270C/NONE	SO	073SB-0017M-0001-SO	240-22648-2	FD	Pyrene	6.6	120	120	UG/KG	
SW8270C/NONE	SO	073SB-0019M-0001-SO	240-22648-3	N	1,4-Dichlorobenzene	50.0	21.0	21.0 J	UG/KG	TR
SW8270C/NONE	SO	073SB-0019M-0001-SO	240-22648-3	N	2-Methylnaphthalene	6.6	12.0	12.0	UG/KG	
SW8270C/NONE	SO	073SB-0019M-0001-SO	240-22648-3	N	Naphthalene	6.6	12.0	12.0	UG/KG	
SW8270C/NONE	SO	073SB-0019M-0001-SO	240-22648-3	N	Phenanthrene	6.6	7.7	7.7	UG/KG	
SW8270C/NONE	SO	073SB-0019M-0001-SO	240-22648-3	N	Pyrene	6.6	3.9	3.9 J	UG/KG	TR
SW8270C/NONE	SO	073SB-0020M-0001-SO	240-22648-4	N	Benzo(a)anthracene	6.7	13.0	13.0	UG/KG	
SW8270C/NONE	SO	073SB-0020M-0001-SO	240-22648-4	N	Benzo(a)pyrene	6.7	14.0	14.0	UG/KG	
SW8270C/NONE	SO	073SB-0020M-0001-SO	240-22648-4	N	Benzo(b)fluoranthene	6.7	18.0	18.0	UG/KG	
SW8270C/NONE	SO	073SB-0020M-0001-SO	240-22648-4	N	Benzo(g,h,i)perylene	6.7	10.0	10.0	UG/KG	
SW8270C/NONE	SO	073SB-0020M-0001-SO	240-22648-4	N	Benzo(k)fluoranthene	6.7	8.5	8.5	UG/KG	
SW8270C/NONE	SO	073SB-0020M-0001-SO	240-22648-4	N	Benzyl alcohol	330	130	130 J	UG/KG	TR
SW8270C/NONE	SO	073SB-0020M-0001-SO	240-22648-4	N	Chrysene	6.7	15.0	15.0	UG/KG	
SW8270C/NONE	SO	073SB-0020M-0001-SO	240-22648-4	N	Dibenzofuran	50.0	8.4	8.4 J	UG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8270C/NONE	SO	073SB-0020M-0001-SO	240-22648-4	N	1,4-Dichlorobenzene	50.0	20.0	20.0 J	UG/KG	TR
SW8270C/NONE	SO	073SB-0020M-0001-SO	240-22648-4	N	Fluorene	6.7	4.4	4.4 J	UG/KG	TR
SW8270C/NONE	SO	073SB-0020M-0001-SO	240-22648-4	N	Fluoranthene	6.7	25.0	25.0	UG/KG	
SW8270C/NONE	SO	073SB-0020M-0001-SO	240-22648-4	N	Indeno(1,2,3-c,d)pyrene	6.7	8.1	8.1	UG/KG	
SW8270C/NONE	SO	073SB-0020M-0001-SO	240-22648-4	N	Isophorone	50.0	16.0	16.0 J	UG/KG	TR
SW8270C/NONE	SO	073SB-0020M-0001-SO	240-22648-4	N	2-Methylnaphthalene	6.7	22.0	22.0	UG/KG	
SW8270C/NONE	SO	073SB-0020M-0001-SO	240-22648-4	N	Naphthalene	6.7	22.0	22.0	UG/KG	
SW8270C/NONE	SO	073SB-0020M-0001-SO	240-22648-4	N	Phenanthrene	6.7	19.0	19.0	UG/KG	
SW8270C/NONE	SO	073SB-0020M-0001-SO	240-22648-4	N	Pyrene	6.7	22.0	22.0	UG/KG	
SW8270C/NONE	SO	073SB-0021M-0001-SO	240-22648-5	N	Benzo(a)anthracene	6.7	9.1	9.1	UG/KG	
SW8270C/NONE	SO	073SB-0021M-0001-SO	240-22648-5	N	Benzo(a)pyrene	6.7	7.0	7.0	UG/KG	
SW8270C/NONE	SO	073SB-0021M-0001-SO	240-22648-5	N	Benzo(b)fluoranthene	6.7	14.0	14.0	UG/KG	
SW8270C/NONE	SO	073SB-0021M-0001-SO	240-22648-5	N	Benzo(g,h,i)perylene	6.7	6.4	6.4 J	UG/KG	TR
SW8270C/NONE	SO	073SB-0021M-0001-SO	240-22648-5	N	Benzo(k)fluoranthene	6.7	4.5	4.5 J	UG/KG	TR
SW8270C/NONE	SO	073SB-0021M-0001-SO	240-22648-5	N	Chrysene	6.7	10.0	10.0	UG/KG	
SW8270C/NONE	SO	073SB-0021M-0001-SO	240-22648-5	N	Dibenzofuran	50.0	6.5	6.5 J	UG/KG	TR
SW8270C/NONE	SO	073SB-0021M-0001-SO	240-22648-5	N	1,4-Dichlorobenzene	50.0	23.0	23.0 J	UG/KG	TR
SW8270C/NONE	SO	073SB-0021M-0001-SO	240-22648-5	N	Fluoranthene	6.7	16.0	16.0	UG/KG	
SW8270C/NONE	SO	073SB-0021M-0001-SO	240-22648-5	N	Indeno(1,2,3-c,d)pyrene	6.7	6.2	6.2 J	UG/KG	TR
SW8270C/NONE	SO	073SB-0021M-0001-SO	240-22648-5	N	Isophorone	50.0	19.0	19.0 J	UG/KG	TR
SW8270C/NONE	SO	073SB-0021M-0001-SO	240-22648-5	N	2-Methylnaphthalene	6.7	24.0	24.0	UG/KG	
SW8270C/NONE	SO	073SB-0021M-0001-SO	240-22648-5	N	Naphthalene	6.7	23.0	23.0	UG/KG	
SW8270C/NONE	SO	073SB-0021M-0001-SO	240-22648-5	N	Phenanthrene	6.7	17.0	17.0	UG/KG	
SW8270C/NONE	SO	073SB-0021M-0001-SO	240-22648-5	N	Pyrene	6.7	13.0	13.0	UG/KG	
SW8270C/NONE	SO	073SB-0022M-0001-SO	240-22648-6	N	Benzo(a)anthracene	6.6	7.2	7.2	UG/KG	
SW8270C/NONE	SO	073SB-0022M-0001-SO	240-22648-6	N	Benzo(b)fluoranthene	6.6	7.7	7.7	UG/KG	
SW8270C/NONE	SO	073SB-0022M-0001-SO	240-22648-6	N	Benzo(g,h,i)perylene	6.6	5.4	5.4 J	UG/KG	TR
SW8270C/NONE	SO	073SB-0022M-0001-SO	240-22648-6	N	Chrysene	6.6	6.1	6.1 J	UG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8270C/NONE	SO	073SB-0022M-0001-SO	240-22648-6	N	Dibenzofuran	50.0	5.0	5.0 J	UG/KG	TR
SW8270C/NONE	SO	073SB-0022M-0001-SO	240-22648-6	N	Fluoranthene	6.6	8.7	8.7	UG/KG	
SW8270C/NONE	SO	073SB-0022M-0001-SO	240-22648-6	N	2-Methylnaphthalene	6.6	17.0	17.0	UG/KG	
SW8270C/NONE	SO	073SB-0022M-0001-SO	240-22648-6	N	Naphthalene	6.6	14.0	14.0	UG/KG	
SW8270C/NONE	SO	073SB-0022M-0001-SO	240-22648-6	N	Phenanthrene	6.6	13.0	13.0	UG/KG	
SW8270C/NONE	SO	073SB-0022M-0001-SO	240-22648-6	N	Pyrene	6.6	9.0	9.0	UG/KG	
SW8270C/NONE	SO	073SB-0023M-0001-SO	240-22648-7	N	Acenaphthylene	6.6	3.3	3.3 J	UG/KG	TR
SW8270C/NONE	SO	073SB-0023M-0001-SO	240-22648-7	N	Benzo(a)anthracene	6.6	16.0	16.0	UG/KG	
SW8270C/NONE	SO	073SB-0023M-0001-SO	240-22648-7	N	Benzo(a)pyrene	6.6	15.0	15.0	UG/KG	
SW8270C/NONE	SO	073SB-0023M-0001-SO	240-22648-7	N	Benzo(b)fluoranthene	6.6	22.0	22.0	UG/KG	
SW8270C/NONE	SO	073SB-0023M-0001-SO	240-22648-7	N	Benzo(g,h,i)perylene	6.6	15.0	15.0	UG/KG	
SW8270C/NONE	SO	073SB-0023M-0001-SO	240-22648-7	N	Benzo(k)fluoranthene	6.6	11.0	11.0	UG/KG	
SW8270C/NONE	SO	073SB-0023M-0001-SO	240-22648-7	N	Benzyl alcohol	330	34.0	34.0 J	UG/KG	TR
SW8270C/NONE	SO	073SB-0023M-0001-SO	240-22648-7	N	Chrysene	6.6	29.0	29.0	UG/KG	
SW8270C/NONE	SO	073SB-0023M-0001-SO	240-22648-7	N	Dibenzofuran	50.0	12.0	12.0 J	UG/KG	TR
SW8270C/NONE	SO	073SB-0023M-0001-SO	240-22648-7	N	1,4-Dichlorobenzene	50.0	35.0	35.0 J	UG/KG	TR
SW8270C/NONE	SO	073SB-0023M-0001-SO	240-22648-7	N	Fluorene	6.6	6.0	6.0 J	UG/KG	TR
SW8270C/NONE	SO	073SB-0023M-0001-SO	240-22648-7	N	Fluoranthene	6.6	31.0	31.0	UG/KG	
SW8270C/NONE	SO	073SB-0023M-0001-SO	240-22648-7	N	Indeno(1,2,3-c,d)pyrene	6.6	8.8	8.8	UG/KG	
SW8270C/NONE	SO	073SB-0023M-0001-SO	240-22648-7	N	Isophorone	50.0	13.0	13.0 J	UG/KG	TR
SW8270C/NONE	SO	073SB-0023M-0001-SO	240-22648-7	N	2-Methylnaphthalene	6.6	24.0	24.0	UG/KG	
SW8270C/NONE	SO	073SB-0023M-0001-SO	240-22648-7	N	Naphthalene	6.6	20.0	20.0	UG/KG	
SW8270C/NONE	SO	073SB-0023M-0001-SO	240-22648-7	N	Phenanthrene	6.6	31.0	31.0	UG/KG	
SW8270C/NONE	SO	073SB-0023M-0001-SO	240-22648-7	N	Pyrene	6.6	31.0	31.0	UG/KG	
SW8270C/NONE	SO	073SB-0024M-0001-SO	240-22648-8	N	Acenaphthylene	6.7	4.6	4.6 J	UG/KG	TR
SW8270C/NONE	SO	073SB-0024M-0001-SO	240-22648-8	N	Anthracene	6.7	4.5	4.5 J	UG/KG	TR
SW8270C/NONE	SO	073SB-0024M-0001-SO	240-22648-8	N	Benzo(a)anthracene	6.7	14.0	14.0	UG/KG	
SW8270C/NONE	SO	073SB-0024M-0001-SO	240-22648-8	N	Benzo(a)pyrene	6.7	13.0	13.0	UG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8270C/NONE	SO	073SB-0024M-0001-SO	240-22648-8	N	Benzo(b)fluoranthene	6.7	28.0	28.0	UG/KG	
SW8270C/NONE	SO	073SB-0024M-0001-SO	240-22648-8	N	Benzo(g,h,i)perylene	6.7	14.0	14.0	UG/KG	
SW8270C/NONE	SO	073SB-0024M-0001-SO	240-22648-8	N	Benzo(k)fluoranthene	6.7	8.3	8.3	UG/KG	
SW8270C/NONE	SO	073SB-0024M-0001-SO	240-22648-8	N	Chrysene	6.7	21.0	21.0	UG/KG	
SW8270C/NONE	SO	073SB-0024M-0001-SO	240-22648-8	N	Dibenzofuran	50.0	8.5	8.5 J	UG/KG	TR
SW8270C/NONE	SO	073SB-0024M-0001-SO	240-22648-8	N	1,4-Dichlorobenzene	50.0	24.0	24.0 J	UG/KG	TR
SW8270C/NONE	SO	073SB-0024M-0001-SO	240-22648-8	N	Fluorene	6.7	4.5	4.5 J	UG/KG	TR
SW8270C/NONE	SO	073SB-0024M-0001-SO	240-22648-8	N	Fluoranthene	6.7	25.0	25.0	UG/KG	
SW8270C/NONE	SO	073SB-0024M-0001-SO	240-22648-8	N	Indeno(1,2,3-c,d)pyrene	6.7	11.0	11.0	UG/KG	
SW8270C/NONE	SO	073SB-0024M-0001-SO	240-22648-8	N	Isophorone	50.0	14.0	14.0 J	UG/KG	TR
SW8270C/NONE	SO	073SB-0024M-0001-SO	240-22648-8	N	2-Methylnaphthalene	6.7	28.0	28.0	UG/KG	
SW8270C/NONE	SO	073SB-0024M-0001-SO	240-22648-8	N	Naphthalene	6.7	26.0	26.0	UG/KG	
SW8270C/NONE	SO	073SB-0024M-0001-SO	240-22648-8	N	Phenanthrene	6.7	26.0	26.0	UG/KG	
SW8270C/NONE	SO	073SB-0024M-0001-SO	240-22648-8	N	Pyrene	6.7	22.0	22.0	UG/KG	
SW8270C/NONE	SO	073SB-0067M-0001-SO	240-22648-9	N	Benzyl alcohol	380	80.0	80.0 J	UG/KG	TR
SW8270C/NONE	SE	073SD-0045-0001-SD	240-22648-10	N	Anthracene	17.0	10.0	10.0 J	UG/KG	TR
SW8270C/NONE	SE	073SD-0045-0001-SD	240-22648-10	N	Benzo(a)anthracene	17.0	28.0	28.0	UG/KG	
SW8270C/NONE	SE	073SD-0045-0001-SD	240-22648-10	N	Benzo(a)pyrene	17.0	26.0	26.0	UG/KG	
SW8270C/NONE	SE	073SD-0045-0001-SD	240-22648-10	N	Benzo(b)fluoranthene	17.0	44.0	44.0	UG/KG	
SW8270C/NONE	SE	073SD-0045-0001-SD	240-22648-10	N	Benzo(g,h,i)perylene	17.0	22.0	22.0	UG/KG	
SW8270C/NONE	SE	073SD-0045-0001-SD	240-22648-10	N	Benzo(k)fluoranthene	17.0	20.0	20.0	UG/KG	
SW8270C/NONE	SE	073SD-0045-0001-SD	240-22648-10	N	Benzyl alcohol	840	260	260 J	UG/KG	TR
SW8270C/NONE	SE	073SD-0045-0001-SD	240-22648-10	N	Chrysene	17.0	38.0	38.0	UG/KG	
SW8270C/NONE	SE	073SD-0045-0001-SD	240-22648-10	N	Dibenzofuran	130	45.0	45.0 J	UG/KG	TR
SW8270C/NONE	SE	073SD-0045-0001-SD	240-22648-10	N	Fluoranthene	17.0	53.0	53.0	UG/KG	
SW8270C/NONE	SE	073SD-0045-0001-SD	240-22648-10	N	Indeno(1,2,3-c,d)pyrene	17.0	17.0	17.0	UG/KG	
SW8270C/NONE	SE	073SD-0045-0001-SD	240-22648-10	N	2-Methylnaphthalene	17.0	16.0	16.0 J	UG/KG	TR
SW8270C/NONE	SE	073SD-0045-0001-SD	240-22648-10	N	Naphthalene	17.0	12.0	12.0 J	UG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8270C/NONE	SE	073SD-0045-0001-SD	240-22648-10	N	Phenanthrene	17.0	23.0	23.0	UG/KG	
SW8270C/NONE	SE	073SD-0045-0001-SD	240-22648-10	N	Pyrene	17.0	46.0	46.0	UG/KG	
SW8270C/NONE	SE	073SD-0046-0001-SD	240-22648-14	N	Acenaphthylene	18.0	38.0	38.0	UG/KG	
SW8270C/NONE	SE	073SD-0046-0001-SD	240-22648-14	N	Anthracene	18.0	270	270	UG/KG	
SW8270C/NONE	SE	073SD-0046-0001-SD	240-22648-14	N	bis(2-Ethylhexyl) Phthalate	190	77.0	77.0 J	UG/KG	TR
SW8270C/NONE	SE	073SD-0046-0001-SD	240-22648-14	N	Benzo(a)anthracene	18.0	860	860	UG/KG	
SW8270C/NONE	SE	073SD-0046-0001-SD	240-22648-14	N	Benzoic acid	1800	1400	1400 J	UG/KG	TR/c
SW8270C/NONE	SE	073SD-0046-0001-SD	240-22648-14	N	Benzo(a)pyrene	18.0	380	380	UG/KG	
SW8270C/NONE	SE	073SD-0046-0001-SD	240-22648-14	N	Benzo(b)fluoranthene	18.0	860	860	UG/KG	
SW8270C/NONE	SE	073SD-0046-0001-SD	240-22648-14	N	Benzo(g,h,i)perylene	18.0	190	190	UG/KG	
SW8270C/NONE	SE	073SD-0046-0001-SD	240-22648-14	N	Benzo(k)fluoranthene	18.0	300	300	UG/KG	
SW8270C/NONE	SE	073SD-0046-0001-SD	240-22648-14	N	Chrysene	18.0	1100	1100	UG/KG	
SW8270C/NONE	SE	073SD-0046-0001-SD	240-22648-14	N	Dibenz(a,h)anthracene	18.0	75.0	75.0	UG/KG	
SW8270C/NONE	SE	073SD-0046-0001-SD	240-22648-14	N	Dibenzofuran	130	35.0	35.0 J	UG/KG	TR
SW8270C/NONE	SE	073SD-0046-0001-SD	240-22648-14	N	Fluoranthene	18.0	620	620	UG/KG	
SW8270C/NONE	SE	073SD-0046-0001-SD	240-22648-14	N	Indeno(1,2,3-c,d)pyrene	18.0	180	180	UG/KG	
SW8270C/NONE	SE	073SD-0046-0001-SD	240-22648-14	N	2-Methylnaphthalene	18.0	25.0	25.0	UG/KG	
SW8270C/NONE	SE	073SD-0046-0001-SD	240-22648-14	N	Naphthalene	18.0	19.0	19.0	UG/KG	
SW8270C/NONE	SE	073SD-0046-0001-SD	240-22648-14	N	Phenanthrene	18.0	53.0	53.0	UG/KG	
SW8270C/NONE	SE	073SD-0046-0001-SD	240-22648-14	N	Pyrene	18.0	670	670	UG/KG	
SW8270C/NONE	SE	073SD-0047-0001-SD	240-22648-11	N	Benzo(a)anthracene	10.0	7.6	7.6 J	UG/KG	TR
SW8270C/NONE	SE	073SD-0047-0001-SD	240-22648-11	N	Benzo(b)fluoranthene	10.0	8.2	8.2 J	UG/KG	TR
SW8270C/NONE	SE	073SD-0047-0001-SD	240-22648-11	N	Benzyl alcohol	500	59.0	59.0 J	UG/KG	TR
SW8270C/NONE	SE	073SD-0047-0001-SD	240-22648-11	N	Chrysene	10.0	5.4	5.4 J	UG/KG	TR
SW8270C/NONE	SE	073SD-0047-0001-SD	240-22648-11	N	Fluoranthene	10.0	11.0	11.0	UG/KG	
SW8270C/NONE	SE	073SD-0047-0001-SD	240-22648-11	N	Pyrene	10.0	8.3	8.3 J	UG/KG	TR
SW8270C/NONE	SE	073SD-0048-0001-SD	240-22648-12	FD	Benzo(b)fluoranthene	10.0	10.0	10.0	UG/KG	
SW8270C/NONE	SE	073SD-0048-0001-SD	240-22648-12	FD	Benzyl alcohol	510	150	150 J	UG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8270C/NONE	SE	073SD-0048-0001-SD	240-22648-12	FD	2-Methylnaphthalene	10.0	7.4	7.4 J	UG/KG	TR
SW8270C/NONE	SE	073SD-0048-0001-SD	240-22648-12	FD	Pyrene	10.0	8.2	8.2 J	UG/KG	TR
SW8270C/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	Benzo(a)anthracene	10.0	18.0	18.0	UG/KG	
SW8270C/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	Benzo(a)pyrene	10.0	18.0	18.0	UG/KG	
SW8270C/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	Benzo(b)fluoranthene	10.0	35.0	35.0	UG/KG	
SW8270C/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	Benzo(g,h,i)perylene	10.0	11.0	11.0	UG/KG	
SW8270C/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	Benzo(k)fluoranthene	10.0	6.8	6.8 J	UG/KG	TR
SW8270C/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	Chrysene	10.0	24.0	24.0	UG/KG	
SW8270C/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	Dibenzofuran	75.0	18.0	18.0 J	UG/KG	TR
SW8270C/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	Fluoranthene	10.0	35.0	35.0	UG/KG	
SW8270C/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	Indeno(1,2,3-c,d)pyrene	10.0	8.1	8.1 J	UG/KG	TR
SW8270C/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	2-Methylnaphthalene	10.0	7.3	7.3 J	UG/KG	TR
SW8270C/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	Phenanthrene	10.0	12.0	12.0	UG/KG	
SW8270C/NONE	SE	073SD-0050-0001-SD	240-22648-13	N	Pyrene	10.0	32.0	32.0	UG/KG	
SW8270C/NONE	WS	073SW-0056-0001-SW	240-22648-15	N	bis(2-Ethylhexyl) Phthalate	2.1	0.94	0.94 J	UG/L	TR
SW8270C/NONE	WS	073SW-0058-0001-SW	240-22648-16	N	bis(2-Ethylhexyl) Phthalate	2.1	1.4	1.4 J	UG/L	TR
SW8270C/NONE	WS	073SW-0067-0001-SW	240-22648-21	N	bis(2-Ethylhexyl) Phthalate	2.1	4.5	4.5	UG/L	
SW8270C/NONE	WS	073SW-0067-0001-SW	240-22648-21	N	Fluoranthene	0.21	0.15	0.15 J	UG/L	TR
SW8270C/NONE	WS	073SW-0067-0001-SW	240-22648-21	N	Cresols, m & p	2.1	1.9	1.9 J	UG/L	TR
SW8270C/NONE	WS	073SW-0067-0001-SW	240-22648-21	N	2-Methylphenol (o-Cresol)	1.0	0.84	0.84 J	UG/L	TR
SW8270C/NONE	WS	073SW-0067-0001-SW	240-22648-21	N	Phenol	1.0	3.4	3.4	UG/L	
SW8270C/NONE	WS	073SW-0067-0001-SW	240-22648-21	N	Pyrene	0.21	0.12	0.12 J	UG/L	TR
SW8270C/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	bis(2-Ethylhexyl) Phthalate	71.0	98.0	98.0	UG/KG	
SW8270C/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	1,4-Dichlorobenzene	51.0	25.0	25.0 J	UG/KG	TR
SW8270C/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	2-Methylnaphthalene	6.8	14.0	14.0	UG/KG	
SW8270C/NONE	SO	079SB-0063M-0001-SO	240-22648-29	N	Naphthalene	6.8	18.0	18.0	UG/KG	
SW8270C/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	bis(2-Ethylhexyl) Phthalate	70.0	110	110	UG/KG	
SW8270C/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	1,4-Dichlorobenzene	50.0	23.0	23.0 J	UG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8270C/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Isophorone	50.0	14.0	14.0 J	UG/KG	TR
SW8270C/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	2-Methylnaphthalene	6.7	14.0	14.0	UG/KG	
SW8270C/NONE	SO	079SB-0064M-0001-SO	240-22648-30	N	Naphthalene	6.7	18.0	18.0	UG/KG	
SW8270C/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	bis(2-Ethylhexyl) Phthalate	70.0	73.0	73.0	UG/KG	
SW8270C/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	2-Methylnaphthalene	6.7	8.3	8.3	UG/KG	
SW8270C/NONE	SO	079SB-0069M-0001-SO	240-22648-36	N	Naphthalene	6.7	12.0	12.0	UG/KG	
SW8270C/NONE	SO	079SB-0071M-0001-SO	240-22648-38	N	bis(2-Ethylhexyl) Phthalate	70.0	88.0	88.0	UG/KG	
SW8270C/NONE	SO	079SB-0071M-0001-SO	240-22648-38	N	Benzo(a)anthracene	6.7	5.9	5.9 J	UG/KG	TR
SW8270C/NONE	SO	079SB-0071M-0001-SO	240-22648-38	N	Benzo(a)pyrene	6.7	4.4	4.4 J	UG/KG	TR
SW8270C/NONE	SO	079SB-0071M-0001-SO	240-22648-38	N	Benzo(b)fluoranthene	6.7	9.7	9.7	UG/KG	
SW8270C/NONE	SO	079SB-0071M-0001-SO	240-22648-38	N	Benzo(k)fluoranthene	6.7	3.4	3.4 J	UG/KG	TR
SW8270C/NONE	SO	079SB-0071M-0001-SO	240-22648-38	N	Chrysene	6.7	7.1	7.1	UG/KG	
SW8270C/NONE	SO	079SB-0071M-0001-SO	240-22648-38	N	Fluoranthene	6.7	9.6	9.6	UG/KG	
SW8270C/NONE	SO	079SB-0071M-0001-SO	240-22648-38	N	2-Methylnaphthalene	6.7	9.0	9.0	UG/KG	
SW8270C/NONE	SO	079SB-0071M-0001-SO	240-22648-38	N	Naphthalene	6.7	12.0	12.0	UG/KG	
SW8270C/NONE	SO	079SB-0071M-0001-SO	240-22648-38	N	Phenanthrene	6.7	4.2	4.2 J	UG/KG	TR
SW8270C/NONE	SO	079SB-0071M-0001-SO	240-22648-38	N	Pyrene	6.7	7.5	7.5	UG/KG	
SW8270C/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Acenaphthylene	6.7	7.4	7.4	UG/KG	
SW8270C/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Anthracene	6.7	4.9	4.9 J	UG/KG	TR
SW8270C/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	bis(2-Ethylhexyl) Phthalate	70.0	67.0	67.0 J	UG/KG	TR
SW8270C/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Benzo(a)anthracene	6.7	25.0	25.0	UG/KG	
SW8270C/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Benzo(a)pyrene	6.7	21.0	21.0	UG/KG	
SW8270C/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Benzo(b)fluoranthene	6.7	47.0	47.0	UG/KG	
SW8270C/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Benzo(g,h,i)perylene	6.7	12.0	12.0	UG/KG	
SW8270C/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Benzo(k)fluoranthene	6.7	15.0	15.0	UG/KG	
SW8270C/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Chrysene	6.7	32.0	32.0	UG/KG	
SW8270C/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Fluoranthene	6.7	42.0	42.0	UG/KG	
SW8270C/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Indeno(1,2,3-c,d)pyrene	6.7	12.0	12.0	UG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8270C/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	2-Methylnaphthalene	6.7	6.8	6.8	UG/KG	
SW8270C/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Naphthalene	6.7	10.0	10.0	UG/KG	
SW8270C/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Phenanthrene	6.7	7.2	7.2	UG/KG	
SW8270C/NONE	SO	079SB-0074M-0001-SO	240-22648-40	N	Pyrene	6.7	37.0	37.0	UG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Rejected Results

Test Leach	Matrix	FieldSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8270C/NONE	SO	068SB-0044M-0001-SO	N	Benzoic acid	670	670	R	UG/KG	c
SW8270C/NONE	SO	068SB-0045M-0001-SO	N	Benzoic acid	660	660	R	UG/KG	c
SW8270C/NONE	SO	068SB-0046M-0001-SO	N	Benzoic acid	650	650	R	UG/KG	c
SW8270C/NONE	SO	068SB-0057M-0001-SO	N	Benzoic acid	670	670	R	UG/KG	m
SW8270C/NONE	SO	073SB-0016M-0001-SO	N	Benzoic acid	660	660	R	UG/KG	c
SW8270C/NONE	SO	073SB-0017M-0001-SO	FD	Benzoic acid	650	650	R	UG/KG	c
SW8270C/NONE	SO	073SB-0019M-0001-SO	N	Benzoic acid	650	650	R	UG/KG	c
SW8270C/NONE	SO	073SB-0020M-0001-SO	N	Benzoic acid	660	660	R	UG/KG	c
SW8270C/NONE	SO	073SB-0021M-0001-SO	N	Benzoic acid	660	660	R	UG/KG	c
SW8270C/NONE	SO	073SB-0022M-0001-SO	N	Benzoic acid	660	660	R	UG/KG	c
SW8270C/NONE	SO	073SB-0023M-0001-SO	N	Benzoic acid	660	660	R	UG/KG	c
SW8270C/NONE	SO	073SB-0024M-0001-SO	N	Benzoic acid	660	660	R	UG/KG	c
SW8270C/NONE	SO	073SB-0067M-0001-SO	N	Benzoic acid	760	760	R	UG/KG	c
SW8270C/NONE	SE	073SD-0045-0001-SD	N	Benzoic acid	1700	1700	R	UG/KG	c
SW8270C/NONE	SE	073SD-0045-0001-SD	N	4-Chloroaniline	380	380	R	UG/KG	m
SW8270C/NONE	SE	073SD-0045-0001-SD	N	3,3'-Dichlorobenzidine	260	260	R	UG/KG	m
SW8270C/NONE	SE	073SD-0045-0001-SD	N	3-Nitroaniline	510	510	R	UG/KG	m
SW8270C/NONE	SE	073SD-0047-0001-SD	N	Benzoic acid	990	990	R	UG/KG	c
SW8270C/NONE	SE	073SD-0048-0001-SD	FD	Benzoic acid	1000	1000	R	UG/KG	c
SW8270C/NONE	SE	073SD-0050-0001-SD	N	Benzoic acid	990	990	R	UG/KG	c
SW8270C/NONE	WS	073SW-0056-0001-SW	N	Benzoic acid	27.0	27.0	R	UG/L	c
SW8270C/NONE	WS	073SW-0056-0001-SW	N	3,3'-Dichlorobenzidine	5.3	5.3	R	UG/L	m
SW8270C/NONE	WS	073SW-0056-0001-SW	N	Hexachlorocyclopentadiene	11.0	11.0	R	UG/L	c
SW8270C/NONE	WS	073SW-0058-0001-SW	N	Benzoic acid	26.0	26.0	R	UG/L	c
SW8270C/NONE	WS	073SW-0058-0001-SW	N	Hexachlorocyclopentadiene	10.0	10.0	R	UG/L	c
SW8270C/NONE	WS	073SW-0059-0001-SW	FD	Benzoic acid	27.0	27.0	R	UG/L	c
SW8270C/NONE	WS	073SW-0059-0001-SW	FD	Hexachlorocyclopentadiene	11.0	11.0	R	UG/L	c
SW8270C/NONE	WS	073SW-0061-0001-SW	N	Benzoic acid	26.0	26.0	R	UG/L	c

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Rejected Results

Test Leach	Matrix	FieldSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8270C/NONE	WS	073SW-0061-0001-SW	N	Hexachlorocyclopentadiene	10.0	10.0	R	UG/L	c
SW8270C/NONE	WS	073SW-0067-0001-SW	N	Benzoic acid	26.0	26.0	R	UG/L	c
SW8270C/NONE	WS	073SW-0067-0001-SW	N	Hexachlorocyclopentadiene	10.0	10.0	R	UG/L	c
SW8270C/NONE	SO	079SB-0063M-0001-SO	N	Benzoic acid	670	670	R	UG/KG	c
SW8270C/NONE	SO	079SB-0064M-0001-SO	N	Benzoic acid	660	660	R	UG/KG	c
SW8270C/NONE	SO	079SB-0069M-0001-SO	N	Benzoic acid	660	660	R	UG/KG	c
SW8270C/NONE	SO	079SB-0071M-0001-SO	N	Benzoic acid	660	660	R	UG/KG	c
SW8270C/NONE	SO	079SB-0074M-0001-SO	N	Benzoic acid	660	660	R	UG/KG	c

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Anomalies Count

SDG Name: 240-22648-1

Test/Extraction Method/Leach	# of Field Samples Outside of Compliance	# of Analytes Outside of Compliance
SW6020/TOTAL/NONE	5	5
SW7471A/TOTAL/NONE	22	22
SW8081/SW3520C/NONE	1	20
SW8082/SW3520C/NONE	1	7
SW8260B/SW5035/NONE	9	206
SW8270C/SW3550/NONE	41	90
SW8330B/METHOD/NONE	1	6

Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Worksheet

SDG Name: 240-22648-1

Method: E353.2

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were sample reciept temperatures met?	•			
Were QAPP specified RLs achieved?	•			
Were all QAPP specified target analytes reported?	•			
Was the initial calibration curve within QAPP acceptance limits?	•			
Were the ICV/CCVs analyzed (frequency) as required in the QAPP?	•			
Were ICV/CCV results within QAPP acceptance limits?	•			
Were the ICB/CCBs analyzed (frequency) as required in the QAPP?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the ICB/CCB/method blank?		•		
Was a field blank collected and analyzed?			•	
Were target analytes reported in the field blank analyses above the MDL?			•	
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?			•	
Was a LCS prepared and analyzed with each batch?	•			
Were the LCS recoveries within QAPP acceptance limits?	•			
Was a duplicate sample prepared and analyzed with each batch?			•	
Was the duplicate RPD within QAPP acceptance limits?			•	
Was a MS/MSD pair prepared with each batch?	•			
Is the MS/MSD parent sample the one designated by the sampling team?			•	
Were the MS/MSD recoveries and RPDs within QAPP acceptance limits?	•			
Were sample concentrations within calibration range?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Method: SW6020

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were sample reciept temperatures met?	•			
Were QAPP specified RLs achieved?	•			
Were all QAPP specified target analytes reported?	•			
Was the initial calibration curve within QAPP acceptance limits?	•			
Were the ICV/CCVs analyzed (frequency) as required in the QAPP?	•			
Were ICV/CCV results within QAPP acceptance limits?	•			
Were the ICB/CCBs analyzed (frequency) as required in the QAPP?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the ICB/CCB/method blank?	•			1. MB 180-68743/1-A: Ag and Pb were detected above the MDL but below the RL. 2. CCB2-05/01/2013 and CCB3-5/02/2013: Al, Ca, Co, Mn,and Mg. 3. MB 180-68756/1-A: Ba, Ca, and Co were detected above the MDL but below the RL. 4. MB 180-69965/1-A: Ba, Ca, and Mn were detected above the MDL but below the RL. 5. MB 180-68853/1-A: Ba, Ca, and Sb were detected above the MDL but below the RL.
Was a field blank collected and analyzed?			•	
Were target analytes reported in the field blank analyses above the MDL?			•	
Was an Interference Check Standard (ICS) run at the beginning and end of every run?	•			
Was the ICS recovery within QAPP acceptance limits?	•			
If a field duplicate was analyzed, were the RPDs within criteria?		•		Ca out in one sample and Mn out in one sample
Was a LCS prepared and analyzed with each batch?	•			
Were the LCS recoveries within QAPP acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			MS and Laboratory duplicate were analyzed with each preparation batch.
Is the MS/MSD parent sample the one designated by the sampling team?	•			
Were the MS/MSD within QAPP acceptance limits?		•		1. 240-22648-10 (Batch: 68756): MS:Sb recovered below the control limits. Duplicate: Mn RPD: 43% (>35%). 2. 240-22648-27 (Batch: 68762): Sb recovered below the control limits. 240-22648-37 (68762): Ca recovered above the control limits, Sb recovered below the control limits. 240-22648-39 (68853): Ca recovered above the control limits, Sb recovered below the control limits 240-22648-15 (Batch: 68743): Duplicate: Ag RPD: 52% (>20%).

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Method: SW6020				
Review Questions	**Yes**	**No**	**NA**	**Comment**
Was a serial dilution prepared and analyzed with each batch?	•			
Was the serial dilution within QAPP acceptance limits?		•		1. 240-22648-10 (Batch: 68756); ZN %D= 11%. 2. 240-22648-27 (Batch: 68762): Be %D= 18% and Zn %D= 11%. 240-22648-37 (68762): Be %D=20%. 240-22648-39 (68853): Zn %D=12%.
Were sample concentrations within calibration range?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			

Method: SW7470A				
Review Questions	**Yes**	**No**	**NA**	**Comment**
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were sample reciept temperatures met?	•			
Were QAPP specified RLs achieved?	•			
Were all QAPP specified target analytes reported?	•			
Was the initial calibration curve within QAPP acceptance limits?	•			
Were the ICV/CCVs analyzed (frequency) as required in the QAPP?	•			
Were ICV/CCV results within QAPP acceptance limits?	•			
Were the ICB/CCBs analyzed (frequency) as required in the QAPP?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the ICB/CCB/method blank?		•		
Was a field blank collected and analyzed?			•	
Were target analytes reported in the field blank analyses above the MDL?			•	
Was the ICS recovery within QAPP acceptance limits?			•	
If a field duplicate was analyzed, were the RPDs within criteria?			•	
Was a LCS prepared and analyzed with each batch?	•			
Were the LCS recoveries within QAPP acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			

Method: SW7470A				
Review Questions	**Yes**	**No**	**NA**	**Comment**
Is the MS/MSD parent sample the one designated by the sampling team?	•			
Were the MS/MSD within QAPP acceptance limits?	•			
Were sample concentrations within calibration range?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			

Method: SW7471A				
Review Questions	**Yes**	**No**	**NA**	**Comment**
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were sample reciept temperatures met?	•			
Were QAPP specified RLs achieved?	•			
Were all QAPP specified target analytes reported?	•			
Was the initial calibration curve within QAPP acceptance limits?	•			
Were the ICV/CCVs analyzed (frequency) as required in the QAPP?	•			
Were ICV/CCV results within QAPP acceptance limits?	•			
Were the ICB/CCBs analyzed (frequency) as required in the QAPP?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the ICB/CCB/method blank?		•		
Was a field blank collected and analyzed?			•	
Were target analytes reported in the field blank analyses above the MDL?			•	
Was the ICS recovery within QAPP acceptance limits?			•	
If a field duplicate was analyzed, were the RPDs within criteria?	•			
Was a LCS prepared and analyzed with each batch?	•			
Were the LCS recoveries within QAPP acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			
Is the MS/MSD parent sample the one designated by the sampling team?	•			
Were the MS/MSD within QAPP acceptance limits?	•			

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Method: SW7471A

Review Questions	Yes	No	NA	Comment
Were sample concentrations within calibration range?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			

Method: SW8081

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report?	•			
Were samples preserved properly and received in good condition?	•			
Were sample reciept temperatures met?	•			
Were holding times for prep and analysis met?		•		Sample 240-22648-36 was re-extracted outside the holding time due to low TCMX surrogate recovery in the initial analysis.
Does the initial calibration curve consist of 5 concentration levels, with the low standard near but > MDL?	•			
Is the ICAL %RSD within acceptance limits (%D =20%) on both columns?	•			
Was a second source verification analyzed after the ICAL and all analytes within criteria (%D =20%)?		•		Toxaphene %D=38,9%
Was a CCV run at the beginning of the analytical sequence and every 12 hours?	•			
Was the CCV a mid-level standard from the initial calibration curve?	•			
Was the CCV %D within criteria (%D =20%)?		•		CCV 240-82129/26: Methodchlor %D=27.7%. CCV 240-82129/50: Heptachlor %D=21.3% and Methoxychlor %D=25.6%
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the method blank above the MDL?		•		
Was a field blank (equipment or trip) collected and analyzed?			•	
Were target analytes reported in the field blank analyses above the MDL?			•	
Were surrogate recoveries within QAPP acceptance limits?	•			240-22648-36I TCMX recovered low in the initial analysis.
Was an LCS/LCSD pair prepared and analyzed with each batch? (if applicable)	•			LCS was extracted with each preparation batch.
Were the LCS recoveries within QAPP acceptance limits?	•			
Were the LCS/LCSD RPDs within QAPP acceptance limits? (if applicable)			•	
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits (RPD = 30%) ?			•	
Were the Breakdown products within QAPP acceptance limits?	•			

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Method: SW8081

Review Questions	Yes	No	NA	Comment
Is the MS/MSD parent sample the one designated by the sampling team?			•	
Were MS/MSD recoveries and RPD within QAPP acceptance limits?		•		240-22648-36-RE: 4,4'-DDE, alpha-Chlordne, Dieldrin, Endrin Ketone, gamma Chlordane, and Heptachlor epoxide were recovred below the control limits.
Were all QAPP-specified target analytes reported?	•			
Were reported sample concentrations within calibration range?	•			
Were RPDs between primary and confirmation columns < 40%?		•		Sample 240-22648-53: Alpha-BHC RPD was 103%. False Positive.
Are all samples associated with QC non-compliances flagged appropriately?				
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?				
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?				
Were sample prepration sheets present and filled out appropriately?				
Were instrument run logs present and filled out appropriately?				

Method: SW8082

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report?	•			
Were samples preserved properly and received in good condition?	•			
Were sample reciept temperatures met?	•			
Were holding times for prep and analysis met?		•		Samples 240-22648-13 and 36 were re-extracted outside the holding time due to low surrogate recovery in the initial analysis.
Does the initial calibration curve consist of 5 concentration levels, with the low standard near but > MDL?	•			
Is the ICAL %RSD within acceptance limits (%D =20%) on both columns?	•			
Was a second source verification analyzed after the ICAL and all analytes within criteria (%D =20%)?	•			15%
Was a CCV run at the beginning of the analytical sequence and every 12 hours?	•			
Was the CCV a mid-level standard from the initial calibration curve?	•			
Was the CCV %D within criteria (%D =20%)?	•			15%
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the method blank above the MDL?		•		
Was a field blank (equipment or trip) collected and analyzed?			•	
Were target analytes reported in the field blank analyses above the MDL?			•	

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Method: SW8082

Review Questions	Yes	No	NA	Comment
Were surrogate recoveries within QAPP acceptance limits?	•			Samples 240-22648-13, and 36: Surrogate recovered below the control limits in the initial analysis.
Was an LCS/LCSD pair prepared and analyzed with each batch? (if applicable)	•			LCS was extracted with each preparation batch.
Were the LCS recoveries within QAPP acceptance limits?	•			
Were the LCS/LCSD RPDs within QAPP acceptance limits? (if applicable)			•	
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits (RPD = 30%) ?			•	
Were the Breakdown products within QAPP acceptance limits?			•	
Is the MS/MSD parent sample the one designated by the sampling team?			•	
Were MS/MSD recoveries and RPD within QAPP acceptance limits?	•			
Were all QAPP-specified target analytes reported?	•			
Were reported sample concentrations within calibration range?	•			
Were RPDs between primary and confirmation columns < 40%?			•	All PCBs were reported as non-detects.
Are all samples associated with QC non-compliances flagged appropriately?				
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?				
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?				
Were sample prepration sheets present and filled out appropriately?				
Were instrument run logs present and filled out appropriately?				

Method: SW8260B

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were sample reciept temperatures met?	•			
Were QAPP specified PQLs achieved?	•			
Were all QAPP-specified target analytes reported?	•			
Was the GC/MS system properly tuned based on method criteria?	•			
Was the criteria met during each 12 hour shift (prior to ICAL and Cal Ver.)?	•			
Does the initial calibration curve consist of 5 concentration levels, with the low standard near but > MDL?	•			

Method: SW8260B

Review Questions	Yes	No	NA	Comment
Did the Calibration Check Compounds (CCCs) have a relative standard deviation within QAPP acceptance limits?	•			
Were the average response factors (RFs) for the System Performance Check Compounds (SPCCs) within QAPP acceptance limits?	•			
Were all other target analytes within criteria? OR Was the average across all target analytes within criteria? Was a different calibration option used?	•			
If a linear regression curve was used, was the correlation coefficient within criteria?	•			
Was a second source verification analyzed after the ICAL and all analytes within criteria?	•			
Was a CCV run at the beginning of the analytical sequence and every 12 hours?	•			
Was the CCV a mid-level standard from the initial calibration curve?	•			
Did the CCCs have a %Difference within QAPP acceptance limits?	•			
Were the average RFs for the SPCCs within QAPP acceptance limits?	•			
Was the average %D (difference or drift) for all target analytes within QAPP acceptance limits?	•			
Were the internal standards added to every standard, blank, matrix spike, matrix spike duplicate, and sample?	•			
Were the retention times for all IS compounds within QAPP acceptance limits?	•			
Are the area counts of all IS compounds within QAPP acceptance limits?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the method blank above the MDL?	•			1. MB 240-80741/30: Acetone and Methylene chloride were detected above the MDL but below the RL. 2. MB 240-80954/7: Carbon disulfide was detected above the MDL but below the RL. Methylene chloride was detected above the RL
Was a field blank (equipment or trip) collected and analyzed at the required frequency?	•			
Were target analytes reported in the field blank analyses above the MDL?				073SW-0057-0001-TB: Acetone was detected above the MDL but below the RL. Methylene chloride was detected above the RL.
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?			•	
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were the LCS/LCSD recoveries within QAPP acceptance limits?	•			LCS analyzed with each analytical batch.
Were the LCS/LCSD RPDs within QAPP acceptance limits?			•	
Was the duplicate RPD within QAPP acceptance limits?			•	
Are all samples associated with QC non-compliances flagged appropriately?			•	
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Method: SW8260B

Review Questions	Yes	No	NA	Comment
Was a MS/MSD pair prepared with each batch?	•			
Is the MS/MSD parent sample the one designated by the sampling team?	•			
Were MS/MSD recoveries and RPD within QAPP acceptance limits?	•			
Were surrogate recoveries within QAPP acceptance limits?		•		1. Sample -13: 4-BFB recovered above control limits. All positive detected qualified (J). 2. Samples -29, 30, 40, and 53 : Toluene-d8 and 4 -BFB recovered below the control limits. All non-detects qualified (UJ). 3. Sample -43: 4-BFB recovered below the control limits. All non-detects qualified (UJ).
Were reported sample concentrations within calibration range?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were instrument run logs present and filled out appropriately?	•			
Were sample prepration sheets present and filled out appropriately?	•			

Method: SW8270C

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were sample reciept temperatures met?	•			
Were QAPP specified PQLs achieved?	•			
Were all QAPP-specified target analytes reported?	•			
Was the GC/MS system properly tuned based on method criteria?	•			
Was the criteria met during each 12 hour shift (prior to ICAL and Cal Ver.)?	•			
Does the initial calibration curve consist of 5 concentration levels, with the low standard near but > MDL?	•			
Did the Calibration Check Compounds (CCCs) have a relative standard deviation within QAPP acceptance limits?	•			
Were the average response factors (RFs) for the System Performance Check Compounds (SPCCs) within QAPP acceptance limits?	•			
Were all other target analytes within criteria? OR Was the average across all target analytes within criteria? Was a different calibration option used?	•			
If a linear regression curve was used, was the correlation coefficient within criteria?	•			

Method: SW8270C

Review Questions	Yes	No	NA	Comment
Was a second source verification analyzed after the ICAL and all analytes within criteria?	•			
Was a CCV run at the beginning of the analytical sequence and every 12 hours?	•			
Was the CCV a mid-level standard from the initial calibration curve?	•			
Did the CCCs have a %Difference within QAPP acceptance limits?	•			
Were the average RFs for the SPCCs within QAPP acceptance limits?	•			
Was the average %D (difference or drift) for all target analytes within QAPP acceptance limits?	•			
Were the internal standards added to every standard, blank, matrix spike, matrix spike duplicate, and sample?	•			
Were the retention times for all IS compounds within QAPP acceptance limits?	•			
Are the area counts of all IS compounds within QAPP acceptance limits?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the method blank above the MDL?	•			1. MB 240-81290/19-A: Bis (2-ethylhexyl)phthalate and Di-n-butyl phthalate were detected above the MDL but below the RL.2. MB 240-81308/21-A: Bis (2-ethylhexyl) phthalate was detected above the MDL but below the RL.
Was a field blank (equipment or trip) collected and analyzed at the required frequency?			•	
Were target analytes reported in the field blank analyses above the MDL?			•	
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?	•			
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			LCS was extracted with preparation batch.
Were the LCS/LCSD recoveries within QAPP acceptance limits?		•		1. LCS 240-80545/21-A and LCS 240-80547/11-A: Benzoic acid was not recovered, Hexachlorocyclopentadiene recovered below 10%. These compounds were qualified (R) in the following sample (s): 15.16,17,18, and 21. 2 LCS 240-81290/20-A: Benzoic acid was not recovered. Benzoic acid was qualified (R) in the following samples: 1-6, 9, 11-13. 3. LCS 240-81333/24-A: Benzoic acid was not recovered. Benzoic acid in the following samples qualified (R): 7-8, 14, 29-30, 36, 38, 40-43. 4.LCS 240-81541/19-A: Benzoic acid was not recovered. Benzoic acid in the following sample qualified (R): 45
Were the LCS/LCSD RPDs within QAPP acceptance limits?			•	
Was the duplicate RPD within QAPP acceptance limits?			•	
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			
Was a MS/MSD pair prepared with each batch?	•			
Is the MS/MSD parent sample the one designated by the sampling team?	•			

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Method: SW8270C

Review Questions	Yes	No	NA	Comment
Were MS/MSD recoveries and RPD within QAPP acceptance limits?		•		240-22648-10: 4-Chloroaniline and 3,3'-Dichlorobenzidine were not recovered., 3-Nitroaniline %R was <10%. These compounds were qualified (R) in the native sample. 240-22648-15: 3,3'-Dichlorobenzidine was recovered below 10%. This compound was qualified (R) in the native sample. 240-22648-61: Benzoic acid was not recovered in the MS. This compound was qualified (R) in the native sample.
Were surrogate recoveries within QAPP acceptance limits?	•			
Were reported sample concentrations within calibration range?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were instrument run logs present and filled out appropriately?	•			
Were sample prepration sheets present and filled out appropriately?	•			

Method: SW8330B

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report?	•			
Were samples preserved properly and received in good condition?	•			
Were sample reciept temperatures met?	•			
Were holding times for prep and analysis met?	•			
Does the initial calibration curve consist of 5 concentration levels, with the low standard near but > MDL?	•			
Is the ICAL %RSD within acceptance limits (%D =20%) on both columns?	•			
Was a second source verification analyzed after the ICAL and all analytes within criteria (%D =20%)?	•			
Was a CCV run at the beginning of the analytical sequence and every 12 hours?	•			
Was the CCV a mid-level standard from the initial calibration curve?	•			
Was the CCV %D within criteria (%D =20%)?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the method blank above the MDL?	•			
Was a field blank (equipment or trip) collected and analyzed?			•	
Were target analytes reported in the field blank analyses above the MDL?			•	
Were surrogate recoveries within QAPP acceptance limits?	•			
Was an LCS/LCSD pair prepared and analyzed with each batch? (if applicable)	•			LCS was extracted with each preparation batch.
Were the LCS recoveries within QAPP acceptance limits?	•			

AUTOMATED DATA REVIEW SUMMARY for 240-22648-1

Method: SW8330B

Review Questions	Yes	No	NA	Comment
Were the LCS/LCSD RPDs within QAPP acceptance limits? (if applicable)			•	
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits (RPD = 30%) ?			•	
Is the MS/MSD parent sample the one designated by the sampling team?			•	
Were MS/MSD recoveries and RPD within QAPP acceptance limits?			•	
Were all QAPP-specified target analytes reported?	•			
Were reported sample concentrations within calibration range?	•			
Were RPDs between primary and confirmation columns < 40%?		•		1. Sample 240-22648-13: Nitroguanidine was not confirmed on column Hydro RP80. 2. MB 320-14065/1-A: Tetryl was not detected on the primary column ,however it was detected on the confirmation column . These compounds were false positive.
Did PDA spectra for reported compounds match associated standard spectra?			•	
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were sample prepration sheets present and filled out appropriately?	•			
Were instrument run logs present and filled out appropriately?	•			

This page intentionally left blank.

WORKSHEET 4

Automated Data Review Summary for 240-22663-1

This page left intentionally blank.

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Facility: Ravenna Army Ammunition Plant

Event: Spring 2013 RI/SI Sampling Event

Guidance Document: Ravenna Army Ammunition Plant, Quality Assurance Project Plan, Oct. 3, 2012

Contract Laboratory: TestAmerica, Inc., North Canton, OH

Field Contractor: Environmental Chemical Corporation, Otis Ang Base, MA

Data Review Contractor: ECC

SDG: 240-22663-1_68,70,73,79_SB, Certified - 6/13/2013 by frederickroche

QC Level: ADR

Project Manager: Al Easterday

Data Reviewer: Samir A. Naguib

Data Reviewer Title: Sr. QA Chemist

Date of Review Report: June 17, 2013

Samples Included in SDG 240-22663-1_68,70,73,79_SB

Analytical Method/ Leach Method	Normal Soil Samples	Normal Water Samples	Field QC Soil Samples	Field QC Water Samples
E353.2/NONE	5		0	
SW6020/NONE	36		5	
SW7471A/NONE	36		5	
SW8081/NONE	6		0	
SW8082/NONE	17		1	
SW8260B/NONE	5	1	0	0
SW8270C/NONE	17		1	

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Analytical Method/ Leach Method	Normal Soil Samples	Normal Water Samples	Field QC Soil Samples	Field QC Water Samples
SW8330B/NONE	5		0	

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

This report assesses the analytical data quality associated with the analyses listed on the preceding cover page. This assessment has been made through a combination of automated data review (ADR) and supplemental manual review, the details of which are described below. The approach taken in the review of this data set is consistent with the requirements contained in the Ravenna Army Ammunition Plant, Quality Assurance Project Plan, Oct. 3, 2012 to the extent possible. Where definitive guidance is not provided, data has been evaluated in a conservative manner using professional judgment. In cases where two qualifiers are listed as an action, such as 'J/UJ', the first qualifier applies to positive results, and the second to non-detect results.

Samples were collected by Environmental Chemical Corporation, Otis Ang Base, MA; analyses were performed by TestAmerica, Inc., North Canton, OH and were reported under sample delivery group (SDG) 240-22663-1_68,70,73,79_SB. Results have been evaluated electronically using electronic data deliverables (EDDs) provided by the laboratory. The laboratory data summary forms (hard copy) have been reviewed during this effort and compared to the automated review output. Findings based on the automated data submission and manual data verification processes are detailed in the ADR narrative.

The following quality control elements were supported by the electronic deliverable and were evaluated during this review effort:

- Blank
- Blank - Negative
- Field Duplicate RPD
- LCS Recovery
- MS Recovery
- MS RPD
- Prep Hold Time
- Surrogate
- Test Hold Time

The following quality control elements were either not applicable to the deliverable, or were not supported by the electronic deliverable, and were therefore not included in the automated data review. Those elements required for the project were reviewed manually, as narrated in the Comment section below.

- Ambient Blank
- Calibration Blank
- Calibration Blank - Negative
- Continuing Calibration Verification
- Equipment Blank

Field Blank

Initial Calibration Verification

Lab Replicate RPD

LCS RPD

Material Blank

Trip Blank

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

A representative sampling or ten percent of sample and QC results were manually evaluated for compliance with project specific requirements and consistency with hard copy results. The following summaries were generated during the evaluation of this data set and are included in this report as applicable.

Batch – The analytical batch report is reviewed for completeness and compliance with project specific requirements. Incomplete or non-compliant run sequences are identified and their impact on data quality are discussed in the narrative.

QC Outlier – Results exceeding the evaluation criteria are reviewed for compliance with project requirements and a minimum of ten percent of the non-compliant QC values reported electronically are verified for consistency with hard-copy values.

Qualified Results – Qualified results are evaluated for compliance with project requirements and ten percent of qualified results are verified for consistency with the QC Outliers.

Rejected Results – All rejected results are evaluated for compliance with project requirements. The reason for rejection of the data is verified against hard copy data.

Field Duplicates – Field duplicate comparison results are evaluated for compliance with project requirements and ten percent of values reported are verified for consistency with the hard-copy data.

Data Submission Warnings – Warnings encountered during the data submission process are evaluated and their affect on data quality is discussed in the narrative below.

Analytical deficiencies, project non-compliance issues and inconsistencies with hard copy results observed during ADR evaluation process and their impact on data quality are summarized in the narrative below.

A total of 362 results (13.49%) out of the 2684 results (sample and field QC samples) reported are qualified based on review and 20 results (0.75%) have been rejected. Trace values are not counted as qualified results in the above count. The qualified results are detailed in the following tables and discussed in the narrative below, where appropriate.

Narrative Comments

Site 68,70,73, 79

Analytical Method	Comment
E353.2	
SW6020	

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

SW8081	
SW8082	
SW8260B	
SW8270C	
SW7471A	
SW8330B	

17-Jun-2013

Reviewed by Samir A. Naguib, Sr. QA Chemist

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Reason and Comment Code Definitions

Reasons	
Code	**Definition**
A	Serial dilution
A1	Ambient Blank
B	The analyte was found in an associated blank as well as in the sample.
B2	CCB
B3	CCB - Neg
c	LCS - low
C	LCS Recovery
d	Field Duplicate RPD
D	MS RPD
D1	Lab Replicate RPD
D2	No precision available
F	Field Blank
F1	Hydrocarbon pattern does not match standard
G1	Initial Calibration RRF
G2	Initial Calibration RSD
h	Holding time exceeded by less than 2X.
H	Holding time exceeded by more than 2X.
H1	Test Hold Time
H2	Prep Hold Time
I	Surrogate recovery outside project limits.
J	CRA/CRI Recovery
K	An analyte (non-common laboratory artifact) was detected in the sample at a concentration less than 5X the concentration detected in the associated method blank.
L	Lab Blank
L1	Lab Blank - Neg
m	MS - low
M	MS Recovery
N	Blank - No Action

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Reason and Comment Code Definitions

O	ICS
P	Sample preservation/collection requirement not met.
P1	Column RPD
P2	Improper preparation/extraction
q	Encore sample holding time exceeded by less than 2X.
Q	Encore sample holding time exceeded by more than 2X.
Q1	Material Blank
R	Exceeds LinearCalibration Range
S	Internal standard
T	Trip Blank
TI	Tentatively Identified Compound
TR	Trace Level Detect
U	Receipt Temperature
V	Equipment Blank
V1	ICV
V2	CCV
V3	CCV RRF
V4	Sample Receipt Condition
W	Column breakdown (pesticides)
X	Raised reporting limit
Y	Cooler temperature greater than 10 degreec C.
y	Cooler temperature greater than 4 degrees C, but less than 10 degreec C.
Y1	False Positive
Y2	Data rejected due to radiological anomolies
Z	LCS RPD
Z2	Analyte not confirmed on second column
Z3	High percent moisture in sample.

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Flag Code and Definitions	
Flag	Definition
U	Undetected: The analyte was analyzed for, but not detected.
UJ	The analyte was not detected; however, the result is estimated due to discrepancies in meeting certain analyte-specific quality control criteria.
J	Estimated: The analyte was positively identified, the quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
R	The data are rejected due to deficiencies in meeting QC criteria and may not be used for decision making.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification".
NJ	The analysis indicates the presence of an analyte that has been “tentatively identified” and the associated numerical value represents its approximate concentration.

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Batch Report

Test Method: E353.2; Leach Method: NONE											
Analytical Batch	**Prep Batch**	**Leach Batch**	**Location**	**Matrix**	**Field Sample ID**	**Lab Sample ID**	**Calibration Ref**	**Run#/ Dil'n**	**Collection Date/Time**	**Extract Date/Time**	**Analysis Date/Time**	**Sample Type**
14914	14752	NA	LABQC	SQ	LABQC	MB 320-14670/1-B		1/1	22-Apr-2013 6:13 AM	22-Apr-2013 6:13 AM	23-Apr-2013 12:45 PM	LB
	14752	NA	LABQC	SQ	LABQC	LCS 320-14670/2-B		1/1	22-Apr-2013 6:13 AM	22-Apr-2013 6:13 AM	23-Apr-2013 12:47 PM	BS
	14752	NA	79-2ASA-DU1-SB1	SO	079SB-0014M-0001-SO	240-22663-4		1/1	01-Apr-2013 10:12 AM	22-Apr-2013 6:13 AM	23-Apr-2013 1:13 PM	N
	14752	NA	79-2ASA-DU1-SB4	SO	079SB-0017M-0001-SO	240-22663-7		1/1	01-Apr-2013 9:24 AM	22-Apr-2013 6:13 AM	23-Apr-2013 1:15 PM	N
	14752	NA	73-U16-DU1-SB3	SO	073SB-0041M-0001-SO	240-22663-17		1/1	01-Apr-2013 1:03 PM	22-Apr-2013 6:13 AM	23-Apr-2013 1:17 PM	N
	14752	NA	79-2ASA-DU2-SB3	SO	079SB-0026M-0001-SO	240-22663-26		1/1	01-Apr-2013 10:37 AM	22-Apr-2013 6:13 AM	23-Apr-2013 1:19 PM	N
	14752	NA	79-2ASA-DU2-SB5	SO	079SB-0028M-0001-SO	240-22663-28		1/1	01-Apr-2013 10:43 AM	22-Apr-2013 6:13 AM	23-Apr-2013 1:21 PM	N
Test Method: SW6020; Leach Method: NONE												
Analytical Batch	**Prep Batch**	**Leach Batch**	**Location**	**Matrix**	**Field Sample ID**	**Lab Sample ID**	**Calibration Ref**	**Run#/ Dil'n**	**Collection Date/Time**	**Extract Date/Time**	**Analysis Date/Time**	**Sample Type**
70845	69114	NA	LABQC	SQ	LABQC	MB 180-69114/1-A		1/1	15-Apr-2013 8:11 AM	15-Apr-2013 8:11 AM	04-May-2013 10:15 PM	LB
	69114	NA	LABQC	SQ	LABQC	LCS 180-69114/2-A		1/1	15-Apr-2013 8:11 AM	15-Apr-2013 8:11 AM	04-May-2013 10:23 PM	BS
	69114	NA	79-2ASA-DU1-SB	SO	079SB-0010M-0001-SO	240-22663-1		1/1	01-Apr-2013 10:07 AM	15-Apr-2013 8:11 AM	04-May-2013 10:32 PM	N
	69114	NA	79-2ASA-DU1-SB	SO	079SB-0011M-0001-SO	240-22663-2		1/1	01-Apr-2013 10:07 AM	15-Apr-2013 8:11 AM	04-May-2013 10:40 PM	FD
	69114	NA	79-2ASA-DU1-SB	SO	079SB-0013M-0001-SO	240-22663-3		1/1	01-Apr-2013 10:09 AM	15-Apr-2013 8:11 AM	04-May-2013 10:48 PM	N
	69114	NA	79-2ASA-DU1-SB2	SO	079SB-0015M-0001-SO	240-22663-5		1/1	01-Apr-2013 12:00 AM	15-Apr-2013 8:11 AM	04-May-2013 10:56 PM	N
	69114	NA	79-2ASA-DU1-SB2	SO	079SB-0015M-0001-SO	240-22663-5		1/1	01-Apr-2013 10:01 AM	15-Apr-2013 8:11 AM	04-May-2013 10:56 PM	N
	69114	NA	79-2ASA-DU1-SB2	SO	079SB-0015M-0002-SO	240-22663-5		1/1	01-Apr-2013 10:01 AM	15-Apr-2013 8:11 AM	04-May-2013 11:21 PM	MS
	69114	NA	79-2ASA-DU1-SB1	SO	079SB-0014M-0001-SO	240-22663-4		1/1	01-Apr-2013 10:12 AM	15-Apr-2013 8:11 AM	04-May-2013 11:53 PM	N

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Batch Report

Test Method: SW6020; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
70845	69114	NA	79-2ASA-DU1-SB3	SO	079SB-0016M-0001-SO	240-22663-6		1/1	01-Apr-2013 9:15 AM	15-Apr-2013 8:11 AM	05-May-2013 12:02 AM	N
	69114	NA	79-2ASA-DU1-SB4	SO	079SB-0017M-0001-SO	240-22663-7		1/1	01-Apr-2013 9:24 AM	15-Apr-2013 8:11 AM	05-May-2013 12:10 AM	N
	69114	NA	79-2ASA-DU1-SB4	SO	079SB-0020M-0001-SO	240-22663-8		1/1	01-Apr-2013 9:24 AM	15-Apr-2013 8:11 AM	05-May-2013 12:18 AM	FD
	69114	NA	79-2ASA-DU1-SB5	SO	079SB-0019M-0001-SO	240-22663-9		1/1	01-Apr-2013 9:45 AM	15-Apr-2013 8:11 AM	05-May-2013 12:26 AM	N
	69114	NA	73-U16-DU1-SS	SO	073SS-0035M-0001-SO	240-22663-11		1/1	01-Apr-2013 2:20 PM	15-Apr-2013 8:11 AM	05-May-2013 12:34 AM	N
	69114	NA	73-U16-DU1-SB	SO	073SB-0036M-0001-SO	240-22663-12		1/1	01-Apr-2013 1:45 PM	15-Apr-2013 8:11 AM	05-May-2013 12:42 AM	N
	69114	NA	73-U16-DU1-SB	SO	073SB-0037M-0001-SO	240-22663-13		1/1	01-Apr-2013 1:50 PM	15-Apr-2013 8:11 AM	05-May-2013 12:51 AM	N
	69114	NA	73-U16-DU1-SB1	SO	073SB-0038M-0001-SO	240-22663-14		1/1	01-Apr-2013 12:40 PM	15-Apr-2013 8:11 AM	05-May-2013 12:59 AM	N
	69114	NA	73-U16-DU1-SB1	SO	073SB-0039M-0001-SO	240-22663-15		1/1	01-Apr-2013 12:40 AM	15-Apr-2013 8:11 AM	05-May-2013 1:07 AM	FD
	69160	NA	LABQC	SQ	LABQC	MB 180-69160/1-A		1/1	15-Apr-2013 12:19 PM	15-Apr-2013 12:19 PM	05-May-2013 1:32 AM	LB
	69160	NA	LABQC	SQ	LABQC	LCS 180-69160/2-A		1/1	15-Apr-2013 12:19 PM	15-Apr-2013 12:19 PM	05-May-2013 1:40 AM	BS
	69160	NA	73-U16-DU1-SB2	SO	073SB-0040M-0001-SO	240-22663-16		1/1	01-Apr-2013 12:53 PM	15-Apr-2013 12:19 PM	05-May-2013 1:48 AM	N
	69160	NA	73-U16-DU1-SB2	SO	073SB-0040M-0002-SO-MS	240-22663-16		1/1	01-Apr-2013 12:53 PM	15-Apr-2013 12:19 PM	05-May-2013 2:13 AM	MS
	69160	NA	73-U16-DU1-SB3	SO	073SB-0041M-0001-SO	240-22663-17		1/1	01-Apr-2013 1:03 PM	15-Apr-2013 12:19 PM	05-May-2013 2:29 AM	N
	69160	NA	73-U16-DU1-SB4	SO	073SB-0042M-0001-SO	240-22663-18		1/1	01-Apr-2013 1:51 PM	15-Apr-2013 12:19 PM	05-May-2013 2:37 AM	N
	69160	NA	73-U16-DU1-SB5	SO	073SB-0043M-0001-SO	240-22663-19		1/1	01-Apr-2013 1:24 PM	15-Apr-2013 12:19 PM	05-May-2013 2:46 AM	N
	69160	NA	73-U16-DU1-SB5	SO	073SB-0044-0001-SO	240-22663-20		1/1	01-Apr-2013 1:29 PM	15-Apr-2013 12:19 PM	05-May-2013 3:10 AM	N
	69160	NA	79-2ASA-DU2-SB	SO	079SB-0021M-0001-SO	240-22663-21		1/1	01-Apr-2013 11:21 AM	15-Apr-2013 12:19 PM	05-May-2013 3:18 AM	N

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Batch Report

Test Method: SW6020; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
70845	69160	NA	79-2ASA-DU2-SB	SO	079SB-0022M-0001-SO	240-22663-22		1/1	01-Apr-2013 11:24 AM	15-Apr-2013 12:19 PM	05-May-2013 3:27 AM	N
	69160	NA	79-2ASA-DU2-SB	SO	079SB-0023M-0001-SO	240-22663-23		1/1	01-Apr-2013 11:24 AM	15-Apr-2013 12:19 PM	05-May-2013 3:35 AM	FD
	69160	NA	79-2ASA-DU2-SB2	SO	079SB-0025M-0001-SO	240-22663-25		1/1	01-Apr-2013 10:23 AM	15-Apr-2013 12:19 PM	05-May-2013 3:43 AM	N
	69160	NA	79-2ASA-DU2-SB3	SO	079SB-0026M-0001-SO	240-22663-26		1/1	01-Apr-2013 10:37 AM	15-Apr-2013 12:19 PM	05-May-2013 3:51 AM	N
	69160	NA	79-2ASA-DU2-SB4	SO	079SB-0027M-0001-SO	240-22663-27		1/1	01-Apr-2013 11:12 AM	15-Apr-2013 12:19 PM	05-May-2013 4:00 AM	N
	69160	NA	79-2ASA-DU2-SB5	SO	079SB-0028M-0001-SO	240-22663-28		1/1	01-Apr-2013 10:43 AM	15-Apr-2013 12:19 PM	05-May-2013 4:08 AM	N
	69260	NA	LABQC	SQ	LABQC	MB 180-69260/1-A		1/1	16-Apr-2013 11:32 AM	16-Apr-2013 11:32 AM	05-May-2013 4:16 AM	LB
	69260	NA	LABQC	SQ	LABQC	LCS 180-69260/2-A		1/1	16-Apr-2013 11:32 AM	16-Apr-2013 11:32 AM	05-May-2013 4:24 AM	BS
	69260	NA	79-2ASA-DU2-SB1	SO	079SB-0024M-0001-SO	240-22663-24		1/1	01-Apr-2013 11:29 AM	16-Apr-2013 11:32 AM	05-May-2013 4:49 AM	N
	69260	NA	79-2ASA-DU2-SB1	SO	079SB-0024M-0002-SO	240-22663-24		1/1	01-Apr-2013 11:29 AM	16-Apr-2013 11:32 AM	05-May-2013 5:14 AM	MS
	69260	NA	79-2ASA-DU2-SB5	SO	079SB-0029M-0001-SO	240-22663-29		1/1	01-Apr-2013 10:55 AM	16-Apr-2013 11:32 AM	05-May-2013 5:30 AM	N
	69260	NA	68-ESSW-DU1-SB	SO	068SB-0017M-0001-SO	240-22663-31		1/1	29-Mar-2013 3:42 PM	16-Apr-2013 11:32 AM	05-May-2013 5:38 AM	N
	69260	NA	68-ESSW-DU1-SB	SO	068SB-0018M-0001-SO	240-22663-32		1/1	29-Mar-2013 3:43 PM	16-Apr-2013 11:32 AM	05-May-2013 5:47 AM	N
	69260	NA	68-ESSW-DU1-SB1	SO	068SB-0019M-0001-SO	240-22663-33		1/1	29-Mar-2013 3:21 PM	16-Apr-2013 11:32 AM	05-May-2013 5:55 AM	N
	69260	NA	68-ESSW-DU1-SB1	SO	068SB-0022M-0001-SO	240-22663-34		1/1	29-Mar-2013 3:21 PM	16-Apr-2013 11:32 AM	05-May-2013 6:03 AM	FD
	69260	NA	68-ESSW-DU1-SB2	SO	068SB-0020M-0001-SO	240-22663-35		1/1	29-Mar-2013 3:50 PM	16-Apr-2013 11:32 AM	05-May-2013 6:28 AM	N
	69260	NA	68-ESSW-DU1-SB3	SO	068SB-0023M-0001-SO	240-22663-36		1/1	29-Mar-2013 2:40 PM	16-Apr-2013 11:32 AM	05-May-2013 6:36 AM	N
	69260	NA	68-ESSW-DU1-SB4	SO	068SB-0024M-0001-SO	240-22663-37		1/1	29-Mar-2013 2:20 PM	16-Apr-2013 11:32 AM	05-May-2013 6:44 AM	N

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Batch Report

Test Method: SW6020; Leach Method: NONE												
Analytical Batch	**Prep Batch**	**Leach Batch**	**Location**	**Matrix**	**Field Sample ID**	**Lab Sample ID**	**Calibration Ref**	**Run#/ Dil'n**	**Collection Date/Time**	**Extract Date/Time**	**Analysis Date/Time**	**Sample Type**
70845	69260	NA	68-ESSW-DU1-SB5	SO	068SB-0025M-0001-SO	240-22663-38		1/1	29-Mar-2013 2:45 PM	16-Apr-2013 11:32 AM	05-May-2013 6:52 AM	N
	69260	NA	68-ESSW-DU1-SB1	SO	068SB-0032M-0001-SO	240-22663-39		1/1	29-Mar-2013 3:30 PM	16-Apr-2013 11:32 AM	05-May-2013 7:01 AM	N
	69260	NA	68-ESSW-DU2-SB	SO	068SB-0027M-0001-SO	240-22663-40		1/1	29-Mar-2013 2:00 PM	16-Apr-2013 11:32 AM	05-May-2013 7:09 AM	N
	69260	NA	68-ESSW-DU2-SB	SO	068SB-0028M-0001-SO	240-22663-41		1/1	29-Mar-2013 2:02 PM	16-Apr-2013 11:32 AM	05-May-2013 7:17 AM	N
	69260	NA	68-ESSW-DU2-SB3	SO	068SB-0030M-0001-SO	240-22663-43		1/1	29-Mar-2013 2:05 PM	16-Apr-2013 11:32 AM	05-May-2013 7:26 AM	N
	69260	NA	68-ESSW-DU2-SB5	SO	068SB-0031M-0001-SO	240-22663-44		1/1	29-Mar-2013 1:44 PM	16-Apr-2013 11:32 AM	05-May-2013 7:34 AM	N
Test Method: SW7471A; Leach Method: NONE												
Analytical Batch	**Prep Batch**	**Leach Batch**	**Location**	**Matrix**	**Field Sample ID**	**Lab Sample ID**	**Calibration Ref**	**Run#/ Dil'n**	**Collection Date/Time**	**Extract Date/Time**	**Analysis Date/Time**	**Sample Type**
82289	81976	NA	LABQC	SQ	LABQC	MB 240-81976/1-A		1/1	15-Apr-2013 4:00 PM	15-Apr-2013 4:00 PM	16-Apr-2013 12:04 PM	LB
	81976	NA	LABQC	SQ	LABQC	LCS 240-81976/2-A		1/1	15-Apr-2013 4:00 PM	15-Apr-2013 4:00 PM	16-Apr-2013 12:06 PM	BS
	81976	NA	79-2ASA-DU1-SB2	SO	079SB-0015M-0001-SO	240-22663-5		1/1	01-Apr-2013 10:01 AM	15-Apr-2013 4:00 PM	16-Apr-2013 12:10 PM	N
	81976	NA	79-2ASA-DU1-SB2	SO	079SB-0015M-0002-SO	240-22663-5		1/1	01-Apr-2013 10:01 AM	15-Apr-2013 4:00 PM	16-Apr-2013 12:11 PM	MS
	81976	NA	73-U16-DU1-SB2	SO	073SB-0040M-0001-SO	240-22663-16		1/1	01-Apr-2013 12:53 PM	15-Apr-2013 4:00 PM	16-Apr-2013 12:15 PM	N
	81976	NA	73-U16-DU1-SB2	SO	073SB-0040M-0002-SO-MS	240-22663-16		1/1	01-Apr-2013 12:53 PM	15-Apr-2013 4:00 PM	16-Apr-2013 12:17 PM	MS
	81976	NA	79-2ASA-DU1-SB	SO	079SB-0010M-0001-SO	240-22663-1		1/1	01-Apr-2013 10:07 AM	15-Apr-2013 4:00 PM	16-Apr-2013 12:21 PM	N
	81976	NA	79-2ASA-DU1-SB	SO	079SB-0011M-0001-SO	240-22663-2		1/1	01-Apr-2013 10:07 AM	15-Apr-2013 4:00 PM	16-Apr-2013 12:22 PM	FD
	81976	NA	79-2ASA-DU1-SB	SO	079SB-0013M-0001-SO	240-22663-3		1/1	01-Apr-2013 10:09 AM	15-Apr-2013 4:00 PM	16-Apr-2013 12:24 PM	N
	81976	NA	79-2ASA-DU1-SB1	SO	079SB-0014M-0001-SO	240-22663-4		1/1	01-Apr-2013 10:12 AM	15-Apr-2013 4:00 PM	16-Apr-2013 12:29 PM	N

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Batch Report

Test Method: SW7471A; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
82289	81976	NA	79-2ASA-DU1-SB3	SO	079SB-0016M-0001-SO	240-22663-6		1/1	01-Apr-2013 9:15 AM	15-Apr-2013 4:00 PM	16-Apr-2013 12:31 PM	N
	81976	NA	79-2ASA-DU1-SB4	SO	079SB-0017M-0001-SO	240-22663-7		1/1	01-Apr-2013 9:24 AM	15-Apr-2013 4:00 PM	16-Apr-2013 12:32 PM	N
	81976	NA	79-2ASA-DU1-SB4	SO	079SB-0020M-0001-SO	240-22663-8		1/1	01-Apr-2013 9:24 AM	15-Apr-2013 4:00 PM	16-Apr-2013 12:33 PM	FD
	81976	NA	79-2ASA-DU1-SB5	SO	079SB-0019M-0001-SO	240-22663-9		1/1	01-Apr-2013 9:45 AM	15-Apr-2013 4:00 PM	16-Apr-2013 12:36 PM	N
	81976	NA	73-U16-DU1-SS	SO	073SS-0035M-0001-SO	240-22663-11		1/1	01-Apr-2013 2:20 PM	15-Apr-2013 4:00 PM	16-Apr-2013 12:37 PM	N
	81976	NA	73-U16-DU1-SB	SO	073SB-0036M-0001-SO	240-22663-12		1/1	01-Apr-2013 1:45 PM	15-Apr-2013 4:00 PM	16-Apr-2013 12:40 PM	N
	81976	NA	73-U16-DU1-SB	SO	073SB-0037M-0001-SO	240-22663-13		1/1	01-Apr-2013 1:50 PM	15-Apr-2013 4:00 PM	16-Apr-2013 12:41 PM	N
	81976	NA	73-U16-DU1-SB1	SO	073SB-0038M-0001-SO	240-22663-14		1/1	01-Apr-2013 12:40 PM	15-Apr-2013 4:00 PM	16-Apr-2013 12:42 PM	N
	81976	NA	73-U16-DU1-SB1	SO	073SB-0039M-0001-SO	240-22663-15		1/1	01-Apr-2013 12:40 AM	15-Apr-2013 4:00 PM	16-Apr-2013 12:43 PM	FD
	81976	NA	73-U16-DU1-SB3	SO	073SB-0041M-0001-SO	240-22663-17		1/1	01-Apr-2013 1:03 PM	15-Apr-2013 4:00 PM	16-Apr-2013 12:48 PM	N
	81976	NA	73-U16-DU1-SB4	SO	073SB-0042M-0001-SO	240-22663-18		1/1	01-Apr-2013 1:51 PM	15-Apr-2013 4:00 PM	16-Apr-2013 12:49 PM	N
	81976	NA	73-U16-DU1-SB5	SO	073SB-0043M-0001-SO	240-22663-19		1/1	01-Apr-2013 1:24 PM	15-Apr-2013 4:00 PM	16-Apr-2013 12:51 PM	N
	81976	NA	73-U16-DU1-SB5	SO	073SB-0044-0001-SO	240-22663-20		1/1	01-Apr-2013 1:29 PM	15-Apr-2013 4:00 PM	16-Apr-2013 12:53 PM	N
82449	82179	NA	LABQC	SQ	LABQC	MB 240-82179/1-A		1/1	16-Apr-2013 3:50 PM	16-Apr-2013 3:50 PM	17-Apr-2013 9:28 AM	LB
	82179	NA	LABQC	SQ	LABQC	LCS 240-82179/2-A		1/1	16-Apr-2013 3:50 PM	16-Apr-2013 3:50 PM	17-Apr-2013 9:30 AM	BS
	82179	NA	79-2ASA-DU2-SB1	SO	079SB-0024M-0001-SO	240-22663-24		1/1	01-Apr-2013 11:29 AM	16-Apr-2013 3:50 PM	17-Apr-2013 9:35 AM	N
	82179	NA	79-2ASA-DU2-SB1	SO	079SB-0024M-0002-SO	240-22663-24		1/1	01-Apr-2013 11:29 AM	16-Apr-2013 3:50 PM	17-Apr-2013 9:39 AM	MS
	82179	NA	79-2ASA-DU2-SB	SO	079SB-0021M-0001-SO	240-22663-21		1/1	01-Apr-2013 11:21 AM	16-Apr-2013 3:50 PM	17-Apr-2013 9:42 AM	N

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Batch Report

Test Method: SW7471A; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
82449	82179	NA	79-2ASA-DU2-SB	SO	079SB-0022M-0001-SO	240-22663-22		1/1	01-Apr-2013 11:24 AM	16-Apr-2013 3:50 PM	17-Apr-2013 9:45 AM	N
	82179	NA	79-2ASA-DU2-SB	SO	079SB-0023M-0001-SO	240-22663-23		1/1	01-Apr-2013 11:24 AM	16-Apr-2013 3:50 PM	17-Apr-2013 9:46 AM	FD
	82179	NA	79-2ASA-DU2-SB2	SO	079SB-0025M-0001-SO	240-22663-25		1/1	01-Apr-2013 10:23 AM	16-Apr-2013 3:50 PM	17-Apr-2013 9:48 AM	N
	82179	NA	79-2ASA-DU2-SB3	SO	079SB-0026M-0001-SO	240-22663-26		1/1	01-Apr-2013 10:37 AM	16-Apr-2013 3:50 PM	17-Apr-2013 9:50 AM	N
	82179	NA	79-2ASA-DU2-SB4	SO	079SB-0027M-0001-SO	240-22663-27		1/1	01-Apr-2013 11:12 AM	16-Apr-2013 3:50 PM	17-Apr-2013 9:52 AM	N
	82179	NA	79-2ASA-DU2-SB5	SO	079SB-0028M-0001-SO	240-22663-28		1/1	01-Apr-2013 10:43 AM	16-Apr-2013 3:50 PM	17-Apr-2013 9:54 AM	N
	82179	NA	79-2ASA-DU2-SB5	SO	079SB-0029M-0001-SO	240-22663-29		1/1	01-Apr-2013 10:55 AM	16-Apr-2013 3:50 PM	17-Apr-2013 10:00 AM	N
	82179	NA	68-ESSW-DU1-SB	SO	068SB-0017M-0001-SO	240-22663-31		1/1	29-Mar-2013 3:42 PM	16-Apr-2013 3:50 PM	17-Apr-2013 10:02 AM	N
	82179	NA	68-ESSW-DU1-SB	SO	068SB-0018M-0001-SO	240-22663-32		1/1	29-Mar-2013 3:43 PM	16-Apr-2013 3:50 PM	17-Apr-2013 10:04 AM	N
	82179	NA	68-ESSW-DU1-SB1	SO	068SB-0019M-0001-SO	240-22663-33		1/1	29-Mar-2013 3:21 PM	16-Apr-2013 3:50 PM	17-Apr-2013 10:06 AM	N
	82179	NA	68-ESSW-DU1-SB1	SO	068SB-0022M-0001-SO	240-22663-34		1/1	29-Mar-2013 3:21 PM	16-Apr-2013 3:50 PM	17-Apr-2013 10:07 AM	FD
	82179	NA	68-ESSW-DU1-SB2	SO	068SB-0020M-0001-SO	240-22663-35		1/1	29-Mar-2013 3:50 PM	16-Apr-2013 3:50 PM	17-Apr-2013 10:10 AM	N
	82179	NA	68-ESSW-DU1-SB3	SO	068SB-0023M-0001-SO	240-22663-36		1/1	29-Mar-2013 2:40 PM	16-Apr-2013 3:50 PM	17-Apr-2013 10:12 AM	N
	82179	NA	68-ESSW-DU1-SB4	SO	068SB-0024M-0001-SO	240-22663-37		1/1	29-Mar-2013 2:20 PM	16-Apr-2013 3:50 PM	17-Apr-2013 10:14 AM	N
	82179	NA	68-ESSW-DU1-SB5	SO	068SB-0025M-0001-SO	240-22663-38		1/1	29-Mar-2013 2:45 PM	16-Apr-2013 3:50 PM	17-Apr-2013 10:16 AM	N
82912	82367	NA	LABQC	SQ	LABQC	MB 240-82367/1-A		1/1	17-Apr-2013 2:55 PM	17-Apr-2013 2:55 PM	19-Apr-2013 10:04 AM	LB
	82367	NA	LABQC	SQ	LABQC	LCS 240-82367/2-A		1/1	17-Apr-2013 2:55 PM	17-Apr-2013 2:55 PM	19-Apr-2013 10:06 AM	BS
	82367	NA	68-ESSW-DU1-SB1	SO	068SB-0032M-0001-SO	240-22663-39		1/1	29-Mar-2013 3:30 PM	17-Apr-2013 2:55 PM	19-Apr-2013 10:17 AM	N

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Batch Report

Test Method: SW7471A; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
82912	82367	NA	68-ESSW-DU2-SB	SO	068SB-0027M-0001-SO	240-22663-40		1/1	29-Mar-2013 2:00 PM	17-Apr-2013 2:55 PM	19-Apr-2013 10:18 AM	N
	82367	NA	68-ESSW-DU2-SB	SO	068SB-0028M-0001-SO	240-22663-41		1/1	29-Mar-2013 2:02 PM	17-Apr-2013 2:55 PM	19-Apr-2013 10:20 AM	N
	82367	NA	68-ESSW-DU2-SB3	SO	068SB-0030M-0001-SO	240-22663-43		1/1	29-Mar-2013 2:05 PM	17-Apr-2013 2:55 PM	19-Apr-2013 10:21 AM	N
	82367	NA	68-ESSW-DU2-SB5	SO	068SB-0031M-0001-SO	240-22663-44		1/1	29-Mar-2013 1:44 PM	17-Apr-2013 2:55 PM	19-Apr-2013 10:23 AM	N

Test Method: SW8081; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
82685	81726	NA	LABQC	SQ	LABQC	MB 240-81726/21-A		1/1	12-Apr-2013 11:07 AM	12-Apr-2013 11:07 AM	19-Apr-2013 3:17 PM	LB
	81726	NA	LABQC	SQ	LABQC	LCS 240-81726/22-A		1/1	12-Apr-2013 11:07 AM	12-Apr-2013 11:07 AM	19-Apr-2013 3:37 PM	BS
83400	83135	NA	79-2ASA-DU1-SB1	SO	079SB-0014M-0001-SO	240-22663-4		1/1	01-Apr-2013 10:12 AM	23-Apr-2013 8:54 AM	24-Apr-2013 7:13 PM	N
	83135	NA	79-2ASA-DU1-SB4	SO	079SB-0017M-0001-SO	240-22663-7		1/1	01-Apr-2013 9:24 AM	23-Apr-2013 8:54 AM	24-Apr-2013 7:33 PM	N
	83135	NA	70-4740-DU3-SB6	SO	070SB-0046M-0001-SB	240-22663-10		1/10	01-Apr-2013 3:00 PM	23-Apr-2013 8:54 AM	24-Apr-2013 7:53 PM	N
	83135	NA	73-U16-DU1-SB3	SO	073SB-0041M-0001-SO	240-22663-17		1/1	01-Apr-2013 1:03 PM	23-Apr-2013 8:54 AM	24-Apr-2013 8:13 PM	N
	83135	NA	79-2ASA-DU2-SB3	SO	079SB-0026M-0001-SO	240-22663-26		1/1	01-Apr-2013 10:37 AM	23-Apr-2013 8:54 AM	24-Apr-2013 8:34 PM	N
	83135	NA	79-2ASA-DU2-SB5	SO	079SB-0028M-0001-SO	240-22663-28		1/1	01-Apr-2013 10:43 AM	23-Apr-2013 8:54 AM	24-Apr-2013 8:54 PM	N
	83135	NA	79-2ASA-DU2-SB5	SO	079SB-0028M-0001-SO	240-22663-28		1/1	01-Apr-2013 10:43 AM	23-Apr-2013 8:54 AM	24-Apr-2013 9:14 PM	MS
	83135	NA	79-2ASA-DU2-SB5	SO	079SB-0028M-0001-SO	240-22663-28		1/1	01-Apr-2013 10:43 AM	23-Apr-2013 8:54 AM	24-Apr-2013 9:34 PM	SD
	83135	NA	LABQC	SQ	LABQC	MB 240-83135/18-A		1/1	23-Apr-2013 8:54 AM	23-Apr-2013 8:54 AM	24-Apr-2013 9:54 PM	LB
	83135	NA	LABQC	SQ	LABQC	LCS 240-83135/19-A		1/1	23-Apr-2013 8:54 AM	23-Apr-2013 8:54 AM	24-Apr-2013 10:14 PM	BS

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Batch Report

Test Method: SW8082; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
82363	81730	NA	79-2ASA-DU1-SB1	SO	079SB-0014M-0001-SO	240-22663-4		1/1	01-Apr-2013 10:12 AM	12-Apr-2013 11:18 AM	18-Apr-2013 10:08 AM	N
	81730	NA	79-2ASA-DU1-SB4	SO	079SB-0017M-0001-SO	240-22663-7		1/1	01-Apr-2013 9:24 AM	12-Apr-2013 11:18 AM	18-Apr-2013 10:24 AM	N
	81730	NA	73-U16-DU1-SB3	SO	073SB-0041M-0001-SO	240-22663-17		1/1	01-Apr-2013 1:03 PM	12-Apr-2013 11:18 AM	18-Apr-2013 10:39 AM	N
	81730	NA	LABQC	SQ	LABQC	MB 240-81730/20-A		1/1	12-Apr-2013 11:18 AM	12-Apr-2013 11:18 AM	18-Apr-2013 12:13 PM	LB
	81730	NA	LABQC	SQ	LABQC	LCS 240-81730/21-A		1/1	12-Apr-2013 11:18 AM	12-Apr-2013 11:18 AM	18-Apr-2013 3:05 PM	BS
82267	81736	NA	68-ESSW-DU1-SB	SO	068SB-0017M-0001-SO	240-22663-31		1/1	29-Mar-2013 3:42 PM	12-Apr-2013 11:46 AM	17-Apr-2013 11:12 AM	N
	81736	NA	68-ESSW-DU1-SB	SO	068SB-0018M-0001-SO	240-22663-32		1/1	29-Mar-2013 3:43 PM	12-Apr-2013 11:46 AM	17-Apr-2013 11:28 AM	N
	81736	NA	68-ESSW-DU1-SB4	SO	068SB-0024M-0001-SO	240-22663-37		1/1	29-Mar-2013 2:20 PM	12-Apr-2013 11:46 AM	17-Apr-2013 11:44 AM	N
	81736	NA	68-ESSW-DU1-SB5	SO	068SB-0025M-0001-SO	240-22663-38		1/1	29-Mar-2013 2:45 PM	12-Apr-2013 11:46 AM	17-Apr-2013 11:59 AM	N
	81736	NA	68-ESSW-DU1-SB1	SO	068SB-0032M-0001-SO	240-22663-39		1/1	29-Mar-2013 3:30 PM	12-Apr-2013 11:46 AM	17-Apr-2013 12:15 PM	N
	81736	NA	68-ESSW-DU2-SB	SO	068SB-0027M-0001-SO	240-22663-40		1/1	29-Mar-2013 2:00 PM	12-Apr-2013 11:46 AM	17-Apr-2013 12:31 PM	N
	81736	NA	68-ESSW-DU2-SB	SO	068SB-0028M-0001-SO	240-22663-41		1/1	29-Mar-2013 2:02 PM	12-Apr-2013 11:46 AM	17-Apr-2013 12:46 PM	N
	81736	NA	68-ESSW-DU2-SB3	SO	068SB-0030M-0001-SO	240-22663-43		1/1	29-Mar-2013 2:05 PM	12-Apr-2013 11:46 AM	17-Apr-2013 1:02 PM	N
	81736	NA	68-ESSW-DU2-SB5	SO	068SB-0031M-0001-SO	240-22663-44		1/1	29-Mar-2013 1:44 PM	12-Apr-2013 11:46 AM	17-Apr-2013 1:17 PM	N
	81736	NA	68-ESSW-DU1-SB1	SO	068SB-0019M-0001-SO	240-22663-33		1/1	29-Mar-2013 3:21 PM	12-Apr-2013 11:46 AM	17-Apr-2013 1:49 PM	N
	81736	NA	68-ESSW-DU1-SB1	SO	068SB-0022M-0001-SO	240-22663-34		1/1	29-Mar-2013 3:21 PM	12-Apr-2013 11:46 AM	17-Apr-2013 2:04 PM	FD
	81736	NA	68-ESSW-DU1-SB2	SO	068SB-0020M-0001-SO	240-22663-35		1/1	29-Mar-2013 3:50 PM	12-Apr-2013 11:46 AM	17-Apr-2013 2:20 PM	N
	81736	NA	68-ESSW-DU1-SB3	SO	068SB-0023M-0001-SO	240-22663-36		1/1	29-Mar-2013 2:40 PM	12-Apr-2013 11:46 AM	17-Apr-2013 2:35 PM	N

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Batch Report

Test Method: SW8082; Leach Method: NONE												
Analytical Batch	**Prep Batch**	**Leach Batch**	**Location**	**Matrix**	**Field Sample ID**	**Lab Sample ID**	**Calibration Ref**	**Run#/ Dil'n**	**Collection Date/Time**	**Extract Date/Time**	**Analysis Date/Time**	**Sample Type**
82267	81736	NA	LABQC	SQ	LABQC	MB 240-81736/24-A		1/1	12-Apr-2013 11:46 AM	12-Apr-2013 11:46 AM	17-Apr-2013 2:51 PM	LB
82656	81736	NA	LABQC	SQ	LABQC	LCS 240-81736/23-A		1/1	12-Apr-2013 11:46 AM	12-Apr-2013 11:46 AM	19-Apr-2013 9:06 AM	BS
83996	83675	NA	79-2ASA-DU2-SB3	SO	079SB-0026M-0001-SO	240-22663-26		1/1	01-Apr-2013 10:37 AM	26-Apr-2013 8:24 AM	29-Apr-2013 8:49 AM	N
	83675	NA	79-2ASA-DU2-SB5	SO	079SB-0028M-0001-SO	240-22663-28		1/1	01-Apr-2013 10:43 AM	26-Apr-2013 8:24 AM	29-Apr-2013 9:04 AM	N
	83675	NA	LABQC	SQ	LABQC	MB 240-83675/20-A		1/1	26-Apr-2013 8:24 AM	26-Apr-2013 8:24 AM	29-Apr-2013 9:20 AM	LB
	83675	NA	LABQC	SQ	LABQC	LCS 240-83675/21-A		1/1	26-Apr-2013 8:24 AM	26-Apr-2013 8:24 AM	29-Apr-2013 9:35 AM	BS

Test Method: SW8260B; Leach Method: NONE												
Analytical Batch	**Prep Batch**	**Leach Batch**	**Location**	**Matrix**	**Field Sample ID**	**Lab Sample ID**	**Calibration Ref**	**Run#/ Dil'n**	**Collection Date/Time**	**Extract Date/Time**	**Analysis Date/Time**	**Sample Type**
80954	80597	NA	79-2ASA-DU1-SB1	SO	079SB-0014M-0001-SO	240-22663-4		1/1	01-Apr-2013 10:12 AM	02-Apr-2013 4:08 PM	08-Apr-2013 5:03 PM	N
	80597	NA	79-2ASA-DU1-SB4	SO	079SB-0017M-0001-SO	240-22663-7		1/1	01-Apr-2013 9:24 AM	02-Apr-2013 4:08 PM	08-Apr-2013 5:24 PM	N
	80597	NA	73-U16-DU1-SB3	SO	073SB-0041M-0001-SO	240-22663-17		1/1	01-Apr-2013 1:03 PM	02-Apr-2013 4:08 PM	08-Apr-2013 5:46 PM	N
	80597	NA	79-2ASA-DU2-SB3	SO	079SB-0026M-0001-SO	240-22663-26		1/1	01-Apr-2013 10:37 AM	02-Apr-2013 4:08 PM	08-Apr-2013 6:07 PM	N
	80597	NA	79-2ASA-DU2-SB5	SO	079SB-0028M-0001-SO	240-22663-28		1/1	01-Apr-2013 10:43 AM	02-Apr-2013 4:08 PM	08-Apr-2013 6:29 PM	N
	NA	NA	LABQC	SQ	LABQC	LCS 240-80954/6		1/1	08-Apr-2013 12:22 PM	08-Apr-2013 12:22 PM	08-Apr-2013 12:22 PM	BS
	NA	NA	LABQC	SQ	LABQC	MB 240-80954/7		1/1	08-Apr-2013 12:43 PM	08-Apr-2013 12:43 PM	08-Apr-2013 12:43 PM	LB
81013	81013	NA	LABQC	WQ	LABQC	LCS 240-81013/4		1/1	08-Apr-2013 12:50 PM	08-Apr-2013 12:50 PM	08-Apr-2013 12:50 PM	BS
	81013	NA	LABQC	WQ	LABQC	MB 240-81013/6		1/1	08-Apr-2013 1:34 PM	08-Apr-2013 1:34 PM	08-Apr-2013 1:34 PM	LB
	81013	NA	68-ESSW-DU1-SB4	WG	068SB-0026-0001-TB	240-22663-30		1/1	01-Apr-2013 8:00 AM	08-Apr-2013 4:27 PM	08-Apr-2013 4:27 PM	N

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Batch Report

Test Method: SW8270C; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
82876	81754	NA	LABQC	SQ	LABQC	MB 240-81754/21-A		1/1	12-Apr-2013 1:15 PM	12-Apr-2013 1:15 PM	21-Apr-2013 12:14 PM	LB
	81754	NA	LABQC	SQ	LABQC	LCS 240-81754/22-A		1/1	12-Apr-2013 1:15 PM	12-Apr-2013 1:15 PM	21-Apr-2013 12:40 PM	BS
	81754	NA	68-ESSW-DU2-SB	SO	068SB-0027M-0001-SO	240-22663-40		1/1	29-Mar-2013 2:00 PM	12-Apr-2013 1:15 PM	21-Apr-2013 2:50 PM	N
	81754	NA	68-ESSW-DU1-SB1	SO	068SB-0032M-0001-SO	240-22663-39		1/1	29-Mar-2013 3:30 PM	12-Apr-2013 1:15 PM	21-Apr-2013 3:16 PM	N
	81754	NA	68-ESSW-DU2-SB	SO	068SB-0028M-0001-SO	240-22663-41		1/1	29-Mar-2013 2:02 PM	12-Apr-2013 1:15 PM	21-Apr-2013 3:42 PM	N
	81754	NA	68-ESSW-DU2-SB3	SO	068SB-0030M-0001-SO	240-22663-43		1/1	29-Mar-2013 2:05 PM	12-Apr-2013 1:15 PM	21-Apr-2013 4:09 PM	N
	81754	NA	68-ESSW-DU1-SB	SO	068SB-0017M-0001-SO	240-22663-31		1/5	29-Mar-2013 3:42 PM	12-Apr-2013 1:15 PM	21-Apr-2013 5:01 PM	N
	81754	NA	68-ESSW-DU1-SB3	SO	068SB-0023M-0001-SO	240-22663-36		1/5	29-Mar-2013 2:40 PM	12-Apr-2013 1:15 PM	21-Apr-2013 5:27 PM	N
	81754	NA	68-ESSW-DU1-SB4	SO	068SB-0024M-0001-SO	240-22663-37		1/5	29-Mar-2013 2:20 PM	12-Apr-2013 1:15 PM	21-Apr-2013 5:53 PM	N
	81754	NA	68-ESSW-DU1-SB5	SO	068SB-0025M-0001-SO	240-22663-38		1/5	29-Mar-2013 2:45 PM	12-Apr-2013 1:15 PM	21-Apr-2013 6:19 PM	N
	81754	NA	68-ESSW-DU2-SB5	SO	068SB-0031M-0001-SO	240-22663-44		1/5	29-Mar-2013 1:44 PM	12-Apr-2013 1:15 PM	21-Apr-2013 6:45 PM	N
	81754	NA	68-ESSW-DU2-SB5	SO	068SB-0031M-0001-SO	240-22663-44		1/5	29-Mar-2013 1:44 PM	12-Apr-2013 1:15 PM	21-Apr-2013 7:11 PM	MS
	81754	NA	68-ESSW-DU2-SB5	SO	068SB-0031M-0001-SO	240-22663-44		1/5	29-Mar-2013 1:44 PM	12-Apr-2013 1:15 PM	21-Apr-2013 7:38 PM	SD
	81754	NA	68-ESSW-DU1-SB2	SO	068SB-0020M-0001-SO	240-22663-35		1/5	29-Mar-2013 3:50 PM	12-Apr-2013 1:15 PM	21-Apr-2013 8:04 PM	N
82940	81754	NA	79-2ASA-DU1-SB1	SO	079SB-0014M-0001-SO	240-22663-4		1/5	01-Apr-2013 10:12 AM	12-Apr-2013 1:15 PM	22-Apr-2013 12:38 PM	N
	81754	NA	73-U16-DU1-SB3	SO	073SB-0041M-0001-SO	240-22663-17		1/5	01-Apr-2013 1:03 PM	12-Apr-2013 1:15 PM	22-Apr-2013 1:04 PM	N
	81754	NA	79-2ASA-DU2-SB5	SO	079SB-0028M-0001-SO	240-22663-28		1/5	01-Apr-2013 10:43 AM	12-Apr-2013 1:15 PM	22-Apr-2013 1:30 PM	N
	81754	NA	68-ESSW-DU1-SB	SO	068SB-0018M-0001-SO	240-22663-32		1/5	29-Mar-2013 3:43 PM	12-Apr-2013 1:15 PM	22-Apr-2013 1:57 PM	N

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Batch Report

Test Method: SW8270C; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
82940	81754	NA	79-2ASA-DU1-SB4	SO	079SB-0017M-0001-SO	240-22663-7		1/5	01-Apr-2013 9:24 AM	12-Apr-2013 1:15 PM	22-Apr-2013 2:23 PM	N
	81754	NA	79-2ASA-DU2-SB3	SO	079SB-0026M-0001-SO	240-22663-26		1/5	01-Apr-2013 10:37 AM	12-Apr-2013 1:15 PM	22-Apr-2013 2:49 PM	N
	81754	NA	68-ESSW-DU1-SB1	SO	068SB-0019M-0001-SO	240-22663-33		1/5	29-Mar-2013 3:21 PM	12-Apr-2013 1:15 PM	22-Apr-2013 3:15 PM	N
	81754	NA	68-ESSW-DU1-SB1	SO	068SB-0022M-0001-SO	240-22663-34		1/5	29-Mar-2013 3:21 PM	12-Apr-2013 1:15 PM	22-Apr-2013 3:41 PM	FD

Test Method: SW8330B; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
14706	14065	NA	LABQC	SQ	LABQC	MB 320-14065/1-A		1/1	11-Apr-2013 8:24 AM	11-Apr-2013 8:24 AM	19-Apr-2013 6:45 PM	LB
	14065	NA	LABQC	SQ	LABQC	LCS 320-14065/2-A		1/1	11-Apr-2013 8:24 AM	11-Apr-2013 8:24 AM	19-Apr-2013 7:29 PM	BS
	14065	NA	79-2ASA-DU1-SB1	SO	079SB-0014M-0001-SO	240-22663-4		2/1	01-Apr-2013 10:12 AM	11-Apr-2013 8:24 AM	20-Apr-2013 2:45 AM	N
	14065	NA	79-2ASA-DU1-SB1	SO	079SB-0014M-0002-SO	240-22663-4		2/1	01-Apr-2013 10:12 AM	11-Apr-2013 8:24 AM	20-Apr-2013 3:29 AM	MS
	14065	NA	79-2ASA-DU1-SB1	SO	079SB-0014M-0002-SO	240-22663-4		2/1	01-Apr-2013 10:12 AM	11-Apr-2013 8:24 AM	20-Apr-2013 4:13 AM	SD
	14065	NA	79-2ASA-DU1-SB4	SO	079SB-0017M-0001-SO	240-22663-7		2/1	01-Apr-2013 9:24 AM	11-Apr-2013 8:24 AM	20-Apr-2013 4:56 AM	N
	14065	NA	73-U16-DU1-SB3	SO	073SB-0041M-0001-SO	240-22663-17		2/1	01-Apr-2013 1:03 PM	11-Apr-2013 8:24 AM	20-Apr-2013 5:40 AM	N
	14065	NA	79-2ASA-DU2-SB3	SO	079SB-0026M-0001-SO	240-22663-26		2/1	01-Apr-2013 10:37 AM	11-Apr-2013 8:24 AM	20-Apr-2013 6:24 AM	N
	14065	NA	79-2ASA-DU2-SB5	SO	079SB-0028M-0001-SO	240-22663-28		2/1	01-Apr-2013 10:43 AM	11-Apr-2013 8:24 AM	20-Apr-2013 7:07 AM	N
14998	14065	NA	LABQC	SQ	LABQC	MB 320-14065/1-A		2/1	11-Apr-2013 8:24 AM	11-Apr-2013 8:24 AM	25-Apr-2013 8:07 AM	LB
	14065	NA	79-2ASA-DU1-SB1	SO	079SB-0014M-0001-SO	240-22663-4		3/1	01-Apr-2013 10:12 AM	11-Apr-2013 8:24 AM	25-Apr-2013 1:38 PM	N
14432	14079	NA	LABQC	SQ	LABQC	MB 320-14079/1-A		1/1	11-Apr-2013 10:07 AM	11-Apr-2013 10:07 AM	16-Apr-2013 5:06 PM	LB

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Batch Report

Test Method: SW8330B; Leach Method: NONE												
Analytical Batch	**Prep Batch**	**Leach Batch**	**Location**	**Matrix**	**Field Sample ID**	**Lab Sample ID**	**Calibration Ref**	**Run#/ Dil'n**	**Collection Date/Time**	**Extract Date/Time**	**Analysis Date/Time**	**Sample Type**
14432	14079	NA	LABQC	SQ	LABQC	LCS 320-14079/2-A		1/1	11-Apr-2013 10:07 AM	11-Apr-2013 10:07 AM	16-Apr-2013 5:24 PM	BS
	14079	NA	79-2ASA-DU1-SB1	SO	079SB-0014M-0001-SO	240-22663-4		1/1	01-Apr-2013 10:12 AM	11-Apr-2013 10:07 AM	16-Apr-2013 8:22 PM	N
	14079	NA	79-2ASA-DU1-SB1	SO	079SB-0014M-0002-SO	240-22663-4		1/1	01-Apr-2013 10:12 AM	11-Apr-2013 10:07 AM	16-Apr-2013 8:39 PM	MS
	14079	NA	79-2ASA-DU1-SB1	SO	079SB-0014M-0002-SO	240-22663-4		1/1	01-Apr-2013 10:12 AM	11-Apr-2013 10:07 AM	16-Apr-2013 8:57 PM	SD
	14079	NA	79-2ASA-DU1-SB4	SO	079SB-0017M-0001-SO	240-22663-7		1/1	01-Apr-2013 9:24 AM	11-Apr-2013 10:07 AM	16-Apr-2013 9:15 PM	N
	14079	NA	73-U16-DU1-SB3	SO	073SB-0041M-0001-SO	240-22663-17		1/1	01-Apr-2013 1:03 PM	11-Apr-2013 10:07 AM	16-Apr-2013 9:33 PM	N
	14079	NA	79-2ASA-DU2-SB3	SO	079SB-0026M-0001-SO	240-22663-26		1/1	01-Apr-2013 10:37 AM	11-Apr-2013 10:07 AM	16-Apr-2013 9:50 PM	N
	14079	NA	79-2ASA-DU2-SB5	SO	079SB-0028M-0001-SO	240-22663-28		1/1	01-Apr-2013 10:43 AM	11-Apr-2013 10:07 AM	16-Apr-2013 10:08 PM	N

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Field Batch Report

--No Records Found--

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

QC Outlier Report

Test/Prep/Leach	QC Element	Sample ID/ Lab Sample ID	Run# / Dil'n	Analyte	Result (Units)	Qualifier	Warning Limits	Control Limits	Reason	Comment	Rule	Action Level
SW6020 / SW3050B/NONE	Blank	MB 180-69114/1-A (LB) / MB 180-69114/1-A	1 / 1.00	Barium	0.0094 (MG/KG)	U/None	< 0.0091	< 0.85	L		1	0.00940
SW6020 / SW3050B/NONE	Blank	MB 180-69114/1-A (LB) / MB 180-69114/1-A	1 / 1.00	Calcium	1.8 (MG/KG)	U/None	< 1.1	< 8.5	L		1	1.76
SW6020 / SW3050B/NONE	Blank	MB 180-69114/1-A (LB) / MB 180-69114/1-A	1 / 1.00	Copper	0.030 (MG/KG)	U/None	< 0.028	< 0.17	L		1	0.0300
SW6020 / SW3050B/NONE	Blank	MB 180-69114/1-A (LB) / MB 180-69114/1-A	1 / 1.00	Zinc	0.073 (MG/KG)	U/None	< 0.055	< 0.43	L		1	0.0733
SW6020 / SW3050B/NONE	Blank	MB 180-69160/1-A (LB) / MB 180-69160/1-A	1 / 1.00	Arsenic	0.021 (MG/KG)	U/None	< 0.016	< 0.089	L		1	0.0212
SW6020 / SW3050B/NONE	Blank	MB 180-69160/1-A (LB) / MB 180-69160/1-A	1 / 1.00	Barium	0.011 (MG/KG)	U/None	< 0.0096	< 0.89	L		1	0.0107
SW6020 / SW3050B/NONE	Blank	MB 180-69160/1-A (LB) / MB 180-69160/1-A	1 / 1.00	Calcium	1.8 (MG/KG)	U/None	< 1.2	< 8.9	L		1	1.83
SW6020 / SW3050B/NONE	Blank	MB 180-69160/1-A (LB) / MB 180-69160/1-A	1 / 1.00	Selenium	0.048 (MG/KG)	U/None	< 0.045	< 0.45	L		1	0.0480
SW6020 / SW3050B/NONE	Blank	MB 180-69160/1-A (LB) / MB 180-69160/1-A	1 / 1.00	Zinc	0.064 (MG/KG)	U/None	< 0.058	< 0.45	L		1	0.0640
SW6020 / SW3050B/NONE	Blank	MB 180-69260/1-A (LB) / MB 180-69260/1-A	1 / 1.00	Aluminum	0.36 (MG/KG)	U/None	< 0.28	< 2.9	L		1	0.356
SW6020 / SW3050B/NONE	Blank	MB 180-69260/1-A (LB) / MB 180-69260/1-A	1 / 1.00	Barium	0.012 (MG/KG)	U/None	< 0.01	< 0.98	L		1	0.0116
SW6020 / SW3050B/NONE	Blank	MB 180-69260/1-A (LB) / MB 180-69260/1-A	1 / 1.00	Calcium	1.7 (MG/KG)	U/None	< 1.3	< 9.8	L		1	1.72
SW6020 / SW3050B/NONE	Blank	MB 180-69260/1-A (LB) / MB 180-69260/1-A	1 / 1.00	Copper	0.036 (MG/KG)	U/None	< 0.032	< 0.2	L		1	0.0358
SW6020 / SW3050B/NONE	Blank	MB 180-69260/1-A (LB) / MB 180-69260/1-A	1 / 1.00	Zinc	0.12 (MG/KG)	U/None	< 0.064	< 0.49	L		1	0.122
SW8260B / NONE/NONE	Blank	MB 240-80954/7 (LB) / MB 240-80954/7	1 / 1.00	Carbon Disulfide	3.1 (UG/KG)	U/None	< 0.44	< 5	L		1	3.10
SW8260B / NONE/NONE	Blank	MB 240-80954/7 (LB) / MB 240-80954/7	1 / 1.00	Methylene Chloride	14.9 (UG/KG)	U/None	< 0.67	< 5	L		2	29.8
SW8260B / SW5035/NONE	Surrogate	079SB-0014M-0001-SO (N) / 240-22663-4	1 / 1.00	1-Bromo-4-fluorobenzene (4-Bromofluorobenzene)	82.6 (PERCENT)	J/UJ	85 - 120	10 - 120	I			
SW8260B / SW5035/NONE	Surrogate	079SB-0026M-0001-SO (N) / 240-22663-26	1 / 1.00	1-Bromo-4-fluorobenzene (4-Bromofluorobenzene)	68.3 (PERCENT)	J/UJ	85 - 120	10 - 120	I			
SW8260B / SW5035/NONE	Surrogate	079SB-0026M-0001-SO (N) / 240-22663-26	1 / 1.00	Toluene-d8	73.7 (PERCENT)	J/UJ	85 - 115	10 - 115	I			

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

QC Outlier Report

Test/Prep/Leach	QC Element	Sample ID/ Lab Sample ID	Run# / Dil'n	Analyte	Result (Units)	Qualifier	Warning Limits	Control Limits	Reason	Comment	Rule	Action Level
SW8260B / SW5035/NONE	Surrogate	079SB-0028M-0001-SO (N) / 240-22663-28	1 / 1.00	Toluene-d8	83.3 (PERCENT)	J/UJ	85 - 115	10 - 115	I			
SW8270C / SW3550/NONE	Blank	MB 240-81754/21-A (LB) / MB 240-81754/21-A	1 / 1.00	Di-n-Butyl Phthalate	24.5 (UG/KG)	U/None	< 15	< 70	L		1	24.5
SW8270C / SW3550/NONE	MS Recovery	068SB-0031M-0001-SO (MS) / 240-22663-44	1 / 5.00	2,4-Dimethylphenol	23.6 (PERCENT)	J/UJ	30 - 105	30 - 105	M	Diluted Out	2.00	
SW8270C / SW3550/NONE	MS Recovery	068SB-0031M-0001-SO (SD) / 240-22663-44	1 / 5.00	2,4-Dimethylphenol	27.7 (PERCENT)	J/UJ	30 - 105	30 - 105	M	Diluted Out	2.00	
SW8270C / SW3550/NONE	MS Recovery	068SB-0031M-0001-SO (MS) / 240-22663-44	1 / 5.00	2,4-Dinitrophenol	0.0000 (PERCENT)	J/UJ	15 - 130	15 - 130	M	Diluted Out	2.00	
SW8270C / SW3550/NONE	MS Recovery	068SB-0031M-0001-SO (SD) / 240-22663-44	1 / 5.00	2,4-Dinitrophenol	0.0000 (PERCENT)	J/UJ	15 - 130	15 - 130	M	Diluted Out	2.00	
SW8270C / SW3550/NONE	MS Recovery	068SB-0031M-0001-SO (MS) / 240-22663-44	1 / 5.00	2-Methylphenol (o-Cresol)	0.0000 (PERCENT)	J/UJ	40 - 105	40 - 105	M	Diluted Out	2.00	
SW8270C / SW3550/NONE	MS Recovery	068SB-0031M-0001-SO (SD) / 240-22663-44	1 / 5.00	2-Methylphenol (o-Cresol)	0.0000 (PERCENT)	J/UJ	40 - 105	40 - 105	M	Diluted Out	2.00	
SW8270C / SW3550/NONE	MS Recovery	068SB-0031M-0001-SO (MS) / 240-22663-44	1 / 5.00	4,6-Dinitro-2-Methylphenol	0.0000 (PERCENT)	J/UJ	30 - 135	30 - 135	M	Diluted Out	2.00	
SW8270C / SW3550/NONE	MS Recovery	068SB-0031M-0001-SO (MS) / 240-22663-44	1 / 5.00	4-Nitrophenol	0.0000 (PERCENT)	J/UJ	15 - 140	15 - 140	M	Diluted Out	2.00	
SW8270C / SW3550/NONE	MS Recovery	068SB-0031M-0001-SO (SD) / 240-22663-44	1 / 5.00	4-Nitrophenol	0.0000 (PERCENT)	J/UJ	15 - 140	15 - 140	M	Diluted Out	2.00	
SW8330B / METHOD/NONE	Blank	MB 320-14065/1-A (LB) / MB 320-14065/1-A	2 / 1.00	Tetryl	0.012 (MG/KG)	U/None	< 0.01	< 0.25	L		1	0.0121

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
E353.2/NONE	SO	073SB-0041M-0001-SO	240-22663-17	N	Nitrocellulose	5.0	0.91	0.91 J		MG/KG	TR
E353.2/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Nitrocellulose	4.7	0.76	0.76 J		MG/KG	TR
E353.2/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Nitrocellulose	5.0	0.81	0.81 J		MG/KG	TR
E353.2/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Nitrocellulose	4.8	2.5	2.5 J		MG/KG	TR
Test Leach	**Matrix**	**FieldSample ID**	**LabSample ID**	**Type**	**Analyte**	**RL**	**Lab Result**	**Qualified Result**	**Bias**	**Units**	**Reason**
SW6020/NONE	SO	068SB-0017M-0001-SO	240-22663-31	N	Antimony	0.20	0.068	0.068 J		MG/KG	TR/m
SW6020/NONE	SO	068SB-0017M-0001-SO	240-22663-31	N	Beryllium	0.099	0.60	0.60 J		MG/KG	A
SW6020/NONE	SO	068SB-0017M-0001-SO	240-22663-31	N	Selenium	0.50	0.40	0.40 J		MG/KG	TR
SW6020/NONE	SO	068SB-0017M-0001-SO	240-22663-31	N	Silver	0.099	0.036	0.036 J		MG/KG	TR
SW6020/NONE	SO	068SB-0018M-0001-SO	240-22663-32	N	Antimony	0.20	0.20	0.20 UJ		MG/KG	m
SW6020/NONE	SO	068SB-0018M-0001-SO	240-22663-32	N	Beryllium	0.10	0.44	0.44 J		MG/KG	A
SW6020/NONE	SO	068SB-0018M-0001-SO	240-22663-32	N	Selenium	0.50	0.22	0.22 J		MG/KG	TR
SW6020/NONE	SO	068SB-0018M-0001-SO	240-22663-32	N	Silver	0.10	0.034	0.034 J		MG/KG	TR
SW6020/NONE	SO	068SB-0019M-0001-SO	240-22663-33	N	Antimony	0.20	0.20	0.20 UJ		MG/KG	m
SW6020/NONE	SO	068SB-0019M-0001-SO	240-22663-33	N	Beryllium	0.099	0.57	0.57 J		MG/KG	A
SW6020/NONE	SO	068SB-0019M-0001-SO	240-22663-33	N	Selenium	0.50	0.31	0.31 J		MG/KG	TR
SW6020/NONE	SO	068SB-0019M-0001-SO	240-22663-33	N	Silver	0.099	0.040	0.040 J		MG/KG	TR
SW6020/NONE	SO	068SB-0020M-0001-SO	240-22663-35	N	Antimony	0.20	0.20	0.20 UJ		MG/KG	m
SW6020/NONE	SO	068SB-0020M-0001-SO	240-22663-35	N	Beryllium	0.10	0.53	0.53 J		MG/KG	A
SW6020/NONE	SO	068SB-0020M-0001-SO	240-22663-35	N	Selenium	0.50	0.28	0.28 J		MG/KG	TR
SW6020/NONE	SO	068SB-0020M-0001-SO	240-22663-35	N	Silver	0.10	0.034	0.034 J		MG/KG	TR
SW6020/NONE	SO	068SB-0022M-0001-SO	240-22663-34	FD	Antimony	0.19	0.19	0.19 UJ		MG/KG	m
SW6020/NONE	SO	068SB-0022M-0001-SO	240-22663-34	FD	Beryllium	0.097	0.56	0.56 J		MG/KG	A
SW6020/NONE	SO	068SB-0022M-0001-SO	240-22663-34	FD	Selenium	0.49	0.28	0.28 J		MG/KG	TR
SW6020/NONE	SO	068SB-0022M-0001-SO	240-22663-34	FD	Silver	0.097	0.037	0.037 J		MG/KG	TR
SW6020/NONE	SO	068SB-0023M-0001-SO	240-22663-36	N	Antimony	0.20	0.20	0.20 UJ		MG/KG	m
SW6020/NONE	SO	068SB-0023M-0001-SO	240-22663-36	N	Beryllium	0.10	0.59	0.59 J		MG/KG	A
SW6020/NONE	SO	068SB-0023M-0001-SO	240-22663-36	N	Selenium	0.50	0.35	0.35 J		MG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
SW6020/NONE	SO	068SB-0023M-0001-SO	240-22663-36	N	Silver	0.10	0.036	0.036 J		MG/KG	TR
SW6020/NONE	SO	068SB-0024M-0001-SO	240-22663-37	N	Antimony	0.20	0.20	0.20 UJ		MG/KG	m
SW6020/NONE	SO	068SB-0024M-0001-SO	240-22663-37	N	Beryllium	0.10	0.58	0.58 J		MG/KG	A
SW6020/NONE	SO	068SB-0024M-0001-SO	240-22663-37	N	Selenium	0.50	0.33	0.33 J		MG/KG	TR
SW6020/NONE	SO	068SB-0024M-0001-SO	240-22663-37	N	Silver	0.10	0.040	0.040 J		MG/KG	TR
SW6020/NONE	SO	068SB-0025M-0001-SO	240-22663-38	N	Antimony	0.20	0.20	0.20 UJ		MG/KG	m
SW6020/NONE	SO	068SB-0025M-0001-SO	240-22663-38	N	Beryllium	0.10	0.42	0.42 J		MG/KG	A
SW6020/NONE	SO	068SB-0025M-0001-SO	240-22663-38	N	Selenium	0.50	0.30	0.30 J		MG/KG	TR
SW6020/NONE	SO	068SB-0025M-0001-SO	240-22663-38	N	Silver	0.10	0.041	0.041 J		MG/KG	TR
SW6020/NONE	SO	068SB-0027M-0001-SO	240-22663-40	N	Antimony	0.19	0.19	0.19 UJ		MG/KG	m
SW6020/NONE	SO	068SB-0027M-0001-SO	240-22663-40	N	Beryllium	0.097	0.64	0.64 J		MG/KG	A
SW6020/NONE	SO	068SB-0027M-0001-SO	240-22663-40	N	Selenium	0.49	0.35	0.35 J		MG/KG	TR
SW6020/NONE	SO	068SB-0027M-0001-SO	240-22663-40	N	Silver	0.097	0.036	0.036 J		MG/KG	TR
SW6020/NONE	SO	068SB-0028M-0001-SO	240-22663-41	N	Antimony	0.20	0.20	0.20 UJ		MG/KG	m
SW6020/NONE	SO	068SB-0028M-0001-SO	240-22663-41	N	Beryllium	0.098	0.38	0.38 J		MG/KG	A
SW6020/NONE	SO	068SB-0028M-0001-SO	240-22663-41	N	Selenium	0.49	0.32	0.32 J		MG/KG	TR
SW6020/NONE	SO	068SB-0028M-0001-SO	240-22663-41	N	Silver	0.098	0.035	0.035 J		MG/KG	TR
SW6020/NONE	SO	068SB-0030M-0001-SO	240-22663-43	N	Antimony	0.19	0.19	0.19 UJ		MG/KG	m
SW6020/NONE	SO	068SB-0030M-0001-SO	240-22663-43	N	Beryllium	0.095	0.49	0.49 J		MG/KG	A
SW6020/NONE	SO	068SB-0030M-0001-SO	240-22663-43	N	Selenium	0.48	0.30	0.30 J		MG/KG	TR
SW6020/NONE	SO	068SB-0030M-0001-SO	240-22663-43	N	Silver	0.095	0.041	0.041 J		MG/KG	TR
SW6020/NONE	SO	068SB-0031M-0001-SO	240-22663-44	N	Antimony	0.19	0.19	0.19 UJ		MG/KG	m
SW6020/NONE	SO	068SB-0031M-0001-SO	240-22663-44	N	Beryllium	0.096	0.46	0.46 J		MG/KG	A
SW6020/NONE	SO	068SB-0031M-0001-SO	240-22663-44	N	Selenium	0.48	0.37	0.37 J		MG/KG	TR
SW6020/NONE	SO	068SB-0031M-0001-SO	240-22663-44	N	Silver	0.096	0.038	0.038 J		MG/KG	TR
SW6020/NONE	SO	068SB-0032M-0001-SO	240-22663-39	N	Antimony	0.23	0.23	0.23 UJ		MG/KG	m
SW6020/NONE	SO	068SB-0032M-0001-SO	240-22663-39	N	Beryllium	0.11	0.41	0.41 J		MG/KG	A
SW6020/NONE	SO	068SB-0032M-0001-SO	240-22663-39	N	Selenium	0.57	0.25	0.25 J		MG/KG	TR
SW6020/NONE	SO	068SB-0032M-0001-SO	240-22663-39	N	Silver	0.11	0.029	0.029 J		MG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
SW6020/NONE	SO	073SB-0036M-0001-SO	240-22663-12	N	Antimony	0.17	0.044	0.044 J		MG/KG	TR/m
SW6020/NONE	SO	073SB-0036M-0001-SO	240-22663-12	N	Selenium	0.43	0.25	0.25 J		MG/KG	TR
SW6020/NONE	SO	073SB-0036M-0001-SO	240-22663-12	N	Silver	0.087	0.024	0.024 J		MG/KG	TR
SW6020/NONE	SO	073SB-0036M-0001-SO	240-22663-12	N	Zinc	0.43	56.0	56.0 J		MG/KG	A
SW6020/NONE	SO	073SB-0037M-0001-SO	240-22663-13	N	Antimony	0.16	0.044	0.044 J		MG/KG	TR/m
SW6020/NONE	SO	073SB-0037M-0001-SO	240-22663-13	N	Selenium	0.40	0.19	0.19 J		MG/KG	TR
SW6020/NONE	SO	073SB-0037M-0001-SO	240-22663-13	N	Silver	0.081	0.030	0.030 J		MG/KG	TR
SW6020/NONE	SO	073SB-0037M-0001-SO	240-22663-13	N	Zinc	0.40	54.0	54.0 J		MG/KG	A
SW6020/NONE	SO	073SB-0038M-0001-SO	240-22663-14	N	Antimony	0.19	0.067	0.067 J		MG/KG	TR/m
SW6020/NONE	SO	073SB-0038M-0001-SO	240-22663-14	N	Selenium	0.46	0.28	0.28 J		MG/KG	TR
SW6020/NONE	SO	073SB-0038M-0001-SO	240-22663-14	N	Silver	0.093	0.022	0.022 J		MG/KG	TR
SW6020/NONE	SO	073SB-0038M-0001-SO	240-22663-14	N	Zinc	0.46	64.0	64.0 J		MG/KG	A
SW6020/NONE	SO	073SB-0039M-0001-SO	240-22663-15	FD	Antimony	0.16	0.055	0.055 J		MG/KG	TR/m
SW6020/NONE	SO	073SB-0039M-0001-SO	240-22663-15	FD	Selenium	0.40	0.26	0.26 J		MG/KG	TR
SW6020/NONE	SO	073SB-0039M-0001-SO	240-22663-15	FD	Silver	0.081	0.021	0.021 J		MG/KG	TR
SW6020/NONE	SO	073SB-0039M-0001-SO	240-22663-15	FD	Zinc	0.40	62.0	62.0 J		MG/KG	A
SW6020/NONE	SO	073SB-0040M-0001-SO	240-22663-16	N	Antimony	0.20	0.047	0.047 J		MG/KG	TR/m/A
SW6020/NONE	SO	073SB-0040M-0001-SO	240-22663-16	N	Selenium	0.50	0.17	0.50 U	+	MG/KG	L
SW6020/NONE	SO	073SB-0040M-0001-SO	240-22663-16	N	Silver	0.099	0.017	0.017 J		MG/KG	TR
SW6020/NONE	SO	073SB-0041M-0001-SO	240-22663-17	N	Antimony	0.19	0.24	0.24 J		MG/KG	m/A
SW6020/NONE	SO	073SB-0041M-0001-SO	240-22663-17	N	Selenium	0.48	0.16	0.48 U	+	MG/KG	L
SW6020/NONE	SO	073SB-0041M-0001-SO	240-22663-17	N	Silver	0.096	0.029	0.029 J		MG/KG	TR
SW6020/NONE	SO	073SB-0042M-0001-SO	240-22663-18	N	Antimony	0.20	0.076	0.076 J		MG/KG	TR/m/A
SW6020/NONE	SO	073SB-0042M-0001-SO	240-22663-18	N	Selenium	0.50	0.21	0.50 U	+	MG/KG	L
SW6020/NONE	SO	073SB-0042M-0001-SO	240-22663-18	N	Silver	0.10	0.027	0.027 J		MG/KG	TR
SW6020/NONE	SO	073SB-0043M-0001-SO	240-22663-19	N	Antimony	0.19	0.074	0.074 J		MG/KG	TR/m/A
SW6020/NONE	SO	073SB-0043M-0001-SO	240-22663-19	N	Selenium	0.48	0.16	0.48 U	+	MG/KG	L
SW6020/NONE	SO	073SB-0043M-0001-SO	240-22663-19	N	Silver	0.096	0.023	0.023 J		MG/KG	TR
SW6020/NONE	SO	073SB-0044-0001-SO	240-22663-20	N	Antimony	0.22	0.089	0.089 J		MG/KG	TR/m/A

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
SW6020/NONE	SO	073SB-0044-0001-SO	240-22663-20	N	Selenium	0.54	0.17	0.54 U	+	MG/KG	L
SW6020/NONE	SO	073SB-0044-0001-SO	240-22663-20	N	Silver	0.11	0.028	0.028 J		MG/KG	TR
SW6020/NONE	SO	073SS-0035M-0001-SO	240-22663-11	N	Antimony	0.18	0.35	0.35 J		MG/KG	m
SW6020/NONE	SO	073SS-0035M-0001-SO	240-22663-11	N	Selenium	0.46	0.36	0.36 J		MG/KG	TR
SW6020/NONE	SO	073SS-0035M-0001-SO	240-22663-11	N	Silver	0.092	0.029	0.029 J		MG/KG	TR
SW6020/NONE	SO	073SS-0035M-0001-SO	240-22663-11	N	Zinc	0.46	54.0	54.0 J		MG/KG	A
SW6020/NONE	SO	079SB-0010M-0001-SO	240-22663-1	N	Antimony	0.17	0.17	0.17 UJ		MG/KG	m
SW6020/NONE	SO	079SB-0010M-0001-SO	240-22663-1	N	Cadmium	0.085	0.078	0.078 J		MG/KG	TR
SW6020/NONE	SO	079SB-0010M-0001-SO	240-22663-1	N	Selenium	0.43	0.24	0.24 J		MG/KG	TR
SW6020/NONE	SO	079SB-0010M-0001-SO	240-22663-1	N	Silver	0.085	0.026	0.026 J		MG/KG	TR
SW6020/NONE	SO	079SB-0010M-0001-SO	240-22663-1	N	Zinc	0.43	33.0	33.0 J		MG/KG	A
SW6020/NONE	SO	079SB-0011M-0001-SO	240-22663-2	FD	Antimony	0.19	0.19	0.19 UJ		MG/KG	m
SW6020/NONE	SO	079SB-0011M-0001-SO	240-22663-2	FD	Cadmium	0.094	0.073	0.073 J		MG/KG	TR
SW6020/NONE	SO	079SB-0011M-0001-SO	240-22663-2	FD	Selenium	0.47	0.25	0.25 J		MG/KG	TR
SW6020/NONE	SO	079SB-0011M-0001-SO	240-22663-2	FD	Silver	0.094	0.028	0.028 J		MG/KG	TR
SW6020/NONE	SO	079SB-0011M-0001-SO	240-22663-2	FD	Zinc	0.47	28.0	28.0 J		MG/KG	A
SW6020/NONE	SO	079SB-0013M-0001-SO	240-22663-3	N	Antimony	0.18	0.18	0.18 UJ		MG/KG	m
SW6020/NONE	SO	079SB-0013M-0001-SO	240-22663-3	N	Selenium	0.46	0.33	0.33 J		MG/KG	TR
SW6020/NONE	SO	079SB-0013M-0001-SO	240-22663-3	N	Silver	0.092	0.030	0.030 J		MG/KG	TR
SW6020/NONE	SO	079SB-0013M-0001-SO	240-22663-3	N	Zinc	0.46	59.0	59.0 J		MG/KG	A
SW6020/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Antimony	0.17	0.063	0.063 J		MG/KG	TR/m
SW6020/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Selenium	0.43	0.29	0.29 J		MG/KG	TR
SW6020/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Silver	0.086	0.029	0.029 J		MG/KG	TR
SW6020/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Zinc	0.43	76.0	76.0 J		MG/KG	A
SW6020/NONE	SO	079SB-0015M-0001-SO	240-22663-5	N	Antimony	0.18	0.18	0.18 UJ		MG/KG	m
SW6020/NONE	SO	079SB-0015M-0001-SO	240-22663-5	N	Selenium	0.45	0.28	0.28 J		MG/KG	TR
SW6020/NONE	SO	079SB-0015M-0001-SO	240-22663-5	N	Silver	0.090	0.030	0.030 J		MG/KG	TR
SW6020/NONE	SO	079SB-0015M-0001-SO	240-22663-5	N	Zinc	0.45	74.0	74.0 J		MG/KG	A
SW6020/NONE	SO	079SB-0016M-0001-SO	240-22663-6	N	Antimony	0.17	0.17	0.17 UJ		MG/KG	m

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
SW6020/NONE	SO	079SB-0016M-0001-SO	240-22663-6	N	Selenium	0.42	0.25	0.25 J		MG/KG	TR
SW6020/NONE	SO	079SB-0016M-0001-SO	240-22663-6	N	Silver	0.084	0.027	0.027 J		MG/KG	TR
SW6020/NONE	SO	079SB-0016M-0001-SO	240-22663-6	N	Zinc	0.42	51.0	51.0 J		MG/KG	A
SW6020/NONE	SO	079SB-0017M-0001-SO	240-22663-7	N	Antimony	0.20	0.20	0.20 UJ		MG/KG	m
SW6020/NONE	SO	079SB-0017M-0001-SO	240-22663-7	N	Calcium	9.9	1400	1400 J		MG/KG	d
SW6020/NONE	SO	079SB-0017M-0001-SO	240-22663-7	N	Selenium	0.50	0.27	0.27 J		MG/KG	TR
SW6020/NONE	SO	079SB-0017M-0001-SO	240-22663-7	N	Silver	0.099	0.029	0.029 J		MG/KG	TR
SW6020/NONE	SO	079SB-0017M-0001-SO	240-22663-7	N	Zinc	0.50	60.0	60.0 J		MG/KG	A
SW6020/NONE	SO	079SB-0019M-0001-SO	240-22663-9	N	Antimony	0.19	0.19	0.19 UJ		MG/KG	m
SW6020/NONE	SO	079SB-0019M-0001-SO	240-22663-9	N	Selenium	0.47	0.33	0.33 J		MG/KG	TR
SW6020/NONE	SO	079SB-0019M-0001-SO	240-22663-9	N	Silver	0.093	0.034	0.034 J		MG/KG	TR
SW6020/NONE	SO	079SB-0019M-0001-SO	240-22663-9	N	Zinc	0.47	45.0	45.0 J		MG/KG	A
SW6020/NONE	SO	079SB-0020M-0001-SO	240-22663-8	FD	Antimony	0.19	0.19	0.19 UJ		MG/KG	m
SW6020/NONE	SO	079SB-0020M-0001-SO	240-22663-8	FD	Calcium	9.3	780	780 J		MG/KG	d
SW6020/NONE	SO	079SB-0020M-0001-SO	240-22663-8	FD	Selenium	0.46	0.35	0.35 J		MG/KG	TR
SW6020/NONE	SO	079SB-0020M-0001-SO	240-22663-8	FD	Silver	0.093	0.029	0.029 J		MG/KG	TR
SW6020/NONE	SO	079SB-0020M-0001-SO	240-22663-8	FD	Zinc	0.46	62.0	62.0 J		MG/KG	A
SW6020/NONE	SO	079SB-0021M-0001-SO	240-22663-21	N	Antimony	0.20	0.20	0.20 UJ		MG/KG	m/A
SW6020/NONE	SO	079SB-0021M-0001-SO	240-22663-21	N	Selenium	0.49	0.28	0.49 U	+	MG/KG	L
SW6020/NONE	SO	079SB-0021M-0001-SO	240-22663-21	N	Silver	0.098	0.035	0.035 J		MG/KG	TR
SW6020/NONE	SO	079SB-0022M-0001-SO	240-22663-22	N	Antimony	0.20	0.20	0.20 UJ		MG/KG	m/A
SW6020/NONE	SO	079SB-0022M-0001-SO	240-22663-22	N	Selenium	0.49	0.30	0.49 U	+	MG/KG	L
SW6020/NONE	SO	079SB-0022M-0001-SO	240-22663-22	N	Silver	0.098	0.026	0.026 J		MG/KG	TR
SW6020/NONE	SO	079SB-0023M-0001-SO	240-22663-23	FD	Antimony	0.20	0.20	0.20 UJ		MG/KG	m/A
SW6020/NONE	SO	079SB-0023M-0001-SO	240-22663-23	FD	Selenium	0.50	0.27	0.50 U	+	MG/KG	L
SW6020/NONE	SO	079SB-0023M-0001-SO	240-22663-23	FD	Silver	0.10	0.025	0.025 J		MG/KG	TR
SW6020/NONE	SO	079SB-0024M-0001-SO	240-22663-24	N	Antimony	0.19	0.19	0.19 UJ		MG/KG	m
SW6020/NONE	SO	079SB-0024M-0001-SO	240-22663-24	N	Beryllium	0.097	0.55	0.55 J		MG/KG	A
SW6020/NONE	SO	079SB-0024M-0001-SO	240-22663-24	N	Selenium	0.49	0.35	0.35 J		MG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
SW6020/NONE	SO	079SB-0024M-0001-SO	240-22663-24	N	Silver	0.097	0.030	0.030 J		MG/KG	TR
SW6020/NONE	SO	079SB-0025M-0001-SO	240-22663-25	N	Antimony	0.19	0.19	0.19 UJ		MG/KG	m/A
SW6020/NONE	SO	079SB-0025M-0001-SO	240-22663-25	N	Selenium	0.48	0.27	0.48 U	+	MG/KG	L
SW6020/NONE	SO	079SB-0025M-0001-SO	240-22663-25	N	Silver	0.096	0.028	0.028 J		MG/KG	TR
SW6020/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Antimony	0.19	0.19	0.19 UJ		MG/KG	m/A
SW6020/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Selenium	0.48	0.27	0.48 U	+	MG/KG	L
SW6020/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Silver	0.096	0.023	0.023 J		MG/KG	TR
SW6020/NONE	SO	079SB-0027M-0001-SO	240-22663-27	N	Antimony	0.19	0.19	0.19 UJ		MG/KG	m/A
SW6020/NONE	SO	079SB-0027M-0001-SO	240-22663-27	N	Selenium	0.49	0.32	0.49 U	+	MG/KG	L
SW6020/NONE	SO	079SB-0027M-0001-SO	240-22663-27	N	Silver	0.097	0.035	0.035 J		MG/KG	TR
SW6020/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Antimony	0.19	0.19	0.19 UJ		MG/KG	m/A
SW6020/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Selenium	0.48	0.34	0.48 U	+	MG/KG	L
SW6020/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Silver	0.095	0.026	0.026 J		MG/KG	TR
SW6020/NONE	SO	079SB-0029M-0001-SO	240-22663-29	N	Antimony	0.20	0.26	0.26 J		MG/KG	m
SW6020/NONE	SO	079SB-0029M-0001-SO	240-22663-29	N	Beryllium	0.10	0.13	0.13 J		MG/KG	A
SW6020/NONE	SO	079SB-0029M-0001-SO	240-22663-29	N	Selenium	0.51	0.17	0.17 J		MG/KG	TR
SW6020/NONE	SO	079SB-0029M-0001-SO	240-22663-29	N	Silver	0.10	0.031	0.031 J		MG/KG	TR
SW6020/NONE	SO	079SB-0029M-0001-SO	240-22663-29	N	Thallium	0.10	0.091	0.091 J		MG/KG	TR
Test Leach	**Matrix**	**FieldSample ID**	**LabSample ID**	**Type**	**Analyte**	**RL**	**Lab Result**	**Qualified Result**	**Bias**	**Units**	**Reason**
SW7471A/NONE	SO	068SB-0017M-0001-SO	240-22663-31	N	Mercury	0.11	0.041	0.041 J		MG/KG	TR
SW7471A/NONE	SO	068SB-0019M-0001-SO	240-22663-33	N	Mercury	0.10	0.021	0.021 J		MG/KG	TR
SW7471A/NONE	SO	068SB-0022M-0001-SO	240-22663-34	FD	Mercury	0.10	0.019	0.019 J		MG/KG	TR
SW7471A/NONE	SO	068SB-0023M-0001-SO	240-22663-36	N	Mercury	0.11	0.040	0.040 J		MG/KG	TR
SW7471A/NONE	SO	068SB-0024M-0001-SO	240-22663-37	N	Mercury	0.10	0.025	0.025 J		MG/KG	TR
SW7471A/NONE	SO	068SB-0025M-0001-SO	240-22663-38	N	Mercury	0.11	0.050	0.050 J		MG/KG	TR
SW7471A/NONE	SO	073SB-0038M-0001-SO	240-22663-14	N	Mercury	0.11	0.018	0.018 J		MG/KG	TR
SW7471A/NONE	SO	073SB-0039M-0001-SO	240-22663-15	FD	Mercury	0.098	0.020	0.020 J		MG/KG	TR
SW7471A/NONE	SO	073SB-0041M-0001-SO	240-22663-17	N	Mercury	0.11	0.016	0.016 J		MG/KG	TR
SW7471A/NONE	SO	073SB-0043M-0001-SO	240-22663-19	N	Mercury	0.11	0.015	0.015 J		MG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
SW7471A/NONE	SO	073SB-0044-0001-SO	240-22663-20	N	Mercury	0.12	0.027	0.027 J		MG/KG	TR
SW7471A/NONE	SO	073SS-0035M-0001-SO	240-22663-11	N	Mercury	0.11	0.027	0.027 J		MG/KG	TR
SW7471A/NONE	SO	079SB-0010M-0001-SO	240-22663-1	N	Mercury	0.091	0.019	0.019 J		MG/KG	TR
SW7471A/NONE	SO	079SB-0011M-0001-SO	240-22663-2	FD	Mercury	0.095	0.022	0.022 J		MG/KG	TR
SW7471A/NONE	SO	079SB-0013M-0001-SO	240-22663-3	N	Mercury	0.095	0.014	0.014 J		MG/KG	TR
SW7471A/NONE	SO	079SB-0015M-0001-SO	240-22663-5	N	Mercury	0.10	0.016	0.016 J		MG/KG	TR
SW7471A/NONE	SO	079SB-0016M-0001-SO	240-22663-6	N	Mercury	0.098	0.015	0.015 J		MG/KG	TR
SW7471A/NONE	SO	079SB-0017M-0001-SO	240-22663-7	N	Mercury	0.087	0.014	0.014 J		MG/KG	TR
SW7471A/NONE	SO	079SB-0019M-0001-SO	240-22663-9	N	Mercury	0.11	0.021	0.021 J		MG/KG	TR
SW7471A/NONE	SO	079SB-0020M-0001-SO	240-22663-8	FD	Mercury	0.11	0.024	0.024 J		MG/KG	TR
SW7471A/NONE	SO	079SB-0021M-0001-SO	240-22663-21	N	Mercury	0.11	0.029	0.029 J		MG/KG	TR
SW7471A/NONE	SO	079SB-0022M-0001-SO	240-22663-22	N	Mercury	0.095	0.018	0.018 J		MG/KG	TR
SW7471A/NONE	SO	079SB-0023M-0001-SO	240-22663-23	FD	Mercury	0.087	0.018	0.018 J		MG/KG	TR
SW7471A/NONE	SO	079SB-0024M-0001-SO	240-22663-24	N	Mercury	0.10	0.025	0.025 J		MG/KG	TR
SW7471A/NONE	SO	079SB-0025M-0001-SO	240-22663-25	N	Mercury	0.10	0.022	0.022 J		MG/KG	TR
SW7471A/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Mercury	0.090	0.018	0.018 J		MG/KG	TR
SW7471A/NONE	SO	079SB-0027M-0001-SO	240-22663-27	N	Mercury	0.092	0.025	0.025 J		MG/KG	TR
SW7471A/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Mercury	0.097	0.026	0.026 J		MG/KG	TR
Test Leach	**Matrix**	**FieldSample ID**	**LabSample ID**	**Type**	**Analyte**	**RL**	**Lab Result**	**Qualified Result**	**Bias**	**Units**	**Reason**
SW8081/NONE	SO	070SB-0046M-0001-SB	240-22663-10	N	Aldrin	40.0	40.0	40.0 UJ		UG/KG	h/V2
SW8081/NONE	SO	070SB-0046M-0001-SB	240-22663-10	N	alpha-BHC (alpha-Hexachlorocyclohexane)	25.0	25.0	25.0 UJ		UG/KG	h
SW8081/NONE	SO	070SB-0046M-0001-SB	240-22663-10	N	alpha-Chlordane	30.0	30.0	30.0 UJ		UG/KG	h/V2
SW8081/NONE	SO	070SB-0046M-0001-SB	240-22663-10	N	alpha-Endosulfan	17.0	17.0	17.0 UJ		UG/KG	h
SW8081/NONE	SO	070SB-0046M-0001-SB	240-22663-10	N	beta-BHC (beta-Hexachlorocyclohexane)	35.0	35.0	35.0 UJ		UG/KG	h
SW8081/NONE	SO	070SB-0046M-0001-SB	240-22663-10	N	beta-Endosulfan	25.0	25.0	25.0 UJ		UG/KG	h
SW8081/NONE	SO	070SB-0046M-0001-SB	240-22663-10	N	delta-BHC (delta-Hexachlorocyclohexane)	40.0	40.0	40.0 UJ		UG/KG	h
SW8081/NONE	SO	070SB-0046M-0001-SB	240-22663-10	N	Dieldrin	17.0	17.0	17.0 UJ		UG/KG	h/V2
SW8081/NONE	SO	070SB-0046M-0001-SB	240-22663-10	N	Endosulfan Sulfate	30.0	30.0	30.0 UJ		UG/KG	h
SW8081/NONE	SO	070SB-0046M-0001-SB	240-22663-10	N	Endrin	17.0	17.0	17.0 UJ		UG/KG	h/V2

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
SW8081/NONE	SO	070SB-0046M-0001-SB	240-22663-10	N	Endrin Aldehyde	30.0	30.0	30.0 UJ		UG/KG	h/V2
SW8081/NONE	SO	070SB-0046M-0001-SB	240-22663-10	N	Endrin Ketone	20.0	20.0	20.0 UJ		UG/KG	h/V2
SW8081/NONE	SO	070SB-0046M-0001-SB	240-22663-10	N	gamma-BHC (Lindane)	25.0	25.0	25.0 UJ		UG/KG	h
SW8081/NONE	SO	070SB-0046M-0001-SB	240-22663-10	N	gamma-Chlordane	17.0	17.0	17.0 UJ		UG/KG	h/V2
SW8081/NONE	SO	070SB-0046M-0001-SB	240-22663-10	N	Heptachlor	35.0	35.0	35.0 UJ		UG/KG	h
SW8081/NONE	SO	070SB-0046M-0001-SB	240-22663-10	N	Heptachlor Epoxide	25.0	25.0	25.0 UJ		UG/KG	h
SW8081/NONE	SO	070SB-0046M-0001-SB	240-22663-10	N	Methoxychlor	49.0	49.0	49.0 UJ		UG/KG	h/V2
SW8081/NONE	SO	070SB-0046M-0001-SB	240-22663-10	N	p,p'-DDD	20.0	20.0	20.0 UJ		UG/KG	h/V2
SW8081/NONE	SO	070SB-0046M-0001-SB	240-22663-10	N	p,p'-DDE	17.0	17.0	17.0 UJ		UG/KG	h/V2
SW8081/NONE	SO	070SB-0046M-0001-SB	240-22663-10	N	p,p'-DDT	20.0	20.0	20.0 UJ		UG/KG	h/V2
SW8081/NONE	SO	070SB-0046M-0001-SB	240-22663-10	N	Toxaphene	660	660	660 UJ		UG/KG	h/V1
SW8081/NONE	SO	073SB-0041M-0001-SO	240-22663-17	N	Aldrin	4.0	4.0	4.0 UJ		UG/KG	h/V2
SW8081/NONE	SO	073SB-0041M-0001-SO	240-22663-17	N	alpha-BHC (alpha-Hexachlorocyclohexane)	2.5	1.2	1.2 J		UG/KG	TR/h/P1
SW8081/NONE	SO	073SB-0041M-0001-SO	240-22663-17	N	alpha-Chlordane	3.0	3.0	3.0 UJ		UG/KG	h/V2
SW8081/NONE	SO	073SB-0041M-0001-SO	240-22663-17	N	alpha-Endosulfan	1.7	1.7	1.7 UJ		UG/KG	h
SW8081/NONE	SO	073SB-0041M-0001-SO	240-22663-17	N	beta-BHC (beta-Hexachlorocyclohexane)	3.5	3.5	3.5 UJ		UG/KG	h
SW8081/NONE	SO	073SB-0041M-0001-SO	240-22663-17	N	beta-Endosulfan	2.5	2.5	2.5 UJ		UG/KG	h
SW8081/NONE	SO	073SB-0041M-0001-SO	240-22663-17	N	delta-BHC (delta-Hexachlorocyclohexane)	4.0	4.0	4.0 UJ		UG/KG	h
SW8081/NONE	SO	073SB-0041M-0001-SO	240-22663-17	N	Dieldrin	1.7	1.7	1.7 UJ		UG/KG	h/V2
SW8081/NONE	SO	073SB-0041M-0001-SO	240-22663-17	N	Endosulfan Sulfate	3.0	3.0	3.0 UJ		UG/KG	h
SW8081/NONE	SO	073SB-0041M-0001-SO	240-22663-17	N	Endrin	1.7	1.7	1.7 UJ		UG/KG	h/V2
SW8081/NONE	SO	073SB-0041M-0001-SO	240-22663-17	N	Endrin Aldehyde	3.0	3.0	3.0 UJ		UG/KG	h/V2
SW8081/NONE	SO	073SB-0041M-0001-SO	240-22663-17	N	Endrin Ketone	2.0	2.0	2.0 UJ		UG/KG	h/V2
SW8081/NONE	SO	073SB-0041M-0001-SO	240-22663-17	N	gamma-BHC (Lindane)	2.5	2.5	2.5 UJ		UG/KG	h
SW8081/NONE	SO	073SB-0041M-0001-SO	240-22663-17	N	gamma-Chlordane	1.7	1.7	1.7 UJ		UG/KG	h/V2
SW8081/NONE	SO	073SB-0041M-0001-SO	240-22663-17	N	Heptachlor	3.5	3.5	3.5 UJ		UG/KG	h
SW8081/NONE	SO	073SB-0041M-0001-SO	240-22663-17	N	Heptachlor Epoxide	2.5	2.5	2.5 UJ		UG/KG	h
SW8081/NONE	SO	073SB-0041M-0001-SO	240-22663-17	N	Methoxychlor	5.0	5.0	5.0 UJ		UG/KG	h/V2
SW8081/NONE	SO	073SB-0041M-0001-SO	240-22663-17	N	p,p'-DDD	2.0	2.0	2.0 UJ		UG/KG	h/V2

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
SW8081/NONE	SO	073SB-0041M-0001-SO	240-22663-17	N	p,p'-DDE	1.7	0.66	0.66 J		UG/KG	TR/h/V2
SW8081/NONE	SO	073SB-0041M-0001-SO	240-22663-17	N	p,p'-DDT	2.0	2.0	2.0 UJ		UG/KG	h/V2
SW8081/NONE	SO	073SB-0041M-0001-SO	240-22663-17	N	Toxaphene	67.0	67.0	67.0 UJ		UG/KG	h/V1
SW8081/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Aldrin	3.9	3.9	3.9 UJ		UG/KG	h/V2
SW8081/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	alpha-BHC (alpha-Hexachlorocyclohexane)	2.5	2.5	2.5 UJ		UG/KG	h
SW8081/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	alpha-Chlordane	3.0	3.0	3.0 UJ		UG/KG	h/V2
SW8081/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	alpha-Endosulfan	1.7	1.7	1.7 UJ		UG/KG	h
SW8081/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	beta-BHC (beta-Hexachlorocyclohexane)	3.5	3.5	3.5 UJ		UG/KG	h
SW8081/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	beta-Endosulfan	2.5	2.5	2.5 UJ		UG/KG	h
SW8081/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	delta-BHC (delta-Hexachlorocyclohexane)	3.9	3.9	3.9 UJ		UG/KG	h
SW8081/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Dieldrin	1.7	1.7	1.7 UJ		UG/KG	h/V2
SW8081/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Endosulfan Sulfate	3.0	3.0	3.0 UJ		UG/KG	h
SW8081/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Endrin	1.7	1.7	1.7 UJ		UG/KG	h/V2
SW8081/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Endrin Aldehyde	3.0	3.0	3.0 UJ		UG/KG	h/V2
SW8081/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Endrin Ketone	2.0	2.0	2.0 UJ		UG/KG	h/V2
SW8081/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	gamma-BHC (Lindane)	2.5	2.5	2.5 UJ		UG/KG	h
SW8081/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	gamma-Chlordane	1.7	1.7	1.7 UJ		UG/KG	h/V2
SW8081/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Heptachlor	3.5	3.5	3.5 UJ		UG/KG	h
SW8081/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Heptachlor Epoxide	2.5	2.5	2.5 UJ		UG/KG	h
SW8081/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Methoxychlor	4.9	4.9	4.9 UJ		UG/KG	h/V2
SW8081/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	p,p'-DDD	2.0	2.0	2.0 UJ		UG/KG	h/V2
SW8081/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	p,p'-DDE	1.7	1.7	1.7 UJ		UG/KG	h/V2
SW8081/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	p,p'-DDT	2.0	2.0	2.0 UJ		UG/KG	h/V2
SW8081/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Toxaphene	66.0	66.0	66.0 UJ		UG/KG	h/V1
SW8081/NONE	SO	079SB-0017M-0001-SO	240-22663-7	N	Aldrin	4.0	4.0	4.0 UJ		UG/KG	h/V2
SW8081/NONE	SO	079SB-0017M-0001-SO	240-22663-7	N	alpha-BHC (alpha-Hexachlorocyclohexane)	2.5	2.5	2.5 UJ		UG/KG	h
SW8081/NONE	SO	079SB-0017M-0001-SO	240-22663-7	N	alpha-Chlordane	3.0	3.0	3.0 UJ		UG/KG	h/V2
SW8081/NONE	SO	079SB-0017M-0001-SO	240-22663-7	N	alpha-Endosulfan	1.7	1.7	1.7 UJ		UG/KG	h
SW8081/NONE	SO	079SB-0017M-0001-SO	240-22663-7	N	beta-BHC (beta-Hexachlorocyclohexane)	3.5	3.5	3.5 UJ		UG/KG	h

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
SW8081/NONE	SO	079SB-0017M-0001-SO	240-22663-7	N	beta-Endosulfan	2.5	2.5	2.5 UJ		UG/KG	h
SW8081/NONE	SO	079SB-0017M-0001-SO	240-22663-7	N	delta-BHC (delta-Hexachlorocyclohexane)	4.0	4.0	4.0 UJ		UG/KG	h
SW8081/NONE	SO	079SB-0017M-0001-SO	240-22663-7	N	Dieldrin	1.7	1.7	1.7 UJ		UG/KG	h/V2
SW8081/NONE	SO	079SB-0017M-0001-SO	240-22663-7	N	Endosulfan Sulfate	3.0	3.0	3.0 UJ		UG/KG	h
SW8081/NONE	SO	079SB-0017M-0001-SO	240-22663-7	N	Endrin	1.7	1.7	1.7 UJ		UG/KG	h/V2
SW8081/NONE	SO	079SB-0017M-0001-SO	240-22663-7	N	Endrin Aldehyde	3.0	3.0	3.0 UJ		UG/KG	h/V2
SW8081/NONE	SO	079SB-0017M-0001-SO	240-22663-7	N	Endrin Ketone	2.0	2.0	2.0 UJ		UG/KG	h/V2
SW8081/NONE	SO	079SB-0017M-0001-SO	240-22663-7	N	gamma-BHC (Lindane)	2.5	2.5	2.5 UJ		UG/KG	h
SW8081/NONE	SO	079SB-0017M-0001-SO	240-22663-7	N	gamma-Chlordane	1.7	1.7	1.7 UJ		UG/KG	h/V2
SW8081/NONE	SO	079SB-0017M-0001-SO	240-22663-7	N	Heptachlor	3.5	3.5	3.5 UJ		UG/KG	h
SW8081/NONE	SO	079SB-0017M-0001-SO	240-22663-7	N	Heptachlor Epoxide	2.5	2.5	2.5 UJ		UG/KG	h
SW8081/NONE	SO	079SB-0017M-0001-SO	240-22663-7	N	Methoxychlor	5.0	5.0	5.0 UJ		UG/KG	h/V2
SW8081/NONE	SO	079SB-0017M-0001-SO	240-22663-7	N	p,p'-DDD	2.0	2.0	2.0 UJ		UG/KG	h/V2
SW8081/NONE	SO	079SB-0017M-0001-SO	240-22663-7	N	p,p'-DDE	1.7	1.7	1.7 UJ		UG/KG	h/V2
SW8081/NONE	SO	079SB-0017M-0001-SO	240-22663-7	N	p,p'-DDT	2.0	2.0	2.0 UJ		UG/KG	h/V2
SW8081/NONE	SO	079SB-0017M-0001-SO	240-22663-7	N	Toxaphene	67.0	67.0	67.0 UJ		UG/KG	h/V1
SW8081/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Aldrin	3.9	3.9	3.9 UJ		UG/KG	h/V2
SW8081/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	alpha-BHC (alpha-Hexachlorocyclohexane)	2.5	2.5	2.5 UJ		UG/KG	h
SW8081/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	alpha-Chlordane	3.0	3.0	3.0 UJ		UG/KG	h/V2
SW8081/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	alpha-Endosulfan	1.7	1.7	1.7 UJ		UG/KG	h
SW8081/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	beta-BHC (beta-Hexachlorocyclohexane)	3.5	3.5	3.5 UJ		UG/KG	h
SW8081/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	beta-Endosulfan	2.5	2.5	2.5 UJ		UG/KG	h
SW8081/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	delta-BHC (delta-Hexachlorocyclohexane)	3.9	3.9	3.9 UJ		UG/KG	h
SW8081/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Dieldrin	1.7	1.7	1.7 UJ		UG/KG	h/V2
SW8081/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Endosulfan Sulfate	3.0	3.0	3.0 UJ		UG/KG	h
SW8081/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Endrin	1.7	1.7	1.7 UJ		UG/KG	h/V2
SW8081/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Endrin Aldehyde	3.0	3.0	3.0 UJ		UG/KG	h/V2
SW8081/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Endrin Ketone	2.0	2.0	2.0 UJ		UG/KG	h/V2
SW8081/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	gamma-BHC (Lindane)	2.5	2.5	2.5 UJ		UG/KG	h

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
SW8081/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	gamma-Chlordane	1.7	1.7	1.7 UJ		UG/KG	h/V2
SW8081/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Heptachlor	3.5	3.5	3.5 UJ		UG/KG	h
SW8081/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Heptachlor Epoxide	2.5	2.5	2.5 UJ		UG/KG	h
SW8081/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Methoxychlor	4.9	4.9	4.9 UJ		UG/KG	h/V2
SW8081/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	p,p'-DDD	2.0	2.0	2.0 UJ		UG/KG	h/V2
SW8081/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	p,p'-DDE	1.7	1.7	1.7 UJ		UG/KG	h/V2
SW8081/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	p,p'-DDT	2.0	2.0	2.0 UJ		UG/KG	h/V2
SW8081/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Toxaphene	66.0	66.0	66.0 UJ		UG/KG	h/V1
SW8081/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Aldrin	4.0	4.0	4.0 UJ		UG/KG	h/V2
SW8081/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	alpha-BHC (alpha-Hexachlorocyclohexane)	2.5	2.5	2.5 UJ		UG/KG	h
SW8081/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	alpha-Chlordane	3.0	3.0	3.0 UJ		UG/KG	h/V2
SW8081/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	alpha-Endosulfan	1.7	1.7	1.7 UJ		UG/KG	h
SW8081/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	beta-BHC (beta-Hexachlorocyclohexane)	3.5	3.5	3.5 UJ		UG/KG	h
SW8081/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	beta-Endosulfan	2.5	2.5	2.5 UJ		UG/KG	h
SW8081/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	delta-BHC (delta-Hexachlorocyclohexane)	4.0	4.0	4.0 UJ		UG/KG	h
SW8081/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Dieldrin	1.7	1.7	1.7 UJ		UG/KG	h/V2
SW8081/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Endosulfan Sulfate	3.0	3.0	3.0 UJ		UG/KG	h
SW8081/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Endrin	1.7	1.7	1.7 UJ		UG/KG	h/V2
SW8081/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Endrin Aldehyde	3.0	3.0	3.0 UJ		UG/KG	h/V2
SW8081/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Endrin Ketone	2.0	2.0	2.0 UJ		UG/KG	h/V2
SW8081/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	gamma-BHC (Lindane)	2.5	2.5	2.5 UJ		UG/KG	h
SW8081/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	gamma-Chlordane	1.7	1.7	1.7 UJ		UG/KG	h/V2
SW8081/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Heptachlor	3.5	3.5	3.5 UJ		UG/KG	h
SW8081/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Heptachlor Epoxide	2.5	2.5	2.5 UJ		UG/KG	h
SW8081/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Methoxychlor	4.9	4.9	4.9 UJ		UG/KG	h/V2
SW8081/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	p,p'-DDD	2.0	2.0	2.0 UJ		UG/KG	h/V2
SW8081/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	p,p'-DDE	1.7	1.7	1.7 UJ		UG/KG	h/V2
SW8081/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	p,p'-DDT	2.0	2.0	2.0 UJ		UG/KG	h/V2
SW8081/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Toxaphene	66.0	66.0	66.0 UJ		UG/KG	h/V1

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
SW8082/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	PCB-1016 (Arochlor 1016)	65.0	65.0	65.0 UJ		UG/KG	h
SW8082/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	PCB-1221 (Arochlor 1221)	50.0	50.0	50.0 UJ		UG/KG	h
SW8082/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	PCB-1232 (Arochlor 1232)	45.0	45.0	45.0 UJ		UG/KG	h
SW8082/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	PCB-1242 (Arochlor 1242)	40.0	40.0	40.0 UJ		UG/KG	h
SW8082/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	PCB-1248 (Arochlor 1248)	55.0	55.0	55.0 UJ		UG/KG	h
SW8082/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	PCB-1254 (Arochlor 1254)	55.0	55.0	55.0 UJ		UG/KG	h
SW8082/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	PCB-1260 (Arochlor 1260)	55.0	55.0	55.0 UJ		UG/KG	h
SW8082/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	PCB-1016 (Arochlor 1016)	65.0	65.0	65.0 UJ		UG/KG	h
SW8082/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	PCB-1221 (Arochlor 1221)	50.0	50.0	50.0 UJ		UG/KG	h
SW8082/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	PCB-1232 (Arochlor 1232)	45.0	45.0	45.0 UJ		UG/KG	h
SW8082/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	PCB-1242 (Arochlor 1242)	40.0	40.0	40.0 UJ		UG/KG	h
SW8082/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	PCB-1248 (Arochlor 1248)	55.0	55.0	55.0 UJ		UG/KG	h
SW8082/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	PCB-1254 (Arochlor 1254)	55.0	55.0	55.0 UJ		UG/KG	h
SW8082/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	PCB-1260 (Arochlor 1260)	55.0	55.0	55.0 UJ		UG/KG	h
Test Leach	**Matrix**	**FieldSample ID**	**LabSample ID**	**Type**	**Analyte**	**RL**	**Lab Result**	**Qualified Result**	**Bias**	**Units**	**Reason**
SW8260B/NONE	WG	068SB-0026-0001-TB	240-22663-30	N	Acetone	10.0	6.2	6.2 J		UG/L	TR/J
SW8260B/NONE	SO	073SB-0041M-0001-SO	240-22663-17	N	Acetone	17.0	17.0	17.0 U	+	UG/KG	T
SW8260B/NONE	SO	073SB-0041M-0001-SO	240-22663-17	N	Methylene Chloride	4.1	1.5	4.1 U	+	UG/KG	L
SW8260B/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	1,1,1-Trichloroethane	5.5	5.5	5.5 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	1,1,2,2-Tetrachloroethane	5.5	5.5	5.5 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	1,1,2-Trichloroethane	5.5	5.5	5.5 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	1,1-Dichloroethane	5.5	5.5	5.5 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	1,1-Dichloroethene	5.5	5.5	5.5 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	1,2-Dibromoethane (EDB)	5.5	5.5	5.5 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	1,2-Dichloroethane	5.5	5.5	5.5 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	1,2-Dichloroethene	11.0	11.0	11.0 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	1,2-Dichloropropane	5.5	5.5	5.5 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	2-Butanone (MEK)	22.0	22.0	22.0 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	2-Hexanone	22.0	22.0	22.0 UJ	-	UG/KG	I

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
SW8260B/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	4-Methyl-2-pentanone (MIBK)	22.0	22.0	22.0 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Acetone	22.0	15.0	22.0 UJ		UG/KG	I/T
SW8260B/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Benzene	5.5	5.5	5.5 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Bromochloromethane	5.5	5.5	5.5 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Bromodichloromethane	5.5	5.5	5.5 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Bromoform	5.5	5.5	5.5 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Bromomethane	5.5	5.5	5.5 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Carbon Disulfide	5.5	5.5	5.5 UJ		UG/KG	I
SW8260B/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Carbon Tetrachloride	5.5	5.5	5.5 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Chlorobenzene	5.5	5.5	5.5 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Chloroethane	5.5	5.5	5.5 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Chloroform	5.5	5.5	5.5 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Chloromethane	5.5	5.5	5.5 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	cis-1,3-Dichloropropene	5.5	5.5	5.5 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Dibromochloromethane	5.5	5.5	5.5 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Ethylbenzene	5.5	5.5	5.5 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Methylene Chloride	5.5	3.3	5.5 UJ		UG/KG	L/I
SW8260B/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Styrene	5.5	5.5	5.5 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Tetrachloroethene (PCE)	5.5	5.5	5.5 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Toluene	5.5	5.5	5.5 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	trans-1,3-Dichloropropene	5.5	5.5	5.5 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Trichloroethene (TCE)	5.5	5.5	5.5 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Vinyl Chloride	5.5	5.5	5.5 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Xylenes, Total	11.0	11.0	11.0 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0017M-0001-SO	240-22663-7	N	Acetone	20.0	20.0	20.0 U	+	UG/KG	T
SW8260B/NONE	SO	079SB-0017M-0001-SO	240-22663-7	N	Methylene Chloride	4.9	2.2	4.9 U	+	UG/KG	L
SW8260B/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	1,1,1-Trichloroethane	5.6	5.6	5.6 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	1,1,2,2-Tetrachloroethane	5.6	5.6	5.6 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	1,1,2-Trichloroethane	5.6	5.6	5.6 UJ	-	UG/KG	I

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
SW8260B/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	1,1-Dichloroethane	5.6	5.6	5.6 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	1,1-Dichloroethene	5.6	5.6	5.6 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	1,2-Dibromoethane (EDB)	5.6	5.6	5.6 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	1,2-Dichloroethane	5.6	5.6	5.6 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	1,2-Dichloroethene	11.0	11.0	11.0 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	1,2-Dichloropropane	5.6	5.6	5.6 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	2-Butanone (MEK)	22.0	22.0	22.0 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	2-Hexanone	22.0	22.0	22.0 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	4-Methyl-2-pentanone (MIBK)	22.0	22.0	22.0 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Acetone	22.0	22.0	22.0 UJ		UG/KG	I/T
SW8260B/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Benzene	5.6	5.6	5.6 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Bromochloromethane	5.6	5.6	5.6 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Bromodichloromethane	5.6	5.6	5.6 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Bromoform	5.6	5.6	5.6 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Bromomethane	5.6	5.6	5.6 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Carbon Disulfide	5.6	5.6	5.6 UJ		UG/KG	I
SW8260B/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Carbon Tetrachloride	5.6	5.6	5.6 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Chlorobenzene	5.6	5.6	5.6 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Chloroethane	5.6	5.6	5.6 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Chloroform	5.6	5.6	5.6 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Chloromethane	5.6	5.6	5.6 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	cis-1,3-Dichloropropene	5.6	5.6	5.6 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Dibromochloromethane	5.6	5.6	5.6 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Ethylbenzene	5.6	5.6	5.6 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Methylene Chloride	5.6	1.5	5.6 UJ		UG/KG	L/I
SW8260B/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Styrene	5.6	5.6	5.6 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Tetrachloroethene (PCE)	5.6	5.6	5.6 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Toluene	5.6	5.6	5.6 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	trans-1,3-Dichloropropene	5.6	5.6	5.6 UJ	-	UG/KG	I

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
SW8260B/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Trichloroethene (TCE)	5.6	5.6	5.6 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Vinyl Chloride	5.6	5.6	5.6 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Xylenes, Total	11.0	11.0	11.0 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	1,1,1-Trichloroethane	5.8	5.8	5.8 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	1,1,2,2-Tetrachloroethane	5.8	5.8	5.8 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	1,1,2-Trichloroethane	5.8	5.8	5.8 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	1,1-Dichloroethane	5.8	5.8	5.8 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	1,1-Dichloroethene	5.8	5.8	5.8 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	1,2-Dibromoethane (EDB)	5.8	5.8	5.8 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	1,2-Dichloroethane	5.8	5.8	5.8 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	1,2-Dichloroethene	12.0	12.0	12.0 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	1,2-Dichloropropane	5.8	5.8	5.8 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	2-Butanone (MEK)	23.0	23.0	23.0 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	2-Hexanone	23.0	23.0	23.0 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	4-Methyl-2-pentanone (MIBK)	23.0	23.0	23.0 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Acetone	23.0	15.0	23.0 UJ		UG/KG	I/T
SW8260B/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Benzene	5.8	5.8	5.8 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Bromochloromethane	5.8	5.8	5.8 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Bromodichloromethane	5.8	5.8	5.8 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Bromoform	5.8	5.8	5.8 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Bromomethane	5.8	5.8	5.8 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Carbon Disulfide	5.8	5.8	5.8 UJ		UG/KG	I
SW8260B/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Carbon Tetrachloride	5.8	5.8	5.8 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Chlorobenzene	5.8	5.8	5.8 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Chloroethane	5.8	5.8	5.8 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Chloroform	5.8	5.8	5.8 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Chloromethane	5.8	5.8	5.8 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	cis-1,3-Dichloropropene	5.8	5.8	5.8 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Dibromochloromethane	5.8	5.8	5.8 UJ	-	UG/KG	I

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
SW8260B/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Ethylbenzene	5.8	5.8	5.8 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Methylene Chloride	5.8	1.9	5.8 UJ		UG/KG	L/I
SW8260B/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Styrene	5.8	5.8	5.8 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Tetrachloroethene (PCE)	5.8	5.8	5.8 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Toluene	5.8	5.8	5.8 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	trans-1,3-Dichloropropene	5.8	5.8	5.8 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Trichloroethene (TCE)	5.8	5.8	5.8 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Vinyl Chloride	5.8	5.8	5.8 UJ	-	UG/KG	I
SW8260B/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Xylenes, Total	12.0	12.0	12.0 UJ	-	UG/KG	I
Test Leach	**Matrix**	**FieldSample ID**	**LabSample ID**	**Type**	**Analyte**	**RL**	**Lab Result**	**Qualified Result**	**Bias**	**Units**	**Reason**
SW8270C/NONE	SO	068SB-0017M-0001-SO	240-22663-31	N	Anthracene	33.0	20.0	20.0 J		UG/KG	TR
SW8270C/NONE	SO	068SB-0017M-0001-SO	240-22663-31	N	Benzoic acid	3300	3300	3300 R		UG/KG	c
SW8270C/NONE	SO	068SB-0017M-0001-SO	240-22663-31	N	bis(2-Ethylhexyl) Phthalate	350	140	140 J		UG/KG	TR
SW8270C/NONE	SO	068SB-0018M-0001-SO	240-22663-32	N	Benzo(b)fluoranthene	34.0	21.0	21.0 J		UG/KG	TR
SW8270C/NONE	SO	068SB-0018M-0001-SO	240-22663-32	N	Benzoic acid	3300	3300	3300 R		UG/KG	c
SW8270C/NONE	SO	068SB-0018M-0001-SO	240-22663-32	N	Fluoranthene	34.0	21.0	21.0 J		UG/KG	TR
SW8270C/NONE	SO	068SB-0019M-0001-SO	240-22663-33	N	Benzoic acid	3300	3300	3300 R		UG/KG	c
SW8270C/NONE	SO	068SB-0020M-0001-SO	240-22663-35	N	Benzoic acid	3300	3300	3300 R		UG/KG	c
SW8270C/NONE	SO	068SB-0020M-0001-SO	240-22663-35	N	bis(2-Ethylhexyl) Phthalate	350	110	110 J		UG/KG	TR
SW8270C/NONE	SO	068SB-0020M-0001-SO	240-22663-35	N	Fluoranthene	33.0	23.0	23.0 J		UG/KG	TR
SW8270C/NONE	SO	068SB-0022M-0001-SO	240-22663-34	FD	Benzoic acid	3400	3400	3400 R		UG/KG	c
SW8270C/NONE	SO	068SB-0023M-0001-SO	240-22663-36	N	Acenaphthylene	33.0	19.0	19.0 J		UG/KG	TR
SW8270C/NONE	SO	068SB-0023M-0001-SO	240-22663-36	N	Benzoic acid	3300	3300	3300 R		UG/KG	c
SW8270C/NONE	SO	068SB-0024M-0001-SO	240-22663-37	N	Acenaphthylene	33.0	22.0	22.0 J		UG/KG	TR
SW8270C/NONE	SO	068SB-0024M-0001-SO	240-22663-37	N	Anthracene	33.0	28.0	28.0 J		UG/KG	TR
SW8270C/NONE	SO	068SB-0024M-0001-SO	240-22663-37	N	Benzoic acid	3300	3300	3300 R		UG/KG	c
SW8270C/NONE	SO	068SB-0024M-0001-SO	240-22663-37	N	bis(2-Ethylhexyl) Phthalate	350	120	120 J		UG/KG	TR
SW8270C/NONE	SO	068SB-0025M-0001-SO	240-22663-38	N	Benzoic acid	3300	3300	3300 R		UG/KG	c
SW8270C/NONE	SO	068SB-0027M-0001-SO	240-22663-40	N	2-Methylnaphthalene	6.7	5.5	5.5 J		UG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
SW8270C/NONE	SO	068SB-0027M-0001-SO	240-22663-40	N	Benzoic acid	660	660	660 R		UG/KG	c
SW8270C/NONE	SO	068SB-0027M-0001-SO	240-22663-40	N	Di-n-Butyl Phthalate	70.0	27.0	70.0 U	+	UG/KG	L
SW8270C/NONE	SO	068SB-0028M-0001-SO	240-22663-41	N	Benzo(a)anthracene	6.7	5.5	5.5 J		UG/KG	TR
SW8270C/NONE	SO	068SB-0028M-0001-SO	240-22663-41	N	Benzo(a)pyrene	6.7	4.3	4.3 J		UG/KG	TR
SW8270C/NONE	SO	068SB-0028M-0001-SO	240-22663-41	N	Benzoic acid	660	660	660 R		UG/KG	c
SW8270C/NONE	SO	068SB-0030M-0001-SO	240-22663-43	N	2-Methylnaphthalene	6.7	4.1	4.1 J		UG/KG	TR
SW8270C/NONE	SO	068SB-0030M-0001-SO	240-22663-43	N	Benzoic acid	670	670	670 R		UG/KG	c
SW8270C/NONE	SO	068SB-0030M-0001-SO	240-22663-43	N	bis(2-Ethylhexyl) Phthalate	71.0	53.0	53.0 J		UG/KG	TR
SW8270C/NONE	SO	068SB-0030M-0001-SO	240-22663-43	N	Di-n-Butyl Phthalate	71.0	29.0	71.0 U	+	UG/KG	L
SW8270C/NONE	SO	068SB-0030M-0001-SO	240-22663-43	N	Naphthalene	6.7	6.1	6.1 J		UG/KG	TR
SW8270C/NONE	SO	068SB-0030M-0001-SO	240-22663-43	N	Phenanthrene	6.7	5.6	5.6 J		UG/KG	TR
SW8270C/NONE	SO	068SB-0031M-0001-SO	240-22663-44	N	2,4-Dimethylphenol	740	740	740 UJ		UG/KG	m
SW8270C/NONE	SO	068SB-0031M-0001-SO	240-22663-44	N	2-Methylphenol (o-Cresol)	990	990	990 R		UG/KG	m
SW8270C/NONE	SO	068SB-0031M-0001-SO	240-22663-44	N	4,6-Dinitro-2-Methylphenol	740	740	740 UJ		UG/KG	m/D
SW8270C/NONE	SO	068SB-0031M-0001-SO	240-22663-44	N	4-Nitrophenol	1600	1600	1600 R		UG/KG	m
SW8270C/NONE	SO	068SB-0031M-0001-SO	240-22663-44	N	Benzo(b)fluoranthene	33.0	21.0	21.0 J		UG/KG	TR
SW8270C/NONE	SO	068SB-0031M-0001-SO	240-22663-44	N	Benzoic acid	3300	3300	3300 R		UG/KG	c/m
SW8270C/NONE	SO	068SB-0031M-0001-SO	240-22663-44	N	Dimethyl Phthalate	350	350	350 UJ		UG/KG	m
SW8270C/NONE	SO	068SB-0031M-0001-SO	240-22663-44	N	Di-n-Butyl Phthalate	350	110	350 U	+	UG/KG	L
SW8270C/NONE	SO	068SB-0031M-0001-SO	240-22663-44	N	Fluoranthene	33.0	28.0	28.0 J		UG/KG	TR
SW8270C/NONE	SO	068SB-0031M-0001-SO	240-22663-44	N	Pyrene	33.0	17.0	17.0 J		UG/KG	TR
SW8270C/NONE	SO	068SB-0032M-0001-SO	240-22663-39	N	Benzoic acid	770	770	770 R		UG/KG	c
SW8270C/NONE	SO	068SB-0032M-0001-SO	240-22663-39	N	bis(2-Ethylhexyl) Phthalate	81.0	35.0	35.0 J		UG/KG	TR
SW8270C/NONE	SO	068SB-0032M-0001-SO	240-22663-39	N	Di-n-Butyl Phthalate	81.0	30.0	81.0 U	+	UG/KG	L
SW8270C/NONE	SO	073SB-0041M-0001-SO	240-22663-17	N	Benzoic acid	3300	3300	3300 R		UG/KG	c
SW8270C/NONE	SO	073SB-0041M-0001-SO	240-22663-17	N	bis(2-Ethylhexyl) Phthalate	350	95.0	95.0 J		UG/KG	TR
SW8270C/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Benzoic acid	3300	3300	3300 R		UG/KG	c
SW8270C/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	bis(2-Ethylhexyl) Phthalate	360	230	230 J		UG/KG	TR
SW8270C/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Di-n-Butyl Phthalate	360	120	360 U	+	UG/KG	L

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
SW8270C/NONE	SO	079SB-0017M-0001-SO	240-22663-7	N	Benzoic acid	3300	3300	3300 R		UG/KG	c
SW8270C/NONE	SO	079SB-0017M-0001-SO	240-22663-7	N	Di-n-Butyl Phthalate	350	110	350 U	+	UG/KG	L
SW8270C/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Benzoic acid	3300	3300	3300 R		UG/KG	c
SW8270C/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Benzoic acid	3300	3300	3300 R		UG/KG	c

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
E353.2/NONE	SO	073SB-0041M-0001-SO	240-22663-17	N	Nitrocellulose	5.0	0.91	0.91 J	MG/KG	TR
E353.2/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Nitrocellulose	4.7	0.76	0.76 J	MG/KG	TR
E353.2/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Nitrocellulose	5.0	0.81	0.81 J	MG/KG	TR
E353.2/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Nitrocellulose	4.8	2.5	2.5 J	MG/KG	TR
Test Leach	**Matrix**	**FieldSample ID**	**LabSample ID**	**Type**	**Analyte**	**RL**	**Lab Result**	**Qualified Result**	**Units**	**Reason**
SW6020/NONE	SO	068SB-0017M-0001-SO	240-22663-31	N	Silver	0.099	0.036	0.036 J	MG/KG	TR
SW6020/NONE	SO	068SB-0017M-0001-SO	240-22663-31	N	Aluminum	3.0	11000	11000	MG/KG	
SW6020/NONE	SO	068SB-0017M-0001-SO	240-22663-31	N	Arsenic	0.099	8.6	8.6	MG/KG	
SW6020/NONE	SO	068SB-0017M-0001-SO	240-22663-31	N	Barium	0.99	81.0	81.0	MG/KG	
SW6020/NONE	SO	068SB-0017M-0001-SO	240-22663-31	N	Beryllium	0.099	0.60	0.60 J	MG/KG	A
SW6020/NONE	SO	068SB-0017M-0001-SO	240-22663-31	N	Calcium	9.9	30000	30000	MG/KG	
SW6020/NONE	SO	068SB-0017M-0001-SO	240-22663-31	N	Cadmium	0.099	0.26	0.26	MG/KG	
SW6020/NONE	SO	068SB-0017M-0001-SO	240-22663-31	N	Cobalt	0.050	9.9	9.9	MG/KG	
SW6020/NONE	SO	068SB-0017M-0001-SO	240-22663-31	N	Chromium	0.20	15.0	15.0	MG/KG	
SW6020/NONE	SO	068SB-0017M-0001-SO	240-22663-31	N	Copper	0.20	19.0	19.0	MG/KG	
SW6020/NONE	SO	068SB-0017M-0001-SO	240-22663-31	N	Iron	5.0	22000	22000	MG/KG	
SW6020/NONE	SO	068SB-0017M-0001-SO	240-22663-31	N	Potassium	9.9	1400	1400	MG/KG	
SW6020/NONE	SO	068SB-0017M-0001-SO	240-22663-31	N	Magnesium	9.9	6200	6200	MG/KG	
SW6020/NONE	SO	068SB-0017M-0001-SO	240-22663-31	N	Manganese	0.50	450	450	MG/KG	
SW6020/NONE	SO	068SB-0017M-0001-SO	240-22663-31	N	Sodium	9.9	92.0	92.0	MG/KG	
SW6020/NONE	SO	068SB-0017M-0001-SO	240-22663-31	N	Nickel	0.099	23.0	23.0	MG/KG	
SW6020/NONE	SO	068SB-0017M-0001-SO	240-22663-31	N	Lead	0.099	14.0	14.0	MG/KG	
SW6020/NONE	SO	068SB-0017M-0001-SO	240-22663-31	N	Antimony	0.20	0.068	0.068 J	MG/KG	TR/m
SW6020/NONE	SO	068SB-0017M-0001-SO	240-22663-31	N	Selenium	0.50	0.40	0.40 J	MG/KG	TR
SW6020/NONE	SO	068SB-0017M-0001-SO	240-22663-31	N	Thallium	0.099	0.15	0.15	MG/KG	
SW6020/NONE	SO	068SB-0017M-0001-SO	240-22663-31	N	Vanadium	0.099	17.0	17.0	MG/KG	
SW6020/NONE	SO	068SB-0017M-0001-SO	240-22663-31	N	Zinc	0.50	54.0	54.0	MG/KG	
SW6020/NONE	SO	068SB-0018M-0001-SO	240-22663-32	N	Silver	0.10	0.034	0.034 J	MG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	068SB-0018M-0001-SO	240-22663-32	N	Aluminum	3.0	9300	9300	MG/KG	
SW6020/NONE	SO	068SB-0018M-0001-SO	240-22663-32	N	Arsenic	0.10	12.0	12.0	MG/KG	
SW6020/NONE	SO	068SB-0018M-0001-SO	240-22663-32	N	Barium	1.0	50.0	50.0	MG/KG	
SW6020/NONE	SO	068SB-0018M-0001-SO	240-22663-32	N	Beryllium	0.10	0.44	0.44 J	MG/KG	A
SW6020/NONE	SO	068SB-0018M-0001-SO	240-22663-32	N	Calcium	10.0	34000	34000	MG/KG	
SW6020/NONE	SO	068SB-0018M-0001-SO	240-22663-32	N	Cadmium	0.10	0.17	0.17	MG/KG	
SW6020/NONE	SO	068SB-0018M-0001-SO	240-22663-32	N	Cobalt	0.050	10.0	10.0	MG/KG	
SW6020/NONE	SO	068SB-0018M-0001-SO	240-22663-32	N	Chromium	0.20	14.0	14.0	MG/KG	
SW6020/NONE	SO	068SB-0018M-0001-SO	240-22663-32	N	Copper	0.20	18.0	18.0	MG/KG	
SW6020/NONE	SO	068SB-0018M-0001-SO	240-22663-32	N	Iron	5.0	24000	24000	MG/KG	
SW6020/NONE	SO	068SB-0018M-0001-SO	240-22663-32	N	Potassium	10.0	1400	1400	MG/KG	
SW6020/NONE	SO	068SB-0018M-0001-SO	240-22663-32	N	Magnesium	10.0	7400	7400	MG/KG	
SW6020/NONE	SO	068SB-0018M-0001-SO	240-22663-32	N	Manganese	0.50	380	380	MG/KG	
SW6020/NONE	SO	068SB-0018M-0001-SO	240-22663-32	N	Sodium	10.0	88.0	88.0	MG/KG	
SW6020/NONE	SO	068SB-0018M-0001-SO	240-22663-32	N	Nickel	0.10	25.0	25.0	MG/KG	
SW6020/NONE	SO	068SB-0018M-0001-SO	240-22663-32	N	Lead	0.10	11.0	11.0	MG/KG	
SW6020/NONE	SO	068SB-0018M-0001-SO	240-22663-32	N	Selenium	0.50	0.22	0.22 J	MG/KG	TR
SW6020/NONE	SO	068SB-0018M-0001-SO	240-22663-32	N	Thallium	0.10	0.14	0.14	MG/KG	
SW6020/NONE	SO	068SB-0018M-0001-SO	240-22663-32	N	Vanadium	0.10	15.0	15.0	MG/KG	
SW6020/NONE	SO	068SB-0018M-0001-SO	240-22663-32	N	Zinc	0.50	46.0	46.0	MG/KG	
SW6020/NONE	SO	068SB-0019M-0001-SO	240-22663-33	N	Silver	0.099	0.040	0.040 J	MG/KG	TR
SW6020/NONE	SO	068SB-0019M-0001-SO	240-22663-33	N	Aluminum	3.0	11000	11000	MG/KG	
SW6020/NONE	SO	068SB-0019M-0001-SO	240-22663-33	N	Arsenic	0.099	11.0	11.0	MG/KG	
SW6020/NONE	SO	068SB-0019M-0001-SO	240-22663-33	N	Barium	0.99	74.0	74.0	MG/KG	
SW6020/NONE	SO	068SB-0019M-0001-SO	240-22663-33	N	Beryllium	0.099	0.57	0.57 J	MG/KG	A
SW6020/NONE	SO	068SB-0019M-0001-SO	240-22663-33	N	Calcium	9.9	25000	25000	MG/KG	
SW6020/NONE	SO	068SB-0019M-0001-SO	240-22663-33	N	Cadmium	0.099	0.23	0.23	MG/KG	
SW6020/NONE	SO	068SB-0019M-0001-SO	240-22663-33	N	Cobalt	0.050	12.0	12.0	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	068SB-0019M-0001-SO	240-22663-33	N	Chromium	0.20	18.0	18.0	MG/KG	
SW6020/NONE	SO	068SB-0019M-0001-SO	240-22663-33	N	Copper	0.20	20.0	20.0	MG/KG	
SW6020/NONE	SO	068SB-0019M-0001-SO	240-22663-33	N	Iron	5.0	26000	26000	MG/KG	
SW6020/NONE	SO	068SB-0019M-0001-SO	240-22663-33	N	Potassium	9.9	1500	1500	MG/KG	
SW6020/NONE	SO	068SB-0019M-0001-SO	240-22663-33	N	Magnesium	9.9	7400	7400	MG/KG	
SW6020/NONE	SO	068SB-0019M-0001-SO	240-22663-33	N	Manganese	0.50	360	360	MG/KG	
SW6020/NONE	SO	068SB-0019M-0001-SO	240-22663-33	N	Sodium	9.9	120	120	MG/KG	
SW6020/NONE	SO	068SB-0019M-0001-SO	240-22663-33	N	Nickel	0.099	29.0	29.0	MG/KG	
SW6020/NONE	SO	068SB-0019M-0001-SO	240-22663-33	N	Lead	0.099	12.0	12.0	MG/KG	
SW6020/NONE	SO	068SB-0019M-0001-SO	240-22663-33	N	Selenium	0.50	0.31	0.31 J	MG/KG	TR
SW6020/NONE	SO	068SB-0019M-0001-SO	240-22663-33	N	Thallium	0.099	0.16	0.16	MG/KG	
SW6020/NONE	SO	068SB-0019M-0001-SO	240-22663-33	N	Vanadium	0.099	18.0	18.0	MG/KG	
SW6020/NONE	SO	068SB-0019M-0001-SO	240-22663-33	N	Zinc	0.50	49.0	49.0	MG/KG	
SW6020/NONE	SO	068SB-0020M-0001-SO	240-22663-35	N	Silver	0.10	0.034	0.034 J	MG/KG	TR
SW6020/NONE	SO	068SB-0020M-0001-SO	240-22663-35	N	Aluminum	3.0	11000	11000	MG/KG	
SW6020/NONE	SO	068SB-0020M-0001-SO	240-22663-35	N	Arsenic	0.10	11.0	11.0	MG/KG	
SW6020/NONE	SO	068SB-0020M-0001-SO	240-22663-35	N	Barium	1.0	70.0	70.0	MG/KG	
SW6020/NONE	SO	068SB-0020M-0001-SO	240-22663-35	N	Beryllium	0.10	0.53	0.53 J	MG/KG	A
SW6020/NONE	SO	068SB-0020M-0001-SO	240-22663-35	N	Calcium	10.0	30000	30000	MG/KG	
SW6020/NONE	SO	068SB-0020M-0001-SO	240-22663-35	N	Cadmium	0.10	0.19	0.19	MG/KG	
SW6020/NONE	SO	068SB-0020M-0001-SO	240-22663-35	N	Cobalt	0.050	11.0	11.0	MG/KG	
SW6020/NONE	SO	068SB-0020M-0001-SO	240-22663-35	N	Chromium	0.20	16.0	16.0	MG/KG	
SW6020/NONE	SO	068SB-0020M-0001-SO	240-22663-35	N	Copper	0.20	19.0	19.0	MG/KG	
SW6020/NONE	SO	068SB-0020M-0001-SO	240-22663-35	N	Iron	5.0	24000	24000	MG/KG	
SW6020/NONE	SO	068SB-0020M-0001-SO	240-22663-35	N	Potassium	10.0	1500	1500	MG/KG	
SW6020/NONE	SO	068SB-0020M-0001-SO	240-22663-35	N	Magnesium	10.0	7800	7800	MG/KG	
SW6020/NONE	SO	068SB-0020M-0001-SO	240-22663-35	N	Manganese	0.50	410	410	MG/KG	
SW6020/NONE	SO	068SB-0020M-0001-SO	240-22663-35	N	Sodium	10.0	130	130	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	068SB-0020M-0001-SO	240-22663-35	N	Nickel	0.10	27.0	27.0	MG/KG	
SW6020/NONE	SO	068SB-0020M-0001-SO	240-22663-35	N	Lead	0.10	11.0	11.0	MG/KG	
SW6020/NONE	SO	068SB-0020M-0001-SO	240-22663-35	N	Selenium	0.50	0.28	0.28 J	MG/KG	TR
SW6020/NONE	SO	068SB-0020M-0001-SO	240-22663-35	N	Thallium	0.10	0.17	0.17	MG/KG	
SW6020/NONE	SO	068SB-0020M-0001-SO	240-22663-35	N	Vanadium	0.10	17.0	17.0	MG/KG	
SW6020/NONE	SO	068SB-0020M-0001-SO	240-22663-35	N	Zinc	0.50	47.0	47.0	MG/KG	
SW6020/NONE	SO	068SB-0022M-0001-SO	240-22663-34	FD	Silver	0.097	0.037	0.037 J	MG/KG	TR
SW6020/NONE	SO	068SB-0022M-0001-SO	240-22663-34	FD	Aluminum	2.9	11000	11000	MG/KG	
SW6020/NONE	SO	068SB-0022M-0001-SO	240-22663-34	FD	Arsenic	0.097	11.0	11.0	MG/KG	
SW6020/NONE	SO	068SB-0022M-0001-SO	240-22663-34	FD	Barium	0.97	61.0	61.0	MG/KG	
SW6020/NONE	SO	068SB-0022M-0001-SO	240-22663-34	FD	Beryllium	0.097	0.56	0.56 J	MG/KG	A
SW6020/NONE	SO	068SB-0022M-0001-SO	240-22663-34	FD	Calcium	9.7	26000	26000	MG/KG	
SW6020/NONE	SO	068SB-0022M-0001-SO	240-22663-34	FD	Cadmium	0.097	0.19	0.19	MG/KG	
SW6020/NONE	SO	068SB-0022M-0001-SO	240-22663-34	FD	Cobalt	0.049	13.0	13.0	MG/KG	
SW6020/NONE	SO	068SB-0022M-0001-SO	240-22663-34	FD	Chromium	0.19	17.0	17.0	MG/KG	
SW6020/NONE	SO	068SB-0022M-0001-SO	240-22663-34	FD	Copper	0.19	19.0	19.0	MG/KG	
SW6020/NONE	SO	068SB-0022M-0001-SO	240-22663-34	FD	Iron	4.9	25000	25000	MG/KG	
SW6020/NONE	SO	068SB-0022M-0001-SO	240-22663-34	FD	Potassium	9.7	1400	1400	MG/KG	
SW6020/NONE	SO	068SB-0022M-0001-SO	240-22663-34	FD	Magnesium	9.7	7400	7400	MG/KG	
SW6020/NONE	SO	068SB-0022M-0001-SO	240-22663-34	FD	Manganese	0.49	380	380	MG/KG	
SW6020/NONE	SO	068SB-0022M-0001-SO	240-22663-34	FD	Sodium	9.7	120	120	MG/KG	
SW6020/NONE	SO	068SB-0022M-0001-SO	240-22663-34	FD	Nickel	0.097	29.0	29.0	MG/KG	
SW6020/NONE	SO	068SB-0022M-0001-SO	240-22663-34	FD	Lead	0.097	11.0	11.0	MG/KG	
SW6020/NONE	SO	068SB-0022M-0001-SO	240-22663-34	FD	Selenium	0.49	0.28	0.28 J	MG/KG	TR
SW6020/NONE	SO	068SB-0022M-0001-SO	240-22663-34	FD	Thallium	0.097	0.16	0.16	MG/KG	
SW6020/NONE	SO	068SB-0022M-0001-SO	240-22663-34	FD	Vanadium	0.097	18.0	18.0	MG/KG	
SW6020/NONE	SO	068SB-0022M-0001-SO	240-22663-34	FD	Zinc	0.49	48.0	48.0	MG/KG	
SW6020/NONE	SO	068SB-0023M-0001-SO	240-22663-36	N	Silver	0.10	0.036	0.036 J	MG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	068SB-0023M-0001-SO	240-22663-36	N	Aluminum	3.0	11000	11000	MG/KG	
SW6020/NONE	SO	068SB-0023M-0001-SO	240-22663-36	N	Arsenic	0.10	9.0	9.0	MG/KG	
SW6020/NONE	SO	068SB-0023M-0001-SO	240-22663-36	N	Barium	1.0	71.0	71.0	MG/KG	
SW6020/NONE	SO	068SB-0023M-0001-SO	240-22663-36	N	Beryllium	0.10	0.59	0.59 J	MG/KG	A
SW6020/NONE	SO	068SB-0023M-0001-SO	240-22663-36	N	Calcium	10.0	14000	14000	MG/KG	
SW6020/NONE	SO	068SB-0023M-0001-SO	240-22663-36	N	Cadmium	0.10	0.27	0.27	MG/KG	
SW6020/NONE	SO	068SB-0023M-0001-SO	240-22663-36	N	Cobalt	0.050	10.0	10.0	MG/KG	
SW6020/NONE	SO	068SB-0023M-0001-SO	240-22663-36	N	Chromium	0.20	16.0	16.0	MG/KG	
SW6020/NONE	SO	068SB-0023M-0001-SO	240-22663-36	N	Copper	0.20	19.0	19.0	MG/KG	
SW6020/NONE	SO	068SB-0023M-0001-SO	240-22663-36	N	Iron	5.0	23000	23000	MG/KG	
SW6020/NONE	SO	068SB-0023M-0001-SO	240-22663-36	N	Potassium	10.0	1300	1300	MG/KG	
SW6020/NONE	SO	068SB-0023M-0001-SO	240-22663-36	N	Magnesium	10.0	4800	4800	MG/KG	
SW6020/NONE	SO	068SB-0023M-0001-SO	240-22663-36	N	Manganese	0.50	520	520	MG/KG	
SW6020/NONE	SO	068SB-0023M-0001-SO	240-22663-36	N	Sodium	10.0	71.0	71.0	MG/KG	
SW6020/NONE	SO	068SB-0023M-0001-SO	240-22663-36	N	Nickel	0.10	23.0	23.0	MG/KG	
SW6020/NONE	SO	068SB-0023M-0001-SO	240-22663-36	N	Lead	0.10	14.0	14.0	MG/KG	
SW6020/NONE	SO	068SB-0023M-0001-SO	240-22663-36	N	Selenium	0.50	0.35	0.35 J	MG/KG	TR
SW6020/NONE	SO	068SB-0023M-0001-SO	240-22663-36	N	Thallium	0.10	0.15	0.15	MG/KG	
SW6020/NONE	SO	068SB-0023M-0001-SO	240-22663-36	N	Vanadium	0.10	18.0	18.0	MG/KG	
SW6020/NONE	SO	068SB-0023M-0001-SO	240-22663-36	N	Zinc	0.50	53.0	53.0	MG/KG	
SW6020/NONE	SO	068SB-0024M-0001-SO	240-22663-37	N	Silver	0.10	0.040	0.040 J	MG/KG	TR
SW6020/NONE	SO	068SB-0024M-0001-SO	240-22663-37	N	Aluminum	3.0	10000	10000	MG/KG	
SW6020/NONE	SO	068SB-0024M-0001-SO	240-22663-37	N	Arsenic	0.10	14.0	14.0	MG/KG	
SW6020/NONE	SO	068SB-0024M-0001-SO	240-22663-37	N	Barium	1.0	63.0	63.0	MG/KG	
SW6020/NONE	SO	068SB-0024M-0001-SO	240-22663-37	N	Beryllium	0.10	0.58	0.58 J	MG/KG	A
SW6020/NONE	SO	068SB-0024M-0001-SO	240-22663-37	N	Calcium	10.0	16000	16000	MG/KG	
SW6020/NONE	SO	068SB-0024M-0001-SO	240-22663-37	N	Cadmium	0.10	0.21	0.21	MG/KG	
SW6020/NONE	SO	068SB-0024M-0001-SO	240-22663-37	N	Cobalt	0.050	11.0	11.0	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	068SB-0024M-0001-SO	240-22663-37	N	Chromium	0.20	14.0	14.0	MG/KG	
SW6020/NONE	SO	068SB-0024M-0001-SO	240-22663-37	N	Copper	0.20	18.0	18.0	MG/KG	
SW6020/NONE	SO	068SB-0024M-0001-SO	240-22663-37	N	Iron	5.0	24000	24000	MG/KG	
SW6020/NONE	SO	068SB-0024M-0001-SO	240-22663-37	N	Potassium	10.0	1200	1200	MG/KG	
SW6020/NONE	SO	068SB-0024M-0001-SO	240-22663-37	N	Magnesium	10.0	5500	5500	MG/KG	
SW6020/NONE	SO	068SB-0024M-0001-SO	240-22663-37	N	Manganese	0.50	510	510	MG/KG	
SW6020/NONE	SO	068SB-0024M-0001-SO	240-22663-37	N	Sodium	10.0	76.0	76.0	MG/KG	
SW6020/NONE	SO	068SB-0024M-0001-SO	240-22663-37	N	Nickel	0.10	24.0	24.0	MG/KG	
SW6020/NONE	SO	068SB-0024M-0001-SO	240-22663-37	N	Lead	0.10	15.0	15.0	MG/KG	
SW6020/NONE	SO	068SB-0024M-0001-SO	240-22663-37	N	Selenium	0.50	0.33	0.33 J	MG/KG	TR
SW6020/NONE	SO	068SB-0024M-0001-SO	240-22663-37	N	Thallium	0.10	0.13	0.13	MG/KG	
SW6020/NONE	SO	068SB-0024M-0001-SO	240-22663-37	N	Vanadium	0.10	16.0	16.0	MG/KG	
SW6020/NONE	SO	068SB-0024M-0001-SO	240-22663-37	N	Zinc	0.50	56.0	56.0	MG/KG	
SW6020/NONE	SO	068SB-0025M-0001-SO	240-22663-38	N	Silver	0.10	0.041	0.041 J	MG/KG	TR
SW6020/NONE	SO	068SB-0025M-0001-SO	240-22663-38	N	Aluminum	3.0	8700	8700	MG/KG	
SW6020/NONE	SO	068SB-0025M-0001-SO	240-22663-38	N	Arsenic	0.10	13.0	13.0	MG/KG	
SW6020/NONE	SO	068SB-0025M-0001-SO	240-22663-38	N	Barium	1.0	51.0	51.0	MG/KG	
SW6020/NONE	SO	068SB-0025M-0001-SO	240-22663-38	N	Beryllium	0.10	0.42	0.42 J	MG/KG	A
SW6020/NONE	SO	068SB-0025M-0001-SO	240-22663-38	N	Calcium	10.0	20000	20000	MG/KG	
SW6020/NONE	SO	068SB-0025M-0001-SO	240-22663-38	N	Cadmium	0.10	0.28	0.28	MG/KG	
SW6020/NONE	SO	068SB-0025M-0001-SO	240-22663-38	N	Cobalt	0.050	9.1	9.1	MG/KG	
SW6020/NONE	SO	068SB-0025M-0001-SO	240-22663-38	N	Chromium	0.20	12.0	12.0	MG/KG	
SW6020/NONE	SO	068SB-0025M-0001-SO	240-22663-38	N	Copper	0.20	24.0	24.0	MG/KG	
SW6020/NONE	SO	068SB-0025M-0001-SO	240-22663-38	N	Iron	5.0	22000	22000	MG/KG	
SW6020/NONE	SO	068SB-0025M-0001-SO	240-22663-38	N	Potassium	10.0	1200	1200	MG/KG	
SW6020/NONE	SO	068SB-0025M-0001-SO	240-22663-38	N	Magnesium	10.0	5300	5300	MG/KG	
SW6020/NONE	SO	068SB-0025M-0001-SO	240-22663-38	N	Manganese	0.50	420	420	MG/KG	
SW6020/NONE	SO	068SB-0025M-0001-SO	240-22663-38	N	Sodium	10.0	78.0	78.0	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	068SB-0025M-0001-SO	240-22663-38	N	Nickel	0.10	21.0	21.0	MG/KG	
SW6020/NONE	SO	068SB-0025M-0001-SO	240-22663-38	N	Lead	0.10	16.0	16.0	MG/KG	
SW6020/NONE	SO	068SB-0025M-0001-SO	240-22663-38	N	Selenium	0.50	0.30	0.30 J	MG/KG	TR
SW6020/NONE	SO	068SB-0025M-0001-SO	240-22663-38	N	Thallium	0.10	0.13	0.13	MG/KG	
SW6020/NONE	SO	068SB-0025M-0001-SO	240-22663-38	N	Vanadium	0.10	13.0	13.0	MG/KG	
SW6020/NONE	SO	068SB-0025M-0001-SO	240-22663-38	N	Zinc	0.50	77.0	77.0	MG/KG	
SW6020/NONE	SO	068SB-0027M-0001-SO	240-22663-40	N	Silver	0.097	0.036	0.036 J	MG/KG	TR
SW6020/NONE	SO	068SB-0027M-0001-SO	240-22663-40	N	Aluminum	2.9	13000	13000	MG/KG	
SW6020/NONE	SO	068SB-0027M-0001-SO	240-22663-40	N	Arsenic	0.097	9.7	9.7	MG/KG	
SW6020/NONE	SO	068SB-0027M-0001-SO	240-22663-40	N	Barium	0.97	81.0	81.0	MG/KG	
SW6020/NONE	SO	068SB-0027M-0001-SO	240-22663-40	N	Beryllium	0.097	0.64	0.64 J	MG/KG	A
SW6020/NONE	SO	068SB-0027M-0001-SO	240-22663-40	N	Calcium	9.7	26000	26000	MG/KG	
SW6020/NONE	SO	068SB-0027M-0001-SO	240-22663-40	N	Cadmium	0.097	0.21	0.21	MG/KG	
SW6020/NONE	SO	068SB-0027M-0001-SO	240-22663-40	N	Cobalt	0.049	13.0	13.0	MG/KG	
SW6020/NONE	SO	068SB-0027M-0001-SO	240-22663-40	N	Chromium	0.19	19.0	19.0	MG/KG	
SW6020/NONE	SO	068SB-0027M-0001-SO	240-22663-40	N	Copper	0.19	20.0	20.0	MG/KG	
SW6020/NONE	SO	068SB-0027M-0001-SO	240-22663-40	N	Iron	4.9	26000	26000	MG/KG	
SW6020/NONE	SO	068SB-0027M-0001-SO	240-22663-40	N	Potassium	9.7	1700	1700	MG/KG	
SW6020/NONE	SO	068SB-0027M-0001-SO	240-22663-40	N	Magnesium	9.7	7900	7900	MG/KG	
SW6020/NONE	SO	068SB-0027M-0001-SO	240-22663-40	N	Manganese	0.49	410	410	MG/KG	
SW6020/NONE	SO	068SB-0027M-0001-SO	240-22663-40	N	Sodium	9.7	98.0	98.0	MG/KG	
SW6020/NONE	SO	068SB-0027M-0001-SO	240-22663-40	N	Nickel	0.097	31.0	31.0	MG/KG	
SW6020/NONE	SO	068SB-0027M-0001-SO	240-22663-40	N	Lead	0.097	12.0	12.0	MG/KG	
SW6020/NONE	SO	068SB-0027M-0001-SO	240-22663-40	N	Selenium	0.49	0.35	0.35 J	MG/KG	TR
SW6020/NONE	SO	068SB-0027M-0001-SO	240-22663-40	N	Thallium	0.097	0.18	0.18	MG/KG	
SW6020/NONE	SO	068SB-0027M-0001-SO	240-22663-40	N	Vanadium	0.097	20.0	20.0	MG/KG	
SW6020/NONE	SO	068SB-0027M-0001-SO	240-22663-40	N	Zinc	0.49	51.0	51.0	MG/KG	
SW6020/NONE	SO	068SB-0028M-0001-SO	240-22663-41	N	Silver	0.098	0.035	0.035 J	MG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	068SB-0028M-0001-SO	240-22663-41	N	Aluminum	2.9	7400	7400	MG/KG	
SW6020/NONE	SO	068SB-0028M-0001-SO	240-22663-41	N	Arsenic	0.098	16.0	16.0	MG/KG	
SW6020/NONE	SO	068SB-0028M-0001-SO	240-22663-41	N	Barium	0.98	40.0	40.0	MG/KG	
SW6020/NONE	SO	068SB-0028M-0001-SO	240-22663-41	N	Beryllium	0.098	0.38	0.38 J	MG/KG	A
SW6020/NONE	SO	068SB-0028M-0001-SO	240-22663-41	N	Calcium	9.8	22000	22000	MG/KG	
SW6020/NONE	SO	068SB-0028M-0001-SO	240-22663-41	N	Cadmium	0.098	0.17	0.17	MG/KG	
SW6020/NONE	SO	068SB-0028M-0001-SO	240-22663-41	N	Cobalt	0.049	8.8	8.8	MG/KG	
SW6020/NONE	SO	068SB-0028M-0001-SO	240-22663-41	N	Chromium	0.20	11.0	11.0	MG/KG	
SW6020/NONE	SO	068SB-0028M-0001-SO	240-22663-41	N	Copper	0.20	19.0	19.0	MG/KG	
SW6020/NONE	SO	068SB-0028M-0001-SO	240-22663-41	N	Iron	4.9	22000	22000	MG/KG	
SW6020/NONE	SO	068SB-0028M-0001-SO	240-22663-41	N	Potassium	9.8	970	970	MG/KG	
SW6020/NONE	SO	068SB-0028M-0001-SO	240-22663-41	N	Magnesium	9.8	5600	5600	MG/KG	
SW6020/NONE	SO	068SB-0028M-0001-SO	240-22663-41	N	Manganese	0.49	360	360	MG/KG	
SW6020/NONE	SO	068SB-0028M-0001-SO	240-22663-41	N	Sodium	9.8	64.0	64.0	MG/KG	
SW6020/NONE	SO	068SB-0028M-0001-SO	240-22663-41	N	Nickel	0.098	24.0	24.0	MG/KG	
SW6020/NONE	SO	068SB-0028M-0001-SO	240-22663-41	N	Lead	0.098	12.0	12.0	MG/KG	
SW6020/NONE	SO	068SB-0028M-0001-SO	240-22663-41	N	Selenium	0.49	0.32	0.32 J	MG/KG	TR
SW6020/NONE	SO	068SB-0028M-0001-SO	240-22663-41	N	Thallium	0.098	0.12	0.12	MG/KG	
SW6020/NONE	SO	068SB-0028M-0001-SO	240-22663-41	N	Vanadium	0.098	12.0	12.0	MG/KG	
SW6020/NONE	SO	068SB-0028M-0001-SO	240-22663-41	N	Zinc	0.49	47.0	47.0	MG/KG	
SW6020/NONE	SO	068SB-0030M-0001-SO	240-22663-43	N	Silver	0.095	0.041	0.041 J	MG/KG	TR
SW6020/NONE	SO	068SB-0030M-0001-SO	240-22663-43	N	Aluminum	2.9	10000	10000	MG/KG	
SW6020/NONE	SO	068SB-0030M-0001-SO	240-22663-43	N	Arsenic	0.095	11.0	11.0	MG/KG	
SW6020/NONE	SO	068SB-0030M-0001-SO	240-22663-43	N	Barium	0.95	69.0	69.0	MG/KG	
SW6020/NONE	SO	068SB-0030M-0001-SO	240-22663-43	N	Beryllium	0.095	0.49	0.49 J	MG/KG	A
SW6020/NONE	SO	068SB-0030M-0001-SO	240-22663-43	N	Calcium	9.5	35000	35000	MG/KG	
SW6020/NONE	SO	068SB-0030M-0001-SO	240-22663-43	N	Cadmium	0.095	0.21	0.21	MG/KG	
SW6020/NONE	SO	068SB-0030M-0001-SO	240-22663-43	N	Cobalt	0.048	10.0	10.0	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	068SB-0030M-0001-SO	240-22663-43	N	Chromium	0.19	15.0	15.0	MG/KG	
SW6020/NONE	SO	068SB-0030M-0001-SO	240-22663-43	N	Copper	0.19	19.0	19.0	MG/KG	
SW6020/NONE	SO	068SB-0030M-0001-SO	240-22663-43	N	Iron	4.8	23000	23000	MG/KG	
SW6020/NONE	SO	068SB-0030M-0001-SO	240-22663-43	N	Potassium	9.5	1400	1400	MG/KG	
SW6020/NONE	SO	068SB-0030M-0001-SO	240-22663-43	N	Magnesium	9.5	7600	7600	MG/KG	
SW6020/NONE	SO	068SB-0030M-0001-SO	240-22663-43	N	Manganese	0.48	400	400	MG/KG	
SW6020/NONE	SO	068SB-0030M-0001-SO	240-22663-43	N	Sodium	9.5	83.0	83.0	MG/KG	
SW6020/NONE	SO	068SB-0030M-0001-SO	240-22663-43	N	Nickel	0.095	26.0	26.0	MG/KG	
SW6020/NONE	SO	068SB-0030M-0001-SO	240-22663-43	N	Lead	0.095	11.0	11.0	MG/KG	
SW6020/NONE	SO	068SB-0030M-0001-SO	240-22663-43	N	Selenium	0.48	0.30	0.30 J	MG/KG	TR
SW6020/NONE	SO	068SB-0030M-0001-SO	240-22663-43	N	Thallium	0.095	0.15	0.15	MG/KG	
SW6020/NONE	SO	068SB-0030M-0001-SO	240-22663-43	N	Vanadium	0.095	16.0	16.0	MG/KG	
SW6020/NONE	SO	068SB-0030M-0001-SO	240-22663-43	N	Zinc	0.48	45.0	45.0	MG/KG	
SW6020/NONE	SO	068SB-0031M-0001-SO	240-22663-44	N	Silver	0.096	0.038	0.038 J	MG/KG	TR
SW6020/NONE	SO	068SB-0031M-0001-SO	240-22663-44	N	Aluminum	2.9	8700	8700	MG/KG	
SW6020/NONE	SO	068SB-0031M-0001-SO	240-22663-44	N	Arsenic	0.096	9.2	9.2	MG/KG	
SW6020/NONE	SO	068SB-0031M-0001-SO	240-22663-44	N	Barium	0.96	54.0	54.0	MG/KG	
SW6020/NONE	SO	068SB-0031M-0001-SO	240-22663-44	N	Beryllium	0.096	0.46	0.46 J	MG/KG	A
SW6020/NONE	SO	068SB-0031M-0001-SO	240-22663-44	N	Calcium	9.6	30000	30000	MG/KG	
SW6020/NONE	SO	068SB-0031M-0001-SO	240-22663-44	N	Cadmium	0.096	0.18	0.18	MG/KG	
SW6020/NONE	SO	068SB-0031M-0001-SO	240-22663-44	N	Cobalt	0.048	8.8	8.8	MG/KG	
SW6020/NONE	SO	068SB-0031M-0001-SO	240-22663-44	N	Chromium	0.19	14.0	14.0	MG/KG	
SW6020/NONE	SO	068SB-0031M-0001-SO	240-22663-44	N	Copper	0.19	16.0	16.0	MG/KG	
SW6020/NONE	SO	068SB-0031M-0001-SO	240-22663-44	N	Iron	4.8	20000	20000	MG/KG	
SW6020/NONE	SO	068SB-0031M-0001-SO	240-22663-44	N	Potassium	9.6	1300	1300	MG/KG	
SW6020/NONE	SO	068SB-0031M-0001-SO	240-22663-44	N	Magnesium	9.6	6600	6600	MG/KG	
SW6020/NONE	SO	068SB-0031M-0001-SO	240-22663-44	N	Manganese	0.48	340	340	MG/KG	
SW6020/NONE	SO	068SB-0031M-0001-SO	240-22663-44	N	Sodium	9.6	85.0	85.0	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	068SB-0031M-0001-SO	240-22663-44	N	Nickel	0.096	22.0	22.0	MG/KG	
SW6020/NONE	SO	068SB-0031M-0001-SO	240-22663-44	N	Lead	0.096	9.5	9.5	MG/KG	
SW6020/NONE	SO	068SB-0031M-0001-SO	240-22663-44	N	Selenium	0.48	0.37	0.37 J	MG/KG	TR
SW6020/NONE	SO	068SB-0031M-0001-SO	240-22663-44	N	Thallium	0.096	0.13	0.13	MG/KG	
SW6020/NONE	SO	068SB-0031M-0001-SO	240-22663-44	N	Vanadium	0.096	14.0	14.0	MG/KG	
SW6020/NONE	SO	068SB-0031M-0001-SO	240-22663-44	N	Zinc	0.48	40.0	40.0	MG/KG	
SW6020/NONE	SO	068SB-0032M-0001-SO	240-22663-39	N	Silver	0.11	0.029	0.029 J	MG/KG	TR
SW6020/NONE	SO	068SB-0032M-0001-SO	240-22663-39	N	Aluminum	3.4	8800	8800	MG/KG	
SW6020/NONE	SO	068SB-0032M-0001-SO	240-22663-39	N	Arsenic	0.11	16.0	16.0	MG/KG	
SW6020/NONE	SO	068SB-0032M-0001-SO	240-22663-39	N	Barium	1.1	34.0	34.0	MG/KG	
SW6020/NONE	SO	068SB-0032M-0001-SO	240-22663-39	N	Beryllium	0.11	0.41	0.41 J	MG/KG	A
SW6020/NONE	SO	068SB-0032M-0001-SO	240-22663-39	N	Calcium	11.0	4300	4300	MG/KG	
SW6020/NONE	SO	068SB-0032M-0001-SO	240-22663-39	N	Cadmium	0.11	0.14	0.14	MG/KG	
SW6020/NONE	SO	068SB-0032M-0001-SO	240-22663-39	N	Cobalt	0.057	12.0	12.0	MG/KG	
SW6020/NONE	SO	068SB-0032M-0001-SO	240-22663-39	N	Chromium	0.23	13.0	13.0	MG/KG	
SW6020/NONE	SO	068SB-0032M-0001-SO	240-22663-39	N	Copper	0.23	20.0	20.0	MG/KG	
SW6020/NONE	SO	068SB-0032M-0001-SO	240-22663-39	N	Iron	5.7	26000	26000	MG/KG	
SW6020/NONE	SO	068SB-0032M-0001-SO	240-22663-39	N	Potassium	11.0	1000	1000	MG/KG	
SW6020/NONE	SO	068SB-0032M-0001-SO	240-22663-39	N	Magnesium	11.0	5200	5200	MG/KG	
SW6020/NONE	SO	068SB-0032M-0001-SO	240-22663-39	N	Manganese	0.57	620	620	MG/KG	
SW6020/NONE	SO	068SB-0032M-0001-SO	240-22663-39	N	Sodium	11.0	64.0	64.0	MG/KG	
SW6020/NONE	SO	068SB-0032M-0001-SO	240-22663-39	N	Nickel	0.11	29.0	29.0	MG/KG	
SW6020/NONE	SO	068SB-0032M-0001-SO	240-22663-39	N	Lead	0.11	12.0	12.0	MG/KG	
SW6020/NONE	SO	068SB-0032M-0001-SO	240-22663-39	N	Selenium	0.57	0.25	0.25 J	MG/KG	TR
SW6020/NONE	SO	068SB-0032M-0001-SO	240-22663-39	N	Thallium	0.11	0.14	0.14	MG/KG	
SW6020/NONE	SO	068SB-0032M-0001-SO	240-22663-39	N	Vanadium	0.11	13.0	13.0	MG/KG	
SW6020/NONE	SO	068SB-0032M-0001-SO	240-22663-39	N	Zinc	0.57	50.0	50.0	MG/KG	
SW6020/NONE	SO	073SB-0036M-0001-SO	240-22663-12	N	Silver	0.087	0.024	0.024 J	MG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	073SB-0036M-0001-SO	240-22663-12	N	Aluminum	2.6	7500	7500	MG/KG	
SW6020/NONE	SO	073SB-0036M-0001-SO	240-22663-12	N	Arsenic	0.087	13.0	13.0	MG/KG	
SW6020/NONE	SO	073SB-0036M-0001-SO	240-22663-12	N	Barium	0.87	36.0	36.0	MG/KG	
SW6020/NONE	SO	073SB-0036M-0001-SO	240-22663-12	N	Beryllium	0.087	0.38	0.38	MG/KG	
SW6020/NONE	SO	073SB-0036M-0001-SO	240-22663-12	N	Calcium	8.7	1700	1700	MG/KG	
SW6020/NONE	SO	073SB-0036M-0001-SO	240-22663-12	N	Cadmium	0.087	0.17	0.17	MG/KG	
SW6020/NONE	SO	073SB-0036M-0001-SO	240-22663-12	N	Cobalt	0.043	9.2	9.2	MG/KG	
SW6020/NONE	SO	073SB-0036M-0001-SO	240-22663-12	N	Chromium	0.17	11.0	11.0	MG/KG	
SW6020/NONE	SO	073SB-0036M-0001-SO	240-22663-12	N	Copper	0.17	17.0	17.0	MG/KG	
SW6020/NONE	SO	073SB-0036M-0001-SO	240-22663-12	N	Iron	4.3	25000	25000	MG/KG	
SW6020/NONE	SO	073SB-0036M-0001-SO	240-22663-12	N	Potassium	8.7	1000	1000	MG/KG	
SW6020/NONE	SO	073SB-0036M-0001-SO	240-22663-12	N	Magnesium	8.7	2600	2600	MG/KG	
SW6020/NONE	SO	073SB-0036M-0001-SO	240-22663-12	N	Manganese	0.43	400	400	MG/KG	
SW6020/NONE	SO	073SB-0036M-0001-SO	240-22663-12	N	Sodium	8.7	43.0	43.0	MG/KG	
SW6020/NONE	SO	073SB-0036M-0001-SO	240-22663-12	N	Nickel	0.087	21.0	21.0	MG/KG	
SW6020/NONE	SO	073SB-0036M-0001-SO	240-22663-12	N	Lead	0.087	13.0	13.0	MG/KG	
SW6020/NONE	SO	073SB-0036M-0001-SO	240-22663-12	N	Antimony	0.17	0.044	0.044 J	MG/KG	TR/m
SW6020/NONE	SO	073SB-0036M-0001-SO	240-22663-12	N	Selenium	0.43	0.25	0.25 J	MG/KG	TR
SW6020/NONE	SO	073SB-0036M-0001-SO	240-22663-12	N	Thallium	0.087	0.13	0.13	MG/KG	
SW6020/NONE	SO	073SB-0036M-0001-SO	240-22663-12	N	Vanadium	0.087	12.0	12.0	MG/KG	
SW6020/NONE	SO	073SB-0036M-0001-SO	240-22663-12	N	Zinc	0.43	56.0	56.0 J	MG/KG	A
SW6020/NONE	SO	073SB-0037M-0001-SO	240-22663-13	N	Silver	0.081	0.030	0.030 J	MG/KG	TR
SW6020/NONE	SO	073SB-0037M-0001-SO	240-22663-13	N	Aluminum	2.4	5300	5300	MG/KG	
SW6020/NONE	SO	073SB-0037M-0001-SO	240-22663-13	N	Arsenic	0.081	13.0	13.0	MG/KG	
SW6020/NONE	SO	073SB-0037M-0001-SO	240-22663-13	N	Barium	0.81	25.0	25.0	MG/KG	
SW6020/NONE	SO	073SB-0037M-0001-SO	240-22663-13	N	Beryllium	0.081	0.32	0.32	MG/KG	
SW6020/NONE	SO	073SB-0037M-0001-SO	240-22663-13	N	Calcium	8.1	4500	4500	MG/KG	
SW6020/NONE	SO	073SB-0037M-0001-SO	240-22663-13	N	Cadmium	0.081	0.17	0.17	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	073SB-0037M-0001-SO	240-22663-13	N	Cobalt	0.040	8.1	8.1	MG/KG	
SW6020/NONE	SO	073SB-0037M-0001-SO	240-22663-13	N	Chromium	0.16	8.5	8.5	MG/KG	
SW6020/NONE	SO	073SB-0037M-0001-SO	240-22663-13	N	Copper	0.16	17.0	17.0	MG/KG	
SW6020/NONE	SO	073SB-0037M-0001-SO	240-22663-13	N	Iron	4.0	19000	19000	MG/KG	
SW6020/NONE	SO	073SB-0037M-0001-SO	240-22663-13	N	Potassium	8.1	850	850	MG/KG	
SW6020/NONE	SO	073SB-0037M-0001-SO	240-22663-13	N	Magnesium	8.1	2700	2700	MG/KG	
SW6020/NONE	SO	073SB-0037M-0001-SO	240-22663-13	N	Manganese	0.40	410	410	MG/KG	
SW6020/NONE	SO	073SB-0037M-0001-SO	240-22663-13	N	Sodium	8.1	38.0	38.0	MG/KG	
SW6020/NONE	SO	073SB-0037M-0001-SO	240-22663-13	N	Nickel	0.081	18.0	18.0	MG/KG	
SW6020/NONE	SO	073SB-0037M-0001-SO	240-22663-13	N	Lead	0.081	11.0	11.0	MG/KG	
SW6020/NONE	SO	073SB-0037M-0001-SO	240-22663-13	N	Antimony	0.16	0.044	0.044 J	MG/KG	TR/m
SW6020/NONE	SO	073SB-0037M-0001-SO	240-22663-13	N	Selenium	0.40	0.19	0.19 J	MG/KG	TR
SW6020/NONE	SO	073SB-0037M-0001-SO	240-22663-13	N	Thallium	0.081	0.12	0.12	MG/KG	
SW6020/NONE	SO	073SB-0037M-0001-SO	240-22663-13	N	Vanadium	0.081	9.4	9.4	MG/KG	
SW6020/NONE	SO	073SB-0037M-0001-SO	240-22663-13	N	Zinc	0.40	54.0	54.0 J	MG/KG	A
SW6020/NONE	SO	073SB-0038M-0001-SO	240-22663-14	N	Silver	0.093	0.022	0.022 J	MG/KG	TR
SW6020/NONE	SO	073SB-0038M-0001-SO	240-22663-14	N	Aluminum	2.8	6800	6800	MG/KG	
SW6020/NONE	SO	073SB-0038M-0001-SO	240-22663-14	N	Arsenic	0.093	19.0	19.0	MG/KG	
SW6020/NONE	SO	073SB-0038M-0001-SO	240-22663-14	N	Barium	0.93	32.0	32.0	MG/KG	
SW6020/NONE	SO	073SB-0038M-0001-SO	240-22663-14	N	Beryllium	0.093	0.35	0.35	MG/KG	
SW6020/NONE	SO	073SB-0038M-0001-SO	240-22663-14	N	Calcium	9.3	640	640	MG/KG	
SW6020/NONE	SO	073SB-0038M-0001-SO	240-22663-14	N	Cadmium	0.093	0.19	0.19	MG/KG	
SW6020/NONE	SO	073SB-0038M-0001-SO	240-22663-14	N	Cobalt	0.046	8.7	8.7	MG/KG	
SW6020/NONE	SO	073SB-0038M-0001-SO	240-22663-14	N	Chromium	0.19	10.0	10.0	MG/KG	
SW6020/NONE	SO	073SB-0038M-0001-SO	240-22663-14	N	Copper	0.19	20.0	20.0	MG/KG	
SW6020/NONE	SO	073SB-0038M-0001-SO	240-22663-14	N	Iron	4.6	22000	22000	MG/KG	
SW6020/NONE	SO	073SB-0038M-0001-SO	240-22663-14	N	Potassium	9.3	1000	1000	MG/KG	
SW6020/NONE	SO	073SB-0038M-0001-SO	240-22663-14	N	Magnesium	9.3	2100	2100	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	073SB-0038M-0001-SO	240-22663-14	N	Manganese	0.46	460	460	MG/KG	
SW6020/NONE	SO	073SB-0038M-0001-SO	240-22663-14	N	Sodium	9.3	40.0	40.0	MG/KG	
SW6020/NONE	SO	073SB-0038M-0001-SO	240-22663-14	N	Nickel	0.093	21.0	21.0	MG/KG	
SW6020/NONE	SO	073SB-0038M-0001-SO	240-22663-14	N	Lead	0.093	17.0	17.0	MG/KG	
SW6020/NONE	SO	073SB-0038M-0001-SO	240-22663-14	N	Antimony	0.19	0.067	0.067 J	MG/KG	TR/m
SW6020/NONE	SO	073SB-0038M-0001-SO	240-22663-14	N	Selenium	0.46	0.28	0.28 J	MG/KG	TR
SW6020/NONE	SO	073SB-0038M-0001-SO	240-22663-14	N	Thallium	0.093	0.15	0.15	MG/KG	
SW6020/NONE	SO	073SB-0038M-0001-SO	240-22663-14	N	Vanadium	0.093	11.0	11.0	MG/KG	
SW6020/NONE	SO	073SB-0038M-0001-SO	240-22663-14	N	Zinc	0.46	64.0	64.0 J	MG/KG	A
SW6020/NONE	SO	073SB-0039M-0001-SO	240-22663-15	FD	Silver	0.081	0.021	0.021 J	MG/KG	TR
SW6020/NONE	SO	073SB-0039M-0001-SO	240-22663-15	FD	Aluminum	2.4	7000	7000	MG/KG	
SW6020/NONE	SO	073SB-0039M-0001-SO	240-22663-15	FD	Arsenic	0.081	15.0	15.0	MG/KG	
SW6020/NONE	SO	073SB-0039M-0001-SO	240-22663-15	FD	Barium	0.81	34.0	34.0	MG/KG	
SW6020/NONE	SO	073SB-0039M-0001-SO	240-22663-15	FD	Beryllium	0.081	0.40	0.40	MG/KG	
SW6020/NONE	SO	073SB-0039M-0001-SO	240-22663-15	FD	Calcium	8.1	710	710	MG/KG	
SW6020/NONE	SO	073SB-0039M-0001-SO	240-22663-15	FD	Cadmium	0.081	0.19	0.19	MG/KG	
SW6020/NONE	SO	073SB-0039M-0001-SO	240-22663-15	FD	Cobalt	0.040	8.7	8.7	MG/KG	
SW6020/NONE	SO	073SB-0039M-0001-SO	240-22663-15	FD	Chromium	0.16	10.0	10.0	MG/KG	
SW6020/NONE	SO	073SB-0039M-0001-SO	240-22663-15	FD	Copper	0.16	19.0	19.0	MG/KG	
SW6020/NONE	SO	073SB-0039M-0001-SO	240-22663-15	FD	Iron	4.0	24000	24000	MG/KG	
SW6020/NONE	SO	073SB-0039M-0001-SO	240-22663-15	FD	Potassium	8.1	970	970	MG/KG	
SW6020/NONE	SO	073SB-0039M-0001-SO	240-22663-15	FD	Magnesium	8.1	2200	2200	MG/KG	
SW6020/NONE	SO	073SB-0039M-0001-SO	240-22663-15	FD	Manganese	0.40	460	460	MG/KG	
SW6020/NONE	SO	073SB-0039M-0001-SO	240-22663-15	FD	Sodium	8.1	35.0	35.0	MG/KG	
SW6020/NONE	SO	073SB-0039M-0001-SO	240-22663-15	FD	Nickel	0.081	21.0	21.0	MG/KG	
SW6020/NONE	SO	073SB-0039M-0001-SO	240-22663-15	FD	Lead	0.081	16.0	16.0	MG/KG	
SW6020/NONE	SO	073SB-0039M-0001-SO	240-22663-15	FD	Antimony	0.16	0.055	0.055 J	MG/KG	TR/m
SW6020/NONE	SO	073SB-0039M-0001-SO	240-22663-15	FD	Selenium	0.40	0.26	0.26 J	MG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	073SB-0039M-0001-SO	240-22663-15	FD	Thallium	0.081	0.14	0.14	MG/KG	
SW6020/NONE	SO	073SB-0039M-0001-SO	240-22663-15	FD	Vanadium	0.081	12.0	12.0	MG/KG	
SW6020/NONE	SO	073SB-0039M-0001-SO	240-22663-15	FD	Zinc	0.40	62.0	62.0 J	MG/KG	A
SW6020/NONE	SO	073SB-0040M-0001-SO	240-22663-16	N	Silver	0.099	0.017	0.017 J	MG/KG	TR
SW6020/NONE	SO	073SB-0040M-0001-SO	240-22663-16	N	Aluminum	3.0	7000	7000	MG/KG	
SW6020/NONE	SO	073SB-0040M-0001-SO	240-22663-16	N	Arsenic	0.099	12.0	12.0	MG/KG	
SW6020/NONE	SO	073SB-0040M-0001-SO	240-22663-16	N	Barium	0.99	36.0	36.0	MG/KG	
SW6020/NONE	SO	073SB-0040M-0001-SO	240-22663-16	N	Beryllium	0.099	0.41	0.41	MG/KG	
SW6020/NONE	SO	073SB-0040M-0001-SO	240-22663-16	N	Calcium	9.9	670	670	MG/KG	
SW6020/NONE	SO	073SB-0040M-0001-SO	240-22663-16	N	Cadmium	0.099	0.12	0.12	MG/KG	
SW6020/NONE	SO	073SB-0040M-0001-SO	240-22663-16	N	Cobalt	0.050	8.3	8.3	MG/KG	
SW6020/NONE	SO	073SB-0040M-0001-SO	240-22663-16	N	Chromium	0.20	10.0	10.0	MG/KG	
SW6020/NONE	SO	073SB-0040M-0001-SO	240-22663-16	N	Copper	0.20	17.0	17.0	MG/KG	
SW6020/NONE	SO	073SB-0040M-0001-SO	240-22663-16	N	Iron	5.0	20000	20000	MG/KG	
SW6020/NONE	SO	073SB-0040M-0001-SO	240-22663-16	N	Potassium	9.9	760	760	MG/KG	
SW6020/NONE	SO	073SB-0040M-0001-SO	240-22663-16	N	Magnesium	9.9	2200	2200	MG/KG	
SW6020/NONE	SO	073SB-0040M-0001-SO	240-22663-16	N	Manganese	0.50	300	300	MG/KG	
SW6020/NONE	SO	073SB-0040M-0001-SO	240-22663-16	N	Sodium	9.9	41.0	41.0	MG/KG	
SW6020/NONE	SO	073SB-0040M-0001-SO	240-22663-16	N	Nickel	0.099	19.0	19.0	MG/KG	
SW6020/NONE	SO	073SB-0040M-0001-SO	240-22663-16	N	Lead	0.099	11.0	11.0	MG/KG	
SW6020/NONE	SO	073SB-0040M-0001-SO	240-22663-16	N	Antimony	0.20	0.047	0.047 J	MG/KG	TR/m/A
SW6020/NONE	SO	073SB-0040M-0001-SO	240-22663-16	N	Thallium	0.099	0.11	0.11	MG/KG	
SW6020/NONE	SO	073SB-0040M-0001-SO	240-22663-16	N	Vanadium	0.099	12.0	12.0	MG/KG	
SW6020/NONE	SO	073SB-0040M-0001-SO	240-22663-16	N	Zinc	0.50	51.0	51.0	MG/KG	
SW6020/NONE	SO	073SB-0041M-0001-SO	240-22663-17	N	Silver	0.096	0.029	0.029 J	MG/KG	TR
SW6020/NONE	SO	073SB-0041M-0001-SO	240-22663-17	N	Aluminum	2.9	4700	4700	MG/KG	
SW6020/NONE	SO	073SB-0041M-0001-SO	240-22663-17	N	Arsenic	0.096	11.0	11.0	MG/KG	
SW6020/NONE	SO	073SB-0041M-0001-SO	240-22663-17	N	Barium	0.96	25.0	25.0	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	073SB-0041M-0001-SO	240-22663-17	N	Beryllium	0.096	0.30	0.30	MG/KG	
SW6020/NONE	SO	073SB-0041M-0001-SO	240-22663-17	N	Calcium	9.6	3100	3100	MG/KG	
SW6020/NONE	SO	073SB-0041M-0001-SO	240-22663-17	N	Cadmium	0.096	0.16	0.16	MG/KG	
SW6020/NONE	SO	073SB-0041M-0001-SO	240-22663-17	N	Cobalt	0.048	7.3	7.3	MG/KG	
SW6020/NONE	SO	073SB-0041M-0001-SO	240-22663-17	N	Chromium	0.19	7.8	7.8	MG/KG	
SW6020/NONE	SO	073SB-0041M-0001-SO	240-22663-17	N	Copper	0.19	16.0	16.0	MG/KG	
SW6020/NONE	SO	073SB-0041M-0001-SO	240-22663-17	N	Iron	4.8	20000	20000	MG/KG	
SW6020/NONE	SO	073SB-0041M-0001-SO	240-22663-17	N	Potassium	9.6	730	730	MG/KG	
SW6020/NONE	SO	073SB-0041M-0001-SO	240-22663-17	N	Magnesium	9.6	2100	2100	MG/KG	
SW6020/NONE	SO	073SB-0041M-0001-SO	240-22663-17	N	Manganese	0.48	490	490	MG/KG	
SW6020/NONE	SO	073SB-0041M-0001-SO	240-22663-17	N	Sodium	9.6	35.0	35.0	MG/KG	
SW6020/NONE	SO	073SB-0041M-0001-SO	240-22663-17	N	Nickel	0.096	17.0	17.0	MG/KG	
SW6020/NONE	SO	073SB-0041M-0001-SO	240-22663-17	N	Lead	0.096	11.0	11.0	MG/KG	
SW6020/NONE	SO	073SB-0041M-0001-SO	240-22663-17	N	Antimony	0.19	0.24	0.24 J	MG/KG	m/A
SW6020/NONE	SO	073SB-0041M-0001-SO	240-22663-17	N	Thallium	0.096	0.12	0.12	MG/KG	
SW6020/NONE	SO	073SB-0041M-0001-SO	240-22663-17	N	Vanadium	0.096	8.8	8.8	MG/KG	
SW6020/NONE	SO	073SB-0041M-0001-SO	240-22663-17	N	Zinc	0.48	80.0	80.0	MG/KG	
SW6020/NONE	SO	073SB-0042M-0001-SO	240-22663-18	N	Silver	0.10	0.027	0.027 J	MG/KG	TR
SW6020/NONE	SO	073SB-0042M-0001-SO	240-22663-18	N	Aluminum	3.0	10000	10000	MG/KG	
SW6020/NONE	SO	073SB-0042M-0001-SO	240-22663-18	N	Arsenic	0.10	14.0	14.0	MG/KG	
SW6020/NONE	SO	073SB-0042M-0001-SO	240-22663-18	N	Barium	1.0	41.0	41.0	MG/KG	
SW6020/NONE	SO	073SB-0042M-0001-SO	240-22663-18	N	Beryllium	0.10	0.52	0.52	MG/KG	
SW6020/NONE	SO	073SB-0042M-0001-SO	240-22663-18	N	Calcium	10.0	7400	7400	MG/KG	
SW6020/NONE	SO	073SB-0042M-0001-SO	240-22663-18	N	Cadmium	0.10	0.14	0.14	MG/KG	
SW6020/NONE	SO	073SB-0042M-0001-SO	240-22663-18	N	Cobalt	0.050	12.0	12.0	MG/KG	
SW6020/NONE	SO	073SB-0042M-0001-SO	240-22663-18	N	Chromium	0.20	15.0	15.0	MG/KG	
SW6020/NONE	SO	073SB-0042M-0001-SO	240-22663-18	N	Copper	0.20	18.0	18.0	MG/KG	
SW6020/NONE	SO	073SB-0042M-0001-SO	240-22663-18	N	Iron	5.0	27000	27000	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	073SB-0042M-0001-SO	240-22663-18	N	Potassium	10.0	1400	1400	MG/KG	
SW6020/NONE	SO	073SB-0042M-0001-SO	240-22663-18	N	Magnesium	10.0	5500	5500	MG/KG	
SW6020/NONE	SO	073SB-0042M-0001-SO	240-22663-18	N	Manganese	0.50	360	360	MG/KG	
SW6020/NONE	SO	073SB-0042M-0001-SO	240-22663-18	N	Sodium	10.0	60.0	60.0	MG/KG	
SW6020/NONE	SO	073SB-0042M-0001-SO	240-22663-18	N	Nickel	0.10	28.0	28.0	MG/KG	
SW6020/NONE	SO	073SB-0042M-0001-SO	240-22663-18	N	Lead	0.10	11.0	11.0	MG/KG	
SW6020/NONE	SO	073SB-0042M-0001-SO	240-22663-18	N	Antimony	0.20	0.076	0.076 J	MG/KG	TR/m/A
SW6020/NONE	SO	073SB-0042M-0001-SO	240-22663-18	N	Thallium	0.10	0.13	0.13	MG/KG	
SW6020/NONE	SO	073SB-0042M-0001-SO	240-22663-18	N	Vanadium	0.10	15.0	15.0	MG/KG	
SW6020/NONE	SO	073SB-0042M-0001-SO	240-22663-18	N	Zinc	0.50	52.0	52.0	MG/KG	
SW6020/NONE	SO	073SB-0043M-0001-SO	240-22663-19	N	Silver	0.096	0.023	0.023 J	MG/KG	TR
SW6020/NONE	SO	073SB-0043M-0001-SO	240-22663-19	N	Aluminum	2.9	6200	6200	MG/KG	
SW6020/NONE	SO	073SB-0043M-0001-SO	240-22663-19	N	Arsenic	0.096	12.0	12.0	MG/KG	
SW6020/NONE	SO	073SB-0043M-0001-SO	240-22663-19	N	Barium	0.96	33.0	33.0	MG/KG	
SW6020/NONE	SO	073SB-0043M-0001-SO	240-22663-19	N	Beryllium	0.096	0.36	0.36	MG/KG	
SW6020/NONE	SO	073SB-0043M-0001-SO	240-22663-19	N	Calcium	9.6	2300	2300	MG/KG	
SW6020/NONE	SO	073SB-0043M-0001-SO	240-22663-19	N	Cadmium	0.096	0.16	0.16	MG/KG	
SW6020/NONE	SO	073SB-0043M-0001-SO	240-22663-19	N	Cobalt	0.048	8.1	8.1	MG/KG	
SW6020/NONE	SO	073SB-0043M-0001-SO	240-22663-19	N	Chromium	0.19	9.7	9.7	MG/KG	
SW6020/NONE	SO	073SB-0043M-0001-SO	240-22663-19	N	Copper	0.19	17.0	17.0	MG/KG	
SW6020/NONE	SO	073SB-0043M-0001-SO	240-22663-19	N	Iron	4.8	19000	19000	MG/KG	
SW6020/NONE	SO	073SB-0043M-0001-SO	240-22663-19	N	Potassium	9.6	820	820	MG/KG	
SW6020/NONE	SO	073SB-0043M-0001-SO	240-22663-19	N	Magnesium	9.6	2400	2400	MG/KG	
SW6020/NONE	SO	073SB-0043M-0001-SO	240-22663-19	N	Manganese	0.48	340	340	MG/KG	
SW6020/NONE	SO	073SB-0043M-0001-SO	240-22663-19	N	Sodium	9.6	38.0	38.0	MG/KG	
SW6020/NONE	SO	073SB-0043M-0001-SO	240-22663-19	N	Nickel	0.096	20.0	20.0	MG/KG	
SW6020/NONE	SO	073SB-0043M-0001-SO	240-22663-19	N	Lead	0.096	12.0	12.0	MG/KG	
SW6020/NONE	SO	073SB-0043M-0001-SO	240-22663-19	N	Antimony	0.19	0.074	0.074 J	MG/KG	TR/m/A

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	073SB-0043M-0001-SO	240-22663-19	N	Thallium	0.096	0.12	0.12	MG/KG	
SW6020/NONE	SO	073SB-0043M-0001-SO	240-22663-19	N	Vanadium	0.096	10.0	10.0	MG/KG	
SW6020/NONE	SO	073SB-0043M-0001-SO	240-22663-19	N	Zinc	0.48	54.0	54.0	MG/KG	
SW6020/NONE	SO	073SB-0044-0001-SO	240-22663-20	N	Silver	0.11	0.028	0.028 J	MG/KG	TR
SW6020/NONE	SO	073SB-0044-0001-SO	240-22663-20	N	Aluminum	3.2	3700	3700	MG/KG	
SW6020/NONE	SO	073SB-0044-0001-SO	240-22663-20	N	Arsenic	0.11	7.7	7.7	MG/KG	
SW6020/NONE	SO	073SB-0044-0001-SO	240-22663-20	N	Barium	1.1	20.0	20.0	MG/KG	
SW6020/NONE	SO	073SB-0044-0001-SO	240-22663-20	N	Beryllium	0.11	0.27	0.27	MG/KG	
SW6020/NONE	SO	073SB-0044-0001-SO	240-22663-20	N	Calcium	11.0	9400	9400	MG/KG	
SW6020/NONE	SO	073SB-0044-0001-SO	240-22663-20	N	Cadmium	0.11	0.26	0.26	MG/KG	
SW6020/NONE	SO	073SB-0044-0001-SO	240-22663-20	N	Cobalt	0.054	6.4	6.4	MG/KG	
SW6020/NONE	SO	073SB-0044-0001-SO	240-22663-20	N	Chromium	0.22	6.1	6.1	MG/KG	
SW6020/NONE	SO	073SB-0044-0001-SO	240-22663-20	N	Copper	0.22	14.0	14.0	MG/KG	
SW6020/NONE	SO	073SB-0044-0001-SO	240-22663-20	N	Iron	5.4	17000	17000	MG/KG	
SW6020/NONE	SO	073SB-0044-0001-SO	240-22663-20	N	Potassium	11.0	660	660	MG/KG	
SW6020/NONE	SO	073SB-0044-0001-SO	240-22663-20	N	Magnesium	11.0	4600	4600	MG/KG	
SW6020/NONE	SO	073SB-0044-0001-SO	240-22663-20	N	Manganese	0.54	330	330	MG/KG	
SW6020/NONE	SO	073SB-0044-0001-SO	240-22663-20	N	Sodium	11.0	39.0	39.0	MG/KG	
SW6020/NONE	SO	073SB-0044-0001-SO	240-22663-20	N	Nickel	0.11	14.0	14.0	MG/KG	
SW6020/NONE	SO	073SB-0044-0001-SO	240-22663-20	N	Lead	0.11	12.0	12.0	MG/KG	
SW6020/NONE	SO	073SB-0044-0001-SO	240-22663-20	N	Antimony	0.22	0.089	0.089 J	MG/KG	TR/m/A
SW6020/NONE	SO	073SB-0044-0001-SO	240-22663-20	N	Thallium	0.11	0.11	0.11	MG/KG	
SW6020/NONE	SO	073SB-0044-0001-SO	240-22663-20	N	Vanadium	0.11	7.0	7.0	MG/KG	
SW6020/NONE	SO	073SB-0044-0001-SO	240-22663-20	N	Zinc	0.54	67.0	67.0	MG/KG	
SW6020/NONE	SO	073SS-0035M-0001-SO	240-22663-11	N	Silver	0.092	0.029	0.029 J	MG/KG	TR
SW6020/NONE	SO	073SS-0035M-0001-SO	240-22663-11	N	Aluminum	2.8	11000	11000	MG/KG	
SW6020/NONE	SO	073SS-0035M-0001-SO	240-22663-11	N	Arsenic	0.092	14.0	14.0	MG/KG	
SW6020/NONE	SO	073SS-0035M-0001-SO	240-22663-11	N	Barium	0.92	57.0	57.0	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	073SS-0035M-0001-SO	240-22663-11	N	Beryllium	0.092	0.52	0.52	MG/KG	
SW6020/NONE	SO	073SS-0035M-0001-SO	240-22663-11	N	Calcium	9.2	720	720	MG/KG	
SW6020/NONE	SO	073SS-0035M-0001-SO	240-22663-11	N	Cadmium	0.092	0.18	0.18	MG/KG	
SW6020/NONE	SO	073SS-0035M-0001-SO	240-22663-11	N	Cobalt	0.046	11.0	11.0	MG/KG	
SW6020/NONE	SO	073SS-0035M-0001-SO	240-22663-11	N	Chromium	0.18	14.0	14.0	MG/KG	
SW6020/NONE	SO	073SS-0035M-0001-SO	240-22663-11	N	Copper	0.18	19.0	19.0	MG/KG	
SW6020/NONE	SO	073SS-0035M-0001-SO	240-22663-11	N	Iron	4.6	24000	24000	MG/KG	
SW6020/NONE	SO	073SS-0035M-0001-SO	240-22663-11	N	Potassium	9.2	990	990	MG/KG	
SW6020/NONE	SO	073SS-0035M-0001-SO	240-22663-11	N	Magnesium	9.2	2700	2700	MG/KG	
SW6020/NONE	SO	073SS-0035M-0001-SO	240-22663-11	N	Manganese	0.46	340	340	MG/KG	
SW6020/NONE	SO	073SS-0035M-0001-SO	240-22663-11	N	Sodium	9.2	36.0	36.0	MG/KG	
SW6020/NONE	SO	073SS-0035M-0001-SO	240-22663-11	N	Nickel	0.092	22.0	22.0	MG/KG	
SW6020/NONE	SO	073SS-0035M-0001-SO	240-22663-11	N	Lead	0.092	15.0	15.0	MG/KG	
SW6020/NONE	SO	073SS-0035M-0001-SO	240-22663-11	N	Antimony	0.18	0.35	0.35 J	MG/KG	m
SW6020/NONE	SO	073SS-0035M-0001-SO	240-22663-11	N	Selenium	0.46	0.36	0.36 J	MG/KG	TR
SW6020/NONE	SO	073SS-0035M-0001-SO	240-22663-11	N	Thallium	0.092	0.16	0.16	MG/KG	
SW6020/NONE	SO	073SS-0035M-0001-SO	240-22663-11	N	Vanadium	0.092	18.0	18.0	MG/KG	
SW6020/NONE	SO	073SS-0035M-0001-SO	240-22663-11	N	Zinc	0.46	54.0	54.0 J	MG/KG	A
SW6020/NONE	SO	079SB-0010M-0001-SO	240-22663-1	N	Silver	0.085	0.026	0.026 J	MG/KG	TR
SW6020/NONE	SO	079SB-0010M-0001-SO	240-22663-1	N	Aluminum	2.6	8700	8700	MG/KG	
SW6020/NONE	SO	079SB-0010M-0001-SO	240-22663-1	N	Arsenic	0.085	7.3	7.3	MG/KG	
SW6020/NONE	SO	079SB-0010M-0001-SO	240-22663-1	N	Barium	0.85	44.0	44.0	MG/KG	
SW6020/NONE	SO	079SB-0010M-0001-SO	240-22663-1	N	Beryllium	0.085	0.25	0.25	MG/KG	
SW6020/NONE	SO	079SB-0010M-0001-SO	240-22663-1	N	Calcium	8.5	260	260	MG/KG	
SW6020/NONE	SO	079SB-0010M-0001-SO	240-22663-1	N	Cadmium	0.085	0.078	0.078 J	MG/KG	TR
SW6020/NONE	SO	079SB-0010M-0001-SO	240-22663-1	N	Cobalt	0.043	4.0	4.0	MG/KG	
SW6020/NONE	SO	079SB-0010M-0001-SO	240-22663-1	N	Chromium	0.17	12.0	12.0	MG/KG	
SW6020/NONE	SO	079SB-0010M-0001-SO	240-22663-1	N	Copper	0.17	12.0	12.0	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	079SB-0010M-0001-SO	240-22663-1	N	Iron	4.3	19000	19000	MG/KG	
SW6020/NONE	SO	079SB-0010M-0001-SO	240-22663-1	N	Potassium	8.5	720	720	MG/KG	
SW6020/NONE	SO	079SB-0010M-0001-SO	240-22663-1	N	Magnesium	8.5	1500	1500	MG/KG	
SW6020/NONE	SO	079SB-0010M-0001-SO	240-22663-1	N	Manganese	0.43	150	150	MG/KG	
SW6020/NONE	SO	079SB-0010M-0001-SO	240-22663-1	N	Sodium	8.5	27.0	27.0	MG/KG	
SW6020/NONE	SO	079SB-0010M-0001-SO	240-22663-1	N	Nickel	0.085	10.0	10.0	MG/KG	
SW6020/NONE	SO	079SB-0010M-0001-SO	240-22663-1	N	Lead	0.085	13.0	13.0	MG/KG	
SW6020/NONE	SO	079SB-0010M-0001-SO	240-22663-1	N	Selenium	0.43	0.24	0.24 J	MG/KG	TR
SW6020/NONE	SO	079SB-0010M-0001-SO	240-22663-1	N	Thallium	0.085	0.14	0.14	MG/KG	
SW6020/NONE	SO	079SB-0010M-0001-SO	240-22663-1	N	Vanadium	0.085	17.0	17.0	MG/KG	
SW6020/NONE	SO	079SB-0010M-0001-SO	240-22663-1	N	Zinc	0.43	33.0	33.0 J	MG/KG	A
SW6020/NONE	SO	079SB-0011M-0001-SO	240-22663-2	FD	Silver	0.094	0.028	0.028 J	MG/KG	TR
SW6020/NONE	SO	079SB-0011M-0001-SO	240-22663-2	FD	Aluminum	2.8	7800	7800	MG/KG	
SW6020/NONE	SO	079SB-0011M-0001-SO	240-22663-2	FD	Arsenic	0.094	7.1	7.1	MG/KG	
SW6020/NONE	SO	079SB-0011M-0001-SO	240-22663-2	FD	Barium	0.94	43.0	43.0	MG/KG	
SW6020/NONE	SO	079SB-0011M-0001-SO	240-22663-2	FD	Beryllium	0.094	0.22	0.22	MG/KG	
SW6020/NONE	SO	079SB-0011M-0001-SO	240-22663-2	FD	Calcium	9.4	400	400	MG/KG	
SW6020/NONE	SO	079SB-0011M-0001-SO	240-22663-2	FD	Cadmium	0.094	0.073	0.073 J	MG/KG	TR
SW6020/NONE	SO	079SB-0011M-0001-SO	240-22663-2	FD	Cobalt	0.047	3.3	3.3	MG/KG	
SW6020/NONE	SO	079SB-0011M-0001-SO	240-22663-2	FD	Chromium	0.19	10.0	10.0	MG/KG	
SW6020/NONE	SO	079SB-0011M-0001-SO	240-22663-2	FD	Copper	0.19	12.0	12.0	MG/KG	
SW6020/NONE	SO	079SB-0011M-0001-SO	240-22663-2	FD	Iron	4.7	17000	17000	MG/KG	
SW6020/NONE	SO	079SB-0011M-0001-SO	240-22663-2	FD	Potassium	9.4	660	660	MG/KG	
SW6020/NONE	SO	079SB-0011M-0001-SO	240-22663-2	FD	Magnesium	9.4	1200	1200	MG/KG	
SW6020/NONE	SO	079SB-0011M-0001-SO	240-22663-2	FD	Manganese	0.47	110	110	MG/KG	
SW6020/NONE	SO	079SB-0011M-0001-SO	240-22663-2	FD	Sodium	9.4	32.0	32.0	MG/KG	
SW6020/NONE	SO	079SB-0011M-0001-SO	240-22663-2	FD	Nickel	0.094	8.1	8.1	MG/KG	
SW6020/NONE	SO	079SB-0011M-0001-SO	240-22663-2	FD	Lead	0.094	14.0	14.0	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	079SB-0011M-0001-SO	240-22663-2	FD	Selenium	0.47	0.25	0.25 J	MG/KG	TR
SW6020/NONE	SO	079SB-0011M-0001-SO	240-22663-2	FD	Thallium	0.094	0.16	0.16	MG/KG	
SW6020/NONE	SO	079SB-0011M-0001-SO	240-22663-2	FD	Vanadium	0.094	15.0	15.0	MG/KG	
SW6020/NONE	SO	079SB-0011M-0001-SO	240-22663-2	FD	Zinc	0.47	28.0	28.0 J	MG/KG	A
SW6020/NONE	SO	079SB-0013M-0001-SO	240-22663-3	N	Silver	0.092	0.030	0.030 J	MG/KG	TR
SW6020/NONE	SO	079SB-0013M-0001-SO	240-22663-3	N	Aluminum	2.8	13000	13000	MG/KG	
SW6020/NONE	SO	079SB-0013M-0001-SO	240-22663-3	N	Arsenic	0.092	10.0	10.0	MG/KG	
SW6020/NONE	SO	079SB-0013M-0001-SO	240-22663-3	N	Barium	0.92	78.0	78.0	MG/KG	
SW6020/NONE	SO	079SB-0013M-0001-SO	240-22663-3	N	Beryllium	0.092	0.64	0.64	MG/KG	
SW6020/NONE	SO	079SB-0013M-0001-SO	240-22663-3	N	Calcium	9.2	1400	1400	MG/KG	
SW6020/NONE	SO	079SB-0013M-0001-SO	240-22663-3	N	Cadmium	0.092	0.28	0.28	MG/KG	
SW6020/NONE	SO	079SB-0013M-0001-SO	240-22663-3	N	Cobalt	0.046	12.0	12.0	MG/KG	
SW6020/NONE	SO	079SB-0013M-0001-SO	240-22663-3	N	Chromium	0.18	17.0	17.0	MG/KG	
SW6020/NONE	SO	079SB-0013M-0001-SO	240-22663-3	N	Copper	0.18	21.0	21.0	MG/KG	
SW6020/NONE	SO	079SB-0013M-0001-SO	240-22663-3	N	Iron	4.6	24000	24000	MG/KG	
SW6020/NONE	SO	079SB-0013M-0001-SO	240-22663-3	N	Potassium	9.2	1300	1300	MG/KG	
SW6020/NONE	SO	079SB-0013M-0001-SO	240-22663-3	N	Magnesium	9.2	3700	3700	MG/KG	
SW6020/NONE	SO	079SB-0013M-0001-SO	240-22663-3	N	Manganese	0.46	290	290	MG/KG	
SW6020/NONE	SO	079SB-0013M-0001-SO	240-22663-3	N	Sodium	9.2	50.0	50.0	MG/KG	
SW6020/NONE	SO	079SB-0013M-0001-SO	240-22663-3	N	Nickel	0.092	27.0	27.0	MG/KG	
SW6020/NONE	SO	079SB-0013M-0001-SO	240-22663-3	N	Lead	0.092	13.0	13.0	MG/KG	
SW6020/NONE	SO	079SB-0013M-0001-SO	240-22663-3	N	Selenium	0.46	0.33	0.33 J	MG/KG	TR
SW6020/NONE	SO	079SB-0013M-0001-SO	240-22663-3	N	Thallium	0.092	0.18	0.18	MG/KG	
SW6020/NONE	SO	079SB-0013M-0001-SO	240-22663-3	N	Vanadium	0.092	19.0	19.0	MG/KG	
SW6020/NONE	SO	079SB-0013M-0001-SO	240-22663-3	N	Zinc	0.46	59.0	59.0 J	MG/KG	A
SW6020/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Silver	0.086	0.029	0.029 J	MG/KG	TR
SW6020/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Aluminum	2.6	9800	9800	MG/KG	
SW6020/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Arsenic	0.086	11.0	11.0	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Barium	0.86	54.0	54.0	MG/KG	
SW6020/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Beryllium	0.086	0.56	0.56	MG/KG	
SW6020/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Calcium	8.6	3000	3000	MG/KG	
SW6020/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Cadmium	0.086	0.23	0.23	MG/KG	
SW6020/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Cobalt	0.043	14.0	14.0	MG/KG	
SW6020/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Chromium	0.17	15.0	15.0	MG/KG	
SW6020/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Copper	0.17	20.0	20.0	MG/KG	
SW6020/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Iron	4.3	23000	23000	MG/KG	
SW6020/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Potassium	8.6	1100	1100	MG/KG	
SW6020/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Magnesium	8.6	3400	3400	MG/KG	
SW6020/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Manganese	0.43	300	300	MG/KG	
SW6020/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Sodium	8.6	46.0	46.0	MG/KG	
SW6020/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Nickel	0.086	28.0	28.0	MG/KG	
SW6020/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Lead	0.086	11.0	11.0	MG/KG	
SW6020/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Antimony	0.17	0.063	0.063 J	MG/KG	TR/m
SW6020/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Selenium	0.43	0.29	0.29 J	MG/KG	TR
SW6020/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Thallium	0.086	0.14	0.14	MG/KG	
SW6020/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Vanadium	0.086	15.0	15.0	MG/KG	
SW6020/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	Zinc	0.43	76.0	76.0 J	MG/KG	A
SW6020/NONE	SO	079SB-0015M-0001-SO	240-22663-5	N	Silver	0.090	0.030	0.030 J	MG/KG	TR
SW6020/NONE	SO	079SB-0015M-0001-SO	240-22663-5	N	Aluminum	2.7	13000	13000	MG/KG	
SW6020/NONE	SO	079SB-0015M-0001-SO	240-22663-5	N	Arsenic	0.090	10.0	10.0	MG/KG	
SW6020/NONE	SO	079SB-0015M-0001-SO	240-22663-5	N	Barium	0.90	68.0	68.0	MG/KG	
SW6020/NONE	SO	079SB-0015M-0001-SO	240-22663-5	N	Beryllium	0.090	0.58	0.58	MG/KG	
SW6020/NONE	SO	079SB-0015M-0001-SO	240-22663-5	N	Calcium	9.0	590	590	MG/KG	
SW6020/NONE	SO	079SB-0015M-0001-SO	240-22663-5	N	Cadmium	0.090	0.20	0.20	MG/KG	
SW6020/NONE	SO	079SB-0015M-0001-SO	240-22663-5	N	Cobalt	0.045	11.0	11.0	MG/KG	
SW6020/NONE	SO	079SB-0015M-0001-SO	240-22663-5	N	Chromium	0.18	17.0	17.0	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	079SB-0015M-0001-SO	240-22663-5	N	Copper	0.18	20.0	20.0	MG/KG	
SW6020/NONE	SO	079SB-0015M-0001-SO	240-22663-5	N	Iron	4.5	26000	26000	MG/KG	
SW6020/NONE	SO	079SB-0015M-0001-SO	240-22663-5	N	Potassium	9.0	1200	1200	MG/KG	
SW6020/NONE	SO	079SB-0015M-0001-SO	240-22663-5	N	Magnesium	9.0	3200	3200	MG/KG	
SW6020/NONE	SO	079SB-0015M-0001-SO	240-22663-5	N	Manganese	0.45	260	260	MG/KG	
SW6020/NONE	SO	079SB-0015M-0001-SO	240-22663-5	N	Sodium	9.0	40.0	40.0	MG/KG	
SW6020/NONE	SO	079SB-0015M-0001-SO	240-22663-5	N	Nickel	0.090	26.0	26.0	MG/KG	
SW6020/NONE	SO	079SB-0015M-0001-SO	240-22663-5	N	Lead	0.090	12.0	12.0	MG/KG	
SW6020/NONE	SO	079SB-0015M-0001-SO	240-22663-5	N	Selenium	0.45	0.28	0.28 J	MG/KG	TR
SW6020/NONE	SO	079SB-0015M-0001-SO	240-22663-5	N	Thallium	0.090	0.17	0.17	MG/KG	
SW6020/NONE	SO	079SB-0015M-0001-SO	240-22663-5	N	Vanadium	0.090	19.0	19.0	MG/KG	
SW6020/NONE	SO	079SB-0015M-0001-SO	240-22663-5	N	Zinc	0.45	74.0	74.0 J	MG/KG	A
SW6020/NONE	SO	079SB-0016M-0001-SO	240-22663-6	N	Silver	0.084	0.027	0.027 J	MG/KG	TR
SW6020/NONE	SO	079SB-0016M-0001-SO	240-22663-6	N	Aluminum	2.5	12000	12000	MG/KG	
SW6020/NONE	SO	079SB-0016M-0001-SO	240-22663-6	N	Arsenic	0.084	12.0	12.0	MG/KG	
SW6020/NONE	SO	079SB-0016M-0001-SO	240-22663-6	N	Barium	0.84	77.0	77.0	MG/KG	
SW6020/NONE	SO	079SB-0016M-0001-SO	240-22663-6	N	Beryllium	0.084	0.55	0.55	MG/KG	
SW6020/NONE	SO	079SB-0016M-0001-SO	240-22663-6	N	Calcium	8.4	970	970	MG/KG	
SW6020/NONE	SO	079SB-0016M-0001-SO	240-22663-6	N	Cadmium	0.084	0.16	0.16	MG/KG	
SW6020/NONE	SO	079SB-0016M-0001-SO	240-22663-6	N	Cobalt	0.042	11.0	11.0	MG/KG	
SW6020/NONE	SO	079SB-0016M-0001-SO	240-22663-6	N	Chromium	0.17	16.0	16.0	MG/KG	
SW6020/NONE	SO	079SB-0016M-0001-SO	240-22663-6	N	Copper	0.17	18.0	18.0	MG/KG	
SW6020/NONE	SO	079SB-0016M-0001-SO	240-22663-6	N	Iron	4.2	27000	27000	MG/KG	
SW6020/NONE	SO	079SB-0016M-0001-SO	240-22663-6	N	Potassium	8.4	1100	1100	MG/KG	
SW6020/NONE	SO	079SB-0016M-0001-SO	240-22663-6	N	Magnesium	8.4	3300	3300	MG/KG	
SW6020/NONE	SO	079SB-0016M-0001-SO	240-22663-6	N	Manganese	0.42	380	380	MG/KG	
SW6020/NONE	SO	079SB-0016M-0001-SO	240-22663-6	N	Sodium	8.4	45.0	45.0	MG/KG	
SW6020/NONE	SO	079SB-0016M-0001-SO	240-22663-6	N	Nickel	0.084	28.0	28.0	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	079SB-0016M-0001-SO	240-22663-6	N	Lead	0.084	14.0	14.0	MG/KG	
SW6020/NONE	SO	079SB-0016M-0001-SO	240-22663-6	N	Selenium	0.42	0.25	0.25 J	MG/KG	TR
SW6020/NONE	SO	079SB-0016M-0001-SO	240-22663-6	N	Thallium	0.084	0.17	0.17	MG/KG	
SW6020/NONE	SO	079SB-0016M-0001-SO	240-22663-6	N	Vanadium	0.084	18.0	18.0	MG/KG	
SW6020/NONE	SO	079SB-0016M-0001-SO	240-22663-6	N	Zinc	0.42	51.0	51.0 J	MG/KG	A
SW6020/NONE	SO	079SB-0017M-0001-SO	240-22663-7	N	Silver	0.099	0.029	0.029 J	MG/KG	TR
SW6020/NONE	SO	079SB-0017M-0001-SO	240-22663-7	N	Aluminum	3.0	14000	14000	MG/KG	
SW6020/NONE	SO	079SB-0017M-0001-SO	240-22663-7	N	Arsenic	0.099	11.0	11.0	MG/KG	
SW6020/NONE	SO	079SB-0017M-0001-SO	240-22663-7	N	Barium	0.99	79.0	79.0	MG/KG	
SW6020/NONE	SO	079SB-0017M-0001-SO	240-22663-7	N	Beryllium	0.099	0.62	0.62	MG/KG	
SW6020/NONE	SO	079SB-0017M-0001-SO	240-22663-7	N	Calcium	9.9	1400	1400 J	MG/KG	d
SW6020/NONE	SO	079SB-0017M-0001-SO	240-22663-7	N	Cadmium	0.099	0.21	0.21	MG/KG	
SW6020/NONE	SO	079SB-0017M-0001-SO	240-22663-7	N	Cobalt	0.050	12.0	12.0	MG/KG	
SW6020/NONE	SO	079SB-0017M-0001-SO	240-22663-7	N	Chromium	0.20	18.0	18.0	MG/KG	
SW6020/NONE	SO	079SB-0017M-0001-SO	240-22663-7	N	Copper	0.20	27.0	27.0	MG/KG	
SW6020/NONE	SO	079SB-0017M-0001-SO	240-22663-7	N	Iron	5.0	27000	27000	MG/KG	
SW6020/NONE	SO	079SB-0017M-0001-SO	240-22663-7	N	Potassium	9.9	1400	1400	MG/KG	
SW6020/NONE	SO	079SB-0017M-0001-SO	240-22663-7	N	Magnesium	9.9	4000	4000	MG/KG	
SW6020/NONE	SO	079SB-0017M-0001-SO	240-22663-7	N	Manganese	0.50	300	300	MG/KG	
SW6020/NONE	SO	079SB-0017M-0001-SO	240-22663-7	N	Sodium	9.9	52.0	52.0	MG/KG	
SW6020/NONE	SO	079SB-0017M-0001-SO	240-22663-7	N	Nickel	0.099	30.0	30.0	MG/KG	
SW6020/NONE	SO	079SB-0017M-0001-SO	240-22663-7	N	Lead	0.099	13.0	13.0	MG/KG	
SW6020/NONE	SO	079SB-0017M-0001-SO	240-22663-7	N	Selenium	0.50	0.27	0.27 J	MG/KG	TR
SW6020/NONE	SO	079SB-0017M-0001-SO	240-22663-7	N	Thallium	0.099	0.18	0.18	MG/KG	
SW6020/NONE	SO	079SB-0017M-0001-SO	240-22663-7	N	Vanadium	0.099	20.0	20.0	MG/KG	
SW6020/NONE	SO	079SB-0017M-0001-SO	240-22663-7	N	Zinc	0.50	60.0	60.0 J	MG/KG	A
SW6020/NONE	SO	079SB-0019M-0001-SO	240-22663-9	N	Silver	0.093	0.034	0.034 J	MG/KG	TR
SW6020/NONE	SO	079SB-0019M-0001-SO	240-22663-9	N	Aluminum	2.8	13000	13000	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	079SB-0019M-0001-SO	240-22663-9	N	Arsenic	0.093	9.9	9.9	MG/KG	
SW6020/NONE	SO	079SB-0019M-0001-SO	240-22663-9	N	Barium	0.93	76.0	76.0	MG/KG	
SW6020/NONE	SO	079SB-0019M-0001-SO	240-22663-9	N	Beryllium	0.093	0.49	0.49	MG/KG	
SW6020/NONE	SO	079SB-0019M-0001-SO	240-22663-9	N	Calcium	9.3	690	690	MG/KG	
SW6020/NONE	SO	079SB-0019M-0001-SO	240-22663-9	N	Cadmium	0.093	0.14	0.14	MG/KG	
SW6020/NONE	SO	079SB-0019M-0001-SO	240-22663-9	N	Cobalt	0.047	11.0	11.0	MG/KG	
SW6020/NONE	SO	079SB-0019M-0001-SO	240-22663-9	N	Chromium	0.19	16.0	16.0	MG/KG	
SW6020/NONE	SO	079SB-0019M-0001-SO	240-22663-9	N	Copper	0.19	16.0	16.0	MG/KG	
SW6020/NONE	SO	079SB-0019M-0001-SO	240-22663-9	N	Iron	4.7	26000	26000	MG/KG	
SW6020/NONE	SO	079SB-0019M-0001-SO	240-22663-9	N	Potassium	9.3	1000	1000	MG/KG	
SW6020/NONE	SO	079SB-0019M-0001-SO	240-22663-9	N	Magnesium	9.3	2600	2600	MG/KG	
SW6020/NONE	SO	079SB-0019M-0001-SO	240-22663-9	N	Manganese	0.47	280	280	MG/KG	
SW6020/NONE	SO	079SB-0019M-0001-SO	240-22663-9	N	Sodium	9.3	42.0	42.0	MG/KG	
SW6020/NONE	SO	079SB-0019M-0001-SO	240-22663-9	N	Nickel	0.093	20.0	20.0	MG/KG	
SW6020/NONE	SO	079SB-0019M-0001-SO	240-22663-9	N	Lead	0.093	13.0	13.0	MG/KG	
SW6020/NONE	SO	079SB-0019M-0001-SO	240-22663-9	N	Selenium	0.47	0.33	0.33 J	MG/KG	TR
SW6020/NONE	SO	079SB-0019M-0001-SO	240-22663-9	N	Thallium	0.093	0.17	0.17	MG/KG	
SW6020/NONE	SO	079SB-0019M-0001-SO	240-22663-9	N	Vanadium	0.093	23.0	23.0	MG/KG	
SW6020/NONE	SO	079SB-0019M-0001-SO	240-22663-9	N	Zinc	0.47	45.0	45.0 J	MG/KG	A
SW6020/NONE	SO	079SB-0020M-0001-SO	240-22663-8	FD	Silver	0.093	0.029	0.029 J	MG/KG	TR
SW6020/NONE	SO	079SB-0020M-0001-SO	240-22663-8	FD	Aluminum	2.8	14000	14000	MG/KG	
SW6020/NONE	SO	079SB-0020M-0001-SO	240-22663-8	FD	Arsenic	0.093	11.0	11.0	MG/KG	
SW6020/NONE	SO	079SB-0020M-0001-SO	240-22663-8	FD	Barium	0.93	71.0	71.0	MG/KG	
SW6020/NONE	SO	079SB-0020M-0001-SO	240-22663-8	FD	Beryllium	0.093	0.72	0.72	MG/KG	
SW6020/NONE	SO	079SB-0020M-0001-SO	240-22663-8	FD	Calcium	9.3	780	780 J	MG/KG	d
SW6020/NONE	SO	079SB-0020M-0001-SO	240-22663-8	FD	Cadmium	0.093	0.22	0.22	MG/KG	
SW6020/NONE	SO	079SB-0020M-0001-SO	240-22663-8	FD	Cobalt	0.046	15.0	15.0	MG/KG	
SW6020/NONE	SO	079SB-0020M-0001-SO	240-22663-8	FD	Chromium	0.19	18.0	18.0	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	079SB-0020M-0001-SO	240-22663-8	FD	Copper	0.19	28.0	28.0	MG/KG	
SW6020/NONE	SO	079SB-0020M-0001-SO	240-22663-8	FD	Iron	4.6	26000	26000	MG/KG	
SW6020/NONE	SO	079SB-0020M-0001-SO	240-22663-8	FD	Potassium	9.3	1200	1200	MG/KG	
SW6020/NONE	SO	079SB-0020M-0001-SO	240-22663-8	FD	Magnesium	9.3	3500	3500	MG/KG	
SW6020/NONE	SO	079SB-0020M-0001-SO	240-22663-8	FD	Manganese	0.46	270	270	MG/KG	
SW6020/NONE	SO	079SB-0020M-0001-SO	240-22663-8	FD	Sodium	9.3	42.0	42.0	MG/KG	
SW6020/NONE	SO	079SB-0020M-0001-SO	240-22663-8	FD	Nickel	0.093	27.0	27.0	MG/KG	
SW6020/NONE	SO	079SB-0020M-0001-SO	240-22663-8	FD	Lead	0.093	13.0	13.0	MG/KG	
SW6020/NONE	SO	079SB-0020M-0001-SO	240-22663-8	FD	Selenium	0.46	0.35	0.35 J	MG/KG	TR
SW6020/NONE	SO	079SB-0020M-0001-SO	240-22663-8	FD	Thallium	0.093	0.18	0.18	MG/KG	
SW6020/NONE	SO	079SB-0020M-0001-SO	240-22663-8	FD	Vanadium	0.093	21.0	21.0	MG/KG	
SW6020/NONE	SO	079SB-0020M-0001-SO	240-22663-8	FD	Zinc	0.46	62.0	62.0 J	MG/KG	A
SW6020/NONE	SO	079SB-0021M-0001-SO	240-22663-21	N	Silver	0.098	0.035	0.035 J	MG/KG	TR
SW6020/NONE	SO	079SB-0021M-0001-SO	240-22663-21	N	Aluminum	2.9	8000	8000	MG/KG	
SW6020/NONE	SO	079SB-0021M-0001-SO	240-22663-21	N	Arsenic	0.098	6.6	6.6	MG/KG	
SW6020/NONE	SO	079SB-0021M-0001-SO	240-22663-21	N	Barium	0.98	59.0	59.0	MG/KG	
SW6020/NONE	SO	079SB-0021M-0001-SO	240-22663-21	N	Beryllium	0.098	0.29	0.29	MG/KG	
SW6020/NONE	SO	079SB-0021M-0001-SO	240-22663-21	N	Calcium	9.8	600	600	MG/KG	
SW6020/NONE	SO	079SB-0021M-0001-SO	240-22663-21	N	Cadmium	0.098	0.16	0.16	MG/KG	
SW6020/NONE	SO	079SB-0021M-0001-SO	240-22663-21	N	Cobalt	0.049	6.6	6.6	MG/KG	
SW6020/NONE	SO	079SB-0021M-0001-SO	240-22663-21	N	Chromium	0.20	11.0	11.0	MG/KG	
SW6020/NONE	SO	079SB-0021M-0001-SO	240-22663-21	N	Copper	0.20	8.9	8.9	MG/KG	
SW6020/NONE	SO	079SB-0021M-0001-SO	240-22663-21	N	Iron	4.9	20000	20000	MG/KG	
SW6020/NONE	SO	079SB-0021M-0001-SO	240-22663-21	N	Potassium	9.8	580	580	MG/KG	
SW6020/NONE	SO	079SB-0021M-0001-SO	240-22663-21	N	Magnesium	9.8	1400	1400	MG/KG	
SW6020/NONE	SO	079SB-0021M-0001-SO	240-22663-21	N	Manganese	0.49	450	450	MG/KG	
SW6020/NONE	SO	079SB-0021M-0001-SO	240-22663-21	N	Sodium	9.8	27.0	27.0	MG/KG	
SW6020/NONE	SO	079SB-0021M-0001-SO	240-22663-21	N	Nickel	0.098	10.0	10.0	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	079SB-0021M-0001-SO	240-22663-21	N	Lead	0.098	12.0	12.0	MG/KG	
SW6020/NONE	SO	079SB-0021M-0001-SO	240-22663-21	N	Thallium	0.098	0.13	0.13	MG/KG	
SW6020/NONE	SO	079SB-0021M-0001-SO	240-22663-21	N	Vanadium	0.098	16.0	16.0	MG/KG	
SW6020/NONE	SO	079SB-0021M-0001-SO	240-22663-21	N	Zinc	0.49	100	100	MG/KG	
SW6020/NONE	SO	079SB-0022M-0001-SO	240-22663-22	N	Silver	0.098	0.026	0.026 J	MG/KG	TR
SW6020/NONE	SO	079SB-0022M-0001-SO	240-22663-22	N	Aluminum	2.9	12000	12000	MG/KG	
SW6020/NONE	SO	079SB-0022M-0001-SO	240-22663-22	N	Arsenic	0.098	11.0	11.0	MG/KG	
SW6020/NONE	SO	079SB-0022M-0001-SO	240-22663-22	N	Barium	0.98	79.0	79.0	MG/KG	
SW6020/NONE	SO	079SB-0022M-0001-SO	240-22663-22	N	Beryllium	0.098	0.60	0.60	MG/KG	
SW6020/NONE	SO	079SB-0022M-0001-SO	240-22663-22	N	Calcium	9.8	2000	2000	MG/KG	
SW6020/NONE	SO	079SB-0022M-0001-SO	240-22663-22	N	Cadmium	0.098	0.16	0.16	MG/KG	
SW6020/NONE	SO	079SB-0022M-0001-SO	240-22663-22	N	Cobalt	0.049	11.0	11.0	MG/KG	
SW6020/NONE	SO	079SB-0022M-0001-SO	240-22663-22	N	Chromium	0.20	16.0	16.0	MG/KG	
SW6020/NONE	SO	079SB-0022M-0001-SO	240-22663-22	N	Copper	0.20	18.0	18.0	MG/KG	
SW6020/NONE	SO	079SB-0022M-0001-SO	240-22663-22	N	Iron	4.9	26000	26000	MG/KG	
SW6020/NONE	SO	079SB-0022M-0001-SO	240-22663-22	N	Potassium	9.8	1100	1100	MG/KG	
SW6020/NONE	SO	079SB-0022M-0001-SO	240-22663-22	N	Magnesium	9.8	3500	3500	MG/KG	
SW6020/NONE	SO	079SB-0022M-0001-SO	240-22663-22	N	Manganese	0.49	310	310	MG/KG	
SW6020/NONE	SO	079SB-0022M-0001-SO	240-22663-22	N	Sodium	9.8	42.0	42.0	MG/KG	
SW6020/NONE	SO	079SB-0022M-0001-SO	240-22663-22	N	Nickel	0.098	26.0	26.0	MG/KG	
SW6020/NONE	SO	079SB-0022M-0001-SO	240-22663-22	N	Lead	0.098	12.0	12.0	MG/KG	
SW6020/NONE	SO	079SB-0022M-0001-SO	240-22663-22	N	Thallium	0.098	0.15	0.15	MG/KG	
SW6020/NONE	SO	079SB-0022M-0001-SO	240-22663-22	N	Vanadium	0.098	17.0	17.0	MG/KG	
SW6020/NONE	SO	079SB-0022M-0001-SO	240-22663-22	N	Zinc	0.49	62.0	62.0	MG/KG	
SW6020/NONE	SO	079SB-0023M-0001-SO	240-22663-23	FD	Silver	0.10	0.025	0.025 J	MG/KG	TR
SW6020/NONE	SO	079SB-0023M-0001-SO	240-22663-23	FD	Aluminum	3.0	12000	12000	MG/KG	
SW6020/NONE	SO	079SB-0023M-0001-SO	240-22663-23	FD	Arsenic	0.10	11.0	11.0	MG/KG	
SW6020/NONE	SO	079SB-0023M-0001-SO	240-22663-23	FD	Barium	1.0	72.0	72.0	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	079SB-0023M-0001-SO	240-22663-23	FD	Beryllium	0.10	0.60	0.60	MG/KG	
SW6020/NONE	SO	079SB-0023M-0001-SO	240-22663-23	FD	Calcium	10.0	2700	2700	MG/KG	
SW6020/NONE	SO	079SB-0023M-0001-SO	240-22663-23	FD	Cadmium	0.10	0.15	0.15	MG/KG	
SW6020/NONE	SO	079SB-0023M-0001-SO	240-22663-23	FD	Cobalt	0.050	11.0	11.0	MG/KG	
SW6020/NONE	SO	079SB-0023M-0001-SO	240-22663-23	FD	Chromium	0.20	16.0	16.0	MG/KG	
SW6020/NONE	SO	079SB-0023M-0001-SO	240-22663-23	FD	Copper	0.20	18.0	18.0	MG/KG	
SW6020/NONE	SO	079SB-0023M-0001-SO	240-22663-23	FD	Iron	5.0	26000	26000	MG/KG	
SW6020/NONE	SO	079SB-0023M-0001-SO	240-22663-23	FD	Potassium	10.0	1100	1100	MG/KG	
SW6020/NONE	SO	079SB-0023M-0001-SO	240-22663-23	FD	Magnesium	10.0	3500	3500	MG/KG	
SW6020/NONE	SO	079SB-0023M-0001-SO	240-22663-23	FD	Manganese	0.50	300	300	MG/KG	
SW6020/NONE	SO	079SB-0023M-0001-SO	240-22663-23	FD	Sodium	10.0	42.0	42.0	MG/KG	
SW6020/NONE	SO	079SB-0023M-0001-SO	240-22663-23	FD	Nickel	0.10	25.0	25.0	MG/KG	
SW6020/NONE	SO	079SB-0023M-0001-SO	240-22663-23	FD	Lead	0.10	13.0	13.0	MG/KG	
SW6020/NONE	SO	079SB-0023M-0001-SO	240-22663-23	FD	Thallium	0.10	0.15	0.15	MG/KG	
SW6020/NONE	SO	079SB-0023M-0001-SO	240-22663-23	FD	Vanadium	0.10	17.0	17.0	MG/KG	
SW6020/NONE	SO	079SB-0023M-0001-SO	240-22663-23	FD	Zinc	0.50	60.0	60.0	MG/KG	
SW6020/NONE	SO	079SB-0024M-0001-SO	240-22663-24	N	Silver	0.097	0.030	0.030 J	MG/KG	TR
SW6020/NONE	SO	079SB-0024M-0001-SO	240-22663-24	N	Aluminum	2.9	12000	12000	MG/KG	
SW6020/NONE	SO	079SB-0024M-0001-SO	240-22663-24	N	Arsenic	0.097	10.0	10.0	MG/KG	
SW6020/NONE	SO	079SB-0024M-0001-SO	240-22663-24	N	Barium	0.97	72.0	72.0	MG/KG	
SW6020/NONE	SO	079SB-0024M-0001-SO	240-22663-24	N	Beryllium	0.097	0.55	0.55 J	MG/KG	A
SW6020/NONE	SO	079SB-0024M-0001-SO	240-22663-24	N	Calcium	9.7	1000	1000	MG/KG	
SW6020/NONE	SO	079SB-0024M-0001-SO	240-22663-24	N	Cadmium	0.097	0.18	0.18	MG/KG	
SW6020/NONE	SO	079SB-0024M-0001-SO	240-22663-24	N	Cobalt	0.049	11.0	11.0	MG/KG	
SW6020/NONE	SO	079SB-0024M-0001-SO	240-22663-24	N	Chromium	0.19	15.0	15.0	MG/KG	
SW6020/NONE	SO	079SB-0024M-0001-SO	240-22663-24	N	Copper	0.19	17.0	17.0	MG/KG	
SW6020/NONE	SO	079SB-0024M-0001-SO	240-22663-24	N	Iron	4.9	25000	25000	MG/KG	
SW6020/NONE	SO	079SB-0024M-0001-SO	240-22663-24	N	Potassium	9.7	890	890	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	079SB-0024M-0001-SO	240-22663-24	N	Magnesium	9.7	2800	2800	MG/KG	
SW6020/NONE	SO	079SB-0024M-0001-SO	240-22663-24	N	Manganese	0.49	260	260	MG/KG	
SW6020/NONE	SO	079SB-0024M-0001-SO	240-22663-24	N	Sodium	9.7	35.0	35.0	MG/KG	
SW6020/NONE	SO	079SB-0024M-0001-SO	240-22663-24	N	Nickel	0.097	21.0	21.0	MG/KG	
SW6020/NONE	SO	079SB-0024M-0001-SO	240-22663-24	N	Lead	0.097	12.0	12.0	MG/KG	
SW6020/NONE	SO	079SB-0024M-0001-SO	240-22663-24	N	Selenium	0.49	0.35	0.35 J	MG/KG	TR
SW6020/NONE	SO	079SB-0024M-0001-SO	240-22663-24	N	Thallium	0.097	0.15	0.15	MG/KG	
SW6020/NONE	SO	079SB-0024M-0001-SO	240-22663-24	N	Vanadium	0.097	19.0	19.0	MG/KG	
SW6020/NONE	SO	079SB-0024M-0001-SO	240-22663-24	N	Zinc	0.49	68.0	68.0	MG/KG	
SW6020/NONE	SO	079SB-0025M-0001-SO	240-22663-25	N	Silver	0.096	0.028	0.028 J	MG/KG	TR
SW6020/NONE	SO	079SB-0025M-0001-SO	240-22663-25	N	Aluminum	2.9	8900	8900	MG/KG	
SW6020/NONE	SO	079SB-0025M-0001-SO	240-22663-25	N	Arsenic	0.096	6.9	6.9	MG/KG	
SW6020/NONE	SO	079SB-0025M-0001-SO	240-22663-25	N	Barium	0.96	58.0	58.0	MG/KG	
SW6020/NONE	SO	079SB-0025M-0001-SO	240-22663-25	N	Beryllium	0.096	0.42	0.42	MG/KG	
SW6020/NONE	SO	079SB-0025M-0001-SO	240-22663-25	N	Calcium	9.6	2200	2200	MG/KG	
SW6020/NONE	SO	079SB-0025M-0001-SO	240-22663-25	N	Cadmium	0.096	0.22	0.22	MG/KG	
SW6020/NONE	SO	079SB-0025M-0001-SO	240-22663-25	N	Cobalt	0.048	8.6	8.6	MG/KG	
SW6020/NONE	SO	079SB-0025M-0001-SO	240-22663-25	N	Chromium	0.19	12.0	12.0	MG/KG	
SW6020/NONE	SO	079SB-0025M-0001-SO	240-22663-25	N	Copper	0.19	11.0	11.0	MG/KG	
SW6020/NONE	SO	079SB-0025M-0001-SO	240-22663-25	N	Iron	4.8	19000	19000	MG/KG	
SW6020/NONE	SO	079SB-0025M-0001-SO	240-22663-25	N	Potassium	9.6	820	820	MG/KG	
SW6020/NONE	SO	079SB-0025M-0001-SO	240-22663-25	N	Magnesium	9.6	2400	2400	MG/KG	
SW6020/NONE	SO	079SB-0025M-0001-SO	240-22663-25	N	Manganese	0.48	560	560	MG/KG	
SW6020/NONE	SO	079SB-0025M-0001-SO	240-22663-25	N	Sodium	9.6	34.0	34.0	MG/KG	
SW6020/NONE	SO	079SB-0025M-0001-SO	240-22663-25	N	Nickel	0.096	16.0	16.0	MG/KG	
SW6020/NONE	SO	079SB-0025M-0001-SO	240-22663-25	N	Lead	0.096	11.0	11.0	MG/KG	
SW6020/NONE	SO	079SB-0025M-0001-SO	240-22663-25	N	Thallium	0.096	0.13	0.13	MG/KG	
SW6020/NONE	SO	079SB-0025M-0001-SO	240-22663-25	N	Vanadium	0.096	16.0	16.0	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	079SB-0025M-0001-SO	240-22663-25	N	Zinc	0.48	160	160	MG/KG	
SW6020/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Silver	0.096	0.023	0.023 J	MG/KG	TR
SW6020/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Aluminum	2.9	12000	12000	MG/KG	
SW6020/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Arsenic	0.096	10.0	10.0	MG/KG	
SW6020/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Barium	0.96	62.0	62.0	MG/KG	
SW6020/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Beryllium	0.096	0.58	0.58	MG/KG	
SW6020/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Calcium	9.6	3900	3900	MG/KG	
SW6020/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Cadmium	0.096	0.15	0.15	MG/KG	
SW6020/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Cobalt	0.048	11.0	11.0	MG/KG	
SW6020/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Chromium	0.19	17.0	17.0	MG/KG	
SW6020/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Copper	0.19	19.0	19.0	MG/KG	
SW6020/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Iron	4.8	27000	27000	MG/KG	
SW6020/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Potassium	9.6	1000	1000	MG/KG	
SW6020/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Magnesium	9.6	3800	3800	MG/KG	
SW6020/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Manganese	0.48	240	240	MG/KG	
SW6020/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Sodium	9.6	42.0	42.0	MG/KG	
SW6020/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Nickel	0.096	26.0	26.0	MG/KG	
SW6020/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Lead	0.096	12.0	12.0	MG/KG	
SW6020/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Thallium	0.096	0.15	0.15	MG/KG	
SW6020/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Vanadium	0.096	19.0	19.0	MG/KG	
SW6020/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Zinc	0.48	53.0	53.0	MG/KG	
SW6020/NONE	SO	079SB-0027M-0001-SO	240-22663-27	N	Silver	0.097	0.035	0.035 J	MG/KG	TR
SW6020/NONE	SO	079SB-0027M-0001-SO	240-22663-27	N	Aluminum	2.9	9500	9500	MG/KG	
SW6020/NONE	SO	079SB-0027M-0001-SO	240-22663-27	N	Arsenic	0.097	11.0	11.0	MG/KG	
SW6020/NONE	SO	079SB-0027M-0001-SO	240-22663-27	N	Barium	0.97	82.0	82.0	MG/KG	
SW6020/NONE	SO	079SB-0027M-0001-SO	240-22663-27	N	Beryllium	0.097	0.46	0.46	MG/KG	
SW6020/NONE	SO	079SB-0027M-0001-SO	240-22663-27	N	Calcium	9.7	360	360	MG/KG	
SW6020/NONE	SO	079SB-0027M-0001-SO	240-22663-27	N	Cadmium	0.097	0.098	0.098	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	079SB-0027M-0001-SO	240-22663-27	N	Cobalt	0.049	12.0	12.0	MG/KG	
SW6020/NONE	SO	079SB-0027M-0001-SO	240-22663-27	N	Chromium	0.19	15.0	15.0	MG/KG	
SW6020/NONE	SO	079SB-0027M-0001-SO	240-22663-27	N	Copper	0.19	14.0	14.0	MG/KG	
SW6020/NONE	SO	079SB-0027M-0001-SO	240-22663-27	N	Iron	4.9	28000	28000	MG/KG	
SW6020/NONE	SO	079SB-0027M-0001-SO	240-22663-27	N	Potassium	9.7	790	790	MG/KG	
SW6020/NONE	SO	079SB-0027M-0001-SO	240-22663-27	N	Magnesium	9.7	2200	2200	MG/KG	
SW6020/NONE	SO	079SB-0027M-0001-SO	240-22663-27	N	Manganese	0.49	840	840	MG/KG	
SW6020/NONE	SO	079SB-0027M-0001-SO	240-22663-27	N	Sodium	9.7	32.0	32.0	MG/KG	
SW6020/NONE	SO	079SB-0027M-0001-SO	240-22663-27	N	Nickel	0.097	18.0	18.0	MG/KG	
SW6020/NONE	SO	079SB-0027M-0001-SO	240-22663-27	N	Lead	0.097	14.0	14.0	MG/KG	
SW6020/NONE	SO	079SB-0027M-0001-SO	240-22663-27	N	Thallium	0.097	0.13	0.13	MG/KG	
SW6020/NONE	SO	079SB-0027M-0001-SO	240-22663-27	N	Vanadium	0.097	20.0	20.0	MG/KG	
SW6020/NONE	SO	079SB-0027M-0001-SO	240-22663-27	N	Zinc	0.49	47.0	47.0	MG/KG	
SW6020/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Silver	0.095	0.026	0.026 J	MG/KG	TR
SW6020/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Aluminum	2.9	7900	7900	MG/KG	
SW6020/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Arsenic	0.095	6.7	6.7	MG/KG	
SW6020/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Barium	0.95	51.0	51.0	MG/KG	
SW6020/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Beryllium	0.095	0.34	0.34	MG/KG	
SW6020/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Calcium	9.5	380	380	MG/KG	
SW6020/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Cadmium	0.095	0.18	0.18	MG/KG	
SW6020/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Cobalt	0.048	5.0	5.0	MG/KG	
SW6020/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Chromium	0.19	10.0	10.0	MG/KG	
SW6020/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Copper	0.19	9.4	9.4	MG/KG	
SW6020/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Iron	4.8	17000	17000	MG/KG	
SW6020/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Potassium	9.5	570	570	MG/KG	
SW6020/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Magnesium	9.5	1400	1400	MG/KG	
SW6020/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Manganese	0.48	130	130	MG/KG	
SW6020/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Sodium	9.5	27.0	27.0	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Nickel	0.095	12.0	12.0	MG/KG	
SW6020/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Lead	0.095	11.0	11.0	MG/KG	
SW6020/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Thallium	0.095	0.12	0.12	MG/KG	
SW6020/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Vanadium	0.095	14.0	14.0	MG/KG	
SW6020/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Zinc	0.48	42.0	42.0	MG/KG	
SW6020/NONE	SO	079SB-0029M-0001-SO	240-22663-29	N	Silver	0.10	0.031	0.031 J	MG/KG	TR
SW6020/NONE	SO	079SB-0029M-0001-SO	240-22663-29	N	Aluminum	3.1	2600	2600	MG/KG	
SW6020/NONE	SO	079SB-0029M-0001-SO	240-22663-29	N	Arsenic	0.10	8.9	8.9	MG/KG	
SW6020/NONE	SO	079SB-0029M-0001-SO	240-22663-29	N	Barium	1.0	15.0	15.0	MG/KG	
SW6020/NONE	SO	079SB-0029M-0001-SO	240-22663-29	N	Beryllium	0.10	0.13	0.13 J	MG/KG	A
SW6020/NONE	SO	079SB-0029M-0001-SO	240-22663-29	N	Calcium	10.0	8800	8800	MG/KG	
SW6020/NONE	SO	079SB-0029M-0001-SO	240-22663-29	N	Cadmium	0.10	0.13	0.13	MG/KG	
SW6020/NONE	SO	079SB-0029M-0001-SO	240-22663-29	N	Cobalt	0.051	3.9	3.9	MG/KG	
SW6020/NONE	SO	079SB-0029M-0001-SO	240-22663-29	N	Chromium	0.20	4.0	4.0	MG/KG	
SW6020/NONE	SO	079SB-0029M-0001-SO	240-22663-29	N	Copper	0.20	16.0	16.0	MG/KG	
SW6020/NONE	SO	079SB-0029M-0001-SO	240-22663-29	N	Iron	5.1	12000	12000	MG/KG	
SW6020/NONE	SO	079SB-0029M-0001-SO	240-22663-29	N	Potassium	10.0	440	440	MG/KG	
SW6020/NONE	SO	079SB-0029M-0001-SO	240-22663-29	N	Magnesium	10.0	2800	2800	MG/KG	
SW6020/NONE	SO	079SB-0029M-0001-SO	240-22663-29	N	Manganese	0.51	200	200	MG/KG	
SW6020/NONE	SO	079SB-0029M-0001-SO	240-22663-29	N	Sodium	10.0	40.0	40.0	MG/KG	
SW6020/NONE	SO	079SB-0029M-0001-SO	240-22663-29	N	Nickel	0.10	9.7	9.7	MG/KG	
SW6020/NONE	SO	079SB-0029M-0001-SO	240-22663-29	N	Lead	0.10	8.1	8.1	MG/KG	
SW6020/NONE	SO	079SB-0029M-0001-SO	240-22663-29	N	Antimony	0.20	0.26	0.26 J	MG/KG	m
SW6020/NONE	SO	079SB-0029M-0001-SO	240-22663-29	N	Selenium	0.51	0.17	0.17 J	MG/KG	TR
SW6020/NONE	SO	079SB-0029M-0001-SO	240-22663-29	N	Thallium	0.10	0.091	0.091 J	MG/KG	TR
SW6020/NONE	SO	079SB-0029M-0001-SO	240-22663-29	N	Vanadium	0.10	5.1	5.1	MG/KG	
SW6020/NONE	SO	079SB-0029M-0001-SO	240-22663-29	N	Zinc	0.51	43.0	43.0	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW7471A/NONE	SO	068SB-0017M-0001-SO	240-22663-31	N	Mercury	0.11	0.041	0.041 J	MG/KG	TR
SW7471A/NONE	SO	068SB-0019M-0001-SO	240-22663-33	N	Mercury	0.10	0.021	0.021 J	MG/KG	TR
SW7471A/NONE	SO	068SB-0022M-0001-SO	240-22663-34	FD	Mercury	0.10	0.019	0.019 J	MG/KG	TR
SW7471A/NONE	SO	068SB-0023M-0001-SO	240-22663-36	N	Mercury	0.11	0.040	0.040 J	MG/KG	TR
SW7471A/NONE	SO	068SB-0024M-0001-SO	240-22663-37	N	Mercury	0.10	0.025	0.025 J	MG/KG	TR
SW7471A/NONE	SO	068SB-0025M-0001-SO	240-22663-38	N	Mercury	0.11	0.050	0.050 J	MG/KG	TR
SW7471A/NONE	SO	073SB-0038M-0001-SO	240-22663-14	N	Mercury	0.11	0.018	0.018 J	MG/KG	TR
SW7471A/NONE	SO	073SB-0039M-0001-SO	240-22663-15	FD	Mercury	0.098	0.020	0.020 J	MG/KG	TR
SW7471A/NONE	SO	073SB-0041M-0001-SO	240-22663-17	N	Mercury	0.11	0.016	0.016 J	MG/KG	TR
SW7471A/NONE	SO	073SB-0043M-0001-SO	240-22663-19	N	Mercury	0.11	0.015	0.015 J	MG/KG	TR
SW7471A/NONE	SO	073SB-0044-0001-SO	240-22663-20	N	Mercury	0.12	0.027	0.027 J	MG/KG	TR
SW7471A/NONE	SO	073SS-0035M-0001-SO	240-22663-11	N	Mercury	0.11	0.027	0.027 J	MG/KG	TR
SW7471A/NONE	SO	079SB-0010M-0001-SO	240-22663-1	N	Mercury	0.091	0.019	0.019 J	MG/KG	TR
SW7471A/NONE	SO	079SB-0011M-0001-SO	240-22663-2	FD	Mercury	0.095	0.022	0.022 J	MG/KG	TR
SW7471A/NONE	SO	079SB-0013M-0001-SO	240-22663-3	N	Mercury	0.095	0.014	0.014 J	MG/KG	TR
SW7471A/NONE	SO	079SB-0015M-0001-SO	240-22663-5	N	Mercury	0.10	0.016	0.016 J	MG/KG	TR
SW7471A/NONE	SO	079SB-0016M-0001-SO	240-22663-6	N	Mercury	0.098	0.015	0.015 J	MG/KG	TR
SW7471A/NONE	SO	079SB-0017M-0001-SO	240-22663-7	N	Mercury	0.087	0.014	0.014 J	MG/KG	TR
SW7471A/NONE	SO	079SB-0019M-0001-SO	240-22663-9	N	Mercury	0.11	0.021	0.021 J	MG/KG	TR
SW7471A/NONE	SO	079SB-0020M-0001-SO	240-22663-8	FD	Mercury	0.11	0.024	0.024 J	MG/KG	TR
SW7471A/NONE	SO	079SB-0021M-0001-SO	240-22663-21	N	Mercury	0.11	0.029	0.029 J	MG/KG	TR
SW7471A/NONE	SO	079SB-0022M-0001-SO	240-22663-22	N	Mercury	0.095	0.018	0.018 J	MG/KG	TR
SW7471A/NONE	SO	079SB-0023M-0001-SO	240-22663-23	FD	Mercury	0.087	0.018	0.018 J	MG/KG	TR
SW7471A/NONE	SO	079SB-0024M-0001-SO	240-22663-24	N	Mercury	0.10	0.025	0.025 J	MG/KG	TR
SW7471A/NONE	SO	079SB-0025M-0001-SO	240-22663-25	N	Mercury	0.10	0.022	0.022 J	MG/KG	TR
SW7471A/NONE	SO	079SB-0026M-0001-SO	240-22663-26	N	Mercury	0.090	0.018	0.018 J	MG/KG	TR
SW7471A/NONE	SO	079SB-0027M-0001-SO	240-22663-27	N	Mercury	0.092	0.025	0.025 J	MG/KG	TR
SW7471A/NONE	SO	079SB-0028M-0001-SO	240-22663-28	N	Mercury	0.097	0.026	0.026 J	MG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8081/NONE	SO	073SB-0041M-0001-SO	240-22663-17	N	alpha-BHC (alpha-Hexachlorocyclohexane)	2.5	1.2	1.2 J	UG/KG	TR/h/P1
SW8081/NONE	SO	073SB-0041M-0001-SO	240-22663-17	N	p,p'-DDE	1.7	0.66	0.66 J	UG/KG	TR/h/V2
Test Leach	**Matrix**	**FieldSample ID**	**LabSample ID**	**Type**	**Analyte**	**RL**	**Lab Result**	**Qualified Result**	**Units**	**Reason**
SW8260B/NONE	WG	068SB-0026-0001-TB	240-22663-30	N	Acetone	10.0	6.2	6.2 J	UG/L	TR/J
SW8260B/NONE	WG	068SB-0026-0001-TB	240-22663-30	N	Methylene Chloride	1.0	1.2	1.2	UG/L	
Test Leach	**Matrix**	**FieldSample ID**	**LabSample ID**	**Type**	**Analyte**	**RL**	**Lab Result**	**Qualified Result**	**Units**	**Reason**
SW8270C/NONE	SO	068SB-0017M-0001-SO	240-22663-31	N	Anthracene	33.0	20.0	20.0 J	UG/KG	TR
SW8270C/NONE	SO	068SB-0017M-0001-SO	240-22663-31	N	bis(2-Ethylhexyl) Phthalate	350	140	140 J	UG/KG	TR
SW8270C/NONE	SO	068SB-0017M-0001-SO	240-22663-31	N	Benzo(a)anthracene	33.0	65.0	65.0	UG/KG	
SW8270C/NONE	SO	068SB-0017M-0001-SO	240-22663-31	N	Benzo(a)pyrene	33.0	44.0	44.0	UG/KG	
SW8270C/NONE	SO	068SB-0017M-0001-SO	240-22663-31	N	Benzo(b)fluoranthene	33.0	110	110	UG/KG	
SW8270C/NONE	SO	068SB-0017M-0001-SO	240-22663-31	N	Benzo(g,h,i)perylene	33.0	54.0	54.0	UG/KG	
SW8270C/NONE	SO	068SB-0017M-0001-SO	240-22663-31	N	Benzo(k)fluoranthene	33.0	33.0	33.0	UG/KG	
SW8270C/NONE	SO	068SB-0017M-0001-SO	240-22663-31	N	Chrysene	33.0	78.0	78.0	UG/KG	
SW8270C/NONE	SO	068SB-0017M-0001-SO	240-22663-31	N	Fluoranthene	33.0	140	140	UG/KG	
SW8270C/NONE	SO	068SB-0017M-0001-SO	240-22663-31	N	Indeno(1,2,3-c,d)pyrene	33.0	51.0	51.0	UG/KG	
SW8270C/NONE	SO	068SB-0017M-0001-SO	240-22663-31	N	Phenanthrene	33.0	48.0	48.0	UG/KG	
SW8270C/NONE	SO	068SB-0017M-0001-SO	240-22663-31	N	Pyrene	33.0	130	130	UG/KG	
SW8270C/NONE	SO	068SB-0018M-0001-SO	240-22663-32	N	Benzo(b)fluoranthene	34.0	21.0	21.0 J	UG/KG	TR
SW8270C/NONE	SO	068SB-0018M-0001-SO	240-22663-32	N	Fluoranthene	34.0	21.0	21.0 J	UG/KG	TR
SW8270C/NONE	SO	068SB-0020M-0001-SO	240-22663-35	N	bis(2-Ethylhexyl) Phthalate	350	110	110 J	UG/KG	TR
SW8270C/NONE	SO	068SB-0020M-0001-SO	240-22663-35	N	Fluoranthene	33.0	23.0	23.0 J	UG/KG	TR
SW8270C/NONE	SO	068SB-0023M-0001-SO	240-22663-36	N	Acenaphthylene	33.0	19.0	19.0 J	UG/KG	TR
SW8270C/NONE	SO	068SB-0023M-0001-SO	240-22663-36	N	Benzo(a)anthracene	33.0	80.0	80.0	UG/KG	
SW8270C/NONE	SO	068SB-0023M-0001-SO	240-22663-36	N	Benzo(a)pyrene	33.0	70.0	70.0	UG/KG	
SW8270C/NONE	SO	068SB-0023M-0001-SO	240-22663-36	N	Benzo(b)fluoranthene	33.0	140	140	UG/KG	
SW8270C/NONE	SO	068SB-0023M-0001-SO	240-22663-36	N	Benzo(g,h,i)perylene	33.0	71.0	71.0	UG/KG	
SW8270C/NONE	SO	068SB-0023M-0001-SO	240-22663-36	N	Benzo(k)fluoranthene	33.0	49.0	49.0	UG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8270C/NONE	SO	068SB-0023M-0001-SO	240-22663-36	N	Chrysene	33.0	110	110	UG/KG	
SW8270C/NONE	SO	068SB-0023M-0001-SO	240-22663-36	N	Fluoranthene	33.0	140	140	UG/KG	
SW8270C/NONE	SO	068SB-0023M-0001-SO	240-22663-36	N	Indeno(1,2,3-c,d)pyrene	33.0	61.0	61.0	UG/KG	
SW8270C/NONE	SO	068SB-0023M-0001-SO	240-22663-36	N	Phenanthrene	33.0	55.0	55.0	UG/KG	
SW8270C/NONE	SO	068SB-0023M-0001-SO	240-22663-36	N	Pyrene	33.0	120	120	UG/KG	
SW8270C/NONE	SO	068SB-0024M-0001-SO	240-22663-37	N	Acenaphthylene	33.0	22.0	22.0 J	UG/KG	TR
SW8270C/NONE	SO	068SB-0024M-0001-SO	240-22663-37	N	Anthracene	33.0	28.0	28.0 J	UG/KG	TR
SW8270C/NONE	SO	068SB-0024M-0001-SO	240-22663-37	N	bis(2-Ethylhexyl) Phthalate	350	120	120 J	UG/KG	TR
SW8270C/NONE	SO	068SB-0024M-0001-SO	240-22663-37	N	Benzo(a)anthracene	33.0	110	110	UG/KG	
SW8270C/NONE	SO	068SB-0024M-0001-SO	240-22663-37	N	Benzo(a)pyrene	33.0	94.0	94.0	UG/KG	
SW8270C/NONE	SO	068SB-0024M-0001-SO	240-22663-37	N	Benzo(b)fluoranthene	33.0	200	200	UG/KG	
SW8270C/NONE	SO	068SB-0024M-0001-SO	240-22663-37	N	Benzo(g,h,i)perylene	33.0	89.0	89.0	UG/KG	
SW8270C/NONE	SO	068SB-0024M-0001-SO	240-22663-37	N	Benzo(k)fluoranthene	33.0	56.0	56.0	UG/KG	
SW8270C/NONE	SO	068SB-0024M-0001-SO	240-22663-37	N	Chrysene	33.0	150	150	UG/KG	
SW8270C/NONE	SO	068SB-0024M-0001-SO	240-22663-37	N	Fluoranthene	33.0	180	180	UG/KG	
SW8270C/NONE	SO	068SB-0024M-0001-SO	240-22663-37	N	Indeno(1,2,3-c,d)pyrene	33.0	72.0	72.0	UG/KG	
SW8270C/NONE	SO	068SB-0024M-0001-SO	240-22663-37	N	Phenanthrene	33.0	94.0	94.0	UG/KG	
SW8270C/NONE	SO	068SB-0024M-0001-SO	240-22663-37	N	Pyrene	33.0	170	170	UG/KG	
SW8270C/NONE	SO	068SB-0025M-0001-SO	240-22663-38	N	Anthracene	34.0	52.0	52.0	UG/KG	
SW8270C/NONE	SO	068SB-0025M-0001-SO	240-22663-38	N	Benzo(a)anthracene	34.0	120	120	UG/KG	
SW8270C/NONE	SO	068SB-0025M-0001-SO	240-22663-38	N	Benzo(a)pyrene	34.0	83.0	83.0	UG/KG	
SW8270C/NONE	SO	068SB-0025M-0001-SO	240-22663-38	N	Benzo(b)fluoranthene	34.0	140	140	UG/KG	
SW8270C/NONE	SO	068SB-0025M-0001-SO	240-22663-38	N	Benzo(g,h,i)perylene	34.0	58.0	58.0	UG/KG	
SW8270C/NONE	SO	068SB-0025M-0001-SO	240-22663-38	N	Benzo(k)fluoranthene	34.0	46.0	46.0	UG/KG	
SW8270C/NONE	SO	068SB-0025M-0001-SO	240-22663-38	N	Chrysene	34.0	130	130	UG/KG	
SW8270C/NONE	SO	068SB-0025M-0001-SO	240-22663-38	N	Fluoranthene	34.0	270	270	UG/KG	
SW8270C/NONE	SO	068SB-0025M-0001-SO	240-22663-38	N	Indeno(1,2,3-c,d)pyrene	34.0	50.0	50.0	UG/KG	
SW8270C/NONE	SO	068SB-0025M-0001-SO	240-22663-38	N	Phenanthrene	34.0	180	180	UG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8270C/NONE	SO	068SB-0025M-0001-SO	240-22663-38	N	Pyrene	34.0	220	220	UG/KG	
SW8270C/NONE	SO	068SB-0027M-0001-SO	240-22663-40	N	bis(2-Ethylhexyl) Phthalate	70.0	97.0	97.0	UG/KG	
SW8270C/NONE	SO	068SB-0027M-0001-SO	240-22663-40	N	2-Methylnaphthalene	6.7	5.5	5.5 J	UG/KG	TR
SW8270C/NONE	SO	068SB-0027M-0001-SO	240-22663-40	N	Naphthalene	6.7	7.3	7.3	UG/KG	
SW8270C/NONE	SO	068SB-0028M-0001-SO	240-22663-41	N	bis(2-Ethylhexyl) Phthalate	70.0	110	110	UG/KG	
SW8270C/NONE	SO	068SB-0028M-0001-SO	240-22663-41	N	Benzo(a)anthracene	6.7	5.5	5.5 J	UG/KG	TR
SW8270C/NONE	SO	068SB-0028M-0001-SO	240-22663-41	N	Benzo(a)pyrene	6.7	4.3	4.3 J	UG/KG	TR
SW8270C/NONE	SO	068SB-0028M-0001-SO	240-22663-41	N	Benzo(b)fluoranthene	6.7	14.0	14.0	UG/KG	
SW8270C/NONE	SO	068SB-0028M-0001-SO	240-22663-41	N	Benzo(k)fluoranthene	6.7	6.8	6.8	UG/KG	
SW8270C/NONE	SO	068SB-0028M-0001-SO	240-22663-41	N	Chrysene	6.7	11.0	11.0	UG/KG	
SW8270C/NONE	SO	068SB-0028M-0001-SO	240-22663-41	N	Fluoranthene	6.7	17.0	17.0	UG/KG	
SW8270C/NONE	SO	068SB-0028M-0001-SO	240-22663-41	N	2-Methylnaphthalene	6.7	7.3	7.3	UG/KG	
SW8270C/NONE	SO	068SB-0028M-0001-SO	240-22663-41	N	Naphthalene	6.7	8.0	8.0	UG/KG	
SW8270C/NONE	SO	068SB-0028M-0001-SO	240-22663-41	N	Phenanthrene	6.7	9.6	9.6	UG/KG	
SW8270C/NONE	SO	068SB-0028M-0001-SO	240-22663-41	N	Pyrene	6.7	15.0	15.0	UG/KG	
SW8270C/NONE	SO	068SB-0030M-0001-SO	240-22663-43	N	bis(2-Ethylhexyl) Phthalate	71.0	53.0	53.0 J	UG/KG	TR
SW8270C/NONE	SO	068SB-0030M-0001-SO	240-22663-43	N	Benzo(a)anthracene	6.7	8.4	8.4	UG/KG	
SW8270C/NONE	SO	068SB-0030M-0001-SO	240-22663-43	N	Benzo(a)pyrene	6.7	7.9	7.9	UG/KG	
SW8270C/NONE	SO	068SB-0030M-0001-SO	240-22663-43	N	Benzo(b)fluoranthene	6.7	20.0	20.0	UG/KG	
SW8270C/NONE	SO	068SB-0030M-0001-SO	240-22663-43	N	Benzo(g,h,i)perylene	6.7	12.0	12.0	UG/KG	
SW8270C/NONE	SO	068SB-0030M-0001-SO	240-22663-43	N	Benzo(k)fluoranthene	6.7	9.9	9.9	UG/KG	
SW8270C/NONE	SO	068SB-0030M-0001-SO	240-22663-43	N	Chrysene	6.7	17.0	17.0	UG/KG	
SW8270C/NONE	SO	068SB-0030M-0001-SO	240-22663-43	N	Fluoranthene	6.7	14.0	14.0	UG/KG	
SW8270C/NONE	SO	068SB-0030M-0001-SO	240-22663-43	N	Indeno(1,2,3-c,d)pyrene	6.7	8.4	8.4	UG/KG	
SW8270C/NONE	SO	068SB-0030M-0001-SO	240-22663-43	N	2-Methylnaphthalene	6.7	4.1	4.1 J	UG/KG	TR
SW8270C/NONE	SO	068SB-0030M-0001-SO	240-22663-43	N	Naphthalene	6.7	6.1	6.1 J	UG/KG	TR
SW8270C/NONE	SO	068SB-0030M-0001-SO	240-22663-43	N	Phenanthrene	6.7	5.6	5.6 J	UG/KG	TR
SW8270C/NONE	SO	068SB-0030M-0001-SO	240-22663-43	N	Pyrene	6.7	11.0	11.0	UG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8270C/NONE	SO	068SB-0031M-0001-SO	240-22663-44	N	Benzo(b)fluoranthene	33.0	21.0	21.0 J	UG/KG	TR
SW8270C/NONE	SO	068SB-0031M-0001-SO	240-22663-44	N	Fluoranthene	33.0	28.0	28.0 J	UG/KG	TR
SW8270C/NONE	SO	068SB-0031M-0001-SO	240-22663-44	N	Pyrene	33.0	17.0	17.0 J	UG/KG	TR
SW8270C/NONE	SO	068SB-0032M-0001-SO	240-22663-39	N	bis(2-Ethylhexyl) Phthalate	81.0	35.0	35.0 J	UG/KG	TR
SW8270C/NONE	SO	073SB-0041M-0001-SO	240-22663-17	N	bis(2-Ethylhexyl) Phthalate	350	95.0	95.0 J	UG/KG	TR
SW8270C/NONE	SO	079SB-0014M-0001-SO	240-22663-4	N	bis(2-Ethylhexyl) Phthalate	360	230	230 J	UG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Rejected Results

Test Leach	Matrix	FieldSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8270C/NONE	SO	068SB-0017M-0001-SO	N	Benzoic acid	3300	3300	R	UG/KG	c
SW8270C/NONE	SO	068SB-0018M-0001-SO	N	Benzoic acid	3300	3300	R	UG/KG	c
SW8270C/NONE	SO	068SB-0019M-0001-SO	N	Benzoic acid	3300	3300	R	UG/KG	c
SW8270C/NONE	SO	068SB-0020M-0001-SO	N	Benzoic acid	3300	3300	R	UG/KG	c
SW8270C/NONE	SO	068SB-0022M-0001-SO	FD	Benzoic acid	3400	3400	R	UG/KG	c
SW8270C/NONE	SO	068SB-0023M-0001-SO	N	Benzoic acid	3300	3300	R	UG/KG	c
SW8270C/NONE	SO	068SB-0024M-0001-SO	N	Benzoic acid	3300	3300	R	UG/KG	c
SW8270C/NONE	SO	068SB-0025M-0001-SO	N	Benzoic acid	3300	3300	R	UG/KG	c
SW8270C/NONE	SO	068SB-0027M-0001-SO	N	Benzoic acid	660	660	R	UG/KG	c
SW8270C/NONE	SO	068SB-0028M-0001-SO	N	Benzoic acid	660	660	R	UG/KG	c
SW8270C/NONE	SO	068SB-0030M-0001-SO	N	Benzoic acid	670	670	R	UG/KG	c
SW8270C/NONE	SO	068SB-0031M-0001-SO	N	Benzoic acid	3300	3300	R	UG/KG	c/m
SW8270C/NONE	SO	068SB-0031M-0001-SO	N	2-Methylphenol (o-Cresol)	990	990	R	UG/KG	m
SW8270C/NONE	SO	068SB-0031M-0001-SO	N	4-Nitrophenol	1600	1600	R	UG/KG	m
SW8270C/NONE	SO	068SB-0032M-0001-SO	N	Benzoic acid	770	770	R	UG/KG	c
SW8270C/NONE	SO	073SB-0041M-0001-SO	N	Benzoic acid	3300	3300	R	UG/KG	c
SW8270C/NONE	SO	079SB-0014M-0001-SO	N	Benzoic acid	3300	3300	R	UG/KG	c
SW8270C/NONE	SO	079SB-0017M-0001-SO	N	Benzoic acid	3300	3300	R	UG/KG	c
SW8270C/NONE	SO	079SB-0026M-0001-SO	N	Benzoic acid	3300	3300	R	UG/KG	c
SW8270C/NONE	SO	079SB-0028M-0001-SO	N	Benzoic acid	3300	3300	R	UG/KG	c

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Anomalies Count

SDG Name: 240-22663-1_68,70,73,79_SB

Test/Extraction Method/Leach	# of Field Samples Outside of Compliance	# of Analytes Outside of Compliance
SW6020/SW3050B/NONE	3	13
SW7471A/TOTAL/NONE	17	17
SW8081/SW3540C/NONE	6	96
SW8082/SW3540C/NONE	18	126
SW8260B/SW5030B/NONE	1	1
SW8270C/SW3550/NONE	18	399

Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Reporting Anomalies

SDG Name: 240-22663-1_68,70,73,79_SB

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW6020/NONE	068SB-0032M-0001-SO	N	1	Barium	34	0.012	1.1	1	MG/KG
SW6020/NONE	068SB-0032M-0001-SO	N	1	Beryllium	0.41 J	0.0085	0.11	0.1	MG/KG
SW6020/NONE	068SB-0032M-0001-SO	N	1	Cadmium	0.14	0.015	0.11	0.1	MG/KG
SW6020/NONE	068SB-0032M-0001-SO	N	1	Calcium	4300	1.5	11	10	MG/KG
SW6020/NONE	068SB-0032M-0001-SO	N	1	Magnesium	5200	1.2	11	10	MG/KG
SW6020/NONE	068SB-0032M-0001-SO	N	1	Selenium	0.25 J	0.058	0.57	0.5	MG/KG
SW6020/NONE	073SB-0044-0001-SO	N	1	Barium	20	0.012	1.1	1	MG/KG
SW6020/NONE	073SB-0044-0001-SO	N	1	Beryllium	0.27	0.0081	0.11	0.1	MG/KG
SW6020/NONE	073SB-0044-0001-SO	N	1	Cadmium	0.26	0.014	0.11	0.1	MG/KG
SW6020/NONE	073SB-0044-0001-SO	N	1	Calcium	9400	1.4	11	10	MG/KG
SW6020/NONE	073SB-0044-0001-SO	N	1	Magnesium	4600	1.2	11	10	MG/KG
SW6020/NONE	073SB-0044-0001-SO	N	1	Selenium	0.54 U	0.055	0.54	0.5	MG/KG
SW6020/NONE	079SB-0029M-0001-SO	N	1	Selenium	0.17 J	0.052	0.51	0.5	MG/KG

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW7471A/NONE	068SB-0017M-0001-SO	N	1	Mercury	0.041 J	0.016	0.11	0.1	MG/KG
SW7471A/NONE	068SB-0018M-0001-SO	N	1	Mercury	0.11 U	0.015	0.11	0.1	MG/KG
SW7471A/NONE	068SB-0020M-0001-SO	N	1	Mercury	0.11 U	0.016	0.11	0.1	MG/KG
SW7471A/NONE	068SB-0023M-0001-SO	N	1	Mercury	0.04 J	0.016	0.11	0.1	MG/KG
SW7471A/NONE	068SB-0025M-0001-SO	N	1	Mercury	0.05 J	0.015	0.11	0.1	MG/KG
SW7471A/NONE	068SB-0030M-0001-SO	N	1	Mercury	0.11 U	0.015	0.11	0.1	MG/KG
SW7471A/NONE	073SB-0036M-0001-SO	N	1	Mercury	0.11 U	0.015	0.11	0.1	MG/KG
SW7471A/NONE	073SB-0037M-0001-SO	N	1	Mercury	0.11 U	0.015	0.11	0.1	MG/KG
SW7471A/NONE	073SB-0038M-0001-SO	N	1	Mercury	0.018 J	0.015	0.11	0.1	MG/KG
SW7471A/NONE	073SB-0041M-0001-SO	N	1	Mercury	0.016 J	0.015	0.11	0.1	MG/KG
SW7471A/NONE	073SB-0043M-0001-SO	N	1	Mercury	0.015 J	0.015	0.11	0.1	MG/KG
SW7471A/NONE	073SB-0044-0001-SO	N	1	Mercury	0.027 J	0.017	0.12	0.1	MG/KG
SW7471A/NONE	073SS-0035M-0001-SO	N	1	Mercury	0.027 J	0.016	0.11	0.1	MG/KG
SW7471A/NONE	079SB-0019M-0001-SO	N	1	Mercury	0.021 J	0.015	0.11	0.1	MG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Reporting Anomalies

SDG Name: 240-22663-1_68,70,73,79_SB

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW7471A/NONE	079SB-0020M-0001-SO	FD	1	Mercury	0.024 J	0.015	0.11	0.1	MG/KG
SW7471A/NONE	079SB-0021M-0001-SO	N	1	Mercury	0.029 J	0.016	0.11	0.1	MG/KG
SW7471A/NONE	079SB-0029M-0001-SO	N	1	Mercury	0.11 U	0.016	0.11	0.1	MG/KG

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8081/NONE	070SB-0046M-0001-SB	N	10	Aldrin	40 UJ	12	40	1.7	UG/KG
SW8081/NONE	070SB-0046M-0001-SB	N	10	alpha-BHC (alpha-Hexachlorocyclohexane)	25 UJ	7.2	25	1.7	UG/KG
SW8081/NONE	070SB-0046M-0001-SB	N	10	alpha-Chlordane	30 UJ	9.3	30	1.7	UG/KG
SW8081/NONE	070SB-0046M-0001-SB	N	10	alpha-Endosulfan	17 UJ	5.1	17	1.7	UG/KG
SW8081/NONE	070SB-0046M-0001-SB	N	10	beta-BHC (beta-Hexachlorocyclohexane)	35 UJ	11	35	1.7	UG/KG
SW8081/NONE	070SB-0046M-0001-SB	N	10	beta-Endosulfan	25 UJ	8.1	25	1.7	UG/KG
SW8081/NONE	070SB-0046M-0001-SB	N	10	delta-BHC (delta-Hexachlorocyclohexane)	40 UJ	12	40	1.7	UG/KG
SW8081/NONE	070SB-0046M-0001-SB	N	10	Dieldrin	17 UJ	4.7	17	1.7	UG/KG
SW8081/NONE	070SB-0046M-0001-SB	N	10	Endosulfan Sulfate	30 UJ	8.6	30	1.7	UG/KG
SW8081/NONE	070SB-0046M-0001-SB	N	10	Endrin	17 UJ	4.9	17	1.7	UG/KG
SW8081/NONE	070SB-0046M-0001-SB	N	10	Endrin Aldehyde	30 UJ	9.9	30	1.7	UG/KG
SW8081/NONE	070SB-0046M-0001-SB	N	10	Endrin Ketone	20 UJ	6.2	20	1.7	UG/KG
SW8081/NONE	070SB-0046M-0001-SB	N	10	gamma-BHC (Lindane)	25 UJ	7.3	25	1.7	UG/KG
SW8081/NONE	070SB-0046M-0001-SB	N	10	gamma-Chlordane	17 UJ	4.2	17	1.7	UG/KG
SW8081/NONE	070SB-0046M-0001-SB	N	10	Heptachlor	35 UJ	11	35	1.7	UG/KG
SW8081/NONE	070SB-0046M-0001-SB	N	10	Heptachlor Epoxide	25 UJ	7.9	25	1.7	UG/KG
SW8081/NONE	070SB-0046M-0001-SB	N	10	Methoxychlor	49 UJ	15	49	1.7	UG/KG
SW8081/NONE	070SB-0046M-0001-SB	N	10	p,p'-DDD	20 UJ	6.1	20	1.7	UG/KG
SW8081/NONE	070SB-0046M-0001-SB	N	10	p,p'-DDE	17 UJ	3.9	17	1.7	UG/KG
SW8081/NONE	070SB-0046M-0001-SB	N	10	p,p'-DDT	20 UJ	6.2	20	1.7	UG/KG
SW8081/NONE	070SB-0046M-0001-SB	N	10	Toxaphene	660 UJ	190	660	170	UG/KG
SW8081/NONE	073SB-0041M-0001-SO	N	1	Aldrin	4 UJ	1.2	4	1.7	UG/KG
SW8081/NONE	073SB-0041M-0001-SO	N	1	alpha-BHC (alpha-Hexachlorocyclohexane)	1.2 J	0.73	2.5	1.7	UG/KG
SW8081/NONE	073SB-0041M-0001-SO	N	1	alpha-Chlordane	3 UJ	0.94	3	1.7	UG/KG
SW8081/NONE	073SB-0041M-0001-SO	N	1	beta-BHC (beta-Hexachlorocyclohexane)	3.5 UJ	1.1	3.5	1.7	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Reporting Anomalies

SDG Name: 240-22663-1_68,70,73,79_SB

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8081/NONE	073SB-0041M-0001-SO	N	1	beta-Endosulfan	2.5 UJ	0.82	2.5	1.7	UG/KG
SW8081/NONE	073SB-0041M-0001-SO	N	1	delta-BHC (delta-Hexachlorocyclohexane)	4 UJ	1.2	4	1.7	UG/KG
SW8081/NONE	073SB-0041M-0001-SO	N	1	Endosulfan Sulfate	3 UJ	0.87	3	1.7	UG/KG
SW8081/NONE	073SB-0041M-0001-SO	N	1	Endrin Aldehyde	3 UJ	1	3	1.7	UG/KG
SW8081/NONE	073SB-0041M-0001-SO	N	1	Endrin Ketone	2 UJ	0.63	2	1.7	UG/KG
SW8081/NONE	073SB-0041M-0001-SO	N	1	gamma-BHC (Lindane)	2.5 UJ	0.74	2.5	1.7	UG/KG
SW8081/NONE	073SB-0041M-0001-SO	N	1	Heptachlor	3.5 UJ	1.1	3.5	1.7	UG/KG
SW8081/NONE	073SB-0041M-0001-SO	N	1	Heptachlor Epoxide	2.5 UJ	0.8	2.5	1.7	UG/KG
SW8081/NONE	073SB-0041M-0001-SO	N	1	Methoxychlor	5 UJ	1.5	5	1.7	UG/KG
SW8081/NONE	073SB-0041M-0001-SO	N	1	p,p'-DDD	2 UJ	0.62	2	1.7	UG/KG
SW8081/NONE	073SB-0041M-0001-SO	N	1	p,p'-DDT	2 UJ	0.63	2	1.7	UG/KG
SW8081/NONE	079SB-0014M-0001-SO	N	1	Aldrin	3.9 UJ	1.2	3.9	1.7	UG/KG
SW8081/NONE	079SB-0014M-0001-SO	N	1	alpha-BHC (alpha-Hexachlorocyclohexane)	2.5 UJ	0.72	2.5	1.7	UG/KG
SW8081/NONE	079SB-0014M-0001-SO	N	1	alpha-Chlordane	3 UJ	0.93	3	1.7	UG/KG
SW8081/NONE	079SB-0014M-0001-SO	N	1	beta-BHC (beta-Hexachlorocyclohexane)	3.5 UJ	1.1	3.5	1.7	UG/KG
SW8081/NONE	079SB-0014M-0001-SO	N	1	beta-Endosulfan	2.5 UJ	0.81	2.5	1.7	UG/KG
SW8081/NONE	079SB-0014M-0001-SO	N	1	delta-BHC (delta-Hexachlorocyclohexane)	3.9 UJ	1.2	3.9	1.7	UG/KG
SW8081/NONE	079SB-0014M-0001-SO	N	1	Endosulfan Sulfate	3 UJ	0.86	3	1.7	UG/KG
SW8081/NONE	079SB-0014M-0001-SO	N	1	Endrin Aldehyde	3 UJ	0.99	3	1.7	UG/KG
SW8081/NONE	079SB-0014M-0001-SO	N	1	Endrin Ketone	2 UJ	0.62	2	1.7	UG/KG
SW8081/NONE	079SB-0014M-0001-SO	N	1	gamma-BHC (Lindane)	2.5 UJ	0.73	2.5	1.7	UG/KG
SW8081/NONE	079SB-0014M-0001-SO	N	1	Heptachlor	3.5 UJ	1.1	3.5	1.7	UG/KG
SW8081/NONE	079SB-0014M-0001-SO	N	1	Heptachlor Epoxide	2.5 UJ	0.79	2.5	1.7	UG/KG
SW8081/NONE	079SB-0014M-0001-SO	N	1	Methoxychlor	4.9 UJ	1.5	4.9	1.7	UG/KG
SW8081/NONE	079SB-0014M-0001-SO	N	1	p,p'-DDD	2 UJ	0.61	2	1.7	UG/KG
SW8081/NONE	079SB-0014M-0001-SO	N	1	p,p'-DDT	2 UJ	0.62	2	1.7	UG/KG
SW8081/NONE	079SB-0017M-0001-SO	N	1	Aldrin	4 UJ	1.2	4	1.7	UG/KG
SW8081/NONE	079SB-0017M-0001-SO	N	1	alpha-BHC (alpha-Hexachlorocyclohexane)	2.5 UJ	0.73	2.5	1.7	UG/KG
SW8081/NONE	079SB-0017M-0001-SO	N	1	alpha-Chlordane	3 UJ	0.94	3	1.7	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Reporting Anomalies

SDG Name: 240-22663-1_68,70,73,79_SB

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8081/NONE	079SB-0017M-0001-SO	N	1	beta-BHC (beta-Hexachlorocyclohexane)	3.5 UJ	1.1	3.5	1.7	UG/KG
SW8081/NONE	079SB-0017M-0001-SO	N	1	beta-Endosulfan	2.5 UJ	0.82	2.5	1.7	UG/KG
SW8081/NONE	079SB-0017M-0001-SO	N	1	delta-BHC (delta-Hexachlorocyclohexane)	4 UJ	1.2	4	1.7	UG/KG
SW8081/NONE	079SB-0017M-0001-SO	N	1	Endosulfan Sulfate	3 UJ	0.87	3	1.7	UG/KG
SW8081/NONE	079SB-0017M-0001-SO	N	1	Endrin Aldehyde	3 UJ	1	3	1.7	UG/KG
SW8081/NONE	079SB-0017M-0001-SO	N	1	Endrin Ketone	2 UJ	0.63	2	1.7	UG/KG
SW8081/NONE	079SB-0017M-0001-SO	N	1	gamma-BHC (Lindane)	2.5 UJ	0.74	2.5	1.7	UG/KG
SW8081/NONE	079SB-0017M-0001-SO	N	1	Heptachlor	3.5 UJ	1.1	3.5	1.7	UG/KG
SW8081/NONE	079SB-0017M-0001-SO	N	1	Heptachlor Epoxide	2.5 UJ	0.8	2.5	1.7	UG/KG
SW8081/NONE	079SB-0017M-0001-SO	N	1	Methoxychlor	5 UJ	1.5	5	1.7	UG/KG
SW8081/NONE	079SB-0017M-0001-SO	N	1	p,p'-DDD	2 UJ	0.62	2	1.7	UG/KG
SW8081/NONE	079SB-0017M-0001-SO	N	1	p,p'-DDT	2 UJ	0.63	2	1.7	UG/KG
SW8081/NONE	079SB-0026M-0001-SO	N	1	Aldrin	3.9 UJ	1.2	3.9	1.7	UG/KG
SW8081/NONE	079SB-0026M-0001-SO	N	1	alpha-BHC (alpha-Hexachlorocyclohexane)	2.5 UJ	0.72	2.5	1.7	UG/KG
SW8081/NONE	079SB-0026M-0001-SO	N	1	alpha-Chlordane	3 UJ	0.93	3	1.7	UG/KG
SW8081/NONE	079SB-0026M-0001-SO	N	1	beta-BHC (beta-Hexachlorocyclohexane)	3.5 UJ	1.1	3.5	1.7	UG/KG
SW8081/NONE	079SB-0026M-0001-SO	N	1	beta-Endosulfan	2.5 UJ	0.81	2.5	1.7	UG/KG
SW8081/NONE	079SB-0026M-0001-SO	N	1	delta-BHC (delta-Hexachlorocyclohexane)	3.9 UJ	1.2	3.9	1.7	UG/KG
SW8081/NONE	079SB-0026M-0001-SO	N	1	Endosulfan Sulfate	3 UJ	0.86	3	1.7	UG/KG
SW8081/NONE	079SB-0026M-0001-SO	N	1	Endrin Aldehyde	3 UJ	0.99	3	1.7	UG/KG
SW8081/NONE	079SB-0026M-0001-SO	N	1	Endrin Ketone	2 UJ	0.62	2	1.7	UG/KG
SW8081/NONE	079SB-0026M-0001-SO	N	1	gamma-BHC (Lindane)	2.5 UJ	0.73	2.5	1.7	UG/KG
SW8081/NONE	079SB-0026M-0001-SO	N	1	Heptachlor	3.5 UJ	1.1	3.5	1.7	UG/KG
SW8081/NONE	079SB-0026M-0001-SO	N	1	Heptachlor Epoxide	2.5 UJ	0.79	2.5	1.7	UG/KG
SW8081/NONE	079SB-0026M-0001-SO	N	1	Methoxychlor	4.9 UJ	1.5	4.9	1.7	UG/KG
SW8081/NONE	079SB-0026M-0001-SO	N	1	p,p'-DDD	2 UJ	0.61	2	1.7	UG/KG
SW8081/NONE	079SB-0026M-0001-SO	N	1	p,p'-DDT	2 UJ	0.62	2	1.7	UG/KG
SW8081/NONE	079SB-0028M-0001-SO	N	1	Aldrin	4 UJ	1.2	4	1.7	UG/KG
SW8081/NONE	079SB-0028M-0001-SO	N	1	alpha-BHC (alpha-Hexachlorocyclohexane)	2.5 UJ	0.72	2.5	1.7	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Reporting Anomalies

SDG Name: 240-22663-1_68,70,73,79_SB

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8081/NONE	079SB-0028M-0001-SO	N	1	alpha-Chlordane	3 UJ	0.93	3	1.7	UG/KG
SW8081/NONE	079SB-0028M-0001-SO	N	1	beta-BHC (beta-Hexachlorocyclohexane)	3.5 UJ	1.1	3.5	1.7	UG/KG
SW8081/NONE	079SB-0028M-0001-SO	N	1	beta-Endosulfan	2.5 UJ	0.81	2.5	1.7	UG/KG
SW8081/NONE	079SB-0028M-0001-SO	N	1	delta-BHC (delta-Hexachlorocyclohexane)	4 UJ	1.2	4	1.7	UG/KG
SW8081/NONE	079SB-0028M-0001-SO	N	1	Endosulfan Sulfate	3 UJ	0.86	3	1.7	UG/KG
SW8081/NONE	079SB-0028M-0001-SO	N	1	Endrin Aldehyde	3 UJ	0.99	3	1.7	UG/KG
SW8081/NONE	079SB-0028M-0001-SO	N	1	Endrin Ketone	2 UJ	0.62	2	1.7	UG/KG
SW8081/NONE	079SB-0028M-0001-SO	N	1	gamma-BHC (Lindane)	2.5 UJ	0.73	2.5	1.7	UG/KG
SW8081/NONE	079SB-0028M-0001-SO	N	1	Heptachlor	3.5 UJ	1.1	3.5	1.7	UG/KG
SW8081/NONE	079SB-0028M-0001-SO	N	1	Heptachlor Epoxide	2.5 UJ	0.79	2.5	1.7	UG/KG
SW8081/NONE	079SB-0028M-0001-SO	N	1	Methoxychlor	4.9 UJ	1.5	4.9	1.7	UG/KG
SW8081/NONE	079SB-0028M-0001-SO	N	1	p,p'-DDD	2 UJ	0.61	2	1.7	UG/KG
SW8081/NONE	079SB-0028M-0001-SO	N	1	p,p'-DDT	2 UJ	0.62	2	1.7	UG/KG

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8082/NONE	068SB-0017M-0001-SO	N	1	PCB-1016 (Arochlor 1016)	64 U	21	64	33	UG/KG
SW8082/NONE	068SB-0017M-0001-SO	N	1	PCB-1221 (Arochlor 1221)	49 U	16	49	33	UG/KG
SW8082/NONE	068SB-0017M-0001-SO	N	1	PCB-1232 (Arochlor 1232)	44 U	14	44	33	UG/KG
SW8082/NONE	068SB-0017M-0001-SO	N	1	PCB-1242 (Arochlor 1242)	39 U	13	39	33	UG/KG
SW8082/NONE	068SB-0017M-0001-SO	N	1	PCB-1248 (Arochlor 1248)	54 U	17	54	33	UG/KG
SW8082/NONE	068SB-0017M-0001-SO	N	1	PCB-1254 (Arochlor 1254)	54 U	17	54	33	UG/KG
SW8082/NONE	068SB-0017M-0001-SO	N	1	PCB-1260 (Arochlor 1260)	54 U	17	54	33	UG/KG
SW8082/NONE	068SB-0018M-0001-SO	N	1	PCB-1016 (Arochlor 1016)	64 U	21	64	33	UG/KG
SW8082/NONE	068SB-0018M-0001-SO	N	1	PCB-1221 (Arochlor 1221)	50 U	16	50	33	UG/KG
SW8082/NONE	068SB-0018M-0001-SO	N	1	PCB-1232 (Arochlor 1232)	45 U	14	45	33	UG/KG
SW8082/NONE	068SB-0018M-0001-SO	N	1	PCB-1242 (Arochlor 1242)	40 U	13	40	33	UG/KG
SW8082/NONE	068SB-0018M-0001-SO	N	1	PCB-1248 (Arochlor 1248)	54 U	17	54	33	UG/KG
SW8082/NONE	068SB-0018M-0001-SO	N	1	PCB-1254 (Arochlor 1254)	54 U	17	54	33	UG/KG
SW8082/NONE	068SB-0018M-0001-SO	N	1	PCB-1260 (Arochlor 1260)	54 U	17	54	33	UG/KG
SW8082/NONE	068SB-0019M-0001-SO	N	1	PCB-1016 (Arochlor 1016)	66 U	21	66	33	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Reporting Anomalies

SDG Name: 240-22663-1_68,70,73,79_SB

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8082/NONE	068SB-0019M-0001-SO	N	1	PCB-1221 (Arochlor 1221)	51 U	16	51	33	UG/KG
SW8082/NONE	068SB-0019M-0001-SO	N	1	PCB-1232 (Arochlor 1232)	46 U	14	46	33	UG/KG
SW8082/NONE	068SB-0019M-0001-SO	N	1	PCB-1242 (Arochlor 1242)	41 U	13	41	33	UG/KG
SW8082/NONE	068SB-0019M-0001-SO	N	1	PCB-1248 (Arochlor 1248)	56 U	17	56	33	UG/KG
SW8082/NONE	068SB-0019M-0001-SO	N	1	PCB-1254 (Arochlor 1254)	56 U	17	56	33	UG/KG
SW8082/NONE	068SB-0019M-0001-SO	N	1	PCB-1260 (Arochlor 1260)	56 U	17	56	33	UG/KG
SW8082/NONE	068SB-0020M-0001-SO	N	1	PCB-1016 (Arochlor 1016)	66 U	21	66	33	UG/KG
SW8082/NONE	068SB-0020M-0001-SO	N	1	PCB-1221 (Arochlor 1221)	50 U	16	50	33	UG/KG
SW8082/NONE	068SB-0020M-0001-SO	N	1	PCB-1232 (Arochlor 1232)	45 U	14	45	33	UG/KG
SW8082/NONE	068SB-0020M-0001-SO	N	1	PCB-1242 (Arochlor 1242)	40 U	13	40	33	UG/KG
SW8082/NONE	068SB-0020M-0001-SO	N	1	PCB-1248 (Arochlor 1248)	55 U	17	55	33	UG/KG
SW8082/NONE	068SB-0020M-0001-SO	N	1	PCB-1254 (Arochlor 1254)	55 U	17	55	33	UG/KG
SW8082/NONE	068SB-0020M-0001-SO	N	1	PCB-1260 (Arochlor 1260)	55 U	17	55	33	UG/KG
SW8082/NONE	068SB-0022M-0001-SO	FD	1	PCB-1016 (Arochlor 1016)	64 U	21	64	33	UG/KG
SW8082/NONE	068SB-0022M-0001-SO	FD	1	PCB-1221 (Arochlor 1221)	49 U	16	49	33	UG/KG
SW8082/NONE	068SB-0022M-0001-SO	FD	1	PCB-1232 (Arochlor 1232)	44 U	14	44	33	UG/KG
SW8082/NONE	068SB-0022M-0001-SO	FD	1	PCB-1242 (Arochlor 1242)	40 U	13	40	33	UG/KG
SW8082/NONE	068SB-0022M-0001-SO	FD	1	PCB-1248 (Arochlor 1248)	54 U	17	54	33	UG/KG
SW8082/NONE	068SB-0022M-0001-SO	FD	1	PCB-1254 (Arochlor 1254)	54 U	17	54	33	UG/KG
SW8082/NONE	068SB-0022M-0001-SO	FD	1	PCB-1260 (Arochlor 1260)	54 U	17	54	33	UG/KG
SW8082/NONE	068SB-0023M-0001-SO	N	1	PCB-1016 (Arochlor 1016)	65 U	21	65	33	UG/KG
SW8082/NONE	068SB-0023M-0001-SO	N	1	PCB-1221 (Arochlor 1221)	50 U	16	50	33	UG/KG
SW8082/NONE	068SB-0023M-0001-SO	N	1	PCB-1232 (Arochlor 1232)	45 U	14	45	33	UG/KG
SW8082/NONE	068SB-0023M-0001-SO	N	1	PCB-1242 (Arochlor 1242)	40 U	13	40	33	UG/KG
SW8082/NONE	068SB-0023M-0001-SO	N	1	PCB-1248 (Arochlor 1248)	55 U	17	55	33	UG/KG
SW8082/NONE	068SB-0023M-0001-SO	N	1	PCB-1254 (Arochlor 1254)	55 U	17	55	33	UG/KG
SW8082/NONE	068SB-0023M-0001-SO	N	1	PCB-1260 (Arochlor 1260)	55 U	17	55	33	UG/KG
SW8082/NONE	068SB-0024M-0001-SO	N	1	PCB-1016 (Arochlor 1016)	65 U	21	65	33	UG/KG
SW8082/NONE	068SB-0024M-0001-SO	N	1	PCB-1221 (Arochlor 1221)	50 U	16	50	33	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Reporting Anomalies

SDG Name: 240-22663-1_68,70,73,79_SB

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8082/NONE	068SB-0024M-0001-SO	N	1	PCB-1232 (Arochlor 1232)	45 U	14	45	33	UG/KG
SW8082/NONE	068SB-0024M-0001-SO	N	1	PCB-1242 (Arochlor 1242)	40 U	13	40	33	UG/KG
SW8082/NONE	068SB-0024M-0001-SO	N	1	PCB-1248 (Arochlor 1248)	55 U	17	55	33	UG/KG
SW8082/NONE	068SB-0024M-0001-SO	N	1	PCB-1254 (Arochlor 1254)	55 U	17	55	33	UG/KG
SW8082/NONE	068SB-0024M-0001-SO	N	1	PCB-1260 (Arochlor 1260)	55 U	17	55	33	UG/KG
SW8082/NONE	068SB-0025M-0001-SO	N	1	PCB-1016 (Arochlor 1016)	65 U	21	65	33	UG/KG
SW8082/NONE	068SB-0025M-0001-SO	N	1	PCB-1221 (Arochlor 1221)	50 U	16	50	33	UG/KG
SW8082/NONE	068SB-0025M-0001-SO	N	1	PCB-1232 (Arochlor 1232)	45 U	14	45	33	UG/KG
SW8082/NONE	068SB-0025M-0001-SO	N	1	PCB-1242 (Arochlor 1242)	40 U	13	40	33	UG/KG
SW8082/NONE	068SB-0025M-0001-SO	N	1	PCB-1248 (Arochlor 1248)	55 U	17	55	33	UG/KG
SW8082/NONE	068SB-0025M-0001-SO	N	1	PCB-1254 (Arochlor 1254)	55 U	17	55	33	UG/KG
SW8082/NONE	068SB-0025M-0001-SO	N	1	PCB-1260 (Arochlor 1260)	55 U	17	55	33	UG/KG
SW8082/NONE	068SB-0027M-0001-SO	N	1	PCB-1016 (Arochlor 1016)	64 U	21	64	33	UG/KG
SW8082/NONE	068SB-0027M-0001-SO	N	1	PCB-1221 (Arochlor 1221)	50 U	16	50	33	UG/KG
SW8082/NONE	068SB-0027M-0001-SO	N	1	PCB-1232 (Arochlor 1232)	45 U	14	45	33	UG/KG
SW8082/NONE	068SB-0027M-0001-SO	N	1	PCB-1242 (Arochlor 1242)	40 U	13	40	33	UG/KG
SW8082/NONE	068SB-0027M-0001-SO	N	1	PCB-1248 (Arochlor 1248)	54 U	17	54	33	UG/KG
SW8082/NONE	068SB-0027M-0001-SO	N	1	PCB-1254 (Arochlor 1254)	54 U	17	54	33	UG/KG
SW8082/NONE	068SB-0027M-0001-SO	N	1	PCB-1260 (Arochlor 1260)	54 U	17	54	33	UG/KG
SW8082/NONE	068SB-0028M-0001-SO	N	1	PCB-1016 (Arochlor 1016)	65 U	21	65	33	UG/KG
SW8082/NONE	068SB-0028M-0001-SO	N	1	PCB-1221 (Arochlor 1221)	50 U	16	50	33	UG/KG
SW8082/NONE	068SB-0028M-0001-SO	N	1	PCB-1232 (Arochlor 1232)	45 U	14	45	33	UG/KG
SW8082/NONE	068SB-0028M-0001-SO	N	1	PCB-1242 (Arochlor 1242)	40 U	13	40	33	UG/KG
SW8082/NONE	068SB-0028M-0001-SO	N	1	PCB-1248 (Arochlor 1248)	55 U	17	55	33	UG/KG
SW8082/NONE	068SB-0028M-0001-SO	N	1	PCB-1254 (Arochlor 1254)	55 U	17	55	33	UG/KG
SW8082/NONE	068SB-0028M-0001-SO	N	1	PCB-1260 (Arochlor 1260)	55 U	17	55	33	UG/KG
SW8082/NONE	068SB-0030M-0001-SO	N	1	PCB-1016 (Arochlor 1016)	65 U	21	65	33	UG/KG
SW8082/NONE	068SB-0030M-0001-SO	N	1	PCB-1221 (Arochlor 1221)	50 U	16	50	33	UG/KG
SW8082/NONE	068SB-0030M-0001-SO	N	1	PCB-1232 (Arochlor 1232)	45 U	14	45	33	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Reporting Anomalies

SDG Name: 240-22663-1_68,70,73,79_SB

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8082/NONE	068SB-0030M-0001-SO	N	1	PCB-1242 (Arochlor 1242)	40 U	13	40	33	UG/KG
SW8082/NONE	068SB-0030M-0001-SO	N	1	PCB-1248 (Arochlor 1248)	55 U	17	55	33	UG/KG
SW8082/NONE	068SB-0030M-0001-SO	N	1	PCB-1254 (Arochlor 1254)	55 U	17	55	33	UG/KG
SW8082/NONE	068SB-0030M-0001-SO	N	1	PCB-1260 (Arochlor 1260)	55 U	17	55	33	UG/KG
SW8082/NONE	068SB-0031M-0001-SO	N	1	PCB-1016 (Arochlor 1016)	66 U	21	66	33	UG/KG
SW8082/NONE	068SB-0031M-0001-SO	N	1	PCB-1221 (Arochlor 1221)	51 U	16	51	33	UG/KG
SW8082/NONE	068SB-0031M-0001-SO	N	1	PCB-1232 (Arochlor 1232)	46 U	14	46	33	UG/KG
SW8082/NONE	068SB-0031M-0001-SO	N	1	PCB-1242 (Arochlor 1242)	40 U	13	40	33	UG/KG
SW8082/NONE	068SB-0031M-0001-SO	N	1	PCB-1248 (Arochlor 1248)	56 U	17	56	33	UG/KG
SW8082/NONE	068SB-0031M-0001-SO	N	1	PCB-1254 (Arochlor 1254)	56 U	17	56	33	UG/KG
SW8082/NONE	068SB-0031M-0001-SO	N	1	PCB-1260 (Arochlor 1260)	56 U	17	56	33	UG/KG
SW8082/NONE	068SB-0032M-0001-SO	N	1	PCB-1016 (Arochlor 1016)	74 U	24	74	33	UG/KG
SW8082/NONE	068SB-0032M-0001-SO	N	1	PCB-1221 (Arochlor 1221)	57 U	18	57	33	UG/KG
SW8082/NONE	068SB-0032M-0001-SO	N	1	PCB-1232 (Arochlor 1232)	51 U	16	51	33	UG/KG
SW8082/NONE	068SB-0032M-0001-SO	N	1	PCB-1242 (Arochlor 1242)	46 U	15	46	33	UG/KG
SW8082/NONE	068SB-0032M-0001-SO	N	1	PCB-1248 (Arochlor 1248)	63 U	19	63	33	UG/KG
SW8082/NONE	068SB-0032M-0001-SO	N	1	PCB-1254 (Arochlor 1254)	63 U	19	63	33	UG/KG
SW8082/NONE	068SB-0032M-0001-SO	N	1	PCB-1260 (Arochlor 1260)	63 U	19	63	33	UG/KG
SW8082/NONE	073SB-0041M-0001-SO	N	1	PCB-1016 (Arochlor 1016)	64 U	21	64	33	UG/KG
SW8082/NONE	073SB-0041M-0001-SO	N	1	PCB-1221 (Arochlor 1221)	49 U	16	49	33	UG/KG
SW8082/NONE	073SB-0041M-0001-SO	N	1	PCB-1232 (Arochlor 1232)	44 U	14	44	33	UG/KG
SW8082/NONE	073SB-0041M-0001-SO	N	1	PCB-1242 (Arochlor 1242)	39 U	13	39	33	UG/KG
SW8082/NONE	073SB-0041M-0001-SO	N	1	PCB-1248 (Arochlor 1248)	54 U	17	54	33	UG/KG
SW8082/NONE	073SB-0041M-0001-SO	N	1	PCB-1254 (Arochlor 1254)	54 U	17	54	33	UG/KG
SW8082/NONE	073SB-0041M-0001-SO	N	1	PCB-1260 (Arochlor 1260)	54 U	17	54	33	UG/KG
SW8082/NONE	079SB-0014M-0001-SO	N	1	PCB-1016 (Arochlor 1016)	65 U	21	65	33	UG/KG
SW8082/NONE	079SB-0014M-0001-SO	N	1	PCB-1221 (Arochlor 1221)	50 U	16	50	33	UG/KG
SW8082/NONE	079SB-0014M-0001-SO	N	1	PCB-1232 (Arochlor 1232)	45 U	14	45	33	UG/KG
SW8082/NONE	079SB-0014M-0001-SO	N	1	PCB-1242 (Arochlor 1242)	40 U	13	40	33	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Reporting Anomalies

SDG Name: 240-22663-1_68,70,73,79_SB

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8082/NONE	079SB-0014M-0001-SO	N	1	PCB-1248 (Arochlor 1248)	55 U	17	55	33	UG/KG
SW8082/NONE	079SB-0014M-0001-SO	N	1	PCB-1254 (Arochlor 1254)	55 U	17	55	33	UG/KG
SW8082/NONE	079SB-0014M-0001-SO	N	1	PCB-1260 (Arochlor 1260)	55 U	17	55	33	UG/KG
SW8082/NONE	079SB-0017M-0001-SO	N	1	PCB-1016 (Arochlor 1016)	66 U	21	66	33	UG/KG
SW8082/NONE	079SB-0017M-0001-SO	N	1	PCB-1221 (Arochlor 1221)	50 U	16	50	33	UG/KG
SW8082/NONE	079SB-0017M-0001-SO	N	1	PCB-1232 (Arochlor 1232)	45 U	14	45	33	UG/KG
SW8082/NONE	079SB-0017M-0001-SO	N	1	PCB-1242 (Arochlor 1242)	40 U	13	40	33	UG/KG
SW8082/NONE	079SB-0017M-0001-SO	N	1	PCB-1248 (Arochlor 1248)	56 U	17	56	33	UG/KG
SW8082/NONE	079SB-0017M-0001-SO	N	1	PCB-1254 (Arochlor 1254)	56 U	17	56	33	UG/KG
SW8082/NONE	079SB-0017M-0001-SO	N	1	PCB-1260 (Arochlor 1260)	56 U	17	56	33	UG/KG
SW8082/NONE	079SB-0026M-0001-SO	N	1	PCB-1016 (Arochlor 1016)	65 UJ	21	65	33	UG/KG
SW8082/NONE	079SB-0026M-0001-SO	N	1	PCB-1221 (Arochlor 1221)	50 UJ	16	50	33	UG/KG
SW8082/NONE	079SB-0026M-0001-SO	N	1	PCB-1232 (Arochlor 1232)	45 UJ	14	45	33	UG/KG
SW8082/NONE	079SB-0026M-0001-SO	N	1	PCB-1242 (Arochlor 1242)	40 UJ	13	40	33	UG/KG
SW8082/NONE	079SB-0026M-0001-SO	N	1	PCB-1248 (Arochlor 1248)	55 UJ	17	55	33	UG/KG
SW8082/NONE	079SB-0026M-0001-SO	N	1	PCB-1254 (Arochlor 1254)	55 UJ	17	55	33	UG/KG
SW8082/NONE	079SB-0026M-0001-SO	N	1	PCB-1260 (Arochlor 1260)	55 UJ	17	55	33	UG/KG
SW8082/NONE	079SB-0028M-0001-SO	N	1	PCB-1016 (Arochlor 1016)	65 UJ	21	65	33	UG/KG
SW8082/NONE	079SB-0028M-0001-SO	N	1	PCB-1221 (Arochlor 1221)	50 UJ	16	50	33	UG/KG
SW8082/NONE	079SB-0028M-0001-SO	N	1	PCB-1232 (Arochlor 1232)	45 UJ	14	45	33	UG/KG
SW8082/NONE	079SB-0028M-0001-SO	N	1	PCB-1242 (Arochlor 1242)	40 UJ	13	40	33	UG/KG
SW8082/NONE	079SB-0028M-0001-SO	N	1	PCB-1248 (Arochlor 1248)	55 UJ	17	55	33	UG/KG
SW8082/NONE	079SB-0028M-0001-SO	N	1	PCB-1254 (Arochlor 1254)	55 UJ	17	55	33	UG/KG
SW8082/NONE	079SB-0028M-0001-SO	N	1	PCB-1260 (Arochlor 1260)	55 UJ	17	55	33	UG/KG

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8260B/NONE	068SB-0026-0001-TB	N	1	1,2-Dichloroethene	2 U	0.34	2	1	UG/L
SW8260B/NONE	073SB-0041M-0001-SO	N	1	1,2-Dichloroethene	8.3 U	0.64	8.3	5	UG/KG
SW8260B/NONE	079SB-0014M-0001-SO	N	1	1,1,1-Trichloroethane	5.5 UJ	0.61	5.5	5	UG/KG
SW8260B/NONE	079SB-0014M-0001-SO	N	1	1,1,2,2-Tetrachloroethane	5.5 UJ	0.37	5.5	5	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Reporting Anomalies

SDG Name: 240-22663-1_68,70,73,79_SB

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8260B/NONE	079SB-0014M-0001-SO	N	1	1,1,2-Trichloroethane	5.5 UJ	0.43	5.5	5	UG/KG
SW8260B/NONE	079SB-0014M-0001-SO	N	1	1,1-Dichloroethane	5.5 UJ	0.39	5.5	5	UG/KG
SW8260B/NONE	079SB-0014M-0001-SO	N	1	1,1-Dichloroethene	5.5 UJ	0.57	5.5	5	UG/KG
SW8260B/NONE	079SB-0014M-0001-SO	N	1	1,2-Dibromoethane (EDB)	5.5 UJ	0.55	5.5	5	UG/KG
SW8260B/NONE	079SB-0014M-0001-SO	N	1	1,2-Dichloroethane	5.5 UJ	0.37	5.5	5	UG/KG
SW8260B/NONE	079SB-0014M-0001-SO	N	1	1,2-Dichloroethene	11 UJ	0.84	11	5	UG/KG
SW8260B/NONE	079SB-0014M-0001-SO	N	1	1,2-Dichloropropane	5.5 UJ	0.75	5.5	5	UG/KG
SW8260B/NONE	079SB-0014M-0001-SO	N	1	2-Butanone (MEK)	22 UJ	1.5	22	20	UG/KG
SW8260B/NONE	079SB-0014M-0001-SO	N	1	2-Hexanone	22 UJ	0.69	22	20	UG/KG
SW8260B/NONE	079SB-0014M-0001-SO	N	1	4-Methyl-2-pentanone (MIBK)	22 UJ	0.59	22	20	UG/KG
SW8260B/NONE	079SB-0014M-0001-SO	N	1	Acetone	22 UJ	6.9	22	20	UG/KG
SW8260B/NONE	079SB-0014M-0001-SO	N	1	Benzene	5.5 UJ	0.25	5.5	5	UG/KG
SW8260B/NONE	079SB-0014M-0001-SO	N	1	Bromochloromethane	5.5 UJ	0.77	5.5	5	UG/KG
SW8260B/NONE	079SB-0014M-0001-SO	N	1	Bromodichloromethane	5.5 UJ	0.31	5.5	5	UG/KG
SW8260B/NONE	079SB-0014M-0001-SO	N	1	Bromoform	5.5 UJ	0.36	5.5	5	UG/KG
SW8260B/NONE	079SB-0014M-0001-SO	N	1	Bromomethane	5.5 UJ	0.59	5.5	5	UG/KG
SW8260B/NONE	079SB-0014M-0001-SO	N	1	Carbon Disulfide	5.5 UJ	0.48	5.5	5	UG/KG
SW8260B/NONE	079SB-0014M-0001-SO	N	1	Carbon Tetrachloride	5.5 UJ	0.4	5.5	5	UG/KG
SW8260B/NONE	079SB-0014M-0001-SO	N	1	Chlorobenzene	5.5 UJ	0.36	5.5	5	UG/KG
SW8260B/NONE	079SB-0014M-0001-SO	N	1	Chloroethane	5.5 UJ	0.94	5.5	5	UG/KG
SW8260B/NONE	079SB-0014M-0001-SO	N	1	Chloroform	5.5 UJ	0.32	5.5	5	UG/KG
SW8260B/NONE	079SB-0014M-0001-SO	N	1	Chloromethane	5.5 UJ	0.45	5.5	5	UG/KG
SW8260B/NONE	079SB-0014M-0001-SO	N	1	cis-1,3-Dichloropropene	5.5 UJ	0.37	5.5	5	UG/KG
SW8260B/NONE	079SB-0014M-0001-SO	N	1	Dibromochloromethane	5.5 UJ	0.6	5.5	5	UG/KG
SW8260B/NONE	079SB-0014M-0001-SO	N	1	Ethylbenzene	5.5 UJ	0.28	5.5	5	UG/KG
SW8260B/NONE	079SB-0014M-0001-SO	N	1	Methylene Chloride	5.5 UJ	0.73	5.5	5	UG/KG
SW8260B/NONE	079SB-0014M-0001-SO	N	1	Styrene	5.5 UJ	0.16	5.5	5	UG/KG
SW8260B/NONE	079SB-0014M-0001-SO	N	1	Tetrachloroethene (PCE)	5.5 UJ	0.57	5.5	5	UG/KG
SW8260B/NONE	079SB-0014M-0001-SO	N	1	Toluene	5.5 UJ	0.29	5.5	5	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Reporting Anomalies

SDG Name: 240-22663-1_68,70,73,79_SB

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8260B/NONE	079SB-0014M-0001-SO	N	1	trans-1,3-Dichloropropene	5.5 UJ	0.59	5.5	5	UG/KG
SW8260B/NONE	079SB-0014M-0001-SO	N	1	Trichloroethene (TCE)	5.5 UJ	0.46	5.5	5	UG/KG
SW8260B/NONE	079SB-0014M-0001-SO	N	1	Vinyl Chloride	5.5 UJ	0.43	5.5	5	UG/KG
SW8260B/NONE	079SB-0014M-0001-SO	N	1	Xylenes, Total	11 UJ	0.73	11	10	UG/KG
SW8260B/NONE	079SB-0017M-0001-SO	N	1	1,2-Dichloroethene	9.8 U	0.75	9.8	5	UG/KG
SW8260B/NONE	079SB-0026M-0001-SO	N	1	1,1,1-Trichloroethane	5.6 UJ	0.62	5.6	5	UG/KG
SW8260B/NONE	079SB-0026M-0001-SO	N	1	1,1,2,2-Tetrachloroethane	5.6 UJ	0.38	5.6	5	UG/KG
SW8260B/NONE	079SB-0026M-0001-SO	N	1	1,1,2-Trichloroethane	5.6 UJ	0.43	5.6	5	UG/KG
SW8260B/NONE	079SB-0026M-0001-SO	N	1	1,1-Dichloroethane	5.6 UJ	0.4	5.6	5	UG/KG
SW8260B/NONE	079SB-0026M-0001-SO	N	1	1,1-Dichloroethene	5.6 UJ	0.58	5.6	5	UG/KG
SW8260B/NONE	079SB-0026M-0001-SO	N	1	1,2-Dibromoethane (EDB)	5.6 UJ	0.56	5.6	5	UG/KG
SW8260B/NONE	079SB-0026M-0001-SO	N	1	1,2-Dichloroethane	5.6 UJ	0.38	5.6	5	UG/KG
SW8260B/NONE	079SB-0026M-0001-SO	N	1	1,2-Dichloroethene	11 UJ	0.86	11	5	UG/KG
SW8260B/NONE	079SB-0026M-0001-SO	N	1	1,2-Dichloropropane	5.6 UJ	0.77	5.6	5	UG/KG
SW8260B/NONE	079SB-0026M-0001-SO	N	1	2-Butanone (MEK)	22 UJ	1.6	22	20	UG/KG
SW8260B/NONE	079SB-0026M-0001-SO	N	1	2-Hexanone	22 UJ	0.7	22	20	UG/KG
SW8260B/NONE	079SB-0026M-0001-SO	N	1	4-Methyl-2-pentanone (MIBK)	22 UJ	0.6	22	20	UG/KG
SW8260B/NONE	079SB-0026M-0001-SO	N	1	Acetone	22 UJ	7	22	20	UG/KG
SW8260B/NONE	079SB-0026M-0001-SO	N	1	Benzene	5.6 UJ	0.26	5.6	5	UG/KG
SW8260B/NONE	079SB-0026M-0001-SO	N	1	Bromochloromethane	5.6 UJ	0.79	5.6	5	UG/KG
SW8260B/NONE	079SB-0026M-0001-SO	N	1	Bromodichloromethane	5.6 UJ	0.31	5.6	5	UG/KG
SW8260B/NONE	079SB-0026M-0001-SO	N	1	Bromoform	5.6 UJ	0.37	5.6	5	UG/KG
SW8260B/NONE	079SB-0026M-0001-SO	N	1	Bromomethane	5.6 UJ	0.6	5.6	5	UG/KG
SW8260B/NONE	079SB-0026M-0001-SO	N	1	Carbon Disulfide	5.6 UJ	0.49	5.6	5	UG/KG
SW8260B/NONE	079SB-0026M-0001-SO	N	1	Carbon Tetrachloride	5.6 UJ	0.41	5.6	5	UG/KG
SW8260B/NONE	079SB-0026M-0001-SO	N	1	Chlorobenzene	5.6 UJ	0.37	5.6	5	UG/KG
SW8260B/NONE	079SB-0026M-0001-SO	N	1	Chloroethane	5.6 UJ	0.96	5.6	5	UG/KG
SW8260B/NONE	079SB-0026M-0001-SO	N	1	Chloroform	5.6 UJ	0.32	5.6	5	UG/KG
SW8260B/NONE	079SB-0026M-0001-SO	N	1	Chloromethane	5.6 UJ	0.46	5.6	5	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Reporting Anomalies

SDG Name: 240-22663-1_68,70,73,79_SB

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8260B/NONE	079SB-0026M-0001-SO	N	1	cis-1,3-Dichloropropene	5.6 UJ	0.38	5.6	5	UG/KG
SW8260B/NONE	079SB-0026M-0001-SO	N	1	Dibromochloromethane	5.6 UJ	0.61	5.6	5	UG/KG
SW8260B/NONE	079SB-0026M-0001-SO	N	1	Ethylbenzene	5.6 UJ	0.29	5.6	5	UG/KG
SW8260B/NONE	079SB-0026M-0001-SO	N	1	Methylene Chloride	5.6 UJ	0.75	5.6	5	UG/KG
SW8260B/NONE	079SB-0026M-0001-SO	N	1	Styrene	5.6 UJ	0.17	5.6	5	UG/KG
SW8260B/NONE	079SB-0026M-0001-SO	N	1	Tetrachloroethene (PCE)	5.6 UJ	0.58	5.6	5	UG/KG
SW8260B/NONE	079SB-0026M-0001-SO	N	1	Toluene	5.6 UJ	0.3	5.6	5	UG/KG
SW8260B/NONE	079SB-0026M-0001-SO	N	1	trans-1,3-Dichloropropene	5.6 UJ	0.6	5.6	5	UG/KG
SW8260B/NONE	079SB-0026M-0001-SO	N	1	Trichloroethene (TCE)	5.6 UJ	0.47	5.6	5	UG/KG
SW8260B/NONE	079SB-0026M-0001-SO	N	1	Vinyl Chloride	5.6 UJ	0.43	5.6	5	UG/KG
SW8260B/NONE	079SB-0026M-0001-SO	N	1	Xylenes, Total	11 UJ	0.75	11	10	UG/KG
SW8260B/NONE	079SB-0028M-0001-SO	N	1	1,1,1-Trichloroethane	5.8 UJ	0.65	5.8	5	UG/KG
SW8260B/NONE	079SB-0028M-0001-SO	N	1	1,1,2,2-Tetrachloroethane	5.8 UJ	0.39	5.8	5	UG/KG
SW8260B/NONE	079SB-0028M-0001-SO	N	1	1,1,2-Trichloroethane	5.8 UJ	0.45	5.8	5	UG/KG
SW8260B/NONE	079SB-0028M-0001-SO	N	1	1,1-Dichloroethane	5.8 UJ	0.41	5.8	5	UG/KG
SW8260B/NONE	079SB-0028M-0001-SO	N	1	1,1-Dichloroethene	5.8 UJ	0.6	5.8	5	UG/KG
SW8260B/NONE	079SB-0028M-0001-SO	N	1	1,2-Dibromoethane (EDB)	5.8 UJ	0.58	5.8	5	UG/KG
SW8260B/NONE	079SB-0028M-0001-SO	N	1	1,2-Dichloroethane	5.8 UJ	0.39	5.8	5	UG/KG
SW8260B/NONE	079SB-0028M-0001-SO	N	1	1,2-Dichloroethene	12 UJ	0.89	12	5	UG/KG
SW8260B/NONE	079SB-0028M-0001-SO	N	1	1,2-Dichloropropane	5.8 UJ	0.79	5.8	5	UG/KG
SW8260B/NONE	079SB-0028M-0001-SO	N	1	2-Butanone (MEK)	23 UJ	1.6	23	20	UG/KG
SW8260B/NONE	079SB-0028M-0001-SO	N	1	2-Hexanone	23 UJ	0.73	23	20	UG/KG
SW8260B/NONE	079SB-0028M-0001-SO	N	1	4-Methyl-2-pentanone (MIBK)	23 UJ	0.62	23	20	UG/KG
SW8260B/NONE	079SB-0028M-0001-SO	N	1	Acetone	23 UJ	7.3	23	20	UG/KG
SW8260B/NONE	079SB-0028M-0001-SO	N	1	Benzene	5.8 UJ	0.26	5.8	5	UG/KG
SW8260B/NONE	079SB-0028M-0001-SO	N	1	Bromochloromethane	5.8 UJ	0.82	5.8	5	UG/KG
SW8260B/NONE	079SB-0028M-0001-SO	N	1	Bromodichloromethane	5.8 UJ	0.32	5.8	5	UG/KG
SW8260B/NONE	079SB-0028M-0001-SO	N	1	Bromoform	5.8 UJ	0.38	5.8	5	UG/KG
SW8260B/NONE	079SB-0028M-0001-SO	N	1	Bromomethane	5.8 UJ	0.62	5.8	5	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Reporting Anomalies

SDG Name: 240-22663-1_68,70,73,79_SB

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8260B/NONE	079SB-0028M-0001-SO	N	1	Carbon Disulfide	5.8 UJ	0.51	5.8	5	UG/KG
SW8260B/NONE	079SB-0028M-0001-SO	N	1	Carbon Tetrachloride	5.8 UJ	0.43	5.8	5	UG/KG
SW8260B/NONE	079SB-0028M-0001-SO	N	1	Chlorobenzene	5.8 UJ	0.38	5.8	5	UG/KG
SW8260B/NONE	079SB-0028M-0001-SO	N	1	Chloroethane	5.8 UJ	0.99	5.8	5	UG/KG
SW8260B/NONE	079SB-0028M-0001-SO	N	1	Chloroform	5.8 UJ	0.33	5.8	5	UG/KG
SW8260B/NONE	079SB-0028M-0001-SO	N	1	Chloromethane	5.8 UJ	0.47	5.8	5	UG/KG
SW8260B/NONE	079SB-0028M-0001-SO	N	1	cis-1,3-Dichloropropene	5.8 UJ	0.39	5.8	5	UG/KG
SW8260B/NONE	079SB-0028M-0001-SO	N	1	Dibromochloromethane	5.8 UJ	0.63	5.8	5	UG/KG
SW8260B/NONE	079SB-0028M-0001-SO	N	1	Ethylbenzene	5.8 UJ	0.3	5.8	5	UG/KG
SW8260B/NONE	079SB-0028M-0001-SO	N	1	Methylene Chloride	5.8 UJ	0.77	5.8	5	UG/KG
SW8260B/NONE	079SB-0028M-0001-SO	N	1	Styrene	5.8 UJ	0.17	5.8	5	UG/KG
SW8260B/NONE	079SB-0028M-0001-SO	N	1	Tetrachloroethene (PCE)	5.8 UJ	0.6	5.8	5	UG/KG
SW8260B/NONE	079SB-0028M-0001-SO	N	1	Toluene	5.8 UJ	0.31	5.8	5	UG/KG
SW8260B/NONE	079SB-0028M-0001-SO	N	1	trans-1,3-Dichloropropene	5.8 UJ	0.62	5.8	5	UG/KG
SW8260B/NONE	079SB-0028M-0001-SO	N	1	Trichloroethene (TCE)	5.8 UJ	0.48	5.8	5	UG/KG
SW8260B/NONE	079SB-0028M-0001-SO	N	1	Vinyl Chloride	5.8 UJ	0.45	5.8	5	UG/KG
SW8260B/NONE	079SB-0028M-0001-SO	N	1	Xylenes, Total	12 UJ	0.77	12	10	UG/KG

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8270C/NONE	068SB-0017M-0001-SO	N	5	2,4,6-Trichlorophenol	750 U	400	750	330	UG/KG
SW8270C/NONE	068SB-0017M-0001-SO	N	5	2,4-Dichlorophenol	750 U	100	750	330	UG/KG
SW8270C/NONE	068SB-0017M-0001-SO	N	5	2,4-Dimethylphenol	750 U	100	750	330	UG/KG
SW8270C/NONE	068SB-0017M-0001-SO	N	5	2,4-Dinitrophenol	1700 U	400	1700	800	UG/KG
SW8270C/NONE	068SB-0017M-0001-SO	N	5	2,4-Dinitrotoluene	1000 U	140	1000	330	UG/KG
SW8270C/NONE	068SB-0017M-0001-SO	N	5	2,6-Dinitrotoluene	1000 U	110	1000	330	UG/KG
SW8270C/NONE	068SB-0017M-0001-SO	N	5	2-Methylphenol (o-Cresol)	1000 U	400	1000	330	UG/KG
SW8270C/NONE	068SB-0017M-0001-SO	N	5	2-Nitroaniline	1000 U	46	1000	800	UG/KG
SW8270C/NONE	068SB-0017M-0001-SO	N	5	3,3'-Dichlorobenzidine	500 U	90	500	330	UG/KG
SW8270C/NONE	068SB-0017M-0001-SO	N	5	3-Nitroaniline	1000 U	80	1000	800	UG/KG
SW8270C/NONE	068SB-0017M-0001-SO	N	5	4-Chloro-3-Methylphenol	750 U	110	750	330	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Reporting Anomalies

SDG Name: 240-22663-1_68,70,73,79_SB

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8270C/NONE	068SB-0017M-0001-SO	N	5	4-Chloroaniline	750 U	85	750	330	UG/KG
SW8270C/NONE	068SB-0017M-0001-SO	N	5	4-Nitroaniline	1000 U	130	1000	800	UG/KG
SW8270C/NONE	068SB-0017M-0001-SO	N	5	4-Nitrophenol	1700 U	400	1700	800	UG/KG
SW8270C/NONE	068SB-0017M-0001-SO	N	5	Benzoic acid	3300 R	1700	3300	800	UG/KG
SW8270C/NONE	068SB-0017M-0001-SO	N	5	Benzyl alcohol	1700 U	110	1700	330	UG/KG
SW8270C/NONE	068SB-0017M-0001-SO	N	5	Benzyl butyl phthalate	350 U	50	350	330	UG/KG
SW8270C/NONE	068SB-0017M-0001-SO	N	5	bis(2-Chloroethoxy) Methane	500 U	110	500	330	UG/KG
SW8270C/NONE	068SB-0017M-0001-SO	N	5	bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	500 U	10	500	330	UG/KG
SW8270C/NONE	068SB-0017M-0001-SO	N	5	bis(2-Chloroisopropyl) Ether	500 U	48	500	330	UG/KG
SW8270C/NONE	068SB-0017M-0001-SO	N	5	Carbazole	250 U	140	250	50	UG/KG
SW8270C/NONE	068SB-0017M-0001-SO	N	5	Cresols, m & p	2000 U	100	2000	300	UG/KG
SW8270C/NONE	068SB-0017M-0001-SO	N	5	Diethyl Phthalate	350 U	80	350	330	UG/KG
SW8270C/NONE	068SB-0017M-0001-SO	N	5	Dimethyl Phthalate	350 U	85	350	330	UG/KG
SW8270C/NONE	068SB-0017M-0001-SO	N	5	Di-n-Butyl Phthalate	350 U	75	350	330	UG/KG
SW8270C/NONE	068SB-0017M-0001-SO	N	5	Di-n-Octylphthalate	350 U	140	350	330	UG/KG
SW8270C/NONE	068SB-0017M-0001-SO	N	5	Hexachlorocyclopentadiene	1700 U	140	1700	330	UG/KG
SW8270C/NONE	068SB-0017M-0001-SO	N	5	Nitrobenzene	500 U	11	500	330	UG/KG
SW8270C/NONE	068SB-0018M-0001-SO	N	5	2,4,6-Trichlorophenol	760 U	400	760	330	UG/KG
SW8270C/NONE	068SB-0018M-0001-SO	N	5	2,4-Dichlorophenol	760 U	100	760	330	UG/KG
SW8270C/NONE	068SB-0018M-0001-SO	N	5	2,4-Dimethylphenol	760 U	100	760	330	UG/KG
SW8270C/NONE	068SB-0018M-0001-SO	N	5	2,4-Dinitrophenol	1700 U	400	1700	800	UG/KG
SW8270C/NONE	068SB-0018M-0001-SO	N	5	2,4-Dinitrotoluene	1000 U	140	1000	330	UG/KG
SW8270C/NONE	068SB-0018M-0001-SO	N	5	2,6-Dinitrotoluene	1000 U	110	1000	330	UG/KG
SW8270C/NONE	068SB-0018M-0001-SO	N	5	2-Methylphenol (o-Cresol)	1000 U	400	1000	330	UG/KG
SW8270C/NONE	068SB-0018M-0001-SO	N	5	2-Nitroaniline	1000 U	46	1000	800	UG/KG
SW8270C/NONE	068SB-0018M-0001-SO	N	5	3,3'-Dichlorobenzidine	500 U	91	500	330	UG/KG
SW8270C/NONE	068SB-0018M-0001-SO	N	5	3-Nitroaniline	1000 U	81	1000	800	UG/KG
SW8270C/NONE	068SB-0018M-0001-SO	N	5	4-Chloro-3-Methylphenol	760 U	110	760	330	UG/KG
SW8270C/NONE	068SB-0018M-0001-SO	N	5	4-Chloroaniline	760 U	86	760	330	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Reporting Anomalies

SDG Name: 240-22663-1_68,70,73,79_SB

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8270C/NONE	068SB-0018M-0001-SO	N	5	4-Nitroaniline	1000 U	130	1000	800	UG/KG
SW8270C/NONE	068SB-0018M-0001-SO	N	5	4-Nitrophenol	1700 U	400	1700	800	UG/KG
SW8270C/NONE	068SB-0018M-0001-SO	N	5	Benzoic acid	3300 R	1700	3300	800	UG/KG
SW8270C/NONE	068SB-0018M-0001-SO	N	5	Benzyl alcohol	1700 U	110	1700	330	UG/KG
SW8270C/NONE	068SB-0018M-0001-SO	N	5	Benzyl butyl phthalate	350 U	50	350	330	UG/KG
SW8270C/NONE	068SB-0018M-0001-SO	N	5	bis(2-Chloroethoxy) Methane	500 U	110	500	330	UG/KG
SW8270C/NONE	068SB-0018M-0001-SO	N	5	bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	500 U	10	500	330	UG/KG
SW8270C/NONE	068SB-0018M-0001-SO	N	5	bis(2-Chloroisopropyl) Ether	500 U	48	500	330	UG/KG
SW8270C/NONE	068SB-0018M-0001-SO	N	5	Carbazole	250 U	140	250	50	UG/KG
SW8270C/NONE	068SB-0018M-0001-SO	N	5	Cresols, m & p	2000 U	100	2000	300	UG/KG
SW8270C/NONE	068SB-0018M-0001-SO	N	5	Diethyl Phthalate	350 U	81	350	330	UG/KG
SW8270C/NONE	068SB-0018M-0001-SO	N	5	Dimethyl Phthalate	350 U	86	350	330	UG/KG
SW8270C/NONE	068SB-0018M-0001-SO	N	5	Di-n-Butyl Phthalate	350 U	76	350	330	UG/KG
SW8270C/NONE	068SB-0018M-0001-SO	N	5	Di-n-Octylphthalate	350 U	140	350	330	UG/KG
SW8270C/NONE	068SB-0018M-0001-SO	N	5	Hexachlorocyclopentadiene	1700 U	140	1700	330	UG/KG
SW8270C/NONE	068SB-0018M-0001-SO	N	5	Nitrobenzene	500 U	11	500	330	UG/KG
SW8270C/NONE	068SB-0019M-0001-SO	N	5	2,4,6-Trichlorophenol	740 U	390	740	330	UG/KG
SW8270C/NONE	068SB-0019M-0001-SO	N	5	2,4-Dichlorophenol	740 U	99	740	330	UG/KG
SW8270C/NONE	068SB-0019M-0001-SO	N	5	2,4-Dimethylphenol	740 U	99	740	330	UG/KG
SW8270C/NONE	068SB-0019M-0001-SO	N	5	2,4-Dinitrophenol	1600 U	390	1600	800	UG/KG
SW8270C/NONE	068SB-0019M-0001-SO	N	5	2,4-Dinitrotoluene	990 U	130	990	330	UG/KG
SW8270C/NONE	068SB-0019M-0001-SO	N	5	2,6-Dinitrotoluene	990 U	100	990	330	UG/KG
SW8270C/NONE	068SB-0019M-0001-SO	N	5	2-Methylphenol (o-Cresol)	990 U	390	990	330	UG/KG
SW8270C/NONE	068SB-0019M-0001-SO	N	5	2-Nitroaniline	990 U	45	990	800	UG/KG
SW8270C/NONE	068SB-0019M-0001-SO	N	5	3,3'-Dichlorobenzidine	490 U	89	490	330	UG/KG
SW8270C/NONE	068SB-0019M-0001-SO	N	5	3-Nitroaniline	990 U	79	990	800	UG/KG
SW8270C/NONE	068SB-0019M-0001-SO	N	5	4-Chloro-3-Methylphenol	740 U	100	740	330	UG/KG
SW8270C/NONE	068SB-0019M-0001-SO	N	5	4-Chloroaniline	740 U	84	740	330	UG/KG
SW8270C/NONE	068SB-0019M-0001-SO	N	5	4-Nitroaniline	990 U	130	990	800	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Reporting Anomalies

SDG Name: 240-22663-1_68,70,73,79_SB

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8270C/NONE	068SB-0019M-0001-SO	N	5	4-Nitrophenol	1600 U	390	1600	800	UG/KG
SW8270C/NONE	068SB-0019M-0001-SO	N	5	Benzoic acid	3300 R	1600	3300	800	UG/KG
SW8270C/NONE	068SB-0019M-0001-SO	N	5	Benzyl alcohol	1600 U	100	1600	330	UG/KG
SW8270C/NONE	068SB-0019M-0001-SO	N	5	Benzyl butyl phthalate	340 U	49	340	330	UG/KG
SW8270C/NONE	068SB-0019M-0001-SO	N	5	bis(2-Chloroethoxy) Methane	490 U	110	490	330	UG/KG
SW8270C/NONE	068SB-0019M-0001-SO	N	5	bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	490 U	9.9	490	330	UG/KG
SW8270C/NONE	068SB-0019M-0001-SO	N	5	bis(2-Chloroisopropyl) Ether	490 U	47	490	330	UG/KG
SW8270C/NONE	068SB-0019M-0001-SO	N	5	Carbazole	250 U	130	250	50	UG/KG
SW8270C/NONE	068SB-0019M-0001-SO	N	5	Cresols, m & p	2000 U	99	2000	300	UG/KG
SW8270C/NONE	068SB-0019M-0001-SO	N	5	Diethyl Phthalate	340 U	79	340	330	UG/KG
SW8270C/NONE	068SB-0019M-0001-SO	N	5	Dimethyl Phthalate	340 U	84	340	330	UG/KG
SW8270C/NONE	068SB-0019M-0001-SO	N	5	Di-n-Butyl Phthalate	340 U	74	340	330	UG/KG
SW8270C/NONE	068SB-0019M-0001-SO	N	5	Di-n-Octylphthalate	340 U	130	340	330	UG/KG
SW8270C/NONE	068SB-0019M-0001-SO	N	5	Hexachlorocyclopentadiene	1600 U	130	1600	330	UG/KG
SW8270C/NONE	068SB-0019M-0001-SO	N	5	Nitrobenzene	490 U	11	490	330	UG/KG
SW8270C/NONE	068SB-0020M-0001-SO	N	5	2,4,6-Trichlorophenol	750 U	400	750	330	UG/KG
SW8270C/NONE	068SB-0020M-0001-SO	N	5	2,4-Dichlorophenol	750 U	100	750	330	UG/KG
SW8270C/NONE	068SB-0020M-0001-SO	N	5	2,4-Dimethylphenol	750 U	100	750	330	UG/KG
SW8270C/NONE	068SB-0020M-0001-SO	N	5	2,4-Dinitrophenol	1700 U	400	1700	800	UG/KG
SW8270C/NONE	068SB-0020M-0001-SO	N	5	2,4-Dinitrotoluene	1000 U	140	1000	330	UG/KG
SW8270C/NONE	068SB-0020M-0001-SO	N	5	2,6-Dinitrotoluene	1000 U	110	1000	330	UG/KG
SW8270C/NONE	068SB-0020M-0001-SO	N	5	2-Methylphenol (o-Cresol)	1000 U	400	1000	330	UG/KG
SW8270C/NONE	068SB-0020M-0001-SO	N	5	2-Nitroaniline	1000 U	46	1000	800	UG/KG
SW8270C/NONE	068SB-0020M-0001-SO	N	5	3,3'-Dichlorobenzidine	500 U	90	500	330	UG/KG
SW8270C/NONE	068SB-0020M-0001-SO	N	5	3-Nitroaniline	1000 U	80	1000	800	UG/KG
SW8270C/NONE	068SB-0020M-0001-SO	N	5	4-Chloro-3-Methylphenol	750 U	110	750	330	UG/KG
SW8270C/NONE	068SB-0020M-0001-SO	N	5	4-Chloroaniline	750 U	85	750	330	UG/KG
SW8270C/NONE	068SB-0020M-0001-SO	N	5	4-Nitroaniline	1000 U	130	1000	800	UG/KG
SW8270C/NONE	068SB-0020M-0001-SO	N	5	4-Nitrophenol	1700 U	400	1700	800	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Reporting Anomalies

SDG Name: 240-22663-1_68,70,73,79_SB

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8270C/NONE	068SB-0020M-0001-SO	N	5	Benzoic acid	3300 R	1700	3300	800	UG/KG
SW8270C/NONE	068SB-0020M-0001-SO	N	5	Benzyl alcohol	1700 U	110	1700	330	UG/KG
SW8270C/NONE	068SB-0020M-0001-SO	N	5	Benzyl butyl phthalate	350 U	50	350	330	UG/KG
SW8270C/NONE	068SB-0020M-0001-SO	N	5	bis(2-Chloroethoxy) Methane	500 U	110	500	330	UG/KG
SW8270C/NONE	068SB-0020M-0001-SO	N	5	bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	500 U	10	500	330	UG/KG
SW8270C/NONE	068SB-0020M-0001-SO	N	5	bis(2-Chloroisopropyl) Ether	500 U	48	500	330	UG/KG
SW8270C/NONE	068SB-0020M-0001-SO	N	5	Carbazole	250 U	140	250	50	UG/KG
SW8270C/NONE	068SB-0020M-0001-SO	N	5	Cresols, m & p	2000 U	100	2000	300	UG/KG
SW8270C/NONE	068SB-0020M-0001-SO	N	5	Diethyl Phthalate	350 U	80	350	330	UG/KG
SW8270C/NONE	068SB-0020M-0001-SO	N	5	Dimethyl Phthalate	350 U	85	350	330	UG/KG
SW8270C/NONE	068SB-0020M-0001-SO	N	5	Di-n-Butyl Phthalate	350 U	75	350	330	UG/KG
SW8270C/NONE	068SB-0020M-0001-SO	N	5	Di-n-Octylphthalate	350 U	140	350	330	UG/KG
SW8270C/NONE	068SB-0020M-0001-SO	N	5	Hexachlorocyclopentadiene	1700 U	140	1700	330	UG/KG
SW8270C/NONE	068SB-0020M-0001-SO	N	5	Nitrobenzene	500 U	11	500	330	UG/KG
SW8270C/NONE	068SB-0022M-0001-SO	FD	5	2,4,6-Trichlorophenol	760 U	410	760	330	UG/KG
SW8270C/NONE	068SB-0022M-0001-SO	FD	5	2,4-Dichlorophenol	760 U	100	760	330	UG/KG
SW8270C/NONE	068SB-0022M-0001-SO	FD	5	2,4-Dimethylphenol	760 U	100	760	330	UG/KG
SW8270C/NONE	068SB-0022M-0001-SO	FD	5	2,4-Dinitrophenol	1700 U	410	1700	800	UG/KG
SW8270C/NONE	068SB-0022M-0001-SO	FD	5	2,4-Dinitrotoluene	1000 U	140	1000	330	UG/KG
SW8270C/NONE	068SB-0022M-0001-SO	FD	5	2,6-Dinitrotoluene	1000 U	110	1000	330	UG/KG
SW8270C/NONE	068SB-0022M-0001-SO	FD	5	2-Methylphenol (o-Cresol)	1000 U	410	1000	330	UG/KG
SW8270C/NONE	068SB-0022M-0001-SO	FD	5	2-Nitroaniline	1000 U	46	1000	800	UG/KG
SW8270C/NONE	068SB-0022M-0001-SO	FD	5	3,3'-Dichlorobenzidine	510 U	91	510	330	UG/KG
SW8270C/NONE	068SB-0022M-0001-SO	FD	5	3-Nitroaniline	1000 U	81	1000	800	UG/KG
SW8270C/NONE	068SB-0022M-0001-SO	FD	5	4-Chloro-3-Methylphenol	760 U	110	760	330	UG/KG
SW8270C/NONE	068SB-0022M-0001-SO	FD	5	4-Chloroaniline	760 U	86	760	330	UG/KG
SW8270C/NONE	068SB-0022M-0001-SO	FD	5	4-Nitroaniline	1000 U	130	1000	800	UG/KG
SW8270C/NONE	068SB-0022M-0001-SO	FD	5	4-Nitrophenol	1700 U	410	1700	800	UG/KG
SW8270C/NONE	068SB-0022M-0001-SO	FD	5	Benzoic acid	3400 R	1700	3400	800	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Reporting Anomalies

SDG Name: 240-22663-1_68,70,73,79_SB

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8270C/NONE	068SB-0022M-0001-SO	FD	5	Benzyl alcohol	1700 U	110	1700	330	UG/KG
SW8270C/NONE	068SB-0022M-0001-SO	FD	5	Benzyl butyl phthalate	360 U	51	360	330	UG/KG
SW8270C/NONE	068SB-0022M-0001-SO	FD	5	bis(2-Chloroethoxy) Methane	510 U	110	510	330	UG/KG
SW8270C/NONE	068SB-0022M-0001-SO	FD	5	bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	510 U	10	510	330	UG/KG
SW8270C/NONE	068SB-0022M-0001-SO	FD	5	bis(2-Chloroisopropyl) Ether	510 U	48	510	330	UG/KG
SW8270C/NONE	068SB-0022M-0001-SO	FD	5	Carbazole	250 U	140	250	50	UG/KG
SW8270C/NONE	068SB-0022M-0001-SO	FD	5	Cresols, m & p	2000 U	100	2000	300	UG/KG
SW8270C/NONE	068SB-0022M-0001-SO	FD	5	Diethyl Phthalate	360 U	81	360	330	UG/KG
SW8270C/NONE	068SB-0022M-0001-SO	FD	5	Dimethyl Phthalate	360 U	86	360	330	UG/KG
SW8270C/NONE	068SB-0022M-0001-SO	FD	5	Di-n-Butyl Phthalate	360 U	76	360	330	UG/KG
SW8270C/NONE	068SB-0022M-0001-SO	FD	5	Di-n-Octylphthalate	360 U	140	360	330	UG/KG
SW8270C/NONE	068SB-0022M-0001-SO	FD	5	Hexachlorocyclopentadiene	1700 U	140	1700	330	UG/KG
SW8270C/NONE	068SB-0022M-0001-SO	FD	5	Nitrobenzene	510 U	11	510	330	UG/KG
SW8270C/NONE	068SB-0023M-0001-SO	N	5	2,4,6-Trichlorophenol	750 U	400	750	330	UG/KG
SW8270C/NONE	068SB-0023M-0001-SO	N	5	2,4-Dichlorophenol	750 U	100	750	330	UG/KG
SW8270C/NONE	068SB-0023M-0001-SO	N	5	2,4-Dimethylphenol	750 U	100	750	330	UG/KG
SW8270C/NONE	068SB-0023M-0001-SO	N	5	2,4-Dinitrophenol	1600 U	400	1600	800	UG/KG
SW8270C/NONE	068SB-0023M-0001-SO	N	5	2,4-Dinitrotoluene	1000 U	130	1000	330	UG/KG
SW8270C/NONE	068SB-0023M-0001-SO	N	5	2,6-Dinitrotoluene	1000 U	100	1000	330	UG/KG
SW8270C/NONE	068SB-0023M-0001-SO	N	5	2-Methylphenol (o-Cresol)	1000 U	400	1000	330	UG/KG
SW8270C/NONE	068SB-0023M-0001-SO	N	5	2-Nitroaniline	1000 U	45	1000	800	UG/KG
SW8270C/NONE	068SB-0023M-0001-SO	N	5	3,3'-Dichlorobenzidine	500 U	90	500	330	UG/KG
SW8270C/NONE	068SB-0023M-0001-SO	N	5	3-Nitroaniline	1000 U	80	1000	800	UG/KG
SW8270C/NONE	068SB-0023M-0001-SO	N	5	4-Chloro-3-Methylphenol	750 U	100	750	330	UG/KG
SW8270C/NONE	068SB-0023M-0001-SO	N	5	4-Chloroaniline	750 U	85	750	330	UG/KG
SW8270C/NONE	068SB-0023M-0001-SO	N	5	4-Nitroaniline	1000 U	130	1000	800	UG/KG
SW8270C/NONE	068SB-0023M-0001-SO	N	5	4-Nitrophenol	1600 U	400	1600	800	UG/KG
SW8270C/NONE	068SB-0023M-0001-SO	N	5	Benzoic acid	3300 R	1700	3300	800	UG/KG
SW8270C/NONE	068SB-0023M-0001-SO	N	5	Benzyl alcohol	1600 U	100	1600	330	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Reporting Anomalies

SDG Name: 240-22663-1_68,70,73,79_SB

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8270C/NONE	068SB-0023M-0001-SO	N	5	Benzyl butyl phthalate	350 U	50	350	330	UG/KG
SW8270C/NONE	068SB-0023M-0001-SO	N	5	bis(2-Chloroethoxy) Methane	500 U	110	500	330	UG/KG
SW8270C/NONE	068SB-0023M-0001-SO	N	5	bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	500 U	10	500	330	UG/KG
SW8270C/NONE	068SB-0023M-0001-SO	N	5	bis(2-Chloroisopropyl) Ether	500 U	47	500	330	UG/KG
SW8270C/NONE	068SB-0023M-0001-SO	N	5	Carbazole	250 U	130	250	50	UG/KG
SW8270C/NONE	068SB-0023M-0001-SO	N	5	Cresols, m & p	2000 U	100	2000	300	UG/KG
SW8270C/NONE	068SB-0023M-0001-SO	N	5	Diethyl Phthalate	350 U	80	350	330	UG/KG
SW8270C/NONE	068SB-0023M-0001-SO	N	5	Dimethyl Phthalate	350 U	85	350	330	UG/KG
SW8270C/NONE	068SB-0023M-0001-SO	N	5	Di-n-Butyl Phthalate	350 U	75	350	330	UG/KG
SW8270C/NONE	068SB-0023M-0001-SO	N	5	Di-n-Octylphthalate	350 U	130	350	330	UG/KG
SW8270C/NONE	068SB-0023M-0001-SO	N	5	Hexachlorocyclopentadiene	1600 U	130	1600	330	UG/KG
SW8270C/NONE	068SB-0023M-0001-SO	N	5	Nitrobenzene	500 U	11	500	330	UG/KG
SW8270C/NONE	068SB-0024M-0001-SO	N	5	2,4,6-Trichlorophenol	750 U	400	750	330	UG/KG
SW8270C/NONE	068SB-0024M-0001-SO	N	5	2,4-Dichlorophenol	750 U	100	750	330	UG/KG
SW8270C/NONE	068SB-0024M-0001-SO	N	5	2,4-Dimethylphenol	750 U	100	750	330	UG/KG
SW8270C/NONE	068SB-0024M-0001-SO	N	5	2,4-Dinitrophenol	1700 U	400	1700	800	UG/KG
SW8270C/NONE	068SB-0024M-0001-SO	N	5	2,4-Dinitrotoluene	1000 U	140	1000	330	UG/KG
SW8270C/NONE	068SB-0024M-0001-SO	N	5	2,6-Dinitrotoluene	1000 U	110	1000	330	UG/KG
SW8270C/NONE	068SB-0024M-0001-SO	N	5	2-Methylphenol (o-Cresol)	1000 U	400	1000	330	UG/KG
SW8270C/NONE	068SB-0024M-0001-SO	N	5	2-Nitroaniline	1000 U	46	1000	800	UG/KG
SW8270C/NONE	068SB-0024M-0001-SO	N	5	3,3'-Dichlorobenzidine	500 U	90	500	330	UG/KG
SW8270C/NONE	068SB-0024M-0001-SO	N	5	3-Nitroaniline	1000 U	80	1000	800	UG/KG
SW8270C/NONE	068SB-0024M-0001-SO	N	5	4-Chloro-3-Methylphenol	750 U	110	750	330	UG/KG
SW8270C/NONE	068SB-0024M-0001-SO	N	5	4-Chloroaniline	750 U	85	750	330	UG/KG
SW8270C/NONE	068SB-0024M-0001-SO	N	5	4-Nitroaniline	1000 U	130	1000	800	UG/KG
SW8270C/NONE	068SB-0024M-0001-SO	N	5	4-Nitrophenol	1700 U	400	1700	800	UG/KG
SW8270C/NONE	068SB-0024M-0001-SO	N	5	Benzoic acid	3300 R	1700	3300	800	UG/KG
SW8270C/NONE	068SB-0024M-0001-SO	N	5	Benzyl alcohol	1700 U	110	1700	330	UG/KG
SW8270C/NONE	068SB-0024M-0001-SO	N	5	Benzyl butyl phthalate	350 U	50	350	330	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Reporting Anomalies

SDG Name: 240-22663-1_68,70,73,79_SB

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8270C/NONE	068SB-0024M-0001-SO	N	5	bis(2-Chloroethoxy) Methane	500 U	110	500	330	UG/KG
SW8270C/NONE	068SB-0024M-0001-SO	N	5	bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	500 U	10	500	330	UG/KG
SW8270C/NONE	068SB-0024M-0001-SO	N	5	bis(2-Chloroisopropyl) Ether	500 U	48	500	330	UG/KG
SW8270C/NONE	068SB-0024M-0001-SO	N	5	Carbazole	250 U	140	250	50	UG/KG
SW8270C/NONE	068SB-0024M-0001-SO	N	5	Cresols, m & p	2000 U	100	2000	300	UG/KG
SW8270C/NONE	068SB-0024M-0001-SO	N	5	Diethyl Phthalate	350 U	80	350	330	UG/KG
SW8270C/NONE	068SB-0024M-0001-SO	N	5	Dimethyl Phthalate	350 U	85	350	330	UG/KG
SW8270C/NONE	068SB-0024M-0001-SO	N	5	Di-n-Butyl Phthalate	350 U	75	350	330	UG/KG
SW8270C/NONE	068SB-0024M-0001-SO	N	5	Di-n-Octylphthalate	350 U	140	350	330	UG/KG
SW8270C/NONE	068SB-0024M-0001-SO	N	5	Hexachlorocyclopentadiene	1700 U	140	1700	330	UG/KG
SW8270C/NONE	068SB-0024M-0001-SO	N	5	Nitrobenzene	500 U	11	500	330	UG/KG
SW8270C/NONE	068SB-0025M-0001-SO	N	5	2,4,6-Trichlorophenol	750 U	400	750	330	UG/KG
SW8270C/NONE	068SB-0025M-0001-SO	N	5	2,4-Dichlorophenol	750 U	100	750	330	UG/KG
SW8270C/NONE	068SB-0025M-0001-SO	N	5	2,4-Dimethylphenol	750 U	100	750	330	UG/KG
SW8270C/NONE	068SB-0025M-0001-SO	N	5	2,4-Dinitrophenol	1700 U	400	1700	800	UG/KG
SW8270C/NONE	068SB-0025M-0001-SO	N	5	2,4-Dinitrotoluene	1000 U	140	1000	330	UG/KG
SW8270C/NONE	068SB-0025M-0001-SO	N	5	2,6-Dinitrotoluene	1000 U	110	1000	330	UG/KG
SW8270C/NONE	068SB-0025M-0001-SO	N	5	2-Methylphenol (o-Cresol)	1000 U	400	1000	330	UG/KG
SW8270C/NONE	068SB-0025M-0001-SO	N	5	2-Nitroaniline	1000 U	46	1000	800	UG/KG
SW8270C/NONE	068SB-0025M-0001-SO	N	5	3,3'-Dichlorobenzidine	500 U	91	500	330	UG/KG
SW8270C/NONE	068SB-0025M-0001-SO	N	5	3-Nitroaniline	1000 U	80	1000	800	UG/KG
SW8270C/NONE	068SB-0025M-0001-SO	N	5	4-Chloro-3-Methylphenol	750 U	110	750	330	UG/KG
SW8270C/NONE	068SB-0025M-0001-SO	N	5	4-Chloroaniline	750 U	85	750	330	UG/KG
SW8270C/NONE	068SB-0025M-0001-SO	N	5	4-Nitroaniline	1000 U	130	1000	800	UG/KG
SW8270C/NONE	068SB-0025M-0001-SO	N	5	4-Nitrophenol	1700 U	400	1700	800	UG/KG
SW8270C/NONE	068SB-0025M-0001-SO	N	5	Benzoic acid	3300 R	1700	3300	800	UG/KG
SW8270C/NONE	068SB-0025M-0001-SO	N	5	Benzyl alcohol	1700 U	110	1700	330	UG/KG
SW8270C/NONE	068SB-0025M-0001-SO	N	5	Benzyl butyl phthalate	350 U	50	350	330	UG/KG
SW8270C/NONE	068SB-0025M-0001-SO	N	5	bis(2-Chloroethoxy) Methane	500 U	110	500	330	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Reporting Anomalies

SDG Name: 240-22663-1_68,70,73,79_SB

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8270C/NONE	068SB-0025M-0001-SO	N	5	bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	500 U	10	500	330	UG/KG
SW8270C/NONE	068SB-0025M-0001-SO	N	5	bis(2-Chloroisopropyl) Ether	500 U	48	500	330	UG/KG
SW8270C/NONE	068SB-0025M-0001-SO	N	5	Carbazole	250 U	140	250	50	UG/KG
SW8270C/NONE	068SB-0025M-0001-SO	N	5	Cresols, m & p	2000 U	100	2000	300	UG/KG
SW8270C/NONE	068SB-0025M-0001-SO	N	5	Diethyl Phthalate	350 U	80	350	330	UG/KG
SW8270C/NONE	068SB-0025M-0001-SO	N	5	Dimethyl Phthalate	350 U	85	350	330	UG/KG
SW8270C/NONE	068SB-0025M-0001-SO	N	5	Di-n-Butyl Phthalate	350 U	75	350	330	UG/KG
SW8270C/NONE	068SB-0025M-0001-SO	N	5	Di-n-Octylphthalate	350 U	140	350	330	UG/KG
SW8270C/NONE	068SB-0025M-0001-SO	N	5	Hexachlorocyclopentadiene	1700 U	140	1700	330	UG/KG
SW8270C/NONE	068SB-0025M-0001-SO	N	5	Nitrobenzene	500 U	11	500	330	UG/KG
SW8270C/NONE	068SB-0027M-0001-SO	N	1	Cresols, m & p	400 U	20	400	300	UG/KG
SW8270C/NONE	068SB-0028M-0001-SO	N	1	Cresols, m & p	400 U	20	400	300	UG/KG
SW8270C/NONE	068SB-0030M-0001-SO	N	1	Cresols, m & p	400 U	20	400	300	UG/KG
SW8270C/NONE	068SB-0031M-0001-SO	N	5	2,4,6-Trichlorophenol	740 U	390	740	330	UG/KG
SW8270C/NONE	068SB-0031M-0001-SO	N	5	2,4-Dichlorophenol	740 U	99	740	330	UG/KG
SW8270C/NONE	068SB-0031M-0001-SO	N	5	2,4-Dimethylphenol	740 UJ	99	740	330	UG/KG
SW8270C/NONE	068SB-0031M-0001-SO	N	5	2,4-Dinitrophenol	1600 U	390	1600	800	UG/KG
SW8270C/NONE	068SB-0031M-0001-SO	N	5	2,4-Dinitrotoluene	990 U	130	990	330	UG/KG
SW8270C/NONE	068SB-0031M-0001-SO	N	5	2,6-Dinitrotoluene	990 U	100	990	330	UG/KG
SW8270C/NONE	068SB-0031M-0001-SO	N	5	2-Methylphenol (o-Cresol)	990 R	390	990	330	UG/KG
SW8270C/NONE	068SB-0031M-0001-SO	N	5	2-Nitroaniline	990 U	45	990	800	UG/KG
SW8270C/NONE	068SB-0031M-0001-SO	N	5	3,3'-Dichlorobenzidine	490 U	89	490	330	UG/KG
SW8270C/NONE	068SB-0031M-0001-SO	N	5	3-Nitroaniline	990 U	79	990	800	UG/KG
SW8270C/NONE	068SB-0031M-0001-SO	N	5	4-Chloro-3-Methylphenol	740 U	100	740	330	UG/KG
SW8270C/NONE	068SB-0031M-0001-SO	N	5	4-Chloroaniline	740 U	84	740	330	UG/KG
SW8270C/NONE	068SB-0031M-0001-SO	N	5	4-Nitroaniline	990 U	130	990	800	UG/KG
SW8270C/NONE	068SB-0031M-0001-SO	N	5	4-Nitrophenol	1600 R	390	1600	800	UG/KG
SW8270C/NONE	068SB-0031M-0001-SO	N	5	Benzoic acid	3300 R	1600	3300	800	UG/KG
SW8270C/NONE	068SB-0031M-0001-SO	N	5	Benzyl alcohol	1600 U	100	1600	330	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Reporting Anomalies

SDG Name: 240-22663-1_68,70,73,79_SB

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8270C/NONE	068SB-0031M-0001-SO	N	5	Benzyl butyl phthalate	350 U	49	350	330	UG/KG
SW8270C/NONE	068SB-0031M-0001-SO	N	5	bis(2-Chloroethoxy) Methane	490 U	110	490	330	UG/KG
SW8270C/NONE	068SB-0031M-0001-SO	N	5	bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	490 U	9.9	490	330	UG/KG
SW8270C/NONE	068SB-0031M-0001-SO	N	5	bis(2-Chloroisopropyl) Ether	490 U	47	490	330	UG/KG
SW8270C/NONE	068SB-0031M-0001-SO	N	5	Carbazole	250 U	130	250	50	UG/KG
SW8270C/NONE	068SB-0031M-0001-SO	N	5	Cresols, m & p	2000 U	99	2000	300	UG/KG
SW8270C/NONE	068SB-0031M-0001-SO	N	5	Diethyl Phthalate	350 U	79	350	330	UG/KG
SW8270C/NONE	068SB-0031M-0001-SO	N	5	Dimethyl Phthalate	350 UJ	84	350	330	UG/KG
SW8270C/NONE	068SB-0031M-0001-SO	N	5	Di-n-Butyl Phthalate	350 U	74	350	330	UG/KG
SW8270C/NONE	068SB-0031M-0001-SO	N	5	Di-n-Octylphthalate	350 U	130	350	330	UG/KG
SW8270C/NONE	068SB-0031M-0001-SO	N	5	Hexachlorocyclopentadiene	1600 U	130	1600	330	UG/KG
SW8270C/NONE	068SB-0031M-0001-SO	N	5	Nitrobenzene	490 U	11	490	330	UG/KG
SW8270C/NONE	068SB-0032M-0001-SO	N	1	Benzyl alcohol	380 U	24	380	330	UG/KG
SW8270C/NONE	068SB-0032M-0001-SO	N	1	Carbazole	58 U	31	58	50	UG/KG
SW8270C/NONE	068SB-0032M-0001-SO	N	1	Cresols, m & p	460 U	23	460	300	UG/KG
SW8270C/NONE	068SB-0032M-0001-SO	N	1	Hexachlorocyclopentadiene	380 U	31	380	330	UG/KG
SW8270C/NONE	073SB-0041M-0001-SO	N	5	2,4,6-Trichlorophenol	750 U	400	750	330	UG/KG
SW8270C/NONE	073SB-0041M-0001-SO	N	5	2,4-Dichlorophenol	750 U	100	750	330	UG/KG
SW8270C/NONE	073SB-0041M-0001-SO	N	5	2,4-Dimethylphenol	750 U	100	750	330	UG/KG
SW8270C/NONE	073SB-0041M-0001-SO	N	5	2,4-Dinitrophenol	1700 U	400	1700	800	UG/KG
SW8270C/NONE	073SB-0041M-0001-SO	N	5	2,4-Dinitrotoluene	1000 U	140	1000	330	UG/KG
SW8270C/NONE	073SB-0041M-0001-SO	N	5	2,6-Dinitrotoluene	1000 U	110	1000	330	UG/KG
SW8270C/NONE	073SB-0041M-0001-SO	N	5	2-Methylphenol (o-Cresol)	1000 U	400	1000	330	UG/KG
SW8270C/NONE	073SB-0041M-0001-SO	N	5	2-Nitroaniline	1000 U	46	1000	800	UG/KG
SW8270C/NONE	073SB-0041M-0001-SO	N	5	3,3'-Dichlorobenzidine	500 U	90	500	330	UG/KG
SW8270C/NONE	073SB-0041M-0001-SO	N	5	3-Nitroaniline	1000 U	80	1000	800	UG/KG
SW8270C/NONE	073SB-0041M-0001-SO	N	5	4-Chloro-3-Methylphenol	750 U	110	750	330	UG/KG
SW8270C/NONE	073SB-0041M-0001-SO	N	5	4-Chloroaniline	750 U	85	750	330	UG/KG
SW8270C/NONE	073SB-0041M-0001-SO	N	5	4-Nitroaniline	1000 U	130	1000	800	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Reporting Anomalies

SDG Name: 240-22663-1_68,70,73,79_SB

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8270C/NONE	073SB-0041M-0001-SO	N	5	4-Nitrophenol	1700 U	400	1700	800	UG/KG
SW8270C/NONE	073SB-0041M-0001-SO	N	5	Benzoic acid	3300 R	1700	3300	800	UG/KG
SW8270C/NONE	073SB-0041M-0001-SO	N	5	Benzyl alcohol	1700 U	110	1700	330	UG/KG
SW8270C/NONE	073SB-0041M-0001-SO	N	5	Benzyl butyl phthalate	350 U	50	350	330	UG/KG
SW8270C/NONE	073SB-0041M-0001-SO	N	5	bis(2-Chloroethoxy) Methane	500 U	110	500	330	UG/KG
SW8270C/NONE	073SB-0041M-0001-SO	N	5	bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	500 U	10	500	330	UG/KG
SW8270C/NONE	073SB-0041M-0001-SO	N	5	bis(2-Chloroisopropyl) Ether	500 U	48	500	330	UG/KG
SW8270C/NONE	073SB-0041M-0001-SO	N	5	Carbazole	250 U	140	250	50	UG/KG
SW8270C/NONE	073SB-0041M-0001-SO	N	5	Cresols, m & p	2000 U	100	2000	300	UG/KG
SW8270C/NONE	073SB-0041M-0001-SO	N	5	Diethyl Phthalate	350 U	80	350	330	UG/KG
SW8270C/NONE	073SB-0041M-0001-SO	N	5	Dimethyl Phthalate	350 U	85	350	330	UG/KG
SW8270C/NONE	073SB-0041M-0001-SO	N	5	Di-n-Butyl Phthalate	350 U	75	350	330	UG/KG
SW8270C/NONE	073SB-0041M-0001-SO	N	5	Di-n-Octylphthalate	350 U	140	350	330	UG/KG
SW8270C/NONE	073SB-0041M-0001-SO	N	5	Hexachlorocyclopentadiene	1700 U	140	1700	330	UG/KG
SW8270C/NONE	073SB-0041M-0001-SO	N	5	Nitrobenzene	500 U	11	500	330	UG/KG
SW8270C/NONE	079SB-0014M-0001-SO	N	5	2,4,6-Trichlorophenol	760 U	410	760	330	UG/KG
SW8270C/NONE	079SB-0014M-0001-SO	N	5	2,4-Dichlorophenol	760 U	100	760	330	UG/KG
SW8270C/NONE	079SB-0014M-0001-SO	N	5	2,4-Dimethylphenol	760 U	100	760	330	UG/KG
SW8270C/NONE	079SB-0014M-0001-SO	N	5	2,4-Dinitrophenol	1700 U	410	1700	800	UG/KG
SW8270C/NONE	079SB-0014M-0001-SO	N	5	2,4-Dinitrotoluene	1000 U	140	1000	330	UG/KG
SW8270C/NONE	079SB-0014M-0001-SO	N	5	2,6-Dinitrotoluene	1000 U	110	1000	330	UG/KG
SW8270C/NONE	079SB-0014M-0001-SO	N	5	2-Methylphenol (o-Cresol)	1000 U	410	1000	330	UG/KG
SW8270C/NONE	079SB-0014M-0001-SO	N	5	2-Nitroaniline	1000 U	46	1000	800	UG/KG
SW8270C/NONE	079SB-0014M-0001-SO	N	5	3,3'-Dichlorobenzidine	510 U	91	510	330	UG/KG
SW8270C/NONE	079SB-0014M-0001-SO	N	5	3-Nitroaniline	1000 U	81	1000	800	UG/KG
SW8270C/NONE	079SB-0014M-0001-SO	N	5	4-Chloro-3-Methylphenol	760 U	110	760	330	UG/KG
SW8270C/NONE	079SB-0014M-0001-SO	N	5	4-Chloroaniline	760 U	86	760	330	UG/KG
SW8270C/NONE	079SB-0014M-0001-SO	N	5	4-Nitroaniline	1000 U	130	1000	800	UG/KG
SW8270C/NONE	079SB-0014M-0001-SO	N	5	4-Nitrophenol	1700 U	410	1700	800	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Reporting Anomalies

SDG Name: 240-22663-1_68,70,73,79_SB

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8270C/NONE	079SB-0014M-0001-SO	N	5	Benzoic acid	3300 R	1700	3300	800	UG/KG
SW8270C/NONE	079SB-0014M-0001-SO	N	5	Benzyl alcohol	1700 U	110	1700	330	UG/KG
SW8270C/NONE	079SB-0014M-0001-SO	N	5	Benzyl butyl phthalate	360 U	51	360	330	UG/KG
SW8270C/NONE	079SB-0014M-0001-SO	N	5	bis(2-Chloroethoxy) Methane	510 U	110	510	330	UG/KG
SW8270C/NONE	079SB-0014M-0001-SO	N	5	bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	510 U	10	510	330	UG/KG
SW8270C/NONE	079SB-0014M-0001-SO	N	5	bis(2-Chloroisopropyl) Ether	510 U	48	510	330	UG/KG
SW8270C/NONE	079SB-0014M-0001-SO	N	5	Carbazole	250 U	140	250	50	UG/KG
SW8270C/NONE	079SB-0014M-0001-SO	N	5	Cresols, m & p	2000 U	100	2000	300	UG/KG
SW8270C/NONE	079SB-0014M-0001-SO	N	5	Diethyl Phthalate	360 U	81	360	330	UG/KG
SW8270C/NONE	079SB-0014M-0001-SO	N	5	Dimethyl Phthalate	360 U	86	360	330	UG/KG
SW8270C/NONE	079SB-0014M-0001-SO	N	5	Di-n-Butyl Phthalate	360 U	76	360	330	UG/KG
SW8270C/NONE	079SB-0014M-0001-SO	N	5	Di-n-Octylphthalate	360 U	140	360	330	UG/KG
SW8270C/NONE	079SB-0014M-0001-SO	N	5	Hexachlorocyclopentadiene	1700 U	140	1700	330	UG/KG
SW8270C/NONE	079SB-0014M-0001-SO	N	5	Nitrobenzene	510 U	11	510	330	UG/KG
SW8270C/NONE	079SB-0017M-0001-SO	N	5	2,4,6-Trichlorophenol	760 U	400	760	330	UG/KG
SW8270C/NONE	079SB-0017M-0001-SO	N	5	2,4-Dichlorophenol	760 U	100	760	330	UG/KG
SW8270C/NONE	079SB-0017M-0001-SO	N	5	2,4-Dimethylphenol	760 U	100	760	330	UG/KG
SW8270C/NONE	079SB-0017M-0001-SO	N	5	2,4-Dinitrophenol	1700 U	400	1700	800	UG/KG
SW8270C/NONE	079SB-0017M-0001-SO	N	5	2,4-Dinitrotoluene	1000 U	140	1000	330	UG/KG
SW8270C/NONE	079SB-0017M-0001-SO	N	5	2,6-Dinitrotoluene	1000 U	110	1000	330	UG/KG
SW8270C/NONE	079SB-0017M-0001-SO	N	5	2-Methylphenol (o-Cresol)	1000 U	400	1000	330	UG/KG
SW8270C/NONE	079SB-0017M-0001-SO	N	5	2-Nitroaniline	1000 U	46	1000	800	UG/KG
SW8270C/NONE	079SB-0017M-0001-SO	N	5	3,3'-Dichlorobenzidine	510 U	91	510	330	UG/KG
SW8270C/NONE	079SB-0017M-0001-SO	N	5	3-Nitroaniline	1000 U	81	1000	800	UG/KG
SW8270C/NONE	079SB-0017M-0001-SO	N	5	4-Chloro-3-Methylphenol	760 U	110	760	330	UG/KG
SW8270C/NONE	079SB-0017M-0001-SO	N	5	4-Chloroaniline	760 U	86	760	330	UG/KG
SW8270C/NONE	079SB-0017M-0001-SO	N	5	4-Nitroaniline	1000 U	130	1000	800	UG/KG
SW8270C/NONE	079SB-0017M-0001-SO	N	5	4-Nitrophenol	1700 U	400	1700	800	UG/KG
SW8270C/NONE	079SB-0017M-0001-SO	N	5	Benzoic acid	3300 R	1700	3300	800	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Reporting Anomalies

SDG Name: 240-22663-1_68,70,73,79_SB

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8270C/NONE	079SB-0017M-0001-SO	N	5	Benzyl alcohol	1700 U	110	1700	330	UG/KG
SW8270C/NONE	079SB-0017M-0001-SO	N	5	Benzyl butyl phthalate	350 U	51	350	330	UG/KG
SW8270C/NONE	079SB-0017M-0001-SO	N	5	bis(2-Chloroethoxy) Methane	510 U	110	510	330	UG/KG
SW8270C/NONE	079SB-0017M-0001-SO	N	5	bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	510 U	10	510	330	UG/KG
SW8270C/NONE	079SB-0017M-0001-SO	N	5	bis(2-Chloroisopropyl) Ether	510 U	48	510	330	UG/KG
SW8270C/NONE	079SB-0017M-0001-SO	N	5	Carbazole	250 U	140	250	50	UG/KG
SW8270C/NONE	079SB-0017M-0001-SO	N	5	Cresols, m & p	2000 U	100	2000	300	UG/KG
SW8270C/NONE	079SB-0017M-0001-SO	N	5	Diethyl Phthalate	350 U	81	350	330	UG/KG
SW8270C/NONE	079SB-0017M-0001-SO	N	5	Dimethyl Phthalate	350 U	86	350	330	UG/KG
SW8270C/NONE	079SB-0017M-0001-SO	N	5	Di-n-Butyl Phthalate	350 U	76	350	330	UG/KG
SW8270C/NONE	079SB-0017M-0001-SO	N	5	Di-n-Octylphthalate	350 U	140	350	330	UG/KG
SW8270C/NONE	079SB-0017M-0001-SO	N	5	Hexachlorocyclopentadiene	1700 U	140	1700	330	UG/KG
SW8270C/NONE	079SB-0017M-0001-SO	N	5	Nitrobenzene	510 U	11	510	330	UG/KG
SW8270C/NONE	079SB-0026M-0001-SO	N	5	2,4,6-Trichlorophenol	750 U	400	750	330	UG/KG
SW8270C/NONE	079SB-0026M-0001-SO	N	5	2,4-Dichlorophenol	750 U	100	750	330	UG/KG
SW8270C/NONE	079SB-0026M-0001-SO	N	5	2,4-Dimethylphenol	750 U	100	750	330	UG/KG
SW8270C/NONE	079SB-0026M-0001-SO	N	5	2,4-Dinitrophenol	1700 U	400	1700	800	UG/KG
SW8270C/NONE	079SB-0026M-0001-SO	N	5	2,4-Dinitrotoluene	1000 U	140	1000	330	UG/KG
SW8270C/NONE	079SB-0026M-0001-SO	N	5	2,6-Dinitrotoluene	1000 U	110	1000	330	UG/KG
SW8270C/NONE	079SB-0026M-0001-SO	N	5	2-Methylphenol (o-Cresol)	1000 U	400	1000	330	UG/KG
SW8270C/NONE	079SB-0026M-0001-SO	N	5	2-Nitroaniline	1000 U	46	1000	800	UG/KG
SW8270C/NONE	079SB-0026M-0001-SO	N	5	3,3'-Dichlorobenzidine	500 U	90	500	330	UG/KG
SW8270C/NONE	079SB-0026M-0001-SO	N	5	3-Nitroaniline	1000 U	80	1000	800	UG/KG
SW8270C/NONE	079SB-0026M-0001-SO	N	5	4-Chloro-3-Methylphenol	750 U	110	750	330	UG/KG
SW8270C/NONE	079SB-0026M-0001-SO	N	5	4-Chloroaniline	750 U	85	750	330	UG/KG
SW8270C/NONE	079SB-0026M-0001-SO	N	5	4-Nitroaniline	1000 U	130	1000	800	UG/KG
SW8270C/NONE	079SB-0026M-0001-SO	N	5	4-Nitrophenol	1700 U	400	1700	800	UG/KG
SW8270C/NONE	079SB-0026M-0001-SO	N	5	Benzoic acid	3300 R	1700	3300	800	UG/KG
SW8270C/NONE	079SB-0026M-0001-SO	N	5	Benzyl alcohol	1700 U	110	1700	330	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Reporting Anomalies

SDG Name: 240-22663-1_68,70,73,79_SB

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8270C/NONE	079SB-0026M-0001-SO	N	5	Benzyl butyl phthalate	350 U	50	350	330	UG/KG
SW8270C/NONE	079SB-0026M-0001-SO	N	5	bis(2-Chloroethoxy) Methane	500 U	110	500	330	UG/KG
SW8270C/NONE	079SB-0026M-0001-SO	N	5	bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	500 U	10	500	330	UG/KG
SW8270C/NONE	079SB-0026M-0001-SO	N	5	bis(2-Chloroisopropyl) Ether	500 U	48	500	330	UG/KG
SW8270C/NONE	079SB-0026M-0001-SO	N	5	Carbazole	250 U	140	250	50	UG/KG
SW8270C/NONE	079SB-0026M-0001-SO	N	5	Cresols, m & p	2000 U	100	2000	300	UG/KG
SW8270C/NONE	079SB-0026M-0001-SO	N	5	Diethyl Phthalate	350 U	80	350	330	UG/KG
SW8270C/NONE	079SB-0026M-0001-SO	N	5	Dimethyl Phthalate	350 U	85	350	330	UG/KG
SW8270C/NONE	079SB-0026M-0001-SO	N	5	Di-n-Butyl Phthalate	350 U	75	350	330	UG/KG
SW8270C/NONE	079SB-0026M-0001-SO	N	5	Di-n-Octylphthalate	350 U	140	350	330	UG/KG
SW8270C/NONE	079SB-0026M-0001-SO	N	5	Hexachlorocyclopentadiene	1700 U	140	1700	330	UG/KG
SW8270C/NONE	079SB-0026M-0001-SO	N	5	Nitrobenzene	500 U	11	500	330	UG/KG
SW8270C/NONE	079SB-0028M-0001-SO	N	5	2,4,6-Trichlorophenol	760 U	400	760	330	UG/KG
SW8270C/NONE	079SB-0028M-0001-SO	N	5	2,4-Dichlorophenol	760 U	100	760	330	UG/KG
SW8270C/NONE	079SB-0028M-0001-SO	N	5	2,4-Dimethylphenol	760 U	100	760	330	UG/KG
SW8270C/NONE	079SB-0028M-0001-SO	N	5	2,4-Dinitrophenol	1700 U	400	1700	800	UG/KG
SW8270C/NONE	079SB-0028M-0001-SO	N	5	2,4-Dinitrotoluene	1000 U	140	1000	330	UG/KG
SW8270C/NONE	079SB-0028M-0001-SO	N	5	2,6-Dinitrotoluene	1000 U	110	1000	330	UG/KG
SW8270C/NONE	079SB-0028M-0001-SO	N	5	2-Methylphenol (o-Cresol)	1000 U	400	1000	330	UG/KG
SW8270C/NONE	079SB-0028M-0001-SO	N	5	2-Nitroaniline	1000 U	46	1000	800	UG/KG
SW8270C/NONE	079SB-0028M-0001-SO	N	5	3,3'-Dichlorobenzidine	510 U	91	510	330	UG/KG
SW8270C/NONE	079SB-0028M-0001-SO	N	5	3-Nitroaniline	1000 U	81	1000	800	UG/KG
SW8270C/NONE	079SB-0028M-0001-SO	N	5	4-Chloro-3-Methylphenol	760 U	110	760	330	UG/KG
SW8270C/NONE	079SB-0028M-0001-SO	N	5	4-Chloroaniline	760 U	86	760	330	UG/KG
SW8270C/NONE	079SB-0028M-0001-SO	N	5	4-Nitroaniline	1000 U	130	1000	800	UG/KG
SW8270C/NONE	079SB-0028M-0001-SO	N	5	4-Nitrophenol	1700 U	400	1700	800	UG/KG
SW8270C/NONE	079SB-0028M-0001-SO	N	5	Benzoic acid	3300 R	1700	3300	800	UG/KG
SW8270C/NONE	079SB-0028M-0001-SO	N	5	Benzyl alcohol	1700 U	110	1700	330	UG/KG
SW8270C/NONE	079SB-0028M-0001-SO	N	5	Benzyl butyl phthalate	350 U	51	350	330	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Reporting Anomalies

SDG Name: 240-22663-1_68,70,73,79_SB

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8270C/NONE	079SB-0028M-0001-SO	N	5	bis(2-Chloroethoxy) Methane	510 U	110	510	330	UG/KG
SW8270C/NONE	079SB-0028M-0001-SO	N	5	bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	510 U	10	510	330	UG/KG
SW8270C/NONE	079SB-0028M-0001-SO	N	5	bis(2-Chloroisopropyl) Ether	510 U	48	510	330	UG/KG
SW8270C/NONE	079SB-0028M-0001-SO	N	5	Carbazole	250 U	140	250	50	UG/KG
SW8270C/NONE	079SB-0028M-0001-SO	N	5	Cresols, m & p	2000 U	100	2000	300	UG/KG
SW8270C/NONE	079SB-0028M-0001-SO	N	5	Diethyl Phthalate	350 U	81	350	330	UG/KG
SW8270C/NONE	079SB-0028M-0001-SO	N	5	Dimethyl Phthalate	350 U	86	350	330	UG/KG
SW8270C/NONE	079SB-0028M-0001-SO	N	5	Di-n-Butyl Phthalate	350 U	76	350	330	UG/KG
SW8270C/NONE	079SB-0028M-0001-SO	N	5	Di-n-Octylphthalate	350 U	140	350	330	UG/KG
SW8270C/NONE	079SB-0028M-0001-SO	N	5	Hexachlorocyclopentadiene	1700 U	140	1700	330	UG/KG
SW8270C/NONE	079SB-0028M-0001-SO	N	5	Nitrobenzene	510 U	11	510	330	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Worksheet

SDG Name: 240-22663-1_68,70,73,79_SB

Method: E353.2

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were sample reciept temperatures met?	•			
Were QAPP specified RLs achieved?	•			
Were all QAPP specified target analytes reported?	•			
Was the initial calibration curve within QAPP acceptance limits?	•			
Were the ICV/CCVs analyzed (frequency) as required in the QAPP?	•			
Were ICV/CCV results within QAPP acceptance limits?	•			
Were the ICB/CCBs analyzed (frequency) as required in the QAPP?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the ICB/CCB/method blank?		•		
Was a field blank collected and analyzed?		•		
Were target analytes reported in the field blank analyses above the MDL?			•	
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?			•	
Was a LCS prepared and analyzed with each batch?	•			
Were the LCS recoveries within QAPP acceptance limits?	•			
Was a duplicate sample prepared and analyzed with each batch?			•	
Was the duplicate RPD within QAPP acceptance limits?			•	
Was a MS/MSD pair prepared with each batch?			•	
Is the MS/MSD parent sample the one designated by the sampling team?			•	
Were the MS/MSD recoveries and RPDs within QAPP acceptance limits?			•	
Were sample concentrations within calibration range?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Method: SW6020

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were sample reciept temperatures met?	•			
Were QAPP specified RLs achieved?	•			
Were all QAPP specified target analytes reported?	•			
Was the initial calibration curve within QAPP acceptance limits?	•			
Were the ICV/CCVs analyzed (frequency) as required in the QAPP?	•			
Were ICV/CCV results within QAPP acceptance limits?	•			
Were the ICB/CCBs analyzed (frequency) as required in the QAPP?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the ICB/CCB/method blank?	•			1. MB 180-69114/1-A: Ba, Cu, and Zn detected above the MDL but below the RL. 2. MB 180-69160/1-A: As, Ca,Zn, and Se were detected above the MDL but below the RL. 3, MB 180-69260/1-A: Al, Ba, Ca, Cu, and Zn were detected above the MDL but below the RL.
Was a field blank collected and analyzed?		•		
Were target analytes reported in the field blank analyses above the MDL?			•	
Was an Interference Check Standard (ICS) run at the beginning and end of every run?	•			
Was the ICS recovery within QAPP acceptance limits?	•			
If a field duplicate was analyzed, were the RPDs within criteria?		•		240-22663-7/-8: Ca RPD: 56.9%.
Was a LCS prepared and analyzed with each batch?	•			
Were the LCS recoveries within QAPP acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			MS and Laboratory Duplicate
Is the MS/MSD parent sample the one designated by the sampling team?	•			
Were the MS/MSD within QAPP acceptance limits?		•		240-22663-5, 16, and 24: Sb recovered below the control limits.
Was a serial dilution prepared and analyzed with each batch?	•			
Was the serial dilution within QAPP acceptance limits?		•	•	1. 240-22663-5 (Batch: 69114): Zinc %D=17%. 2. 240-22663-16 (Batch: 69160): ZN %D= 11%. 3. 240-22663-24: Be %D=13%.
Were sample concentrations within calibration range?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Are all samples associated with QC non-compliances flagged appropriately?	•			

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Method: SW6020

Review Questions	Yes	No	NA	Comment
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			

Method: SW7471A

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were sample reciept temperatures met?	•			
Were QAPP specified RLs achieved?				
Were all QAPP specified target analytes reported?	•			
Was the initial calibration curve within QAPP acceptance limits?	•			
Were the ICV/CCVs analyzed (frequency) as required in the QAPP?	•			
Were ICV/CCV results within QAPP acceptance limits?	•			
Were the ICB/CCBs analyzed (frequency) as required in the QAPP?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the ICB/CCB/method blank?		•		
Was a field blank collected and analyzed?		•		
Were target analytes reported in the field blank analyses above the MDL?			•	
Was the ICS recovery within QAPP acceptance limits?			•	
If a field duplicate was analyzed, were the RPDs within criteria?	•			
Was a LCS prepared and analyzed with each batch?	•			
Were the LCS recoveries within QAPP acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			MS and Laboratory Duplicate
Is the MS/MSD parent sample the one designated by the sampling team?	•			
Were the MS/MSD within QAPP acceptance limits?	•			
Were sample concentrations within calibration range?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			

Method: SW7471A

Review Questions	Yes	No	NA	Comment
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			

Method: SW8081

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report?	•			
Were samples preserved properly and received in good condition?	•			
Were sample reciept temperatures met?	•			
Were holding times for prep and analysis met?		•		The following samples were re-extracted outside the holding time: 04, 07, 10, 17, 26 and 28.
Does the initial calibration curve consist of 5 concentration levels, with the low standard near but > MDL?	•			
Is the ICAL %RSD within acceptance limits (%D =20%) on both columns?	•			
Was a second source verification analyzed after the ICAL and all analytes within criteria (%D =20%)?		•		Toxaphene %D= 38.9%.
Was a CCV run at the beginning of the analytical sequence and every 12 hours?	•			
Was the CCV a mid-level standard from the initial calibration curve?	•			
Was the CCV %D within criteria (%D =20%)?		•		CCV 240-83400/24: Aldrin, Alpha-Chlordane, 4,4'-DDE, Endrin, 4,4'-DDD, Endrin Aldehyde, Methoxychlor, Endrin Ketone %Ds were outside control limits. CCV 240-84400/38: Aldrin, Gamma Chlordane, Alpha Chlordane, 4,4'-DDE, Dieldrin, 4,4'-DDD, and 4,4-DDT %D were outside the control limits.
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the method blank above the MDL?		•		
Was a field blank (equipment or trip) collected and analyzed?			•	
Were target analytes reported in the field blank analyses above the MDL?			•	
Were surrogate recoveries within QAPP acceptance limits?		•		Sample-10: DCB recovered above the control limits in both columns.
Was an LCS/LCSD pair prepared and analyzed with each batch? (if applicable)	•			LCS was extracted with each preparation batch.
Were the LCS recoveries within QAPP acceptance limits?	•			
Were the LCS/LCSD RPDs within QAPP acceptance limits? (if applicable)			•	
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits (RPD = 30%) ?			•	
Were the Breakdown products within QAPP acceptance limits?	•			

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Method: SW8081

Review Questions	Yes	No	NA	Comment
Is the MS/MSD parent sample the one designated by the sampling team?	•			
Were MS/MSD recoveries and RPD within QAPP acceptance limits?	•			
Were all QAPP-specified target analytes reported?	•			
Were reported sample concentrations within calibration range?	•			
Were RPDs between primary and confirmation columns < 40%?	•			Sample -17: Alpha-BHC RPD was 26.1% >25% NFG.
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were sample prepration sheets present and filled out appropriately?	•			
Were instrument run logs present and filled out appropriately?	•			

Method: SW8082

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report?	•			
Were samples preserved properly and received in good condition?	•			
Were sample reciept temperatures met?	•			
Were holding times for prep and analysis met?		•		Samples 240-22663-26 and 28 were re-extracted outside the holding time due to low surrogate recovery in the initial analysis
Does the initial calibration curve consist of 5 concentration levels, with the low standard near but > MDL?	•			
Is the ICAL %RSD within acceptance limits (%D =20%) on both columns?	•			
Was a second source verification analyzed after the ICAL and all analytes within criteria (%D =20%)?	•			15%
Was a CCV run at the beginning of the analytical sequence and every 12 hours?	•			
Was the CCV a mid-level standard from the initial calibration curve?				
Was the CCV %D within criteria (%D =20%)?	•			15%
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the method blank above the MDL?		•		
Was a field blank (equipment or trip) collected and analyzed?			•	
Were target analytes reported in the field blank analyses above the MDL?			•	
Were surrogate recoveries within QAPP acceptance limits?	•			DCB surrogate recovered below the QC limit in the initial extraction for sample 26 and 28.

Method: SW8082				
Review Questions	**Yes**	**No**	**NA**	**Comment**
Was an LCS/LCSD pair prepared and analyzed with each batch? (if applicable)	•			LCS extracted with each preparation batch.
Were the LCS recoveries within QAPP acceptance limits?	•			
Were the LCS/LCSD RPDs within QAPP acceptance limits? (if applicable)			•	
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits (RPD = 30%) ?			•	
Were the Breakdown products within QAPP acceptance limits?			•	
Is the MS/MSD parent sample the one designated by the sampling team?			•	
Were MS/MSD recoveries and RPD within QAPP acceptance limits?	•			
Were all QAPP-specified target analytes reported?			•	
Were reported sample concentrations within calibration range?	•			
Were RPDs between primary and confirmation columns < 40%?	•			All PCBs were reported as non-detects.
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were sample prepration sheets present and filled out appropriately?	•			
Were instrument run logs present and filled out appropriately?	•			

Method: SW8260B				
Review Questions	**Yes**	**No**	**NA**	**Comment**
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were sample reciept temperatures met?	•			
Were QAPP specified PQLs achieved?	•			
Were all QAPP-specified target analytes reported?				
Was the GC/MS system properly tuned based on method criteria?	•			
Was the criteria met during each 12 hour shift (prior to ICAL and Cal Ver.)?	•			
Does the initial calibration curve consist of 5 concentration levels, with the low standard near but > MDL?	•			
Did the Calibration Check Compounds (CCCs) have a relative standard deviation within QAPP acceptance limits?	•			

Method: SW8260B

Review Questions	Yes	No	NA	Comment
Were the average response factors (RFs) for the System Performance Check Compounds (SPCCs) within QAPP acceptance limits?	•			
Were all other target analytes within criteria? OR Was the average across all target analytes within criteria? Was a different calibration option used?	•			
If a linear regression curve was used, was the correlation coefficient within criteria?	•			
Was a second source verification analyzed after the ICAL and all analytes within criteria?	•			
Was a CCV run at the beginning of the analytical sequence and every 12 hours?	•			
Was the CCV a mid-level standard from the initial calibration curve?	•			
Did the CCCs have a %Difference within QAPP acceptance limits?	•			
Were the average RFs for the SPCCs within QAPP acceptance limits?	•			
Was the average %D (difference or drift) for all target analytes within QAPP acceptance limits?	•			
Were the internal standards added to every standard, blank, matrix spike, matrix spike duplicate, and sample?	•			
Were the retention times for all IS compounds within QAPP acceptance limits?	•			
Are the area counts of all IS compounds within QAPP acceptance limits?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the method blank above the MDL?	•			1. MB 240-80954/7: Carbon disulfide was detected above the MDL but below RL. Methylene chloride was detected above the RL.
Was a field blank (equipment or trip) collected and analyzed at the required frequency?	•			
Were target analytes reported in the field blank analyses above the MDL?	•			1. 068SB-0026-0001-TB (240-22663-30). Acetone was detected above the MDL but below the RL. Methylene chloride detected above the RL.
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?			•	
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			LCS was analyzed with each analytical batch.
Were the LCS/LCSD recoveries within QAPP acceptance limits?	•			
Were the LCS/LCSD RPDs within QAPP acceptance limits?			•	
Was the duplicate RPD within QAPP acceptance limits?			•	
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			
Was a MS/MSD pair prepared with each batch?			•	
Is the MS/MSD parent sample the one designated by the sampling team?			•	
Were MS/MSD recoveries and RPD within QAPP acceptance limits?			•	

Method: SW8260B				
Review Questions	**Yes**	**No**	**NA**	**Comment**
Were surrogate recoveries within QAPP acceptance limits?		•		one or more surrogate recovered below the control limits in the following samples: -4, 26, and 28.
Were reported sample concentrations within calibration range?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were instrument run logs present and filled out appropriately?	•			
Were sample prepration sheets present and filled out appropriately?	•			

Method: SW8270C				
Review Questions	**Yes**	**No**	**NA**	**Comment**
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were sample reciept temperatures met?	•			
Were QAPP specified PQLs achieved?	•			
Were all QAPP-specified target analytes reported?	•			
Was the GC/MS system properly tuned based on method criteria?	•			
Was the criteria met during each 12 hour shift (prior to ICAL and Cal Ver.)?	•			
Does the initial calibration curve consist of 5 concentration levels, with the low standard near but > MDL?	•			
Did the Calibration Check Compounds (CCCs) have a relative standard deviation within QAPP acceptance limits?	•			
Were the average response factors (RFs) for the System Performance Check Compounds (SPCCs) within QAPP acceptance limits?	•			
Were all other target analytes within criteria? OR Was the average across all target analytes within criteria? Was a different calibration option used?	•			
If a linear regression curve was used, was the correlation coefficient within criteria?	•			
Was a second source verification analyzed after the ICAL and all analytes within criteria?	•			
Was a CCV run at the beginning of the analytical sequence and every 12 hours?	•			
Was the CCV a mid-level standard from the initial calibration curve?	•			
Did the CCCs have a %Difference within QAPP acceptance limits?	•			
Were the average RFs for the SPCCs within QAPP acceptance limits?	•			

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Method: SW8270C

Review Questions	Yes	No	NA	Comment
Was the average %D (difference or drift) for all target analytes within QAPP acceptance limits?	•			
Were the internal standards added to every standard, blank, matrix spike, matrix spike duplicate, and sample?	•			
Were the retention times for all IS compounds within QAPP acceptance limits?	•			
Are the area counts of all IS compounds within QAPP acceptance limits?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the method blank above the MDL?	•			MB 240-81754/21-A: Di-n-butyl phthalate was detected above the MDL but below the RL.
Was a field blank (equipment or trip) collected and analyzed at the required frequency?			•	
Were target analytes reported in the field blank analyses above the MDL?			•	
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?	•			
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			LCS was extracted with each preparation batch.
Were the LCS/LCSD recoveries within QAPP acceptance limits?		•		LCS 240-81754/22-A: Benzoic acid was not recovered. Bonzoic acid was qualified (R) in the following samples: 4,7,17,28, 31-41, 43-44.
Were the LCS/LCSD RPDs within QAPP acceptance limits?			•	
Was the duplicate RPD within QAPP acceptance limits?	•			
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			
Was a MS/MSD pair prepared with each batch?	•			
Is the MS/MSD parent sample the one designated by the sampling team?	•			
Were MS/MSD recoveries and RPD within QAPP acceptance limits?		•		240-22663-44: Benzoic acid , 2-Methyl phenol and 4-Nitrophenol were not recovered. Dimethyl phthalate, 2,4- Dimethyl phenol were recovered below the control limits.
Were surrogate recoveries within QAPP acceptance limits?	•			
Were reported sample concentrations within calibration range?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were instrument run logs present and filled out appropriately?	•			
Were sample prepration sheets present and filled out appropriately?	•			

Method: SW8330B

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report?	•			

AUTOMATED DATA REVIEW SUMMARY for 240-22663-1_68,70,73,79_SB

Method: SW8330B

Review Questions	Yes	No	NA	Comment
Were samples preserved properly and received in good condition?	•			
Were sample reciept temperatures met?	•			
Were holding times for prep and analysis met?	•			
Does the initial calibration curve consist of 5 concentration levels, with the low standard near but > MDL?	•			
Is the ICAL %RSD within acceptance limits (%D =20%) on both columns?	•			
Was a second source verification analyzed after the ICAL and all analytes within criteria (%D =20%)?	•			
Was a CCV run at the beginning of the analytical sequence and every 12 hours?	•			
Was the CCV a mid-level standard from the initial calibration curve?	•			
Was the CCV %D within criteria (%D =20%)?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the method blank above the MDL?		•		1. MB 320-14065/1-A: Tetryl was not detected on the primary column; however it was detected on the confirmation column. Tetryl was false positive.
Was a field blank (equipment or trip) collected and analyzed?			•	
Were target analytes reported in the field blank analyses above the MDL?			•	
Were surrogate recoveries within QAPP acceptance limits?	•			
Was an LCS/LCSD pair prepared and analyzed with each batch? (if applicable)	•			LCS was extracted with each preparation batch.
Were the LCS recoveries within QAPP acceptance limits?	•			
Were the LCS/LCSD RPDs within QAPP acceptance limits? (if applicable)			•	
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits (RPD = 30%) ?			•	
Is the MS/MSD parent sample the one designated by the sampling team?			•	
Were MS/MSD recoveries and RPD within QAPP acceptance limits?	•			
Were all QAPP-specified target analytes reported?	•			
Were reported sample concentrations within calibration range?	•			
Were RPDs between primary and confirmation columns < 40%?			•	All sample results were reported as non-detects.
Did PDA spectra for reported compounds match associated standard spectra?			•	
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			

Method: SW8330B

Review Questions	Yes	No	NA	Comment
Were sample prepration sheets present and filled out appropriately?	•			
Were instrument run logs present and filled out appropriately?	•			

WORKSHEET 5

Automated Data Review Summary for 240-22852-1

This page left intentionally blank.

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1_68,SB

Facility: Ravenna Army Ammunition Plant

Event: Spring 2013 RI/SI Sampling Event

Guidance Document: Ravenna Army Ammunition Plant, Quality Assurance Project Plan, Oct. 3, 2012

Contract Laboratory: TestAmerica, Inc., North Canton, OH

Field Contractor: Environmental Chemical Corporation, Otis Ang Base, MA

Data Review Contractor: ECC

SDG: 240-22852-1_68,SB, Certified - 6/12/2013 by frederickroche

QC Level: ADR

Project Manager: Al Easterday

Data Reviewer: Samir A. Naguib

Data Reviewer Title: Sr. QA Chemist

Date of Review Report: June 21, 2013

Samples Included in SDG 240-22852-1_68,SB

Analytical Method/ Leach Method	Normal Soil Samples	Field QC Soil Samples
E353.2/NONE	1	0
SW6020/NONE	1	1
SW8330B/NONE	1	0

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1_68,SB

This report assesses the analytical data quality associated with the analyses listed on the preceding cover page. This assessment has been made through a combination of automated data review (ADR) and supplemental manual review, the details of which are described below. The approach taken in the review of this data set is consistent with the requirements contained in the Ravenna Army Ammunition Plant, Quality Assurance Project Plan, Oct. 3, 2012 to the extent possible. Where definitive guidance is not provided, data has been evaluated in a conservative manner using professional judgment. In cases where two qualifiers are listed as an action, such as 'J/UJ', the first qualifier applies to positive results, and the second to non-detect results.

Samples were collected by Environmental Chemical Corporation, Otis Ang Base, MA; analyses were performed by TestAmerica, Inc., North Canton, OH and were reported under sample delivery group (SDG) 240-22852-1_68,SB. Results have been evaluated electronically using electronic data deliverables (EDDs) provided by the laboratory. The laboratory data summary forms (hard copy) have been reviewed during this effort and compared to the automated review output. Findings based on the automated data submission and manual data verification processes are detailed in the ADR narrative.

The following quality control elements were supported by the electronic deliverable and were evaluated during this review effort:

- Blank
- Blank - Negative
- Field Duplicate RPD
- LCS Recovery
- MS Recovery
- MS RPD
- Prep Hold Time
- Surrogate
- Test Hold Time

The following quality control elements were either not applicable to the deliverable, or were not supported by the electronic deliverable, and were therefore not included in the automated data review. Those elements required for the project were reviewed manually, as narrated in the Comment section below.

- Ambient Blank
- Calibration Blank
- Calibration Blank - Negative
- Continuing Calibration Verification
- Equipment Blank

Field Blank

Initial Calibration Verification

Lab Replicate RPD

LCS RPD

Material Blank

Trip Blank

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1_68,SB

A representative sampling or ten percent of sample and QC results were manually evaluated for compliance with project specific requirements and consistency with hard copy results. The following summaries were generated during the evaluation of this data set and are included in this report as applicable.

Batch – The analytical batch report is reviewed for completeness and compliance with project specific requirements. Incomplete or non-compliant run sequences are identified and their impact on data quality are discussed in the narrative.

QC Outlier – Results exceeding the evaluation criteria are reviewed for compliance with project requirements and a minimum of ten percent of the non-compliant QC values reported electronically are verified for consistency with hard-copy values.

Qualified Results – Qualified results are evaluated for compliance with project requirements and ten percent of qualified results are verified for consistency with the QC Outliers.

Rejected Results – All rejected results are evaluated for compliance with project requirements. The reason for rejection of the data is verified against hard copy data.

Field Duplicates – Field duplicate comparison results are evaluated for compliance with project requirements and ten percent of values reported are verified for consistency with the hard-copy data.

Data Submission Warnings – Warnings encountered during the data submission process are evaluated and their affect on data quality is discussed in the narrative below.

Analytical deficiencies, project non-compliance issues and inconsistencies with hard copy results observed during ADR evaluation process and their impact on data quality are summarized in the narrative below.

A total of 11 results (17.74%) out of the 62 results (sample and field QC samples) reported are qualified based on review and 0 results (0.00%) have been rejected. Trace values are not counted as qualified results in the above count. The qualified results are detailed in the following tables and discussed in the narrative below, where appropriate.

Narrative Comments

Analytical Method	Comment
E353.2	
SW8330B	

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1_68,SB

SW6020	

21-Jun-2013

Reviewed by Samir A. Naguib, Sr. QA Chemist

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1_68,SB

Reason and Comment Code Definitions

Reasons	
Code	**Definition**
A	Serial dilution
A1	Ambient Blank
B	The analyte was found in an associated blank as well as in the sample.
B2	CCB
B3	CCB - Neg
c	LCS - low
C	LCS Recovery
d	Field Duplicate RPD
D	MS RPD
D1	Lab Replicate RPD
D2	No precision available
F	Field Blank
F1	Hydrocarbon pattern does not match standard
G1	Initial Calibration RRF
G2	Initial Calibration RSD
h	Holding time exceeded by less than 2X.
H	Holding time exceeded by more than 2X.
H1	Test Hold Time
H2	Prep Hold Time
I	Surrogate recovery outside project limits.
J	CRA/CRI Recovery
K	An analyte (non-common laboratory artifact) was detected in the sample at a concentration less than 5X the concentration detected in the associated method blank.
L	Lab Blank
L1	Lab Blank - Neg
m	MS - low
M	MS Recovery
N	Blank - No Action

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1_68,SB

Reason and Comment Code Definitions

O	ICS
P	Sample preservation/collection requirement not met.
P1	Column RPD
P2	Improper preparation/extraction
q	Encore sample holding time exceeded by less than 2X.
Q	Encore sample holding time exceeded by more than 2X.
Q1	Material Blank
R	Exceeds LinearCalibration Range
S	Internal standard
T	Trip Blank
TI	Tentatively Identified Compound
TR	Trace Level Detect
U	Receipt Temperature
V	Equipment Blank
V1	ICV
V2	CCV
V3	CCV RRF
V4	Sample Receipt Condition
W	Column breakdown (pesticides)
X	Raised reporting limit
Y	Cooler temperature greater than 10 degreec C.
y	Cooler temperature greater than 4 degrees C, but less than 10 degreec C.
Y1	False Positive
Y2	Data rejected due to radiological anomolies
Z	LCS RPD
Z2	Analyte not confirmed on second column
Z3	High percent moisture in sample.

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1_68,SB

Flag Code and Definitions	
Flag	Definition
U	Undetected: The analyte was analyzed for, but not detected.
UJ	The analyte was not detected; however, the result is estimated due to discrepancies in meeting certain analyte-specific quality control criteria.
J	Estimated: The analyte was positively identified, the quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
R	The data are rejected due to deficiencies in meeting QC criteria and may not be used for decision making.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification".
NJ	The analysis indicates the presence of an analyte that has been “tentatively identified” and the associated numerical value represents its approximate concentration.

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1_68,SB

Batch Report

Test Method: E353.2; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
14914	14752	NA	LABQC	SQ	LABQC	MB 320-14670/1-B		1/1	22-Apr-2013 6:13 AM	22-Apr-2013 6:13 AM	23-Apr-2013 12:45 PM	LB
	14752	NA	LABQC	SQ	LABQC	LCS 320-14670/2-B		1/1	22-Apr-2013 6:13 AM	22-Apr-2013 6:13 AM	23-Apr-2013 12:47 PM	BS
	14752	NA	68-ESSW-DU2-SB1	SO	068SB-0060M-0001-SO	240-22852-1		1/1	04-Apr-2013 2:10 PM	22-Apr-2013 6:13 AM	23-Apr-2013 1:33 PM	N
	14752	NA	68-ESSW-DU2-SB1	SO	068SB-0060M-0002-SO	240-22852-1		1/1	04-Apr-2013 2:10 PM	22-Apr-2013 6:13 AM	23-Apr-2013 1:35 PM	MS
	14752	NA	68-ESSW-DU2-SB1	SO	068SB-0060M-0002-SO	240-22852-1		1/1	04-Apr-2013 2:10 PM	22-Apr-2013 6:13 AM	23-Apr-2013 1:37 PM	SD

Test Method: SW6020; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
71214	69392	NA	LABQC	SQ	LABQC	MB 180-69392/1-A		1/1	17-Apr-2013 10:27 AM	17-Apr-2013 10:27 AM	07-May-2013 1:04 PM	LB
	69392	NA	LABQC	SQ	LABQC	LCS 180-69392/2-A		1/1	17-Apr-2013 10:27 AM	17-Apr-2013 10:27 AM	07-May-2013 1:13 PM	BS
	69392	NA	68-ESSW-DU2-SB1	SO	068SB-0060M-0001-SO	240-22852-1		1/1	04-Apr-2013 2:10 PM	17-Apr-2013 10:27 AM	07-May-2013 1:37 PM	N
	69392	NA	68-ESSW-DU2-SB1	SO	068SB-0060M-0002-SO	240-22852-1		1/1	04-Apr-2013 2:10 PM	17-Apr-2013 10:27 AM	07-May-2013 2:02 PM	MS
	69392	NA	68-ESSW-DU2-SB1	SO	068SB-0061M-0001-SO	240-22852-2		1/1	04-Apr-2013 2:10 PM	17-Apr-2013 10:27 AM	07-May-2013 2:18 PM	FD

Test Method: SW8330B; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
14706	14603	NA	LABQC	SQ	LABQC	MB 320-14603/1-A		1/1	18-Apr-2013 9:19 AM	18-Apr-2013 9:19 AM	21-Apr-2013 12:36 AM	LB
	14603	NA	LABQC	SQ	LABQC	LCS 320-14603/2-A		1/1	18-Apr-2013 9:19 AM	18-Apr-2013 9:19 AM	21-Apr-2013 1:20 AM	BS
	14603	NA	68-ESSW-DU2-SB1	SO	068SB-0060M-0001-SO	240-22852-1		1/1	04-Apr-2013 2:10 PM	18-Apr-2013 9:19 AM	21-Apr-2013 2:47 AM	N
	14603	NA	68-ESSW-DU2-SB1	SO	068SB-0060M-0002-SO	240-22852-1		1/1	04-Apr-2013 2:10 PM	18-Apr-2013 9:19 AM	21-Apr-2013 3:31 AM	MS

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1_68,SB

Batch Report

Test Method: SW8330B; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
14706	14603	NA	68-ESSW-DU2-SB1	SO	068SB-0060M-0002-SO	240-22852-1		1/1	04-Apr-2013 2:10 PM	18-Apr-2013 9:19 AM	21-Apr-2013 4:14 AM	SD
14805	14609	NA	LABQC	SQ	LABQC	MB 320-14609/1-A		1/1	18-Apr-2013 9:31 AM	18-Apr-2013 9:31 AM	22-Apr-2013 8:23 PM	LB
	14609	NA	LABQC	SQ	LABQC	LCS 320-14609/2-A		1/1	18-Apr-2013 9:31 AM	18-Apr-2013 9:31 AM	22-Apr-2013 8:41 PM	BS
	14609	NA	68-ESSW-DU2-SB1	SO	068SB-0060M-0001-SO	240-22852-1		2/1	04-Apr-2013 2:10 PM	18-Apr-2013 9:31 AM	22-Apr-2013 8:59 PM	N
	14609	NA	68-ESSW-DU2-SB1	SO	068SB-0060M-0002-SO	240-22852-1		2/1	04-Apr-2013 2:10 PM	18-Apr-2013 9:31 AM	22-Apr-2013 9:16 PM	MS
	14609	NA	68-ESSW-DU2-SB1	SO	068SB-0060M-0002-SO	240-22852-1		2/1	04-Apr-2013 2:10 PM	18-Apr-2013 9:31 AM	22-Apr-2013 9:34 PM	SD

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1_68,SB

Field Batch Report

--No Records Found--

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1_68,SB

QC Outlier Report

Test/Prep/Leach	QC Element	Sample ID/ Lab Sample ID	Run# / Dil'n	Analyte	Result (Units)	Qualifier	Warning Limits	Control Limits	Reason	Comment	Rule	Action Level
E353.2 / METHOD/NONE	MS Recovery	068SB-0060M-0002-SO (SD) / 240-22852-1	1 / 1.00	Nitrocellulose	21.2 (PERCENT)	J/R	34 - 115	30 - 115	M			
E353.2 / METHOD/NONE	MS Recovery	068SB-0060M-0002-SO (MS) / 240-22852-1	1 / 1.00	Nitrocellulose	22.4 (PERCENT)	J/R	34 - 115	30 - 115	M			
SW6020 / SW3050B/NONE	Blank	MB 180-69392/1-A (LB) / MB 180-69392/1-A	1 / 1.00	Barium	0.018 (MG/KG)	U/None	< 0.011	< 1	L		1	0.0175
SW6020 / SW3050B/NONE	Blank	MB 180-69392/1-A (LB) / MB 180-69392/1-A	1 / 1.00	Cadmium	0.015 (MG/KG)	U/None	< 0.013	< 0.1	L		1	0.0149
SW6020 / SW3050B/NONE	Blank	MB 180-69392/1-A (LB) / MB 180-69392/1-A	1 / 1.00	Calcium	2.5 (MG/KG)	U/None	< 1.3	< 10	L		1	2.53
SW6020 / SW3050B/NONE	Blank	MB 180-69392/1-A (LB) / MB 180-69392/1-A	1 / 1.00	Iron	1.2 (MG/KG)	U/None	< 1.1	< 5	L		1	1.17
SW6020 / SW3050B/NONE	Blank	MB 180-69392/1-A (LB) / MB 180-69392/1-A	1 / 1.00	Manganese	0.020 (MG/KG)	U/None	< 0.016	< 0.5	L		1	0.0198

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1_68,SB

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
E353.2/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	Nitrocellulose	5.0	0.90	0.90 J	-	MG/KG	M/TR
Test Leach	**Matrix**	**FieldSample ID**	**LabSample ID**	**Type**	**Analyte**	**RL**	**Lab Result**	**Qualified Result**	**Bias**	**Units**	**Reason**
SW6020/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	Antimony	0.20	0.20	0.20 UJ		MG/KG	m
SW6020/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	Arsenic	0.10	9.9	9.9 J		MG/KG	A
SW6020/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	Copper	0.20	19.0	19.0 J		MG/KG	A
SW6020/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	Nickel	0.10	29.0	29.0 J		MG/KG	A
SW6020/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	Selenium	0.50	0.32	0.32 J		MG/KG	TR
SW6020/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	Silver	0.10	0.037	0.037 J		MG/KG	TR
SW6020/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	Zinc	0.50	50.0	50.0 J		MG/KG	A
SW6020/NONE	SO	068SB-0061M-0001-SO	240-22852-2	FD	Antimony	0.20	0.15	0.15 J		MG/KG	TR/m
SW6020/NONE	SO	068SB-0061M-0001-SO	240-22852-2	FD	Arsenic	0.098	7.1	7.1 J		MG/KG	A
SW6020/NONE	SO	068SB-0061M-0001-SO	240-22852-2	FD	Copper	0.20	14.0	14.0 J		MG/KG	A
SW6020/NONE	SO	068SB-0061M-0001-SO	240-22852-2	FD	Nickel	0.098	21.0	21.0 J		MG/KG	A
SW6020/NONE	SO	068SB-0061M-0001-SO	240-22852-2	FD	Selenium	0.49	0.24	0.24 J		MG/KG	TR
SW6020/NONE	SO	068SB-0061M-0001-SO	240-22852-2	FD	Silver	0.098	0.027	0.027 J		MG/KG	TR
SW6020/NONE	SO	068SB-0061M-0001-SO	240-22852-2	FD	Zinc	0.49	35.0	35.0 J		MG/KG	A

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1_68,SB

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
E353.2/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	Nitrocellulose	5.0	0.90	0.90 J -	MG/KG	M/TR

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	Silver	0.10	0.037	0.037 J	MG/KG	TR
SW6020/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	Aluminum	3.0	12000	12000	MG/KG	
SW6020/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	Arsenic	0.10	9.9	9.9 J	MG/KG	A
SW6020/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	Barium	1.0	79.0	79.0	MG/KG	
SW6020/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	Beryllium	0.10	0.66	0.66	MG/KG	
SW6020/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	Calcium	10.0	28000	28000	MG/KG	
SW6020/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	Cadmium	0.10	0.22	0.22	MG/KG	
SW6020/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	Cobalt	0.050	12.0	12.0	MG/KG	
SW6020/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	Chromium	0.20	18.0	18.0	MG/KG	
SW6020/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	Copper	0.20	19.0	19.0 J	MG/KG	A
SW6020/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	Iron	5.0	26000	26000	MG/KG	
SW6020/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	Potassium	10.0	1600	1600	MG/KG	
SW6020/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	Magnesium	10.0	7500	7500	MG/KG	
SW6020/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	Manganese	0.50	420	420	MG/KG	
SW6020/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	Sodium	10.0	110	110	MG/KG	
SW6020/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	Nickel	0.10	29.0	29.0 J	MG/KG	A
SW6020/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	Lead	0.10	12.0	12.0	MG/KG	
SW6020/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	Selenium	0.50	0.32	0.32 J	MG/KG	TR
SW6020/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	Thallium	0.10	0.17	0.17	MG/KG	
SW6020/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	Vanadium	0.10	19.0	19.0	MG/KG	
SW6020/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	Zinc	0.50	50.0	50.0 J	MG/KG	A
SW6020/NONE	SO	068SB-0061M-0001-SO	240-22852-2	FD	Silver	0.098	0.027	0.027 J	MG/KG	TR
SW6020/NONE	SO	068SB-0061M-0001-SO	240-22852-2	FD	Aluminum	2.9	8900	8900	MG/KG	
SW6020/NONE	SO	068SB-0061M-0001-SO	240-22852-2	FD	Arsenic	0.098	7.1	7.1 J	MG/KG	A
SW6020/NONE	SO	068SB-0061M-0001-SO	240-22852-2	FD	Barium	0.98	56.0	56.0	MG/KG	
SW6020/NONE	SO	068SB-0061M-0001-SO	240-22852-2	FD	Beryllium	0.098	0.43	0.43	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1_68,SB

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	068SB-0061M-0001-SO	240-22852-2	FD	Calcium	9.8	21000	21000	MG/KG	
SW6020/NONE	SO	068SB-0061M-0001-SO	240-22852-2	FD	Cadmium	0.098	0.17	0.17	MG/KG	
SW6020/NONE	SO	068SB-0061M-0001-SO	240-22852-2	FD	Cobalt	0.049	8.4	8.4	MG/KG	
SW6020/NONE	SO	068SB-0061M-0001-SO	240-22852-2	FD	Chromium	0.20	13.0	13.0	MG/KG	
SW6020/NONE	SO	068SB-0061M-0001-SO	240-22852-2	FD	Copper	0.20	14.0	14.0 J	MG/KG	A
SW6020/NONE	SO	068SB-0061M-0001-SO	240-22852-2	FD	Iron	4.9	18000	18000	MG/KG	
SW6020/NONE	SO	068SB-0061M-0001-SO	240-22852-2	FD	Potassium	9.8	1400	1400	MG/KG	
SW6020/NONE	SO	068SB-0061M-0001-SO	240-22852-2	FD	Magnesium	9.8	5500	5500	MG/KG	
SW6020/NONE	SO	068SB-0061M-0001-SO	240-22852-2	FD	Manganese	0.49	280	280	MG/KG	
SW6020/NONE	SO	068SB-0061M-0001-SO	240-22852-2	FD	Sodium	9.8	77.0	77.0	MG/KG	
SW6020/NONE	SO	068SB-0061M-0001-SO	240-22852-2	FD	Nickel	0.098	21.0	21.0 J	MG/KG	A
SW6020/NONE	SO	068SB-0061M-0001-SO	240-22852-2	FD	Lead	0.098	8.4	8.4	MG/KG	
SW6020/NONE	SO	068SB-0061M-0001-SO	240-22852-2	FD	Antimony	0.20	0.15	0.15 J	MG/KG	TR/m
SW6020/NONE	SO	068SB-0061M-0001-SO	240-22852-2	FD	Selenium	0.49	0.24	0.24 J	MG/KG	TR
SW6020/NONE	SO	068SB-0061M-0001-SO	240-22852-2	FD	Thallium	0.098	0.13	0.13	MG/KG	
SW6020/NONE	SO	068SB-0061M-0001-SO	240-22852-2	FD	Vanadium	0.098	15.0	15.0	MG/KG	
SW6020/NONE	SO	068SB-0061M-0001-SO	240-22852-2	FD	Zinc	0.49	35.0	35.0 J	MG/KG	A

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1_68,SB

Rejected Results

--No Records Found--

Anomalies Count

--No Records Found--

Reporting Anomalies

--No Records Found--

Worksheet

SDG Name: 240-22852-1_68,SB

Method: E353.2

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were sample reciept temperatures met?	•			
Were QAPP specified RLs achieved?	•			
Were all QAPP specified target analytes reported?	•			
Was the initial calibration curve within QAPP acceptance limits?	•			
Were the ICV/CCVs analyzed (frequency) as required in the QAPP?	•			
Were ICV/CCV results within QAPP acceptance limits?	•			

Method: E353.2

Review Questions	Yes	No	NA	Comment
Were the ICB/CCBs analyzed (frequency) as required in the QAPP?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the ICB/CCB/method blank?		•		
Was a field blank collected and analyzed?			•	
Were target analytes reported in the field blank analyses above the MDL?			•	
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?			•	
Was a LCS prepared and analyzed with each batch?	•			
Were the LCS recoveries within QAPP acceptance limits?	•			
Was a duplicate sample prepared and analyzed with each batch?			•	
Was the duplicate RPD within QAPP acceptance limits?			•	
Was a MS/MSD pair prepared with each batch?	•			
Is the MS/MSD parent sample the one designated by the sampling team?	•			
Were the MS/MSD recoveries and RPDs within QAPP acceptance limits?		•		Both MS and MSD were recovered below the control limits.
Were sample concentrations within calibration range?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			

Method: SW6020

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were sample reciept temperatures met?	•			
Were QAPP specified RLs achieved?	•			
Were all QAPP specified target analytes reported?	•			
Was the initial calibration curve within QAPP acceptance limits?	•			
Were the ICV/CCVs analyzed (frequency) as required in the QAPP?	•			
Were ICV/CCV results within QAPP acceptance limits?	•			
Were the ICB/CCBs analyzed (frequency) as required in the QAPP?	•			

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1_68,SB

Method: SW6020

Review Questions	Yes	No	NA	Comment
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the ICB/CCB/method blank?	•			MB 180-69392/1-A: Ba, Ca, Cd, Fe, and Mn were detected above the MDL but below RL.
Was a field blank collected and analyzed?			•	
Were target analytes reported in the field blank analyses above the MDL?			•	
Was an Interference Check Standard (ICS) run at the beginning and end of every run?	•			
Was the ICS recovery within QAPP acceptance limits?	•			
If a field duplicate was analyzed, were the RPDs within criteria?	•			
Was a LCS prepared and analyzed with each batch?	•			
Were the LCS recoveries within QAPP acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			MS and Laboratory Duplicate
Is the MS/MSD parent sample the one designated by the sampling team?	•			
Were the MS/MSD within QAPP acceptance limits?		•		240-22852-1 (MS): Sb recovered below the control limits.
Was a serial dilution prepared and analyzed with each batch?	•			
Was the serial dilution within QAPP acceptance limits?		•		240-22852-1 (Batch: 69392): As %D+20%, Cu %D= 18%, Ni %D= 12%, Zn %D=24%.
Were sample concentrations within calibration range?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			

Method: SW8330B

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report?	•			
Were samples preserved properly and received in good condition?	•			
Were sample reciept temperatures met?	•			
Were holding times for prep and analysis met?	•			
Does the initial calibration curve consist of 5 concentration levels, with the low standard near but > MDL?	•			
Is the ICAL %RSD within acceptance limits (%D =20%) on both columns?	•			
Was a second source verification analyzed after the ICAL and all analytes within criteria (%D =20%)?	•			

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1_68,SB

Method: SW8330B

Review Questions	Yes	No	NA	Comment
Was a CCV run at the beginning of the analytical sequence and every 12 hours?	•			
Was the CCV a mid-level standard from the initial calibration curve?	•			
Was the CCV %D within criteria (%D =20%)?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the method blank above the MDL?		•		
Was a field blank (equipment or trip) collected and analyzed?			•	
Were target analytes reported in the field blank analyses above the MDL?			•	
Were surrogate recoveries within QAPP acceptance limits?	•			
Was an LCS/LCSD pair prepared and analyzed with each batch? (if applicable)	•			LCS was extracted with each preparation batch.
Were the LCS recoveries within QAPP acceptance limits?	•			
Were the LCS/LCSD RPDs within QAPP acceptance limits? (if applicable)			•	
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits (RPD = 30%) ?			•	
Is the MS/MSD parent sample the one designated by the sampling team?	•			
Were MS/MSD recoveries and RPD within QAPP acceptance limits?	•			
Were all QAPP-specified target analytes reported?	•			
Were reported sample concentrations within calibration range?	•			
Were RPDs between primary and confirmation columns < 40%?				
Did PDA spectra for reported compounds match associated standard spectra?			•	
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were sample prepration sheets present and filled out appropriately?	•			
Were instrument run logs present and filled out appropriately?	•			

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1

Facility: Ravenna Army Ammunition Plant

Event: Spring 2013 RI/SI Sampling Event

Guidance Document: Ravenna Army Ammunition Plant, Quality Assurance Project Plan, Oct. 3, 2012

Contract Laboratory: TestAmerica, Inc., West Sacramento, CA

Field Contractor: Environmental Chemical Corporation, Otis Ang Base, MA

Data Review Contractor: ECC

SDG: 240-22852-1, Certified - 1/10/2014 by evinmckinney

QC Level: ADR

Project Manager: Al Easterday

Data Reviewer: JacksonKiker

Data Reviewer Title: Senior Chemist

Date of Review Report:

Second Reviewer: n/a

Completion Date of Second Reviewer:

Samples Included in SDG 240-22852-1

Analytical Method/ Leach Method	Normal Soil Samples	Normal Water Samples	Field QC Soil Samples	Field QC Water Samples
E353.2/NONE	0		0	
M8015D/NONE	7		0	
SW6020/NONE	0		0	
SW7471A/NONE	1		1	

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1

Analytical Method/ Leach Method	Normal Soil Samples	Normal Water Samples	Field QC Soil Samples	Field QC Water Samples
SW8081/NONE	1		0	
SW8082/NONE	1		1	
SW8260B/NONE	1	0	0	1
SW8270C/NONE	8		1	
SW8330/NONE	0		0	
SW8330B/NONE	0		0	

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1

This report assesses the analytical data quality associated with the analyses listed on the preceding cover page. This assessment has been made through a combination of automated data review (ADR) and supplemental manual review, the details of which are described below. The approach taken in the review of this data set is consistent with the requirements contained in the Ravenna Army Ammunition Plant, Quality Assurance Project Plan, Oct. 3, 2012 to the extent possible. Where definitive guidance is not provided, data has been evaluated in a conservative manner using professional judgment. In cases where two qualifiers are listed as an action, such as 'J/UJ', the first qualifier applies to positive results, and the second to non-detect results.

Samples were collected by Environmental Chemical Corporation, Otis Ang Base, MA; analyses were performed by TestAmerica, Inc., West Sacramento, CA and were reported under sample delivery group (SDG) 240-22852-1. Results have been evaluated electronically using electronic data deliverables (EDDs) provided by the laboratory. The laboratory data summary forms (hard copy) have been reviewed during this effort and compared to the automated review output. Findings based on the automated data submission and manual data verification processes are detailed in the ADR narrative.

The following quality control elements were supported by the electronic deliverable and were evaluated during this review effort:

- Blank
- Blank - Negative
- Field Duplicate RPD
- Lab Replicate RPD
- LCS Recovery
- MS Recovery
- MS RPD
- Prep Hold Time
- Surrogate
- Test Hold Time
- Trip Blank

The following quality control elements were either not applicable to the deliverable, or were not supported by the electronic deliverable, and were therefore not included in the automated data review. Those elements required for the project were reviewed manually, as narrated in the Comment section below.

- Ambient Blank
- Calibration Blank
- Calibration Blank - Negative

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1

Continuing Calibration Verification

Equipment Blank

Field Blank

Initial Calibration Verification

LCS RPD

Material Blank

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1

A representative sampling or ten percent of sample and QC results were manually evaluated for compliance with project specific requirements and consistency with hard copy results. The following summaries were generated during the evaluation of this data set and are included in this report as applicable.

Batch – The analytical batch report is reviewed for completeness and compliance with project specific requirements. Incomplete or non-compliant run sequences are identified and their impact on data quality are discussed in the narrative.

QC Outlier – Results exceeding the evaluation criteria are reviewed for compliance with project requirements and a minimum of ten percent of the non-compliant QC values reported electronically are verified for consistency with hard-copy values.

Qualified Results – Qualified results are evaluated for compliance with project requirements and ten percent of qualified results are verified for consistency with the QC Outliers.

Rejected Results – All rejected results are evaluated for compliance with project requirements. The reason for rejection of the data is verified against hard copy data.

Field Duplicates – Field duplicate comparison results are evaluated for compliance with project requirements and ten percent of values reported are verified for consistency with the hard-copy data.

Data Submission Warnings – Warnings encountered during the data submission process are evaluated and their affect on data quality is discussed in the narrative below.

Analytical deficiencies, project non-compliance issues and inconsistencies with hard copy results observed during ADR evaluation process and their impact on data quality are summarized in the narrative below.

A total of 170 results (23.71%) out of the 717 results (sample and field QC samples) reported are qualified based on review and 0 results (0.00%) have been rejected. Trace values are not counted as qualified results in the above count. The qualified results are detailed in the following tables and discussed in the narrative below, where appropriate.

Narrative Comments

Analytical Method	Comment
M8015D	8015D results for Site 74 only
SW6020	Verification reported in 240-22852-1 68 SB DV Worksheet

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1

SW7471A	
SW8081	
SW8260B	
SW8270C	
SW8330	Verification reported in 240-22852-1 68 SB DV Worksheet
SW8330B	Verification reported in 240-22852-1 68 SB DV Worksheet
E353.2	Verification reported in 240-22852-1 68 SB DV Worksheet
SW8082	

Reviewed by JacksonKiker, Senior Chemist

Reviewed by n/a

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1

Reason and Comment Code Definitions

Reasons	
Code	**Definition**
A	Serial dilution
A1	Ambient Blank
B	The analyte was found in an associated blank as well as in the sample.
B2	CCB
B3	CCB - Neg
c	LCS - low
C	LCS Recovery
d	Field Duplicate RPD
D	MS RPD
D1	Lab Replicate RPD
D2	No precision available
F	Field Blank
F1	Hydrocarbon pattern does not match standard
G1	Initial Calibration RRF
G2	Initial Calibration RSD
h	Holding time exceeded by less than 2X.
H	Holding time exceeded by more than 2X.
H1	Test Hold Time
H2	Prep Hold Time
I	Surrogate recovery outside project limits.
J	CRA/CRI Recovery
K	An analyte (non-common laboratory artifact) was detected in the sample at a concentration less than 5X the concentration detected in the associated method blank.
L	Lab Blank
L1	Lab Blank - Neg
m	MS - low
M	MS Recovery
N	Blank - No Action

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1

Reason and Comment Code Definitions

O	ICS
P	Sample preservation/collection requirement not met.
P1	Column RPD
P2	Improper preparation/extraction
q	Encore sample holding time exceeded by less than 2X.
Q	Encore sample holding time exceeded by more than 2X.
Q1	Material Blank
R	Exceeds LinearCalibration Range
S	Internal standard
T	Trip Blank
TI	Tentatively Identified Compound
TR	Trace Level Detect
U	Receipt Temperature
V	Equipment Blank
V1	ICV
V2	CCV
V3	CCV RRF
V4	Sample Receipt Condition
W	Column breakdown (pesticides)
X	Raised reporting limit
Y	Cooler temperature greater than 10 degreec C.
y	Cooler temperature greater than 4 degrees C, but less than 10 degreec C.
Y1	False Positive
Y2	Data rejected due to radiological anomolies
Z	LCS RPD
Z2	Analyte not confirmed on second column
Z3	High percent moisture in sample.

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1

Flag Code and Definitions	
Flag	Definition
U	Undetected: The analyte was analyzed for, but not detected.
UJ	The analyte was not detected; however, the result is estimated due to discrepancies in meeting certain analyte-specific quality control criteria.
J	Estimated: The analyte was positively identified, the quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
R	The data are rejected due to deficiencies in meeting QC criteria and may not be used for decision making.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification".
NJ	The analysis indicates the presence of an analyte that has been “tentatively identified” and the associated numerical value represents its approximate concentration.

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1

Batch Report

Test Method: E353.2; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
14914	14752	NA	LABQC	SQ	LABQC	MB 320-14670/1-B		1/1	22-Apr-2013 6:13 AM	22-Apr-2013 6:13 AM	23-Apr-2013 12:45 PM	LB
	14752	NA	LABQC	SQ	LABQC	LCS 320-14670/2-B		1/1	22-Apr-2013 6:13 AM	22-Apr-2013 6:13 AM	23-Apr-2013 12:47 PM	BS

Test Method: M8015D; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
82770	82366	NA	LABQC	SQ	LABQC	MB 240-82366/12-A		1/1	17-Apr-2013 1:04 PM	17-Apr-2013 1:04 PM	19-Apr-2013 10:01 PM	LB
	82366	NA	LABQC	SQ	LABQC	MB 240-82366/12-A		2/1	17-Apr-2013 1:04 PM	17-Apr-2013 1:04 PM	19-Apr-2013 10:01 PM	LB
	82366	NA	LABQC	SQ	LABQC	LCS 240-82366/13-A		1/1	17-Apr-2013 1:04 PM	17-Apr-2013 1:04 PM	19-Apr-2013 10:32 PM	BS
	82366	NA	74-1034-HL-SB15	SO	074SB-0028-0001-SO	240-22852-3		1/1	04-Apr-2013 9:07 AM	17-Apr-2013 1:04 PM	20-Apr-2013 12:04 AM	N
	82366	NA	74-1034-HL-SB16	SO	074SB-0011-0001-SO	240-22852-4		1/1	04-Apr-2013 8:43 AM	17-Apr-2013 1:04 PM	20-Apr-2013 12:34 AM	N
	82366	NA	74-1034-HL-SB17	SO	074SB-0029-0001-SO	240-22852-5		1/1	04-Apr-2013 8:22 AM	17-Apr-2013 1:04 PM	20-Apr-2013 1:35 AM	N
	82366	NA	74-1034-HL-SB19	SO	074SB-0033-0001-SO	240-22852-9		1/1	04-Apr-2013 10:20 AM	17-Apr-2013 1:04 PM	20-Apr-2013 4:39 AM	N
82839	82366	NA	74-1034-HL-SB17	SO	074SB-0030-0001-SO	240-22852-6		1/20	04-Apr-2013 8:17 AM	17-Apr-2013 1:04 PM	20-Apr-2013 6:44 PM	N
	82366	NA	74-1034-HL-SB17	SO	074SB-0030-0001-SO	240-22852-6		1/20	04-Apr-2013 8:17 AM	17-Apr-2013 1:04 PM	20-Apr-2013 7:15 PM	MS
	82366	NA	74-1034-HL-SB17	SO	074SB-0030-0001-SO	240-22852-6		1/20	04-Apr-2013 8:17 AM	17-Apr-2013 1:04 PM	20-Apr-2013 7:46 PM	SD
	82366	NA	74-1034-HL-SB18	SO	074SB-0031-0001-SO	240-22852-7		1/1	04-Apr-2013 9:32 AM	17-Apr-2013 1:04 PM	20-Apr-2013 8:17 PM	N
83196	82366	NA	74-1034-HL-SB18	SO	074SB-0032-0001-SO	240-22852-8		1/100	04-Apr-2013 9:30 AM	17-Apr-2013 1:04 PM	23-Apr-2013 9:01 PM	N

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1

Batch Report

Test Method: SW6020; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
71214	69392	NA	LABQC	SQ	LABQC	MB 180-69392/1-A		1/1	17-Apr-2013 10:27 AM	17-Apr-2013 10:27 AM	07-May-2013 1:04 PM	LB
	69392	NA	LABQC	SQ	LABQC	LCS 180-69392/2-A		1/1	17-Apr-2013 10:27 AM	17-Apr-2013 10:27 AM	07-May-2013 1:13 PM	BS

Test Method: SW7471A; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
82912	82367	NA	LABQC	SQ	LABQC	MB 240-82367/1-A		1/1	17-Apr-2013 2:55 PM	17-Apr-2013 2:55 PM	19-Apr-2013 10:04 AM	LB
	82367	NA	LABQC	SQ	LABQC	LCS 240-82367/2-A		1/1	17-Apr-2013 2:55 PM	17-Apr-2013 2:55 PM	19-Apr-2013 10:06 AM	BS
	82367	NA	68-ESSW-DU2-SB1	SO	068SB-0060M-0001-SO	240-22852-1		1/1	04-Apr-2013 2:10 PM	17-Apr-2013 2:55 PM	19-Apr-2013 10:07 AM	N
	82367	NA	68-ESSW-DU2-SB1	SO	068SB-0060M-0001-SO	240-22852-1		1/1	04-Apr-2013 2:10 PM	17-Apr-2013 2:55 PM	19-Apr-2013 10:08 AM	LR
	82367	NA	68-ESSW-DU2-SB1	SO	068SB-0060M-0001-SO	240-22852-1		1/1	04-Apr-2013 2:10 PM	17-Apr-2013 2:55 PM	19-Apr-2013 10:10 AM	MS
	82367	NA	68-ESSW-DU2-SB1	SO	068SB-0061M-0001-SO	240-22852-2		1/1	04-Apr-2013 2:10 PM	17-Apr-2013 2:55 PM	19-Apr-2013 10:15 AM	FD

Test Method: SW8081; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
82685	81726	NA	LABQC	SQ	LABQC	MB 240-81726/21-A		1/1	12-Apr-2013 11:07 AM	12-Apr-2013 11:07 AM	19-Apr-2013 3:17 PM	LB
	81726	NA	LABQC	SQ	LABQC	MB 240-81726/21-A		2/1	12-Apr-2013 11:07 AM	12-Apr-2013 11:07 AM	19-Apr-2013 3:17 PM	LB
	81726	NA	LABQC	SQ	LABQC	LCS 240-81726/22-A		1/1	12-Apr-2013 11:07 AM	12-Apr-2013 11:07 AM	19-Apr-2013 3:37 PM	BS
	81726	NA	LABQC	SQ	LABQC	LCS 240-81726/22-A		2/1	12-Apr-2013 11:07 AM	12-Apr-2013 11:07 AM	19-Apr-2013 3:37 PM	BS
83400	83135	NA	LABQC	SQ	LABQC	MB 240-83135/18-A		1/1	23-Apr-2013 8:54 AM	23-Apr-2013 8:54 AM	24-Apr-2013 9:54 PM	LB
	83135	NA	LABQC	SQ	LABQC	MB 240-83135/18-A		2/1	23-Apr-2013 8:54 AM	23-Apr-2013 8:54 AM	24-Apr-2013 9:54 PM	LB

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1

Batch Report

Test Method: SW8081; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
83400	83135	NA	LABQC	SQ	LABQC	LCS 240-83135/19-A		1/1	23-Apr-2013 8:54 AM	23-Apr-2013 8:54 AM	24-Apr-2013 10:14 PM	BS
	83135	NA	LABQC	SQ	LABQC	LCS 240-83135/19-A		2/1	23-Apr-2013 8:54 AM	23-Apr-2013 8:54 AM	24-Apr-2013 10:14 PM	BS
83482	83135	NA	68-ESSW-DU2-SB1	SO	068SB-0060M-0001-SO	240-22852-1		2/1	04-Apr-2013 2:10 PM	23-Apr-2013 8:54 AM	25-Apr-2013 11:18 AM	N

Test Method: SW8082; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
82363	81730	NA	LABQC	SQ	LABQC	MB 240-81730/20-A		1/1	12-Apr-2013 11:18 AM	12-Apr-2013 11:18 AM	18-Apr-2013 12:13 PM	LB
	81730	NA	LABQC	SQ	LABQC	MB 240-81730/20-A		2/1	12-Apr-2013 11:18 AM	12-Apr-2013 11:18 AM	18-Apr-2013 12:13 PM	LB
	81730	NA	68-ESSW-DU2-SB1	SO	068SB-0060M-0001-SO	240-22852-1		1/1	04-Apr-2013 2:10 PM	12-Apr-2013 11:18 AM	18-Apr-2013 2:50 PM	N
	81730	NA	LABQC	SQ	LABQC	LCS 240-81730/21-A		1/1	12-Apr-2013 11:18 AM	12-Apr-2013 11:18 AM	18-Apr-2013 3:05 PM	BS
	81730	NA	LABQC	SQ	LABQC	LCS 240-81730/21-A		2/1	12-Apr-2013 11:18 AM	12-Apr-2013 11:18 AM	18-Apr-2013 3:05 PM	BS
82392	81915	NA	68-ESSW-DU2-SB1	SO	068SB-0061M-0001-SO	240-22852-2		1/1	04-Apr-2013 2:10 PM	15-Apr-2013 9:45 AM	17-Apr-2013 6:35 PM	FD
	81915	NA	LABQC	SQ	LABQC	MB 240-81915/22-A		1/1	15-Apr-2013 9:45 AM	15-Apr-2013 9:45 AM	17-Apr-2013 6:50 PM	LB
	81915	NA	LABQC	SQ	LABQC	MB 240-81915/22-A		2/1	15-Apr-2013 9:45 AM	15-Apr-2013 9:45 AM	17-Apr-2013 6:50 PM	LB
	81915	NA	LABQC	SQ	LABQC	LCS 240-81915/23-A		1/1	15-Apr-2013 9:45 AM	15-Apr-2013 9:45 AM	17-Apr-2013 7:06 PM	BS
	81915	NA	LABQC	SQ	LABQC	LCS 240-81915/23-A		2/1	15-Apr-2013 9:45 AM	15-Apr-2013 9:45 AM	17-Apr-2013 7:06 PM	BS

Test Method: SW8260B; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
80954	NA	NA	LABQC	SQ	LABQC	LCS 240-80954/6		1/1	08-Apr-2013 12:22 PM		08-Apr-2013 12:22 PM	BS

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1

Batch Report

Test Method: SW8260B; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
80954	NA	NA	LABQC	SQ	LABQC	MB 240-80954/7		1/1	08-Apr-2013 12:43 PM		08-Apr-2013 12:43 PM	LB
81930	NA	NA	LABQC	SQ	LABQC	MB 240-81930/7		1/1	15-Apr-2013 1:05 PM		15-Apr-2013 1:05 PM	LB
	NA	NA	LABQC	SQ	LABQC	LCS 240-81930/35		1/1	15-Apr-2013 1:26 PM		15-Apr-2013 1:26 PM	BS
80954	81012	NA	68-ESSW-DU2-SB1	SO	068SB-0060M-0001-SO	240-22852-1		1/1	04-Apr-2013 2:10 PM	04-Apr-2013 6:00 PM	08-Apr-2013 7:33 PM	N
81930	81012	NA	68-ESSW-DU2-SB1	SO	068SB-0060M-0001-SO	240-22852-1		2/1	04-Apr-2013 2:10 PM	04-Apr-2013 6:00 PM	15-Apr-2013 3:57 PM	N
81013	81013	NA	LABQC	WQ	LABQC	LCS 240-81013/4		1/1	08-Apr-2013 12:50 PM	08-Apr-2013 12:50 PM	08-Apr-2013 12:50 PM	BS
	81013	NA	LABQC	WQ	LABQC	MB 240-81013/6		1/1	08-Apr-2013 1:34 PM	08-Apr-2013 1:34 PM	08-Apr-2013 1:34 PM	LB
	81013	NA	FIELDQC	WQ	079SB-0043-0001-TB	240-22852-10		1/1	04-Apr-2013 8:00 AM	08-Apr-2013 5:52 PM	08-Apr-2013 5:52 PM	TB

Test Method: SW8270C; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
82940	81948	NA	LABQC	SQ	LABQC	MB 240-81948/23-A		1/1	15-Apr-2013 11:33 AM	15-Apr-2013 11:33 AM	22-Apr-2013 10:27 AM	LB
	81948	NA	LABQC	SQ	LABQC	LCS 240-81948/24-A		1/1	15-Apr-2013 11:33 AM	15-Apr-2013 11:33 AM	22-Apr-2013 10:53 AM	BS
83279	81948	NA	74-1034-HL-SB16	SO	074SB-0011-0001-SO	240-22852-4		1/1	04-Apr-2013 8:43 AM	15-Apr-2013 11:33 AM	24-Apr-2013 11:25 AM	N
	81948	NA	74-1034-HL-SB17	SO	074SB-0029-0001-SO	240-22852-5		1/1	04-Apr-2013 8:22 AM	15-Apr-2013 11:33 AM	24-Apr-2013 11:51 AM	N
	81948	NA	74-1034-HL-SB19	SO	074SB-0033-0001-SO	240-22852-9		1/1	04-Apr-2013 10:20 AM	15-Apr-2013 11:33 AM	24-Apr-2013 12:42 PM	N
	81948	NA	74-1034-HL-SB15	SO	074SB-0028-0001-SO	240-22852-3		1/1	04-Apr-2013 9:07 AM	15-Apr-2013 11:33 AM	24-Apr-2013 1:08 PM	N
	81948	NA	68-ESSW-DU2-SB1	SO	068SB-0060M-0001-SO	240-22852-1		1/5	04-Apr-2013 2:10 PM	15-Apr-2013 11:33 AM	24-Apr-2013 1:34 PM	N
	81948	NA	68-ESSW-DU2-SB1	SO	068SB-0060M-0001-SO	240-22852-1		1/5	04-Apr-2013 2:10 PM	15-Apr-2013 11:33 AM	24-Apr-2013 1:59 PM	MS

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1

Batch Report

Test Method: SW8270C; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
83279	81948	NA	68-ESSW-DU2-SB1	SO	068SB-0060M-0001-SO	240-22852-1		1/5	04-Apr-2013 2:10 PM	15-Apr-2013 11:33 AM	24-Apr-2013 2:25 PM	SD
	81948	NA	74-1034-HL-SB17	SO	074SB-0030-0001-SO	240-22852-6		1/20	04-Apr-2013 8:17 AM	15-Apr-2013 11:33 AM	24-Apr-2013 2:51 PM	N
	81948	NA	74-1034-HL-SB18	SO	074SB-0032-0001-SO	240-22852-8		1/20	04-Apr-2013 9:30 AM	15-Apr-2013 11:33 AM	24-Apr-2013 3:16 PM	N
83588	81948	NA	68-ESSW-DU2-SB1	SO	068SB-0061M-0001-SO	240-22852-2		1/4	04-Apr-2013 2:10 PM	15-Apr-2013 11:33 AM	25-Apr-2013 7:40 PM	FD
84611	83664	NA	LABQC	SQ	LABQC	MB 240-83664/14-A		1/1	26-Apr-2013 7:58 AM	26-Apr-2013 7:58 AM	03-May-2013 11:27 AM	LB
	83664	NA	LABQC	SQ	LABQC	LCS 240-83664/15-A		1/1	26-Apr-2013 7:58 AM	26-Apr-2013 7:58 AM	03-May-2013 11:53 AM	BS
	83664	NA	74-1034-HL-SB18	SO	074SB-0031-0001-SO	240-22852-7		2/1	04-Apr-2013 9:32 AM	26-Apr-2013 7:58 AM	03-May-2013 1:14 PM	N

Test Method: SW8330B; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
14706	14603	NA	LABQC	SQ	LABQC	MB 320-14603/1-A		1/1	18-Apr-2013 9:19 AM	18-Apr-2013 9:19 AM	21-Apr-2013 12:36 AM	LB
	14603	NA	LABQC	SQ	LABQC	LCS 320-14603/2-A		1/1	18-Apr-2013 9:19 AM	18-Apr-2013 9:19 AM	21-Apr-2013 1:20 AM	BS
	14603	NA	68-ESSW-DU2-SB1	SO	068SB-0060M-0001-SO	240-22852-1		1/1	04-Apr-2013 2:10 PM	18-Apr-2013 9:19 AM	21-Apr-2013 3:31 AM	MS
	14603	NA	68-ESSW-DU2-SB1	SO	068SB-0060M-0001-SO	240-22852-1		1/1	04-Apr-2013 2:10 PM	18-Apr-2013 9:19 AM	21-Apr-2013 4:14 AM	SD

Test Method: SW8330; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
14805	14609	NA	LABQC	SQ	LABQC	MB 320-14609/1-A		1/1	18-Apr-2013 9:31 AM	18-Apr-2013 9:31 AM	22-Apr-2013 8:23 PM	LB
	14609	NA	LABQC	SQ	LABQC	LCS 320-14609/2-A		1/1	18-Apr-2013 9:31 AM	18-Apr-2013 9:31 AM	22-Apr-2013 8:41 PM	BS
	14609	NA	68-ESSW-DU2-SB1	SO	068SB-0060M-0001-SO	240-22852-1		2/1	04-Apr-2013 2:10 PM	18-Apr-2013 9:31 AM	22-Apr-2013 9:16 PM	MS

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1

Batch Report

Test Method: SW8330; Leach Method: NONE												
Analytical Batch	**Prep Batch**	**Leach Batch**	**Location**	**Matrix**	**Field Sample ID**	**Lab Sample ID**	**Calibration Ref**	**Run#/ Dil'n**	**Collection Date/Time**	**Extract Date/Time**	**Analysis Date/Time**	**Sample Type**
14805	14609	NA	68-ESSW-DU2-SB1	SO	068SB-0060M-0001-SO	240-22852-1		2/1	04-Apr-2013 2:10 PM	18-Apr-2013 9:31 AM	22-Apr-2013 9:34 PM	SD

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1

Field Batch Report

Test Method: SW8260B		Leach Method: NONE						
EBLOT	**TBLOT**	**ABLOT**	**LOCID**	**Matrix**	**FLDSAMPID**	**LABSAMPID**	**LOGDATE**	**SACODE**
	04041301		FIELDQC	WQ	079SB-0043-0001-TB	240-22852-10	4/4/2013 8:00:00 AM	TB

QC Outliers Report

--No Records Found--

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
M8015D/NONE	SO	074SB-0030-0001-SO	240-22852-6	N	C10-C20 Diesel Range Organics	440	400 J D	400 J		MG/KG	TR
M8015D/NONE	SO	074SB-0032-0001-SO	240-22852-8	N	C10-C20 Diesel Range Organics	2000	1800 J D	1800 J		MG/KG	TR
Test Leach	**Matrix**	**FieldSample ID**	**LabSample ID**	**Type**	**Analyte**	**RL**	**Lab Result**	**Qualified Result**	**Bias**	**Units**	**Reason**
SW7471A/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	Mercury	0.11	0.030 J	0.030 J		MG/KG	TR/J
SW7471A/NONE	SO	068SB-0061M-0001-SO	240-22852-2	FD	Mercury	0.098	0.098 U	0.098 U		MG/KG	J
Test Leach	**Matrix**	**FieldSample ID**	**LabSample ID**	**Type**	**Analyte**	**RL**	**Lab Result**	**Qualified Result**	**Bias**	**Units**	**Reason**
SW8260B/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	1,1,1-Trichloroethane	4.6	4.6 U	4.6 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	1,1,2,2-Tetrachloroethane	4.6	4.6 U	4.6 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	1,1,2-Trichloroethane	4.6	4.6 U	4.6 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	1,1-Dichloroethane	4.6	4.6 U	4.6 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	1,1-Dichloroethene	4.6	4.6 U	4.6 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	1,2-Dibromoethane (EDB)	4.6	4.6 U	4.6 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	1,2-Dichloroethane	4.6	4.6 U	4.6 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	1,2-Dichloroethene	9.2	9.2 U	9.2 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	1,2-Dichloropropane	4.6	4.6 U	4.6 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	2-Butanone (MEK)	18.0	18.0 U	18.0 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	2-Hexanone	18.0	18.0 U	18.0 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	4-Methyl-2-pentanone (MIBK)	18.0	18.0 U	18.0 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	Acetone	18.0	18.0 U	18.0 UJ		UG/KG	I/J

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
SW8260B/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	Benzene	4.6	4.6 U	4.6 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	Bromochloromethane	4.6	4.6 U	4.6 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	Bromodichloromethane	4.6	4.6 U	4.6 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	Bromoform	4.6	4.6 U	4.6 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	Bromomethane	4.6	4.6 U	4.6 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	Carbon Disulfide	4.6	4.6 U	4.6 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	Carbon Tetrachloride	4.6	4.6 U	4.6 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	Chlorobenzene	4.6	4.6 U	4.6 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	Chloroethane	4.6	4.6 U	4.6 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	Chloroform	4.6	4.6 U	4.6 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	Chloromethane	4.6	4.6 U	4.6 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	cis-1,3-Dichloropropene	4.6	4.6 U	4.6 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	Dibromochloromethane	4.6	4.6 U	4.6 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	Ethylbenzene	4.6	4.6 U	4.6 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	Methylene Chloride	4.6	4.6 U	4.6 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	Styrene	4.6	4.6 U	4.6 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	tert-Butyl Methyl Ether (MTBE)	4.6	4.6 U	4.6 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	Tetrachloroethene (PCE)	4.6	4.6 U	4.6 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	Toluene	4.6	4.6 U	4.6 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	trans-1,3-Dichloropropene	4.6	4.6 U	4.6 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	Trichloroethene (TCE)	4.6	4.6 U	4.6 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	Vinyl Chloride	4.6	4.6 U	4.6 UJ	-	UG/KG	I
SW8260B/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	Xylenes, Total	9.2	9.2 U	9.2 UJ	-	UG/KG	I
SW8260B/NONE	WQ	079SB-0043-0001-TB	240-22852-10	TB	Acetone	10.0	7.7 J	7.7 J		UG/L	TR
Test Leach	**Matrix**	**FieldSample ID**	**LabSample ID**	**Type**	**Analyte**	**RL**	**Lab Result**	**Qualified Result**	**Bias**	**Units**	**Reason**
SW8270C/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	2,4-Dinitrophenol	1600	1600 U J	1600 J		UG/KG	TR
SW8270C/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	Di-n-Butyl Phthalate	350	130 J D	130 J		UG/KG	TR
SW8270C/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	Fluoranthene	33.0	18.0 J D	18.0 J		UG/KG	TR
SW8270C/NONE	SO	068SB-0061M-0001-SO	240-22852-2	FD	2,4-Dinitrophenol	1300	1300 U	1300 J		UG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
SW8270C/NONE	SO	068SB-0061M-0001-SO	240-22852-2	FD	Benzyl alcohol	1300	88.0 J	88.0 J		UG/KG	TR
SW8270C/NONE	SO	068SB-0061M-0001-SO	240-22852-2	FD	Di-n-Butyl Phthalate	280	100 J	100 J		UG/KG	TR
SW8270C/NONE	SO	074SB-0028-0001-SO	240-22852-3	N	Benzo(b)fluoranthene	7.9	4.2 J M	4.2 J		UG/KG	TR
SW8270C/NONE	SO	074SB-0028-0001-SO	240-22852-3	N	Di-n-Butyl Phthalate	83.0	33.0 J	33.0 J		UG/KG	TR
SW8270C/NONE	SO	074SB-0028-0001-SO	240-22852-3	N	Fluoranthene	7.9	7.0 J	7.0 J		UG/KG	TR
SW8270C/NONE	SO	074SB-0028-0001-SO	240-22852-3	N	Phenanthrene	7.9	5.3 J	5.3 J		UG/KG	TR
SW8270C/NONE	SO	074SB-0028-0001-SO	240-22852-3	N	Pyrene	7.9	4.3 J	4.3 J		UG/KG	TR
SW8270C/NONE	SO	074SB-0029-0001-SO	240-22852-5	N	Di-n-Butyl Phthalate	83.0	29.0 J	29.0 J		UG/KG	TR
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	1,2,4-Trichlorobenzene	60.0	60.0 U H	60.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	1,2-Dichlorobenzene	60.0	60.0 U H	60.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	1,3-Dichlorobenzene	60.0	60.0 U H	60.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	1,4-Dichlorobenzene	60.0	60.0 U H	60.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	2,4,5-Trichlorophenol	180	180 U H	180 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	2,4,6-Trichlorophenol	180	180 U H	180 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	2,4-Dichlorophenol	180	180 U H	180 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	2,4-Dimethylphenol	180	180 U H	180 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	2,4-Dinitrophenol	390	390 U H	390 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	2,4-Dinitrotoluene	240	240 U H	240 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	2,6-Dinitrotoluene	240	240 U H	240 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	2-Chloronaphthalene	60.0	60.0 U H	60.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	2-Chlorophenol	60.0	60.0 U H	60.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	2-Methylnaphthalene	8.0	8.0 U H	8.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	2-Methylphenol (o-Cresol)	240	240 U H	240 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	2-Nitroaniline	240	240 U H	240 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	2-Nitrophenol	60.0	60.0 U H	60.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	3,3'-Dichlorobenzidine	120	120 U H	120 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	3-Nitroaniline	240	240 U H	240 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	4,6-Dinitro-2-Methylphenol	180	180 U H	180 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	4-Bromophenyl phenyl ether	60.0	60.0 U H	60.0 UJ	-	UG/KG	H2

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	4-Chloro-3-Methylphenol	180	180 U H	180 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	4-Chloroaniline	180	180 U H	180 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	4-Chlorophenyl Phenyl Ether	60.0	60.0 U H	60.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	4-Nitroaniline	240	240 U H	240 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	4-Nitrophenol	390	390 U H	390 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	Acenaphthene	8.0	8.0 U H	8.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	Acenaphthylene	8.0	8.0 U H	8.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	Anthracene	8.0	8.0 U H	8.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	Benzo(a)anthracene	8.0	10.0 H	10.0 J	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	Benzo(a)pyrene	8.0	8.0 U H	8.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	Benzo(b)fluoranthene	8.0	8.0 U H	8.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	Benzo(g,h,i)perylene	8.0	8.0 U H	8.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	Benzo(k)fluoranthene	8.0	8.0 U H	8.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	Benzoic acid	790	790 U H	790 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	Benzyl alcohol	390	390 U H	390 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	Benzyl butyl phthalate	84.0	84.0 U H	84.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	bis(2-Chloroethoxy) Methane	120	120 U H	120 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	120	120 U H	120 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	bis(2-Chloroisopropyl) Ether	120	120 U H	120 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	bis(2-Ethylhexyl) Phthalate	84.0	39.0 J H	39.0 J	-	UG/KG	H2/TR
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	Carbazole	60.0	60.0 U H	60.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	Chrysene	8.0	6.2 J H	6.2 J	-	UG/KG	H2/TR
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	Cresols, m & p	480	480 U H	480 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	Dibenz(a,h)anthracene	8.0	8.0 U H	8.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	Dibenzofuran	60.0	60.0 U H	60.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	Diethyl Phthalate	84.0	84.0 U H	84.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	Dimethyl Phthalate	84.0	84.0 U H	84.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	Di-n-Butyl Phthalate	84.0	84.0 U H Q	84.0 UJ		UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	Di-n-Octylphthalate	84.0	84.0 U H	84.0 UJ	-	UG/KG	H2

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	Fluoranthene	8.0	8.0 U H Q	8.0 UJ		UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	Fluorene	8.0	8.0 U H	8.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	Hexachlorobenzene	8.0	8.0 U H	8.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	Hexachlorobutadiene	60.0	60.0 U H	60.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	Hexachlorocyclopentadiene	390	390 U H	390 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	Hexachloroethane	60.0	60.0 U H	60.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	Indeno(1,2,3-c,d)pyrene	8.0	8.0 U H	8.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	Isophorone	60.0	60.0 U H	60.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	Naphthalene	8.0	8.0 U H	8.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	Nitrobenzene	120	120 U H	120 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	n-Nitrosodi-n-propylamine	60.0	60.0 U H	60.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	n-Nitrosodiphenylamine	60.0	60.0 U H	60.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	Pentachlorophenol	180	180 U H	180 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	Phenanthrene	8.0	8.0 U H	8.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	Phenol	60.0	60.0 U H	60.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	Pyrene	8.0	8.0 U H	8.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0032-0001-SO	240-22852-8	N	Di-n-Butyl Phthalate	1700	1200 J D	1200 J		UG/KG	TR
SW8270C/NONE	SO	074SB-0032-0001-SO	240-22852-8	N	Fluorene	160	150 J D	150 J		UG/KG	TR
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	1,2,4-Trichlorobenzene	60.0	60.0 U	60.0 UJ	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	1,2-Dichlorobenzene	60.0	60.0 U	60.0 UJ	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	1,3-Dichlorobenzene	60.0	60.0 U	60.0 UJ	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	1,4-Dichlorobenzene	60.0	60.0 U	60.0 UJ	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	2,4,5-Trichlorophenol	180	180 U	180 UJ	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	2,4,6-Trichlorophenol	180	180 U	180 UJ	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	2,4-Dichlorophenol	180	180 U	180 UJ	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	2,4-Dimethylphenol	180	180 U	180 UJ	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	2,4-Dinitrophenol	400	400 U	400 UJ	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	2,4-Dinitrotoluene	240	240 U	240 UJ	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	2,6-Dinitrotoluene	240	240 U	240 UJ	-	UG/KG	I

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	2-Chloronaphthalene	60.0	60.0 U	60.0 UJ	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	2-Chlorophenol	60.0	60.0 U	60.0 UJ	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	2-Methylnaphthalene	8.1	8.1 U	8.1 UJ	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	2-Methylphenol (o-Cresol)	240	240 U	240 UJ	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	2-Nitroaniline	240	240 U	240 UJ	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	2-Nitrophenol	60.0	60.0 U	60.0 UJ	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	3,3'-Dichlorobenzidine	120	120 U	120 UJ	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	3-Nitroaniline	240	240 U	240 UJ	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	4,6-Dinitro-2-Methylphenol	180	180 U	180 UJ	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	4-Bromophenyl phenyl ether	60.0	60.0 U	60.0 UJ	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	4-Chloro-3-Methylphenol	180	180 U	180 UJ	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	4-Chloroaniline	180	180 U	180 UJ	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	4-Chlorophenyl Phenyl Ether	60.0	60.0 U	60.0 UJ	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	4-Nitroaniline	240	240 U	240 UJ	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	4-Nitrophenol	400	400 U	400 UJ	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	Acenaphthene	8.1	8.1 U	8.1 UJ	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	Acenaphthylene	8.1	8.1 U	8.1 UJ	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	Anthracene	8.1	8.1 U	8.1 UJ	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	Benzo(a)anthracene	8.1	8.1 U	8.1 UJ	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	Benzo(a)pyrene	8.1	8.1 U	8.1 UJ	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	Benzo(b)fluoranthene	8.1	6.2 J	6.2 J	-	UG/KG	I/TR
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	Benzo(g,h,i)perylene	8.1	8.1 U	8.1 UJ	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	Benzo(k)fluoranthene	8.1	8.1 U	8.1 UJ	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	Benzoic acid	800	800 U	800 UJ	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	Benzyl alcohol	400	400 U	400 UJ	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	Benzyl butyl phthalate	85.0	85.0 U	85.0 UJ	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	bis(2-Chloroethoxy) Methane	120	120 U	120 UJ	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	120	120 U	120 UJ	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	bis(2-Chloroisopropyl) Ether	120	120 U	120 UJ	-	UG/KG	I

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	bis(2-Ethylhexyl) Phthalate	85.0	110	110 J	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	Carbazole	60.0	60.0 U	60.0 UJ	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	Chrysene	8.1	20.0 M	20.0 J	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	Cresols, m & p	480	480 U	480 UJ	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	Dibenz(a,h)anthracene	8.1	8.1 U	8.1 UJ	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	Dibenzofuran	60.0	60.0 U	60.0 UJ	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	Diethyl Phthalate	85.0	85.0 U	85.0 UJ	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	Dimethyl Phthalate	85.0	85.0 U	85.0 UJ	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	Di-n-Butyl Phthalate	85.0	33.0 J	33.0 J	-	UG/KG	I/TR
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	Di-n-Octylphthalate	85.0	85.0 U	85.0 UJ	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	Fluoranthene	8.1	9.6	9.6 J	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	Fluorene	8.1	8.1 U	8.1 UJ	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	Hexachlorobenzene	8.1	8.1 U	8.1 UJ	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	Hexachlorobutadiene	60.0	60.0 U	60.0 UJ	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	Hexachlorocyclopentadiene	400	400 U	400 UJ	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	Hexachloroethane	60.0	60.0 U	60.0 UJ	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	Indeno(1,2,3-c,d)pyrene	8.1	8.1 U	8.1 UJ	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	Isophorone	60.0	60.0 U	60.0 UJ	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	Naphthalene	8.1	8.1 U	8.1 UJ	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	Nitrobenzene	120	120 U	120 UJ	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	n-Nitrosodi-n-propylamine	60.0	60.0 U	60.0 UJ	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	n-Nitrosodiphenylamine	60.0	60.0 U	60.0 UJ	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	Pentachlorophenol	180	180 U	180 UJ	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	Phenanthrene	8.1	4.5 J	4.5 J	-	UG/KG	I/TR
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	Phenol	60.0	60.0 U	60.0 UJ	-	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	Pyrene	8.1	6.1 J	6.1 J	-	UG/KG	I/TR

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
M8015D/NONE	SO	074SB-0030-0001-SO	240-22852-6	N	C10-C20 Diesel Range Organics	440	400 J D	400 J	MG/KG	TR
M8015D/NONE	SO	074SB-0030-0001-SO	240-22852-6	N	C20-C34 Motor Oil Range Organics	440	5900 D M	5900	MG/KG	
M8015D/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	C20-C34 Motor Oil Range Organics	20.0	38.0 M	38.0	MG/KG	
M8015D/NONE	SO	074SB-0032-0001-SO	240-22852-8	N	C10-C20 Diesel Range Organics	2000	1800 J D	1800 J	MG/KG	TR
M8015D/NONE	SO	074SB-0032-0001-SO	240-22852-8	N	C20-C34 Motor Oil Range Organics	2000	26000 D M	26000	MG/KG	

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW7471A/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	Mercury	0.11	0.030 J	0.030 J	MG/KG	TR/J

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8260B/NONE	WQ	079SB-0043-0001-TB	240-22852-10	TB	Acetone	10.0	7.7 J	7.7 J	UG/L	TR
SW8260B/NONE	WQ	079SB-0043-0001-TB	240-22852-10	TB	Methylene Chloride	1.0	1.0	1.0	UG/L	

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8270C/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	Di-n-Butyl Phthalate	350	130 J D	130 J	UG/KG	TR
SW8270C/NONE	SO	068SB-0060M-0001-SO	240-22852-1	N	Fluoranthene	33.0	18.0 J D	18.0 J	UG/KG	TR
SW8270C/NONE	SO	068SB-0061M-0001-SO	240-22852-2	FD	Benzyl alcohol	1300	88.0 J	88.0 J	UG/KG	TR
SW8270C/NONE	SO	068SB-0061M-0001-SO	240-22852-2	FD	Di-n-Butyl Phthalate	280	100 J	100 J	UG/KG	TR
SW8270C/NONE	SO	074SB-0028-0001-SO	240-22852-3	N	Benzo(b)fluoranthene	7.9	4.2 J M	4.2 J	UG/KG	TR
SW8270C/NONE	SO	074SB-0028-0001-SO	240-22852-3	N	Chrysene	7.9	8.4 M	8.4	UG/KG	
SW8270C/NONE	SO	074SB-0028-0001-SO	240-22852-3	N	Di-n-Butyl Phthalate	83.0	33.0 J	33.0 J	UG/KG	TR
SW8270C/NONE	SO	074SB-0028-0001-SO	240-22852-3	N	Fluoranthene	7.9	7.0 J	7.0 J	UG/KG	TR
SW8270C/NONE	SO	074SB-0028-0001-SO	240-22852-3	N	Phenanthrene	7.9	5.3 J	5.3 J	UG/KG	TR
SW8270C/NONE	SO	074SB-0028-0001-SO	240-22852-3	N	Pyrene	7.9	4.3 J	4.3 J	UG/KG	TR
SW8270C/NONE	SO	074SB-0029-0001-SO	240-22852-5	N	Di-n-Butyl Phthalate	83.0	29.0 J	29.0 J	UG/KG	TR
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	bis(2-Ethylhexyl) Phthalate	84.0	39.0 J H	39.0 J -	UG/KG	H2/TR
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	Benzo(a)anthracene	8.0	10.0 H	10.0 J -	UG/KG	H2
SW8270C/NONE	SO	074SB-0031-0001-SO	240-22852-7	N	Chrysene	8.0	6.2 J H	6.2 J -	UG/KG	H2/TR
SW8270C/NONE	SO	074SB-0032-0001-SO	240-22852-8	N	Di-n-Butyl Phthalate	1700	1200 J D	1200 J	UG/KG	TR
SW8270C/NONE	SO	074SB-0032-0001-SO	240-22852-8	N	Fluorene	160	150 J D	150 J	UG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8270C/NONE	SO	074SB-0032-0001-SO	240-22852-8	N	Phenanthrene	160	600 D	600	UG/KG	
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	bis(2-Ethylhexyl) Phthalate	85.0	110	110 J -	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	Benzo(b)fluoranthene	8.1	6.2 J	6.2 J -	UG/KG	I/TR
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	Chrysene	8.1	20.0 M	20.0 J -	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	Di-n-Butyl Phthalate	85.0	33.0 J	33.0 J -	UG/KG	I/TR
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	Fluoranthene	8.1	9.6	9.6 J -	UG/KG	I
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	Phenanthrene	8.1	4.5 J	4.5 J -	UG/KG	I/TR
SW8270C/NONE	SO	074SB-0033-0001-SO	240-22852-9	N	Pyrene	8.1	6.1 J	6.1 J -	UG/KG	I/TR

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1

Rejected Results

--No Records Found--

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1

Anomalies Count

SDG Name: 240-22852-1

Test/Extraction Method/Leach	# of Field Samples Outside of Compliance	# of Analytes Outside of Compliance
M8015D/SW3540C/NONE	7	14
SW7471A/TOTAL/NONE	1	1
SW8081/SW3540C/NONE	1	15
SW8082/SW3540C/NONE	2	14
SW8260B/SW5035/NONE	1	1
SW8270C/SW3540C/NONE	9	194

Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1

Reporting Anomalies

SDG Name: 240-22852-1

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
M8015D/NONE	074SB-0011-0001-SO	N	1	C10-C20 Diesel Range Organics	20 U	11	20	10	MG/KG
M8015D/NONE	074SB-0011-0001-SO	N	1	C20-C34 Motor Oil Range Organics	20 U	11	20	10	MG/KG
M8015D/NONE	074SB-0028-0001-SO	N	1	C10-C20 Diesel Range Organics	20 U	11	20	10	MG/KG
M8015D/NONE	074SB-0028-0001-SO	N	1	C20-C34 Motor Oil Range Organics	20 U	11	20	10	MG/KG
M8015D/NONE	074SB-0029-0001-SO	N	1	C10-C20 Diesel Range Organics	20 U	11	20	10	MG/KG
M8015D/NONE	074SB-0029-0001-SO	N	1	C20-C34 Motor Oil Range Organics	20 U	11	20	10	MG/KG
M8015D/NONE	074SB-0030-0001-SO	N	20	C10-C20 Diesel Range Organics	400 J	250	440	10	MG/KG
M8015D/NONE	074SB-0030-0001-SO	N	20	C20-C34 Motor Oil Range Organics	5900	250	440	10	MG/KG
M8015D/NONE	074SB-0031-0001-SO	N	1	C10-C20 Diesel Range Organics	20 U	11	20	10	MG/KG
M8015D/NONE	074SB-0031-0001-SO	N	1	C20-C34 Motor Oil Range Organics	38	11	20	10	MG/KG
M8015D/NONE	074SB-0032-0001-SO	N	100	C10-C20 Diesel Range Organics	1800 J	1100	2000	10	MG/KG
M8015D/NONE	074SB-0032-0001-SO	N	100	C20-C34 Motor Oil Range Organics	26000	1100	2000	10	MG/KG
M8015D/NONE	074SB-0033-0001-SO	N	1	C10-C20 Diesel Range Organics	20 U	11	20	10	MG/KG
M8015D/NONE	074SB-0033-0001-SO	N	1	C20-C34 Motor Oil Range Organics	20 U	11	20	10	MG/KG

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW7471A/NONE	068SB-0060M-0001-SO	N	1	Mercury	0.03 J	0.016	0.11	0.1	MG/KG

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8081/NONE	068SB-0060M-0001-SO	N	1	Aldrin	3.9 U	1.2	3.9	1.7	UG/KG
SW8081/NONE	068SB-0060M-0001-SO	N	1	alpha-BHC (alpha-Hexachlorocyclohexane)	2.5 U	0.72	2.5	1.7	UG/KG
SW8081/NONE	068SB-0060M-0001-SO	N	1	alpha-Chlordane	3 U	0.93	3	1.7	UG/KG
SW8081/NONE	068SB-0060M-0001-SO	N	1	beta-BHC (beta-Hexachlorocyclohexane)	3.5 U	1.1	3.5	1.7	UG/KG
SW8081/NONE	068SB-0060M-0001-SO	N	1	beta-Endosulfan	2.5 U	0.81	2.5	1.7	UG/KG
SW8081/NONE	068SB-0060M-0001-SO	N	1	delta-BHC (delta-Hexachlorocyclohexane)	3.9 U	1.2	3.9	1.7	UG/KG
SW8081/NONE	068SB-0060M-0001-SO	N	1	Endosulfan Sulfate	3 U	0.86	3	1.7	UG/KG
SW8081/NONE	068SB-0060M-0001-SO	N	1	Endrin Aldehyde	3 U	0.99	3	1.7	UG/KG
SW8081/NONE	068SB-0060M-0001-SO	N	1	Endrin Ketone	2 U	0.62	2	1.7	UG/KG
SW8081/NONE	068SB-0060M-0001-SO	N	1	gamma-BHC (Lindane)	2.5 U	0.73	2.5	1.7	UG/KG
SW8081/NONE	068SB-0060M-0001-SO	N	1	Heptachlor	3.5 U	1.1	3.5	1.7	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1

Reporting Anomalies

SDG Name: 240-22852-1

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8081/NONE	068SB-0060M-0001-SO	N	1	Heptachlor Epoxide	2.5 U	0.79	2.5	1.7	UG/KG
SW8081/NONE	068SB-0060M-0001-SO	N	1	Methoxychlor	4.9 U	1.5	4.9	1.7	UG/KG
SW8081/NONE	068SB-0060M-0001-SO	N	1	p,p'-DDD	2 U	0.61	2	1.7	UG/KG
SW8081/NONE	068SB-0060M-0001-SO	N	1	p,p'-DDT	2 U	0.62	2	1.7	UG/KG

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8082/NONE	068SB-0060M-0001-SO	N	1	PCB-1016 (Arochlor 1016)	66 U	21	66	33	UG/KG
SW8082/NONE	068SB-0060M-0001-SO	N	1	PCB-1221 (Arochlor 1221)	50 U	16	50	33	UG/KG
SW8082/NONE	068SB-0060M-0001-SO	N	1	PCB-1232 (Arochlor 1232)	45 U	14	45	33	UG/KG
SW8082/NONE	068SB-0060M-0001-SO	N	1	PCB-1242 (Arochlor 1242)	40 U	13	40	33	UG/KG
SW8082/NONE	068SB-0060M-0001-SO	N	1	PCB-1248 (Arochlor 1248)	55 U	17	55	33	UG/KG
SW8082/NONE	068SB-0060M-0001-SO	N	1	PCB-1254 (Arochlor 1254)	55 U	17	55	33	UG/KG
SW8082/NONE	068SB-0060M-0001-SO	N	1	PCB-1260 (Arochlor 1260)	55 U	17	55	33	UG/KG
SW8082/NONE	068SB-0061M-0001-SO	FD	1	PCB-1016 (Arochlor 1016)	65 U	21	65	33	UG/KG
SW8082/NONE	068SB-0061M-0001-SO	FD	1	PCB-1221 (Arochlor 1221)	50 U	16	50	33	UG/KG
SW8082/NONE	068SB-0061M-0001-SO	FD	1	PCB-1232 (Arochlor 1232)	45 U	14	45	33	UG/KG
SW8082/NONE	068SB-0061M-0001-SO	FD	1	PCB-1242 (Arochlor 1242)	40 U	13	40	33	UG/KG
SW8082/NONE	068SB-0061M-0001-SO	FD	1	PCB-1248 (Arochlor 1248)	55 U	17	55	33	UG/KG
SW8082/NONE	068SB-0061M-0001-SO	FD	1	PCB-1254 (Arochlor 1254)	55 U	17	55	33	UG/KG
SW8082/NONE	068SB-0061M-0001-SO	FD	1	PCB-1260 (Arochlor 1260)	55 U	17	55	33	UG/KG

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8260B/NONE	068SB-0060M-0001-SO	N	1	1,2-Dichloroethene	9.2 UJ	0.71	9.2	5	UG/KG
SW8260B/NONE	079SB-0043-0001-TB	TB	1	1,2-Dichloroethene	2 U	0.34	2	1	UG/L

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8270C/NONE	068SB-0060M-0001-SO	N	5	2,4,6-Trichlorophenol	750 U	400	750	330	UG/KG
SW8270C/NONE	068SB-0060M-0001-SO	N	5	2,4-Dichlorophenol	750 U	100	750	330	UG/KG
SW8270C/NONE	068SB-0060M-0001-SO	N	5	2,4-Dimethylphenol	750 U	100	750	330	UG/KG
SW8270C/NONE	068SB-0060M-0001-SO	N	5	2,4-Dinitrophenol	1600 J	400	1600	800	UG/KG
SW8270C/NONE	068SB-0060M-0001-SO	N	5	2,4-Dinitrotoluene	1000 U	130	1000	330	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1

Reporting Anomalies

SDG Name: 240-22852-1

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8270C/NONE	068SB-0060M-0001-SO	N	5	2,6-Dinitrotoluene	1000 U	100	1000	330	UG/KG
SW8270C/NONE	068SB-0060M-0001-SO	N	5	2-Methylphenol (o-Cresol)	1000 U	400	1000	330	UG/KG
SW8270C/NONE	068SB-0060M-0001-SO	N	5	2-Nitroaniline	1000 U	45	1000	800	UG/KG
SW8270C/NONE	068SB-0060M-0001-SO	N	5	3,3'-Dichlorobenzidine	500 U	90	500	330	UG/KG
SW8270C/NONE	068SB-0060M-0001-SO	N	5	3-Nitroaniline	1000 U	80	1000	800	UG/KG
SW8270C/NONE	068SB-0060M-0001-SO	N	5	4-Chloro-3-Methylphenol	750 U	100	750	330	UG/KG
SW8270C/NONE	068SB-0060M-0001-SO	N	5	4-Chloroaniline	750 U	85	750	330	UG/KG
SW8270C/NONE	068SB-0060M-0001-SO	N	5	4-Nitroaniline	1000 U	130	1000	800	UG/KG
SW8270C/NONE	068SB-0060M-0001-SO	N	5	4-Nitrophenol	1600 U	400	1600	800	UG/KG
SW8270C/NONE	068SB-0060M-0001-SO	N	5	Benzoic acid	3300 U	1700	3300	800	UG/KG
SW8270C/NONE	068SB-0060M-0001-SO	N	5	Benzyl alcohol	1600 U	100	1600	330	UG/KG
SW8270C/NONE	068SB-0060M-0001-SO	N	5	Benzyl butyl phthalate	350 U	50	350	330	UG/KG
SW8270C/NONE	068SB-0060M-0001-SO	N	5	bis(2-Chloroethoxy) Methane	500 U	110	500	330	UG/KG
SW8270C/NONE	068SB-0060M-0001-SO	N	5	bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	500 U	10	500	330	UG/KG
SW8270C/NONE	068SB-0060M-0001-SO	N	5	bis(2-Chloroisopropyl) Ether	500 U	47	500	330	UG/KG
SW8270C/NONE	068SB-0060M-0001-SO	N	5	Carbazole	250 U	130	250	50	UG/KG
SW8270C/NONE	068SB-0060M-0001-SO	N	5	Cresols, m & p	2000 U	100	2000	300	UG/KG
SW8270C/NONE	068SB-0060M-0001-SO	N	5	Diethyl Phthalate	350 U	80	350	330	UG/KG
SW8270C/NONE	068SB-0060M-0001-SO	N	5	Dimethyl Phthalate	350 U	85	350	330	UG/KG
SW8270C/NONE	068SB-0060M-0001-SO	N	5	Di-n-Butyl Phthalate	130 J	75	350	330	UG/KG
SW8270C/NONE	068SB-0060M-0001-SO	N	5	Di-n-Octylphthalate	350 U	130	350	330	UG/KG
SW8270C/NONE	068SB-0060M-0001-SO	N	5	Hexachlorocyclopentadiene	1600 U	130	1600	330	UG/KG
SW8270C/NONE	068SB-0060M-0001-SO	N	5	Nitrobenzene	500 U	11	500	330	UG/KG
SW8270C/NONE	068SB-0061M-0001-SO	FD	4	2,4,6-Trichlorophenol	600 U	320	600	330	UG/KG
SW8270C/NONE	068SB-0061M-0001-SO	FD	4	2,4-Dichlorophenol	600 U	80	600	330	UG/KG
SW8270C/NONE	068SB-0061M-0001-SO	FD	4	2,4-Dimethylphenol	600 U	80	600	330	UG/KG
SW8270C/NONE	068SB-0061M-0001-SO	FD	4	2,4-Dinitrophenol	1300 J	320	1300	800	UG/KG
SW8270C/NONE	068SB-0061M-0001-SO	FD	4	2,4-Dinitrotoluene	800 U	110	800	330	UG/KG
SW8270C/NONE	068SB-0061M-0001-SO	FD	4	2,6-Dinitrotoluene	800 U	84	800	330	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1

Reporting Anomalies

SDG Name: 240-22852-1

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8270C/NONE	068SB-0061M-0001-SO	FD	4	2-Methylphenol (o-Cresol)	800 U	320	800	330	UG/KG
SW8270C/NONE	068SB-0061M-0001-SO	FD	4	3,3'-Dichlorobenzidine	400 U	72	400	330	UG/KG
SW8270C/NONE	068SB-0061M-0001-SO	FD	4	4-Chloro-3-Methylphenol	600 U	84	600	330	UG/KG
SW8270C/NONE	068SB-0061M-0001-SO	FD	4	4-Chloroaniline	600 U	68	600	330	UG/KG
SW8270C/NONE	068SB-0061M-0001-SO	FD	4	4-Nitrophenol	1300 U	320	1300	800	UG/KG
SW8270C/NONE	068SB-0061M-0001-SO	FD	4	Benzoic acid	2600 U	1300	2600	800	UG/KG
SW8270C/NONE	068SB-0061M-0001-SO	FD	4	Benzyl alcohol	88 J	84	1300	330	UG/KG
SW8270C/NONE	068SB-0061M-0001-SO	FD	4	bis(2-Chloroethoxy) Methane	400 U	88	400	330	UG/KG
SW8270C/NONE	068SB-0061M-0001-SO	FD	4	bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	400 U	8	400	330	UG/KG
SW8270C/NONE	068SB-0061M-0001-SO	FD	4	bis(2-Chloroisopropyl) Ether	400 U	38	400	330	UG/KG
SW8270C/NONE	068SB-0061M-0001-SO	FD	4	Carbazole	200 U	110	200	50	UG/KG
SW8270C/NONE	068SB-0061M-0001-SO	FD	4	Cresols, m & p	1600 U	80	1600	300	UG/KG
SW8270C/NONE	068SB-0061M-0001-SO	FD	4	Hexachlorocyclopentadiene	1300 U	110	1300	330	UG/KG
SW8270C/NONE	068SB-0061M-0001-SO	FD	4	Nitrobenzene	400 U	8.8	400	330	UG/KG
SW8270C/NONE	074SB-0011-0001-SO	N	1	Benzyl alcohol	390 U	25	390	330	UG/KG
SW8270C/NONE	074SB-0011-0001-SO	N	1	Carbazole	60 U	32	60	50	UG/KG
SW8270C/NONE	074SB-0011-0001-SO	N	1	Cresols, m & p	480 U	24	480	300	UG/KG
SW8270C/NONE	074SB-0011-0001-SO	N	1	Hexachlorocyclopentadiene	390 U	32	390	330	UG/KG
SW8270C/NONE	074SB-0028-0001-SO	N	1	Benzyl alcohol	390 U	25	390	330	UG/KG
SW8270C/NONE	074SB-0028-0001-SO	N	1	Carbazole	59 U	32	59	50	UG/KG
SW8270C/NONE	074SB-0028-0001-SO	N	1	Cresols, m & p	480 U	24	480	300	UG/KG
SW8270C/NONE	074SB-0028-0001-SO	N	1	Hexachlorocyclopentadiene	390 U	32	390	330	UG/KG
SW8270C/NONE	074SB-0029-0001-SO	N	1	Benzyl alcohol	390 U	25	390	330	UG/KG
SW8270C/NONE	074SB-0029-0001-SO	N	1	Carbazole	59 U	32	59	50	UG/KG
SW8270C/NONE	074SB-0029-0001-SO	N	1	Cresols, m & p	480 U	24	480	300	UG/KG
SW8270C/NONE	074SB-0029-0001-SO	N	1	Hexachlorocyclopentadiene	390 U	32	390	330	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	1,2,4-Trichlorobenzene	1300 U	710	1300	330	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	1,2-Dichlorobenzene	1300 U	260	1300	330	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	1,3-Dichlorobenzene	1300 U	290	1300	330	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1

Reporting Anomalies

SDG Name: 240-22852-1

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8270C/NONE	074SB-0030-0001-SO	N	20	1,4-Dichlorobenzene	1300 U	530	1300	330	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	2,4,5-Trichlorophenol	4000 U	660	4000	800	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	2,4,6-Trichlorophenol	4000 U	2100	4000	330	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	2,4-Dichlorophenol	4000 U	530	4000	330	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	2,4-Dimethylphenol	4000 U	530	4000	330	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	2,4-Dinitrophenol	8700 U	2100	8700	800	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	2,4-Dinitrotoluene	5300 U	710	5300	330	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	2,6-Dinitrotoluene	5300 U	550	5300	330	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	2-Chloronaphthalene	1300 U	87	1300	330	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	2-Chlorophenol	1300 U	710	1300	330	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	2-Methylphenol (o-Cresol)	5300 U	2100	5300	330	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	2-Nitroaniline	5300 U	240	5300	800	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	2-Nitrophenol	1300 U	710	1300	330	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	3,3'-Dichlorobenzidine	2600 U	480	2600	330	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	3-Nitroaniline	5300 U	420	5300	800	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	4,6-Dinitro-2-Methylphenol	4000 U	2100	4000	800	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	4-Bromophenyl phenyl ether	1300 U	340	1300	330	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	4-Chloro-3-Methylphenol	4000 U	550	4000	330	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	4-Chloroaniline	4000 U	450	4000	330	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	4-Chlorophenyl Phenyl Ether	1300 U	340	1300	330	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	4-Nitroaniline	5300 U	690	5300	800	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	4-Nitrophenol	8700 U	2100	8700	800	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	Acenaphthene	180 U	87	180	50	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	Acenaphthylene	180 U	87	180	50	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	Anthracene	180 U	87	180	50	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	Benzo(a)anthracene	180 U	87	180	50	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	Benzo(a)pyrene	180 U	87	180	50	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	Benzo(b)fluoranthene	180 U	87	180	50	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	Benzo(g,h,i)perylene	180 U	87	180	50	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1

Reporting Anomalies

SDG Name: 240-22852-1

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8270C/NONE	074SB-0030-0001-SO	N	20	Benzo(k)fluoranthene	180 U	87	180	50	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	Benzoic acid	17000 U	8800	17000	800	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	Benzyl alcohol	8700 U	550	8700	330	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	Benzyl butyl phthalate	1800 U	260	1800	330	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	bis(2-Chloroethoxy) Methane	2600 U	580	2600	330	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	2600 U	53	2600	330	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	bis(2-Chloroisopropyl) Ether	2600 U	250	2600	330	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	bis(2-Ethylhexyl) Phthalate	1800 U	500	1800	670	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	Carbazole	1300 U	710	1300	50	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	Chrysene	180 U	29	180	50	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	Cresols, m & p	11000 U	530	11000	300	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	Dibenz(a,h)anthracene	180 U	87	180	50	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	Dibenzofuran	1300 U	87	1300	330	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	Diethyl Phthalate	1800 U	420	1800	330	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	Dimethyl Phthalate	1800 U	450	1800	330	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	Di-n-Butyl Phthalate	1800 U	400	1800	330	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	Di-n-Octylphthalate	1800 U	710	1800	330	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	Fluoranthene	180 U	87	180	50	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	Fluorene	180 U	87	180	50	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	Hexachlorobutadiene	1300 U	710	1300	330	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	Hexachlorocyclopentadiene	8700 U	710	8700	330	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	Hexachloroethane	1300 U	240	1300	330	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	Indeno(1,2,3-c,d)pyrene	180 U	87	180	50	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	Isophorone	1300 U	340	1300	330	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	Naphthalene	180 U	87	180	50	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	Nitrobenzene	2600 U	58	2600	330	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	n-Nitrosodi-n-propylamine	1300 U	710	1300	330	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	Pentachlorophenol	4000 U	2100	4000	800	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	Phenanthrene	180 U	87	180	50	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1

Reporting Anomalies

SDG Name: 240-22852-1

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8270C/NONE	074SB-0030-0001-SO	N	20	Phenol	1300 U	710	1300	330	UG/KG
SW8270C/NONE	074SB-0030-0001-SO	N	20	Pyrene	180 U	87	180	50	UG/KG
SW8270C/NONE	074SB-0031-0001-SO	N	1	Benzyl alcohol	390 UJ	25	390	330	UG/KG
SW8270C/NONE	074SB-0031-0001-SO	N	1	Carbazole	60 UJ	32	60	50	UG/KG
SW8270C/NONE	074SB-0031-0001-SO	N	1	Cresols, m & p	480 UJ	24	480	300	UG/KG
SW8270C/NONE	074SB-0031-0001-SO	N	1	Hexachlorocyclopentadiene	390 UJ	32	390	330	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	1,2,4-Trichlorobenzene	1200 U	650	1200	330	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	1,2-Dichlorobenzene	1200 U	230	1200	330	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	1,3-Dichlorobenzene	1200 U	260	1200	330	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	1,4-Dichlorobenzene	1200 U	480	1200	330	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	2,4,5-Trichlorophenol	3600 U	600	3600	800	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	2,4,6-Trichlorophenol	3600 U	1900	3600	330	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	2,4-Dichlorophenol	3600 U	480	3600	330	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	2,4-Dimethylphenol	3600 U	480	3600	330	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	2,4-Dinitrophenol	7900 U	1900	7900	800	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	2,4-Dinitrotoluene	4800 U	650	4800	330	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	2,6-Dinitrotoluene	4800 U	500	4800	330	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	2-Chloronaphthalene	1200 U	79	1200	330	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	2-Chlorophenol	1200 U	650	1200	330	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	2-Methylphenol (o-Cresol)	4800 U	1900	4800	330	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	2-Nitroaniline	4800 U	220	4800	800	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	2-Nitrophenol	1200 U	650	1200	330	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	3,3'-Dichlorobenzidine	2400 U	430	2400	330	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	3-Nitroaniline	4800 U	380	4800	800	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	4,6-Dinitro-2-Methylphenol	3600 U	1900	3600	800	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	4-Bromophenyl phenyl ether	1200 U	310	1200	330	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	4-Chloro-3-Methylphenol	3600 U	500	3600	330	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	4-Chloroaniline	3600 U	410	3600	330	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	4-Chlorophenyl Phenyl Ether	1200 U	310	1200	330	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1

Reporting Anomalies

SDG Name: 240-22852-1

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8270C/NONE	074SB-0032-0001-SO	N	20	4-Nitroaniline	4800 U	620	4800	800	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	4-Nitrophenol	7900 U	1900	7900	800	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	Acenaphthene	160 U	79	160	50	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	Acenaphthylene	160 U	79	160	50	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	Anthracene	160 U	79	160	50	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	Benzo(a)anthracene	160 U	79	160	50	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	Benzo(a)pyrene	160 U	79	160	50	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	Benzo(b)fluoranthene	160 U	79	160	50	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	Benzo(g,h,i)perylene	160 U	79	160	50	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	Benzo(k)fluoranthene	160 U	79	160	50	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	Benzoic acid	16000 U	8000	16000	800	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	Benzyl alcohol	7900 U	500	7900	330	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	Benzyl butyl phthalate	1700 U	240	1700	330	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	bis(2-Chloroethoxy) Methane	2400 U	530	2400	330	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	2400 U	48	2400	330	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	bis(2-Chloroisopropyl) Ether	2400 U	230	2400	330	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	bis(2-Ethylhexyl) Phthalate	1700 U	450	1700	670	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	Carbazole	1200 U	650	1200	50	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	Chrysene	160 U	26	160	50	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	Cresols, m & p	9600 U	480	9600	300	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	Dibenz(a,h)anthracene	160 U	79	160	50	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	Dibenzofuran	1200 U	79	1200	330	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	Diethyl Phthalate	1700 U	380	1700	330	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	Dimethyl Phthalate	1700 U	410	1700	330	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	Di-n-Butyl Phthalate	1200 J	360	1700	330	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	Di-n-Octylphthalate	1700 U	650	1700	330	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	Fluoranthene	160 U	79	160	50	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	Fluorene	150 J	79	160	50	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	Hexachlorobutadiene	1200 U	650	1200	330	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1

Reporting Anomalies

SDG Name: 240-22852-1

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8270C/NONE	074SB-0032-0001-SO	N	20	Hexachlorocyclopentadiene	7900 U	650	7900	330	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	Hexachloroethane	1200 U	220	1200	330	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	Indeno(1,2,3-c,d)pyrene	160 U	79	160	50	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	Isophorone	1200 U	310	1200	330	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	Naphthalene	160 U	79	160	50	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	Nitrobenzene	2400 U	53	2400	330	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	n-Nitrosodi-n-propylamine	1200 U	650	1200	330	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	Pentachlorophenol	3600 U	1900	3600	800	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	Phenanthrene	600	79	160	50	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	Phenol	1200 U	650	1200	330	UG/KG
SW8270C/NONE	074SB-0032-0001-SO	N	20	Pyrene	160 U	79	160	50	UG/KG
SW8270C/NONE	074SB-0033-0001-SO	N	1	Benzyl alcohol	400 UJ	25	400	330	UG/KG
SW8270C/NONE	074SB-0033-0001-SO	N	1	Carbazole	60 UJ	33	60	50	UG/KG
SW8270C/NONE	074SB-0033-0001-SO	N	1	Cresols, m & p	480 UJ	24	480	300	UG/KG
SW8270C/NONE	074SB-0033-0001-SO	N	1	Hexachlorocyclopentadiene	400 UJ	33	400	330	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1

Worksheet

SDG Name: 240-22852-1

Method: E353.2

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?			•	
Were samples preserved properly and received in good condition?			•	
Were holding times met?			•	
Were sample reciept temperatures met?			•	
Were QAPP specified RLs achieved?			•	
Were all QAPP specified target analytes reported?			•	
Was the initial calibration curve within QAPP acceptance limits?			•	
Were the ICV/CCVs analyzed (frequency) as required in the QAPP?			•	
Were ICV/CCV results within QAPP acceptance limits?			•	
Were the ICB/CCBs analyzed (frequency) as required in the QAPP?			•	
Was a method blank prepared and analyzed with each batch?			•	
Were target analytes detected in the ICB/CCB/method blank?			•	
Was a field blank collected and analyzed?			•	
Were target analytes reported in the field blank analyses above the MDL?			•	
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?			•	
Was a LCS prepared and analyzed with each batch?			•	
Were the LCS recoveries within QAPP acceptance limits?				
Were the MRL recoveries within 70-130% limits?			•	
Was a duplicate sample prepared and analyzed with each batch?			•	
Was the duplicate RPD within QAPP acceptance limits?			•	
Was a MS/MSD pair prepared with each batch?			•	
Is the MS/MSD parent sample the one designated by the sampling team?			•	
Were the MS/MSD recoveries and RPDs within QAPP acceptance limits?			•	
Were sample concentrations within calibration range?			•	
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?			•	
Are all samples associated with QC non-compliances flagged appropriately?			•	
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?			•	

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1

Method: M8015D

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report?	•			
Were samples preserved properly and received in good condition?	•			
Were sample reciept temperatures met?	•			
Were holding times for prep and analysis met?	•			
Does the initial calibration curve consist of 5 concentration levels, with the low standard near but > MDL?	•			
Is the ICAL %RSD within acceptance limits (%D =20%) ?	•			
Was a second source verification analyzed after the ICAL and all analytes within criteria (%D =20%)?	•			
Was a CCV(s) run at the proper frequency?	•			
Was the CCV a mid-level standard from the initial calibration curve?	•			
Was the CCV %D within criteria (%D =20%)?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the method blank above the MDL?		•		
Was a field blank (equipment or trip) collected and analyzed?		•		
Were target analytes reported in the field blank analyses above the MDL?			•	
Were surrogate recoveries within QAPP acceptance limits?	•			
Was an LCS/LCSD pair prepared and analyzed with each batch? (if applicable)	•			
Were the MRL recoveries within 70-130% limits?	•			
Were the LCS/LCSD RPDs within QAPP acceptance limits? (if applicable)			•	
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?			•	
Is the MS/MSD parent sample the one designated by the sampling team?	•			
Were MS/MSD recoveries and RPD within QAPP acceptance limits?		•		#6 MS <4X native analyte level- no qualification needed
Were all QAPP-specified target analytes reported?	•			
Were reported sample concentrations within calibration range?	•			#6 and #8 required dilution -met limits
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			
For non-aqueous sample, did the sample have a Percent Moisture less than 70.0%?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were sample prepration sheets present and filled out appropriately?	•			

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1

Method: M8015D

Review Questions	Yes	No	NA	Comment
Were instrument run logs present and filled out appropriately?	•			

Method: SW6020

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?			•	
Were samples preserved properly and received in good condition?			•	
Were holding times met?			•	
Were sample reciept temperatures met?			•	
Were QAPP specified RLs achieved?			•	
Were all QAPP specified target analytes reported?			•	
Was the initial calibration curve within QAPP acceptance limits?			•	
Were the ICV/CCVs analyzed (frequency) as required in the QAPP?			•	
Were ICV/CCV results within QAPP acceptance limits?			•	
Were the ICB/CCBs analyzed (frequency) as required in the QAPP?			•	
Was a method blank prepared and analyzed with each batch?			•	
Were target analytes detected in the ICB/CCB/method blank?			•	
Was a field blank collected and analyzed?			•	
Were target analytes reported in the field blank analyses above the MDL?			•	
Was an Interference Check Standard (ICS) run at the beginning and end of every run?			•	
Was the ICS recovery within QAPP acceptance limits?			•	
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?			•	
Was a LCS prepared and analyzed with each batch?			•	
Were the LCS recoveries within QAPP acceptance limits?			•	
Were the MRL recoveries within 70-130% limits?			•	
Was a MS/MSD pair prepared with each batch?			•	
Is the MS/MSD parent sample the one designated by the sampling team?			•	
Were the MS/MSD within QAPP acceptance limits?			•	
Was a post digestion spike needed and if so was it within QAPP acceptance limits?			•	

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1

Method: SW6020

Review Questions	Yes	No	NA	Comment
Was a serial dilution prepared and analyzed with each batch?			•	
Was the serial dilution within QAPP acceptance limits?			•	
Were sample concentrations within calibration range?			•	
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?			•	
Are all samples associated with QC non-compliances flagged appropriately?			•	
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?			•	

Method: SW7471A

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were sample reciept temperatures met?	•			
Were QAPP specified RLs achieved?	•			
Were all QAPP specified target analytes reported?	•			
Was the initial calibration curve within QAPP acceptance limits?	•			
Were the ICV/CCVs analyzed (frequency) as required in the QAPP?	•			
Were ICV/CCV results within QAPP acceptance limits?	•			
Were the ICB/CCBs analyzed (frequency) as required in the QAPP?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the ICB/CCB/method blank?		•		
Was a field blank collected and analyzed?		•		
Were target analytes reported in the field blank analyses above the MDL?			•	
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?	•			
Was a LCS prepared and analyzed with each batch?	•			
Were the LCS recoveries within QAPP acceptance limits?	•			
Were the MRL recoveries within 70-130% limits?		•		Low
Was a MS/MSD pair prepared with each batch?	•			
Is the MS/MSD parent sample the one designated by the sampling team?	•			
Were the MS/MSD within QAPP acceptance limits?	•			

Method: SW7471A				
Review Questions	**Yes**	**No**	**NA**	**Comment**
Were sample concentrations within calibration range?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			

Method: SW8081				
Review Questions	**Yes**	**No**	**NA**	**Comment**
Did Chain-of-Custody information agree with laboratory report?	•			
Were samples preserved properly and received in good condition?	•			
Were sample reciept temperatures met?	•			
Were holding times for prep and analysis met?	•			
Does the initial calibration curve consist of 5 concentration levels, with the low standard near but > MDL?	•			
Is the ICAL %RSD within acceptance limits (%D =20%) ?	•			
Was a second source verification analyzed after the ICAL and all analytes within criteria (%D =15%)?	•			
Was a CCV(s) run at the proper frequency?	•			
For non-aqueous sample, did the sample have a Percent Moisture less than 70.0%?	•			
Was the CCV %D within criteria (%D =15%)?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the method blank above the MDL?		•		
Was a field blank (equipment or trip) collected and analyzed?		•		
Were target analytes reported in the field blank analyses above the MDL?			•	
Were surrogate recoveries within QAPP acceptance limits?	•			sample re-extracted and reported
Was an LCS/LCSD pair prepared and analyzed with each batch? (if applicable)	•			
Were the MRL recoveries within 70-130% limits?	•			endosan sulfate>UCL - analyte ND
Were the LCS/LCSD RPDs within QAPP acceptance limits? (if applicable)	•			
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?		•		
Is the MS/MSD parent sample the one designated by the sampling team?		•		
Were MS/MSD recoveries and RPD within QAPP acceptance limits?			•	
Were all QAPP-specified target analytes reported?				

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1

Method: SW8081

Review Questions	Yes	No	NA	Comment
Were reported sample concentrations within calibration range?	•			
Were RPDs between primary and confirmation columns < 40%?	•			all ND
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were sample prepration sheets present and filled out appropriately?	•			
Were instrument run logs present and filled out appropriately?	•			

Method: SW8082

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report?	•			
Were samples preserved properly and received in good condition?	•			
Were sample reciept temperatures met?	•			
Were holding times for prep and analysis met?	•			
Does the initial calibration curve consist of 5 concentration levels, with the low standard near but > MDL?	•			
Is the ICAL %RSD within acceptance limits (%D =20%) ?	•			
Was a second source verification analyzed after the ICAL and all analytes within criteria (%D =15%)?	•			
Was a CCV(s) run at the proper frequency?	•			
Was the CCV a mid-level standard from the initial calibration curve?	•			
Was the CCV %D within criteria (%D =15%)?	•			Average of all peaksused
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the method blank above the MDL?		•		
Was a field blank (equipment or trip) collected and analyzed?		•		
Were target analytes reported in the field blank analyses above the MDL?			•	
Were surrogate recoveries within QAPP acceptance limits?	•			
Was an LCS/LCSD pair prepared and analyzed with each batch? (if applicable)	•			
Were the MRL recoveries within 70-130% limits?	•			
Were the LCS/LCSD RPDs within QAPP acceptance limits? (if applicable)			•	
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?	•			All results ND

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1

Method: SW8082

Review Questions	Yes	No	NA	Comment
Were the Breakdown products within QAPP acceptance limits?			•	
Is the MS/MSD parent sample the one designated by the sampling team?		•		
Were MS/MSD recoveries and RPD within QAPP acceptance limits?			•	
Were all QAPP-specified target analytes reported?	•			
Were reported sample concentrations within calibration range?	•			
Were RPDs between primary and confirmation columns < 40%?	•			
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			
For non-aqueous sample, did the sample have a Percent Moisture less than 70.0%?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			Sample#1 sulfur cleanup required
Were sample prepration sheets present and filled out appropriately?	•			
Were instrument run logs present and filled out appropriately?	•			

Method: SW8260B

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were sample reciept temperatures met?	•			
Were QAPP specified PQLs achieved?	•			
Were all QAPP-specified target analytes reported?	•			
Was the GC/MS system properly tuned based on method criteria?	•			
Was the criteria met during each 12 hour shift (prior to ICAL and Cal Ver.)?	•			
Does the initial calibration curve consist of 5 concentration levels, with the low standard near but > MDL?	•			
Did the Calibration Check Compounds (CCCs) have a relative standard deviation within QAPP acceptance limits?	•			
Were the average response factors (RFs) for the System Performance Check Compounds (SPCCs) within QAPP acceptance limits?	•			
Were all other target analytes within criteria? OR Was the average across all target analytes within criteria? Was a different calibration option used?	•			

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1

Method: SW8260B

Review Questions	Yes	No	NA	Comment
If a linear regression curve was used, was the correlation coefficient within criteria?			•	
Was a second source verification analyzed after the ICAL and all analytes within criteria?	•			
Was a CCV(s) run at the proper frequency?	•			
Was the CCV a mid-level standard from the initial calibration curve?	•			
Did the CCCs have a %Difference within QAPP acceptance limits?	•			
Were the average RFs for the SPCCs within QAPP acceptance limits?	•			
Was the average %D (difference or drift) for all target analytes within QAPP acceptance limits?	•			
Were the internal standards added to every standard, blank, matrix spike, matrix spike duplicate, and sample?	•			
Were the retention times for all IS compounds within QAPP acceptance limits?	•			
Are the area counts of all IS compounds within QAPP acceptance limits?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the method blank above the MDL?		•		
Was a field blank (equipment or trip) collected and analyzed at the required frequency?	•			
Were target analytes reported in the field blank analyses above the MDL?	•			TB had MeCl and Acetone but these were ND in all associated samples
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?			•	
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were the LCS/LCSD recoveries within QAPP acceptance limits?	•			
Were the LCS/LCSD RPDs within QAPP acceptance limits? (if applicable)			•	
Were the MRL recoveries within 70-130% limits?		•		Acetone low MRL for the TB sample s#1
Was the duplicate RPD within QAPP acceptance limits?			•	
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			
Was a MS/MSD pair prepared with each batch?		•		Not enough soil
Is the MS/MSD parent sample the one designated by the sampling team?			•	
Were MS/MSD recoveries and RPD within QAPP acceptance limits?			•	
Were surrogate recoveries within QAPP acceptance limits?		•		Low in sample #1
Were reported sample concentrations within calibration range?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			No dilutions or re-extractions

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1

Method: SW8260B

Review Questions	Yes	No	NA	Comment
Were instrument run logs present and filled out appropriately?	•			
Were sample prepration sheets present and filled out appropriately?	•			

Method: SW8270C

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?		•		sample 7 (site 74) re-extracted out of holding time
Were sample reciept temperatures met?	•			
Were QAPP specified PQLs achieved?		•		B(a)Pyrene MDL > RFA criteria #6 and #7, At LOD for #1 and #2 (Site 68 and #8
Were all QAPP-specified target analytes reported?	•			
Was the GC/MS system properly tuned based on method criteria?	•			
Was the criteria met during each 12 hour shift (prior to ICAL and Cal Ver.)?	•			
Does the initial calibration curve consist of 5 concentration levels, with the low standard near but > MDL?	•			
Did the Calibration Check Compounds (CCCs) have a relative standard deviation within QAPP acceptance limits?	•			
Were the average response factors (RFs) for the System Performance Check Compounds (SPCCs) within QAPP acceptance limits?	•			
Were all other target analytes within criteria? OR Was the average across all target analytes within criteria? Was a different calibration option used?	•			
If a linear regression curve was used, was the correlation coefficient within criteria?			•	
Was a second source verification analyzed after the ICAL and all analytes within criteria?	•			
Was a CCV(s) run at the proper frequency?	•			
Was the CCV a mid-level standard from the initial calibration curve?	•			
Did the CCCs have a %Difference within QAPP acceptance limits?	•			
Were the average RFs for the SPCCs within QAPP acceptance limits?	•			
Was the average %D (difference or drift) for all target analytes within QAPP acceptance limits?	•			
Were the internal standards added to every standard, blank, matrix spike, matrix spike duplicate, and sample?	•			

Method: SW8270C

Review Questions	Yes	No	NA	Comment
Were the retention times for all IS compounds within QAPP acceptance limits?	•			
Are the area counts of all IS compounds within QAPP acceptance limits?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the method blank above the MDL?		•		
Was a field blank (equipment or trip) collected and analyzed at the required frequency?			•	
Were target analytes reported in the field blank analyses above the MDL?			•	
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?	•			
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were the LCS/LCSD recoveries within QAPP acceptance limits?		•		benzoic acid 0% -all samples
Were the LCS/LCSD RPDs within QAPP acceptance limits? (if applicable)			•	
Were the MRL recoveries within 70-130% limits?		•		Sample #7RE (site 74) low for BA, 2,4 DNP, and 4,6 Ditro-2MP
Was the duplicate RPD within QAPP acceptance limits?			•	
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			
Was a MS/MSD pair prepared with each batch?	•			
Is the MS/MSD parent sample the one designated by the sampling team?	•			
Were MS/MSD recoveries and RPD within QAPP acceptance limits?		•		BA and 2,4 DNP have 0%R, 2,4 DNP RPD>criteria
Were surrogate recoveries within QAPP acceptance limits?		•		
Were reported sample concentrations within calibration range?	•			with dilutions (20X to #6/#7) and 4/5 X to #1/#2
For non-aqueous sample, did the sample have a Percent Moisture less than 70.0%?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were instrument run logs present and filled out appropriately?	•			
Were sample prepration sheets present and filled out appropriately?	•			

Method: SW8330

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report?			•	
Were samples preserved properly and received in good condition?			•	
Were sample reciept temperatures met?			•	
Were holding times for prep and analysis met?			•	

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1

Method: SW8330

Review Questions	Yes	No	NA	Comment
Does the initial calibration curve consist of 5 concentration levels, with the low standard near but > MDL?			•	
Is the ICAL %RSD within acceptance limits (%D =20%) ?			•	
Was a second source verification analyzed after the ICAL and all analytes within criteria (%D =20%)?			•	
Was a CCV(s) run at the proper frequency?			•	
Was the CCV a mid-level standard from the initial calibration curve?			•	
Was the CCV %D within criteria (%D =20%)?			•	
Was a method blank prepared and analyzed with each batch?			•	
Were target analytes detected in the method blank above the MDL?			•	
Was a field blank (equipment or trip) collected and analyzed?			•	
Were target analytes reported in the field blank analyses above the MDL?			•	
Were surrogate recoveries within QAPP acceptance limits?			•	
Was an LCS/LCSD pair prepared and analyzed with each batch? (if applicable)			•	
Were the MRL recoveries within 70-130% limits?			•	
Were the LCS/LCSD RPDs within QAPP acceptance limits? (if applicable)			•	
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?			•	
Is the MS/MSD parent sample the one designated by the sampling team?			•	
Were MS/MSD recoveries and RPD within QAPP acceptance limits?			•	
Were all QAPP-specified target analytes reported?			•	
Were reported sample concentrations within calibration range?			•	
Were RPDs between primary and confirmation columns < 40%?			•	
Did PDA spectra for reported compounds match associated standard spectra?			•	
Are all samples associated with QC non-compliances flagged appropriately?			•	
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?			•	
For non-aqueous sample, did the sample have a Percent Moisture less than 70.0%?			•	
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?			•	
Were sample prepration sheets present and filled out appropriately?			•	
Were instrument run logs present and filled out appropriately?			•	

AUTOMATED DATA REVIEW SUMMARY for 240-22852-1

Method: SW8330B

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report?			•	
Were samples preserved properly and received in good condition?			•	
Were sample reciept temperatures met?			•	
Were holding times for prep and analysis met?			•	
Does the initial calibration curve consist of 5 concentration levels, with the low standard near but > MDL?			•	
Is the ICAL %RSD within acceptance limits (%D =20%) ?			•	
Was a second source verification analyzed after the ICAL and all analytes within criteria (%D =20%)?			•	
Was a CCV(s) run at the proper frequency?			•	
Was the CCV a mid-level standard from the initial calibration curve?			•	
Was the CCV %D within criteria (%D =20%)?			•	
Was a method blank prepared and analyzed with each batch?			•	
Were target analytes detected in the method blank above the MDL?			•	
Was a field blank (equipment or trip) collected and analyzed?			•	
Were target analytes reported in the field blank analyses above the MDL?			•	
Were surrogate recoveries within QAPP acceptance limits?			•	
Was an LCS/LCSD pair prepared and analyzed with each batch? (if applicable)			•	
Were the LCS recoveries within QAPP acceptance limits?			•	
Were the LCS/LCSD RPDs within QAPP acceptance limits? (if applicable)			•	
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?			•	
Is the MS/MSD parent sample the one designated by the sampling team?			•	
Were MS/MSD recoveries and RPD within QAPP acceptance limits?			•	
Were all QAPP-specified target analytes reported?			•	
Were reported sample concentrations within calibration range?			•	
Were RPDs between primary and confirmation columns < 40%?			•	
Did PDA spectra for reported compounds match associated standard spectra?			•	
Are all samples associated with QC non-compliances flagged appropriately?			•	
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?			•	
For non-aqueous sample, did the sample have a Percent Moisture less than 70.0%?			•	

Method: SW8330B

Review Questions	Yes	No	NA	Comment
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?			•	
Were sample prepration sheets present and filled out appropriately?			•	
Were instrument run logs present and filled out appropriately?			•	

Field Duplicate Report By SDG
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Field Duplicates for SDG: 240-22852-1

Location	Analysis
68-ESSW-DU2-SB1	SW7471A

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Mercury	0.0300	ND	0.110	NA	50	NA	OK

Location	Analysis
68-ESSW-DU2-SB1	SW8082

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	PCB-1016 (Arochlor 1016)	ND	ND	66.0	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	PCB-1221 (Arochlor 1221)	ND	ND	50.0	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	PCB-1232 (Arochlor 1232)	ND	ND	45.0	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	PCB-1242 (Arochlor 1242)	ND	ND	40.0	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	PCB-1248 (Arochlor 1248)	ND	ND	55.0	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	PCB-1254 (Arochlor 1254)	ND	ND	55.0	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	PCB-1260 (Arochlor 1260)	ND	ND	55.0	NA	50	NA	OK

Location	Analysis
68-ESSW-DU2-SB1	SW8270C

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	1,2,4-Trichlorobenzene	ND	ND	250	NA	50	NA	OK

FD = Field Duplicate
RL = Reporting Limit
RPD = Relative Percent Difference

RL Check = If either the primary sample or field duplicate result is less than 5 times the RL then the criteria used to determine if the field duplicate is outside QC limits is +/- RL for Water and +/- 2 times RL for Soil

Field Duplicate Report By SDG
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Field Duplicates for SDG: 240-22852-1

Location	Analysis
68-ESSW-DU2-SB1	SW8270C

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	1,2-Dichlorobenzene	ND	ND	250	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	1,3-Dichlorobenzene	ND	ND	250	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	1,4-Dichlorobenzene	ND	ND	250	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	2,4,5-Trichlorophenol	ND	ND	750	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	2,4,6-Trichlorophenol	ND	ND	750	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	2,4-Dichlorophenol	ND	ND	750	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	2,4-Dimethylphenol	ND	ND	750	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	2,4-Dinitrophenol	ND	ND	1600	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	2,4-Dinitrotoluene	ND	ND	1000	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	2,6-Dinitrotoluene	ND	ND	1000	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	2-Chloronaphthalene	ND	ND	250	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	2-Chlorophenol	ND	ND	250	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	2-Methylnaphthalene	ND	ND	33.0	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	2-Methylphenol (o-Cresol)	ND	ND	1000	NA	50	NA	OK

FD = Field Duplicate
RL = Reporting Limit
RPD = Relative Percent Difference

RL Check = If either the primary sample or field duplicate result is less than 5 times the RL then the criteria used to determine if the field duplicate is outside QC limits is +/- RL for Water and +/- 2 times RL for Soil

Field Duplicate Report By SDG
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Field Duplicates for SDG: 240-22852-1

Location	Analysis
68-ESSW-DU2-SB1	SW8270C

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	2-Nitroaniline	ND	ND	1000	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	2-Nitrophenol	ND	ND	250	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	3,3'-Dichlorobenzidine	ND	ND	500	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	3-Nitroaniline	ND	ND	1000	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	4,6-Dinitro-2-Methylphenol	ND	ND	750	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	4-Bromophenyl phenyl ether	ND	ND	250	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	4-Chloro-3-Methylphenol	ND	ND	750	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	4-Chloroaniline	ND	ND	750	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	4-Chlorophenyl Phenyl Ether	ND	ND	250	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	4-Nitroaniline	ND	ND	1000	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	4-Nitrophenol	ND	ND	1600	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Acenaphthene	ND	ND	33.0	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Acenaphthylene	ND	ND	33.0	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Anthracene	ND	ND	33.0	NA	50	NA	OK

FD = Field Duplicate
RL = Reporting Limit
RPD = Relative Percent Difference

RL Check = If either the primary sample or field duplicate result is less than 5 times the RL then the criteria used to determine if the field duplicate is outside QC limits is +/- RL for Water and +/- 2 times RL for Soil

Field Duplicate Report By SDG
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Field Duplicates for SDG: 240-22852-1

Location	Analysis
68-ESSW-DU2-SB1	SW8270C

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Benzo(a)anthracene	ND	ND	33.0	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Benzo(a)pyrene	ND	ND	33.0	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Benzo(b)fluoranthene	ND	ND	33.0	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Benzo(g,h,i)perylene	ND	ND	33.0	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Benzo(k)fluoranthene	ND	ND	33.0	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Benzoic acid	ND	ND	3300	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Benzyl alcohol	ND	88.0	1600	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Benzyl butyl phthalate	ND	ND	350	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	bis(2-Chloroethoxy) Methane	ND	ND	500	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	ND	ND	500	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	bis(2-Chloroisopropyl) Ether	ND	ND	500	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	bis(2-Ethylhexyl) Phthalate	ND	ND	350	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Carbazole	ND	ND	250	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Chrysene	ND	ND	33.0	NA	50	NA	OK

FD = Field Duplicate
RL = Reporting Limit
RPD = Relative Percent Difference

RL Check = If either the primary sample or field duplicate result is less than 5 times the RL then the criteria used to determine if the field duplicate is outside QC limits is +/- RL for Water and +/- 2 times RL for Soil

Field Duplicate Report By SDG
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Field Duplicates for SDG: 240-22852-1

Location **Analysis**

68-ESSW-DU2-SB1 SW8270C

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Cresols, m & p	ND	ND	2000	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Di-n-Butyl Phthalate	130	100	350	26.1	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Di-n-Octylphthalate	ND	ND	350	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Dibenz(a,h)anthracene	ND	ND	33.0	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Dibenzofuran	ND	ND	250	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Diethyl Phthalate	ND	ND	350	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Dimethyl Phthalate	ND	ND	350	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Fluoranthene	18.0	ND	33.0	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Fluorene	ND	ND	33.0	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Hexachlorobenzene	ND	ND	33.0	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Hexachlorobutadiene	ND	ND	250	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Hexachlorocyclopentadiene	ND	ND	1600	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Hexachloroethane	ND	ND	250	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Indeno(1,2,3-c,d)pyrene	ND	ND	33.0	NA	50	NA	OK

FD = Field Duplicate
RL = Reporting Limit
RPD = Relative Percent Difference

RL Check = If either the primary sample or field duplicate result is less than 5 times the RL then the criteria used to determine if the field duplicate is outside QC limits is +/- RL for Water and +/- 2 times RL for Soil

Field Duplicate Report By SDG
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Field Duplicates for SDG: 240-22852-1

Location **Analysis**

68-ESSW-DU2-SB1 SW8270C

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Isophorone	ND	ND	250	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	n-Nitrosodi-n-propylamine	ND	ND	250	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	n-Nitrosodiphenylamine	ND	ND	250	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Naphthalene	ND	ND	33.0	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Nitrobenzene	ND	ND	500	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Pentachlorophenol	ND	ND	750	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Phenanthrene	ND	ND	33.0	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Phenol	ND	ND	250	NA	50	NA	OK
068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Pyrene	ND	ND	33.0	NA	50	NA	OK

FD = Field Duplicate
RL = Reporting Limit
RPD = Relative Percent Difference

RL Check = If either the primary sample or field duplicate result is less than 5 times the RL then the criteria used to determine if the field duplicate is outside QC limits is +/- RL for Water and +/- 2 times RL for Soil

WORKSHEET 6

Automated Data Review Summary for 240-17796-1
Rinsate Blank

This page left intentionally blank.

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Facility: Ravenna Army Ammunition Plant

Event: Fall 2012 SI/RI Sampling

Guidance Document: Ravenna Army Ammunition Plant, Quality Assurance Project Plan, Oct. 3, 2012

Contract Laboratory: TestAmerica, Inc., North Canton, OH

Field Contractor: Environmental Chemical Corporation, Otis Ang Base, MA

Data Review Contractor:

SDG: 240-17796-1_(76-SB,SS,SW), Certified - 1/3/2013 by frederickroche

QC Level: ADR

Project Manager:

Data Reviewer:

Data Reviewer Title:

Date of Review Report:

Samples Included in SDG 240-17796-1_(76-SB,SS,SW)

Analytical Method/ Leach Method	Normal Soil Samples	Normal Water Samples	Field QC Soil Samples	Field QC Water Samples
E353.2/NONE	16	3	1	1
M8015V/NONE		1		0
SW6020/NONE		1		0
SW7196A/NONE	1		0	
SW7470A/NONE		1		0
SW7471A/NONE	23		0	
SW8081/NONE		1		0

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Analytical Method/ Leach Method	Normal Soil Samples	Normal Water Samples	Field QC Soil Samples	Field QC Water Samples
SW8082/NONE	8	3	0	1
SW8151/NONE		1		0
SW8260B/NONE	14	3	0	0
SW8270C/NONE	30	1	1	0
SW8330B/NONE	16	3	1	1

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

This report assesses the analytical data quality associated with the analyses listed on the preceding cover page. This assessment has been made through a combination of automated data review (ADR) and supplemental manual review, the details of which are described below. The approach taken in the review of this data set is consistent with the requirements contained in the Ravenna Army Ammunition Plant, Quality Assurance Project Plan, Oct. 3, 2012 to the extent possible. Where definitive guidance is not provided, data has been evaluated in a conservative manner using professional judgment. In cases where two qualifiers are listed as an action, such as 'J/UJ', the first qualifier applies to positive results, and the second to non-detect results.

Samples were collected by Environmental Chemical Corporation, Otis Ang Base, MA; analyses were performed by TestAmerica, Inc., North Canton, OH and were reported under sample delivery group (SDG) 240-17796-1_(76-SB,SS,SW). Results have been evaluated electronically using electronic data deliverables (EDDs) provided by the laboratory. The laboratory data summary forms (hard copy) have been reviewed during this effort and compared to the automated review output. Findings based on the automated data submission and manual data verification processes are detailed in the ADR narrative.

The following quality control elements were supported by the electronic deliverable and were evaluated during this review effort:

- Blank
- Blank - Negative
- Field Duplicate RPD
- LCS Recovery
- MS Recovery
- MS RPD
- Prep Hold Time
- Surrogate
- Test Hold Time

The following quality control elements were either not applicable to the deliverable, or were not supported by the electronic deliverable, and were therefore not included in the automated data review. Those elements required for the project were reviewed manually, as narrated in the Comment section below.

- Ambient Blank
- Calibration Blank
- Calibration Blank - Negative
- Continuing Calibration Verification
- Equipment Blank

Field Blank

Initial Calibration Verification

Lab Replicate RPD

LCS RPD

Material Blank

Trip Blank

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

A representative sampling or ten percent of sample and QC results were manually evaluated for compliance with project specific requirements and consistency with hard copy results. The following summaries were generated during the evaluation of this data set and are included in this report as applicable.

Batch – The analytical batch report is reviewed for completeness and compliance with project specific requirements. Incomplete or non-compliant run sequences are identified and their impact on data quality are discussed in the narrative.

QC Outlier – Results exceeding the evaluation criteria are reviewed for compliance with project requirements and a minimum of ten percent of the non-compliant QC values reported electronically are verified for consistency with hard-copy values.

Qualified Results – Qualified results are evaluated for compliance with project requirements and ten percent of qualified results are verified for consistency with the QC Outliers.

Rejected Results – All rejected results are evaluated for compliance with project requirements. The reason for rejection of the data is verified against hard copy data.

Field Duplicates – Field duplicate comparison results are evaluated for compliance with project requirements and ten percent of values reported are verified for consistency with the hard-copy data.

Data Submission Warnings – Warnings encountered during the data submission process are evaluated and their affect on data quality is discussed in the narrative below.

Analytical deficiencies, project non-compliance issues and inconsistencies with hard copy results observed during ADR evaluation process and their impact on data quality are summarized in the narrative below.

A total of 58 results (1.74%) out of the 3332 results (sample and field QC samples) reported are qualified based on review and 0 results (0.00%) have been rejected. Trace values are not counted as qualified results in the above count. The qualified results are detailed in the following tables and discussed in the narrative below, where appropriate.

Narrative Comments

Analytical Method	Comment
E353.2	
M8015V	

SW6020	
SW7196A	
SW7470A	
SW7471A	
SW8081	
SW8082	
SW8151	
SW8260B	
SW8270C	
SW8330B	

Reviewed by ,

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Reason and Comment Code Definitions

Reasons	
Code	**Definition**
A	Serial dilution
A1	Ambient Blank
B	The analyte was found in an associated blank as well as in the sample.
B2	CCB
B3	CCB - Neg
c	LCS - low
C	LCS Recovery
d	Field Duplicate RPD
D	MS RPD
D1	Lab Replicate RPD
D2	No precision available
F	Field Blank
F1	Hydrocarbon pattern does not match standard
G1	Initial Calibration RRF
G2	Initial Calibration RSD
h	Holding time exceeded by less than 2X.
H	Holding time exceeded by more than 2X.
H1	Test Hold Time
H2	Prep Hold Time
I	Surrogate recovery outside project limits.
J	CRA/CRI Recovery
K	An analyte (non-common laboratory artifact) was detected in the sample at a concentration less than 5X the concentration detected in the associated method blank.
L	Lab Blank
L1	Lab Blank - Neg
m	MS - low
M	MS Recovery
N	Blank - No Action

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Reason and Comment Code Definitions

O	ICS
P	Sample preservation/collection requirement not met.
P1	Column RPD
P2	Improper preparation/extraction
q	Encore sample holding time exceeded by less than 2X.
Q	Encore sample holding time exceeded by more than 2X.
Q1	Material Blank
R	Exceeds LinearCalibration Range
S	Internal standard
T	Trip Blank
TI	Tentatively Identified Compound
TR	Trace Level Detect
U	Receipt Temperature
V	Equipment Blank
V1	ICV
V2	CCV
V3	CCV RRF
V4	Sample Receipt Condition
W	Column breakdown (pesticides)
X	Raised reporting limit
Y	Cooler temperature greater than 10 degreec C.
y	Cooler temperature greater than 4 degrees C, but less than 10 degreec C.
Y1	False Positive
Y2	Data rejected due to radiological anomolies
Z	LCS RPD
Z2	Analyte not confirmed on second column
Z3	High percent moisture in sample.

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Flag Code and Definitions	
Flag	Definition
U	Undetected: The analyte was analyzed for, but not detected.
UJ	The analyte was not detected; however, the result is estimated due to discrepancies in meeting certain analyte-specific quality control criteria.
J	Estimated: The analyte was positively identified, the quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
R	The data are rejected due to deficiencies in meeting QC criteria and may not be used for decision making.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification".
NJ	The analysis indicates the presence of an analyte that has been “tentatively identified” and the associated numerical value represents its approximate concentration.

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Batch Report

Test Method: E353.2; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
7008	6966	NA	LABQC	WQ	LABQC	MB 320-6877/1-B		1/1	06-Dec-2012 6:41 AM	06-Dec-2012 6:41 AM	06-Dec-2012 1:56 PM	LB
	6966	NA	LABQC	WQ	LABQC	LCS 320-6877/2-B		1/1	06-Dec-2012 6:41 AM	06-Dec-2012 6:41 AM	06-Dec-2012 1:58 PM	BS
	6966	NA	76-U20-SW	WS	076SW-0013-0001-SW	240-17796-17		1/1	08-Nov-2012 2:30 PM	06-Dec-2012 6:41 AM	06-Dec-2012 2:04 PM	N
	6966	NA	76-U20-SW	WS	076SW-0013-0002-SW	240-17796-17		1/1	08-Nov-2012 2:30 PM	06-Dec-2012 6:41 AM	06-Dec-2012 2:06 PM	MS
	6966	NA	76-U20-SW	WS	076SW-0013-0002-SW	240-17796-17		1/1	08-Nov-2012 2:30 PM	06-Dec-2012 6:41 AM	06-Dec-2012 2:08 PM	SD
	6966	NA	76-U20-SW	WS	076SW-0014-0001-SW	240-17796-18		1/1	08-Nov-2012 2:30 PM	06-Dec-2012 6:41 AM	06-Dec-2012 2:10 PM	FD
	6966	NA	76-U20-SW2	WS	076SW-0015-0001-SW	240-17796-19		1/1	08-Nov-2012 3:00 PM	06-Dec-2012 6:41 AM	06-Dec-2012 2:12 PM	N
	6966	NA	76-A3-DU1-SB5	WG	076-0067-0001-ER	240-17796-20		1/1	15-Nov-2012 1:00 PM	06-Dec-2012 6:41 AM	06-Dec-2012 2:14 PM	N
	6967	NA	LABQC	SQ	LABQC	MB 320-6938/1-B		1/1	06-Dec-2012 7:13 AM	06-Dec-2012 7:13 AM	06-Dec-2012 12:50 PM	LB
	6967	NA	LABQC	SQ	LABQC	LCS 320-6938/2-B		1/1	06-Dec-2012 7:13 AM	06-Dec-2012 7:13 AM	06-Dec-2012 12:52 PM	BS
	6967	NA	76-U10-DU1-SS	SO	076SS-0022M-0001-SO	240-17796-2		1/1	15-Nov-2012 12:25 PM	06-Dec-2012 7:13 AM	06-Dec-2012 12:54 PM	N
	6967	NA	76-U10-DU1-SS	SO	076SS-0022M-0001-SO	240-17796-2		1/1	15-Nov-2012 12:25 PM	06-Dec-2012 7:13 AM	06-Dec-2012 12:56 PM	MS
	6967	NA	76-U10-DU1-SS	SO	076SS-0022M-0001-SO	240-17796-2		1/1	15-Nov-2012 12:25 PM	06-Dec-2012 7:13 AM	06-Dec-2012 12:58 PM	SD
	6967	NA	76-U20-DU1-SB	SO	076SB-0053M-0001-SO	240-17796-9		1/1	15-Nov-2012 3:55 PM	06-Dec-2012 7:13 AM	06-Dec-2012 1:08 PM	N
	6967	NA	76-U20-DU1-SS	SO	076SS-0007M-0001-SO	240-17796-10		1/1	15-Nov-2012 3:45 PM	06-Dec-2012 7:13 AM	06-Dec-2012 1:10 PM	N
	6967	NA	76-U20-DU1-SB	SO	076SB-0054M-0001-SO	240-17796-11		1/1	15-Nov-2012 3:56 PM	06-Dec-2012 7:13 AM	06-Dec-2012 1:12 PM	N
	6967	NA	76-U20-DU1-SB1	SO	076SB-0055M-0001-SO	240-17796-12		1/1	15-Nov-2012 1:45 PM	06-Dec-2012 7:13 AM	06-Dec-2012 1:14 PM	N
	6967	NA	76-U20-DU1-SB2	SO	076SB-0056M-0001-SO	240-17796-13		1/1	15-Nov-2012 2:10 PM	06-Dec-2012 7:13 AM	06-Dec-2012 1:16 PM	N

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Batch Report

Test Method: E353.2; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
7008	6967	NA	76-U20-DU1-SB3	SO	076SB-0057M-0001-SO	240-17796-14		1/1	15-Nov-2012 2:40 PM	06-Dec-2012 7:13 AM	06-Dec-2012 1:18 PM	N
	6967	NA	76-U20-DU1-SB4	SO	076SB-0058M-0001-SO	240-17796-15		1/1	15-Nov-2012 3:30 PM	06-Dec-2012 7:13 AM	06-Dec-2012 1:20 PM	N
	6967	NA	76-U20-DU1-SB5	SO	076SB-0059M-0001-SO	240-17796-16		1/1	15-Nov-2012 4:00 PM	06-Dec-2012 7:13 AM	06-Dec-2012 1:22 PM	N
	6967	NA	76-U10-DU1-SB	SO	076SB-0044M-0001-SO	240-17796-29		1/1	15-Nov-2012 12:25 PM	06-Dec-2012 7:13 AM	06-Dec-2012 1:24 PM	N
	6967	NA	76-U10-DU1-SB	SO	076SB-0045M-0001-SO	240-17796-30		1/1	15-Nov-2012 12:26 PM	06-Dec-2012 7:13 AM	06-Dec-2012 1:26 PM	N
	6967	NA	76-U10-DU1-SB1	SO	076SB-0046M-0001-SO	240-17796-31		1/1	15-Nov-2012 10:50 AM	06-Dec-2012 7:13 AM	06-Dec-2012 1:36 PM	N
	6967	NA	76-U10-DU1-SB1	SO	076SB-0047M-0001-SO	240-17796-32		1/1	15-Nov-2012 11:11 AM	06-Dec-2012 7:13 AM	06-Dec-2012 1:38 PM	N
	6967	NA	76-U10-DU1-SB2	SO	076SB-0048M-0001-SO	240-17796-33		1/1	15-Nov-2012 11:40 AM	06-Dec-2012 7:13 AM	06-Dec-2012 1:40 PM	FD
	6967	NA	76-U10-DU1-SB3	SO	076SB-0049M-0001-SO	240-17796-34		1/1	15-Nov-2012 12:05 PM	06-Dec-2012 7:13 AM	06-Dec-2012 1:42 PM	N
	6967	NA	76-U10-DU1-SB4	SO	076SB-0050M-0001-SO	240-17796-35		1/1	15-Nov-2012 12:30 PM	06-Dec-2012 7:13 AM	06-Dec-2012 1:44 PM	N
	6967	NA	76-U10-DU1-SB5	SO	076SB-0051M-0001-SO	240-17796-36		1/1	15-Nov-2012 12:10 PM	06-Dec-2012 7:13 AM	06-Dec-2012 1:46 PM	N

Test Method: M8015V; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
66387	66387	NA	LABQC	WQ	LABQC	MB 240-66387/45		1/1	28-Nov-2012 2:00 PM	28-Nov-2012 2:00 PM	28-Nov-2012 2:00 PM	LB
	66387	NA	LABQC	WQ	LABQC	LCS 240-66387/46		1/1	28-Nov-2012 2:38 PM	28-Nov-2012 2:38 PM	28-Nov-2012 2:38 PM	BS
	66387	NA	76-A3-DU1-SB5	WG	076-0067-0001-ER	240-17796-20		1/1	15-Nov-2012 1:00 PM	28-Nov-2012 3:56 PM	28-Nov-2012 3:56 PM	N
	66387	NA	76-A3-DU1-SB5	WG	076-0067-0001-ER	240-17796-20		1/1	15-Nov-2012 1:00 PM	28-Nov-2012 4:35 PM	28-Nov-2012 4:35 PM	MS
	66387	NA	76-A3-DU1-SB5	WG	076-0067-0001-ER	240-17796-20		1/1	15-Nov-2012 1:00 PM	28-Nov-2012 5:13 PM	28-Nov-2012 5:13 PM	SD

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Batch Report

Test Method: SW6020; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
68088	66568	NA	LABQC	WQ	LABQC	MB 240-66568/1-A		1/1	28-Nov-2012 9:45 AM	28-Nov-2012 9:45 AM	10-Dec-2012 10:22 AM	LB
	66568	NA	LABQC	WQ	LABQC	LCS 240-66568/2-A		1/1	28-Nov-2012 9:45 AM	28-Nov-2012 9:45 AM	10-Dec-2012 10:27 AM	BS
	66568	NA	76-A3-DU1-SB5	WG	076-0067-0001-ER	240-17796-20		1/1	15-Nov-2012 1:00 PM	28-Nov-2012 9:45 AM	10-Dec-2012 10:35 AM	N

Test Method: SW7196A; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
67491	67293	NA	LABQC	SQ	LABQC	LCSI 240-67293/11-A		1/1	04-Dec-2012 3:00 PM	04-Dec-2012 3:00 PM	05-Dec-2012 12:00 AM	BS
	67293	NA	LABQC	SQ	LABQC	LCSS 240-67293/10-A		1/1	04-Dec-2012 3:00 PM	04-Dec-2012 3:00 PM	05-Dec-2012 12:00 AM	BS
	67293	NA	LABQC	SQ	LABQC	MB 240-67293/9-A		1/1	04-Dec-2012 3:00 PM	04-Dec-2012 3:00 PM	05-Dec-2012 12:00 AM	LB
	67293	NA	76-U10-DU1-SS	SO	076SS-0022M-0001-SO	240-17796-2		1/1	15-Nov-2012 12:25 PM	04-Dec-2012 3:00 PM	05-Dec-2012 3:58 PM	N

Test Method: SW7470A; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
66485	66219	NA	LABQC	WQ	LABQC	MB 240-66219/1-A		1/1	26-Nov-2012 3:25 PM	26-Nov-2012 3:25 PM	27-Nov-2012 3:50 PM	LB
	66219	NA	LABQC	WQ	LABQC	LCS 240-66219/2-A		1/1	26-Nov-2012 3:25 PM	26-Nov-2012 3:25 PM	27-Nov-2012 3:57 PM	BS
	66219	NA	76-A3-DU1-SB5	WG	076-0067-0001-ER	240-17796-20		1/1	15-Nov-2012 1:00 PM	26-Nov-2012 3:25 PM	27-Nov-2012 4:28 PM	N

Test Method: SW7471A; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
67078	66416	NA	LABQC	SQ	LABQC	MB 240-66416/1-A		1/1	27-Nov-2012 2:25 PM	27-Nov-2012 2:25 PM	30-Nov-2012 4:17 PM	LB
	66416	NA	LABQC	SQ	LABQC	LCS 240-66416/2-A		1/1	27-Nov-2012 2:25 PM	27-Nov-2012 2:25 PM	30-Nov-2012 4:19 PM	BS

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Batch Report

Test Method: SW7471A; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
67078	66416	NA	76-U4-DU1-SB	SO	076SB-0023M-0001-SO	240-17796-1		1/1	15-Nov-2012 9:15 AM	27-Nov-2012 2:25 PM	30-Nov-2012 4:20 PM	SD
	66416	NA	76-U4-DU1-SB	SO	076SB-0023M-0001-SO	240-17796-1		1/1	15-Nov-2012 9:15 AM	27-Nov-2012 2:25 PM	30-Nov-2012 4:22 PM	N
	66416	NA	76-U4-DU1-SB	SO	076SB-0023M-0001-SO	240-17796-1		1/1	15-Nov-2012 9:15 AM	27-Nov-2012 2:25 PM	30-Nov-2012 4:23 PM	MS
	66416	NA	76-A3-DU1-SB1	SO	076SB-0062M-0001-SO	240-17796-24		1/1	15-Nov-2012 5:05 PM	27-Nov-2012 2:25 PM	30-Nov-2012 4:28 PM	N
	66416	NA	76-U20-DU1-SS	SO	076SS-0007M-0001-SO	240-17796-10		1/1	15-Nov-2012 3:45 PM	27-Nov-2012 2:25 PM	30-Nov-2012 4:29 PM	N
	66416	NA	76-U4-DU1-SB5	SO	076SB-0029M-0001-SO	240-17796-8		1/1	15-Nov-2012 10:25 AM	27-Nov-2012 2:25 PM	30-Nov-2012 4:30 PM	N
	66416	NA	76-U20-DU1-SB4	SO	076SB-0058M-0001-SO	240-17796-15		1/1	15-Nov-2012 3:30 PM	27-Nov-2012 2:25 PM	30-Nov-2012 4:32 PM	N
	66416	NA	76-U20-DU1-SB	SO	076SB-0054M-0001-SO	240-17796-11		1/1	15-Nov-2012 3:56 PM	27-Nov-2012 2:25 PM	30-Nov-2012 4:33 PM	N
	66416	NA	76-U20-DU1-SB1	SO	076SB-0055M-0001-SO	240-17796-12		1/1	15-Nov-2012 1:45 PM	27-Nov-2012 2:25 PM	30-Nov-2012 4:34 PM	N
	66416	NA	76-U20-DU1-SB3	SO	076SB-0057M-0001-SO	240-17796-14		1/1	15-Nov-2012 2:40 PM	27-Nov-2012 2:25 PM	30-Nov-2012 4:36 PM	N
	66416	NA	76-U4-DU1-SB1	SO	076SB-0025M-0001-SO	240-17796-4		1/1	15-Nov-2012 9:00 AM	27-Nov-2012 2:25 PM	30-Nov-2012 4:37 PM	N
	66416	NA	76-A3-DU1-SB	SO	076SB-0061M-0001-SO	240-17796-23		1/1	15-Nov-2012 5:36 PM	27-Nov-2012 2:25 PM	30-Nov-2012 4:39 PM	N
	66416	NA	76-U20-DU1-SB2	SO	076SB-0056M-0001-SO	240-17796-13		1/1	15-Nov-2012 2:10 PM	27-Nov-2012 2:25 PM	30-Nov-2012 4:40 PM	N
	66416	NA	76-U4-DU1-SB3	SO	076SB-0027M-0001-SO	240-17796-6		1/1	15-Nov-2012 9:40 AM	27-Nov-2012 2:25 PM	30-Nov-2012 4:44 PM	N
	66416	NA	76-U20-DU1-SB5	SO	076SB-0059M-0001-SO	240-17796-16		1/1	15-Nov-2012 4:00 PM	27-Nov-2012 2:25 PM	30-Nov-2012 4:45 PM	N
	66416	NA	76-U4-DU1-SB4	SO	076SB-0028M-0001-SO	240-17796-7		1/1	15-Nov-2012 10:00 AM	27-Nov-2012 2:25 PM	30-Nov-2012 4:47 PM	N
	66416	NA	76-U4-DU1-SB2	SO	076SB-0026M-0001-SO	240-17796-5		1/1	15-Nov-2012 9:20 AM	27-Nov-2012 2:25 PM	30-Nov-2012 4:48 PM	N
	66416	NA	76-A3-DU1-SB2	SO	076SB-0063M-0001-SO	240-17796-25		1/1	15-Nov-2012 5:15 PM	27-Nov-2012 2:25 PM	30-Nov-2012 4:50 PM	N

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Batch Report

Test Method: SW7471A; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
67078	66416	NA	76-U10-DU1-SS	SO	076SS-0022M-0001-SO	240-17796-2		1/1	15-Nov-2012 12:25 PM	27-Nov-2012 2:25 PM	30-Nov-2012 4:51 PM	N
	66416	NA	76-A3-DU1-SB	SO	076SB-0060M-0001-SO	240-17796-22		1/1	15-Nov-2012 5:35 PM	27-Nov-2012 2:25 PM	30-Nov-2012 4:53 PM	N
	66416	NA	76-U20-DU1-SB	SO	076SB-0053M-0001-SO	240-17796-9		1/1	15-Nov-2012 3:55 PM	27-Nov-2012 2:25 PM	30-Nov-2012 4:54 PM	N
	66416	NA	76-U4-DU1-SB	SO	076SB-0024M-0001-SO	240-17796-3		1/1	15-Nov-2012 10:20 AM	27-Nov-2012 2:25 PM	30-Nov-2012 4:55 PM	N
	66624	NA	LABQC	SQ	LABQC	MB 240-66624/1-A		1/1	28-Nov-2012 2:55 PM	28-Nov-2012 2:55 PM	30-Nov-2012 4:57 PM	LB
	66624	NA	LABQC	SQ	LABQC	LCS 240-66624/2-A		1/1	28-Nov-2012 2:55 PM	28-Nov-2012 2:55 PM	30-Nov-2012 5:01 PM	BS
	66624	NA	76-A3-DU1-SB3	SO	076SB-0064M-0001-SO	240-17796-26		1/1	15-Nov-2012 5:25 PM	28-Nov-2012 2:55 PM	30-Nov-2012 5:02 PM	SD
	66624	NA	76-A3-DU1-SB3	SO	076SB-0064M-0001-SO	240-17796-26		1/1	15-Nov-2012 5:25 PM	28-Nov-2012 2:55 PM	30-Nov-2012 5:04 PM	N
	66624	NA	76-A3-DU1-SB3	SO	076SB-0064M-0001-SO	240-17796-26		1/1	15-Nov-2012 5:25 PM	28-Nov-2012 2:55 PM	30-Nov-2012 5:06 PM	MS
	66624	NA	76-A3-DU1-SB4	SO	076SB-0065M-0001-SO	240-17796-27		1/1	15-Nov-2012 5:40 PM	28-Nov-2012 2:55 PM	30-Nov-2012 5:07 PM	N
	66624	NA	76-A3-DU1-SB5	SO	076SB-0066M-0001-SO	240-17796-28		1/1	15-Nov-2012 4:50 PM	28-Nov-2012 2:55 PM	30-Nov-2012 5:09 PM	N

Test Method: SW8081; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
66500	65900	NA	76-A3-DU1-SB5	WG	076-0067-0001-ER	240-17796-20		1/1	15-Nov-2012 1:00 PM	21-Nov-2012 9:52 AM	28-Nov-2012 7:19 PM	N
	65900	NA	LABQC	WQ	LABQC	MB 240-65900/9-A		1/1	21-Nov-2012 9:52 AM	21-Nov-2012 9:52 AM	28-Nov-2012 7:47 PM	LB
	65900	NA	LABQC	WQ	LABQC	LCS 240-65900/10-A		1/1	21-Nov-2012 9:52 AM	21-Nov-2012 9:52 AM	29-Nov-2012 2:08 AM	BS

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Batch Report

Test Method: SW8082; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
66171	65899	NA	76-U20-SW	WS	076SW-0014-0001-SW	240-17796-18		1/1	08-Nov-2012 2:30 PM	21-Nov-2012 9:48 AM	24-Nov-2012 10:32 PM	FD
	65899	NA	76-U20-SW2	WS	076SW-0015-0001-SW	240-17796-19		1/1	08-Nov-2012 3:00 PM	21-Nov-2012 9:48 AM	24-Nov-2012 10:47 PM	N
	65899	NA	76-A3-DU1-SB5	WG	076-0067-0001-ER	240-17796-20		1/1	15-Nov-2012 1:00 PM	21-Nov-2012 9:48 AM	24-Nov-2012 11:02 PM	N
	65899	NA	LABQC	WQ	LABQC	MB 240-65899/8-A		1/1	21-Nov-2012 9:48 AM	21-Nov-2012 9:48 AM	24-Nov-2012 11:31 PM	LB
	65899	NA	LABQC	WQ	LABQC	LCS 240-65899/9-A		1/1	21-Nov-2012 9:48 AM	21-Nov-2012 9:48 AM	24-Nov-2012 11:46 PM	BS
66802	66426	NA	76-U20-SW	WS	076SW-0013-0001-SW	240-17796-17		1/1	08-Nov-2012 2:30 PM	27-Nov-2012 10:47 AM	30-Nov-2012 5:20 PM	N
	66426	NA	76-U20-SW	WS	076SW-0013-0002-SW	240-17796-17		1/1	08-Nov-2012 2:30 PM	27-Nov-2012 10:47 AM	30-Nov-2012 5:20 PM	MS
	66426	NA	76-U20-SW	WS	076SW-0013-0001-SW	240-17796-17		1/1	08-Nov-2012 2:30 PM	27-Nov-2012 10:47 AM	30-Nov-2012 5:35 PM	N
	66426	NA	76-U20-SW	WS	076SW-0013-0002-SW	240-17796-17		1/1	08-Nov-2012 2:30 PM	27-Nov-2012 10:47 AM	30-Nov-2012 5:35 PM	MS
	66426	NA	76-U20-SW	WS	076SW-0013-0002-SW	240-17796-17		1/1	08-Nov-2012 2:30 PM	27-Nov-2012 10:47 AM	30-Nov-2012 5:35 PM	SD
	66426	NA	76-U20-SW	WS	076SW-0013-0001-SW	240-17796-17		1/1	08-Nov-2012 2:30 PM	27-Nov-2012 10:47 AM	30-Nov-2012 5:50 PM	N
	66426	NA	76-U20-SW	WS	076SW-0013-0002-SW	240-17796-17		1/1	08-Nov-2012 2:30 PM	27-Nov-2012 10:47 AM	30-Nov-2012 5:50 PM	SD
	66426	NA	LABQC	WQ	LABQC	MB 240-66426/4-A		1/1	27-Nov-2012 10:47 AM	27-Nov-2012 10:47 AM	30-Nov-2012 6:05 PM	LB
	66426	NA	LABQC	WQ	LABQC	LCS 240-66426/5-A		1/1	27-Nov-2012 10:47 AM	27-Nov-2012 10:47 AM	30-Nov-2012 6:20 PM	BS
67173	66777	NA	76-U20-DU1-SB	SO	076SB-0053M-0001-SO	240-17796-9		1/1	15-Nov-2012 3:55 PM	29-Nov-2012 11:28 AM	04-Dec-2012 5:27 AM	N
	66777	NA	76-U20-DU1-SS	SO	076SS-0007M-0001-SO	240-17796-10		1/1	15-Nov-2012 3:45 PM	29-Nov-2012 11:28 AM	04-Dec-2012 5:42 AM	N
	66777	NA	LABQC	SQ	LABQC	MB 240-66777/20-A		1/1	29-Nov-2012 11:28 AM	29-Nov-2012 11:28 AM	04-Dec-2012 5:57 AM	LB
	66777	NA	76-U20-DU1-SB	SO	076SB-0054M-0001-SO	240-17796-11		1/1	15-Nov-2012 3:56 PM	29-Nov-2012 11:28 AM	04-Dec-2012 6:27 AM	N

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Batch Report

Test Method: SW8082; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
67173	66777	NA	76-U20-DU1-SB1	SO	076SB-0055M-0001-SO	240-17796-12		1/1	15-Nov-2012 1:45 PM	29-Nov-2012 11:28 AM	04-Dec-2012 6:42 AM	N
	66777	NA	76-U20-DU1-SB2	SO	076SB-0056M-0001-SO	240-17796-13		1/1	15-Nov-2012 2:10 PM	29-Nov-2012 11:28 AM	04-Dec-2012 6:57 AM	N
	66777	NA	76-U20-DU1-SB3	SO	076SB-0057M-0001-SO	240-17796-14		1/1	15-Nov-2012 2:40 PM	29-Nov-2012 11:28 AM	04-Dec-2012 7:12 AM	N
	66777	NA	76-U20-DU1-SB4	SO	076SB-0058M-0001-SO	240-17796-15		1/1	15-Nov-2012 3:30 PM	29-Nov-2012 11:28 AM	04-Dec-2012 7:27 AM	N
	66777	NA	76-U20-DU1-SB5	SO	076SB-0059M-0001-SO	240-17796-16		1/1	15-Nov-2012 4:00 PM	29-Nov-2012 11:28 AM	04-Dec-2012 7:42 AM	N
	66777	NA	76-U20-DU1-SB5	SO	076SB-0059M-0001-SO	240-17796-16		1/1	15-Nov-2012 4:00 PM	29-Nov-2012 11:28 AM	04-Dec-2012 7:56 AM	MS
	66777	NA	76-U20-DU1-SB5	SO	076SB-0059M-0001-SO	240-17796-16		1/1	15-Nov-2012 4:00 PM	29-Nov-2012 11:28 AM	04-Dec-2012 8:11 AM	SD
	66777	NA	LABQC	SQ	LABQC	LCS 240-66777/21-A		1/1	29-Nov-2012 11:28 AM	29-Nov-2012 11:28 AM	04-Dec-2012 8:26 AM	BS

Test Method: SW8151; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
67147	65729	NA	76-A3-DU1-SB5	WG	076-0067-0001-ER	240-17796-20		1/1	15-Nov-2012 1:00 PM	20-Nov-2012 9:45 AM	04-Dec-2012 2:35 AM	N
	65729	NA	LABQC	WQ	LABQC	MB 240-65729/4-A		1/1	20-Nov-2012 9:45 AM	20-Nov-2012 9:45 AM	04-Dec-2012 2:58 AM	LB
	65729	NA	LABQC	WQ	LABQC	LCS 240-65729/5-A		1/1	20-Nov-2012 9:45 AM	20-Nov-2012 9:45 AM	04-Dec-2012 3:22 AM	BS

Test Method: SW8260B; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
66239	NA	NA	LABQC	SQ	LABQC	LCS 240-66239/7		1/1	26-Nov-2012 1:54 PM		26-Nov-2012 1:54 PM	BS
	NA	NA	LABQC	SQ	LABQC	MB 240-66239/8		1/1	26-Nov-2012 2:15 PM		26-Nov-2012 2:15 PM	LB
	66118	NA	76-U4-DU1-SB	SO	076SB-0023M-0001-SO	240-17796-1		1/1	15-Nov-2012 9:15 AM	17-Nov-2012 8:00 AM	26-Nov-2012 5:29 PM	N

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Batch Report

Test Method: SW8260B; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
66239	66118	NA	76-U4-DU1-SB	SO	076SB-0024M-0001-SO	240-17796-3		1/1	15-Nov-2012 10:20 AM	17-Nov-2012 8:00 AM	26-Nov-2012 5:51 PM	N
	66118	NA	76-U4-DU1-SB1	SO	076SB-0025M-0001-SO	240-17796-4		1/1	15-Nov-2012 9:00 AM	17-Nov-2012 8:00 AM	26-Nov-2012 6:12 PM	N
	66118	NA	76-U4-DU1-SB2	SO	076SB-0026M-0001-SO	240-17796-5		1/1	15-Nov-2012 9:20 AM	17-Nov-2012 8:00 AM	26-Nov-2012 6:34 PM	N
	66118	NA	76-U4-DU1-SB3	SO	076SB-0027M-0001-SO	240-17796-6		1/1	15-Nov-2012 9:40 AM	17-Nov-2012 8:00 AM	26-Nov-2012 6:55 PM	N
	66118	NA	76-U4-DU1-SB4	SO	076SB-0028M-0001-SO	240-17796-7		1/1	15-Nov-2012 10:00 AM	17-Nov-2012 8:00 AM	26-Nov-2012 7:17 PM	N
	66118	NA	76-U4-DU1-SB5	SO	076SB-0029M-0001-SO	240-17796-8		1/1	15-Nov-2012 10:25 AM	17-Nov-2012 8:00 AM	26-Nov-2012 7:38 PM	N
	66118	NA	76-A3-DU1-SB	SO	076SB-0060M-0001-SO	240-17796-22		1/1	15-Nov-2012 5:35 PM	17-Nov-2012 8:00 AM	26-Nov-2012 8:00 PM	N
	66118	NA	76-A3-DU1-SB	SO	076SB-0061M-0001-SO	240-17796-23		1/1	15-Nov-2012 5:36 PM	17-Nov-2012 8:00 AM	26-Nov-2012 8:21 PM	N
	66118	NA	76-A3-DU1-SB1	SO	076SB-0062M-0001-SO	240-17796-24		1/1	15-Nov-2012 5:05 PM	17-Nov-2012 8:00 AM	26-Nov-2012 8:43 PM	N
	66118	NA	76-A3-DU1-SB2	SO	076SB-0063M-0001-SO	240-17796-25		1/1	15-Nov-2012 5:15 PM	17-Nov-2012 8:00 AM	26-Nov-2012 9:05 PM	N
	66118	NA	76-A3-DU1-SB3	SO	076SB-0064M-0001-SO	240-17796-26		1/1	15-Nov-2012 5:25 PM	17-Nov-2012 8:00 AM	26-Nov-2012 9:26 PM	N
	66118	NA	76-A3-DU1-SB4	SO	076SB-0065M-0001-SO	240-17796-27		1/1	15-Nov-2012 5:40 PM	17-Nov-2012 8:00 AM	26-Nov-2012 9:48 PM	N
	66118	NA	76-A3-DU1-SB5	SO	076SB-0066M-0001-SO	240-17796-28		1/1	15-Nov-2012 4:50 PM	17-Nov-2012 8:00 AM	26-Nov-2012 10:09 PM	N
65929	65929	NA	LABQC	WQ	LABQC	LCS 240-65929/4		1/1	21-Nov-2012 11:14 AM	21-Nov-2012 11:14 AM	21-Nov-2012 11:14 AM	BS
	65929	NA	LABQC	WQ	LABQC	MB 240-65929/6		1/1	21-Nov-2012 11:58 AM	21-Nov-2012 11:58 AM	21-Nov-2012 11:58 AM	LB
	65929	NA	76-A3-DU1-SB5	WG	076-0067-0001-ER	240-17796-20		1/1	15-Nov-2012 1:00 PM	21-Nov-2012 1:47 PM	21-Nov-2012 1:47 PM	N
	65929	NA	76-A3-DU1-SB4	WG	076-0068-0001-TB	240-17796-21		1/1	15-Nov-2012 8:00 AM	21-Nov-2012 2:31 PM	21-Nov-2012 2:31 PM	N
	65929	NA	76-U10-DU1-SB5	WG	076SB-0052M-0001-TB	240-17796-37		1/1	15-Nov-2012 8:00 AM	21-Nov-2012 2:54 PM	21-Nov-2012 2:54 PM	N

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Batch Report

Test Method: SW8260B; Leach Method: NONE												
Analytical Batch	**Prep Batch**	**Leach Batch**	**Location**	**Matrix**	**Field Sample ID**	**Lab Sample ID**	**Calibration Ref**	**Run#/ Dil'n**	**Collection Date/Time**	**Extract Date/Time**	**Analysis Date/Time**	**Sample Type**
65929	65929	NA	76-A3-DU1-SB5	WG	076-0067-0001-ER	240-17796-20		1/1	15-Nov-2012 1:00 PM	21-Nov-2012 4:46 PM	21-Nov-2012 4:46 PM	MS
	65929	NA	76-A3-DU1-SB5	WG	076-0067-0001-ER	240-17796-20		1/1	15-Nov-2012 1:00 PM	21-Nov-2012 5:08 PM	21-Nov-2012 5:08 PM	SD

Test Method: SW8270C; Leach Method: NONE												
Analytical Batch	**Prep Batch**	**Leach Batch**	**Location**	**Matrix**	**Field Sample ID**	**Lab Sample ID**	**Calibration Ref**	**Run#/ Dil'n**	**Collection Date/Time**	**Extract Date/Time**	**Analysis Date/Time**	**Sample Type**
66717	65893	NA	LABQC	WQ	LABQC	MB 240-65893/5-A		1/1	21-Nov-2012 9:42 AM	21-Nov-2012 9:42 AM	29-Nov-2012 10:13 AM	LB
	65893	NA	LABQC	WQ	LABQC	LCS 240-65893/6-A		1/1	21-Nov-2012 9:42 AM	21-Nov-2012 9:42 AM	29-Nov-2012 10:37 AM	BS
	65893	NA	76-A3-DU1-SB5	WG	076-0067-0001-ER	240-17796-20		1/1	15-Nov-2012 1:00 PM	21-Nov-2012 9:42 AM	29-Nov-2012 11:46 AM	N
67225	66393	NA	LABQC	SQ	LABQC	MB 240-66393/23-A		1/1	27-Nov-2012 9:03 AM	27-Nov-2012 9:03 AM	04-Dec-2012 10:08 AM	LB
	66393	NA	LABQC	SQ	LABQC	LCS 240-66393/24-A		1/1	27-Nov-2012 9:03 AM	27-Nov-2012 9:03 AM	04-Dec-2012 10:32 AM	BS
	66393	NA	76-A3-DU1-SB2	SO	076SB-0063M-0001-SO	240-17796-25		1/1	15-Nov-2012 5:15 PM	27-Nov-2012 9:03 AM	04-Dec-2012 11:43 AM	N
	66393	NA	76-A3-DU1-SB2	SO	076SB-0063M-0001-SO	240-17796-25		1/1	15-Nov-2012 5:15 PM	27-Nov-2012 9:03 AM	04-Dec-2012 12:07 PM	MS
	66393	NA	76-A3-DU1-SB2	SO	076SB-0063M-0001-SO	240-17796-25		1/1	15-Nov-2012 5:15 PM	27-Nov-2012 9:03 AM	04-Dec-2012 12:30 PM	SD
	66393	NA	76-U20-DU1-SS	SO	076SS-0007M-0001-SO	240-17796-10		1/5	15-Nov-2012 3:45 PM	27-Nov-2012 9:03 AM	04-Dec-2012 12:54 PM	N
	66393	NA	76-U20-DU1-SB	SO	076SB-0054M-0001-SO	240-17796-11		1/5	15-Nov-2012 3:56 PM	27-Nov-2012 9:03 AM	04-Dec-2012 1:18 PM	N
	66393	NA	76-U20-DU1-SB1	SO	076SB-0055M-0001-SO	240-17796-12		1/5	15-Nov-2012 1:45 PM	27-Nov-2012 9:03 AM	04-Dec-2012 1:42 PM	N
	66393	NA	76-A3-DU1-SB	SO	076SB-0060M-0001-SO	240-17796-22		1/5	15-Nov-2012 5:35 PM	27-Nov-2012 9:03 AM	04-Dec-2012 2:05 PM	N
	66393	NA	76-U10-DU1-SS	SO	076SS-0022M-0001-SO	240-17796-2		1/1	15-Nov-2012 12:25 PM	27-Nov-2012 9:03 AM	04-Dec-2012 2:29 PM	N
	66393	NA	76-U4-DU1-SB5	SO	076SB-0029M-0001-SO	240-17796-8		1/1	15-Nov-2012 10:25 AM	27-Nov-2012 9:03 AM	04-Dec-2012 2:53 PM	N

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Batch Report

Test Method: SW8270C; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
67225	66393	NA	76-U20-DU1-SB2	SO	076SB-0056M-0001-SO	240-17796-13		1/1	15-Nov-2012 2:10 PM	27-Nov-2012 9:03 AM	04-Dec-2012 3:16 PM	N
	66393	NA	76-U20-DU1-SB5	SO	076SB-0059M-0001-SO	240-17796-16		1/1	15-Nov-2012 4:00 PM	27-Nov-2012 9:03 AM	04-Dec-2012 3:40 PM	N
	66393	NA	76-U20-DU1-SB3	SO	076SB-0057M-0001-SO	240-17796-14		1/1	15-Nov-2012 2:40 PM	27-Nov-2012 9:03 AM	04-Dec-2012 4:04 PM	N
	66393	NA	76-U20-DU1-SB4	SO	076SB-0058M-0001-SO	240-17796-15		1/1	15-Nov-2012 3:30 PM	27-Nov-2012 9:03 AM	04-Dec-2012 4:28 PM	N
	66393	NA	76-U4-DU1-SB	SO	076SB-0023M-0001-SO	240-17796-1		1/1	15-Nov-2012 9:15 AM	27-Nov-2012 9:03 AM	04-Dec-2012 4:51 PM	N
	66393	NA	76-A3-DU1-SB1	SO	076SB-0062M-0001-SO	240-17796-24		1/1	15-Nov-2012 5:05 PM	27-Nov-2012 9:03 AM	04-Dec-2012 5:15 PM	N
	66393	NA	76-U4-DU1-SB2	SO	076SB-0026M-0001-SO	240-17796-5		1/1	15-Nov-2012 9:20 AM	27-Nov-2012 9:03 AM	04-Dec-2012 5:39 PM	N
	66393	NA	76-U4-DU1-SB3	SO	076SB-0027M-0001-SO	240-17796-6		1/1	15-Nov-2012 9:40 AM	27-Nov-2012 9:03 AM	04-Dec-2012 6:02 PM	N
67390	66393	NA	76-U20-DU1-SB	SO	076SB-0053M-0001-SO	240-17796-9		1/2.5	15-Nov-2012 3:55 PM	27-Nov-2012 9:03 AM	05-Dec-2012 4:54 PM	N
	66393	NA	76-U4-DU1-SB4	SO	076SB-0028M-0001-SO	240-17796-7		1/2.5	15-Nov-2012 10:00 AM	27-Nov-2012 9:03 AM	05-Dec-2012 5:17 PM	N
	66393	NA	76-A3-DU1-SB	SO	076SB-0061M-0001-SO	240-17796-23		1/2.5	15-Nov-2012 5:36 PM	27-Nov-2012 9:03 AM	05-Dec-2012 5:41 PM	N
	66393	NA	76-U4-DU1-SB	SO	076SB-0024M-0001-SO	240-17796-3		1/2.5	15-Nov-2012 10:20 AM	27-Nov-2012 9:03 AM	05-Dec-2012 6:04 PM	N
	66393	NA	76-U4-DU1-SB1	SO	076SB-0025M-0001-SO	240-17796-4		1/2.5	15-Nov-2012 9:00 AM	27-Nov-2012 9:03 AM	05-Dec-2012 6:27 PM	N
67544	66569	NA	LABQC	SQ	LABQC	MB 240-66569/21-A		1/1	28-Nov-2012 9:47 AM	28-Nov-2012 9:47 AM	06-Dec-2012 10:08 AM	LB
	66569	NA	LABQC	SQ	LABQC	LCS 240-66569/22-A		1/1	28-Nov-2012 9:47 AM	28-Nov-2012 9:47 AM	06-Dec-2012 10:31 AM	BS
	66569	NA	76-A3-DU1-SB3	SO	076SB-0064M-0001-SO	240-17796-26		1/10	15-Nov-2012 5:25 PM	28-Nov-2012 9:47 AM	06-Dec-2012 12:04 PM	N
	66569	NA	76-A3-DU1-SB5	SO	076SB-0066M-0001-SO	240-17796-28		1/10	15-Nov-2012 4:50 PM	28-Nov-2012 9:47 AM	06-Dec-2012 12:27 PM	N
	66569	NA	76-U10-DU1-SB1	SO	076SB-0047M-0001-SO	240-17796-32		1/10	15-Nov-2012 11:11 AM	28-Nov-2012 9:47 AM	06-Dec-2012 12:51 PM	N

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Batch Report

Test Method: SW8270C; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
67544	66569	NA	76-U10-DU1-SB3	SO	076SB-0049M-0001-SO	240-17796-34		1/10	15-Nov-2012 12:05 PM	28-Nov-2012 9:47 AM	06-Dec-2012 1:14 PM	N
	66569	NA	76-U10-DU1-SB	SO	076SB-0045M-0001-SO	240-17796-30		1/10	15-Nov-2012 12:26 PM	28-Nov-2012 9:47 AM	06-Dec-2012 1:37 PM	N
	66569	NA	76-A3-DU1-SB4	SO	076SB-0065M-0001-SO	240-17796-27		1/2.5	15-Nov-2012 5:40 PM	28-Nov-2012 9:47 AM	06-Dec-2012 2:47 PM	N
	66569	NA	76-U10-DU1-SB	SO	076SB-0044M-0001-SO	240-17796-29		1/2.5	15-Nov-2012 12:25 PM	28-Nov-2012 9:47 AM	06-Dec-2012 3:10 PM	N
	66569	NA	76-U10-DU1-SB1	SO	076SB-0046M-0001-SO	240-17796-31		1/2.5	15-Nov-2012 10:50 AM	28-Nov-2012 9:47 AM	06-Dec-2012 3:33 PM	N
	66569	NA	76-U10-DU1-SB4	SO	076SB-0050M-0001-SO	240-17796-35		1/2.5	15-Nov-2012 12:30 PM	28-Nov-2012 9:47 AM	06-Dec-2012 3:56 PM	N
67761	66569	NA	76-U10-DU1-SB5	SO	076SB-0051M-0001-SO	240-17796-36		1/1	15-Nov-2012 12:10 PM	28-Nov-2012 9:47 AM	07-Dec-2012 12:51 PM	N
67368	66734	NA	LABQC	SQ	LABQC	MB 240-66734/4-A		1/1	29-Nov-2012 9:51 AM	29-Nov-2012 9:51 AM	05-Dec-2012 10:12 AM	LB
	66734	NA	LABQC	SQ	LABQC	LCS 240-66734/5-A		1/1	29-Nov-2012 9:51 AM	29-Nov-2012 9:51 AM	05-Dec-2012 10:37 AM	BS
	66734	NA	76-U10-DU1-SB2	SO	076SB-0048M-0001-SO	240-17796-33		1/1	15-Nov-2012 11:40 AM	29-Nov-2012 10:26 AM	05-Dec-2012 1:05 PM	FD
68148	67600	NA	LABQC	SQ	LABQC	MB 240-67600/22-A		1/1	06-Dec-2012 10:45 AM	06-Dec-2012 10:45 AM	11-Dec-2012 12:44 PM	LB
	67600	NA	LABQC	SQ	LABQC	LCS 240-67600/23-A		1/1	06-Dec-2012 10:45 AM	06-Dec-2012 10:45 AM	11-Dec-2012 1:07 PM	BS
	67600	NA	76-U10-DU1-SB2	SO	076SB-0048M-0001-SO	240-17796-33		2/1	15-Nov-2012 11:40 AM	06-Dec-2012 10:45 AM	11-Dec-2012 3:27 PM	FD

Test Method: SW8330B; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
6772	6172	NA	LABQC	WQ	LABQC	MB 320-6172/1-A		1/1	20-Nov-2012 12:14 PM	20-Nov-2012 12:14 PM	04-Dec-2012 1:40 PM	LB
	6172	NA	LABQC	WQ	LABQC	LCS 320-6172/2-A		1/1	20-Nov-2012 12:14 PM	20-Nov-2012 12:14 PM	04-Dec-2012 2:20 PM	BS
	6172	NA	76-U20-SW	WS	076SW-0013-0001-SW	240-17796-17		1/1	08-Nov-2012 2:30 PM	20-Nov-2012 12:14 PM	04-Dec-2012 3:00 PM	N

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Batch Report

Test Method: SW8330B; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
6772	6172	NA	76-U20-SW	WS	076SW-0013-0002-SW	240-17796-17		1/1	08-Nov-2012 2:30 PM	20-Nov-2012 12:14 PM	04-Dec-2012 3:00 PM	MS
	6172	NA	76-U20-SW	WS	076SW-0013-0002-SW	240-17796-17		1/1	08-Nov-2012 2:30 PM	20-Nov-2012 12:14 PM	04-Dec-2012 3:41 PM	MS
	6172	NA	76-U20-SW	WS	076SW-0013-0002-SW	240-17796-17		1/1	08-Nov-2012 2:30 PM	20-Nov-2012 12:14 PM	04-Dec-2012 3:41 PM	SD
	6172	NA	76-U20-SW	WS	076SW-0013-0001-SW	240-17796-17		1/1	08-Nov-2012 2:30 PM	20-Nov-2012 12:14 PM	04-Dec-2012 4:21 PM	N
	6172	NA	76-U20-SW	WS	076SW-0013-0002-SW	240-17796-17		1/1	08-Nov-2012 2:30 PM	20-Nov-2012 12:14 PM	04-Dec-2012 4:21 PM	MS
	6172	NA	76-U20-SW	WS	076SW-0013-0002-SW	240-17796-17		1/1	08-Nov-2012 2:30 PM	20-Nov-2012 12:14 PM	04-Dec-2012 4:21 PM	SD
	6172	NA	76-U20-SW	WS	076SW-0014-0001-SW	240-17796-18		1/1	08-Nov-2012 2:30 PM	20-Nov-2012 12:14 PM	04-Dec-2012 5:01 PM	FD
	6172	NA	76-U20-SW2	WS	076SW-0015-0001-SW	240-17796-19		1/1	08-Nov-2012 3:00 PM	20-Nov-2012 12:14 PM	04-Dec-2012 5:41 PM	N
	6172	NA	76-A3-DU1-SB5	WG	076-0067-0001-ER	240-17796-20		1/1	15-Nov-2012 1:00 PM	20-Nov-2012 12:14 PM	04-Dec-2012 6:22 PM	N
7240	6559	NA	LABQC	SQ	LABQC	MB 320-6559/1-A		1/1	29-Nov-2012 8:10 AM	29-Nov-2012 8:10 AM	11-Dec-2012 4:47 PM	LB
	6559	NA	LABQC	SQ	LABQC	LCS 320-6559/2-A		1/1	29-Nov-2012 8:10 AM	29-Nov-2012 8:10 AM	11-Dec-2012 5:27 PM	BS
	6559	NA	76-U10-DU1-SS	SO	076SS-0022M-0001-SO	240-17796-2		2/1	15-Nov-2012 12:25 PM	29-Nov-2012 8:10 AM	11-Dec-2012 6:07 PM	N
	6559	NA	76-U10-DU1-SS	SO	076SS-0022M-0001-SO	240-17796-2		2/1	15-Nov-2012 12:25 PM	29-Nov-2012 8:10 AM	11-Dec-2012 6:48 PM	MS
	6559	NA	76-U10-DU1-SS	SO	076SS-0022M-0001-SO	240-17796-2		2/1	15-Nov-2012 12:25 PM	29-Nov-2012 8:10 AM	11-Dec-2012 7:28 PM	SD
	6559	NA	76-U20-DU1-SB	SO	076SB-0053M-0001-SO	240-17796-9		2/1	15-Nov-2012 3:55 PM	29-Nov-2012 8:10 AM	11-Dec-2012 8:08 PM	N
	6559	NA	76-U20-DU1-SS	SO	076SS-0007M-0001-SO	240-17796-10		2/1	15-Nov-2012 3:45 PM	29-Nov-2012 8:10 AM	11-Dec-2012 8:48 PM	N
	6559	NA	76-U20-DU1-SB	SO	076SB-0054M-0001-SO	240-17796-11		2/1	15-Nov-2012 3:56 PM	29-Nov-2012 8:10 AM	11-Dec-2012 9:28 PM	N
	6559	NA	76-U20-DU1-SB1	SO	076SB-0055M-0001-SO	240-17796-12		2/1	15-Nov-2012 1:45 PM	29-Nov-2012 8:10 AM	11-Dec-2012 10:09 PM	N

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Batch Report

Test Method: SW8330B; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
7240	6559	NA	76-U20-DU1-SB2	SO	076SB-0056M-0001-SO	240-17796-13		2/1	15-Nov-2012 2:10 PM	29-Nov-2012 8:10 AM	11-Dec-2012 10:49 PM	N
	6559	NA	76-U20-DU1-SB3	SO	076SB-0057M-0001-SO	240-17796-14		2/1	15-Nov-2012 2:40 PM	29-Nov-2012 8:10 AM	12-Dec-2012 12:09 AM	N
	6559	NA	76-U20-DU1-SB4	SO	076SB-0058M-0001-SO	240-17796-15		2/1	15-Nov-2012 3:30 PM	29-Nov-2012 8:10 AM	12-Dec-2012 12:49 AM	N
	6559	NA	76-U20-DU1-SB5	SO	076SB-0059M-0001-SO	240-17796-16		2/1	15-Nov-2012 4:00 PM	29-Nov-2012 8:10 AM	12-Dec-2012 1:29 AM	N
	6559	NA	76-U10-DU1-SB	SO	076SB-0044M-0001-SO	240-17796-29		2/1	15-Nov-2012 12:25 PM	29-Nov-2012 8:10 AM	12-Dec-2012 2:10 AM	N
	6559	NA	76-U10-DU1-SB	SO	076SB-0045M-0001-SO	240-17796-30		2/1	15-Nov-2012 12:26 PM	29-Nov-2012 8:10 AM	12-Dec-2012 2:50 AM	N
	6559	NA	76-U10-DU1-SB1	SO	076SB-0046M-0001-SO	240-17796-31		2/1	15-Nov-2012 10:50 AM	29-Nov-2012 8:10 AM	12-Dec-2012 3:30 AM	N
	6559	NA	76-U10-DU1-SB1	SO	076SB-0047M-0001-SO	240-17796-32		3/1	15-Nov-2012 11:11 AM	29-Nov-2012 8:10 AM	12-Dec-2012 4:11 AM	N
	6559	NA	76-U10-DU1-SB2	SO	076SB-0048M-0001-SO	240-17796-33		2/1	15-Nov-2012 11:40 AM	29-Nov-2012 8:10 AM	12-Dec-2012 4:51 AM	FD
	6559	NA	76-U10-DU1-SB3	SO	076SB-0049M-0001-SO	240-17796-34		2/1	15-Nov-2012 12:05 PM	29-Nov-2012 8:10 AM	12-Dec-2012 5:31 AM	N
	6559	NA	76-U10-DU1-SB4	SO	076SB-0050M-0001-SO	240-17796-35		2/1	15-Nov-2012 12:30 PM	29-Nov-2012 8:10 AM	12-Dec-2012 6:12 AM	N
	6559	NA	76-U10-DU1-SB5	SO	076SB-0051M-0001-SO	240-17796-36		2/1	15-Nov-2012 12:10 PM	29-Nov-2012 8:10 AM	12-Dec-2012 7:32 AM	N
6888	6579	NA	LABQC	SQ	LABQC	MB 320-6579/1-A		1/1	29-Nov-2012 10:14 AM	29-Nov-2012 10:14 AM	05-Dec-2012 8:16 PM	LB
	6579	NA	LABQC	SQ	LABQC	LCS 320-6579/2-A		1/1	29-Nov-2012 10:14 AM	29-Nov-2012 10:14 AM	05-Dec-2012 8:30 PM	BS
	6579	NA	76-U10-DU1-SS	SO	076SS-0022M-0001-SO	240-17796-2		1/1	15-Nov-2012 12:25 PM	29-Nov-2012 10:14 AM	05-Dec-2012 8:44 PM	N
	6579	NA	76-U10-DU1-SS	SO	076SS-0022M-0001-SO	240-17796-2		1/1	15-Nov-2012 12:25 PM	29-Nov-2012 10:14 AM	05-Dec-2012 8:58 PM	MS
	6579	NA	76-U10-DU1-SS	SO	076SS-0022M-0001-SO	240-17796-2		1/1	15-Nov-2012 12:25 PM	29-Nov-2012 10:14 AM	05-Dec-2012 9:13 PM	SD
	6579	NA	76-U20-DU1-SB	SO	076SB-0053M-0001-SO	240-17796-9		1/1	15-Nov-2012 3:55 PM	29-Nov-2012 10:14 AM	05-Dec-2012 9:27 PM	N

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Batch Report

Test Method: SW8330B; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
6888	6579	NA	76-U20-DU1-SS	SO	076SS-0007M-0001-SO	240-17796-10		1/1	15-Nov-2012 3:45 PM	29-Nov-2012 10:14 AM	05-Dec-2012 9:41 PM	N
	6579	NA	76-U20-DU1-SB	SO	076SB-0054M-0001-SO	240-17796-11		1/1	15-Nov-2012 3:56 PM	29-Nov-2012 10:14 AM	05-Dec-2012 9:56 PM	N
	6579	NA	76-U20-DU1-SB1	SO	076SB-0055M-0001-SO	240-17796-12		1/1	15-Nov-2012 1:45 PM	29-Nov-2012 10:14 AM	05-Dec-2012 10:10 PM	N
	6579	NA	76-U20-DU1-SB2	SO	076SB-0056M-0001-SO	240-17796-13		1/1	15-Nov-2012 2:10 PM	29-Nov-2012 10:14 AM	05-Dec-2012 10:24 PM	N
	6579	NA	76-U20-DU1-SB3	SO	076SB-0057M-0001-SO	240-17796-14		1/1	15-Nov-2012 2:40 PM	29-Nov-2012 10:14 AM	05-Dec-2012 10:53 PM	N
	6579	NA	76-U20-DU1-SB4	SO	076SB-0058M-0001-SO	240-17796-15		1/1	15-Nov-2012 3:30 PM	29-Nov-2012 10:14 AM	05-Dec-2012 11:07 PM	N
	6579	NA	76-U20-DU1-SB5	SO	076SB-0059M-0001-SO	240-17796-16		1/1	15-Nov-2012 4:00 PM	29-Nov-2012 10:14 AM	05-Dec-2012 11:22 PM	N
	6579	NA	76-U10-DU1-SB	SO	076SB-0044M-0001-SO	240-17796-29		1/1	15-Nov-2012 12:25 PM	29-Nov-2012 10:14 AM	05-Dec-2012 11:36 PM	N
	6579	NA	76-U10-DU1-SB	SO	076SB-0045M-0001-SO	240-17796-30		1/1	15-Nov-2012 12:26 PM	29-Nov-2012 10:14 AM	05-Dec-2012 11:50 PM	N
	6579	NA	76-U10-DU1-SB1	SO	076SB-0046M-0001-SO	240-17796-31		1/1	15-Nov-2012 10:50 AM	29-Nov-2012 10:14 AM	06-Dec-2012 12:04 AM	N
	6579	NA	76-U10-DU1-SB1	SO	076SB-0047M-0001-SO	240-17796-32		1/1	15-Nov-2012 11:11 AM	29-Nov-2012 10:14 AM	06-Dec-2012 12:19 AM	N
	6579	NA	76-U10-DU1-SB2	SO	076SB-0048M-0001-SO	240-17796-33		1/1	15-Nov-2012 11:40 AM	29-Nov-2012 10:14 AM	06-Dec-2012 12:33 AM	FD
	6579	NA	76-U10-DU1-SB3	SO	076SB-0049M-0001-SO	240-17796-34		1/1	15-Nov-2012 12:05 PM	29-Nov-2012 10:14 AM	06-Dec-2012 12:47 AM	N
	6579	NA	76-U10-DU1-SB4	SO	076SB-0050M-0001-SO	240-17796-35		1/1	15-Nov-2012 12:30 PM	29-Nov-2012 10:14 AM	06-Dec-2012 1:02 AM	N
	6579	NA	76-U10-DU1-SB5	SO	076SB-0051M-0001-SO	240-17796-36		1/1	15-Nov-2012 12:10 PM	29-Nov-2012 10:14 AM	06-Dec-2012 1:30 AM	N
7142	6579	NA	LABQC	SQ	LABQC	MB 320-6579/1-A		2/1	29-Nov-2012 10:14 AM	29-Nov-2012 10:14 AM	10-Dec-2012 1:25 PM	LB
6888	6878	NA	LABQC	WQ	LABQC	MB 320-6878/1-A		1/1	05-Dec-2012 7:38 AM	05-Dec-2012 7:38 AM	06-Dec-2012 1:45 AM	LB
	6878	NA	LABQC	WQ	LABQC	LCS 320-6878/2-A		1/1	05-Dec-2012 7:38 AM	05-Dec-2012 7:38 AM	06-Dec-2012 1:59 AM	BS

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Batch Report

Test Method: SW8330B; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
6888	6878	NA	76-U20-SW	WS	076SW-0013-0001-SW	240-17796-17		2/1	08-Nov-2012 2:30 PM	05-Dec-2012 7:38 AM	06-Dec-2012 2:13 AM	N
	6878	NA	76-U20-SW	WS	076SW-0013-0002-SW	240-17796-17		2/1	08-Nov-2012 2:30 PM	05-Dec-2012 7:38 AM	06-Dec-2012 2:28 AM	SD
	6878	NA	76-U20-SW	WS	076SW-0013-0002-SW	240-17796-17		2/1	08-Nov-2012 2:30 PM	05-Dec-2012 7:38 AM	06-Dec-2012 2:42 AM	MS
	6878	NA	76-U20-SW	WS	076SW-0014-0001-SW	240-17796-18		2/1	08-Nov-2012 2:30 PM	05-Dec-2012 7:38 AM	06-Dec-2012 2:56 AM	FD
	6878	NA	76-U20-SW2	WS	076SW-0015-0001-SW	240-17796-19		2/1	08-Nov-2012 3:00 PM	05-Dec-2012 7:38 AM	06-Dec-2012 3:10 AM	N
	6878	NA	76-A3-DU1-SB5	WG	076-0067-0001-ER	240-17796-20		2/1	15-Nov-2012 1:00 PM	05-Dec-2012 7:38 AM	06-Dec-2012 3:25 AM	N

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Field Batch Report

--No Records Found--

QC Outliers Report

--No Records Found--

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
M8015V/NONE	WG	076-0067-0001-ER	240-17796-20	N	Petroleum Hydrocarbons C6-C12	100	33.0	33.0 J		UG/L	TR
Test Leach	**Matrix**	**FieldSample ID**	**LabSample ID**	**Type**	**Analyte**	**RL**	**Lab Result**	**Qualified Result**	**Bias**	**Units**	**Reason**
SW6020/NONE	WG	076-0067-0001-ER	240-17796-20	N	Antimony	2.0	0.34	0.34 J		UG/L	TR
SW6020/NONE	WG	076-0067-0001-ER	240-17796-20	N	Chromium	2.0	0.60	0.60 J		UG/L	TR
SW6020/NONE	WG	076-0067-0001-ER	240-17796-20	N	Manganese	5.0	3.5	3.5 J		UG/L	TR
SW6020/NONE	WG	076-0067-0001-ER	240-17796-20	N	Thallium	2.0	0.75	0.75 J		UG/L	TR
SW6020/NONE	WG	076-0067-0001-ER	240-17796-20	N	Zinc	40.0	10.0	10.0 J		UG/L	TR
Test Leach	**Matrix**	**FieldSample ID**	**LabSample ID**	**Type**	**Analyte**	**RL**	**Lab Result**	**Qualified Result**	**Bias**	**Units**	**Reason**
SW7471A/NONE	SO	076SB-0023M-0001-SO	240-17796-1	N	Mercury	0.098	0.038	0.038 J		MG/KG	TR
SW7471A/NONE	SO	076SB-0024M-0001-SO	240-17796-3	N	Mercury	0.098	0.028	0.028 J		MG/KG	TR
SW7471A/NONE	SO	076SB-0025M-0001-SO	240-17796-4	N	Mercury	0.091	0.029	0.029 J		MG/KG	TR
SW7471A/NONE	SO	076SB-0026M-0001-SO	240-17796-5	N	Mercury	0.094	0.027	0.027 J		MG/KG	TR
SW7471A/NONE	SO	076SB-0027M-0001-SO	240-17796-6	N	Mercury	0.097	0.042	0.042 J		MG/KG	TR
SW7471A/NONE	SO	076SB-0028M-0001-SO	240-17796-7	N	Mercury	0.10	0.026	0.026 J		MG/KG	TR
SW7471A/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	Mercury	0.094	0.036	0.036 J		MG/KG	TR
SW7471A/NONE	SO	076SB-0053M-0001-SO	240-17796-9	N	Mercury	0.098	0.027	0.027 J		MG/KG	TR
SW7471A/NONE	SO	076SB-0054M-0001-SO	240-17796-11	N	Mercury	0.094	0.016	0.016 J		MG/KG	TR
SW7471A/NONE	SO	076SB-0055M-0001-SO	240-17796-12	N	Mercury	0.095	0.017	0.017 J		MG/KG	TR
SW7471A/NONE	SO	076SB-0056M-0001-SO	240-17796-13	N	Mercury	0.094	0.021	0.021 J		MG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
SW7471A/NONE	SO	076SB-0057M-0001-SO	240-17796-14	N	Mercury	0.092	0.021	0.021 J		MG/KG	TR
SW7471A/NONE	SO	076SB-0058M-0001-SO	240-17796-15	N	Mercury	0.097	0.014	0.014 J		MG/KG	TR
SW7471A/NONE	SO	076SB-0059M-0001-SO	240-17796-16	N	Mercury	0.097	0.018	0.018 J		MG/KG	TR
SW7471A/NONE	SO	076SB-0060M-0001-SO	240-17796-22	N	Mercury	0.097	0.026	0.026 J		MG/KG	TR
SW7471A/NONE	SO	076SB-0061M-0001-SO	240-17796-23	N	Mercury	0.10	0.017	0.017 J		MG/KG	TR
SW7471A/NONE	SO	076SB-0062M-0001-SO	240-17796-24	N	Mercury	0.097	0.028	0.028 J		MG/KG	TR
SW7471A/NONE	SO	076SB-0063M-0001-SO	240-17796-25	N	Mercury	0.10	0.024	0.024 J		MG/KG	TR
SW7471A/NONE	SO	076SB-0064M-0001-SO	240-17796-26	N	Mercury	0.12	0.028	0.028 J		MG/KG	TR
SW7471A/NONE	SO	076SB-0065M-0001-SO	240-17796-27	N	Mercury	0.098	0.027	0.027 J		MG/KG	TR
SW7471A/NONE	SO	076SB-0066M-0001-SO	240-17796-28	N	Mercury	0.097	0.043	0.043 J		MG/KG	TR
SW7471A/NONE	SO	076SS-0007M-0001-SO	240-17796-10	N	Mercury	0.095	0.045	0.045 J		MG/KG	TR
SW7471A/NONE	SO	076SS-0022M-0001-SO	240-17796-2	N	Mercury	0.092	0.033	0.033 J		MG/KG	TR
Test Leach	**Matrix**	**FieldSample ID**	**LabSample ID**	**Type**	**Analyte**	**RL**	**Lab Result**	**Qualified Result**	**Bias**	**Units**	**Reason**
SW8082/NONE	SO	076SS-0007M-0001-SO	240-17796-10	N	PCB-1260 (Arochlor 1260)	56.0	24.0	24.0 J		UG/KG	TR
Test Leach	**Matrix**	**FieldSample ID**	**LabSample ID**	**Type**	**Analyte**	**RL**	**Lab Result**	**Qualified Result**	**Bias**	**Units**	**Reason**
SW8151/NONE	WG	076-0067-0001-ER	240-17796-20	N	MCPA	400	400	400 UJ		UG/L	J
Test Leach	**Matrix**	**FieldSample ID**	**LabSample ID**	**Type**	**Analyte**	**RL**	**Lab Result**	**Qualified Result**	**Bias**	**Units**	**Reason**
SW8260B/NONE	WG	076-0067-0001-ER	240-17796-20	N	Acetone	10.0	10.0	10.0 UJ		UG/L	J
SW8260B/NONE	WG	076-0067-0001-ER	240-17796-20	N	Chloroform	1.0	0.61	0.61 J		UG/L	TR
SW8260B/NONE	WG	076-0067-0001-ER	240-17796-20	N	Methylene Chloride	1.0	0.36	1.0 U		UG/L	L
SW8260B/NONE	WG	076-0067-0001-ER	240-17796-20	N	Styrene	1.0	1.0	1.0 UJ		UG/L	J
SW8260B/NONE	WG	076-0068-0001-TB	240-17796-21	N	Acetone	10.0	10.0	10.0 UJ		UG/L	J
SW8260B/NONE	WG	076-0068-0001-TB	240-17796-21	N	Methylene Chloride	1.0	0.84	1.0 U		UG/L	L
SW8260B/NONE	WG	076-0068-0001-TB	240-17796-21	N	Styrene	1.0	1.0	1.0 UJ		UG/L	J
SW8260B/NONE	SO	076SB-0023M-0001-SO	240-17796-1	N	2-Butanone (MEK)	18.0	1.5	1.5 J		UG/KG	TR
SW8260B/NONE	SO	076SB-0024M-0001-SO	240-17796-3	N	2-Butanone (MEK)	24.0	2.3	2.3 J		UG/KG	TR
SW8260B/NONE	SO	076SB-0024M-0001-SO	240-17796-3	N	Acetone	24.0	13.0	24.0 U		UG/KG	L
SW8260B/NONE	SO	076SB-0025M-0001-SO	240-17796-4	N	2-Butanone (MEK)	17.0	1.4	1.4 J		UG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
SW8260B/NONE	SO	076SB-0025M-0001-SO	240-17796-4	N	Acetone	17.0	7.5	17.0 U		UG/KG	L
SW8260B/NONE	SO	076SB-0025M-0001-SO	240-17796-4	N	Carbon Disulfide	4.2	2.4	2.4 J		UG/KG	TR
SW8260B/NONE	SO	076SB-0026M-0001-SO	240-17796-5	N	Acetone	17.0	5.9	17.0 U		UG/KG	L
SW8260B/NONE	SO	076SB-0027M-0001-SO	240-17796-6	N	Methylene Chloride	5.1	0.69	0.69 J		UG/KG	TR/J
SW8260B/NONE	SO	076SB-0028M-0001-SO	240-17796-7	N	Carbon Disulfide	4.9	2.9	2.9 J		UG/KG	TR
SW8260B/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	2-Butanone (MEK)	24.0	9.6	9.6 J		UG/KG	TR
SW8260B/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	Acetone	24.0	51.0	24.0 U		UG/KG	L
SW8260B/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	Carbon Disulfide	6.0	3.5	3.5 J		UG/KG	TR
SW8260B/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	Methylene Chloride	6.0	1.3	1.3 J		UG/KG	TR/J
SW8260B/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	Toluene	6.0	0.33	0.33 J		UG/KG	TR
SW8260B/NONE	WG	076SB-0052M-0001-TB	240-17796-37	N	Acetone	10.0	10.0	10.0 UJ		UG/L	J
SW8260B/NONE	WG	076SB-0052M-0001-TB	240-17796-37	N	Methylene Chloride	1.0	0.77	1.0 U		UG/L	L
SW8260B/NONE	WG	076SB-0052M-0001-TB	240-17796-37	N	Styrene	1.0	1.0	1.0 UJ		UG/L	J
SW8260B/NONE	SO	076SB-0060M-0001-SO	240-17796-22	N	Acetone	21.0	8.7	21.0 U		UG/KG	L
SW8260B/NONE	SO	076SB-0060M-0001-SO	240-17796-22	N	Carbon Disulfide	5.2	3.1	3.1 J		UG/KG	TR
SW8260B/NONE	SO	076SB-0061M-0001-SO	240-17796-23	N	2-Butanone (MEK)	9.7	4.3	4.3 J		UG/KG	TR
SW8260B/NONE	SO	076SB-0061M-0001-SO	240-17796-23	N	Acetone	9.7	57.0	9.7 U		UG/KG	L
SW8260B/NONE	SO	076SB-0061M-0001-SO	240-17796-23	N	Carbon Disulfide	2.4	1.4	1.4 J		UG/KG	TR
SW8260B/NONE	SO	076SB-0062M-0001-SO	240-17796-24	N	2-Butanone (MEK)	18.0	1.3	1.3 J		UG/KG	TR
SW8260B/NONE	SO	076SB-0062M-0001-SO	240-17796-24	N	Acetone	18.0	9.9	18.0 U		UG/KG	L
SW8260B/NONE	SO	076SB-0063M-0001-SO	240-17796-25	N	2-Butanone (MEK)	23.0	13.0	13.0 J		UG/KG	TR
SW8260B/NONE	SO	076SB-0063M-0001-SO	240-17796-25	N	Acetone	23.0	59.0	23.0 U		UG/KG	L
SW8260B/NONE	SO	076SB-0063M-0001-SO	240-17796-25	N	Carbon Disulfide	5.9	3.5	3.5 J		UG/KG	TR
SW8260B/NONE	SO	076SB-0063M-0001-SO	240-17796-25	N	Ethylbenzene	5.9	2.4	2.4 J		UG/KG	TR
SW8260B/NONE	SO	076SB-0063M-0001-SO	240-17796-25	N	Toluene	5.9	1.0	1.0 J		UG/KG	TR
SW8260B/NONE	SO	076SB-0064M-0001-SO	240-17796-26	N	2-Butanone (MEK)	17.0	2.4	2.4 J		UG/KG	TR
SW8260B/NONE	SO	076SB-0064M-0001-SO	240-17796-26	N	Acetone	17.0	28.0	17.0 U		UG/KG	L
SW8260B/NONE	SO	076SB-0064M-0001-SO	240-17796-26	N	Carbon Disulfide	4.2	2.6	2.6 J		UG/KG	TR
SW8260B/NONE	SO	076SB-0065M-0001-SO	240-17796-27	N	2-Butanone (MEK)	21.0	1.7	1.7 J		UG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
SW8260B/NONE	SO	076SB-0065M-0001-SO	240-17796-27	N	Acetone	21.0	15.0	21.0 U		UG/KG	L
SW8260B/NONE	SO	076SB-0065M-0001-SO	240-17796-27	N	Carbon Disulfide	5.3	3.2	3.2 J		UG/KG	TR
SW8260B/NONE	SO	076SB-0066M-0001-SO	240-17796-28	N	2-Butanone (MEK)	18.0	7.3	7.3 J		UG/KG	TR
SW8260B/NONE	SO	076SB-0066M-0001-SO	240-17796-28	N	Acetone	18.0	66.0	18.0 U		UG/KG	L
SW8260B/NONE	SO	076SB-0066M-0001-SO	240-17796-28	N	Methylene Chloride	4.6	0.91	0.91 J		UG/KG	TR/J
Test Leach	**Matrix**	**FieldSample ID**	**LabSample ID**	**Type**	**Analyte**	**RL**	**Lab Result**	**Qualified Result**	**Bias**	**Units**	**Reason**
SW8270C/NONE	WG	076-0067-0001-ER	240-17796-20	N	3,3'-Dichlorobenzidine	4.9	4.9	4.9 UJ		UG/L	V1
SW8270C/NONE	WG	076-0067-0001-ER	240-17796-20	N	n-Nitrosodiphenylamine	0.97	0.97	0.97 UJ		UG/L	J
SW8270C/NONE	SO	076SB-0023M-0001-SO	240-17796-1	N	2,4-Dinitrophenol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SO	076SB-0023M-0001-SO	240-17796-1	N	Anthracene	6.7	5.0	5.0 J		UG/KG	TR
SW8270C/NONE	SO	076SB-0023M-0001-SO	240-17796-1	N	Benzo(k)fluoranthene	6.7	6.0	6.0 J		UG/KG	TR
SW8270C/NONE	SO	076SB-0023M-0001-SO	240-17796-1	N	bis(2-Ethylhexyl) Phthalate	50.0	31.0	31.0 J		UG/KG	TR
SW8270C/NONE	SO	076SB-0023M-0001-SO	240-17796-1	N	Dibenzofuran	50.0	7.1	7.1 J		UG/KG	TR
SW8270C/NONE	SO	076SB-0023M-0001-SO	240-17796-1	N	Fluorene	6.7	4.6	4.6 J		UG/KG	TR
SW8270C/NONE	SO	076SB-0023M-0001-SO	240-17796-1	N	Isophorone	50.0	14.0	14.0 J		UG/KG	TR
SW8270C/NONE	SO	076SB-0023M-0001-SO	240-17796-1	N	n-Nitrosodiphenylamine	50.0	50.0	50.0 UJ		UG/KG	J
SW8270C/NONE	SO	076SB-0024M-0001-SO	240-17796-3	N	bis(2-Ethylhexyl) Phthalate	120	58.0	58.0 J		UG/KG	TR
SW8270C/NONE	SO	076SB-0025M-0001-SO	240-17796-4	N	bis(2-Ethylhexyl) Phthalate	130	48.0	48.0 J		UG/KG	TR
SW8270C/NONE	SO	076SB-0026M-0001-SO	240-17796-5	N	2,4-Dinitrophenol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SO	076SB-0026M-0001-SO	240-17796-5	N	Acenaphthene	6.8	5.8	5.8 J		UG/KG	TR
SW8270C/NONE	SO	076SB-0026M-0001-SO	240-17796-5	N	bis(2-Ethylhexyl) Phthalate	51.0	30.0	30.0 J		UG/KG	TR
SW8270C/NONE	SO	076SB-0026M-0001-SO	240-17796-5	N	Dibenzofuran	51.0	7.2	7.2 J		UG/KG	TR
SW8270C/NONE	SO	076SB-0026M-0001-SO	240-17796-5	N	n-Nitrosodiphenylamine	51.0	51.0	51.0 UJ		UG/KG	J
SW8270C/NONE	SO	076SB-0027M-0001-SO	240-17796-6	N	2,4-Dinitrophenol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SO	076SB-0027M-0001-SO	240-17796-6	N	2-Methylnaphthalene	6.7	6.4	6.4 J		UG/KG	TR
SW8270C/NONE	SO	076SB-0027M-0001-SO	240-17796-6	N	bis(2-Ethylhexyl) Phthalate	50.0	26.0	26.0 J		UG/KG	TR
SW8270C/NONE	SO	076SB-0027M-0001-SO	240-17796-6	N	Fluoranthene	6.7	6.0	6.0 J		UG/KG	TR
SW8270C/NONE	SO	076SB-0027M-0001-SO	240-17796-6	N	Naphthalene	6.7	6.3	6.3 J		UG/KG	TR
SW8270C/NONE	SO	076SB-0027M-0001-SO	240-17796-6	N	n-Nitrosodiphenylamine	50.0	50.0	50.0 UJ		UG/KG	J

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
SW8270C/NONE	SO	076SB-0027M-0001-SO	240-17796-6	N	Pyrene	6.7	4.1	4.1 J		UG/KG	TR
SW8270C/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	2,4-Dinitrophenol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	bis(2-Ethylhexyl) Phthalate	50.0	38.0	38.0 J		UG/KG	TR
SW8270C/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	Carbazole	50.0	28.0	28.0 J		UG/KG	TR
SW8270C/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	Dibenzofuran	50.0	36.0	36.0 J		UG/KG	TR
SW8270C/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	n-Nitrosodiphenylamine	50.0	50.0	50.0 UJ		UG/KG	J
SW8270C/NONE	SO	076SB-0048M-0001-SO	240-17796-33	FD	bis(2-Ethylhexyl) Phthalate	50.0	24.0	24.0 J		UG/KG	TR
SW8270C/NONE	SO	076SB-0048M-0001-SO	240-17796-33	FD	Phenanthrene	6.6	3.5	3.5 J		UG/KG	TR
SW8270C/NONE	SO	076SB-0050M-0001-SO	240-17796-35	N	bis(2-Ethylhexyl) Phthalate	120	47.0	47.0 J		UG/KG	TR
SW8270C/NONE	SO	076SB-0051M-0001-SO	240-17796-36	N	Benzo(b)fluoranthene	8.4	4.2	4.2 J		UG/KG	TR
SW8270C/NONE	SO	076SB-0051M-0001-SO	240-17796-36	N	bis(2-Ethylhexyl) Phthalate	63.0	29.0	29.0 J		UG/KG	TR
SW8270C/NONE	SO	076SB-0051M-0001-SO	240-17796-36	N	n-Nitrosodiphenylamine	63.0	63.0	63.0 UJ		UG/KG	J
SW8270C/NONE	SO	076SB-0051M-0001-SO	240-17796-36	N	Pyrene	8.4	6.7	6.7 J		UG/KG	TR
SW8270C/NONE	SO	076SB-0053M-0001-SO	240-17796-9	N	bis(2-Ethylhexyl) Phthalate	130	55.0	55.0 J		UG/KG	TR
SW8270C/NONE	SO	076SB-0054M-0001-SO	240-17796-11	N	2,4-Dinitrophenol	1700	1700	1700 UJ		UG/KG	J
SW8270C/NONE	SO	076SB-0054M-0001-SO	240-17796-11	N	n-Nitrosodiphenylamine	250	250	250 UJ		UG/KG	J
SW8270C/NONE	SO	076SB-0055M-0001-SO	240-17796-12	N	2,4-Dinitrophenol	1700	1700	1700 UJ		UG/KG	J
SW8270C/NONE	SO	076SB-0055M-0001-SO	240-17796-12	N	n-Nitrosodiphenylamine	250	250	250 UJ		UG/KG	J
SW8270C/NONE	SO	076SB-0056M-0001-SO	240-17796-13	N	2,4-Dinitrophenol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SO	076SB-0056M-0001-SO	240-17796-13	N	2-Methylnaphthalene	6.8	4.7	4.7 J		UG/KG	TR
SW8270C/NONE	SO	076SB-0056M-0001-SO	240-17796-13	N	bis(2-Ethylhexyl) Phthalate	51.0	26.0	26.0 J		UG/KG	TR
SW8270C/NONE	SO	076SB-0056M-0001-SO	240-17796-13	N	Naphthalene	6.8	3.8	3.8 J		UG/KG	TR
SW8270C/NONE	SO	076SB-0056M-0001-SO	240-17796-13	N	n-Nitrosodiphenylamine	51.0	51.0	51.0 UJ		UG/KG	J
SW8270C/NONE	SO	076SB-0057M-0001-SO	240-17796-14	N	2,4-Dinitrophenol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SO	076SB-0057M-0001-SO	240-17796-14	N	2-Methylnaphthalene	6.7	6.2	6.2 J		UG/KG	TR
SW8270C/NONE	SO	076SB-0057M-0001-SO	240-17796-14	N	bis(2-Ethylhexyl) Phthalate	51.0	24.0	24.0 J		UG/KG	TR
SW8270C/NONE	SO	076SB-0057M-0001-SO	240-17796-14	N	Naphthalene	6.7	5.1	5.1 J		UG/KG	TR
SW8270C/NONE	SO	076SB-0057M-0001-SO	240-17796-14	N	n-Nitrosodiphenylamine	51.0	51.0	51.0 UJ		UG/KG	J
SW8270C/NONE	SO	076SB-0057M-0001-SO	240-17796-14	N	Pyrene	6.7	5.6	5.6 J		UG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
SW8270C/NONE	SO	076SB-0058M-0001-SO	240-17796-15	N	2,4-Dinitrophenol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SO	076SB-0058M-0001-SO	240-17796-15	N	Benzo(b)fluoranthene	6.7	4.2	4.2 J		UG/KG	TR
SW8270C/NONE	SO	076SB-0058M-0001-SO	240-17796-15	N	Benzo(g,h,i)perylene	6.7	5.1	5.1 J		UG/KG	TR
SW8270C/NONE	SO	076SB-0058M-0001-SO	240-17796-15	N	bis(2-Ethylhexyl) Phthalate	50.0	35.0	35.0 J		UG/KG	TR
SW8270C/NONE	SO	076SB-0058M-0001-SO	240-17796-15	N	n-Nitrosodiphenylamine	50.0	50.0	50.0 UJ		UG/KG	J
SW8270C/NONE	SO	076SB-0058M-0001-SO	240-17796-15	N	Pyrene	6.7	5.8	5.8 J		UG/KG	TR
SW8270C/NONE	SO	076SB-0059M-0001-SO	240-17796-16	N	2,4-Dinitrophenol	340	340	340 UJ		UG/KG	J
SW8270C/NONE	SO	076SB-0059M-0001-SO	240-17796-16	N	Benzo(b)fluoranthene	6.8	4.2	4.2 J		UG/KG	TR
SW8270C/NONE	SO	076SB-0059M-0001-SO	240-17796-16	N	bis(2-Ethylhexyl) Phthalate	51.0	27.0	27.0 J		UG/KG	TR
SW8270C/NONE	SO	076SB-0059M-0001-SO	240-17796-16	N	Fluoranthene	6.8	4.0	4.0 J		UG/KG	TR
SW8270C/NONE	SO	076SB-0059M-0001-SO	240-17796-16	N	Naphthalene	6.8	6.2	6.2 J		UG/KG	TR
SW8270C/NONE	SO	076SB-0059M-0001-SO	240-17796-16	N	n-Nitrosodiphenylamine	51.0	51.0	51.0 UJ		UG/KG	J
SW8270C/NONE	SO	076SB-0059M-0001-SO	240-17796-16	N	Phenanthrene	6.8	5.8	5.8 J		UG/KG	TR
SW8270C/NONE	SO	076SB-0059M-0001-SO	240-17796-16	N	Pyrene	6.8	4.8	4.8 J		UG/KG	TR
SW8270C/NONE	SO	076SB-0060M-0001-SO	240-17796-22	N	2,4-Dinitrophenol	1700	1700	1700 UJ		UG/KG	J
SW8270C/NONE	SO	076SB-0060M-0001-SO	240-17796-22	N	Acenaphthylene	34.0	18.0	18.0 J		UG/KG	TR
SW8270C/NONE	SO	076SB-0060M-0001-SO	240-17796-22	N	Anthracene	34.0	17.0	17.0 J		UG/KG	TR
SW8270C/NONE	SO	076SB-0060M-0001-SO	240-17796-22	N	Naphthalene	34.0	24.0	24.0 J		UG/KG	TR
SW8270C/NONE	SO	076SB-0060M-0001-SO	240-17796-22	N	n-Nitrosodiphenylamine	250	250	250 UJ		UG/KG	J
SW8270C/NONE	SO	076SB-0061M-0001-SO	240-17796-23	N	bis(2-Ethylhexyl) Phthalate	130	54.0	54.0 J		UG/KG	TR
SW8270C/NONE	SO	076SB-0062M-0001-SO	240-17796-24	N	2,4-Dinitrophenol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SO	076SB-0062M-0001-SO	240-17796-24	N	2-Methylnaphthalene	6.6	4.5	4.5 J		UG/KG	TR
SW8270C/NONE	SO	076SB-0062M-0001-SO	240-17796-24	N	Benzo(b)fluoranthene	6.6	5.4	5.4 J		UG/KG	TR
SW8270C/NONE	SO	076SB-0062M-0001-SO	240-17796-24	N	bis(2-Ethylhexyl) Phthalate	49.0	26.0	26.0 J		UG/KG	TR
SW8270C/NONE	SO	076SB-0062M-0001-SO	240-17796-24	N	Fluoranthene	6.6	6.2	6.2 J		UG/KG	TR
SW8270C/NONE	SO	076SB-0062M-0001-SO	240-17796-24	N	Naphthalene	6.6	4.6	4.6 J		UG/KG	TR
SW8270C/NONE	SO	076SB-0062M-0001-SO	240-17796-24	N	n-Nitrosodiphenylamine	49.0	49.0	49.0 UJ		UG/KG	J
SW8270C/NONE	SO	076SB-0062M-0001-SO	240-17796-24	N	Phenanthrene	6.6	5.1	5.1 J		UG/KG	TR
SW8270C/NONE	SO	076SB-0062M-0001-SO	240-17796-24	N	Pyrene	6.6	4.7	4.7 J		UG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
SW8270C/NONE	SO	076SB-0063M-0001-SO	240-17796-25	N	2,4-Dinitrophenol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SO	076SB-0063M-0001-SO	240-17796-25	N	4,6-Dinitro-2-Methylphenol	150	150	150 UJ		UG/KG	M
SW8270C/NONE	SO	076SB-0063M-0001-SO	240-17796-25	N	Benzo(b)fluoranthene	6.6	5.7	5.7 J		UG/KG	TR
SW8270C/NONE	SO	076SB-0063M-0001-SO	240-17796-25	N	bis(2-Ethylhexyl) Phthalate	50.0	25.0	25.0 J		UG/KG	TR
SW8270C/NONE	SO	076SB-0063M-0001-SO	240-17796-25	N	n-Nitrosodiphenylamine	50.0	50.0	50.0 UJ		UG/KG	J
SW8270C/NONE	SO	076SB-0063M-0001-SO	240-17796-25	N	Pyrene	6.6	5.8	5.8 J		UG/KG	TR
SW8270C/NONE	SO	076SB-0065M-0001-SO	240-17796-27	N	Benzo(k)fluoranthene	17.0	9.4	9.4 J		UG/KG	TR
SW8270C/NONE	SO	076SB-0065M-0001-SO	240-17796-27	N	bis(2-Ethylhexyl) Phthalate	130	50.0	50.0 J		UG/KG	TR
SW8270C/NONE	SO	076SB-0066M-0001-SO	240-17796-28	N	Benzo(k)fluoranthene	67.0	45.0	45.0 J		UG/KG	TR
SW8270C/NONE	SO	076SS-0007M-0001-SO	240-17796-10	N	2,4-Dinitrophenol	1700	1700	1700 UJ		UG/KG	J
SW8270C/NONE	SO	076SS-0007M-0001-SO	240-17796-10	N	2-Methylnaphthalene	34.0	27.0	27.0 J		UG/KG	TR
SW8270C/NONE	SO	076SS-0007M-0001-SO	240-17796-10	N	Benzo(g,h,i)perylene	34.0	30.0	30.0 J		UG/KG	TR
SW8270C/NONE	SO	076SS-0007M-0001-SO	240-17796-10	N	Benzo(k)fluoranthene	34.0	22.0	22.0 J		UG/KG	TR
SW8270C/NONE	SO	076SS-0007M-0001-SO	240-17796-10	N	Naphthalene	34.0	26.0	26.0 J		UG/KG	TR
SW8270C/NONE	SO	076SS-0007M-0001-SO	240-17796-10	N	n-Nitrosodiphenylamine	250	250	250 UJ		UG/KG	J
SW8270C/NONE	SO	076SS-0022M-0001-SO	240-17796-2	N	2,4-Dinitrophenol	330	330	330 UJ		UG/KG	J
SW8270C/NONE	SO	076SS-0022M-0001-SO	240-17796-2	N	Anthracene	6.6	5.0	5.0 J		UG/KG	TR
SW8270C/NONE	SO	076SS-0022M-0001-SO	240-17796-2	N	bis(2-Ethylhexyl) Phthalate	50.0	29.0	29.0 J		UG/KG	TR
SW8270C/NONE	SO	076SS-0022M-0001-SO	240-17796-2	N	Dibenzofuran	50.0	8.7	8.7 J		UG/KG	TR
SW8270C/NONE	SO	076SS-0022M-0001-SO	240-17796-2	N	n-Nitrosodiphenylamine	50.0	50.0	50.0 UJ		UG/KG	J
Test Leach	**Matrix**	**FieldSample ID**	**LabSample ID**	**Type**	**Analyte**	**RL**	**Lab Result**	**Qualified Result**	**Bias**	**Units**	**Reason**
SW8330B/NONE	SO	076SB-0047M-0001-SO	240-17796-32	N	NITROGUANIDINE	0.24	0.036	0.036 J		MG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
M8015V/NONE	WG	076-0067-0001-ER	240-17796-20	N	Petroleum Hydrocarbons C6-C12	100	33.0	33.0 J	UG/L	TR

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	WG	076-0067-0001-ER	240-17796-20	N	Chromium	2.0	0.60	0.60 J	UG/L	TR
SW6020/NONE	WG	076-0067-0001-ER	240-17796-20	N	Manganese	5.0	3.5	3.5 J	UG/L	TR
SW6020/NONE	WG	076-0067-0001-ER	240-17796-20	N	Nickel	5.0	20.0	20.0	UG/L	
SW6020/NONE	WG	076-0067-0001-ER	240-17796-20	N	Antimony	2.0	0.34	0.34 J	UG/L	TR
SW6020/NONE	WG	076-0067-0001-ER	240-17796-20	N	Thallium	2.0	0.75	0.75 J	UG/L	TR
SW6020/NONE	WG	076-0067-0001-ER	240-17796-20	N	Zinc	40.0	10.0	10.0 J	UG/L	TR

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW7471A/NONE	SO	076SB-0023M-0001-SO	240-17796-1	N	Mercury	0.098	0.038	0.038 J	MG/KG	TR
SW7471A/NONE	SO	076SB-0024M-0001-SO	240-17796-3	N	Mercury	0.098	0.028	0.028 J	MG/KG	TR
SW7471A/NONE	SO	076SB-0025M-0001-SO	240-17796-4	N	Mercury	0.091	0.029	0.029 J	MG/KG	TR
SW7471A/NONE	SO	076SB-0026M-0001-SO	240-17796-5	N	Mercury	0.094	0.027	0.027 J	MG/KG	TR
SW7471A/NONE	SO	076SB-0027M-0001-SO	240-17796-6	N	Mercury	0.097	0.042	0.042 J	MG/KG	TR
SW7471A/NONE	SO	076SB-0028M-0001-SO	240-17796-7	N	Mercury	0.10	0.026	0.026 J	MG/KG	TR
SW7471A/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	Mercury	0.094	0.036	0.036 J	MG/KG	TR
SW7471A/NONE	SO	076SB-0053M-0001-SO	240-17796-9	N	Mercury	0.098	0.027	0.027 J	MG/KG	TR
SW7471A/NONE	SO	076SB-0054M-0001-SO	240-17796-11	N	Mercury	0.094	0.016	0.016 J	MG/KG	TR
SW7471A/NONE	SO	076SB-0055M-0001-SO	240-17796-12	N	Mercury	0.095	0.017	0.017 J	MG/KG	TR
SW7471A/NONE	SO	076SB-0056M-0001-SO	240-17796-13	N	Mercury	0.094	0.021	0.021 J	MG/KG	TR
SW7471A/NONE	SO	076SB-0057M-0001-SO	240-17796-14	N	Mercury	0.092	0.021	0.021 J	MG/KG	TR
SW7471A/NONE	SO	076SB-0058M-0001-SO	240-17796-15	N	Mercury	0.097	0.014	0.014 J	MG/KG	TR
SW7471A/NONE	SO	076SB-0059M-0001-SO	240-17796-16	N	Mercury	0.097	0.018	0.018 J	MG/KG	TR
SW7471A/NONE	SO	076SB-0060M-0001-SO	240-17796-22	N	Mercury	0.097	0.026	0.026 J	MG/KG	TR
SW7471A/NONE	SO	076SB-0061M-0001-SO	240-17796-23	N	Mercury	0.10	0.017	0.017 J	MG/KG	TR
SW7471A/NONE	SO	076SB-0062M-0001-SO	240-17796-24	N	Mercury	0.097	0.028	0.028 J	MG/KG	TR
SW7471A/NONE	SO	076SB-0063M-0001-SO	240-17796-25	N	Mercury	0.10	0.024	0.024 J	MG/KG	TR
SW7471A/NONE	SO	076SB-0064M-0001-SO	240-17796-26	N	Mercury	0.12	0.028	0.028 J	MG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW7471A/NONE	SO	076SB-0065M-0001-SO	240-17796-27	N	Mercury	0.098	0.027	0.027 J	MG/KG	TR
SW7471A/NONE	SO	076SB-0066M-0001-SO	240-17796-28	N	Mercury	0.097	0.043	0.043 J	MG/KG	TR
SW7471A/NONE	SO	076SS-0007M-0001-SO	240-17796-10	N	Mercury	0.095	0.045	0.045 J	MG/KG	TR
SW7471A/NONE	SO	076SS-0022M-0001-SO	240-17796-2	N	Mercury	0.092	0.033	0.033 J	MG/KG	TR

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8082/NONE	SO	076SS-0007M-0001-SO	240-17796-10	N	PCB-1260 (Arochlor 1260)	56.0	24.0	24.0 J	UG/KG	TR

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8260B/NONE	WG	076-0067-0001-ER	240-17796-20	N	Chloroform	1.0	0.61	0.61 J	UG/L	TR
SW8260B/NONE	SO	076SB-0023M-0001-SO	240-17796-1	N	2-Butanone (MEK)	18.0	1.5	1.5 J	UG/KG	TR
SW8260B/NONE	SO	076SB-0024M-0001-SO	240-17796-3	N	2-Butanone (MEK)	24.0	2.3	2.3 J	UG/KG	TR
SW8260B/NONE	SO	076SB-0025M-0001-SO	240-17796-4	N	Carbon Disulfide	4.2	2.4	2.4 J	UG/KG	TR
SW8260B/NONE	SO	076SB-0025M-0001-SO	240-17796-4	N	2-Butanone (MEK)	17.0	1.4	1.4 J	UG/KG	TR
SW8260B/NONE	SO	076SB-0027M-0001-SO	240-17796-6	N	Methylene Chloride	5.1	0.69	0.69 J	UG/KG	TR/J
SW8260B/NONE	SO	076SB-0028M-0001-SO	240-17796-7	N	Carbon Disulfide	4.9	2.9	2.9 J	UG/KG	TR
SW8260B/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	Toluene	6.0	0.33	0.33 J	UG/KG	TR
SW8260B/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	Carbon Disulfide	6.0	3.5	3.5 J	UG/KG	TR
SW8260B/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	2-Butanone (MEK)	24.0	9.6	9.6 J	UG/KG	TR
SW8260B/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	Methylene Chloride	6.0	1.3	1.3 J	UG/KG	TR/J
SW8260B/NONE	SO	076SB-0060M-0001-SO	240-17796-22	N	Carbon Disulfide	5.2	3.1	3.1 J	UG/KG	TR
SW8260B/NONE	SO	076SB-0061M-0001-SO	240-17796-23	N	Carbon Disulfide	2.4	1.4	1.4 J	UG/KG	TR
SW8260B/NONE	SO	076SB-0061M-0001-SO	240-17796-23	N	2-Butanone (MEK)	9.7	4.3	4.3 J	UG/KG	TR
SW8260B/NONE	SO	076SB-0062M-0001-SO	240-17796-24	N	2-Butanone (MEK)	18.0	1.3	1.3 J	UG/KG	TR
SW8260B/NONE	SO	076SB-0063M-0001-SO	240-17796-25	N	Toluene	5.9	1.0	1.0 J	UG/KG	TR
SW8260B/NONE	SO	076SB-0063M-0001-SO	240-17796-25	N	Carbon Disulfide	5.9	3.5	3.5 J	UG/KG	TR
SW8260B/NONE	SO	076SB-0063M-0001-SO	240-17796-25	N	Ethylbenzene	5.9	2.4	2.4 J	UG/KG	TR
SW8260B/NONE	SO	076SB-0063M-0001-SO	240-17796-25	N	2-Butanone (MEK)	23.0	13.0	13.0 J	UG/KG	TR
SW8260B/NONE	SO	076SB-0063M-0001-SO	240-17796-25	N	Xylenes, Total	12.0	14.0	14.0	UG/KG	
SW8260B/NONE	SO	076SB-0064M-0001-SO	240-17796-26	N	Carbon Disulfide	4.2	2.6	2.6 J	UG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8260B/NONE	SO	076SB-0064M-0001-SO	240-17796-26	N	2-Butanone (MEK)	17.0	2.4	2.4 J	UG/KG	TR
SW8260B/NONE	SO	076SB-0065M-0001-SO	240-17796-27	N	Carbon Disulfide	5.3	3.2	3.2 J	UG/KG	TR
SW8260B/NONE	SO	076SB-0065M-0001-SO	240-17796-27	N	2-Butanone (MEK)	21.0	1.7	1.7 J	UG/KG	TR
SW8260B/NONE	SO	076SB-0066M-0001-SO	240-17796-28	N	2-Butanone (MEK)	18.0	7.3	7.3 J	UG/KG	TR
SW8260B/NONE	SO	076SB-0066M-0001-SO	240-17796-28	N	Methylene Chloride	4.6	0.91	0.91 J	UG/KG	TR/J

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8270C/NONE	SO	076SB-0023M-0001-SO	240-17796-1	N	Anthracene	6.7	5.0	5.0 J	UG/KG	TR
SW8270C/NONE	SO	076SB-0023M-0001-SO	240-17796-1	N	bis(2-Ethylhexyl) Phthalate	50.0	31.0	31.0 J	UG/KG	TR
SW8270C/NONE	SO	076SB-0023M-0001-SO	240-17796-1	N	Benzo(a)anthracene	6.7	16.0	16.0	UG/KG	
SW8270C/NONE	SO	076SB-0023M-0001-SO	240-17796-1	N	Benzo(a)pyrene	6.7	20.0	20.0	UG/KG	
SW8270C/NONE	SO	076SB-0023M-0001-SO	240-17796-1	N	Benzo(b)fluoranthene	6.7	18.0	18.0	UG/KG	
SW8270C/NONE	SO	076SB-0023M-0001-SO	240-17796-1	N	Benzo(g,h,i)perylene	6.7	8.9	8.9	UG/KG	
SW8270C/NONE	SO	076SB-0023M-0001-SO	240-17796-1	N	Benzo(k)fluoranthene	6.7	6.0	6.0 J	UG/KG	TR
SW8270C/NONE	SO	076SB-0023M-0001-SO	240-17796-1	N	Chrysene	6.7	15.0	15.0	UG/KG	
SW8270C/NONE	SO	076SB-0023M-0001-SO	240-17796-1	N	Dibenzofuran	50.0	7.1	7.1 J	UG/KG	TR
SW8270C/NONE	SO	076SB-0023M-0001-SO	240-17796-1	N	Fluorene	6.7	4.6	4.6 J	UG/KG	TR
SW8270C/NONE	SO	076SB-0023M-0001-SO	240-17796-1	N	Fluoranthene	6.7	38.0	38.0	UG/KG	
SW8270C/NONE	SO	076SB-0023M-0001-SO	240-17796-1	N	Indeno(1,2,3-c,d)pyrene	6.7	12.0	12.0	UG/KG	
SW8270C/NONE	SO	076SB-0023M-0001-SO	240-17796-1	N	Isophorone	50.0	14.0	14.0 J	UG/KG	TR
SW8270C/NONE	SO	076SB-0023M-0001-SO	240-17796-1	N	2-Methylnaphthalene	6.7	19.0	19.0	UG/KG	
SW8270C/NONE	SO	076SB-0023M-0001-SO	240-17796-1	N	Naphthalene	6.7	16.0	16.0	UG/KG	
SW8270C/NONE	SO	076SB-0023M-0001-SO	240-17796-1	N	Phenanthrene	6.7	33.0	33.0	UG/KG	
SW8270C/NONE	SO	076SB-0023M-0001-SO	240-17796-1	N	Pyrene	6.7	27.0	27.0	UG/KG	
SW8270C/NONE	SO	076SB-0024M-0001-SO	240-17796-3	N	bis(2-Ethylhexyl) Phthalate	120	58.0	58.0 J	UG/KG	TR
SW8270C/NONE	SO	076SB-0025M-0001-SO	240-17796-4	N	bis(2-Ethylhexyl) Phthalate	130	48.0	48.0 J	UG/KG	TR
SW8270C/NONE	SO	076SB-0026M-0001-SO	240-17796-5	N	Acenaphthene	6.8	5.8	5.8 J	UG/KG	TR
SW8270C/NONE	SO	076SB-0026M-0001-SO	240-17796-5	N	Anthracene	6.8	17.0	17.0	UG/KG	
SW8270C/NONE	SO	076SB-0026M-0001-SO	240-17796-5	N	bis(2-Ethylhexyl) Phthalate	51.0	30.0	30.0 J	UG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8270C/NONE	SO	076SB-0026M-0001-SO	240-17796-5	N	Benzo(a)anthracene	6.8	34.0	34.0	UG/KG	
SW8270C/NONE	SO	076SB-0026M-0001-SO	240-17796-5	N	Benzo(a)pyrene	6.8	34.0	34.0	UG/KG	
SW8270C/NONE	SO	076SB-0026M-0001-SO	240-17796-5	N	Benzo(b)fluoranthene	6.8	33.0	33.0	UG/KG	
SW8270C/NONE	SO	076SB-0026M-0001-SO	240-17796-5	N	Benzo(g,h,i)perylene	6.8	16.0	16.0	UG/KG	
SW8270C/NONE	SO	076SB-0026M-0001-SO	240-17796-5	N	Benzo(k)fluoranthene	6.8	15.0	15.0	UG/KG	
SW8270C/NONE	SO	076SB-0026M-0001-SO	240-17796-5	N	Chrysene	6.8	33.0	33.0	UG/KG	
SW8270C/NONE	SO	076SB-0026M-0001-SO	240-17796-5	N	Dibenzofuran	51.0	7.2	7.2 J	UG/KG	TR
SW8270C/NONE	SO	076SB-0026M-0001-SO	240-17796-5	N	Fluorene	6.8	9.8	9.8	UG/KG	
SW8270C/NONE	SO	076SB-0026M-0001-SO	240-17796-5	N	Fluoranthene	6.8	91.0	91.0	UG/KG	
SW8270C/NONE	SO	076SB-0026M-0001-SO	240-17796-5	N	Indeno(1,2,3-c,d)pyrene	6.8	19.0	19.0	UG/KG	
SW8270C/NONE	SO	076SB-0026M-0001-SO	240-17796-5	N	2-Methylnaphthalene	6.8	8.0	8.0	UG/KG	
SW8270C/NONE	SO	076SB-0026M-0001-SO	240-17796-5	N	Naphthalene	6.8	10.0	10.0	UG/KG	
SW8270C/NONE	SO	076SB-0026M-0001-SO	240-17796-5	N	Phenanthrene	6.8	78.0	78.0	UG/KG	
SW8270C/NONE	SO	076SB-0026M-0001-SO	240-17796-5	N	Pyrene	6.8	65.0	65.0	UG/KG	
SW8270C/NONE	SO	076SB-0027M-0001-SO	240-17796-6	N	bis(2-Ethylhexyl) Phthalate	50.0	26.0	26.0 J	UG/KG	TR
SW8270C/NONE	SO	076SB-0027M-0001-SO	240-17796-6	N	Benzo(a)pyrene	6.7	9.7	9.7	UG/KG	
SW8270C/NONE	SO	076SB-0027M-0001-SO	240-17796-6	N	Fluoranthene	6.7	6.0	6.0 J	UG/KG	TR
SW8270C/NONE	SO	076SB-0027M-0001-SO	240-17796-6	N	2-Methylnaphthalene	6.7	6.4	6.4 J	UG/KG	TR
SW8270C/NONE	SO	076SB-0027M-0001-SO	240-17796-6	N	Naphthalene	6.7	6.3	6.3 J	UG/KG	TR
SW8270C/NONE	SO	076SB-0027M-0001-SO	240-17796-6	N	Phenanthrene	6.7	8.1	8.1	UG/KG	
SW8270C/NONE	SO	076SB-0027M-0001-SO	240-17796-6	N	Pyrene	6.7	4.1	4.1 J	UG/KG	TR
SW8270C/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	Acenaphthene	6.7	22.0	22.0	UG/KG	
SW8270C/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	Anthracene	6.7	72.0	72.0	UG/KG	
SW8270C/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	bis(2-Ethylhexyl) Phthalate	50.0	38.0	38.0 J	UG/KG	TR
SW8270C/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	Benzo(a)anthracene	6.7	110	110	UG/KG	
SW8270C/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	Benzo(a)pyrene	6.7	88.0	88.0	UG/KG	
SW8270C/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	Benzo(b)fluoranthene	6.7	100	100	UG/KG	
SW8270C/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	Benzo(g,h,i)perylene	6.7	48.0	48.0	UG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8270C/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	Benzo(k)fluoranthene	6.7	37.0	37.0	UG/KG	
SW8270C/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	Carbazole	50.0	28.0	28.0 J	UG/KG	TR
SW8270C/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	Chrysene	6.7	100	100	UG/KG	
SW8270C/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	Dibenz(a,h)anthracene	6.7	24.0	24.0	UG/KG	
SW8270C/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	Dibenzofuran	50.0	36.0	36.0 J	UG/KG	TR
SW8270C/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	Fluorene	6.7	46.0	46.0	UG/KG	
SW8270C/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	Fluoranthene	6.7	290	290	UG/KG	
SW8270C/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	Indeno(1,2,3-c,d)pyrene	6.7	44.0	44.0	UG/KG	
SW8270C/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	2-Methylnaphthalene	6.7	24.0	24.0	UG/KG	
SW8270C/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	Naphthalene	6.7	38.0	38.0	UG/KG	
SW8270C/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	Phenanthrene	6.7	330	330	UG/KG	
SW8270C/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	Pyrene	6.7	200	200	UG/KG	
SW8270C/NONE	SO	076SB-0048M-0001-SO	240-17796-33	FD	bis(2-Ethylhexyl) Phthalate	50.0	24.0	24.0 J	UG/KG	TR
SW8270C/NONE	SO	076SB-0048M-0001-SO	240-17796-33	FD	Phenanthrene	6.6	3.5	3.5 J	UG/KG	TR
SW8270C/NONE	SO	076SB-0050M-0001-SO	240-17796-35	N	bis(2-Ethylhexyl) Phthalate	120	47.0	47.0 J	UG/KG	TR
SW8270C/NONE	SO	076SB-0051M-0001-SO	240-17796-36	N	bis(2-Ethylhexyl) Phthalate	63.0	29.0	29.0 J	UG/KG	TR
SW8270C/NONE	SO	076SB-0051M-0001-SO	240-17796-36	N	Benzo(b)fluoranthene	8.4	4.2	4.2 J	UG/KG	TR
SW8270C/NONE	SO	076SB-0051M-0001-SO	240-17796-36	N	Benzo(g,h,i)perylene	8.4	12.0	12.0	UG/KG	
SW8270C/NONE	SO	076SB-0051M-0001-SO	240-17796-36	N	2-Methylnaphthalene	8.4	8.6	8.6	UG/KG	
SW8270C/NONE	SO	076SB-0051M-0001-SO	240-17796-36	N	Pyrene	8.4	6.7	6.7 J	UG/KG	TR
SW8270C/NONE	SO	076SB-0053M-0001-SO	240-17796-9	N	bis(2-Ethylhexyl) Phthalate	130	55.0	55.0 J	UG/KG	TR
SW8270C/NONE	SO	076SB-0056M-0001-SO	240-17796-13	N	bis(2-Ethylhexyl) Phthalate	51.0	26.0	26.0 J	UG/KG	TR
SW8270C/NONE	SO	076SB-0056M-0001-SO	240-17796-13	N	2-Methylnaphthalene	6.8	4.7	4.7 J	UG/KG	TR
SW8270C/NONE	SO	076SB-0056M-0001-SO	240-17796-13	N	Naphthalene	6.8	3.8	3.8 J	UG/KG	TR
SW8270C/NONE	SO	076SB-0057M-0001-SO	240-17796-14	N	bis(2-Ethylhexyl) Phthalate	51.0	24.0	24.0 J	UG/KG	TR
SW8270C/NONE	SO	076SB-0057M-0001-SO	240-17796-14	N	2-Methylnaphthalene	6.7	6.2	6.2 J	UG/KG	TR
SW8270C/NONE	SO	076SB-0057M-0001-SO	240-17796-14	N	Naphthalene	6.7	5.1	5.1 J	UG/KG	TR
SW8270C/NONE	SO	076SB-0057M-0001-SO	240-17796-14	N	Pyrene	6.7	5.6	5.6 J	UG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8270C/NONE	SO	076SB-0058M-0001-SO	240-17796-15	N	bis(2-Ethylhexyl) Phthalate	50.0	35.0	35.0 J	UG/KG	TR
SW8270C/NONE	SO	076SB-0058M-0001-SO	240-17796-15	N	Benzo(b)fluoranthene	6.7	4.2	4.2 J	UG/KG	TR
SW8270C/NONE	SO	076SB-0058M-0001-SO	240-17796-15	N	Benzo(g,h,i)perylene	6.7	5.1	5.1 J	UG/KG	TR
SW8270C/NONE	SO	076SB-0058M-0001-SO	240-17796-15	N	2-Methylnaphthalene	6.7	9.0	9.0	UG/KG	
SW8270C/NONE	SO	076SB-0058M-0001-SO	240-17796-15	N	Naphthalene	6.7	10.0	10.0	UG/KG	
SW8270C/NONE	SO	076SB-0058M-0001-SO	240-17796-15	N	Pyrene	6.7	5.8	5.8 J	UG/KG	TR
SW8270C/NONE	SO	076SB-0059M-0001-SO	240-17796-16	N	bis(2-Ethylhexyl) Phthalate	51.0	27.0	27.0 J	UG/KG	TR
SW8270C/NONE	SO	076SB-0059M-0001-SO	240-17796-16	N	Benzo(b)fluoranthene	6.8	4.2	4.2 J	UG/KG	TR
SW8270C/NONE	SO	076SB-0059M-0001-SO	240-17796-16	N	Fluoranthene	6.8	4.0	4.0 J	UG/KG	TR
SW8270C/NONE	SO	076SB-0059M-0001-SO	240-17796-16	N	2-Methylnaphthalene	6.8	9.3	9.3	UG/KG	
SW8270C/NONE	SO	076SB-0059M-0001-SO	240-17796-16	N	Naphthalene	6.8	6.2	6.2 J	UG/KG	TR
SW8270C/NONE	SO	076SB-0059M-0001-SO	240-17796-16	N	Phenanthrene	6.8	5.8	5.8 J	UG/KG	TR
SW8270C/NONE	SO	076SB-0059M-0001-SO	240-17796-16	N	Pyrene	6.8	4.8	4.8 J	UG/KG	TR
SW8270C/NONE	SO	076SB-0060M-0001-SO	240-17796-22	N	Acenaphthylene	34.0	18.0	18.0 J	UG/KG	TR
SW8270C/NONE	SO	076SB-0060M-0001-SO	240-17796-22	N	Anthracene	34.0	17.0	17.0 J	UG/KG	TR
SW8270C/NONE	SO	076SB-0060M-0001-SO	240-17796-22	N	Benzo(a)anthracene	34.0	92.0	92.0	UG/KG	
SW8270C/NONE	SO	076SB-0060M-0001-SO	240-17796-22	N	Benzo(a)pyrene	34.0	120	120	UG/KG	
SW8270C/NONE	SO	076SB-0060M-0001-SO	240-17796-22	N	Benzo(b)fluoranthene	34.0	87.0	87.0	UG/KG	
SW8270C/NONE	SO	076SB-0060M-0001-SO	240-17796-22	N	Benzo(g,h,i)perylene	34.0	58.0	58.0	UG/KG	
SW8270C/NONE	SO	076SB-0060M-0001-SO	240-17796-22	N	Benzo(k)fluoranthene	34.0	55.0	55.0	UG/KG	
SW8270C/NONE	SO	076SB-0060M-0001-SO	240-17796-22	N	Chrysene	34.0	110	110	UG/KG	
SW8270C/NONE	SO	076SB-0060M-0001-SO	240-17796-22	N	Fluoranthene	34.0	190	190	UG/KG	
SW8270C/NONE	SO	076SB-0060M-0001-SO	240-17796-22	N	Indeno(1,2,3-c,d)pyrene	34.0	66.0	66.0	UG/KG	
SW8270C/NONE	SO	076SB-0060M-0001-SO	240-17796-22	N	Naphthalene	34.0	24.0	24.0 J	UG/KG	TR
SW8270C/NONE	SO	076SB-0060M-0001-SO	240-17796-22	N	Phenanthrene	34.0	100	100	UG/KG	
SW8270C/NONE	SO	076SB-0060M-0001-SO	240-17796-22	N	Pyrene	34.0	140	140	UG/KG	
SW8270C/NONE	SO	076SB-0061M-0001-SO	240-17796-23	N	bis(2-Ethylhexyl) Phthalate	130	54.0	54.0 J	UG/KG	TR
SW8270C/NONE	SO	076SB-0062M-0001-SO	240-17796-24	N	bis(2-Ethylhexyl) Phthalate	49.0	26.0	26.0 J	UG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8270C/NONE	SO	076SB-0062M-0001-SO	240-17796-24	N	Benzo(a)pyrene	6.6	9.8	9.8	UG/KG	
SW8270C/NONE	SO	076SB-0062M-0001-SO	240-17796-24	N	Benzo(b)fluoranthene	6.6	5.4	5.4 J	UG/KG	TR
SW8270C/NONE	SO	076SB-0062M-0001-SO	240-17796-24	N	Fluoranthene	6.6	6.2	6.2 J	UG/KG	TR
SW8270C/NONE	SO	076SB-0062M-0001-SO	240-17796-24	N	2-Methylnaphthalene	6.6	4.5	4.5 J	UG/KG	TR
SW8270C/NONE	SO	076SB-0062M-0001-SO	240-17796-24	N	Naphthalene	6.6	4.6	4.6 J	UG/KG	TR
SW8270C/NONE	SO	076SB-0062M-0001-SO	240-17796-24	N	Phenanthrene	6.6	5.1	5.1 J	UG/KG	TR
SW8270C/NONE	SO	076SB-0062M-0001-SO	240-17796-24	N	Pyrene	6.6	4.7	4.7 J	UG/KG	TR
SW8270C/NONE	SO	076SB-0063M-0001-SO	240-17796-25	N	bis(2-Ethylhexyl) Phthalate	50.0	25.0	25.0 J	UG/KG	TR
SW8270C/NONE	SO	076SB-0063M-0001-SO	240-17796-25	N	Benzo(b)fluoranthene	6.6	5.7	5.7 J	UG/KG	TR
SW8270C/NONE	SO	076SB-0063M-0001-SO	240-17796-25	N	Fluoranthene	6.6	7.6	7.6	UG/KG	
SW8270C/NONE	SO	076SB-0063M-0001-SO	240-17796-25	N	2-Methylnaphthalene	6.6	25.0	25.0	UG/KG	
SW8270C/NONE	SO	076SB-0063M-0001-SO	240-17796-25	N	Naphthalene	6.6	16.0	16.0	UG/KG	
SW8270C/NONE	SO	076SB-0063M-0001-SO	240-17796-25	N	Phenanthrene	6.6	7.4	7.4	UG/KG	
SW8270C/NONE	SO	076SB-0063M-0001-SO	240-17796-25	N	Pyrene	6.6	5.8	5.8 J	UG/KG	TR
SW8270C/NONE	SO	076SB-0065M-0001-SO	240-17796-27	N	bis(2-Ethylhexyl) Phthalate	130	50.0	50.0 J	UG/KG	TR
SW8270C/NONE	SO	076SB-0065M-0001-SO	240-17796-27	N	Benzo(a)anthracene	17.0	32.0	32.0	UG/KG	
SW8270C/NONE	SO	076SB-0065M-0001-SO	240-17796-27	N	Benzo(a)pyrene	17.0	39.0	39.0	UG/KG	
SW8270C/NONE	SO	076SB-0065M-0001-SO	240-17796-27	N	Benzo(b)fluoranthene	17.0	43.0	43.0	UG/KG	
SW8270C/NONE	SO	076SB-0065M-0001-SO	240-17796-27	N	Benzo(g,h,i)perylene	17.0	21.0	21.0	UG/KG	
SW8270C/NONE	SO	076SB-0065M-0001-SO	240-17796-27	N	Benzo(k)fluoranthene	17.0	9.4	9.4 J	UG/KG	TR
SW8270C/NONE	SO	076SB-0065M-0001-SO	240-17796-27	N	Chrysene	17.0	29.0	29.0	UG/KG	
SW8270C/NONE	SO	076SB-0065M-0001-SO	240-17796-27	N	Fluoranthene	17.0	59.0	59.0	UG/KG	
SW8270C/NONE	SO	076SB-0065M-0001-SO	240-17796-27	N	Indeno(1,2,3-c,d)pyrene	17.0	26.0	26.0	UG/KG	
SW8270C/NONE	SO	076SB-0065M-0001-SO	240-17796-27	N	Phenanthrene	17.0	34.0	34.0	UG/KG	
SW8270C/NONE	SO	076SB-0065M-0001-SO	240-17796-27	N	Pyrene	17.0	43.0	43.0	UG/KG	
SW8270C/NONE	SO	076SB-0066M-0001-SO	240-17796-28	N	Benzo(a)anthracene	67.0	130	130	UG/KG	
SW8270C/NONE	SO	076SB-0066M-0001-SO	240-17796-28	N	Benzo(a)pyrene	67.0	170	170	UG/KG	
SW8270C/NONE	SO	076SB-0066M-0001-SO	240-17796-28	N	Benzo(b)fluoranthene	67.0	190	190	UG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8270C/NONE	SO	076SB-0066M-0001-SO	240-17796-28	N	Benzo(g,h,i)perylene	67.0	68.0	68.0	UG/KG	
SW8270C/NONE	SO	076SB-0066M-0001-SO	240-17796-28	N	Benzo(k)fluoranthene	67.0	45.0	45.0 J	UG/KG	TR
SW8270C/NONE	SO	076SB-0066M-0001-SO	240-17796-28	N	Chrysene	67.0	140	140	UG/KG	
SW8270C/NONE	SO	076SB-0066M-0001-SO	240-17796-28	N	Fluoranthene	67.0	260	260	UG/KG	
SW8270C/NONE	SO	076SB-0066M-0001-SO	240-17796-28	N	Indeno(1,2,3-c,d)pyrene	67.0	100	100	UG/KG	
SW8270C/NONE	SO	076SB-0066M-0001-SO	240-17796-28	N	Phenanthrene	67.0	140	140	UG/KG	
SW8270C/NONE	SO	076SB-0066M-0001-SO	240-17796-28	N	Pyrene	67.0	190	190	UG/KG	
SW8270C/NONE	SO	076SS-0007M-0001-SO	240-17796-10	N	Benzo(a)anthracene	34.0	37.0	37.0	UG/KG	
SW8270C/NONE	SO	076SS-0007M-0001-SO	240-17796-10	N	Benzo(a)pyrene	34.0	74.0	74.0	UG/KG	
SW8270C/NONE	SO	076SS-0007M-0001-SO	240-17796-10	N	Benzo(b)fluoranthene	34.0	59.0	59.0	UG/KG	
SW8270C/NONE	SO	076SS-0007M-0001-SO	240-17796-10	N	Benzo(g,h,i)perylene	34.0	30.0	30.0 J	UG/KG	TR
SW8270C/NONE	SO	076SS-0007M-0001-SO	240-17796-10	N	Benzo(k)fluoranthene	34.0	22.0	22.0 J	UG/KG	TR
SW8270C/NONE	SO	076SS-0007M-0001-SO	240-17796-10	N	Chrysene	34.0	49.0	49.0	UG/KG	
SW8270C/NONE	SO	076SS-0007M-0001-SO	240-17796-10	N	Fluoranthene	34.0	63.0	63.0	UG/KG	
SW8270C/NONE	SO	076SS-0007M-0001-SO	240-17796-10	N	Indeno(1,2,3-c,d)pyrene	34.0	50.0	50.0	UG/KG	
SW8270C/NONE	SO	076SS-0007M-0001-SO	240-17796-10	N	2-Methylnaphthalene	34.0	27.0	27.0 J	UG/KG	TR
SW8270C/NONE	SO	076SS-0007M-0001-SO	240-17796-10	N	Naphthalene	34.0	26.0	26.0 J	UG/KG	TR
SW8270C/NONE	SO	076SS-0007M-0001-SO	240-17796-10	N	Phenanthrene	34.0	39.0	39.0	UG/KG	
SW8270C/NONE	SO	076SS-0007M-0001-SO	240-17796-10	N	Pyrene	34.0	48.0	48.0	UG/KG	
SW8270C/NONE	SO	076SS-0022M-0001-SO	240-17796-2	N	Anthracene	6.6	5.0	5.0 J	UG/KG	TR
SW8270C/NONE	SO	076SS-0022M-0001-SO	240-17796-2	N	bis(2-Ethylhexyl) Phthalate	50.0	29.0	29.0 J	UG/KG	TR
SW8270C/NONE	SO	076SS-0022M-0001-SO	240-17796-2	N	Benzo(a)anthracene	6.6	7.0	7.0	UG/KG	
SW8270C/NONE	SO	076SS-0022M-0001-SO	240-17796-2	N	Benzo(a)pyrene	6.6	12.0	12.0	UG/KG	
SW8270C/NONE	SO	076SS-0022M-0001-SO	240-17796-2	N	Benzo(b)fluoranthene	6.6	7.1	7.1	UG/KG	
SW8270C/NONE	SO	076SS-0022M-0001-SO	240-17796-2	N	Chrysene	6.6	7.1	7.1	UG/KG	
SW8270C/NONE	SO	076SS-0022M-0001-SO	240-17796-2	N	Dibenzofuran	50.0	8.7	8.7 J	UG/KG	TR
SW8270C/NONE	SO	076SS-0022M-0001-SO	240-17796-2	N	Fluorene	6.6	8.9	8.9	UG/KG	
SW8270C/NONE	SO	076SS-0022M-0001-SO	240-17796-2	N	Fluoranthene	6.6	24.0	24.0	UG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8270C/NONE	SO	076SS-0022M-0001-SO	240-17796-2	N	2-Methylnaphthalene	6.6	9.2	9.2	UG/KG	
SW8270C/NONE	SO	076SS-0022M-0001-SO	240-17796-2	N	Naphthalene	6.6	13.0	13.0	UG/KG	
SW8270C/NONE	SO	076SS-0022M-0001-SO	240-17796-2	N	Phenanthrene	6.6	39.0	39.0	UG/KG	
SW8270C/NONE	SO	076SS-0022M-0001-SO	240-17796-2	N	Pyrene	6.6	14.0	14.0	UG/KG	

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8330B/NONE	SO	076SB-0047M-0001-SO	240-17796-32	N	NITROGUANIDINE	0.24	0.036	0.036 J	MG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Rejected Results

--No Records Found--

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Anomalies Count

SDG Name: 240-17796-1_(76-SB,SS,SW)

Test/Extraction Method/Leach	# of Field Samples Outside of Compliance	# of Analytes Outside of Compliance
E353.2/METHOD/NONE	17	17
SW6020/TOTAL/NONE	1	9
SW7471A/TOTAL/NONE	1	1
SW8081/SW3520C/NONE	1	5
SW8082/SW3540C/NONE	12	84
SW8260B/SW5035/NONE	13	221
SW8270C/SW3550/NONE	31	561
SW8330B/METHOD/NONE	4	15

Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Reporting Anomalies

SDG Name: 240-17796-1_(76-SB,SS,SW)

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
E353.2/NONE	076SB-0044M-0001-SO	N	1	Nitrocellulose	51 U	7.9	51	5	MG/KG
E353.2/NONE	076SB-0045M-0001-SO	N	1	Nitrocellulose	50 U	7.7	50	5	MG/KG
E353.2/NONE	076SB-0046M-0001-SO	N	1	Nitrocellulose	47 U	7.4	47	5	MG/KG
E353.2/NONE	076SB-0047M-0001-SO	N	1	Nitrocellulose	50 U	7.8	50	5	MG/KG
E353.2/NONE	076SB-0048M-0001-SO	FD	1	Nitrocellulose	51 U	8	51	5	MG/KG
E353.2/NONE	076SB-0049M-0001-SO	N	1	Nitrocellulose	51 U	7.9	51	5	MG/KG
E353.2/NONE	076SB-0050M-0001-SO	N	1	Nitrocellulose	46 U	7.2	46	5	MG/KG
E353.2/NONE	076SB-0051M-0001-SO	N	1	Nitrocellulose	61 U	9.6	61	5	MG/KG
E353.2/NONE	076SB-0053M-0001-SO	N	1	Nitrocellulose	48 U	7.5	48	5	MG/KG
E353.2/NONE	076SB-0054M-0001-SO	N	1	Nitrocellulose	46 U	7.2	46	5	MG/KG
E353.2/NONE	076SB-0055M-0001-SO	N	1	Nitrocellulose	46 U	7.2	46	5	MG/KG
E353.2/NONE	076SB-0056M-0001-SO	N	1	Nitrocellulose	50 U	7.7	50	5	MG/KG
E353.2/NONE	076SB-0057M-0001-SO	N	1	Nitrocellulose	51 U	7.9	51	5	MG/KG
E353.2/NONE	076SB-0058M-0001-SO	N	1	Nitrocellulose	47 U	7.3	47	5	MG/KG
E353.2/NONE	076SB-0059M-0001-SO	N	1	Nitrocellulose	49 U	7.6	49	5	MG/KG
E353.2/NONE	076SS-0007M-0001-SO	N	1	Nitrocellulose	44 U	6.9	44	5	MG/KG
E353.2/NONE	076SS-0022M-0001-SO	N	1	Nitrocellulose	46 U	7.2	46	5	MG/KG

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW6020/NONE	076-0067-0001-ER	N	1	Aluminum	60 U	20	60	50	UG/L
SW6020/NONE	076-0067-0001-ER	N	1	Cadmium	2 U	0.4	2	0.5	UG/L
SW6020/NONE	076-0067-0001-ER	N	1	Calcium	2000 U	540	2000	100	UG/L
SW6020/NONE	076-0067-0001-ER	N	1	Iron	150 U	44	150	100	UG/L
SW6020/NONE	076-0067-0001-ER	N	1	Magnesium	1000 U	120	1000	100	UG/L
SW6020/NONE	076-0067-0001-ER	N	1	Potassium	1000 U	16	1000	200	UG/L
SW6020/NONE	076-0067-0001-ER	N	1	Sodium	1000 U	160	1000	200	UG/L
SW6020/NONE	076-0067-0001-ER	N	1	Thallium	0.75 J	0.32	2	1	UG/L
SW6020/NONE	076-0067-0001-ER	N	1	Zinc	10 J	8.8	40	10	UG/L

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Reporting Anomalies

SDG Name: 240-17796-1_(76-SB,SS,SW)

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW7471A/NONE	076SB-0064M-0001-SO	N	1	Mercury	0.0283 J	0.016	0.12	0.1	MG/KG

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8081/NONE	076-0067-0001-ER	N	1	Aldrin	0.048 U	0.0079	0.048	0.03	UG/L
SW8081/NONE	076-0067-0001-ER	N	1	alpha-BHC (alpha-Hexachlorocyclohexane)	0.048 U	0.0067	0.048	0.03	UG/L
SW8081/NONE	076-0067-0001-ER	N	1	Dieldrin	0.048 U	0.0072	0.048	0.03	UG/L
SW8081/NONE	076-0067-0001-ER	N	1	Heptachlor	0.048 U	0.0077	0.048	0.03	UG/L
SW8081/NONE	076-0067-0001-ER	N	1	Heptachlor Epoxide	0.048 U	0.0068	0.048	0.03	UG/L

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8082/NONE	076-0067-0001-ER	N	1	PCB-1016 (Arochlor 1016)	0.48 U	0.16	0.48	0.2	UG/L
SW8082/NONE	076-0067-0001-ER	N	1	PCB-1221 (Arochlor 1221)	0.48 U	0.13	0.48	0.2	UG/L
SW8082/NONE	076-0067-0001-ER	N	1	PCB-1232 (Arochlor 1232)	0.48 U	0.15	0.48	0.2	UG/L
SW8082/NONE	076-0067-0001-ER	N	1	PCB-1242 (Arochlor 1242)	0.48 U	0.21	0.48	0.2	UG/L
SW8082/NONE	076-0067-0001-ER	N	1	PCB-1248 (Arochlor 1248)	0.48 U	0.096	0.48	0.2	UG/L
SW8082/NONE	076-0067-0001-ER	N	1	PCB-1254 (Arochlor 1254)	0.48 U	0.15	0.48	0.2	UG/L
SW8082/NONE	076-0067-0001-ER	N	1	PCB-1260 (Arochlor 1260)	0.48 U	0.16	0.48	0.2	UG/L
SW8082/NONE	076SB-0053M-0001-SO	N	1	PCB-1016 (Arochlor 1016)	66 U	21	66	33	UG/KG
SW8082/NONE	076SB-0053M-0001-SO	N	1	PCB-1221 (Arochlor 1221)	51 U	16	51	33	UG/KG
SW8082/NONE	076SB-0053M-0001-SO	N	1	PCB-1232 (Arochlor 1232)	46 U	14	46	33	UG/KG
SW8082/NONE	076SB-0053M-0001-SO	N	1	PCB-1242 (Arochlor 1242)	41 U	13	41	33	UG/KG
SW8082/NONE	076SB-0053M-0001-SO	N	1	PCB-1248 (Arochlor 1248)	56 U	17	56	33	UG/KG
SW8082/NONE	076SB-0053M-0001-SO	N	1	PCB-1254 (Arochlor 1254)	56 U	17	56	33	UG/KG
SW8082/NONE	076SB-0053M-0001-SO	N	1	PCB-1260 (Arochlor 1260)	56 U	17	56	33	UG/KG
SW8082/NONE	076SB-0054M-0001-SO	N	1	PCB-1016 (Arochlor 1016)	65 U	21	65	33	UG/KG
SW8082/NONE	076SB-0054M-0001-SO	N	1	PCB-1221 (Arochlor 1221)	50 U	16	50	33	UG/KG
SW8082/NONE	076SB-0054M-0001-SO	N	1	PCB-1232 (Arochlor 1232)	45 U	14	45	33	UG/KG
SW8082/NONE	076SB-0054M-0001-SO	N	1	PCB-1242 (Arochlor 1242)	40 U	13	40	33	UG/KG
SW8082/NONE	076SB-0054M-0001-SO	N	1	PCB-1248 (Arochlor 1248)	55 U	17	55	33	UG/KG
SW8082/NONE	076SB-0054M-0001-SO	N	1	PCB-1254 (Arochlor 1254)	55 U	17	55	33	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Reporting Anomalies

SDG Name: 240-17796-1_(76-SB,SS,SW)

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8082/NONE	076SB-0054M-0001-SO	N	1	PCB-1260 (Arochlor 1260)	55 U	17	55	33	UG/KG
SW8082/NONE	076SB-0055M-0001-SO	N	1	PCB-1016 (Arochlor 1016)	65 U	21	65	33	UG/KG
SW8082/NONE	076SB-0055M-0001-SO	N	1	PCB-1221 (Arochlor 1221)	50 U	16	50	33	UG/KG
SW8082/NONE	076SB-0055M-0001-SO	N	1	PCB-1232 (Arochlor 1232)	45 U	14	45	33	UG/KG
SW8082/NONE	076SB-0055M-0001-SO	N	1	PCB-1242 (Arochlor 1242)	40 U	13	40	33	UG/KG
SW8082/NONE	076SB-0055M-0001-SO	N	1	PCB-1248 (Arochlor 1248)	55 U	17	55	33	UG/KG
SW8082/NONE	076SB-0055M-0001-SO	N	1	PCB-1254 (Arochlor 1254)	55 U	17	55	33	UG/KG
SW8082/NONE	076SB-0055M-0001-SO	N	1	PCB-1260 (Arochlor 1260)	55 U	17	55	33	UG/KG
SW8082/NONE	076SB-0056M-0001-SO	N	1	PCB-1016 (Arochlor 1016)	65 U	21	65	33	UG/KG
SW8082/NONE	076SB-0056M-0001-SO	N	1	PCB-1221 (Arochlor 1221)	50 U	16	50	33	UG/KG
SW8082/NONE	076SB-0056M-0001-SO	N	1	PCB-1232 (Arochlor 1232)	45 U	14	45	33	UG/KG
SW8082/NONE	076SB-0056M-0001-SO	N	1	PCB-1242 (Arochlor 1242)	40 U	13	40	33	UG/KG
SW8082/NONE	076SB-0056M-0001-SO	N	1	PCB-1248 (Arochlor 1248)	55 U	17	55	33	UG/KG
SW8082/NONE	076SB-0056M-0001-SO	N	1	PCB-1254 (Arochlor 1254)	55 U	17	55	33	UG/KG
SW8082/NONE	076SB-0056M-0001-SO	N	1	PCB-1260 (Arochlor 1260)	55 U	17	55	33	UG/KG
SW8082/NONE	076SB-0057M-0001-SO	N	1	PCB-1016 (Arochlor 1016)	65 U	21	65	33	UG/KG
SW8082/NONE	076SB-0057M-0001-SO	N	1	PCB-1221 (Arochlor 1221)	50 U	16	50	33	UG/KG
SW8082/NONE	076SB-0057M-0001-SO	N	1	PCB-1232 (Arochlor 1232)	45 U	14	45	33	UG/KG
SW8082/NONE	076SB-0057M-0001-SO	N	1	PCB-1242 (Arochlor 1242)	40 U	13	40	33	UG/KG
SW8082/NONE	076SB-0057M-0001-SO	N	1	PCB-1248 (Arochlor 1248)	55 U	17	55	33	UG/KG
SW8082/NONE	076SB-0057M-0001-SO	N	1	PCB-1254 (Arochlor 1254)	55 U	17	55	33	UG/KG
SW8082/NONE	076SB-0057M-0001-SO	N	1	PCB-1260 (Arochlor 1260)	55 U	17	55	33	UG/KG
SW8082/NONE	076SB-0058M-0001-SO	N	1	PCB-1016 (Arochlor 1016)	64 U	21	64	33	UG/KG
SW8082/NONE	076SB-0058M-0001-SO	N	1	PCB-1221 (Arochlor 1221)	49 U	16	49	33	UG/KG
SW8082/NONE	076SB-0058M-0001-SO	N	1	PCB-1232 (Arochlor 1232)	44 U	14	44	33	UG/KG
SW8082/NONE	076SB-0058M-0001-SO	N	1	PCB-1242 (Arochlor 1242)	40 U	13	40	33	UG/KG
SW8082/NONE	076SB-0058M-0001-SO	N	1	PCB-1248 (Arochlor 1248)	54 U	17	54	33	UG/KG
SW8082/NONE	076SB-0058M-0001-SO	N	1	PCB-1254 (Arochlor 1254)	54 U	17	54	33	UG/KG
SW8082/NONE	076SB-0058M-0001-SO	N	1	PCB-1260 (Arochlor 1260)	54 U	17	54	33	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Reporting Anomalies

SDG Name: 240-17796-1_(76-SB,SS,SW)

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8082/NONE	076SB-0059M-0001-SO	N	1	PCB-1016 (Arochlor 1016)	65 U	21	65	33	UG/KG
SW8082/NONE	076SB-0059M-0001-SO	N	1	PCB-1221 (Arochlor 1221)	50 U	16	50	33	UG/KG
SW8082/NONE	076SB-0059M-0001-SO	N	1	PCB-1232 (Arochlor 1232)	45 U	14	45	33	UG/KG
SW8082/NONE	076SB-0059M-0001-SO	N	1	PCB-1242 (Arochlor 1242)	40 U	13	40	33	UG/KG
SW8082/NONE	076SB-0059M-0001-SO	N	1	PCB-1248 (Arochlor 1248)	55 U	17	55	33	UG/KG
SW8082/NONE	076SB-0059M-0001-SO	N	1	PCB-1254 (Arochlor 1254)	55 U	17	55	33	UG/KG
SW8082/NONE	076SB-0059M-0001-SO	N	1	PCB-1260 (Arochlor 1260)	55 U	17	55	33	UG/KG
SW8082/NONE	076SS-0007M-0001-SO	N	1	PCB-1016 (Arochlor 1016)	66 U	21	66	33	UG/KG
SW8082/NONE	076SS-0007M-0001-SO	N	1	PCB-1221 (Arochlor 1221)	51 U	16	51	33	UG/KG
SW8082/NONE	076SS-0007M-0001-SO	N	1	PCB-1232 (Arochlor 1232)	46 U	14	46	33	UG/KG
SW8082/NONE	076SS-0007M-0001-SO	N	1	PCB-1242 (Arochlor 1242)	41 U	13	41	33	UG/KG
SW8082/NONE	076SS-0007M-0001-SO	N	1	PCB-1248 (Arochlor 1248)	56 U	17	56	33	UG/KG
SW8082/NONE	076SS-0007M-0001-SO	N	1	PCB-1254 (Arochlor 1254)	56 U	17	56	33	UG/KG
SW8082/NONE	076SS-0007M-0001-SO	N	1	PCB-1260 (Arochlor 1260)	24 J	17	56	33	UG/KG
SW8082/NONE	076SW-0013-0001-SW	N	1	PCB-1016 (Arochlor 1016)	0.48 U	0.16	0.48	0.2	UG/L
SW8082/NONE	076SW-0013-0001-SW	N	1	PCB-1221 (Arochlor 1221)	0.48 U	0.12	0.48	0.2	UG/L
SW8082/NONE	076SW-0013-0001-SW	N	1	PCB-1232 (Arochlor 1232)	0.48 U	0.15	0.48	0.2	UG/L
SW8082/NONE	076SW-0013-0001-SW	N	1	PCB-1242 (Arochlor 1242)	0.48 U	0.21	0.48	0.2	UG/L
SW8082/NONE	076SW-0013-0001-SW	N	1	PCB-1248 (Arochlor 1248)	0.48 U	0.095	0.48	0.2	UG/L
SW8082/NONE	076SW-0013-0001-SW	N	1	PCB-1254 (Arochlor 1254)	0.48 U	0.15	0.48	0.2	UG/L
SW8082/NONE	076SW-0013-0001-SW	N	1	PCB-1260 (Arochlor 1260)	0.48 U	0.16	0.48	0.2	UG/L
SW8082/NONE	076SW-0014-0001-SW	FD	1	PCB-1016 (Arochlor 1016)	0.5 U	0.17	0.5	0.2	UG/L
SW8082/NONE	076SW-0014-0001-SW	FD	1	PCB-1221 (Arochlor 1221)	0.5 U	0.13	0.5	0.2	UG/L
SW8082/NONE	076SW-0014-0001-SW	FD	1	PCB-1232 (Arochlor 1232)	0.5 U	0.16	0.5	0.2	UG/L
SW8082/NONE	076SW-0014-0001-SW	FD	1	PCB-1242 (Arochlor 1242)	0.5 U	0.22	0.5	0.2	UG/L
SW8082/NONE	076SW-0014-0001-SW	FD	1	PCB-1248 (Arochlor 1248)	0.5 U	0.1	0.5	0.2	UG/L
SW8082/NONE	076SW-0014-0001-SW	FD	1	PCB-1254 (Arochlor 1254)	0.5 U	0.16	0.5	0.2	UG/L
SW8082/NONE	076SW-0014-0001-SW	FD	1	PCB-1260 (Arochlor 1260)	0.5 U	0.17	0.5	0.2	UG/L
SW8082/NONE	076SW-0015-0001-SW	N	1	PCB-1016 (Arochlor 1016)	0.48 U	0.16	0.48	0.2	UG/L

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Reporting Anomalies

SDG Name: 240-17796-1_(76-SB,SS,SW)

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8082/NONE	076SW-0015-0001-SW	N	1	PCB-1221 (Arochlor 1221)	0.48 U	0.12	0.48	0.2	UG/L
SW8082/NONE	076SW-0015-0001-SW	N	1	PCB-1232 (Arochlor 1232)	0.48 U	0.15	0.48	0.2	UG/L
SW8082/NONE	076SW-0015-0001-SW	N	1	PCB-1242 (Arochlor 1242)	0.48 U	0.21	0.48	0.2	UG/L
SW8082/NONE	076SW-0015-0001-SW	N	1	PCB-1248 (Arochlor 1248)	0.48 U	0.095	0.48	0.2	UG/L
SW8082/NONE	076SW-0015-0001-SW	N	1	PCB-1254 (Arochlor 1254)	0.48 U	0.15	0.48	0.2	UG/L
SW8082/NONE	076SW-0015-0001-SW	N	1	PCB-1260 (Arochlor 1260)	0.48 U	0.16	0.48	0.2	UG/L

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8260B/NONE	076-0067-0001-ER	N	1	1,2-Dichloroethene	2 U	0.34	2	1	UG/L
SW8260B/NONE	076-0068-0001-TB	N	1	1,2-Dichloroethene	2 U	0.34	2	1	UG/L
SW8260B/NONE	076SB-0023M-0001-SO	N	1	1,2-Dichloroethene	8.8 U	0.67	8.8	5	UG/KG
SW8260B/NONE	076SB-0024M-0001-SO	N	1	1,1,1-Trichloroethane	5.9 U	0.66	5.9	5	UG/KG
SW8260B/NONE	076SB-0024M-0001-SO	N	1	1,1,2,2-Tetrachloroethane	5.9 U	0.4	5.9	5	UG/KG
SW8260B/NONE	076SB-0024M-0001-SO	N	1	1,1,2-Trichloroethane	5.9 U	0.46	5.9	5	UG/KG
SW8260B/NONE	076SB-0024M-0001-SO	N	1	1,1-Dichloroethane	5.9 U	0.43	5.9	5	UG/KG
SW8260B/NONE	076SB-0024M-0001-SO	N	1	1,1-Dichloroethene	5.9 U	0.61	5.9	5	UG/KG
SW8260B/NONE	076SB-0024M-0001-SO	N	1	1,2-Dibromoethane (EDB)	5.9 U	0.59	5.9	5	UG/KG
SW8260B/NONE	076SB-0024M-0001-SO	N	1	1,2-Dichloroethane	5.9 U	0.4	5.9	5	UG/KG
SW8260B/NONE	076SB-0024M-0001-SO	N	1	1,2-Dichloroethene	12 U	0.91	12	5	UG/KG
SW8260B/NONE	076SB-0024M-0001-SO	N	1	1,2-Dichloropropane	5.9 U	0.82	5.9	5	UG/KG
SW8260B/NONE	076SB-0024M-0001-SO	N	1	2-Butanone (MEK)	2.3 J	1.7	24	20	UG/KG
SW8260B/NONE	076SB-0024M-0001-SO	N	1	2-Hexanone	24 U	0.74	24	20	UG/KG
SW8260B/NONE	076SB-0024M-0001-SO	N	1	4-Methyl-2-pentanone (MIBK)	24 U	0.64	24	20	UG/KG
SW8260B/NONE	076SB-0024M-0001-SO	N	1	Acetone	24 U	7.4	24	20	UG/KG
SW8260B/NONE	076SB-0024M-0001-SO	N	1	Benzene	5.9 U	0.27	5.9	5	UG/KG
SW8260B/NONE	076SB-0024M-0001-SO	N	1	Bromochloromethane	5.9 U	0.84	5.9	5	UG/KG
SW8260B/NONE	076SB-0024M-0001-SO	N	1	Bromodichloromethane	5.9 U	0.33	5.9	5	UG/KG
SW8260B/NONE	076SB-0024M-0001-SO	N	1	Bromoform	5.9 U	0.39	5.9	5	UG/KG
SW8260B/NONE	076SB-0024M-0001-SO	N	1	Bromomethane	5.9 U	0.64	5.9	5	UG/KG
SW8260B/NONE	076SB-0024M-0001-SO	N	1	Carbon Disulfide	5.9 U	0.52	5.9	5	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Reporting Anomalies

SDG Name: 240-17796-1_(76-SB,SS,SW)

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8260B/NONE	076SB-0024M-0001-SO	N	1	Carbon Tetrachloride	5.9 U	0.44	5.9	5	UG/KG
SW8260B/NONE	076SB-0024M-0001-SO	N	1	Chlorobenzene	5.9 U	0.39	5.9	5	UG/KG
SW8260B/NONE	076SB-0024M-0001-SO	N	1	Chloroethane	5.9 U	1	5.9	5	UG/KG
SW8260B/NONE	076SB-0024M-0001-SO	N	1	Chloroform	5.9 U	0.34	5.9	5	UG/KG
SW8260B/NONE	076SB-0024M-0001-SO	N	1	Chloromethane	5.9 U	0.48	5.9	5	UG/KG
SW8260B/NONE	076SB-0024M-0001-SO	N	1	cis-1,3-Dichloropropene	5.9 U	0.4	5.9	5	UG/KG
SW8260B/NONE	076SB-0024M-0001-SO	N	1	Dibromochloromethane	5.9 U	0.65	5.9	5	UG/KG
SW8260B/NONE	076SB-0024M-0001-SO	N	1	Ethylbenzene	5.9 U	0.31	5.9	5	UG/KG
SW8260B/NONE	076SB-0024M-0001-SO	N	1	Methylene Chloride	5.9 U	0.79	5.9	5	UG/KG
SW8260B/NONE	076SB-0024M-0001-SO	N	1	Styrene	5.9 U	0.18	5.9	5	UG/KG
SW8260B/NONE	076SB-0024M-0001-SO	N	1	tert-Butyl Methyl Ether (MTBE)	5.9 U	0.51	5.9	5	UG/KG
SW8260B/NONE	076SB-0024M-0001-SO	N	1	Tetrachloroethene (PCE)	5.9 U	0.61	5.9	5	UG/KG
SW8260B/NONE	076SB-0024M-0001-SO	N	1	Toluene	5.9 U	0.32	5.9	5	UG/KG
SW8260B/NONE	076SB-0024M-0001-SO	N	1	trans-1,3-Dichloropropene	5.9 U	0.64	5.9	5	UG/KG
SW8260B/NONE	076SB-0024M-0001-SO	N	1	Trichloroethene (TCE)	5.9 U	0.5	5.9	5	UG/KG
SW8260B/NONE	076SB-0024M-0001-SO	N	1	Vinyl Chloride	5.9 U	0.46	5.9	5	UG/KG
SW8260B/NONE	076SB-0024M-0001-SO	N	1	Xylenes, Total	12 U	0.79	12	10	UG/KG
SW8260B/NONE	076SB-0025M-0001-SO	N	1	1,2-Dichloroethene	8.3 U	0.64	8.3	5	UG/KG
SW8260B/NONE	076SB-0026M-0001-SO	N	1	1,2-Dichloroethene	8.7 U	0.67	8.7	5	UG/KG
SW8260B/NONE	076SB-0027M-0001-SO	N	1	1,1,1-Trichloroethane	5.1 U	0.58	5.1	5	UG/KG
SW8260B/NONE	076SB-0027M-0001-SO	N	1	1,1,2,2-Tetrachloroethane	5.1 U	0.35	5.1	5	UG/KG
SW8260B/NONE	076SB-0027M-0001-SO	N	1	1,1,2-Trichloroethane	5.1 U	0.4	5.1	5	UG/KG
SW8260B/NONE	076SB-0027M-0001-SO	N	1	1,1-Dichloroethane	5.1 U	0.37	5.1	5	UG/KG
SW8260B/NONE	076SB-0027M-0001-SO	N	1	1,1-Dichloroethene	5.1 U	0.54	5.1	5	UG/KG
SW8260B/NONE	076SB-0027M-0001-SO	N	1	1,2-Dibromoethane (EDB)	5.1 U	0.51	5.1	5	UG/KG
SW8260B/NONE	076SB-0027M-0001-SO	N	1	1,2-Dichloroethane	5.1 U	0.35	5.1	5	UG/KG
SW8260B/NONE	076SB-0027M-0001-SO	N	1	1,2-Dichloroethene	10 U	0.79	10	5	UG/KG
SW8260B/NONE	076SB-0027M-0001-SO	N	1	1,2-Dichloropropane	5.1 U	0.71	5.1	5	UG/KG
SW8260B/NONE	076SB-0027M-0001-SO	N	1	2-Butanone (MEK)	21 U	1.4	21	20	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Reporting Anomalies

SDG Name: 240-17796-1_(76-SB,SS,SW)

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8260B/NONE	076SB-0027M-0001-SO	N	1	2-Hexanone	21 U	0.65	21	20	UG/KG
SW8260B/NONE	076SB-0027M-0001-SO	N	1	4-Methyl-2-pentanone (MIBK)	21 U	0.56	21	20	UG/KG
SW8260B/NONE	076SB-0027M-0001-SO	N	1	Acetone	21 U	6.5	21	20	UG/KG
SW8260B/NONE	076SB-0027M-0001-SO	N	1	Benzene	5.1 U	0.24	5.1	5	UG/KG
SW8260B/NONE	076SB-0027M-0001-SO	N	1	Bromochloromethane	5.1 U	0.73	5.1	5	UG/KG
SW8260B/NONE	076SB-0027M-0001-SO	N	1	Bromodichloromethane	5.1 U	0.29	5.1	5	UG/KG
SW8260B/NONE	076SB-0027M-0001-SO	N	1	Bromoform	5.1 U	0.34	5.1	5	UG/KG
SW8260B/NONE	076SB-0027M-0001-SO	N	1	Bromomethane	5.1 U	0.56	5.1	5	UG/KG
SW8260B/NONE	076SB-0027M-0001-SO	N	1	Carbon Disulfide	5.1 U	0.45	5.1	5	UG/KG
SW8260B/NONE	076SB-0027M-0001-SO	N	1	Carbon Tetrachloride	5.1 U	0.38	5.1	5	UG/KG
SW8260B/NONE	076SB-0027M-0001-SO	N	1	Chlorobenzene	5.1 U	0.34	5.1	5	UG/KG
SW8260B/NONE	076SB-0027M-0001-SO	N	1	Chloroethane	5.1 U	0.89	5.1	5	UG/KG
SW8260B/NONE	076SB-0027M-0001-SO	N	1	Chloroform	5.1 U	0.3	5.1	5	UG/KG
SW8260B/NONE	076SB-0027M-0001-SO	N	1	Chloromethane	5.1 U	0.42	5.1	5	UG/KG
SW8260B/NONE	076SB-0027M-0001-SO	N	1	cis-1,3-Dichloropropene	5.1 U	0.35	5.1	5	UG/KG
SW8260B/NONE	076SB-0027M-0001-SO	N	1	Dibromochloromethane	5.1 U	0.57	5.1	5	UG/KG
SW8260B/NONE	076SB-0027M-0001-SO	N	1	Ethylbenzene	5.1 U	0.27	5.1	5	UG/KG
SW8260B/NONE	076SB-0027M-0001-SO	N	1	Methylene Chloride	0.69 J	0.69	5.1	5	UG/KG
SW8260B/NONE	076SB-0027M-0001-SO	N	1	Styrene	5.1 U	0.15	5.1	5	UG/KG
SW8260B/NONE	076SB-0027M-0001-SO	N	1	tert-Butyl Methyl Ether (MTBE)	5.1 U	0.44	5.1	5	UG/KG
SW8260B/NONE	076SB-0027M-0001-SO	N	1	Tetrachloroethene (PCE)	5.1 U	0.54	5.1	5	UG/KG
SW8260B/NONE	076SB-0027M-0001-SO	N	1	Toluene	5.1 U	0.28	5.1	5	UG/KG
SW8260B/NONE	076SB-0027M-0001-SO	N	1	trans-1,3-Dichloropropene	5.1 U	0.56	5.1	5	UG/KG
SW8260B/NONE	076SB-0027M-0001-SO	N	1	Trichloroethene (TCE)	5.1 U	0.43	5.1	5	UG/KG
SW8260B/NONE	076SB-0027M-0001-SO	N	1	Vinyl Chloride	5.1 U	0.4	5.1	5	UG/KG
SW8260B/NONE	076SB-0028M-0001-SO	N	1	1,2-Dichloroethene	9.7 U	0.75	9.7	5	UG/KG
SW8260B/NONE	076SB-0029M-0001-SO	N	1	1,1,1-Trichloroethane	6 U	0.67	6	5	UG/KG
SW8260B/NONE	076SB-0029M-0001-SO	N	1	1,1,2,2-Tetrachloroethane	6 U	0.41	6	5	UG/KG
SW8260B/NONE	076SB-0029M-0001-SO	N	1	1,1,2-Trichloroethane	6 U	0.47	6	5	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Reporting Anomalies

SDG Name: 240-17796-1_(76-SB,SS,SW)

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8260B/NONE	076SB-0029M-0001-SO	N	1	1,1-Dichloroethane	6 U	0.43	6	5	UG/KG
SW8260B/NONE	076SB-0029M-0001-SO	N	1	1,1-Dichloroethene	6 U	0.62	6	5	UG/KG
SW8260B/NONE	076SB-0029M-0001-SO	N	1	1,2-Dibromoethane (EDB)	6 U	0.6	6	5	UG/KG
SW8260B/NONE	076SB-0029M-0001-SO	N	1	1,2-Dichloroethane	6 U	0.41	6	5	UG/KG
SW8260B/NONE	076SB-0029M-0001-SO	N	1	1,2-Dichloroethene	12 U	0.92	12	5	UG/KG
SW8260B/NONE	076SB-0029M-0001-SO	N	1	1,2-Dichloropropane	6 U	0.82	6	5	UG/KG
SW8260B/NONE	076SB-0029M-0001-SO	N	1	2-Butanone (MEK)	9.6 J	1.7	24	20	UG/KG
SW8260B/NONE	076SB-0029M-0001-SO	N	1	2-Hexanone	24 U	0.75	24	20	UG/KG
SW8260B/NONE	076SB-0029M-0001-SO	N	1	4-Methyl-2-pentanone (MIBK)	24 U	0.64	24	20	UG/KG
SW8260B/NONE	076SB-0029M-0001-SO	N	1	Acetone	24 U	7.5	24	20	UG/KG
SW8260B/NONE	076SB-0029M-0001-SO	N	1	Benzene	6 U	0.27	6	5	UG/KG
SW8260B/NONE	076SB-0029M-0001-SO	N	1	Bromochloromethane	6 U	0.85	6	5	UG/KG
SW8260B/NONE	076SB-0029M-0001-SO	N	1	Bromodichloromethane	6 U	0.33	6	5	UG/KG
SW8260B/NONE	076SB-0029M-0001-SO	N	1	Bromoform	6 U	0.39	6	5	UG/KG
SW8260B/NONE	076SB-0029M-0001-SO	N	1	Bromomethane	6 U	0.64	6	5	UG/KG
SW8260B/NONE	076SB-0029M-0001-SO	N	1	Carbon Disulfide	3.5 J	0.53	6	5	UG/KG
SW8260B/NONE	076SB-0029M-0001-SO	N	1	Carbon Tetrachloride	6 U	0.44	6	5	UG/KG
SW8260B/NONE	076SB-0029M-0001-SO	N	1	Chlorobenzene	6 U	0.39	6	5	UG/KG
SW8260B/NONE	076SB-0029M-0001-SO	N	1	Chloroethane	6 U	1	6	5	UG/KG
SW8260B/NONE	076SB-0029M-0001-SO	N	1	Chloroform	6 U	0.35	6	5	UG/KG
SW8260B/NONE	076SB-0029M-0001-SO	N	1	Chloromethane	6 U	0.49	6	5	UG/KG
SW8260B/NONE	076SB-0029M-0001-SO	N	1	cis-1,3-Dichloropropene	6 U	0.41	6	5	UG/KG
SW8260B/NONE	076SB-0029M-0001-SO	N	1	Dibromochloromethane	6 U	0.66	6	5	UG/KG
SW8260B/NONE	076SB-0029M-0001-SO	N	1	Ethylbenzene	6 U	0.31	6	5	UG/KG
SW8260B/NONE	076SB-0029M-0001-SO	N	1	Methylene Chloride	1.3 J	0.8	6	5	UG/KG
SW8260B/NONE	076SB-0029M-0001-SO	N	1	Styrene	6 U	0.18	6	5	UG/KG
SW8260B/NONE	076SB-0029M-0001-SO	N	1	tert-Butyl Methyl Ether (MTBE)	6 U	0.51	6	5	UG/KG
SW8260B/NONE	076SB-0029M-0001-SO	N	1	Tetrachloroethene (PCE)	6 U	0.62	6	5	UG/KG
SW8260B/NONE	076SB-0029M-0001-SO	N	1	Toluene	0.33 J	0.32	6	5	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Reporting Anomalies

SDG Name: 240-17796-1_(76-SB,SS,SW)

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8260B/NONE	076SB-0029M-0001-SO	N	1	trans-1,3-Dichloropropene	6 U	0.64	6	5	UG/KG
SW8260B/NONE	076SB-0029M-0001-SO	N	1	Trichloroethene (TCE)	6 U	0.5	6	5	UG/KG
SW8260B/NONE	076SB-0029M-0001-SO	N	1	Vinyl Chloride	6 U	0.47	6	5	UG/KG
SW8260B/NONE	076SB-0029M-0001-SO	N	1	Xylenes, Total	12 U	0.8	12	10	UG/KG
SW8260B/NONE	076SB-0052M-0001-TB	N	1	1,2-Dichloroethene	2 U	0.34	2	1	UG/L
SW8260B/NONE	076SB-0060M-0001-SO	N	1	1,1,1-Trichloroethane	5.2 U	0.58	5.2	5	UG/KG
SW8260B/NONE	076SB-0060M-0001-SO	N	1	1,1,2,2-Tetrachloroethane	5.2 U	0.35	5.2	5	UG/KG
SW8260B/NONE	076SB-0060M-0001-SO	N	1	1,1,2-Trichloroethane	5.2 U	0.41	5.2	5	UG/KG
SW8260B/NONE	076SB-0060M-0001-SO	N	1	1,1-Dichloroethane	5.2 U	0.37	5.2	5	UG/KG
SW8260B/NONE	076SB-0060M-0001-SO	N	1	1,1-Dichloroethene	5.2 U	0.54	5.2	5	UG/KG
SW8260B/NONE	076SB-0060M-0001-SO	N	1	1,2-Dibromoethane (EDB)	5.2 U	0.52	5.2	5	UG/KG
SW8260B/NONE	076SB-0060M-0001-SO	N	1	1,2-Dichloroethane	5.2 U	0.35	5.2	5	UG/KG
SW8260B/NONE	076SB-0060M-0001-SO	N	1	1,2-Dichloroethene	10 U	0.8	10	5	UG/KG
SW8260B/NONE	076SB-0060M-0001-SO	N	1	1,2-Dichloropropane	5.2 U	0.72	5.2	5	UG/KG
SW8260B/NONE	076SB-0060M-0001-SO	N	1	2-Butanone (MEK)	21 U	1.5	21	20	UG/KG
SW8260B/NONE	076SB-0060M-0001-SO	N	1	2-Hexanone	21 U	0.65	21	20	UG/KG
SW8260B/NONE	076SB-0060M-0001-SO	N	1	4-Methyl-2-pentanone (MIBK)	21 U	0.56	21	20	UG/KG
SW8260B/NONE	076SB-0060M-0001-SO	N	1	Acetone	21 U	6.5	21	20	UG/KG
SW8260B/NONE	076SB-0060M-0001-SO	N	1	Benzene	5.2 U	0.24	5.2	5	UG/KG
SW8260B/NONE	076SB-0060M-0001-SO	N	1	Bromochloromethane	5.2 U	0.74	5.2	5	UG/KG
SW8260B/NONE	076SB-0060M-0001-SO	N	1	Bromodichloromethane	5.2 U	0.29	5.2	5	UG/KG
SW8260B/NONE	076SB-0060M-0001-SO	N	1	Bromoform	5.2 U	0.34	5.2	5	UG/KG
SW8260B/NONE	076SB-0060M-0001-SO	N	1	Bromomethane	5.2 U	0.56	5.2	5	UG/KG
SW8260B/NONE	076SB-0060M-0001-SO	N	1	Carbon Disulfide	3.1 J	0.46	5.2	5	UG/KG
SW8260B/NONE	076SB-0060M-0001-SO	N	1	Carbon Tetrachloride	5.2 U	0.38	5.2	5	UG/KG
SW8260B/NONE	076SB-0060M-0001-SO	N	1	Chlorobenzene	5.2 U	0.34	5.2	5	UG/KG
SW8260B/NONE	076SB-0060M-0001-SO	N	1	Chloroethane	5.2 U	0.89	5.2	5	UG/KG
SW8260B/NONE	076SB-0060M-0001-SO	N	1	Chloroform	5.2 U	0.3	5.2	5	UG/KG
SW8260B/NONE	076SB-0060M-0001-SO	N	1	Chloromethane	5.2 U	0.43	5.2	5	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Reporting Anomalies

SDG Name: 240-17796-1_(76-SB,SS,SW)

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8260B/NONE	076SB-0060M-0001-SO	N	1	cis-1,3-Dichloropropene	5.2 U	0.35	5.2	5	UG/KG
SW8260B/NONE	076SB-0060M-0001-SO	N	1	Dibromochloromethane	5.2 U	0.57	5.2	5	UG/KG
SW8260B/NONE	076SB-0060M-0001-SO	N	1	Ethylbenzene	5.2 U	0.27	5.2	5	UG/KG
SW8260B/NONE	076SB-0060M-0001-SO	N	1	Methylene Chloride	5.2 U	0.7	5.2	5	UG/KG
SW8260B/NONE	076SB-0060M-0001-SO	N	1	Styrene	5.2 U	0.16	5.2	5	UG/KG
SW8260B/NONE	076SB-0060M-0001-SO	N	1	tert-Butyl Methyl Ether (MTBE)	5.2 U	0.45	5.2	5	UG/KG
SW8260B/NONE	076SB-0060M-0001-SO	N	1	Tetrachloroethene (PCE)	5.2 U	0.54	5.2	5	UG/KG
SW8260B/NONE	076SB-0060M-0001-SO	N	1	Toluene	5.2 U	0.28	5.2	5	UG/KG
SW8260B/NONE	076SB-0060M-0001-SO	N	1	trans-1,3-Dichloropropene	5.2 U	0.56	5.2	5	UG/KG
SW8260B/NONE	076SB-0060M-0001-SO	N	1	Trichloroethene (TCE)	5.2 U	0.44	5.2	5	UG/KG
SW8260B/NONE	076SB-0060M-0001-SO	N	1	Vinyl Chloride	5.2 U	0.41	5.2	5	UG/KG
SW8260B/NONE	076SB-0062M-0001-SO	N	1	1,2-Dichloroethene	8.8 U	0.68	8.8	5	UG/KG
SW8260B/NONE	076SB-0063M-0001-SO	N	1	1,1,1-Trichloroethane	5.9 U	0.66	5.9	5	UG/KG
SW8260B/NONE	076SB-0063M-0001-SO	N	1	1,1,2,2-Tetrachloroethane	5.9 U	0.4	5.9	5	UG/KG
SW8260B/NONE	076SB-0063M-0001-SO	N	1	1,1,2-Trichloroethane	5.9 U	0.46	5.9	5	UG/KG
SW8260B/NONE	076SB-0063M-0001-SO	N	1	1,1-Dichloroethane	5.9 U	0.42	5.9	5	UG/KG
SW8260B/NONE	076SB-0063M-0001-SO	N	1	1,1-Dichloroethene	5.9 U	0.61	5.9	5	UG/KG
SW8260B/NONE	076SB-0063M-0001-SO	N	1	1,2-Dibromoethane (EDB)	5.9 U	0.59	5.9	5	UG/KG
SW8260B/NONE	076SB-0063M-0001-SO	N	1	1,2-Dichloroethane	5.9 U	0.4	5.9	5	UG/KG
SW8260B/NONE	076SB-0063M-0001-SO	N	1	1,2-Dichloroethene	12 U	0.9	12	5	UG/KG
SW8260B/NONE	076SB-0063M-0001-SO	N	1	1,2-Dichloropropane	5.9 U	0.81	5.9	5	UG/KG
SW8260B/NONE	076SB-0063M-0001-SO	N	1	2-Butanone (MEK)	13 J	1.6	23	20	UG/KG
SW8260B/NONE	076SB-0063M-0001-SO	N	1	2-Hexanone	23 U	0.74	23	20	UG/KG
SW8260B/NONE	076SB-0063M-0001-SO	N	1	4-Methyl-2-pentanone (MIBK)	23 U	0.63	23	20	UG/KG
SW8260B/NONE	076SB-0063M-0001-SO	N	1	Acetone	23 U	7.4	23	20	UG/KG
SW8260B/NONE	076SB-0063M-0001-SO	N	1	Benzene	5.9 U	0.27	5.9	5	UG/KG
SW8260B/NONE	076SB-0063M-0001-SO	N	1	Bromochloromethane	5.9 U	0.83	5.9	5	UG/KG
SW8260B/NONE	076SB-0063M-0001-SO	N	1	Bromodichloromethane	5.9 U	0.33	5.9	5	UG/KG
SW8260B/NONE	076SB-0063M-0001-SO	N	1	Bromoform	5.9 U	0.39	5.9	5	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Reporting Anomalies

SDG Name: 240-17796-1_(76-SB,SS,SW)

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8260B/NONE	076SB-0063M-0001-SO	N	1	Bromomethane	5.9 U	0.63	5.9	5	UG/KG
SW8260B/NONE	076SB-0063M-0001-SO	N	1	Carbon Disulfide	3.5 J	0.52	5.9	5	UG/KG
SW8260B/NONE	076SB-0063M-0001-SO	N	1	Carbon Tetrachloride	5.9 U	0.43	5.9	5	UG/KG
SW8260B/NONE	076SB-0063M-0001-SO	N	1	Chlorobenzene	5.9 U	0.39	5.9	5	UG/KG
SW8260B/NONE	076SB-0063M-0001-SO	N	1	Chloroethane	5.9 U	1	5.9	5	UG/KG
SW8260B/NONE	076SB-0063M-0001-SO	N	1	Chloroform	5.9 U	0.34	5.9	5	UG/KG
SW8260B/NONE	076SB-0063M-0001-SO	N	1	Chloromethane	5.9 U	0.48	5.9	5	UG/KG
SW8260B/NONE	076SB-0063M-0001-SO	N	1	cis-1,3-Dichloropropene	5.9 U	0.4	5.9	5	UG/KG
SW8260B/NONE	076SB-0063M-0001-SO	N	1	Dibromochloromethane	5.9 U	0.65	5.9	5	UG/KG
SW8260B/NONE	076SB-0063M-0001-SO	N	1	Ethylbenzene	2.4 J	0.3	5.9	5	UG/KG
SW8260B/NONE	076SB-0063M-0001-SO	N	1	Methylene Chloride	5.9 U	0.79	5.9	5	UG/KG
SW8260B/NONE	076SB-0063M-0001-SO	N	1	Styrene	5.9 U	0.18	5.9	5	UG/KG
SW8260B/NONE	076SB-0063M-0001-SO	N	1	tert-Butyl Methyl Ether (MTBE)	5.9 U	0.5	5.9	5	UG/KG
SW8260B/NONE	076SB-0063M-0001-SO	N	1	Tetrachloroethene (PCE)	5.9 U	0.61	5.9	5	UG/KG
SW8260B/NONE	076SB-0063M-0001-SO	N	1	Toluene	1 J	0.32	5.9	5	UG/KG
SW8260B/NONE	076SB-0063M-0001-SO	N	1	trans-1,3-Dichloropropene	5.9 U	0.63	5.9	5	UG/KG
SW8260B/NONE	076SB-0063M-0001-SO	N	1	Trichloroethene (TCE)	5.9 U	0.49	5.9	5	UG/KG
SW8260B/NONE	076SB-0063M-0001-SO	N	1	Vinyl Chloride	5.9 U	0.46	5.9	5	UG/KG
SW8260B/NONE	076SB-0063M-0001-SO	N	1	Xylenes, Total	14	0.79	12	10	UG/KG
SW8260B/NONE	076SB-0064M-0001-SO	N	1	1,2-Dichloroethene	8.3 U	0.64	8.3	5	UG/KG
SW8260B/NONE	076SB-0065M-0001-SO	N	1	1,1,1-Trichloroethane	5.3 U	0.59	5.3	5	UG/KG
SW8260B/NONE	076SB-0065M-0001-SO	N	1	1,1,2,2-Tetrachloroethane	5.3 U	0.36	5.3	5	UG/KG
SW8260B/NONE	076SB-0065M-0001-SO	N	1	1,1,2-Trichloroethane	5.3 U	0.41	5.3	5	UG/KG
SW8260B/NONE	076SB-0065M-0001-SO	N	1	1,1-Dichloroethane	5.3 U	0.38	5.3	5	UG/KG
SW8260B/NONE	076SB-0065M-0001-SO	N	1	1,1-Dichloroethene	5.3 U	0.55	5.3	5	UG/KG
SW8260B/NONE	076SB-0065M-0001-SO	N	1	1,2-Dibromoethane (EDB)	5.3 U	0.53	5.3	5	UG/KG
SW8260B/NONE	076SB-0065M-0001-SO	N	1	1,2-Dichloroethane	5.3 U	0.36	5.3	5	UG/KG
SW8260B/NONE	076SB-0065M-0001-SO	N	1	1,2-Dichloroethene	11 U	0.81	11	5	UG/KG
SW8260B/NONE	076SB-0065M-0001-SO	N	1	1,2-Dichloropropane	5.3 U	0.73	5.3	5	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Reporting Anomalies

SDG Name: 240-17796-1_(76-SB,SS,SW)

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8260B/NONE	076SB-0065M-0001-SO	N	1	2-Butanone (MEK)	1.7 J	1.5	21	20	UG/KG
SW8260B/NONE	076SB-0065M-0001-SO	N	1	2-Hexanone	21 U	0.67	21	20	UG/KG
SW8260B/NONE	076SB-0065M-0001-SO	N	1	4-Methyl-2-pentanone (MIBK)	21 U	0.57	21	20	UG/KG
SW8260B/NONE	076SB-0065M-0001-SO	N	1	Acetone	21 U	6.7	21	20	UG/KG
SW8260B/NONE	076SB-0065M-0001-SO	N	1	Benzene	5.3 U	0.24	5.3	5	UG/KG
SW8260B/NONE	076SB-0065M-0001-SO	N	1	Bromochloromethane	5.3 U	0.75	5.3	5	UG/KG
SW8260B/NONE	076SB-0065M-0001-SO	N	1	Bromodichloromethane	5.3 U	0.3	5.3	5	UG/KG
SW8260B/NONE	076SB-0065M-0001-SO	N	1	Bromoform	5.3 U	0.35	5.3	5	UG/KG
SW8260B/NONE	076SB-0065M-0001-SO	N	1	Bromomethane	5.3 U	0.57	5.3	5	UG/KG
SW8260B/NONE	076SB-0065M-0001-SO	N	1	Carbon Disulfide	3.2 J	0.47	5.3	5	UG/KG
SW8260B/NONE	076SB-0065M-0001-SO	N	1	Carbon Tetrachloride	5.3 U	0.39	5.3	5	UG/KG
SW8260B/NONE	076SB-0065M-0001-SO	N	1	Chlorobenzene	5.3 U	0.35	5.3	5	UG/KG
SW8260B/NONE	076SB-0065M-0001-SO	N	1	Chloroethane	5.3 U	0.91	5.3	5	UG/KG
SW8260B/NONE	076SB-0065M-0001-SO	N	1	Chloroform	5.3 U	0.31	5.3	5	UG/KG
SW8260B/NONE	076SB-0065M-0001-SO	N	1	Chloromethane	5.3 U	0.43	5.3	5	UG/KG
SW8260B/NONE	076SB-0065M-0001-SO	N	1	cis-1,3-Dichloropropene	5.3 U	0.36	5.3	5	UG/KG
SW8260B/NONE	076SB-0065M-0001-SO	N	1	Dibromochloromethane	5.3 U	0.58	5.3	5	UG/KG
SW8260B/NONE	076SB-0065M-0001-SO	N	1	Ethylbenzene	5.3 U	0.28	5.3	5	UG/KG
SW8260B/NONE	076SB-0065M-0001-SO	N	1	Methylene Chloride	5.3 U	0.71	5.3	5	UG/KG
SW8260B/NONE	076SB-0065M-0001-SO	N	1	Styrene	5.3 U	0.16	5.3	5	UG/KG
SW8260B/NONE	076SB-0065M-0001-SO	N	1	tert-Butyl Methyl Ether (MTBE)	5.3 U	0.45	5.3	5	UG/KG
SW8260B/NONE	076SB-0065M-0001-SO	N	1	Tetrachloroethene (PCE)	5.3 U	0.55	5.3	5	UG/KG
SW8260B/NONE	076SB-0065M-0001-SO	N	1	Toluene	5.3 U	0.29	5.3	5	UG/KG
SW8260B/NONE	076SB-0065M-0001-SO	N	1	trans-1,3-Dichloropropene	5.3 U	0.57	5.3	5	UG/KG
SW8260B/NONE	076SB-0065M-0001-SO	N	1	Trichloroethene (TCE)	5.3 U	0.44	5.3	5	UG/KG
SW8260B/NONE	076SB-0065M-0001-SO	N	1	Vinyl Chloride	5.3 U	0.41	5.3	5	UG/KG
SW8260B/NONE	076SB-0065M-0001-SO	N	1	Xylenes, Total	11 U	0.71	11	10	UG/KG
SW8260B/NONE	076SB-0066M-0001-SO	N	1	1,2-Dichloroethene	9.1 U	0.7	9.1	5	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Reporting Anomalies

SDG Name: 240-17796-1_(76-SB,SS,SW)

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8270C/NONE	076SB-0023M-0001-SO	N	1	Cresols, m & p	400 U	20	400	300	UG/KG
SW8270C/NONE	076SB-0024M-0001-SO	N	2.5	2,4,6-Trichlorophenol	370 U	200	370	330	UG/KG
SW8270C/NONE	076SB-0024M-0001-SO	N	2.5	2,4-Dichlorophenol	370 U	50	370	330	UG/KG
SW8270C/NONE	076SB-0024M-0001-SO	N	2.5	2,4-Dimethylphenol	370 U	50	370	330	UG/KG
SW8270C/NONE	076SB-0024M-0001-SO	N	2.5	2,4-Dinitrophenol	820 U	200	820	800	UG/KG
SW8270C/NONE	076SB-0024M-0001-SO	N	2.5	2,4-Dinitrotoluene	500 U	67	500	330	UG/KG
SW8270C/NONE	076SB-0024M-0001-SO	N	2.5	2,6-Dinitrotoluene	500 U	52	500	330	UG/KG
SW8270C/NONE	076SB-0024M-0001-SO	N	2.5	2-Methylphenol (o-Cresol)	500 U	200	500	330	UG/KG
SW8270C/NONE	076SB-0024M-0001-SO	N	2.5	4-Chloro-3-Methylphenol	370 U	52	370	330	UG/KG
SW8270C/NONE	076SB-0024M-0001-SO	N	2.5	4-Chloroaniline	370 U	42	370	330	UG/KG
SW8270C/NONE	076SB-0024M-0001-SO	N	2.5	4-Nitrophenol	820 U	200	820	800	UG/KG
SW8270C/NONE	076SB-0024M-0001-SO	N	2.5	Benzoic acid	1600 U	830	1600	800	UG/KG
SW8270C/NONE	076SB-0024M-0001-SO	N	2.5	Benzyl alcohol	820 U	52	820	330	UG/KG
SW8270C/NONE	076SB-0024M-0001-SO	N	2.5	Carbazole	120 U	67	120	50	UG/KG
SW8270C/NONE	076SB-0024M-0001-SO	N	2.5	Cresols, m & p	990 U	50	990	300	UG/KG
SW8270C/NONE	076SB-0024M-0001-SO	N	2.5	Hexachlorocyclopentadiene	820 U	67	820	330	UG/KG
SW8270C/NONE	076SB-0025M-0001-SO	N	2.5	2,4,6-Trichlorophenol	380 U	200	380	330	UG/KG
SW8270C/NONE	076SB-0025M-0001-SO	N	2.5	2,4-Dichlorophenol	380 U	50	380	330	UG/KG
SW8270C/NONE	076SB-0025M-0001-SO	N	2.5	2,4-Dimethylphenol	380 U	50	380	330	UG/KG
SW8270C/NONE	076SB-0025M-0001-SO	N	2.5	2,4-Dinitrophenol	830 U	200	830	800	UG/KG
SW8270C/NONE	076SB-0025M-0001-SO	N	2.5	2,4-Dinitrotoluene	500 U	68	500	330	UG/KG
SW8270C/NONE	076SB-0025M-0001-SO	N	2.5	2,6-Dinitrotoluene	500 U	53	500	330	UG/KG
SW8270C/NONE	076SB-0025M-0001-SO	N	2.5	2-Methylphenol (o-Cresol)	500 U	200	500	330	UG/KG
SW8270C/NONE	076SB-0025M-0001-SO	N	2.5	4-Chloro-3-Methylphenol	380 U	53	380	330	UG/KG
SW8270C/NONE	076SB-0025M-0001-SO	N	2.5	4-Chloroaniline	380 U	43	380	330	UG/KG
SW8270C/NONE	076SB-0025M-0001-SO	N	2.5	4-Nitrophenol	830 U	200	830	800	UG/KG
SW8270C/NONE	076SB-0025M-0001-SO	N	2.5	Benzoic acid	1700 U	830	1700	800	UG/KG
SW8270C/NONE	076SB-0025M-0001-SO	N	2.5	Benzyl alcohol	830 U	53	830	330	UG/KG
SW8270C/NONE	076SB-0025M-0001-SO	N	2.5	Carbazole	130 U	68	130	50	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Reporting Anomalies

SDG Name: 240-17796-1_(76-SB,SS,SW)

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8270C/NONE	076SB-0025M-0001-SO	N	2.5	Cresols, m & p	1000 U	50	1000	300	UG/KG
SW8270C/NONE	076SB-0025M-0001-SO	N	2.5	Hexachlorocyclopentadiene	830 U	68	830	330	UG/KG
SW8270C/NONE	076SB-0026M-0001-SO	N	1	Carbazole	51 U	27	51	50	UG/KG
SW8270C/NONE	076SB-0026M-0001-SO	N	1	Cresols, m & p	410 U	20	410	300	UG/KG
SW8270C/NONE	076SB-0027M-0001-SO	N	1	Cresols, m & p	400 U	20	400	300	UG/KG
SW8270C/NONE	076SB-0028M-0001-SO	N	2.5	2,4,6-Trichlorophenol	380 U	200	380	330	UG/KG
SW8270C/NONE	076SB-0028M-0001-SO	N	2.5	2,4-Dichlorophenol	380 U	51	380	330	UG/KG
SW8270C/NONE	076SB-0028M-0001-SO	N	2.5	2,4-Dimethylphenol	380 U	51	380	330	UG/KG
SW8270C/NONE	076SB-0028M-0001-SO	N	2.5	2,4-Dinitrophenol	840 U	200	840	800	UG/KG
SW8270C/NONE	076SB-0028M-0001-SO	N	2.5	2,4-Dinitrotoluene	510 U	69	510	330	UG/KG
SW8270C/NONE	076SB-0028M-0001-SO	N	2.5	2,6-Dinitrotoluene	510 U	53	510	330	UG/KG
SW8270C/NONE	076SB-0028M-0001-SO	N	2.5	2-Methylphenol (o-Cresol)	510 U	200	510	330	UG/KG
SW8270C/NONE	076SB-0028M-0001-SO	N	2.5	4-Chloro-3-Methylphenol	380 U	53	380	330	UG/KG
SW8270C/NONE	076SB-0028M-0001-SO	N	2.5	4-Chloroaniline	380 U	43	380	330	UG/KG
SW8270C/NONE	076SB-0028M-0001-SO	N	2.5	4-Nitrophenol	840 U	200	840	800	UG/KG
SW8270C/NONE	076SB-0028M-0001-SO	N	2.5	Benzoic acid	1700 U	850	1700	800	UG/KG
SW8270C/NONE	076SB-0028M-0001-SO	N	2.5	Benzyl alcohol	840 U	53	840	330	UG/KG
SW8270C/NONE	076SB-0028M-0001-SO	N	2.5	Carbazole	130 U	69	130	50	UG/KG
SW8270C/NONE	076SB-0028M-0001-SO	N	2.5	Cresols, m & p	1000 U	51	1000	300	UG/KG
SW8270C/NONE	076SB-0028M-0001-SO	N	2.5	Hexachlorocyclopentadiene	840 U	69	840	330	UG/KG
SW8270C/NONE	076SB-0029M-0001-SO	N	1	Cresols, m & p	400 U	20	400	300	UG/KG
SW8270C/NONE	076SB-0044M-0001-SO	N	2.5	2,4,6-Trichlorophenol	370 U	200	370	330	UG/KG
SW8270C/NONE	076SB-0044M-0001-SO	N	2.5	2,4-Dichlorophenol	370 U	50	370	330	UG/KG
SW8270C/NONE	076SB-0044M-0001-SO	N	2.5	2,4-Dimethylphenol	370 U	50	370	330	UG/KG
SW8270C/NONE	076SB-0044M-0001-SO	N	2.5	2,4-Dinitrophenol	820 U	200	820	800	UG/KG
SW8270C/NONE	076SB-0044M-0001-SO	N	2.5	2,4-Dinitrotoluene	500 U	67	500	330	UG/KG
SW8270C/NONE	076SB-0044M-0001-SO	N	2.5	2,6-Dinitrotoluene	500 U	52	500	330	UG/KG
SW8270C/NONE	076SB-0044M-0001-SO	N	2.5	2-Methylphenol (o-Cresol)	500 U	200	500	330	UG/KG
SW8270C/NONE	076SB-0044M-0001-SO	N	2.5	4-Chloro-3-Methylphenol	370 U	52	370	330	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Reporting Anomalies

SDG Name: 240-17796-1_(76-SB,SS,SW)

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8270C/NONE	076SB-0044M-0001-SO	N	2.5	4-Chloroaniline	370 U	42	370	330	UG/KG
SW8270C/NONE	076SB-0044M-0001-SO	N	2.5	4-Nitrophenol	820 U	200	820	800	UG/KG
SW8270C/NONE	076SB-0044M-0001-SO	N	2.5	Benzoic acid	1600 U	830	1600	800	UG/KG
SW8270C/NONE	076SB-0044M-0001-SO	N	2.5	Benzyl alcohol	820 U	52	820	330	UG/KG
SW8270C/NONE	076SB-0044M-0001-SO	N	2.5	Carbazole	120 U	67	120	50	UG/KG
SW8270C/NONE	076SB-0044M-0001-SO	N	2.5	Cresols, m & p	1000 U	50	1000	300	UG/KG
SW8270C/NONE	076SB-0044M-0001-SO	N	2.5	Hexachlorocyclopentadiene	820 U	67	820	330	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	1,2,4-Trichlorobenzene	510 U	270	510	330	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	1,2-Dichlorobenzene	510 U	98	510	330	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	1,3-Dichlorobenzene	510 U	110	510	330	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	1,4-Dichlorobenzene	510 U	200	510	330	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	2,4,5-Trichlorophenol	1500 U	250	1500	800	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	2,4,6-Trichlorophenol	1500 U	810	1500	330	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	2,4-Dichlorophenol	1500 U	200	1500	330	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	2,4-Dimethylphenol	1500 U	200	1500	330	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	2,4-Dinitrophenol	3300 U	810	3300	800	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	2,4-Dinitrotoluene	2000 U	270	2000	330	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	2,6-Dinitrotoluene	2000 U	210	2000	330	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	2-Chloronaphthalene	510 U	33	510	330	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	2-Chlorophenol	510 U	270	510	330	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	2-Methylphenol (o-Cresol)	2000 U	810	2000	330	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	2-Nitroaniline	2000 U	92	2000	800	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	2-Nitrophenol	510 U	270	510	330	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	3,3'-Dichlorobenzidine	1000 U	180	1000	330	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	3-Nitroaniline	2000 U	160	2000	800	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	4,6-Dinitro-2-Methylphenol	1500 U	810	1500	800	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	4-Bromophenyl phenyl ether	510 U	130	510	330	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	4-Chloro-3-Methylphenol	1500 U	210	1500	330	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	4-Chloroaniline	1500 U	170	1500	330	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Reporting Anomalies

SDG Name: 240-17796-1_(76-SB,SS,SW)

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8270C/NONE	076SB-0045M-0001-SO	N	10	4-Chlorophenyl Phenyl Ether	510 U	130	510	330	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	4-Nitroaniline	2000 U	260	2000	800	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	4-Nitrophenol	3300 U	810	3300	800	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	Acenaphthene	68 U	33	68	50	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	Acenaphthylene	68 U	33	68	50	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	Anthracene	68 U	33	68	50	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	Benzo(a)anthracene	68 U	33	68	50	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	Benzo(a)pyrene	68 U	33	68	50	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	Benzo(b)fluoranthene	68 U	33	68	50	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	Benzo(g,h,i)perylene	68 U	33	68	50	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	Benzo(k)fluoranthene	68 U	33	68	50	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	Benzoic acid	6700 U	3400	6700	800	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	Benzyl alcohol	3300 U	210	3300	330	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	Benzyl butyl phthalate	510 U	100	510	330	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	bis(2-Chloroethoxy) Methane	1000 U	220	1000	330	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	1000 U	20	1000	330	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	bis(2-Chloroisopropyl) Ether	1000 U	96	1000	330	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	Carbazole	510 U	270	510	50	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	Chrysene	68 U	11	68	50	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	Cresols, m & p	4100 U	200	4100	300	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	Dibenz(a,h)anthracene	68 U	33	68	50	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	Dibenzofuran	510 U	33	510	330	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	Diethyl Phthalate	510 U	160	510	330	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	Dimethyl Phthalate	510 U	170	510	330	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	Di-n-Butyl Phthalate	510 U	150	510	330	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	Di-n-Octylphthalate	510 U	270	510	330	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	Fluoranthene	68 U	33	68	50	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	Fluorene	68 U	33	68	50	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	Hexachlorobutadiene	510 U	270	510	330	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Reporting Anomalies

SDG Name: 240-17796-1_(76-SB,SS,SW)

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8270C/NONE	076SB-0045M-0001-SO	N	10	Hexachlorocyclopentadiene	3300 U	270	3300	330	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	Hexachloroethane	510 U	91	510	330	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	Indeno(1,2,3-c,d)pyrene	68 U	33	68	50	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	Isophorone	510 U	130	510	330	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	Naphthalene	68 U	33	68	50	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	Nitrobenzene	1000 U	22	1000	330	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	n-Nitrosodi-n-propylamine	510 U	270	510	330	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	Pentachlorophenol	1500 U	810	1500	800	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	Phenanthrene	68 U	33	68	50	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	Phenol	510 U	270	510	330	UG/KG
SW8270C/NONE	076SB-0045M-0001-SO	N	10	Pyrene	68 U	33	68	50	UG/KG
SW8270C/NONE	076SB-0046M-0001-SO	N	2.5	2,4,6-Trichlorophenol	380 U	200	380	330	UG/KG
SW8270C/NONE	076SB-0046M-0001-SO	N	2.5	2,4-Dichlorophenol	380 U	50	380	330	UG/KG
SW8270C/NONE	076SB-0046M-0001-SO	N	2.5	2,4-Dimethylphenol	380 U	50	380	330	UG/KG
SW8270C/NONE	076SB-0046M-0001-SO	N	2.5	2,4-Dinitrophenol	830 U	200	830	800	UG/KG
SW8270C/NONE	076SB-0046M-0001-SO	N	2.5	2,4-Dinitrotoluene	500 U	68	500	330	UG/KG
SW8270C/NONE	076SB-0046M-0001-SO	N	2.5	2,6-Dinitrotoluene	500 U	53	500	330	UG/KG
SW8270C/NONE	076SB-0046M-0001-SO	N	2.5	2-Methylphenol (o-Cresol)	500 U	200	500	330	UG/KG
SW8270C/NONE	076SB-0046M-0001-SO	N	2.5	4-Chloro-3-Methylphenol	380 U	53	380	330	UG/KG
SW8270C/NONE	076SB-0046M-0001-SO	N	2.5	4-Chloroaniline	380 U	43	380	330	UG/KG
SW8270C/NONE	076SB-0046M-0001-SO	N	2.5	4-Nitrophenol	830 U	200	830	800	UG/KG
SW8270C/NONE	076SB-0046M-0001-SO	N	2.5	Benzoic acid	1700 U	840	1700	800	UG/KG
SW8270C/NONE	076SB-0046M-0001-SO	N	2.5	Benzyl alcohol	830 U	53	830	330	UG/KG
SW8270C/NONE	076SB-0046M-0001-SO	N	2.5	Carbazole	130 U	68	130	50	UG/KG
SW8270C/NONE	076SB-0046M-0001-SO	N	2.5	Cresols, m & p	1000 U	50	1000	300	UG/KG
SW8270C/NONE	076SB-0046M-0001-SO	N	2.5	Hexachlorocyclopentadiene	830 U	68	830	330	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	1,2,4-Trichlorobenzene	500 U	270	500	330	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	1,2-Dichlorobenzene	500 U	98	500	330	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	1,3-Dichlorobenzene	500 U	110	500	330	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Reporting Anomalies

SDG Name: 240-17796-1_(76-SB,SS,SW)

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8270C/NONE	076SB-0047M-0001-SO	N	10	1,4-Dichlorobenzene	500 U	200	500	330	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	2,4,5-Trichlorophenol	1500 U	250	1500	800	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	2,4,6-Trichlorophenol	1500 U	810	1500	330	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	2,4-Dichlorophenol	1500 U	200	1500	330	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	2,4-Dimethylphenol	1500 U	200	1500	330	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	2,4-Dinitrophenol	3300 U	810	3300	800	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	2,4-Dinitrotoluene	2000 U	270	2000	330	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	2,6-Dinitrotoluene	2000 U	210	2000	330	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	2-Chloronaphthalene	500 U	33	500	330	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	2-Chlorophenol	500 U	270	500	330	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	2-Methylphenol (o-Cresol)	2000 U	810	2000	330	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	2-Nitroaniline	2000 U	92	2000	800	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	2-Nitrophenol	500 U	270	500	330	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	3,3'-Dichlorobenzidine	1000 U	180	1000	330	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	3-Nitroaniline	2000 U	160	2000	800	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	4,6-Dinitro-2-Methylphenol	1500 U	810	1500	800	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	4-Bromophenyl phenyl ether	500 U	130	500	330	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	4-Chloro-3-Methylphenol	1500 U	210	1500	330	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	4-Chloroaniline	1500 U	170	1500	330	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	4-Chlorophenyl Phenyl Ether	500 U	130	500	330	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	4-Nitroaniline	2000 U	260	2000	800	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	4-Nitrophenol	3300 U	810	3300	800	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	Acenaphthene	67 U	33	67	50	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	Acenaphthylene	67 U	33	67	50	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	Anthracene	67 U	33	67	50	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	Benzo(a)anthracene	67 U	33	67	50	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	Benzo(a)pyrene	67 U	33	67	50	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	Benzo(b)fluoranthene	67 U	33	67	50	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	Benzo(g,h,i)perylene	67 U	33	67	50	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Reporting Anomalies

SDG Name: 240-17796-1_(76-SB,SS,SW)

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8270C/NONE	076SB-0047M-0001-SO	N	10	Benzo(k)fluoranthene	67 U	33	67	50	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	Benzoic acid	6600 U	3400	6600	800	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	Benzyl alcohol	3300 U	210	3300	330	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	Benzyl butyl phthalate	500 U	100	500	330	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	bis(2-Chloroethoxy) Methane	1000 U	220	1000	330	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	1000 U	20	1000	330	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	bis(2-Chloroisopropyl) Ether	1000 U	96	1000	330	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	Carbazole	500 U	270	500	50	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	Chrysene	67 U	11	67	50	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	Cresols, m & p	4000 U	200	4000	300	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	Dibenz(a,h)anthracene	67 U	33	67	50	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	Dibenzofuran	500 U	33	500	330	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	Diethyl Phthalate	500 U	160	500	330	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	Dimethyl Phthalate	500 U	170	500	330	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	Di-n-Butyl Phthalate	500 U	150	500	330	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	Di-n-Octylphthalate	500 U	270	500	330	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	Fluoranthene	67 U	33	67	50	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	Fluorene	67 U	33	67	50	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	Hexachlorobutadiene	500 U	270	500	330	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	Hexachlorocyclopentadiene	3300 U	270	3300	330	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	Hexachloroethane	500 U	91	500	330	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	Indeno(1,2,3-c,d)pyrene	67 U	33	67	50	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	Isophorone	500 U	130	500	330	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	Naphthalene	67 U	33	67	50	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	Nitrobenzene	1000 U	22	1000	330	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	n-Nitrosodi-n-propylamine	500 U	270	500	330	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	Pentachlorophenol	1500 U	810	1500	800	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	Phenanthrene	67 U	33	67	50	UG/KG
SW8270C/NONE	076SB-0047M-0001-SO	N	10	Phenol	500 U	270	500	330	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Reporting Anomalies

SDG Name: 240-17796-1_(76-SB,SS,SW)

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8270C/NONE	076SB-0047M-0001-SO	N	10	Pyrene	67 U	33	67	50	UG/KG
SW8270C/NONE	076SB-0048M-0001-SO	FD	1	Cresols, m & p	400 U	20	400	300	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	1,2,4-Trichlorobenzene	500 U	270	500	330	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	1,2-Dichlorobenzene	500 U	97	500	330	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	1,3-Dichlorobenzene	500 U	110	500	330	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	1,4-Dichlorobenzene	500 U	200	500	330	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	2,4,5-Trichlorophenol	1500 U	250	1500	800	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	2,4,6-Trichlorophenol	1500 U	800	1500	330	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	2,4-Dichlorophenol	1500 U	200	1500	330	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	2,4-Dimethylphenol	1500 U	200	1500	330	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	2,4-Dinitrophenol	3300 U	800	3300	800	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	2,4-Dinitrotoluene	2000 U	270	2000	330	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	2,6-Dinitrotoluene	2000 U	210	2000	330	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	2-Chloronaphthalene	500 U	33	500	330	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	2-Chlorophenol	500 U	270	500	330	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	2-Methylphenol (o-Cresol)	2000 U	800	2000	330	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	2-Nitroaniline	2000 U	91	2000	800	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	2-Nitrophenol	500 U	270	500	330	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	3,3'-Dichlorobenzidine	1000 U	180	1000	330	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	3-Nitroaniline	2000 U	160	2000	800	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	4,6-Dinitro-2-Methylphenol	1500 U	800	1500	800	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	4-Bromophenyl phenyl ether	500 U	130	500	330	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	4-Chloro-3-Methylphenol	1500 U	210	1500	330	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	4-Chloroaniline	1500 U	170	1500	330	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	4-Chlorophenyl Phenyl Ether	500 U	130	500	330	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	4-Nitroaniline	2000 U	260	2000	800	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	4-Nitrophenol	3300 U	800	3300	800	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	Acenaphthene	67 U	33	67	50	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	Acenaphthylene	67 U	33	67	50	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Reporting Anomalies

SDG Name: 240-17796-1_(76-SB,SS,SW)

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8270C/NONE	076SB-0049M-0001-SO	N	10	Anthracene	67 U	33	67	50	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	Benzo(a)anthracene	67 U	33	67	50	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	Benzo(a)pyrene	67 U	33	67	50	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	Benzo(b)fluoranthene	67 U	33	67	50	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	Benzo(g,h,i)perylene	67 U	33	67	50	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	Benzo(k)fluoranthene	67 U	33	67	50	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	Benzoic acid	6600 U	3300	6600	800	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	Benzyl alcohol	3300 U	210	3300	330	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	Benzyl butyl phthalate	500 U	100	500	330	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	bis(2-Chloroethoxy) Methane	1000 U	220	1000	330	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	1000 U	20	1000	330	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	bis(2-Chloroisopropyl) Ether	1000 U	95	1000	330	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	Carbazole	500 U	270	500	50	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	Chrysene	67 U	11	67	50	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	Cresols, m & p	4000 U	200	4000	300	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	Dibenz(a,h)anthracene	67 U	33	67	50	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	Dibenzofuran	500 U	33	500	330	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	Diethyl Phthalate	500 U	160	500	330	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	Dimethyl Phthalate	500 U	170	500	330	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	Di-n-Butyl Phthalate	500 U	150	500	330	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	Di-n-Octylphthalate	500 U	270	500	330	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	Fluoranthene	67 U	33	67	50	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	Fluorene	67 U	33	67	50	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	Hexachlorobutadiene	500 U	270	500	330	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	Hexachlorocyclopentadiene	3300 U	270	3300	330	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	Hexachloroethane	500 U	90	500	330	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	Indeno(1,2,3-c,d)pyrene	67 U	33	67	50	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	Isophorone	500 U	130	500	330	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	Naphthalene	67 U	33	67	50	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Reporting Anomalies

SDG Name: 240-17796-1_(76-SB,SS,SW)

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8270C/NONE	076SB-0049M-0001-SO	N	10	Nitrobenzene	1000 U	22	1000	330	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	n-Nitrosodi-n-propylamine	500 U	270	500	330	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	Pentachlorophenol	1500 U	800	1500	800	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	Phenanthrene	67 U	33	67	50	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	Phenol	500 U	270	500	330	UG/KG
SW8270C/NONE	076SB-0049M-0001-SO	N	10	Pyrene	67 U	33	67	50	UG/KG
SW8270C/NONE	076SB-0050M-0001-SO	N	2.5	2,4,6-Trichlorophenol	370 U	200	370	330	UG/KG
SW8270C/NONE	076SB-0050M-0001-SO	N	2.5	2,4-Dichlorophenol	370 U	49	370	330	UG/KG
SW8270C/NONE	076SB-0050M-0001-SO	N	2.5	2,4-Dimethylphenol	370 U	49	370	330	UG/KG
SW8270C/NONE	076SB-0050M-0001-SO	N	2.5	2,4-Dinitrophenol	810 U	200	810	800	UG/KG
SW8270C/NONE	076SB-0050M-0001-SO	N	2.5	2,4-Dinitrotoluene	490 U	67	490	330	UG/KG
SW8270C/NONE	076SB-0050M-0001-SO	N	2.5	2,6-Dinitrotoluene	490 U	52	490	330	UG/KG
SW8270C/NONE	076SB-0050M-0001-SO	N	2.5	2-Methylphenol (o-Cresol)	490 U	200	490	330	UG/KG
SW8270C/NONE	076SB-0050M-0001-SO	N	2.5	4-Chloro-3-Methylphenol	370 U	52	370	330	UG/KG
SW8270C/NONE	076SB-0050M-0001-SO	N	2.5	4-Chloroaniline	370 U	42	370	330	UG/KG
SW8270C/NONE	076SB-0050M-0001-SO	N	2.5	4-Nitrophenol	810 U	200	810	800	UG/KG
SW8270C/NONE	076SB-0050M-0001-SO	N	2.5	Benzoic acid	1600 U	820	1600	800	UG/KG
SW8270C/NONE	076SB-0050M-0001-SO	N	2.5	Benzyl alcohol	810 U	52	810	330	UG/KG
SW8270C/NONE	076SB-0050M-0001-SO	N	2.5	Carbazole	120 U	67	120	50	UG/KG
SW8270C/NONE	076SB-0050M-0001-SO	N	2.5	Cresols, m & p	990 U	49	990	300	UG/KG
SW8270C/NONE	076SB-0050M-0001-SO	N	2.5	Hexachlorocyclopentadiene	810 U	67	810	330	UG/KG
SW8270C/NONE	076SB-0051M-0001-SO	N	1	Benzoic acid	830 U	420	830	800	UG/KG
SW8270C/NONE	076SB-0051M-0001-SO	N	1	Benzyl alcohol	410 U	26	410	330	UG/KG
SW8270C/NONE	076SB-0051M-0001-SO	N	1	Carbazole	63 U	34	63	50	UG/KG
SW8270C/NONE	076SB-0051M-0001-SO	N	1	Cresols, m & p	500 U	25	500	300	UG/KG
SW8270C/NONE	076SB-0051M-0001-SO	N	1	Hexachlorocyclopentadiene	410 U	34	410	330	UG/KG
SW8270C/NONE	076SB-0053M-0001-SO	N	2.5	2,4,6-Trichlorophenol	380 U	200	380	330	UG/KG
SW8270C/NONE	076SB-0053M-0001-SO	N	2.5	2,4-Dichlorophenol	380 U	50	380	330	UG/KG
SW8270C/NONE	076SB-0053M-0001-SO	N	2.5	2,4-Dimethylphenol	380 U	50	380	330	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Reporting Anomalies

SDG Name: 240-17796-1_(76-SB,SS,SW)

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8270C/NONE	076SB-0053M-0001-SO	N	2.5	2,4-Dinitrophenol	830 U	200	830	800	UG/KG
SW8270C/NONE	076SB-0053M-0001-SO	N	2.5	2,4-Dinitrotoluene	500 U	68	500	330	UG/KG
SW8270C/NONE	076SB-0053M-0001-SO	N	2.5	2,6-Dinitrotoluene	500 U	53	500	330	UG/KG
SW8270C/NONE	076SB-0053M-0001-SO	N	2.5	2-Methylphenol (o-Cresol)	500 U	200	500	330	UG/KG
SW8270C/NONE	076SB-0053M-0001-SO	N	2.5	4-Chloro-3-Methylphenol	380 U	53	380	330	UG/KG
SW8270C/NONE	076SB-0053M-0001-SO	N	2.5	4-Chloroaniline	380 U	43	380	330	UG/KG
SW8270C/NONE	076SB-0053M-0001-SO	N	2.5	4-Nitrophenol	830 U	200	830	800	UG/KG
SW8270C/NONE	076SB-0053M-0001-SO	N	2.5	Benzoic acid	1700 U	830	1700	800	UG/KG
SW8270C/NONE	076SB-0053M-0001-SO	N	2.5	Benzyl alcohol	830 U	53	830	330	UG/KG
SW8270C/NONE	076SB-0053M-0001-SO	N	2.5	Carbazole	130 U	68	130	50	UG/KG
SW8270C/NONE	076SB-0053M-0001-SO	N	2.5	Cresols, m & p	1000 U	50	1000	300	UG/KG
SW8270C/NONE	076SB-0053M-0001-SO	N	2.5	Hexachlorocyclopentadiene	830 U	68	830	330	UG/KG
SW8270C/NONE	076SB-0054M-0001-SO	N	5	2,4,6-Trichlorophenol	760 U	410	760	330	UG/KG
SW8270C/NONE	076SB-0054M-0001-SO	N	5	2,4-Dichlorophenol	760 U	100	760	330	UG/KG
SW8270C/NONE	076SB-0054M-0001-SO	N	5	2,4-Dimethylphenol	760 U	100	760	330	UG/KG
SW8270C/NONE	076SB-0054M-0001-SO	N	5	2,4-Dinitrophenol	1700 UJ	410	1700	800	UG/KG
SW8270C/NONE	076SB-0054M-0001-SO	N	5	2,4-Dinitrotoluene	1000 U	140	1000	330	UG/KG
SW8270C/NONE	076SB-0054M-0001-SO	N	5	2,6-Dinitrotoluene	1000 U	110	1000	330	UG/KG
SW8270C/NONE	076SB-0054M-0001-SO	N	5	2-Methylphenol (o-Cresol)	1000 U	410	1000	330	UG/KG
SW8270C/NONE	076SB-0054M-0001-SO	N	5	2-Nitroaniline	1000 U	46	1000	800	UG/KG
SW8270C/NONE	076SB-0054M-0001-SO	N	5	3,3'-Dichlorobenzidine	510 U	91	510	330	UG/KG
SW8270C/NONE	076SB-0054M-0001-SO	N	5	3-Nitroaniline	1000 U	81	1000	800	UG/KG
SW8270C/NONE	076SB-0054M-0001-SO	N	5	4-Chloro-3-Methylphenol	760 U	110	760	330	UG/KG
SW8270C/NONE	076SB-0054M-0001-SO	N	5	4-Chloroaniline	760 U	86	760	330	UG/KG
SW8270C/NONE	076SB-0054M-0001-SO	N	5	4-Nitroaniline	1000 U	130	1000	800	UG/KG
SW8270C/NONE	076SB-0054M-0001-SO	N	5	4-Nitrophenol	1700 U	410	1700	800	UG/KG
SW8270C/NONE	076SB-0054M-0001-SO	N	5	Benzoic acid	3300 U	1700	3300	800	UG/KG
SW8270C/NONE	076SB-0054M-0001-SO	N	5	Benzyl alcohol	1700 U	110	1700	330	UG/KG
SW8270C/NONE	076SB-0054M-0001-SO	N	5	bis(2-Chloroethoxy) Methane	510 U	110	510	330	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Reporting Anomalies

SDG Name: 240-17796-1_(76-SB,SS,SW)

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8270C/NONE	076SB-0054M-0001-SO	N	5	bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	510 U	10	510	330	UG/KG
SW8270C/NONE	076SB-0054M-0001-SO	N	5	bis(2-Chloroisopropyl) Ether	510 U	48	510	330	UG/KG
SW8270C/NONE	076SB-0054M-0001-SO	N	5	Carbazole	250 U	140	250	50	UG/KG
SW8270C/NONE	076SB-0054M-0001-SO	N	5	Cresols, m & p	2000 U	100	2000	300	UG/KG
SW8270C/NONE	076SB-0054M-0001-SO	N	5	Hexachlorocyclopentadiene	1700 U	140	1700	330	UG/KG
SW8270C/NONE	076SB-0054M-0001-SO	N	5	Nitrobenzene	510 U	11	510	330	UG/KG
SW8270C/NONE	076SB-0055M-0001-SO	N	5	2,4,6-Trichlorophenol	750 U	400	750	330	UG/KG
SW8270C/NONE	076SB-0055M-0001-SO	N	5	2,4-Dichlorophenol	750 U	100	750	330	UG/KG
SW8270C/NONE	076SB-0055M-0001-SO	N	5	2,4-Dimethylphenol	750 U	100	750	330	UG/KG
SW8270C/NONE	076SB-0055M-0001-SO	N	5	2,4-Dinitrophenol	1700 UJ	400	1700	800	UG/KG
SW8270C/NONE	076SB-0055M-0001-SO	N	5	2,4-Dinitrotoluene	1000 U	140	1000	330	UG/KG
SW8270C/NONE	076SB-0055M-0001-SO	N	5	2,6-Dinitrotoluene	1000 U	110	1000	330	UG/KG
SW8270C/NONE	076SB-0055M-0001-SO	N	5	2-Methylphenol (o-Cresol)	1000 U	400	1000	330	UG/KG
SW8270C/NONE	076SB-0055M-0001-SO	N	5	2-Nitroaniline	1000 U	46	1000	800	UG/KG
SW8270C/NONE	076SB-0055M-0001-SO	N	5	3,3'-Dichlorobenzidine	500 U	90	500	330	UG/KG
SW8270C/NONE	076SB-0055M-0001-SO	N	5	3-Nitroaniline	1000 U	80	1000	800	UG/KG
SW8270C/NONE	076SB-0055M-0001-SO	N	5	4-Chloro-3-Methylphenol	750 U	110	750	330	UG/KG
SW8270C/NONE	076SB-0055M-0001-SO	N	5	4-Chloroaniline	750 U	85	750	330	UG/KG
SW8270C/NONE	076SB-0055M-0001-SO	N	5	4-Nitroaniline	1000 U	130	1000	800	UG/KG
SW8270C/NONE	076SB-0055M-0001-SO	N	5	4-Nitrophenol	1700 U	400	1700	800	UG/KG
SW8270C/NONE	076SB-0055M-0001-SO	N	5	Benzoic acid	3300 U	1700	3300	800	UG/KG
SW8270C/NONE	076SB-0055M-0001-SO	N	5	Benzyl alcohol	1700 U	110	1700	330	UG/KG
SW8270C/NONE	076SB-0055M-0001-SO	N	5	bis(2-Chloroethoxy) Methane	500 U	110	500	330	UG/KG
SW8270C/NONE	076SB-0055M-0001-SO	N	5	bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	500 U	10	500	330	UG/KG
SW8270C/NONE	076SB-0055M-0001-SO	N	5	bis(2-Chloroisopropyl) Ether	500 U	48	500	330	UG/KG
SW8270C/NONE	076SB-0055M-0001-SO	N	5	Carbazole	250 U	140	250	50	UG/KG
SW8270C/NONE	076SB-0055M-0001-SO	N	5	Cresols, m & p	2000 U	100	2000	300	UG/KG
SW8270C/NONE	076SB-0055M-0001-SO	N	5	Hexachlorocyclopentadiene	1700 U	140	1700	330	UG/KG
SW8270C/NONE	076SB-0055M-0001-SO	N	5	Nitrobenzene	500 U	11	500	330	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Reporting Anomalies

SDG Name: 240-17796-1_(76-SB,SS,SW)

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8270C/NONE	076SB-0056M-0001-SO	N	1	Carbazole	51 U	27	51	50	UG/KG
SW8270C/NONE	076SB-0056M-0001-SO	N	1	Cresols, m & p	400 U	20	400	300	UG/KG
SW8270C/NONE	076SB-0057M-0001-SO	N	1	Carbazole	51 U	27	51	50	UG/KG
SW8270C/NONE	076SB-0057M-0001-SO	N	1	Cresols, m & p	400 U	20	400	300	UG/KG
SW8270C/NONE	076SB-0058M-0001-SO	N	1	Cresols, m & p	400 U	20	400	300	UG/KG
SW8270C/NONE	076SB-0059M-0001-SO	N	1	Benzyl alcohol	340 U	21	340	330	UG/KG
SW8270C/NONE	076SB-0059M-0001-SO	N	1	Carbazole	51 U	27	51	50	UG/KG
SW8270C/NONE	076SB-0059M-0001-SO	N	1	Cresols, m & p	410 U	20	410	300	UG/KG
SW8270C/NONE	076SB-0059M-0001-SO	N	1	Hexachlorocyclopentadiene	340 U	27	340	330	UG/KG
SW8270C/NONE	076SB-0060M-0001-SO	N	5	2,4,6-Trichlorophenol	760 U	410	760	330	UG/KG
SW8270C/NONE	076SB-0060M-0001-SO	N	5	2,4-Dichlorophenol	760 U	100	760	330	UG/KG
SW8270C/NONE	076SB-0060M-0001-SO	N	5	2,4-Dimethylphenol	760 U	100	760	330	UG/KG
SW8270C/NONE	076SB-0060M-0001-SO	N	5	2,4-Dinitrophenol	1700 UJ	410	1700	800	UG/KG
SW8270C/NONE	076SB-0060M-0001-SO	N	5	2,4-Dinitrotoluene	1000 U	140	1000	330	UG/KG
SW8270C/NONE	076SB-0060M-0001-SO	N	5	2,6-Dinitrotoluene	1000 U	110	1000	330	UG/KG
SW8270C/NONE	076SB-0060M-0001-SO	N	5	2-Methylphenol (o-Cresol)	1000 U	410	1000	330	UG/KG
SW8270C/NONE	076SB-0060M-0001-SO	N	5	2-Nitroaniline	1000 U	46	1000	800	UG/KG
SW8270C/NONE	076SB-0060M-0001-SO	N	5	3,3'-Dichlorobenzidine	510 U	91	510	330	UG/KG
SW8270C/NONE	076SB-0060M-0001-SO	N	5	3-Nitroaniline	1000 U	81	1000	800	UG/KG
SW8270C/NONE	076SB-0060M-0001-SO	N	5	4-Chloro-3-Methylphenol	760 U	110	760	330	UG/KG
SW8270C/NONE	076SB-0060M-0001-SO	N	5	4-Chloroaniline	760 U	86	760	330	UG/KG
SW8270C/NONE	076SB-0060M-0001-SO	N	5	4-Nitroaniline	1000 U	130	1000	800	UG/KG
SW8270C/NONE	076SB-0060M-0001-SO	N	5	4-Nitrophenol	1700 U	410	1700	800	UG/KG
SW8270C/NONE	076SB-0060M-0001-SO	N	5	Benzoic acid	3400 U	1700	3400	800	UG/KG
SW8270C/NONE	076SB-0060M-0001-SO	N	5	Benzyl alcohol	1700 U	110	1700	330	UG/KG
SW8270C/NONE	076SB-0060M-0001-SO	N	5	bis(2-Chloroethoxy) Methane	510 U	110	510	330	UG/KG
SW8270C/NONE	076SB-0060M-0001-SO	N	5	bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	510 U	10	510	330	UG/KG
SW8270C/NONE	076SB-0060M-0001-SO	N	5	bis(2-Chloroisopropyl) Ether	510 U	48	510	330	UG/KG
SW8270C/NONE	076SB-0060M-0001-SO	N	5	Carbazole	250 U	140	250	50	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Reporting Anomalies

SDG Name: 240-17796-1_(76-SB,SS,SW)

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8270C/NONE	076SB-0060M-0001-SO	N	5	Cresols, m & p	2000 U	100	2000	300	UG/KG
SW8270C/NONE	076SB-0060M-0001-SO	N	5	Hexachlorocyclopentadiene	1700 U	140	1700	330	UG/KG
SW8270C/NONE	076SB-0060M-0001-SO	N	5	Nitrobenzene	510 U	11	510	330	UG/KG
SW8270C/NONE	076SB-0061M-0001-SO	N	2.5	2,4,6-Trichlorophenol	380 U	200	380	330	UG/KG
SW8270C/NONE	076SB-0061M-0001-SO	N	2.5	2,4-Dichlorophenol	380 U	50	380	330	UG/KG
SW8270C/NONE	076SB-0061M-0001-SO	N	2.5	2,4-Dimethylphenol	380 U	50	380	330	UG/KG
SW8270C/NONE	076SB-0061M-0001-SO	N	2.5	2,4-Dinitrophenol	830 U	200	830	800	UG/KG
SW8270C/NONE	076SB-0061M-0001-SO	N	2.5	2,4-Dinitrotoluene	500 U	68	500	330	UG/KG
SW8270C/NONE	076SB-0061M-0001-SO	N	2.5	2,6-Dinitrotoluene	500 U	53	500	330	UG/KG
SW8270C/NONE	076SB-0061M-0001-SO	N	2.5	2-Methylphenol (o-Cresol)	500 U	200	500	330	UG/KG
SW8270C/NONE	076SB-0061M-0001-SO	N	2.5	4-Chloro-3-Methylphenol	380 U	53	380	330	UG/KG
SW8270C/NONE	076SB-0061M-0001-SO	N	2.5	4-Chloroaniline	380 U	43	380	330	UG/KG
SW8270C/NONE	076SB-0061M-0001-SO	N	2.5	4-Nitrophenol	830 U	200	830	800	UG/KG
SW8270C/NONE	076SB-0061M-0001-SO	N	2.5	Benzoic acid	1700 U	830	1700	800	UG/KG
SW8270C/NONE	076SB-0061M-0001-SO	N	2.5	Benzyl alcohol	830 U	53	830	330	UG/KG
SW8270C/NONE	076SB-0061M-0001-SO	N	2.5	Carbazole	130 U	68	130	50	UG/KG
SW8270C/NONE	076SB-0061M-0001-SO	N	2.5	Cresols, m & p	1000 U	50	1000	300	UG/KG
SW8270C/NONE	076SB-0061M-0001-SO	N	2.5	Hexachlorocyclopentadiene	830 U	68	830	330	UG/KG
SW8270C/NONE	076SB-0062M-0001-SO	N	1	Cresols, m & p	400 U	20	400	300	UG/KG
SW8270C/NONE	076SB-0063M-0001-SO	N	1	Cresols, m & p	400 U	20	400	300	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	1,2,4-Trichlorobenzene	490 U	270	490	330	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	1,2-Dichlorobenzene	490 U	96	490	330	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	1,3-Dichlorobenzene	490 U	110	490	330	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	1,4-Dichlorobenzene	490 U	200	490	330	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	2,4,5-Trichlorophenol	1500 U	250	1500	800	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	2,4,6-Trichlorophenol	1500 U	790	1500	330	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	2,4-Dichlorophenol	1500 U	200	1500	330	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	2,4-Dimethylphenol	1500 U	200	1500	330	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	2,4-Dinitrophenol	3300 U	790	3300	800	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Reporting Anomalies

SDG Name: 240-17796-1_(76-SB,SS,SW)

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8270C/NONE	076SB-0064M-0001-SO	N	10	2,4-Dinitrotoluene	2000 U	270	2000	330	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	2,6-Dinitrotoluene	2000 U	210	2000	330	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	2-Chloronaphthalene	490 U	33	490	330	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	2-Chlorophenol	490 U	270	490	330	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	2-Methylphenol (o-Cresol)	2000 U	790	2000	330	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	2-Nitroaniline	2000 U	90	2000	800	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	2-Nitrophenol	490 U	270	490	330	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	3,3'-Dichlorobenzidine	990 U	180	990	330	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	3-Nitroaniline	2000 U	160	2000	800	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	4,6-Dinitro-2-Methylphenol	1500 U	790	1500	800	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	4-Bromophenyl phenyl ether	490 U	130	490	330	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	4-Chloro-3-Methylphenol	1500 U	210	1500	330	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	4-Chloroaniline	1500 U	170	1500	330	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	4-Chlorophenyl Phenyl Ether	490 U	130	490	330	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	4-Nitroaniline	2000 U	260	2000	800	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	4-Nitrophenol	3300 U	790	3300	800	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	Acenaphthene	66 U	33	66	50	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	Acenaphthylene	66 U	33	66	50	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	Anthracene	66 U	33	66	50	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	Benzo(a)anthracene	66 U	33	66	50	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	Benzo(a)pyrene	66 U	33	66	50	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	Benzo(b)fluoranthene	66 U	33	66	50	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	Benzo(g,h,i)perylene	66 U	33	66	50	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	Benzo(k)fluoranthene	66 U	33	66	50	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	Benzoic acid	6500 U	3300	6500	800	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	Benzyl alcohol	3300 U	210	3300	330	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	Benzyl butyl phthalate	490 U	99	490	330	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	bis(2-Chloroethoxy) Methane	990 U	220	990	330	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	990 U	20	990	330	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Reporting Anomalies

SDG Name: 240-17796-1_(76-SB,SS,SW)

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8270C/NONE	076SB-0064M-0001-SO	N	10	bis(2-Chloroisopropyl) Ether	990 U	94	990	330	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	Carbazole	490 U	270	490	50	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	Chrysene	66 U	11	66	50	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	Cresols, m & p	3900 U	200	3900	300	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	Dibenz(a,h)anthracene	66 U	33	66	50	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	Dibenzofuran	490 U	33	490	330	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	Diethyl Phthalate	490 U	160	490	330	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	Dimethyl Phthalate	490 U	170	490	330	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	Di-n-Butyl Phthalate	490 U	150	490	330	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	Di-n-Octylphthalate	490 U	270	490	330	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	Fluoranthene	66 U	33	66	50	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	Fluorene	66 U	33	66	50	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	Hexachlorobutadiene	490 U	270	490	330	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	Hexachlorocyclopentadiene	3300 U	270	3300	330	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	Hexachloroethane	490 U	89	490	330	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	Indeno(1,2,3-c,d)pyrene	66 U	33	66	50	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	Isophorone	490 U	130	490	330	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	Naphthalene	66 U	33	66	50	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	Nitrobenzene	990 U	22	990	330	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	n-Nitrosodi-n-propylamine	490 U	270	490	330	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	Pentachlorophenol	1500 U	790	1500	800	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	Phenanthrene	66 U	33	66	50	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	Phenol	490 U	270	490	330	UG/KG
SW8270C/NONE	076SB-0064M-0001-SO	N	10	Pyrene	66 U	33	66	50	UG/KG
SW8270C/NONE	076SB-0065M-0001-SO	N	2.5	2,4,6-Trichlorophenol	380 U	200	380	330	UG/KG
SW8270C/NONE	076SB-0065M-0001-SO	N	2.5	2,4-Dichlorophenol	380 U	50	380	330	UG/KG
SW8270C/NONE	076SB-0065M-0001-SO	N	2.5	2,4-Dimethylphenol	380 U	50	380	330	UG/KG
SW8270C/NONE	076SB-0065M-0001-SO	N	2.5	2,4-Dinitrophenol	830 U	200	830	800	UG/KG
SW8270C/NONE	076SB-0065M-0001-SO	N	2.5	2,4-Dinitrotoluene	500 U	68	500	330	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Reporting Anomalies

SDG Name: 240-17796-1_(76-SB,SS,SW)

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8270C/NONE	076SB-0065M-0001-SO	N	2.5	2,6-Dinitrotoluene	500 U	53	500	330	UG/KG
SW8270C/NONE	076SB-0065M-0001-SO	N	2.5	2-Methylphenol (o-Cresol)	500 U	200	500	330	UG/KG
SW8270C/NONE	076SB-0065M-0001-SO	N	2.5	4-Chloro-3-Methylphenol	380 U	53	380	330	UG/KG
SW8270C/NONE	076SB-0065M-0001-SO	N	2.5	4-Chloroaniline	380 U	43	380	330	UG/KG
SW8270C/NONE	076SB-0065M-0001-SO	N	2.5	4-Nitrophenol	830 U	200	830	800	UG/KG
SW8270C/NONE	076SB-0065M-0001-SO	N	2.5	Benzoic acid	1700 U	830	1700	800	UG/KG
SW8270C/NONE	076SB-0065M-0001-SO	N	2.5	Benzyl alcohol	830 U	53	830	330	UG/KG
SW8270C/NONE	076SB-0065M-0001-SO	N	2.5	Carbazole	130 U	68	130	50	UG/KG
SW8270C/NONE	076SB-0065M-0001-SO	N	2.5	Cresols, m & p	1000 U	50	1000	300	UG/KG
SW8270C/NONE	076SB-0065M-0001-SO	N	2.5	Hexachlorocyclopentadiene	830 U	68	830	330	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	1,2,4-Trichlorobenzene	500 U	270	500	330	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	1,2-Dichlorobenzene	500 U	97	500	330	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	1,3-Dichlorobenzene	500 U	110	500	330	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	1,4-Dichlorobenzene	500 U	200	500	330	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	2,4,5-Trichlorophenol	1500 U	250	1500	800	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	2,4,6-Trichlorophenol	1500 U	800	1500	330	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	2,4-Dichlorophenol	1500 U	200	1500	330	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	2,4-Dimethylphenol	1500 U	200	1500	330	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	2,4-Dinitrophenol	3300 U	800	3300	800	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	2,4-Dinitrotoluene	2000 U	270	2000	330	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	2,6-Dinitrotoluene	2000 U	210	2000	330	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	2-Chloronaphthalene	500 U	33	500	330	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	2-Chlorophenol	500 U	270	500	330	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	2-Methylphenol (o-Cresol)	2000 U	800	2000	330	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	2-Nitroaniline	2000 U	91	2000	800	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	2-Nitrophenol	500 U	270	500	330	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	3,3'-Dichlorobenzidine	1000 U	180	1000	330	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	3-Nitroaniline	2000 U	160	2000	800	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	4,6-Dinitro-2-Methylphenol	1500 U	800	1500	800	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Reporting Anomalies

SDG Name: 240-17796-1_(76-SB,SS,SW)

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8270C/NONE	076SB-0066M-0001-SO	N	10	4-Bromophenyl phenyl ether	500 U	130	500	330	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	4-Chloro-3-Methylphenol	1500 U	210	1500	330	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	4-Chloroaniline	1500 U	170	1500	330	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	4-Chlorophenyl Phenyl Ether	500 U	130	500	330	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	4-Nitroaniline	2000 U	260	2000	800	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	4-Nitrophenol	3300 U	800	3300	800	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	Acenaphthene	67 U	33	67	50	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	Acenaphthylene	67 U	33	67	50	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	Anthracene	67 U	33	67	50	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	Benzo(a)anthracene	130	33	67	50	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	Benzo(a)pyrene	170	33	67	50	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	Benzo(b)fluoranthene	190	33	67	50	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	Benzo(g,h,i)perylene	68	33	67	50	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	Benzo(k)fluoranthene	45 J	33	67	50	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	Benzoic acid	6600 U	3300	6600	800	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	Benzyl alcohol	3300 U	210	3300	330	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	Benzyl butyl phthalate	500 U	100	500	330	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	bis(2-Chloroethoxy) Methane	1000 U	220	1000	330	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	1000 U	20	1000	330	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	bis(2-Chloroisopropyl) Ether	1000 U	95	1000	330	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	Carbazole	500 U	270	500	50	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	Chrysene	140	11	67	50	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	Cresols, m & p	4000 U	200	4000	300	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	Dibenz(a,h)anthracene	67 U	33	67	50	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	Dibenzofuran	500 U	33	500	330	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	Diethyl Phthalate	500 U	160	500	330	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	Dimethyl Phthalate	500 U	170	500	330	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	Di-n-Butyl Phthalate	500 U	150	500	330	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	Di-n-Octylphthalate	500 U	270	500	330	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Reporting Anomalies

SDG Name: 240-17796-1_(76-SB,SS,SW)

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8270C/NONE	076SB-0066M-0001-SO	N	10	Fluoranthene	260	33	67	50	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	Fluorene	67 U	33	67	50	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	Hexachlorobutadiene	500 U	270	500	330	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	Hexachlorocyclopentadiene	3300 U	270	3300	330	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	Hexachloroethane	500 U	90	500	330	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	Indeno(1,2,3-c,d)pyrene	100	33	67	50	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	Isophorone	500 U	130	500	330	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	Naphthalene	67 U	33	67	50	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	Nitrobenzene	1000 U	22	1000	330	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	n-Nitrosodi-n-propylamine	500 U	270	500	330	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	Pentachlorophenol	1500 U	800	1500	800	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	Phenanthrene	140	33	67	50	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	Phenol	500 U	270	500	330	UG/KG
SW8270C/NONE	076SB-0066M-0001-SO	N	10	Pyrene	190	33	67	50	UG/KG
SW8270C/NONE	076SS-0007M-0001-SO	N	5	2,4,6-Trichlorophenol	760 U	400	760	330	UG/KG
SW8270C/NONE	076SS-0007M-0001-SO	N	5	2,4-Dichlorophenol	760 U	100	760	330	UG/KG
SW8270C/NONE	076SS-0007M-0001-SO	N	5	2,4-Dimethylphenol	760 U	100	760	330	UG/KG
SW8270C/NONE	076SS-0007M-0001-SO	N	5	2,4-Dinitrophenol	1700 UJ	400	1700	800	UG/KG
SW8270C/NONE	076SS-0007M-0001-SO	N	5	2,4-Dinitrotoluene	1000 U	140	1000	330	UG/KG
SW8270C/NONE	076SS-0007M-0001-SO	N	5	2,6-Dinitrotoluene	1000 U	110	1000	330	UG/KG
SW8270C/NONE	076SS-0007M-0001-SO	N	5	2-Methylphenol (o-Cresol)	1000 U	400	1000	330	UG/KG
SW8270C/NONE	076SS-0007M-0001-SO	N	5	2-Nitroaniline	1000 U	46	1000	800	UG/KG
SW8270C/NONE	076SS-0007M-0001-SO	N	5	3,3'-Dichlorobenzidine	500 U	91	500	330	UG/KG
SW8270C/NONE	076SS-0007M-0001-SO	N	5	3-Nitroaniline	1000 U	81	1000	800	UG/KG
SW8270C/NONE	076SS-0007M-0001-SO	N	5	4-Chloro-3-Methylphenol	760 U	110	760	330	UG/KG
SW8270C/NONE	076SS-0007M-0001-SO	N	5	4-Chloroaniline	760 U	86	760	330	UG/KG
SW8270C/NONE	076SS-0007M-0001-SO	N	5	4-Nitroaniline	1000 U	130	1000	800	UG/KG
SW8270C/NONE	076SS-0007M-0001-SO	N	5	4-Nitrophenol	1700 U	400	1700	800	UG/KG
SW8270C/NONE	076SS-0007M-0001-SO	N	5	Benzoic acid	3300 U	1700	3300	800	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Reporting Anomalies

SDG Name: 240-17796-1_(76-SB,SS,SW)

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8270C/NONE	076SS-0007M-0001-SO	N	5	Benzyl alcohol	1700 U	110	1700	330	UG/KG
SW8270C/NONE	076SS-0007M-0001-SO	N	5	bis(2-Chloroethoxy) Methane	500 U	110	500	330	UG/KG
SW8270C/NONE	076SS-0007M-0001-SO	N	5	bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	500 U	10	500	330	UG/KG
SW8270C/NONE	076SS-0007M-0001-SO	N	5	bis(2-Chloroisopropyl) Ether	500 U	48	500	330	UG/KG
SW8270C/NONE	076SS-0007M-0001-SO	N	5	Carbazole	250 U	140	250	50	UG/KG
SW8270C/NONE	076SS-0007M-0001-SO	N	5	Cresols, m & p	2000 U	100	2000	300	UG/KG
SW8270C/NONE	076SS-0007M-0001-SO	N	5	Hexachlorocyclopentadiene	1700 U	140	1700	330	UG/KG
SW8270C/NONE	076SS-0007M-0001-SO	N	5	Nitrobenzene	500 U	11	500	330	UG/KG
SW8270C/NONE	076SS-0022M-0001-SO	N	1	Cresols, m & p	400 U	20	400	300	UG/KG

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8330B/NONE	076-0067-0001-ER	N	1	2-Amino-4,6-dinitrotoluene	0.21 U	0.015	0.21	0.2	UG/L
SW8330B/NONE	076-0067-0001-ER	N	1	2-Nitrotoluene	0.51 U	0.09	0.51	0.2	UG/L
SW8330B/NONE	076-0067-0001-ER	N	1	3-Nitrotoluene	0.51 U	0.059	0.51	0.2	UG/L
SW8330B/NONE	076-0067-0001-ER	N	1	4-Nitrotoluene	0.51 U	0.09	0.51	0.2	UG/L
SW8330B/NONE	076SW-0013-0001-SW	N	1	2-Nitrotoluene	0.51 U	0.09	0.51	0.2	UG/L
SW8330B/NONE	076SW-0013-0001-SW	N	1	3-Nitrotoluene	0.51 U	0.058	0.51	0.2	UG/L
SW8330B/NONE	076SW-0013-0001-SW	N	1	4-Nitrotoluene	0.51 U	0.09	0.51	0.2	UG/L
SW8330B/NONE	076SW-0014-0001-SW	FD	1	2-Amino-4,6-dinitrotoluene	0.21 U	0.015	0.21	0.2	UG/L
SW8330B/NONE	076SW-0014-0001-SW	FD	1	2-Nitrotoluene	0.52 U	0.091	0.52	0.2	UG/L
SW8330B/NONE	076SW-0014-0001-SW	FD	1	3-Nitrotoluene	0.52 U	0.059	0.52	0.2	UG/L
SW8330B/NONE	076SW-0014-0001-SW	FD	1	4-Nitrotoluene	0.52 U	0.091	0.52	0.2	UG/L
SW8330B/NONE	076SW-0015-0001-SW	N	1	2-Amino-4,6-dinitrotoluene	0.21 U	0.015	0.21	0.2	UG/L
SW8330B/NONE	076SW-0015-0001-SW	N	1	2-Nitrotoluene	0.52 U	0.091	0.52	0.2	UG/L
SW8330B/NONE	076SW-0015-0001-SW	N	1	3-Nitrotoluene	0.52 U	0.059	0.52	0.2	UG/L
SW8330B/NONE	076SW-0015-0001-SW	N	1	4-Nitrotoluene	0.52 U	0.091	0.52	0.2	UG/L

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Worksheet

SDG Name: 240-17796-1_(76-SB,SS,SW)

Method: E353.2

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?				
Were samples preserved properly and received in good condition?				
Were holding times met?				
Were sample reciept temperatures met?				
Were QAPP specified RLs achieved?				
Were all QAPP specified target analytes reported?				
Was the initial calibration curve within QAPP acceptance limits?			•	Not Required
Were the ICV/CCVs analyzed (frequency) as required in the QAPP?			•	Not Required
Were ICV/CCV results within QAPP acceptance limits?			•	Not Required
Were the ICB/CCBs analyzed (frequency) as required in the QAPP?			•	Not Required
Was a method blank prepared and analyzed with each batch?				
Were target analytes detected in the ICB/CCB/method blank?			•	Not Required
Was a field blank collected and analyzed?				
Were target analytes reported in the field blank analyses above the MDL?				
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?				
Was a LCS prepared and analyzed with each batch?				
Were the LCS recoveries within QAPP acceptance limits?				
Was a duplicate sample prepared and analyzed with each batch?				
Was the duplicate RPD within QAPP acceptance limits?				
Was a MS/MSD pair prepared with each batch?				
Is the MS/MSD parent sample the one designated by the sampling team?				
Were the MS/MSD recoveries and RPDs within QAPP acceptance limits?				
Were sample concentrations within calibration range?				
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?				
Are all samples associated with QC non-compliances flagged appropriately?				
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?				

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Method: M8015V

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report?				
Were samples preserved properly and received in good condition?				
Were sample reciept temperatures met?				
Were holding times for prep and analysis met?				
Does the initial calibration curve consist of 5 concentration levels, with the low standard near but > MDL?				
Is the ICAL %RSD within acceptance limits (%D =20%) on both columns?				
Was a second source verification analyzed after the ICAL and all analytes within criteria (%D =20%)?				
Was a CCV run at the beginning of the analytical sequence and every 12 hours?				
Was the CCV a mid-level standard from the initial calibration curve?				
Was the CCV %D within criteria (%D =20%)?				
Was a method blank prepared and analyzed with each batch?				
Were target analytes detected in the method blank above the MDL?				
Was a field blank (equipment or trip) collected and analyzed?				
Were target analytes reported in the field blank analyses above the MDL?				
Were surrogate recoveries within QAPP acceptance limits?				
Was an LCS/LCSD pair prepared and analyzed with each batch? (if applicable)				
Were the LCS recoveries within QAPP acceptance limits?				
Were the LCS/LCSD RPDs within QAPP acceptance limits? (if applicable)				
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits (RPD = 30%) ?				
Is the MS/MSD parent sample the one designated by the sampling team?				
Were MS/MSD recoveries and RPD within QAPP acceptance limits?				
Were all QAPP-specified target analytes reported?				
Were reported sample concentrations within calibration range?				
Are all samples associated with QC non-compliances flagged appropriately?				
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?				
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?				
Were sample prepration sheets present and filled out appropriately?				
Were instrument run logs present and filled out appropriately?				

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Method: SW6020

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?				
Were samples preserved properly and received in good condition?				
Were holding times met?				
Were sample reciept temperatures met?				
Were QAPP specified RLs achieved?				
Were all QAPP specified target analytes reported?				
Was the initial calibration curve within QAPP acceptance limits?			•	Not Required
Were the ICV/CCVs analyzed (frequency) as required in the QAPP?			•	Not Required
Were ICV/CCV results within QAPP acceptance limits?			•	Not Required
Were the ICB/CCBs analyzed (frequency) as required in the QAPP?			•	Not Required
Was a method blank prepared and analyzed with each batch?				
Were target analytes detected in the ICB/CCB/method blank?			•	Not Required
Was a field blank collected and analyzed?				
Were target analytes reported in the field blank analyses above the MDL?				
Was an Interference Check Standard (ICS) run at the beginning and end of every run?			•	Not Required
Was the ICS recovery within QAPP acceptance limits?			•	Not Required
If a field duplicate was analyzed, were the RPDs within criteria?				
Was a LCS prepared and analyzed with each batch?				
Were the LCS recoveries within QAPP acceptance limits?				
Was a MS/MSD pair prepared with each batch?				
Is the MS/MSD parent sample the one designated by the sampling team?				
Were the MS/MSD within QAPP acceptance limits?				
Was a serial dilution prepared and analyzed with each batch?			•	Not Required
Was the serial dilution within QAPP acceptance limits?			•	Not Required
Were sample concentrations within calibration range?				
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?				
Are all samples associated with QC non-compliances flagged appropriately?				
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?				

Method: SW7196A

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?				
Were samples preserved properly and received in good condition?				
Were holding times met?				
Were sample reciept temperatures met?				
Were QAPP specified RLs achieved?				
Were all QAPP specified target analytes reported?				
Was the initial calibration curve within QAPP acceptance limits?			•	Not Required
Were the ICV/CCVs analyzed (frequency) as required in the QAPP?			•	Not Required
Were ICV/CCV results within QAPP acceptance limits?			•	Not Required
Were the ICB/CCBs analyzed (frequency) as required in the QAPP?			•	Not Required
Was a method blank prepared and analyzed with each batch?				
Were target analytes detected in the ICB/CCB/method blank?			•	Not Required
Was a field blank collected and analyzed?				
Were target analytes reported in the field blank analyses above the MDL?				
Was the ICS recovery within QAPP acceptance limits?			•	Not Required
If a field duplicate was analyzed, were the RPDs within criteria?				
Was a LCS prepared and analyzed with each batch?				
Were the LCS recoveries within QAPP acceptance limits?				
Was a MS/MSD pair prepared with each batch?				
Is the MS/MSD parent sample the one designated by the sampling team?				
Were the MS/MSD within QAPP acceptance limits?				
Were sample concentrations within calibration range?				
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?				
Are all samples associated with QC non-compliances flagged appropriately?				
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?				

Method: SW7470A

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?				

Method: SW7470A

Review Questions	Yes	No	NA	Comment
Were samples preserved properly and received in good condition?				
Were holding times met?				
Were sample reciept temperatures met?				
Were QAPP specified RLs achieved?				
Were all QAPP specified target analytes reported?				
Was the initial calibration curve within QAPP acceptance limits?			•	Not Required
Were the ICV/CCVs analyzed (frequency) as required in the QAPP?			•	Not Required
Were ICV/CCV results within QAPP acceptance limits?			•	Not Required
Were the ICB/CCBs analyzed (frequency) as required in the QAPP?			•	Not Required
Was a method blank prepared and analyzed with each batch?				
Were target analytes detected in the ICB/CCB/method blank?			•	Not Required
Was a field blank collected and analyzed?				
Were target analytes reported in the field blank analyses above the MDL?				
Was the ICS recovery within QAPP acceptance limits?			•	Not Required
If a field duplicate was analyzed, were the RPDs within criteria?				
Was a LCS prepared and analyzed with each batch?				
Were the LCS recoveries within QAPP acceptance limits?				
Was a MS/MSD pair prepared with each batch?				
Is the MS/MSD parent sample the one designated by the sampling team?				
Were the MS/MSD within QAPP acceptance limits?				
Were sample concentrations within calibration range?				
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?				
Are all samples associated with QC non-compliances flagged appropriately?				
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?				

Method: SW7471A

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?				
Were samples preserved properly and received in good condition?				
Were holding times met?				

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Method: SW7471A

Review Questions	Yes	No	NA	Comment
Were sample reciept temperatures met?				
Were QAPP specified RLs achieved?				
Were all QAPP specified target analytes reported?				
Was the initial calibration curve within QAPP acceptance limits?			•	Not Required
Were the ICV/CCVs analyzed (frequency) as required in the QAPP?			•	Not Required
Were ICV/CCV results within QAPP acceptance limits?			•	Not Required
Were the ICB/CCBs analyzed (frequency) as required in the QAPP?			•	Not Required
Was a method blank prepared and analyzed with each batch?				
Were target analytes detected in the ICB/CCB/method blank?			•	Not Required
Was a field blank collected and analyzed?				
Were target analytes reported in the field blank analyses above the MDL?				
Was the ICS recovery within QAPP acceptance limits?			•	Not Required
If a field duplicate was analyzed, were the RPDs within criteria?				
Was a LCS prepared and analyzed with each batch?				
Were the LCS recoveries within QAPP acceptance limits?				
Was a MS/MSD pair prepared with each batch?				
Is the MS/MSD parent sample the one designated by the sampling team?				
Were the MS/MSD within QAPP acceptance limits?				
Were sample concentrations within calibration range?				
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?				
Are all samples associated with QC non-compliances flagged appropriately?				
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?				

Method: SW8081

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report?				
Were samples preserved properly and received in good condition?				
Were sample reciept temperatures met?				
Were holding times for prep and analysis met?				
Does the initial calibration curve consist of 5 concentration levels, with the low standard near but > MDL?				

Method: SW8081

Review Questions	Yes	No	NA	Comment
Is the ICAL %RSD within acceptance limits (%D =20%) on both columns?				
Was a second source verification analyzed after the ICAL and all analytes within criteria (%D =20%)?				
Was a CCV run at the beginning of the analytical sequence and every 12 hours?				
Was the CCV a mid-level standard from the initial calibration curve?				
Was the CCV %D within criteria (%D =20%)?				
Was a method blank prepared and analyzed with each batch?				
Were target analytes detected in the method blank above the MDL?				
Was a field blank (equipment or trip) collected and analyzed?				
Were target analytes reported in the field blank analyses above the MDL?				
Were surrogate recoveries within QAPP acceptance limits?				
Was an LCS/LCSD pair prepared and analyzed with each batch? (if applicable)				
Were the LCS recoveries within QAPP acceptance limits?				
Were the LCS/LCSD RPDs within QAPP acceptance limits? (if applicable)				
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits (RPD = 30%) ?				
Were the Breakdown products within QAPP acceptance limits?				
Is the MS/MSD parent sample the one designated by the sampling team?				
Were MS/MSD recoveries and RPD within QAPP acceptance limits?				
Were all QAPP-specified target analytes reported?				
Were reported sample concentrations within calibration range?				
Were RPDs between primary and confirmation columns < 40%?				
Are all samples associated with QC non-compliances flagged appropriately?				
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?				
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?				
Were sample prepration sheets present and filled out appropriately?				
Were instrument run logs present and filled out appropriately?				

Method: SW8082

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report?				

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Method: SW8082

Review Questions	Yes	No	NA	Comment
Were samples preserved properly and received in good condition?				
Were sample reciept temperatures met?				
Were holding times for prep and analysis met?				
Does the initial calibration curve consist of 5 concentration levels, with the low standard near but > MDL?				
Is the ICAL %RSD within acceptance limits (%D =20%) on both columns?				
Was a second source verification analyzed after the ICAL and all analytes within criteria (%D =20%)?				
Was a CCV run at the beginning of the analytical sequence and every 12 hours?				
Was the CCV a mid-level standard from the initial calibration curve?				
Was the CCV %D within criteria (%D =20%)?				
Was a method blank prepared and analyzed with each batch?				
Were target analytes detected in the method blank above the MDL?				
Was a field blank (equipment or trip) collected and analyzed?				
Were target analytes reported in the field blank analyses above the MDL?				
Were surrogate recoveries within QAPP acceptance limits?				
Was an LCS/LCSD pair prepared and analyzed with each batch? (if applicable)				
Were the LCS recoveries within QAPP acceptance limits?				
Were the LCS/LCSD RPDs within QAPP acceptance limits? (if applicable)				
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits (RPD = 30%) ?				
Were the Breakdown products within QAPP acceptance limits?				
Is the MS/MSD parent sample the one designated by the sampling team?				
Were MS/MSD recoveries and RPD within QAPP acceptance limits?				
Were all QAPP-specified target analytes reported?				
Were reported sample concentrations within calibration range?				
Were RPDs between primary and confirmation columns < 40%?				
Are all samples associated with QC non-compliances flagged appropriately?				
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?				
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?				
Were sample prepration sheets present and filled out appropriately?				

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Method: SW8082

Review Questions	Yes	No	NA	Comment
Were instrument run logs present and filled out appropriately?				

Method: SW8151

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report?				
Were samples preserved properly and received in good condition?				
Were sample reciept temperatures met?				
Were holding times for prep and analysis met?				
Does the initial calibration curve consist of 5 concentration levels, with the low standard near but > MDL?				
Is the ICAL %RSD within acceptance limits (%D =20%) on both columns?				
Was a second source verification analyzed after the ICAL and all analytes within criteria (%D =20%)?				
Was a CCV run at the beginning of the analytical sequence and every 12 hours?				
Was the CCV a mid-level standard from the initial calibration curve?				
Was the CCV %D within criteria (%D =20%)?				
Was a method blank prepared and analyzed with each batch?				
Were target analytes detected in the method blank above the MDL?				
Was a field blank (equipment or trip) collected and analyzed?				
Were target analytes reported in the field blank analyses above the MDL?				
Were surrogate recoveries within QAPP acceptance limits?				
Was an LCS/LCSD pair prepared and analyzed with each batch? (if applicable)				
Were the LCS recoveries within QAPP acceptance limits?				
Were the LCS/LCSD RPDs within QAPP acceptance limits? (if applicable)				
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits (RPD = 30%) ?				
Were the Breakdown products within QAPP acceptance limits?				
Is the MS/MSD parent sample the one designated by the sampling team?				
Were MS/MSD recoveries and RPD within QAPP acceptance limits?				
Were all QAPP-specified target analytes reported?				

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Method: SW8151				
Review Questions	**Yes**	**No**	**NA**	**Comment**
Were reported sample concentrations within calibration range?				
Were RPDs between primary and confirmation columns < 40%?				
Are all samples associated with QC non-compliances flagged appropriately?				
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?				
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?				
Were sample prepration sheets present and filled out appropriately?				
Were instrument run logs present and filled out appropriately?				

Method: SW8260B				
Review Questions	**Yes**	**No**	**NA**	**Comment**
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?				
Were samples preserved properly and received in good condition?				
Were holding times met?				
Were sample reciept temperatures met?				
Were QAPP specified PQLs achieved?				
Were all QAPP-specified target analytes reported?				
Was the GC/MS system properly tuned based on method criteria?			•	Not Required
Was the criteria met during each 12 hour shift (prior to ICAL and Cal Ver.)?			•	Not Required
Does the initial calibration curve consist of 5 concentration levels, with the low standard near but > MDL?			•	Not Required
Did the Calibration Check Compounds (CCCs) have a relative standard deviation within QAPP acceptance limits?			•	Not Required
Were the average response factors (RFs) for the System Performance Check Compounds (SPCCs) within QAPP acceptance limits?			•	Not Required
Were all other target analytes within criteria? OR Was the average across all target analytes within criteria? Was a different calibration option used?			•	Not Required
If a linear regression curve was used, was the correlation coefficient within criteria?			•	Not Required
Was a second source verification analyzed after the ICAL and all analytes within criteria?			•	Not Required
Was a CCV run at the beginning of the analytical sequence and every 12 hours?			•	Not Required
Was the CCV a mid-level standard from the initial calibration curve?			•	Not Required
Did the CCCs have a %Difference within QAPP acceptance limits?			•	Not Required

Method: SW8260B

Review Questions	Yes	No	NA	Comment
Were the average RFs for the SPCCs within QAPP acceptance limits?			•	Not Required
Was the average %D (difference or drift) for all target analytes within QAPP acceptance limits?			•	Not Required
Were the internal standards added to every standard, blank, matrix spike, matrix spike duplicate, and sample?			•	Not Required
Were the retention times for all IS compounds within QAPP acceptance limits?			•	Not Required
Are the area counts of all IS compounds within QAPP acceptance limits?			•	Not Required
Was a method blank prepared and analyzed with each batch?				
Were target analytes detected in the method blank above the MDL?				
Was a field blank (equipment or trip) collected and analyzed at the required frequency?				
Were target analytes reported in the field blank analyses above the MDL?				
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?				
Was an LCS/LCSD pair prepared and analyzed with each batch?				
Were the LCS/LCSD recoveries within QAPP acceptance limits?				
Were the LCS/LCSD RPDs within QAPP acceptance limits?				
Was the duplicate RPD within QAPP acceptance limits?				
Are all samples associated with QC non-compliances flagged appropriately?				
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?				
Was a MS/MSD pair prepared with each batch?				
Is the MS/MSD parent sample the one designated by the sampling team?				
Were MS/MSD recoveries and RPD within QAPP acceptance limits?				
Were surrogate recoveries within QAPP acceptance limits?				
Were reported sample concentrations within calibration range?				
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?				
Were instrument run logs present and filled out appropriately?				
Were sample prepration sheets present and filled out appropriately?				

Method: SW8270C

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?				
Were samples preserved properly and received in good condition?				

Method: SW8270C

Review Questions	Yes	No	NA	Comment
Were holding times met?				
Were sample reciept temperatures met?				
Were QAPP specified PQLs achieved?				
Were all QAPP-specified target analytes reported?				
Was the GC/MS system properly tuned based on method criteria?			•	Not Required
Was the criteria met during each 12 hour shift (prior to ICAL and Cal Ver.)?			•	Not Required
Does the initial calibration curve consist of 5 concentration levels, with the low standard near but > MDL?			•	Not Required
Did the Calibration Check Compounds (CCCs) have a relative standard deviation within QAPP acceptance limits?			•	Not Required
Were the average response factors (RFs) for the System Performance Check Compounds (SPCCs) within QAPP acceptance limits?			•	Not Required
Were all other target analytes within criteria? OR Was the average across all target analytes within criteria? Was a different calibration option used?			•	Not Required
If a linear regression curve was used, was the correlation coefficient within criteria?			•	Not Required
Was a second source verification analyzed after the ICAL and all analytes within criteria?			•	Not Required
Was a CCV run at the beginning of the analytical sequence and every 12 hours?			•	Not Required
Was the CCV a mid-level standard from the initial calibration curve?			•	Not Required
Did the CCCs have a %Difference within QAPP acceptance limits?			•	Not Required
Were the average RFs for the SPCCs within QAPP acceptance limits?			•	Not Required
Was the average %D (difference or drift) for all target analytes within QAPP acceptance limits?			•	Not Required
Were the internal standards added to every standard, blank, matrix spike, matrix spike duplicate, and sample?			•	Not Required
Were the retention times for all IS compounds within QAPP acceptance limits?			•	Not Required
Are the area counts of all IS compounds within QAPP acceptance limits?			•	Not Required
Was a method blank prepared and analyzed with each batch?				
Were target analytes detected in the method blank above the MDL?				
Was a field blank (equipment or trip) collected and analyzed at the required frequency?				
Were target analytes reported in the field blank analyses above the MDL?				
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?				
Was an LCS/LCSD pair prepared and analyzed with each batch?				

Method: SW8270C				
Review Questions	**Yes**	**No**	**NA**	**Comment**
Were the LCS/LCSD recoveries within QAPP acceptance limits?				
Were the LCS/LCSD RPDs within QAPP acceptance limits?				
Was the duplicate RPD within QAPP acceptance limits?				
Are all samples associated with QC non-compliances flagged appropriately?				
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?				
Was a MS/MSD pair prepared with each batch?				
Is the MS/MSD parent sample the one designated by the sampling team?				
Were MS/MSD recoveries and RPD within QAPP acceptance limits?				
Were surrogate recoveries within QAPP acceptance limits?				
Were reported sample concentrations within calibration range?				
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?				
Were instrument run logs present and filled out appropriately?				
Were sample prepration sheets present and filled out appropriately?				

Method: SW8330B				
Review Questions	**Yes**	**No**	**NA**	**Comment**
Did Chain-of-Custody information agree with laboratory report?				
Were samples preserved properly and received in good condition?				
Were sample reciept temperatures met?				
Were holding times for prep and analysis met?				
Does the initial calibration curve consist of 5 concentration levels, with the low standard near but > MDL?				
Is the ICAL %RSD within acceptance limits (%D =20%) on both columns?				
Was a second source verification analyzed after the ICAL and all analytes within criteria (%D =20%)?				
Was a CCV run at the beginning of the analytical sequence and every 12 hours?				
Was the CCV a mid-level standard from the initial calibration curve?				
Was the CCV %D within criteria (%D =20%)?				
Was a method blank prepared and analyzed with each batch?				
Were target analytes detected in the method blank above the MDL?				
Was a field blank (equipment or trip) collected and analyzed?				

AUTOMATED DATA REVIEW SUMMARY for 240-17796-1_(76-SB,SS,SW)

Method: SW8330B

Review Questions	Yes	No	NA	Comment
Were target analytes reported in the field blank analyses above the MDL?				
Were surrogate recoveries within QAPP acceptance limits?				
Was an LCS/LCSD pair prepared and analyzed with each batch? (if applicable)				
Were the LCS recoveries within QAPP acceptance limits?				
Were the LCS/LCSD RPDs within QAPP acceptance limits? (if applicable)				
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits (RPD = 30%) ?				
Is the MS/MSD parent sample the one designated by the sampling team?				
Were MS/MSD recoveries and RPD within QAPP acceptance limits?				
Were all QAPP-specified target analytes reported?				
Were reported sample concentrations within calibration range?				
Were RPDs between primary and confirmation columns < 40%?				
Did PDA spectra for reported compounds match associated standard spectra?				
Are all samples associated with QC non-compliances flagged appropriately?				
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?				
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?				
Were sample prepration sheets present and filled out appropriately?				
Were instrument run logs present and filled out appropriately?				

This page intentionally left blank.

WORKSHEET 7

Automated Data Review Summary for 240-17796-2
Rinsate Blank

This page left intentionally blank.

AUTOMATED DATA REVIEW SUMMARY for 240-17796-2

Facility: Ravenna Army Ammunition Plant

Event: Fall 2012 SI/RI Sampling

Guidance Document: Ravenna Army Ammunition Plant, Quality Assurance Project Plan, Oct. 3, 2012

Contract Laboratory: TestAmerica, Inc., North Canton, OH

Field Contractor: Environmental Chemical Corporation, Otis Ang Base, MA

Data Review Contractor:

SDG: 240-17796-2, Certified - 1/3/2013 by frederickroche

QC Level: ADR

Project Manager:

Data Reviewer:

Data Reviewer Title:

Date of Review Report:

Samples Included in SDG 240-17796-2

Analytical Method/ Leach Method	Normal Soil Samples	Field QC Soil Samples
SW6020/NONE	23	0

AUTOMATED DATA REVIEW SUMMARY for 240-17796-2

This report assesses the analytical data quality associated with the analyses listed on the preceding cover page. This assessment has been made through a combination of automated data review (ADR) and supplemental manual review, the details of which are described below. The approach taken in the review of this data set is consistent with the requirements contained in the Ravenna Army Ammunition Plant, Quality Assurance Project Plan, Oct. 3, 2012 to the extent possible. Where definitive guidance is not provided, data has been evaluated in a conservative manner using professional judgment. In cases where two qualifiers are listed as an action, such as 'J/UJ', the first qualifier applies to positive results, and the second to non-detect results.

Samples were collected by Environmental Chemical Corporation, Otis Ang Base, MA; analyses were performed by TestAmerica, Inc., North Canton, OH and were reported under sample delivery group (SDG) 240-17796-2. Results have been evaluated electronically using electronic data deliverables (EDDs) provided by the laboratory. The laboratory data summary forms (hard copy) have been reviewed during this effort and compared to the automated review output. Findings based on the automated data submission and manual data verification processes are detailed in the ADR narrative.

The following quality control elements were supported by the electronic deliverable and were evaluated during this review effort:

- Blank
- Blank - Negative
- Lab Replicate RPD
- LCS Recovery
- MS Recovery
- Prep Hold Time
- Test Hold Time

The following quality control elements were either not applicable to the deliverable, or were not supported by the electronic deliverable, and were therefore not included in the automated data review. Those elements required for the project were reviewed manually, as narrated in the Comment section below.

- Ambient Blank
- Calibration Blank
- Calibration Blank - Negative
- Continuing Calibration Verification
- Equipment Blank
- Field Blank
- Field Duplicate RPD

AUTOMATED DATA REVIEW SUMMARY for 240-17796-2

Initial Calibration Verification

LCS RPD

Material Blank

MS RPD

Surrogate

Trip Blank

AUTOMATED DATA REVIEW SUMMARY for 240-17796-2

A representative sampling or ten percent of sample and QC results were manually evaluated for compliance with project specific requirements and consistency with hard copy results. The following summaries were generated during the evaluation of this data set and are included in this report as applicable.

Batch – The analytical batch report is reviewed for completeness and compliance with project specific requirements. Incomplete or non-compliant run sequences are identified and their impact on data quality are discussed in the narrative.

QC Outlier – Results exceeding the evaluation criteria are reviewed for compliance with project requirements and a minimum of ten percent of the non-compliant QC values reported electronically are verified for consistency with hard-copy values.

Qualified Results – Qualified results are evaluated for compliance with project requirements and ten percent of qualified results are verified for consistency with the QC Outliers.

Rejected Results – All rejected results are evaluated for compliance with project requirements. The reason for rejection of the data is verified against hard copy data.

Field Duplicates – Field duplicate comparison results are evaluated for compliance with project requirements and ten percent of values reported are verified for consistency with the hard-copy data.

Data Submission Warnings – Warnings encountered during the data submission process are evaluated and their affect on data quality is discussed in the narrative below.

Analytical deficiencies, project non-compliance issues and inconsistencies with hard copy results observed during ADR evaluation process and their impact on data quality are summarized in the narrative below.

A total of 4 results (0.79%) out of the 506 results (sample and field QC samples) reported are qualified based on review and 0 results (0.00%) have been rejected. Trace values are not counted as qualified results in the above count. The qualified results are detailed in the following tables and discussed in the narrative below, where appropriate.

Narrative Comments

Analytical Method	Comment
SW6020	

AUTOMATED DATA REVIEW SUMMARY for 240-17796-2

Reviewed by ,

AUTOMATED DATA REVIEW SUMMARY for 240-17796-2

Reason and Comment Code Definitions

Reasons	
Code	**Definition**
A	Serial dilution
A1	Ambient Blank
B	The analyte was found in an associated blank as well as in the sample.
B2	CCB
B3	CCB - Neg
c	LCS - low
C	LCS Recovery
d	Field Duplicate RPD
D	MS RPD
D1	Lab Replicate RPD
D2	No precision available
F	Field Blank
F1	Hydrocarbon pattern does not match standard
G1	Initial Calibration RRF
G2	Initial Calibration RSD
h	Holding time exceeded by less than 2X.
H	Holding time exceeded by more than 2X.
H1	Test Hold Time
H2	Prep Hold Time
I	Surrogate recovery outside project limits.
J	CRA/CRI Recovery
K	An analyte (non-common laboratory artifact) was detected in the sample at a concentration less than 5X the concentration detected in the associated method blank.
L	Lab Blank
L1	Lab Blank - Neg
m	MS - low
M	MS Recovery
N	Blank - No Action

AUTOMATED DATA REVIEW SUMMARY for 240-17796-2

Reason and Comment Code Definitions

O	ICS
P	Sample preservation/collection requirement not met.
P1	Column RPD
P2	Improper preparation/extraction
q	Encore sample holding time exceeded by less than 2X.
Q	Encore sample holding time exceeded by more than 2X.
Q1	Material Blank
R	Exceeds LinearCalibration Range
S	Internal standard
T	Trip Blank
TI	Tentatively Identified Compound
TR	Trace Level Detect
U	Receipt Temperature
V	Equipment Blank
V1	ICV
V2	CCV
V3	CCV RRF
V4	Sample Receipt Condition
W	Column breakdown (pesticides)
X	Raised reporting limit
Y	Cooler temperature greater than 10 degreec C.
y	Cooler temperature greater than 4 degrees C, but less than 10 degreec C.
Y1	False Positive
Y2	Data rejected due to radiological anomolies
Z	LCS RPD
Z2	Analyte not confirmed on second column
Z3	High percent moisture in sample.

AUTOMATED DATA REVIEW SUMMARY for 240-17796-2

Flag Code and Definitions	
Flag	Definition
U	Undetected: The analyte was analyzed for, but not detected.
UJ	The analyte was not detected; however, the result is estimated due to discrepancies in meeting certain analyte-specific quality control criteria.
J	Estimated: The analyte was positively identified, the quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
R	The data are rejected due to deficiencies in meeting QC criteria and may not be used for decision making.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification".
NJ	The analysis indicates the presence of an analyte that has been “tentatively identified” and the associated numerical value represents its approximate concentration.

AUTOMATED DATA REVIEW SUMMARY for 240-17796-2

Batch Report

Test Method: SW6020; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
59262	59062	NA	LABQC	SQ	LABQC	MB 180-59062/1-A		1/1	27-Nov-2012 10:06 AM	27-Nov-2012 10:06 AM	22-Dec-2012 9:29 PM	LB
	59062	NA	LABQC	SQ	LABQC	LCS 180-59062/2-A		1/1	27-Nov-2012 10:06 AM	27-Nov-2012 10:06 AM	22-Dec-2012 9:33 PM	BS
	59062	NA	76-U4-DU1-SB	SO	076SB-0023M-0001-SO	240-17796-1		1/1	15-Nov-2012 9:15 AM	27-Nov-2012 10:06 AM	22-Dec-2012 9:40 PM	N
	59062	NA	76-U4-DU1-SB	SO	076SB-0023M-0001-SO	240-17796-1		1/1	15-Nov-2012 9:15 AM	27-Nov-2012 10:06 AM	22-Dec-2012 10:04 PM	LR
	59062	NA	76-U4-DU1-SB	SO	076SB-0023M-0001-SO	240-17796-1		1/1	15-Nov-2012 9:15 AM	27-Nov-2012 10:06 AM	22-Dec-2012 10:08 PM	MS
	59062	NA	76-U10-DU1-SS	SO	076SS-0022M-0001-SO	240-17796-2		1/1	15-Nov-2012 12:25 PM	27-Nov-2012 10:06 AM	22-Dec-2012 10:20 PM	N
	59062	NA	76-U4-DU1-SB	SO	076SB-0024M-0001-SO	240-17796-3		1/1	15-Nov-2012 10:20 AM	27-Nov-2012 10:06 AM	22-Dec-2012 10:24 PM	N
	59062	NA	76-U4-DU1-SB1	SO	076SB-0025M-0001-SO	240-17796-4		1/1	15-Nov-2012 9:00 AM	27-Nov-2012 10:06 AM	22-Dec-2012 10:28 PM	N
	59062	NA	76-U4-DU1-SB2	SO	076SB-0026M-0001-SO	240-17796-5		1/1	15-Nov-2012 9:20 AM	27-Nov-2012 10:06 AM	22-Dec-2012 10:33 PM	N
	59062	NA	76-U4-DU1-SB3	SO	076SB-0027M-0001-SO	240-17796-6		1/1	15-Nov-2012 9:40 AM	27-Nov-2012 10:06 AM	22-Dec-2012 10:37 PM	N
	59062	NA	76-U4-DU1-SB4	SO	076SB-0028M-0001-SO	240-17796-7		1/1	15-Nov-2012 10:00 AM	27-Nov-2012 10:06 AM	22-Dec-2012 10:41 PM	N
	59062	NA	76-U4-DU1-SB5	SO	076SB-0029M-0001-SO	240-17796-8		1/1	15-Nov-2012 10:25 AM	27-Nov-2012 10:06 AM	22-Dec-2012 11:01 PM	N
	59062	NA	76-U20-DU1-SB	SO	076SB-0053M-0001-SO	240-17796-9		1/1	15-Nov-2012 3:55 PM	27-Nov-2012 10:06 AM	22-Dec-2012 11:05 PM	N
	59062	NA	76-U20-DU1-SS	SO	076SS-0007M-0001-SO	240-17796-10		1/1	15-Nov-2012 3:45 PM	27-Nov-2012 10:06 AM	22-Dec-2012 11:09 PM	N
	59062	NA	76-U20-DU1-SB	SO	076SB-0054M-0001-SO	240-17796-11		1/1	15-Nov-2012 3:56 PM	27-Nov-2012 10:06 AM	22-Dec-2012 11:14 PM	N
	59062	NA	76-U20-DU1-SB1	SO	076SB-0055M-0001-SO	240-17796-12		1/1	15-Nov-2012 1:45 PM	27-Nov-2012 10:06 AM	22-Dec-2012 11:18 PM	N
	59062	NA	76-U20-DU1-SB2	SO	076SB-0056M-0001-SO	240-17796-13		1/1	15-Nov-2012 2:10 PM	27-Nov-2012 10:06 AM	22-Dec-2012 11:22 PM	N
	59062	NA	76-U20-DU1-SB3	SO	076SB-0057M-0001-SO	240-17796-14		1/1	15-Nov-2012 2:40 PM	27-Nov-2012 10:06 AM	22-Dec-2012 11:27 PM	N

AUTOMATED DATA REVIEW SUMMARY for 240-17796-2

Batch Report

Test Method: SW6020; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
59262	59062	NA	76-U20-DU1-SB4	SO	076SB-0058M-0001-SO	240-17796-15		1/1	15-Nov-2012 3:30 PM	27-Nov-2012 10:06 AM	22-Dec-2012 11:31 PM	N
	59062	NA	76-U20-DU1-SB5	SO	076SB-0059M-0001-SO	240-17796-16		1/1	15-Nov-2012 4:00 PM	27-Nov-2012 10:06 AM	22-Dec-2012 11:35 PM	N
	59062	NA	76-A3-DU1-SB	SO	076SB-0060M-0001-SO	240-17796-22		1/1	15-Nov-2012 5:35 PM	27-Nov-2012 10:06 AM	22-Dec-2012 11:40 PM	N
	59062	NA	76-A3-DU1-SB	SO	076SB-0061M-0001-SO	240-17796-23		1/1	15-Nov-2012 5:36 PM	27-Nov-2012 10:06 AM	22-Dec-2012 11:59 PM	N
	59062	NA	76-A3-DU1-SB1	SO	076SB-0062M-0001-SO	240-17796-24		1/1	15-Nov-2012 5:05 PM	27-Nov-2012 10:06 AM	23-Dec-2012 12:04 AM	N
59320	59062	NA	LABQC	SQ	LABQC	MB 180-59062/1-A		2/1	27-Nov-2012 10:06 AM	27-Nov-2012 10:06 AM	23-Dec-2012 7:08 PM	LB
	59062	NA	76-A3-DU1-SB2	SO	076SB-0063M-0001-SO	240-17796-25		1/1	15-Nov-2012 5:15 PM	27-Nov-2012 10:06 AM	23-Dec-2012 7:13 PM	N
59262	59171	NA	LABQC	SQ	LABQC	MB 180-59171/1-A		1/1	28-Nov-2012 12:40 PM	28-Nov-2012 12:40 PM	23-Dec-2012 12:14 AM	LB
	59171	NA	LABQC	SQ	LABQC	LCS 180-59171/2-A		1/1	28-Nov-2012 12:40 PM	28-Nov-2012 12:40 PM	23-Dec-2012 12:18 AM	BS
	59171	NA	76-A3-DU1-SB3	SO	076SB-0064M-0001-SO	240-17796-26		1/1	15-Nov-2012 5:25 PM	28-Nov-2012 12:40 PM	23-Dec-2012 12:22 AM	N
	59171	NA	76-A3-DU1-SB3	SO	076SB-0064M-0001-SO	240-17796-26		1/1	15-Nov-2012 5:25 PM	28-Nov-2012 12:40 PM	23-Dec-2012 12:31 AM	LR
	59171	NA	76-A3-DU1-SB3	SO	076SB-0064M-0001-SO	240-17796-26		1/1	15-Nov-2012 5:25 PM	28-Nov-2012 12:40 PM	23-Dec-2012 12:35 AM	MS
	59171	NA	76-A3-DU1-SB4	SO	076SB-0065M-0001-SO	240-17796-27		1/1	15-Nov-2012 5:40 PM	28-Nov-2012 12:40 PM	23-Dec-2012 12:59 AM	N
	59171	NA	76-A3-DU1-SB5	SO	076SB-0066M-0001-SO	240-17796-28		1/1	15-Nov-2012 4:50 PM	28-Nov-2012 12:40 PM	23-Dec-2012 1:04 AM	N

AUTOMATED DATA REVIEW SUMMARY for 240-17796-2

Field Batch Report

--No Records Found--

AUTOMATED DATA REVIEW SUMMARY for 240-17796-2

QC Outlier Report

Test/Prep/Leach	QC Element	Sample ID/ Lab Sample ID	Run# / Dil'n	Analyte	Result (Units)	Qualifier	Warning Limits	Control Limits	Reason	Comment	Rule	Action Level
SW6020 / SW3050B/NONE	Blank	MB 180-59062/1-A (LB) / MB 180-59062/1-A	1 / 1.00	Aluminum	0.50 (MG/KG)	U/None	< 0.28	< 3	L		1	0.495
SW6020 / SW3050B/NONE	Blank	MB 180-59062/1-A (LB) / MB 180-59062/1-A	2 / 1.00	Aluminum	0.65 (MG/KG)	U/None	< 0.28	< 3	L		1	0.652
SW6020 / SW3050B/NONE	Blank	MB 180-59062/1-A (LB) / MB 180-59062/1-A	1 / 1.00	Calcium	1.4 (MG/KG)	U/None	< 1.3	< 10	L		1	1.43
SW6020 / SW3050B/NONE	Blank	MB 180-59062/1-A (LB) / MB 180-59062/1-A	2 / 1.00	Calcium	1.8 (MG/KG)	U/None	< 1.3	< 10	L		1	1.81
SW6020 / SW3050B/NONE	Blank	MB 180-59062/1-A (LB) / MB 180-59062/1-A	1 / 1.00	Iron	2.4 (MG/KG)	U/None	< 1.1	< 5	L		1	2.37
SW6020 / SW3050B/NONE	Blank	MB 180-59062/1-A (LB) / MB 180-59062/1-A	2 / 1.00	Manganese	0.039 (MG/KG)	U/None	< 0.016	< 0.5	L		1	0.0391
SW6020 / SW3050B/NONE	Blank	MB 180-59062/1-A (LB) / MB 180-59062/1-A	2 / 1.00	Zinc	0.078 (MG/KG)	U/None	< 0.065	< 0.5	L		1	0.0780
SW6020 / SW3050B/NONE	Blank	MB 180-59171/1-A (LB) / MB 180-59171/1-A	1 / 1.00	Aluminum	0.70 (MG/KG)	U/None	< 0.28	< 3	L		1	0.695
SW6020 / SW3050B/NONE	Blank	MB 180-59171/1-A (LB) / MB 180-59171/1-A	1 / 1.00	Calcium	1.4 (MG/KG)	U/None	< 1.3	< 10	L		1	1.44
SW6020 / SW3050B/NONE	Blank	MB 180-59171/1-A (LB) / MB 180-59171/1-A	1 / 1.00	Iron	2.3 (MG/KG)	U/None	< 1.1	< 5	L		1	2.32
SW6020 / SW3050B/NONE	Blank	MB 180-59171/1-A (LB) / MB 180-59171/1-A	1 / 1.00	Manganese	0.020 (MG/KG)	U/None	< 0.016	< 0.5	L		1	0.0199

AUTOMATED DATA REVIEW SUMMARY for 240-17796-2

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
SW6020/NONE	SO	076SB-0023M-0001-SO	240-17796-1	N	Aluminum	2.8	7300	7300 J		MG/KG	M
SW6020/NONE	SO	076SB-0023M-0001-SO	240-17796-1	N	Antimony	0.19	0.11	0.11 J		MG/KG	TR
SW6020/NONE	SO	076SB-0023M-0001-SO	240-17796-1	N	Iron	4.7	22000	22000 J		MG/KG	M
SW6020/NONE	SO	076SB-0023M-0001-SO	240-17796-1	N	Manganese	0.47	590	590 J		MG/KG	M
SW6020/NONE	SO	076SB-0023M-0001-SO	240-17796-1	N	Silver	0.094	0.021	0.021 J		MG/KG	TR
SW6020/NONE	SO	076SB-0023M-0001-SO	240-17796-1	N	Zinc	0.47	46.0	46.0 J		MG/KG	M
SW6020/NONE	SO	076SB-0024M-0001-SO	240-17796-3	N	Antimony	0.19	0.11	0.11 J		MG/KG	TR
SW6020/NONE	SO	076SB-0024M-0001-SO	240-17796-3	N	Selenium	0.46	0.43	0.43 J		MG/KG	TR
SW6020/NONE	SO	076SB-0024M-0001-SO	240-17796-3	N	Silver	0.093	0.020	0.020 J		MG/KG	TR
SW6020/NONE	SO	076SB-0025M-0001-SO	240-17796-4	N	Antimony	0.18	0.092	0.092 J		MG/KG	TR
SW6020/NONE	SO	076SB-0025M-0001-SO	240-17796-4	N	Selenium	0.45	0.39	0.39 J		MG/KG	TR
SW6020/NONE	SO	076SB-0025M-0001-SO	240-17796-4	N	Silver	0.091	0.019	0.019 J		MG/KG	TR
SW6020/NONE	SO	076SB-0026M-0001-SO	240-17796-5	N	Antimony	0.15	0.095	0.095 J		MG/KG	TR
SW6020/NONE	SO	076SB-0026M-0001-SO	240-17796-5	N	Silver	0.073	0.022	0.022 J		MG/KG	TR
SW6020/NONE	SO	076SB-0027M-0001-SO	240-17796-6	N	Silver	0.087	0.037	0.037 J		MG/KG	TR
SW6020/NONE	SO	076SB-0028M-0001-SO	240-17796-7	N	Antimony	0.15	0.090	0.090 J		MG/KG	TR
SW6020/NONE	SO	076SB-0028M-0001-SO	240-17796-7	N	Silver	0.076	0.013	0.013 J		MG/KG	TR
SW6020/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	Antimony	0.17	0.11	0.11 J		MG/KG	TR
SW6020/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	Silver	0.085	0.024	0.024 J		MG/KG	TR
SW6020/NONE	SO	076SB-0053M-0001-SO	240-17796-9	N	Antimony	0.16	0.064	0.064 J		MG/KG	TR
SW6020/NONE	SO	076SB-0053M-0001-SO	240-17796-9	N	Selenium	0.40	0.32	0.32 J		MG/KG	TR
SW6020/NONE	SO	076SB-0053M-0001-SO	240-17796-9	N	Silver	0.081	0.024	0.024 J		MG/KG	TR
SW6020/NONE	SO	076SB-0054M-0001-SO	240-17796-11	N	Antimony	0.14	0.058	0.058 J		MG/KG	TR
SW6020/NONE	SO	076SB-0054M-0001-SO	240-17796-11	N	Silver	0.072	0.027	0.027 J		MG/KG	TR
SW6020/NONE	SO	076SB-0055M-0001-SO	240-17796-12	N	Antimony	0.18	0.053	0.053 J		MG/KG	TR
SW6020/NONE	SO	076SB-0055M-0001-SO	240-17796-12	N	Selenium	0.44	0.38	0.38 J		MG/KG	TR
SW6020/NONE	SO	076SB-0055M-0001-SO	240-17796-12	N	Silver	0.088	0.027	0.027 J		MG/KG	TR
SW6020/NONE	SO	076SB-0056M-0001-SO	240-17796-13	N	Antimony	0.14	0.065	0.065 J		MG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-17796-2

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
SW6020/NONE	SO	076SB-0056M-0001-SO	240-17796-13	N	Silver	0.070	0.023	0.023 J		MG/KG	TR
SW6020/NONE	SO	076SB-0057M-0001-SO	240-17796-14	N	Antimony	0.20	0.063	0.063 J		MG/KG	TR
SW6020/NONE	SO	076SB-0057M-0001-SO	240-17796-14	N	Selenium	0.49	0.38	0.38 J		MG/KG	TR
SW6020/NONE	SO	076SB-0057M-0001-SO	240-17796-14	N	Silver	0.098	0.026	0.026 J		MG/KG	TR
SW6020/NONE	SO	076SB-0058M-0001-SO	240-17796-15	N	Antimony	0.18	0.050	0.050 J		MG/KG	TR
SW6020/NONE	SO	076SB-0058M-0001-SO	240-17796-15	N	Selenium	0.44	0.36	0.36 J		MG/KG	TR
SW6020/NONE	SO	076SB-0058M-0001-SO	240-17796-15	N	Silver	0.088	0.022	0.022 J		MG/KG	TR
SW6020/NONE	SO	076SB-0059M-0001-SO	240-17796-16	N	Antimony	0.19	0.053	0.053 J		MG/KG	TR
SW6020/NONE	SO	076SB-0059M-0001-SO	240-17796-16	N	Selenium	0.47	0.41	0.41 J		MG/KG	TR
SW6020/NONE	SO	076SB-0059M-0001-SO	240-17796-16	N	Silver	0.094	0.030	0.030 J		MG/KG	TR
SW6020/NONE	SO	076SB-0060M-0001-SO	240-17796-22	N	Antimony	0.19	0.18	0.18 J		MG/KG	TR
SW6020/NONE	SO	076SB-0060M-0001-SO	240-17796-22	N	Silver	0.096	0.028	0.028 J		MG/KG	TR
SW6020/NONE	SO	076SB-0060M-0001-SO	240-17796-22	N	Thallium	0.096	0.072	0.072 J		MG/KG	TR
SW6020/NONE	SO	076SB-0061M-0001-SO	240-17796-23	N	Antimony	0.18	0.072	0.072 J		MG/KG	TR
SW6020/NONE	SO	076SB-0061M-0001-SO	240-17796-23	N	Selenium	0.46	0.40	0.40 J		MG/KG	TR
SW6020/NONE	SO	076SB-0061M-0001-SO	240-17796-23	N	Silver	0.092	0.029	0.029 J		MG/KG	TR
SW6020/NONE	SO	076SB-0062M-0001-SO	240-17796-24	N	Antimony	0.19	0.058	0.058 J		MG/KG	TR
SW6020/NONE	SO	076SB-0062M-0001-SO	240-17796-24	N	Selenium	0.49	0.43	0.43 J		MG/KG	TR
SW6020/NONE	SO	076SB-0062M-0001-SO	240-17796-24	N	Silver	0.097	0.052	0.052 J		MG/KG	TR
SW6020/NONE	SO	076SB-0062M-0001-SO	240-17796-24	N	Thallium	0.097	0.087	0.087 J		MG/KG	TR
SW6020/NONE	SO	076SB-0063M-0001-SO	240-17796-25	N	Antimony	0.16	0.13	0.13 J		MG/KG	TR
SW6020/NONE	SO	076SB-0063M-0001-SO	240-17796-25	N	Silver	0.078	0.027	0.027 J		MG/KG	TR
SW6020/NONE	SO	076SB-0064M-0001-SO	240-17796-26	N	Antimony	0.18	0.12	0.12 J		MG/KG	TR
SW6020/NONE	SO	076SB-0064M-0001-SO	240-17796-26	N	Silver	0.092	0.021	0.021 J		MG/KG	TR
SW6020/NONE	SO	076SB-0065M-0001-SO	240-17796-27	N	Silver	0.074	0.026	0.026 J		MG/KG	TR
SW6020/NONE	SO	076SB-0066M-0001-SO	240-17796-28	N	Antimony	0.17	0.11	0.11 J		MG/KG	TR
SW6020/NONE	SO	076SB-0066M-0001-SO	240-17796-28	N	Silver	0.087	0.035	0.035 J		MG/KG	TR
SW6020/NONE	SO	076SS-0007M-0001-SO	240-17796-10	N	Antimony	0.19	0.12	0.12 J		MG/KG	TR
SW6020/NONE	SO	076SS-0022M-0001-SO	240-17796-2	N	Antimony	0.20	0.10	0.10 J		MG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-17796-2

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
SW6020/NONE	SO	076SS-0022M-0001-SO	240-17796-2	N	Silver	0.098	0.026	0.026 J		MG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-17796-2

AUTOMATED DATA REVIEW SUMMARY for 240-17796-2

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	076SB-0023M-0001-SO	240-17796-1	N	Silver	0.094	0.021	0.021 J	MG/KG	TR
SW6020/NONE	SO	076SB-0023M-0001-SO	240-17796-1	N	Aluminum	2.8	7300	7300 J	MG/KG	M
SW6020/NONE	SO	076SB-0023M-0001-SO	240-17796-1	N	Arsenic	0.094	11.0	11.0	MG/KG	
SW6020/NONE	SO	076SB-0023M-0001-SO	240-17796-1	N	Barium	0.94	50.0	50.0	MG/KG	
SW6020/NONE	SO	076SB-0023M-0001-SO	240-17796-1	N	Beryllium	0.094	0.44	0.44	MG/KG	
SW6020/NONE	SO	076SB-0023M-0001-SO	240-17796-1	N	Calcium	9.4	950	950	MG/KG	
SW6020/NONE	SO	076SB-0023M-0001-SO	240-17796-1	N	Cadmium	0.094	0.14	0.14	MG/KG	
SW6020/NONE	SO	076SB-0023M-0001-SO	240-17796-1	N	Cobalt	0.047	7.3	7.3	MG/KG	
SW6020/NONE	SO	076SB-0023M-0001-SO	240-17796-1	N	Chromium	0.19	18.0	18.0	MG/KG	
SW6020/NONE	SO	076SB-0023M-0001-SO	240-17796-1	N	Copper	0.19	12.0	12.0	MG/KG	
SW6020/NONE	SO	076SB-0023M-0001-SO	240-17796-1	N	Iron	4.7	22000	22000 J	MG/KG	M
SW6020/NONE	SO	076SB-0023M-0001-SO	240-17796-1	N	Potassium	9.4	570	570	MG/KG	
SW6020/NONE	SO	076SB-0023M-0001-SO	240-17796-1	N	Magnesium	9.4	1500	1500	MG/KG	
SW6020/NONE	SO	076SB-0023M-0001-SO	240-17796-1	N	Manganese	0.47	590	590 J	MG/KG	M
SW6020/NONE	SO	076SB-0023M-0001-SO	240-17796-1	N	Sodium	9.4	21.0	21.0	MG/KG	
SW6020/NONE	SO	076SB-0023M-0001-SO	240-17796-1	N	Nickel	0.094	16.0	16.0	MG/KG	
SW6020/NONE	SO	076SB-0023M-0001-SO	240-17796-1	N	Lead	0.094	12.0	12.0	MG/KG	
SW6020/NONE	SO	076SB-0023M-0001-SO	240-17796-1	N	Antimony	0.19	0.11	0.11 J	MG/KG	TR
SW6020/NONE	SO	076SB-0023M-0001-SO	240-17796-1	N	Selenium	0.47	0.52	0.52	MG/KG	
SW6020/NONE	SO	076SB-0023M-0001-SO	240-17796-1	N	Thallium	0.094	0.15	0.15	MG/KG	
SW6020/NONE	SO	076SB-0023M-0001-SO	240-17796-1	N	Vanadium	0.094	16.0	16.0	MG/KG	
SW6020/NONE	SO	076SB-0023M-0001-SO	240-17796-1	N	Zinc	0.47	46.0	46.0 J	MG/KG	M
SW6020/NONE	SO	076SB-0024M-0001-SO	240-17796-3	N	Silver	0.093	0.020	0.020 J	MG/KG	TR
SW6020/NONE	SO	076SB-0024M-0001-SO	240-17796-3	N	Aluminum	2.8	5900	5900	MG/KG	
SW6020/NONE	SO	076SB-0024M-0001-SO	240-17796-3	N	Arsenic	0.093	14.0	14.0	MG/KG	
SW6020/NONE	SO	076SB-0024M-0001-SO	240-17796-3	N	Barium	0.93	41.0	41.0	MG/KG	
SW6020/NONE	SO	076SB-0024M-0001-SO	240-17796-3	N	Beryllium	0.093	0.37	0.37	MG/KG	
SW6020/NONE	SO	076SB-0024M-0001-SO	240-17796-3	N	Calcium	9.3	890	890	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-17796-2

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	076SB-0024M-0001-SO	240-17796-3	N	Cadmium	0.093	0.14	0.14	MG/KG	
SW6020/NONE	SO	076SB-0024M-0001-SO	240-17796-3	N	Cobalt	0.046	7.2	7.2	MG/KG	
SW6020/NONE	SO	076SB-0024M-0001-SO	240-17796-3	N	Chromium	0.19	13.0	13.0	MG/KG	
SW6020/NONE	SO	076SB-0024M-0001-SO	240-17796-3	N	Copper	0.19	16.0	16.0	MG/KG	
SW6020/NONE	SO	076SB-0024M-0001-SO	240-17796-3	N	Iron	4.6	22000	22000	MG/KG	
SW6020/NONE	SO	076SB-0024M-0001-SO	240-17796-3	N	Potassium	9.3	620	620	MG/KG	
SW6020/NONE	SO	076SB-0024M-0001-SO	240-17796-3	N	Magnesium	9.3	1600	1600	MG/KG	
SW6020/NONE	SO	076SB-0024M-0001-SO	240-17796-3	N	Manganese	0.46	470	470	MG/KG	
SW6020/NONE	SO	076SB-0024M-0001-SO	240-17796-3	N	Sodium	9.3	22.0	22.0	MG/KG	
SW6020/NONE	SO	076SB-0024M-0001-SO	240-17796-3	N	Nickel	0.093	18.0	18.0	MG/KG	
SW6020/NONE	SO	076SB-0024M-0001-SO	240-17796-3	N	Lead	0.093	11.0	11.0	MG/KG	
SW6020/NONE	SO	076SB-0024M-0001-SO	240-17796-3	N	Antimony	0.19	0.11	0.11 J	MG/KG	TR
SW6020/NONE	SO	076SB-0024M-0001-SO	240-17796-3	N	Selenium	0.46	0.43	0.43 J	MG/KG	TR
SW6020/NONE	SO	076SB-0024M-0001-SO	240-17796-3	N	Thallium	0.093	0.12	0.12	MG/KG	
SW6020/NONE	SO	076SB-0024M-0001-SO	240-17796-3	N	Vanadium	0.093	12.0	12.0	MG/KG	
SW6020/NONE	SO	076SB-0024M-0001-SO	240-17796-3	N	Zinc	0.46	51.0	51.0	MG/KG	
SW6020/NONE	SO	076SB-0025M-0001-SO	240-17796-4	N	Silver	0.091	0.019	0.019 J	MG/KG	TR
SW6020/NONE	SO	076SB-0025M-0001-SO	240-17796-4	N	Aluminum	2.7	6600	6600	MG/KG	
SW6020/NONE	SO	076SB-0025M-0001-SO	240-17796-4	N	Arsenic	0.091	12.0	12.0	MG/KG	
SW6020/NONE	SO	076SB-0025M-0001-SO	240-17796-4	N	Barium	0.91	41.0	41.0	MG/KG	
SW6020/NONE	SO	076SB-0025M-0001-SO	240-17796-4	N	Beryllium	0.091	0.35	0.35	MG/KG	
SW6020/NONE	SO	076SB-0025M-0001-SO	240-17796-4	N	Calcium	9.1	1100	1100	MG/KG	
SW6020/NONE	SO	076SB-0025M-0001-SO	240-17796-4	N	Cadmium	0.091	0.17	0.17	MG/KG	
SW6020/NONE	SO	076SB-0025M-0001-SO	240-17796-4	N	Cobalt	0.045	7.0	7.0	MG/KG	
SW6020/NONE	SO	076SB-0025M-0001-SO	240-17796-4	N	Chromium	0.18	17.0	17.0	MG/KG	
SW6020/NONE	SO	076SB-0025M-0001-SO	240-17796-4	N	Copper	0.18	17.0	17.0	MG/KG	
SW6020/NONE	SO	076SB-0025M-0001-SO	240-17796-4	N	Iron	4.5	21000	21000	MG/KG	
SW6020/NONE	SO	076SB-0025M-0001-SO	240-17796-4	N	Potassium	9.1	620	620	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-17796-2

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	076SB-0025M-0001-SO	240-17796-4	N	Magnesium	9.1	1800	1800	MG/KG	
SW6020/NONE	SO	076SB-0025M-0001-SO	240-17796-4	N	Manganese	0.45	300	300	MG/KG	
SW6020/NONE	SO	076SB-0025M-0001-SO	240-17796-4	N	Sodium	9.1	26.0	26.0	MG/KG	
SW6020/NONE	SO	076SB-0025M-0001-SO	240-17796-4	N	Nickel	0.091	19.0	19.0	MG/KG	
SW6020/NONE	SO	076SB-0025M-0001-SO	240-17796-4	N	Lead	0.091	11.0	11.0	MG/KG	
SW6020/NONE	SO	076SB-0025M-0001-SO	240-17796-4	N	Antimony	0.18	0.092	0.092 J	MG/KG	TR
SW6020/NONE	SO	076SB-0025M-0001-SO	240-17796-4	N	Selenium	0.45	0.39	0.39 J	MG/KG	TR
SW6020/NONE	SO	076SB-0025M-0001-SO	240-17796-4	N	Thallium	0.091	0.13	0.13	MG/KG	
SW6020/NONE	SO	076SB-0025M-0001-SO	240-17796-4	N	Vanadium	0.091	13.0	13.0	MG/KG	
SW6020/NONE	SO	076SB-0025M-0001-SO	240-17796-4	N	Zinc	0.45	50.0	50.0	MG/KG	
SW6020/NONE	SO	076SB-0026M-0001-SO	240-17796-5	N	Silver	0.073	0.022	0.022 J	MG/KG	TR
SW6020/NONE	SO	076SB-0026M-0001-SO	240-17796-5	N	Aluminum	2.2	6300	6300	MG/KG	
SW6020/NONE	SO	076SB-0026M-0001-SO	240-17796-5	N	Arsenic	0.073	13.0	13.0	MG/KG	
SW6020/NONE	SO	076SB-0026M-0001-SO	240-17796-5	N	Barium	0.73	37.0	37.0	MG/KG	
SW6020/NONE	SO	076SB-0026M-0001-SO	240-17796-5	N	Beryllium	0.073	0.39	0.39	MG/KG	
SW6020/NONE	SO	076SB-0026M-0001-SO	240-17796-5	N	Calcium	7.3	700	700	MG/KG	
SW6020/NONE	SO	076SB-0026M-0001-SO	240-17796-5	N	Cadmium	0.073	0.15	0.15	MG/KG	
SW6020/NONE	SO	076SB-0026M-0001-SO	240-17796-5	N	Cobalt	0.036	8.5	8.5	MG/KG	
SW6020/NONE	SO	076SB-0026M-0001-SO	240-17796-5	N	Chromium	0.15	16.0	16.0	MG/KG	
SW6020/NONE	SO	076SB-0026M-0001-SO	240-17796-5	N	Copper	0.15	15.0	15.0	MG/KG	
SW6020/NONE	SO	076SB-0026M-0001-SO	240-17796-5	N	Iron	3.6	21000	21000	MG/KG	
SW6020/NONE	SO	076SB-0026M-0001-SO	240-17796-5	N	Potassium	7.3	620	620	MG/KG	
SW6020/NONE	SO	076SB-0026M-0001-SO	240-17796-5	N	Magnesium	7.3	1700	1700	MG/KG	
SW6020/NONE	SO	076SB-0026M-0001-SO	240-17796-5	N	Manganese	0.36	450	450	MG/KG	
SW6020/NONE	SO	076SB-0026M-0001-SO	240-17796-5	N	Sodium	7.3	20.0	20.0	MG/KG	
SW6020/NONE	SO	076SB-0026M-0001-SO	240-17796-5	N	Nickel	0.073	18.0	18.0	MG/KG	
SW6020/NONE	SO	076SB-0026M-0001-SO	240-17796-5	N	Lead	0.073	13.0	13.0	MG/KG	
SW6020/NONE	SO	076SB-0026M-0001-SO	240-17796-5	N	Antimony	0.15	0.095	0.095 J	MG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-17796-2

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	076SB-0026M-0001-SO	240-17796-5	N	Selenium	0.36	0.41	0.41	MG/KG	
SW6020/NONE	SO	076SB-0026M-0001-SO	240-17796-5	N	Thallium	0.073	0.13	0.13	MG/KG	
SW6020/NONE	SO	076SB-0026M-0001-SO	240-17796-5	N	Vanadium	0.073	13.0	13.0	MG/KG	
SW6020/NONE	SO	076SB-0026M-0001-SO	240-17796-5	N	Zinc	0.36	49.0	49.0	MG/KG	
SW6020/NONE	SO	076SB-0027M-0001-SO	240-17796-6	N	Silver	0.087	0.037	0.037 J	MG/KG	TR
SW6020/NONE	SO	076SB-0027M-0001-SO	240-17796-6	N	Aluminum	2.6	7200	7200	MG/KG	
SW6020/NONE	SO	076SB-0027M-0001-SO	240-17796-6	N	Arsenic	0.087	16.0	16.0	MG/KG	
SW6020/NONE	SO	076SB-0027M-0001-SO	240-17796-6	N	Barium	0.87	62.0	62.0	MG/KG	
SW6020/NONE	SO	076SB-0027M-0001-SO	240-17796-6	N	Beryllium	0.087	0.47	0.47	MG/KG	
SW6020/NONE	SO	076SB-0027M-0001-SO	240-17796-6	N	Calcium	8.7	980	980	MG/KG	
SW6020/NONE	SO	076SB-0027M-0001-SO	240-17796-6	N	Cadmium	0.087	0.16	0.16	MG/KG	
SW6020/NONE	SO	076SB-0027M-0001-SO	240-17796-6	N	Cobalt	0.043	8.6	8.6	MG/KG	
SW6020/NONE	SO	076SB-0027M-0001-SO	240-17796-6	N	Chromium	0.17	16.0	16.0	MG/KG	
SW6020/NONE	SO	076SB-0027M-0001-SO	240-17796-6	N	Copper	0.17	11.0	11.0	MG/KG	
SW6020/NONE	SO	076SB-0027M-0001-SO	240-17796-6	N	Iron	4.3	20000	20000	MG/KG	
SW6020/NONE	SO	076SB-0027M-0001-SO	240-17796-6	N	Potassium	8.7	560	560	MG/KG	
SW6020/NONE	SO	076SB-0027M-0001-SO	240-17796-6	N	Magnesium	8.7	1300	1300	MG/KG	
SW6020/NONE	SO	076SB-0027M-0001-SO	240-17796-6	N	Manganese	0.43	930	930	MG/KG	
SW6020/NONE	SO	076SB-0027M-0001-SO	240-17796-6	N	Sodium	8.7	17.0	17.0	MG/KG	
SW6020/NONE	SO	076SB-0027M-0001-SO	240-17796-6	N	Nickel	0.087	18.0	18.0	MG/KG	
SW6020/NONE	SO	076SB-0027M-0001-SO	240-17796-6	N	Lead	0.087	16.0	16.0	MG/KG	
SW6020/NONE	SO	076SB-0027M-0001-SO	240-17796-6	N	Antimony	0.17	0.29	0.29	MG/KG	
SW6020/NONE	SO	076SB-0027M-0001-SO	240-17796-6	N	Selenium	0.43	0.46	0.46	MG/KG	
SW6020/NONE	SO	076SB-0027M-0001-SO	240-17796-6	N	Thallium	0.087	0.12	0.12	MG/KG	
SW6020/NONE	SO	076SB-0027M-0001-SO	240-17796-6	N	Vanadium	0.087	14.0	14.0	MG/KG	
SW6020/NONE	SO	076SB-0027M-0001-SO	240-17796-6	N	Zinc	0.43	45.0	45.0	MG/KG	
SW6020/NONE	SO	076SB-0028M-0001-SO	240-17796-7	N	Silver	0.076	0.013	0.013 J	MG/KG	TR
SW6020/NONE	SO	076SB-0028M-0001-SO	240-17796-7	N	Aluminum	2.3	6100	6100	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-17796-2

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	076SB-0028M-0001-SO	240-17796-7	N	Arsenic	0.076	13.0	13.0	MG/KG	
SW6020/NONE	SO	076SB-0028M-0001-SO	240-17796-7	N	Barium	0.76	37.0	37.0	MG/KG	
SW6020/NONE	SO	076SB-0028M-0001-SO	240-17796-7	N	Beryllium	0.076	0.34	0.34	MG/KG	
SW6020/NONE	SO	076SB-0028M-0001-SO	240-17796-7	N	Calcium	7.6	630	630	MG/KG	
SW6020/NONE	SO	076SB-0028M-0001-SO	240-17796-7	N	Cadmium	0.076	0.13	0.13	MG/KG	
SW6020/NONE	SO	076SB-0028M-0001-SO	240-17796-7	N	Cobalt	0.038	7.8	7.8	MG/KG	
SW6020/NONE	SO	076SB-0028M-0001-SO	240-17796-7	N	Chromium	0.15	12.0	12.0	MG/KG	
SW6020/NONE	SO	076SB-0028M-0001-SO	240-17796-7	N	Copper	0.15	15.0	15.0	MG/KG	
SW6020/NONE	SO	076SB-0028M-0001-SO	240-17796-7	N	Iron	3.8	20000	20000	MG/KG	
SW6020/NONE	SO	076SB-0028M-0001-SO	240-17796-7	N	Potassium	7.6	580	580	MG/KG	
SW6020/NONE	SO	076SB-0028M-0001-SO	240-17796-7	N	Magnesium	7.6	1600	1600	MG/KG	
SW6020/NONE	SO	076SB-0028M-0001-SO	240-17796-7	N	Manganese	0.38	380	380	MG/KG	
SW6020/NONE	SO	076SB-0028M-0001-SO	240-17796-7	N	Sodium	7.6	17.0	17.0	MG/KG	
SW6020/NONE	SO	076SB-0028M-0001-SO	240-17796-7	N	Nickel	0.076	15.0	15.0	MG/KG	
SW6020/NONE	SO	076SB-0028M-0001-SO	240-17796-7	N	Lead	0.076	11.0	11.0	MG/KG	
SW6020/NONE	SO	076SB-0028M-0001-SO	240-17796-7	N	Antimony	0.15	0.090	0.090 J	MG/KG	TR
SW6020/NONE	SO	076SB-0028M-0001-SO	240-17796-7	N	Selenium	0.38	0.51	0.51	MG/KG	
SW6020/NONE	SO	076SB-0028M-0001-SO	240-17796-7	N	Thallium	0.076	0.099	0.099	MG/KG	
SW6020/NONE	SO	076SB-0028M-0001-SO	240-17796-7	N	Vanadium	0.076	13.0	13.0	MG/KG	
SW6020/NONE	SO	076SB-0028M-0001-SO	240-17796-7	N	Zinc	0.38	46.0	46.0	MG/KG	
SW6020/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	Silver	0.085	0.024	0.024 J	MG/KG	TR
SW6020/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	Aluminum	2.6	6000	6000	MG/KG	
SW6020/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	Arsenic	0.085	11.0	11.0	MG/KG	
SW6020/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	Barium	0.85	48.0	48.0	MG/KG	
SW6020/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	Beryllium	0.085	0.47	0.47	MG/KG	
SW6020/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	Calcium	8.5	1600	1600	MG/KG	
SW6020/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	Cadmium	0.085	0.17	0.17	MG/KG	
SW6020/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	Cobalt	0.043	7.2	7.2	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-17796-2

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	Chromium	0.17	18.0	18.0	MG/KG	
SW6020/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	Copper	0.17	13.0	13.0	MG/KG	
SW6020/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	Iron	4.3	24000	24000	MG/KG	
SW6020/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	Potassium	8.5	500	500	MG/KG	
SW6020/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	Magnesium	8.5	1400	1400	MG/KG	
SW6020/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	Manganese	0.43	710	710	MG/KG	
SW6020/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	Sodium	8.5	27.0	27.0	MG/KG	
SW6020/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	Nickel	0.085	17.0	17.0	MG/KG	
SW6020/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	Lead	0.085	16.0	16.0	MG/KG	
SW6020/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	Antimony	0.17	0.11	0.11 J	MG/KG	TR
SW6020/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	Selenium	0.43	0.43	0.43	MG/KG	
SW6020/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	Thallium	0.085	0.11	0.11	MG/KG	
SW6020/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	Vanadium	0.085	14.0	14.0	MG/KG	
SW6020/NONE	SO	076SB-0029M-0001-SO	240-17796-8	N	Zinc	0.43	50.0	50.0	MG/KG	
SW6020/NONE	SO	076SB-0053M-0001-SO	240-17796-9	N	Silver	0.081	0.024	0.024 J	MG/KG	TR
SW6020/NONE	SO	076SB-0053M-0001-SO	240-17796-9	N	Aluminum	2.4	7700	7700	MG/KG	
SW6020/NONE	SO	076SB-0053M-0001-SO	240-17796-9	N	Arsenic	0.081	12.0	12.0	MG/KG	
SW6020/NONE	SO	076SB-0053M-0001-SO	240-17796-9	N	Barium	0.81	36.0	36.0	MG/KG	
SW6020/NONE	SO	076SB-0053M-0001-SO	240-17796-9	N	Beryllium	0.081	0.39	0.39	MG/KG	
SW6020/NONE	SO	076SB-0053M-0001-SO	240-17796-9	N	Calcium	8.1	1700	1700	MG/KG	
SW6020/NONE	SO	076SB-0053M-0001-SO	240-17796-9	N	Cadmium	0.081	0.15	0.15	MG/KG	
SW6020/NONE	SO	076SB-0053M-0001-SO	240-17796-9	N	Cobalt	0.040	7.3	7.3	MG/KG	
SW6020/NONE	SO	076SB-0053M-0001-SO	240-17796-9	N	Chromium	0.16	17.0	17.0	MG/KG	
SW6020/NONE	SO	076SB-0053M-0001-SO	240-17796-9	N	Copper	0.16	15.0	15.0	MG/KG	
SW6020/NONE	SO	076SB-0053M-0001-SO	240-17796-9	N	Iron	4.0	20000	20000	MG/KG	
SW6020/NONE	SO	076SB-0053M-0001-SO	240-17796-9	N	Potassium	8.1	750	750	MG/KG	
SW6020/NONE	SO	076SB-0053M-0001-SO	240-17796-9	N	Magnesium	8.1	2300	2300	MG/KG	
SW6020/NONE	SO	076SB-0053M-0001-SO	240-17796-9	N	Manganese	0.40	270	270	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-17796-2

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	076SB-0053M-0001-SO	240-17796-9	N	Sodium	8.1	32.0	32.0	MG/KG	
SW6020/NONE	SO	076SB-0053M-0001-SO	240-17796-9	N	Nickel	0.081	20.0	20.0	MG/KG	
SW6020/NONE	SO	076SB-0053M-0001-SO	240-17796-9	N	Lead	0.081	11.0	11.0	MG/KG	
SW6020/NONE	SO	076SB-0053M-0001-SO	240-17796-9	N	Antimony	0.16	0.064	0.064 J	MG/KG	TR
SW6020/NONE	SO	076SB-0053M-0001-SO	240-17796-9	N	Selenium	0.40	0.32	0.32 J	MG/KG	TR
SW6020/NONE	SO	076SB-0053M-0001-SO	240-17796-9	N	Thallium	0.081	0.11	0.11	MG/KG	
SW6020/NONE	SO	076SB-0053M-0001-SO	240-17796-9	N	Vanadium	0.081	14.0	14.0	MG/KG	
SW6020/NONE	SO	076SB-0053M-0001-SO	240-17796-9	N	Zinc	0.40	45.0	45.0	MG/KG	
SW6020/NONE	SO	076SB-0054M-0001-SO	240-17796-11	N	Silver	0.072	0.027	0.027 J	MG/KG	TR
SW6020/NONE	SO	076SB-0054M-0001-SO	240-17796-11	N	Aluminum	2.2	6700	6700	MG/KG	
SW6020/NONE	SO	076SB-0054M-0001-SO	240-17796-11	N	Arsenic	0.072	14.0	14.0	MG/KG	
SW6020/NONE	SO	076SB-0054M-0001-SO	240-17796-11	N	Barium	0.72	30.0	30.0	MG/KG	
SW6020/NONE	SO	076SB-0054M-0001-SO	240-17796-11	N	Beryllium	0.072	0.38	0.38	MG/KG	
SW6020/NONE	SO	076SB-0054M-0001-SO	240-17796-11	N	Calcium	7.2	5000	5000	MG/KG	
SW6020/NONE	SO	076SB-0054M-0001-SO	240-17796-11	N	Cadmium	0.072	0.15	0.15	MG/KG	
SW6020/NONE	SO	076SB-0054M-0001-SO	240-17796-11	N	Cobalt	0.036	8.6	8.6	MG/KG	
SW6020/NONE	SO	076SB-0054M-0001-SO	240-17796-11	N	Chromium	0.14	15.0	15.0	MG/KG	
SW6020/NONE	SO	076SB-0054M-0001-SO	240-17796-11	N	Copper	0.14	17.0	17.0	MG/KG	
SW6020/NONE	SO	076SB-0054M-0001-SO	240-17796-11	N	Iron	3.6	22000	22000	MG/KG	
SW6020/NONE	SO	076SB-0054M-0001-SO	240-17796-11	N	Potassium	7.2	890	890	MG/KG	
SW6020/NONE	SO	076SB-0054M-0001-SO	240-17796-11	N	Magnesium	7.2	3400	3400	MG/KG	
SW6020/NONE	SO	076SB-0054M-0001-SO	240-17796-11	N	Manganese	0.36	360	360	MG/KG	
SW6020/NONE	SO	076SB-0054M-0001-SO	240-17796-11	N	Sodium	7.2	40.0	40.0	MG/KG	
SW6020/NONE	SO	076SB-0054M-0001-SO	240-17796-11	N	Nickel	0.072	22.0	22.0	MG/KG	
SW6020/NONE	SO	076SB-0054M-0001-SO	240-17796-11	N	Lead	0.072	9.8	9.8	MG/KG	
SW6020/NONE	SO	076SB-0054M-0001-SO	240-17796-11	N	Antimony	0.14	0.058	0.058 J	MG/KG	TR
SW6020/NONE	SO	076SB-0054M-0001-SO	240-17796-11	N	Selenium	0.36	0.46	0.46	MG/KG	
SW6020/NONE	SO	076SB-0054M-0001-SO	240-17796-11	N	Thallium	0.072	0.11	0.11	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-17796-2

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	076SB-0054M-0001-SO	240-17796-11	N	Vanadium	0.072	12.0	12.0	MG/KG	
SW6020/NONE	SO	076SB-0054M-0001-SO	240-17796-11	N	Zinc	0.36	50.0	50.0	MG/KG	
SW6020/NONE	SO	076SB-0055M-0001-SO	240-17796-12	N	Silver	0.088	0.027	0.027 J	MG/KG	TR
SW6020/NONE	SO	076SB-0055M-0001-SO	240-17796-12	N	Aluminum	2.6	7200	7200	MG/KG	
SW6020/NONE	SO	076SB-0055M-0001-SO	240-17796-12	N	Arsenic	0.088	15.0	15.0	MG/KG	
SW6020/NONE	SO	076SB-0055M-0001-SO	240-17796-12	N	Barium	0.88	29.0	29.0	MG/KG	
SW6020/NONE	SO	076SB-0055M-0001-SO	240-17796-12	N	Beryllium	0.088	0.41	0.41	MG/KG	
SW6020/NONE	SO	076SB-0055M-0001-SO	240-17796-12	N	Calcium	8.8	5800	5800	MG/KG	
SW6020/NONE	SO	076SB-0055M-0001-SO	240-17796-12	N	Cadmium	0.088	0.15	0.15	MG/KG	
SW6020/NONE	SO	076SB-0055M-0001-SO	240-17796-12	N	Cobalt	0.044	9.4	9.4	MG/KG	
SW6020/NONE	SO	076SB-0055M-0001-SO	240-17796-12	N	Chromium	0.18	13.0	13.0	MG/KG	
SW6020/NONE	SO	076SB-0055M-0001-SO	240-17796-12	N	Copper	0.18	16.0	16.0	MG/KG	
SW6020/NONE	SO	076SB-0055M-0001-SO	240-17796-12	N	Iron	4.4	23000	23000	MG/KG	
SW6020/NONE	SO	076SB-0055M-0001-SO	240-17796-12	N	Potassium	8.8	940	940	MG/KG	
SW6020/NONE	SO	076SB-0055M-0001-SO	240-17796-12	N	Magnesium	8.8	3800	3800	MG/KG	
SW6020/NONE	SO	076SB-0055M-0001-SO	240-17796-12	N	Manganese	0.44	350	350	MG/KG	
SW6020/NONE	SO	076SB-0055M-0001-SO	240-17796-12	N	Sodium	8.8	42.0	42.0	MG/KG	
SW6020/NONE	SO	076SB-0055M-0001-SO	240-17796-12	N	Nickel	0.088	22.0	22.0	MG/KG	
SW6020/NONE	SO	076SB-0055M-0001-SO	240-17796-12	N	Lead	0.088	9.7	9.7	MG/KG	
SW6020/NONE	SO	076SB-0055M-0001-SO	240-17796-12	N	Antimony	0.18	0.053	0.053 J	MG/KG	TR
SW6020/NONE	SO	076SB-0055M-0001-SO	240-17796-12	N	Selenium	0.44	0.38	0.38 J	MG/KG	TR
SW6020/NONE	SO	076SB-0055M-0001-SO	240-17796-12	N	Thallium	0.088	0.11	0.11	MG/KG	
SW6020/NONE	SO	076SB-0055M-0001-SO	240-17796-12	N	Vanadium	0.088	12.0	12.0	MG/KG	
SW6020/NONE	SO	076SB-0055M-0001-SO	240-17796-12	N	Zinc	0.44	47.0	47.0	MG/KG	
SW6020/NONE	SO	076SB-0056M-0001-SO	240-17796-13	N	Silver	0.070	0.023	0.023 J	MG/KG	TR
SW6020/NONE	SO	076SB-0056M-0001-SO	240-17796-13	N	Aluminum	2.1	7300	7300	MG/KG	
SW6020/NONE	SO	076SB-0056M-0001-SO	240-17796-13	N	Arsenic	0.070	12.0	12.0	MG/KG	
SW6020/NONE	SO	076SB-0056M-0001-SO	240-17796-13	N	Barium	0.70	34.0	34.0	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-17796-2

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	076SB-0056M-0001-SO	240-17796-13	N	Beryllium	0.070	0.37	0.37	MG/KG	
SW6020/NONE	SO	076SB-0056M-0001-SO	240-17796-13	N	Calcium	7.0	2500	2500	MG/KG	
SW6020/NONE	SO	076SB-0056M-0001-SO	240-17796-13	N	Cadmium	0.070	0.17	0.17	MG/KG	
SW6020/NONE	SO	076SB-0056M-0001-SO	240-17796-13	N	Cobalt	0.035	7.5	7.5	MG/KG	
SW6020/NONE	SO	076SB-0056M-0001-SO	240-17796-13	N	Chromium	0.14	23.0	23.0	MG/KG	
SW6020/NONE	SO	076SB-0056M-0001-SO	240-17796-13	N	Copper	0.14	19.0	19.0	MG/KG	
SW6020/NONE	SO	076SB-0056M-0001-SO	240-17796-13	N	Iron	3.5	21000	21000	MG/KG	
SW6020/NONE	SO	076SB-0056M-0001-SO	240-17796-13	N	Potassium	7.0	780	780	MG/KG	
SW6020/NONE	SO	076SB-0056M-0001-SO	240-17796-13	N	Magnesium	7.0	2500	2500	MG/KG	
SW6020/NONE	SO	076SB-0056M-0001-SO	240-17796-13	N	Manganese	0.35	330	330	MG/KG	
SW6020/NONE	SO	076SB-0056M-0001-SO	240-17796-13	N	Sodium	7.0	33.0	33.0	MG/KG	
SW6020/NONE	SO	076SB-0056M-0001-SO	240-17796-13	N	Nickel	0.070	23.0	23.0	MG/KG	
SW6020/NONE	SO	076SB-0056M-0001-SO	240-17796-13	N	Lead	0.070	10.0	10.0	MG/KG	
SW6020/NONE	SO	076SB-0056M-0001-SO	240-17796-13	N	Antimony	0.14	0.065	0.065 J	MG/KG	TR
SW6020/NONE	SO	076SB-0056M-0001-SO	240-17796-13	N	Selenium	0.35	0.46	0.46	MG/KG	
SW6020/NONE	SO	076SB-0056M-0001-SO	240-17796-13	N	Thallium	0.070	0.11	0.11	MG/KG	
SW6020/NONE	SO	076SB-0056M-0001-SO	240-17796-13	N	Vanadium	0.070	13.0	13.0	MG/KG	
SW6020/NONE	SO	076SB-0056M-0001-SO	240-17796-13	N	Zinc	0.35	49.0	49.0	MG/KG	
SW6020/NONE	SO	076SB-0057M-0001-SO	240-17796-14	N	Silver	0.098	0.026	0.026 J	MG/KG	TR
SW6020/NONE	SO	076SB-0057M-0001-SO	240-17796-14	N	Aluminum	2.9	8500	8500	MG/KG	
SW6020/NONE	SO	076SB-0057M-0001-SO	240-17796-14	N	Arsenic	0.098	15.0	15.0	MG/KG	
SW6020/NONE	SO	076SB-0057M-0001-SO	240-17796-14	N	Barium	0.98	37.0	37.0	MG/KG	
SW6020/NONE	SO	076SB-0057M-0001-SO	240-17796-14	N	Beryllium	0.098	0.46	0.46	MG/KG	
SW6020/NONE	SO	076SB-0057M-0001-SO	240-17796-14	N	Calcium	9.8	4000	4000	MG/KG	
SW6020/NONE	SO	076SB-0057M-0001-SO	240-17796-14	N	Cadmium	0.098	0.13	0.13	MG/KG	
SW6020/NONE	SO	076SB-0057M-0001-SO	240-17796-14	N	Cobalt	0.049	8.5	8.5	MG/KG	
SW6020/NONE	SO	076SB-0057M-0001-SO	240-17796-14	N	Chromium	0.20	19.0	19.0	MG/KG	
SW6020/NONE	SO	076SB-0057M-0001-SO	240-17796-14	N	Copper	0.20	18.0	18.0	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-17796-2

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	076SB-0057M-0001-SO	240-17796-14	N	Iron	4.9	23000	23000	MG/KG	
SW6020/NONE	SO	076SB-0057M-0001-SO	240-17796-14	N	Potassium	9.8	1200	1200	MG/KG	
SW6020/NONE	SO	076SB-0057M-0001-SO	240-17796-14	N	Magnesium	9.8	3200	3200	MG/KG	
SW6020/NONE	SO	076SB-0057M-0001-SO	240-17796-14	N	Manganese	0.49	330	330	MG/KG	
SW6020/NONE	SO	076SB-0057M-0001-SO	240-17796-14	N	Sodium	9.8	47.0	47.0	MG/KG	
SW6020/NONE	SO	076SB-0057M-0001-SO	240-17796-14	N	Nickel	0.098	23.0	23.0	MG/KG	
SW6020/NONE	SO	076SB-0057M-0001-SO	240-17796-14	N	Lead	0.098	11.0	11.0	MG/KG	
SW6020/NONE	SO	076SB-0057M-0001-SO	240-17796-14	N	Antimony	0.20	0.063	0.063 J	MG/KG	TR
SW6020/NONE	SO	076SB-0057M-0001-SO	240-17796-14	N	Selenium	0.49	0.38	0.38 J	MG/KG	TR
SW6020/NONE	SO	076SB-0057M-0001-SO	240-17796-14	N	Thallium	0.098	0.12	0.12	MG/KG	
SW6020/NONE	SO	076SB-0057M-0001-SO	240-17796-14	N	Vanadium	0.098	14.0	14.0	MG/KG	
SW6020/NONE	SO	076SB-0057M-0001-SO	240-17796-14	N	Zinc	0.49	62.0	62.0	MG/KG	
SW6020/NONE	SO	076SB-0058M-0001-SO	240-17796-15	N	Silver	0.088	0.022	0.022 J	MG/KG	TR
SW6020/NONE	SO	076SB-0058M-0001-SO	240-17796-15	N	Aluminum	2.6	8000	8000	MG/KG	
SW6020/NONE	SO	076SB-0058M-0001-SO	240-17796-15	N	Arsenic	0.088	16.0	16.0	MG/KG	
SW6020/NONE	SO	076SB-0058M-0001-SO	240-17796-15	N	Barium	0.88	32.0	32.0	MG/KG	
SW6020/NONE	SO	076SB-0058M-0001-SO	240-17796-15	N	Beryllium	0.088	0.47	0.47	MG/KG	
SW6020/NONE	SO	076SB-0058M-0001-SO	240-17796-15	N	Calcium	8.8	4100	4100	MG/KG	
SW6020/NONE	SO	076SB-0058M-0001-SO	240-17796-15	N	Cadmium	0.088	0.15	0.15	MG/KG	
SW6020/NONE	SO	076SB-0058M-0001-SO	240-17796-15	N	Cobalt	0.044	9.1	9.1	MG/KG	
SW6020/NONE	SO	076SB-0058M-0001-SO	240-17796-15	N	Chromium	0.18	15.0	15.0	MG/KG	
SW6020/NONE	SO	076SB-0058M-0001-SO	240-17796-15	N	Copper	0.18	16.0	16.0	MG/KG	
SW6020/NONE	SO	076SB-0058M-0001-SO	240-17796-15	N	Iron	4.4	23000	23000	MG/KG	
SW6020/NONE	SO	076SB-0058M-0001-SO	240-17796-15	N	Potassium	8.8	1100	1100	MG/KG	
SW6020/NONE	SO	076SB-0058M-0001-SO	240-17796-15	N	Magnesium	8.8	3700	3700	MG/KG	
SW6020/NONE	SO	076SB-0058M-0001-SO	240-17796-15	N	Manganese	0.44	350	350	MG/KG	
SW6020/NONE	SO	076SB-0058M-0001-SO	240-17796-15	N	Sodium	8.8	43.0	43.0	MG/KG	
SW6020/NONE	SO	076SB-0058M-0001-SO	240-17796-15	N	Nickel	0.088	23.0	23.0	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-17796-2

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	076SB-0058M-0001-SO	240-17796-15	N	Lead	0.088	9.4	9.4	MG/KG	
SW6020/NONE	SO	076SB-0058M-0001-SO	240-17796-15	N	Antimony	0.18	0.050	0.050 J	MG/KG	TR
SW6020/NONE	SO	076SB-0058M-0001-SO	240-17796-15	N	Selenium	0.44	0.36	0.36 J	MG/KG	TR
SW6020/NONE	SO	076SB-0058M-0001-SO	240-17796-15	N	Thallium	0.088	0.11	0.11	MG/KG	
SW6020/NONE	SO	076SB-0058M-0001-SO	240-17796-15	N	Vanadium	0.088	13.0	13.0	MG/KG	
SW6020/NONE	SO	076SB-0058M-0001-SO	240-17796-15	N	Zinc	0.44	58.0	58.0	MG/KG	
SW6020/NONE	SO	076SB-0059M-0001-SO	240-17796-16	N	Silver	0.094	0.030	0.030 J	MG/KG	TR
SW6020/NONE	SO	076SB-0059M-0001-SO	240-17796-16	N	Aluminum	2.8	6600	6600	MG/KG	
SW6020/NONE	SO	076SB-0059M-0001-SO	240-17796-16	N	Arsenic	0.094	12.0	12.0	MG/KG	
SW6020/NONE	SO	076SB-0059M-0001-SO	240-17796-16	N	Barium	0.94	31.0	31.0	MG/KG	
SW6020/NONE	SO	076SB-0059M-0001-SO	240-17796-16	N	Beryllium	0.094	0.37	0.37	MG/KG	
SW6020/NONE	SO	076SB-0059M-0001-SO	240-17796-16	N	Calcium	9.4	2200	2200	MG/KG	
SW6020/NONE	SO	076SB-0059M-0001-SO	240-17796-16	N	Cadmium	0.094	0.15	0.15	MG/KG	
SW6020/NONE	SO	076SB-0059M-0001-SO	240-17796-16	N	Cobalt	0.047	7.6	7.6	MG/KG	
SW6020/NONE	SO	076SB-0059M-0001-SO	240-17796-16	N	Chromium	0.19	13.0	13.0	MG/KG	
SW6020/NONE	SO	076SB-0059M-0001-SO	240-17796-16	N	Copper	0.19	15.0	15.0	MG/KG	
SW6020/NONE	SO	076SB-0059M-0001-SO	240-17796-16	N	Iron	4.7	20000	20000	MG/KG	
SW6020/NONE	SO	076SB-0059M-0001-SO	240-17796-16	N	Potassium	9.4	920	920	MG/KG	
SW6020/NONE	SO	076SB-0059M-0001-SO	240-17796-16	N	Magnesium	9.4	2600	2600	MG/KG	
SW6020/NONE	SO	076SB-0059M-0001-SO	240-17796-16	N	Manganese	0.47	300	300	MG/KG	
SW6020/NONE	SO	076SB-0059M-0001-SO	240-17796-16	N	Sodium	9.4	37.0	37.0	MG/KG	
SW6020/NONE	SO	076SB-0059M-0001-SO	240-17796-16	N	Nickel	0.094	19.0	19.0	MG/KG	
SW6020/NONE	SO	076SB-0059M-0001-SO	240-17796-16	N	Lead	0.094	10.0	10.0	MG/KG	
SW6020/NONE	SO	076SB-0059M-0001-SO	240-17796-16	N	Antimony	0.19	0.053	0.053 J	MG/KG	TR
SW6020/NONE	SO	076SB-0059M-0001-SO	240-17796-16	N	Selenium	0.47	0.41	0.41 J	MG/KG	TR
SW6020/NONE	SO	076SB-0059M-0001-SO	240-17796-16	N	Thallium	0.094	0.10	0.10	MG/KG	
SW6020/NONE	SO	076SB-0059M-0001-SO	240-17796-16	N	Vanadium	0.094	12.0	12.0	MG/KG	
SW6020/NONE	SO	076SB-0059M-0001-SO	240-17796-16	N	Zinc	0.47	46.0	46.0	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-17796-2

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	076SB-0060M-0001-SO	240-17796-22	N	Silver	0.096	0.028	0.028 J	MG/KG	TR
SW6020/NONE	SO	076SB-0060M-0001-SO	240-17796-22	N	Aluminum	2.9	6800	6800	MG/KG	
SW6020/NONE	SO	076SB-0060M-0001-SO	240-17796-22	N	Arsenic	0.096	6.7	6.7	MG/KG	
SW6020/NONE	SO	076SB-0060M-0001-SO	240-17796-22	N	Barium	0.96	52.0	52.0	MG/KG	
SW6020/NONE	SO	076SB-0060M-0001-SO	240-17796-22	N	Beryllium	0.096	0.60	0.60	MG/KG	
SW6020/NONE	SO	076SB-0060M-0001-SO	240-17796-22	N	Calcium	9.6	14000	14000	MG/KG	
SW6020/NONE	SO	076SB-0060M-0001-SO	240-17796-22	N	Cadmium	0.096	0.16	0.16	MG/KG	
SW6020/NONE	SO	076SB-0060M-0001-SO	240-17796-22	N	Cobalt	0.048	4.2	4.2	MG/KG	
SW6020/NONE	SO	076SB-0060M-0001-SO	240-17796-22	N	Chromium	0.19	13.0	13.0	MG/KG	
SW6020/NONE	SO	076SB-0060M-0001-SO	240-17796-22	N	Copper	0.19	8.7	8.7	MG/KG	
SW6020/NONE	SO	076SB-0060M-0001-SO	240-17796-22	N	Iron	4.8	14000	14000	MG/KG	
SW6020/NONE	SO	076SB-0060M-0001-SO	240-17796-22	N	Potassium	9.6	810	810	MG/KG	
SW6020/NONE	SO	076SB-0060M-0001-SO	240-17796-22	N	Magnesium	9.6	2400	2400	MG/KG	
SW6020/NONE	SO	076SB-0060M-0001-SO	240-17796-22	N	Manganese	0.48	650	650	MG/KG	
SW6020/NONE	SO	076SB-0060M-0001-SO	240-17796-22	N	Sodium	9.6	78.0	78.0	MG/KG	
SW6020/NONE	SO	076SB-0060M-0001-SO	240-17796-22	N	Nickel	0.096	10.0	10.0	MG/KG	
SW6020/NONE	SO	076SB-0060M-0001-SO	240-17796-22	N	Lead	0.096	14.0	14.0	MG/KG	
SW6020/NONE	SO	076SB-0060M-0001-SO	240-17796-22	N	Antimony	0.19	0.18	0.18 J	MG/KG	TR
SW6020/NONE	SO	076SB-0060M-0001-SO	240-17796-22	N	Selenium	0.48	0.55	0.55	MG/KG	
SW6020/NONE	SO	076SB-0060M-0001-SO	240-17796-22	N	Thallium	0.096	0.072	0.072 J	MG/KG	TR
SW6020/NONE	SO	076SB-0060M-0001-SO	240-17796-22	N	Vanadium	0.096	11.0	11.0	MG/KG	
SW6020/NONE	SO	076SB-0060M-0001-SO	240-17796-22	N	Zinc	0.48	33.0	33.0	MG/KG	
SW6020/NONE	SO	076SB-0061M-0001-SO	240-17796-23	N	Silver	0.092	0.029	0.029 J	MG/KG	TR
SW6020/NONE	SO	076SB-0061M-0001-SO	240-17796-23	N	Aluminum	2.8	7900	7900	MG/KG	
SW6020/NONE	SO	076SB-0061M-0001-SO	240-17796-23	N	Arsenic	0.092	14.0	14.0	MG/KG	
SW6020/NONE	SO	076SB-0061M-0001-SO	240-17796-23	N	Barium	0.92	53.0	53.0	MG/KG	
SW6020/NONE	SO	076SB-0061M-0001-SO	240-17796-23	N	Beryllium	0.092	0.46	0.46	MG/KG	
SW6020/NONE	SO	076SB-0061M-0001-SO	240-17796-23	N	Calcium	9.2	1600	1600	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-17796-2

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	076SB-0061M-0001-SO	240-17796-23	N	Cadmium	0.092	0.17	0.17	MG/KG	
SW6020/NONE	SO	076SB-0061M-0001-SO	240-17796-23	N	Cobalt	0.046	8.6	8.6	MG/KG	
SW6020/NONE	SO	076SB-0061M-0001-SO	240-17796-23	N	Chromium	0.18	16.0	16.0	MG/KG	
SW6020/NONE	SO	076SB-0061M-0001-SO	240-17796-23	N	Copper	0.18	16.0	16.0	MG/KG	
SW6020/NONE	SO	076SB-0061M-0001-SO	240-17796-23	N	Iron	4.6	22000	22000	MG/KG	
SW6020/NONE	SO	076SB-0061M-0001-SO	240-17796-23	N	Potassium	9.2	1100	1100	MG/KG	
SW6020/NONE	SO	076SB-0061M-0001-SO	240-17796-23	N	Magnesium	9.2	2400	2400	MG/KG	
SW6020/NONE	SO	076SB-0061M-0001-SO	240-17796-23	N	Manganese	0.46	350	350	MG/KG	
SW6020/NONE	SO	076SB-0061M-0001-SO	240-17796-23	N	Sodium	9.2	37.0	37.0	MG/KG	
SW6020/NONE	SO	076SB-0061M-0001-SO	240-17796-23	N	Nickel	0.092	22.0	22.0	MG/KG	
SW6020/NONE	SO	076SB-0061M-0001-SO	240-17796-23	N	Lead	0.092	11.0	11.0	MG/KG	
SW6020/NONE	SO	076SB-0061M-0001-SO	240-17796-23	N	Antimony	0.18	0.072	0.072 J	MG/KG	TR
SW6020/NONE	SO	076SB-0061M-0001-SO	240-17796-23	N	Selenium	0.46	0.40	0.40 J	MG/KG	TR
SW6020/NONE	SO	076SB-0061M-0001-SO	240-17796-23	N	Thallium	0.092	0.11	0.11	MG/KG	
SW6020/NONE	SO	076SB-0061M-0001-SO	240-17796-23	N	Vanadium	0.092	14.0	14.0	MG/KG	
SW6020/NONE	SO	076SB-0061M-0001-SO	240-17796-23	N	Zinc	0.46	53.0	53.0	MG/KG	
SW6020/NONE	SO	076SB-0062M-0001-SO	240-17796-24	N	Silver	0.097	0.052	0.052 J	MG/KG	TR
SW6020/NONE	SO	076SB-0062M-0001-SO	240-17796-24	N	Aluminum	2.9	7300	7300	MG/KG	
SW6020/NONE	SO	076SB-0062M-0001-SO	240-17796-24	N	Arsenic	0.097	10.0	10.0	MG/KG	
SW6020/NONE	SO	076SB-0062M-0001-SO	240-17796-24	N	Barium	0.97	63.0	63.0	MG/KG	
SW6020/NONE	SO	076SB-0062M-0001-SO	240-17796-24	N	Beryllium	0.097	0.46	0.46	MG/KG	
SW6020/NONE	SO	076SB-0062M-0001-SO	240-17796-24	N	Calcium	9.7	4000	4000	MG/KG	
SW6020/NONE	SO	076SB-0062M-0001-SO	240-17796-24	N	Cadmium	0.097	0.24	0.24	MG/KG	
SW6020/NONE	SO	076SB-0062M-0001-SO	240-17796-24	N	Cobalt	0.049	6.0	6.0	MG/KG	
SW6020/NONE	SO	076SB-0062M-0001-SO	240-17796-24	N	Chromium	0.19	16.0	16.0	MG/KG	
SW6020/NONE	SO	076SB-0062M-0001-SO	240-17796-24	N	Copper	0.19	14.0	14.0	MG/KG	
SW6020/NONE	SO	076SB-0062M-0001-SO	240-17796-24	N	Iron	4.9	19000	19000	MG/KG	
SW6020/NONE	SO	076SB-0062M-0001-SO	240-17796-24	N	Potassium	9.7	1100	1100	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-17796-2

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	076SB-0062M-0001-SO	240-17796-24	N	Magnesium	9.7	2300	2300	MG/KG	
SW6020/NONE	SO	076SB-0062M-0001-SO	240-17796-24	N	Manganese	0.49	410	410	MG/KG	
SW6020/NONE	SO	076SB-0062M-0001-SO	240-17796-24	N	Sodium	9.7	36.0	36.0	MG/KG	
SW6020/NONE	SO	076SB-0062M-0001-SO	240-17796-24	N	Nickel	0.097	18.0	18.0	MG/KG	
SW6020/NONE	SO	076SB-0062M-0001-SO	240-17796-24	N	Lead	0.097	9.5	9.5	MG/KG	
SW6020/NONE	SO	076SB-0062M-0001-SO	240-17796-24	N	Antimony	0.19	0.058	0.058 J	MG/KG	TR
SW6020/NONE	SO	076SB-0062M-0001-SO	240-17796-24	N	Selenium	0.49	0.43	0.43 J	MG/KG	TR
SW6020/NONE	SO	076SB-0062M-0001-SO	240-17796-24	N	Thallium	0.097	0.087	0.087 J	MG/KG	TR
SW6020/NONE	SO	076SB-0062M-0001-SO	240-17796-24	N	Vanadium	0.097	13.0	13.0	MG/KG	
SW6020/NONE	SO	076SB-0062M-0001-SO	240-17796-24	N	Zinc	0.49	42.0	42.0	MG/KG	
SW6020/NONE	SO	076SB-0063M-0001-SO	240-17796-25	N	Silver	0.078	0.027	0.027 J	MG/KG	TR
SW6020/NONE	SO	076SB-0063M-0001-SO	240-17796-25	N	Aluminum	2.3	7700	7700	MG/KG	
SW6020/NONE	SO	076SB-0063M-0001-SO	240-17796-25	N	Arsenic	0.078	11.0	11.0	MG/KG	
SW6020/NONE	SO	076SB-0063M-0001-SO	240-17796-25	N	Barium	0.78	42.0	42.0	MG/KG	
SW6020/NONE	SO	076SB-0063M-0001-SO	240-17796-25	N	Beryllium	0.078	0.38	0.38	MG/KG	
SW6020/NONE	SO	076SB-0063M-0001-SO	240-17796-25	N	Calcium	7.8	1300	1300	MG/KG	
SW6020/NONE	SO	076SB-0063M-0001-SO	240-17796-25	N	Cadmium	0.078	0.16	0.16	MG/KG	
SW6020/NONE	SO	076SB-0063M-0001-SO	240-17796-25	N	Cobalt	0.039	7.5	7.5	MG/KG	
SW6020/NONE	SO	076SB-0063M-0001-SO	240-17796-25	N	Chromium	0.16	14.0	14.0	MG/KG	
SW6020/NONE	SO	076SB-0063M-0001-SO	240-17796-25	N	Copper	0.16	13.0	13.0	MG/KG	
SW6020/NONE	SO	076SB-0063M-0001-SO	240-17796-25	N	Iron	3.9	19000	19000	MG/KG	
SW6020/NONE	SO	076SB-0063M-0001-SO	240-17796-25	N	Potassium	7.8	1200	1200	MG/KG	
SW6020/NONE	SO	076SB-0063M-0001-SO	240-17796-25	N	Magnesium	7.8	2000	2000	MG/KG	
SW6020/NONE	SO	076SB-0063M-0001-SO	240-17796-25	N	Manganese	0.39	250	250	MG/KG	
SW6020/NONE	SO	076SB-0063M-0001-SO	240-17796-25	N	Sodium	7.8	44.0	44.0	MG/KG	
SW6020/NONE	SO	076SB-0063M-0001-SO	240-17796-25	N	Nickel	0.078	17.0	17.0	MG/KG	
SW6020/NONE	SO	076SB-0063M-0001-SO	240-17796-25	N	Lead	0.078	13.0	13.0	MG/KG	
SW6020/NONE	SO	076SB-0063M-0001-SO	240-17796-25	N	Antimony	0.16	0.13	0.13 J	MG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-17796-2

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	076SB-0063M-0001-SO	240-17796-25	N	Selenium	0.39	0.47	0.47	MG/KG	
SW6020/NONE	SO	076SB-0063M-0001-SO	240-17796-25	N	Thallium	0.078	0.094	0.094	MG/KG	
SW6020/NONE	SO	076SB-0063M-0001-SO	240-17796-25	N	Vanadium	0.078	14.0	14.0	MG/KG	
SW6020/NONE	SO	076SB-0063M-0001-SO	240-17796-25	N	Zinc	0.39	44.0	44.0	MG/KG	
SW6020/NONE	SO	076SB-0064M-0001-SO	240-17796-26	N	Silver	0.092	0.021	0.021 J	MG/KG	TR
SW6020/NONE	SO	076SB-0064M-0001-SO	240-17796-26	N	Aluminum	2.8	6600	6600	MG/KG	
SW6020/NONE	SO	076SB-0064M-0001-SO	240-17796-26	N	Arsenic	0.092	15.0	15.0	MG/KG	
SW6020/NONE	SO	076SB-0064M-0001-SO	240-17796-26	N	Barium	0.92	43.0	43.0	MG/KG	
SW6020/NONE	SO	076SB-0064M-0001-SO	240-17796-26	N	Beryllium	0.092	0.43	0.43	MG/KG	
SW6020/NONE	SO	076SB-0064M-0001-SO	240-17796-26	N	Calcium	9.2	3700	3700	MG/KG	
SW6020/NONE	SO	076SB-0064M-0001-SO	240-17796-26	N	Cadmium	0.092	0.19	0.19	MG/KG	
SW6020/NONE	SO	076SB-0064M-0001-SO	240-17796-26	N	Cobalt	0.046	8.1	8.1	MG/KG	
SW6020/NONE	SO	076SB-0064M-0001-SO	240-17796-26	N	Chromium	0.18	18.0	18.0	MG/KG	
SW6020/NONE	SO	076SB-0064M-0001-SO	240-17796-26	N	Copper	0.18	17.0	17.0	MG/KG	
SW6020/NONE	SO	076SB-0064M-0001-SO	240-17796-26	N	Iron	4.6	22000	22000	MG/KG	
SW6020/NONE	SO	076SB-0064M-0001-SO	240-17796-26	N	Potassium	9.2	810	810	MG/KG	
SW6020/NONE	SO	076SB-0064M-0001-SO	240-17796-26	N	Magnesium	9.2	2100	2100	MG/KG	
SW6020/NONE	SO	076SB-0064M-0001-SO	240-17796-26	N	Manganese	0.46	330	330	MG/KG	
SW6020/NONE	SO	076SB-0064M-0001-SO	240-17796-26	N	Sodium	9.2	29.0	29.0	MG/KG	
SW6020/NONE	SO	076SB-0064M-0001-SO	240-17796-26	N	Nickel	0.092	21.0	21.0	MG/KG	
SW6020/NONE	SO	076SB-0064M-0001-SO	240-17796-26	N	Lead	0.092	14.0	14.0	MG/KG	
SW6020/NONE	SO	076SB-0064M-0001-SO	240-17796-26	N	Antimony	0.18	0.12	0.12 J	MG/KG	TR
SW6020/NONE	SO	076SB-0064M-0001-SO	240-17796-26	N	Selenium	0.46	0.61	0.61	MG/KG	
SW6020/NONE	SO	076SB-0064M-0001-SO	240-17796-26	N	Thallium	0.092	0.15	0.15	MG/KG	
SW6020/NONE	SO	076SB-0064M-0001-SO	240-17796-26	N	Vanadium	0.092	12.0	12.0	MG/KG	
SW6020/NONE	SO	076SB-0064M-0001-SO	240-17796-26	N	Zinc	0.46	54.0	54.0	MG/KG	
SW6020/NONE	SO	076SB-0065M-0001-SO	240-17796-27	N	Silver	0.074	0.026	0.026 J	MG/KG	TR
SW6020/NONE	SO	076SB-0065M-0001-SO	240-17796-27	N	Aluminum	2.2	8000	8000	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-17796-2

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	076SB-0065M-0001-SO	240-17796-27	N	Arsenic	0.074	16.0	16.0	MG/KG	
SW6020/NONE	SO	076SB-0065M-0001-SO	240-17796-27	N	Barium	0.74	69.0	69.0	MG/KG	
SW6020/NONE	SO	076SB-0065M-0001-SO	240-17796-27	N	Beryllium	0.074	0.59	0.59	MG/KG	
SW6020/NONE	SO	076SB-0065M-0001-SO	240-17796-27	N	Calcium	7.4	7100	7100	MG/KG	
SW6020/NONE	SO	076SB-0065M-0001-SO	240-17796-27	N	Cadmium	0.074	0.21	0.21	MG/KG	
SW6020/NONE	SO	076SB-0065M-0001-SO	240-17796-27	N	Cobalt	0.037	7.5	7.5	MG/KG	
SW6020/NONE	SO	076SB-0065M-0001-SO	240-17796-27	N	Chromium	0.15	18.0	18.0	MG/KG	
SW6020/NONE	SO	076SB-0065M-0001-SO	240-17796-27	N	Copper	0.15	21.0	21.0	MG/KG	
SW6020/NONE	SO	076SB-0065M-0001-SO	240-17796-27	N	Iron	3.7	19000	19000	MG/KG	
SW6020/NONE	SO	076SB-0065M-0001-SO	240-17796-27	N	Potassium	7.4	870	870	MG/KG	
SW6020/NONE	SO	076SB-0065M-0001-SO	240-17796-27	N	Magnesium	7.4	2500	2500	MG/KG	
SW6020/NONE	SO	076SB-0065M-0001-SO	240-17796-27	N	Manganese	0.37	500	500	MG/KG	
SW6020/NONE	SO	076SB-0065M-0001-SO	240-17796-27	N	Sodium	7.4	48.0	48.0	MG/KG	
SW6020/NONE	SO	076SB-0065M-0001-SO	240-17796-27	N	Nickel	0.074	20.0	20.0	MG/KG	
SW6020/NONE	SO	076SB-0065M-0001-SO	240-17796-27	N	Lead	0.074	13.0	13.0	MG/KG	
SW6020/NONE	SO	076SB-0065M-0001-SO	240-17796-27	N	Antimony	0.15	0.18	0.18	MG/KG	
SW6020/NONE	SO	076SB-0065M-0001-SO	240-17796-27	N	Selenium	0.37	0.64	0.64	MG/KG	
SW6020/NONE	SO	076SB-0065M-0001-SO	240-17796-27	N	Thallium	0.074	0.12	0.12	MG/KG	
SW6020/NONE	SO	076SB-0065M-0001-SO	240-17796-27	N	Vanadium	0.074	15.0	15.0	MG/KG	
SW6020/NONE	SO	076SB-0065M-0001-SO	240-17796-27	N	Zinc	0.37	50.0	50.0	MG/KG	
SW6020/NONE	SO	076SB-0066M-0001-SO	240-17796-28	N	Silver	0.087	0.035	0.035 J	MG/KG	TR
SW6020/NONE	SO	076SB-0066M-0001-SO	240-17796-28	N	Aluminum	2.6	8600	8600	MG/KG	
SW6020/NONE	SO	076SB-0066M-0001-SO	240-17796-28	N	Arsenic	0.087	12.0	12.0	MG/KG	
SW6020/NONE	SO	076SB-0066M-0001-SO	240-17796-28	N	Barium	0.87	69.0	69.0	MG/KG	
SW6020/NONE	SO	076SB-0066M-0001-SO	240-17796-28	N	Beryllium	0.087	0.61	0.61	MG/KG	
SW6020/NONE	SO	076SB-0066M-0001-SO	240-17796-28	N	Calcium	8.7	7300	7300	MG/KG	
SW6020/NONE	SO	076SB-0066M-0001-SO	240-17796-28	N	Cadmium	0.087	0.20	0.20	MG/KG	
SW6020/NONE	SO	076SB-0066M-0001-SO	240-17796-28	N	Cobalt	0.043	7.8	7.8	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-17796-2

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	076SB-0066M-0001-SO	240-17796-28	N	Chromium	0.17	17.0	17.0	MG/KG	
SW6020/NONE	SO	076SB-0066M-0001-SO	240-17796-28	N	Copper	0.17	14.0	14.0	MG/KG	
SW6020/NONE	SO	076SB-0066M-0001-SO	240-17796-28	N	Iron	4.3	20000	20000	MG/KG	
SW6020/NONE	SO	076SB-0066M-0001-SO	240-17796-28	N	Potassium	8.7	790	790	MG/KG	
SW6020/NONE	SO	076SB-0066M-0001-SO	240-17796-28	N	Magnesium	8.7	2700	2700	MG/KG	
SW6020/NONE	SO	076SB-0066M-0001-SO	240-17796-28	N	Manganese	0.43	560	560	MG/KG	
SW6020/NONE	SO	076SB-0066M-0001-SO	240-17796-28	N	Sodium	8.7	55.0	55.0	MG/KG	
SW6020/NONE	SO	076SB-0066M-0001-SO	240-17796-28	N	Nickel	0.087	18.0	18.0	MG/KG	
SW6020/NONE	SO	076SB-0066M-0001-SO	240-17796-28	N	Lead	0.087	26.0	26.0	MG/KG	
SW6020/NONE	SO	076SB-0066M-0001-SO	240-17796-28	N	Antimony	0.17	0.11	0.11 J	MG/KG	TR
SW6020/NONE	SO	076SB-0066M-0001-SO	240-17796-28	N	Selenium	0.43	0.61	0.61	MG/KG	
SW6020/NONE	SO	076SB-0066M-0001-SO	240-17796-28	N	Thallium	0.087	0.13	0.13	MG/KG	
SW6020/NONE	SO	076SB-0066M-0001-SO	240-17796-28	N	Vanadium	0.087	16.0	16.0	MG/KG	
SW6020/NONE	SO	076SB-0066M-0001-SO	240-17796-28	N	Zinc	0.43	55.0	55.0	MG/KG	
SW6020/NONE	SO	076SS-0007M-0001-SO	240-17796-10	N	Silver	0.097	0.22	0.22	MG/KG	
SW6020/NONE	SO	076SS-0007M-0001-SO	240-17796-10	N	Aluminum	2.9	7800	7800	MG/KG	
SW6020/NONE	SO	076SS-0007M-0001-SO	240-17796-10	N	Arsenic	0.097	9.2	9.2	MG/KG	
SW6020/NONE	SO	076SS-0007M-0001-SO	240-17796-10	N	Barium	0.97	52.0	52.0	MG/KG	
SW6020/NONE	SO	076SS-0007M-0001-SO	240-17796-10	N	Beryllium	0.097	0.41	0.41	MG/KG	
SW6020/NONE	SO	076SS-0007M-0001-SO	240-17796-10	N	Calcium	9.7	2400	2400	MG/KG	
SW6020/NONE	SO	076SS-0007M-0001-SO	240-17796-10	N	Cadmium	0.097	0.29	0.29	MG/KG	
SW6020/NONE	SO	076SS-0007M-0001-SO	240-17796-10	N	Cobalt	0.049	6.1	6.1	MG/KG	
SW6020/NONE	SO	076SS-0007M-0001-SO	240-17796-10	N	Chromium	0.19	18.0	18.0	MG/KG	
SW6020/NONE	SO	076SS-0007M-0001-SO	240-17796-10	N	Copper	0.19	14.0	14.0	MG/KG	
SW6020/NONE	SO	076SS-0007M-0001-SO	240-17796-10	N	Iron	4.9	19000	19000	MG/KG	
SW6020/NONE	SO	076SS-0007M-0001-SO	240-17796-10	N	Potassium	9.7	600	600	MG/KG	
SW6020/NONE	SO	076SS-0007M-0001-SO	240-17796-10	N	Magnesium	9.7	1600	1600	MG/KG	
SW6020/NONE	SO	076SS-0007M-0001-SO	240-17796-10	N	Manganese	0.49	290	290	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-17796-2

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	076SS-0007M-0001-SO	240-17796-10	N	Sodium	9.7	25.0	25.0	MG/KG	
SW6020/NONE	SO	076SS-0007M-0001-SO	240-17796-10	N	Nickel	0.097	16.0	16.0	MG/KG	
SW6020/NONE	SO	076SS-0007M-0001-SO	240-17796-10	N	Lead	0.097	20.0	20.0	MG/KG	
SW6020/NONE	SO	076SS-0007M-0001-SO	240-17796-10	N	Antimony	0.19	0.12	0.12 J	MG/KG	TR
SW6020/NONE	SO	076SS-0007M-0001-SO	240-17796-10	N	Selenium	0.49	0.50	0.50	MG/KG	
SW6020/NONE	SO	076SS-0007M-0001-SO	240-17796-10	N	Thallium	0.097	0.12	0.12	MG/KG	
SW6020/NONE	SO	076SS-0007M-0001-SO	240-17796-10	N	Vanadium	0.097	16.0	16.0	MG/KG	
SW6020/NONE	SO	076SS-0007M-0001-SO	240-17796-10	N	Zinc	0.49	52.0	52.0	MG/KG	
SW6020/NONE	SO	076SS-0022M-0001-SO	240-17796-2	N	Silver	0.098	0.026	0.026 J	MG/KG	TR
SW6020/NONE	SO	076SS-0022M-0001-SO	240-17796-2	N	Aluminum	2.9	8400	8400	MG/KG	
SW6020/NONE	SO	076SS-0022M-0001-SO	240-17796-2	N	Arsenic	0.098	11.0	11.0	MG/KG	
SW6020/NONE	SO	076SS-0022M-0001-SO	240-17796-2	N	Barium	0.98	51.0	51.0	MG/KG	
SW6020/NONE	SO	076SS-0022M-0001-SO	240-17796-2	N	Beryllium	0.098	0.51	0.51	MG/KG	
SW6020/NONE	SO	076SS-0022M-0001-SO	240-17796-2	N	Calcium	9.8	4300	4300	MG/KG	
SW6020/NONE	SO	076SS-0022M-0001-SO	240-17796-2	N	Cadmium	0.098	0.13	0.13	MG/KG	
SW6020/NONE	SO	076SS-0022M-0001-SO	240-17796-2	N	Cobalt	0.049	8.2	8.2	MG/KG	
SW6020/NONE	SO	076SS-0022M-0001-SO	240-17796-2	N	Chromium	0.20	17.0	17.0	MG/KG	
SW6020/NONE	SO	076SS-0022M-0001-SO	240-17796-2	N	Copper	0.20	13.0	13.0	MG/KG	
SW6020/NONE	SO	076SS-0022M-0001-SO	240-17796-2	N	Iron	4.9	22000	22000	MG/KG	
SW6020/NONE	SO	076SS-0022M-0001-SO	240-17796-2	N	Potassium	9.8	800	800	MG/KG	
SW6020/NONE	SO	076SS-0022M-0001-SO	240-17796-2	N	Magnesium	9.8	2200	2200	MG/KG	
SW6020/NONE	SO	076SS-0022M-0001-SO	240-17796-2	N	Manganese	0.49	400	400	MG/KG	
SW6020/NONE	SO	076SS-0022M-0001-SO	240-17796-2	N	Sodium	9.8	44.0	44.0	MG/KG	
SW6020/NONE	SO	076SS-0022M-0001-SO	240-17796-2	N	Nickel	0.098	17.0	17.0	MG/KG	
SW6020/NONE	SO	076SS-0022M-0001-SO	240-17796-2	N	Lead	0.098	13.0	13.0	MG/KG	
SW6020/NONE	SO	076SS-0022M-0001-SO	240-17796-2	N	Antimony	0.20	0.10	0.10 J	MG/KG	TR
SW6020/NONE	SO	076SS-0022M-0001-SO	240-17796-2	N	Selenium	0.49	0.56	0.56	MG/KG	
SW6020/NONE	SO	076SS-0022M-0001-SO	240-17796-2	N	Thallium	0.098	0.14	0.14	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-17796-2

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	076SS-0022M-0001-SO	240-17796-2	N	Vanadium	0.098	16.0	16.0	MG/KG	
SW6020/NONE	SO	076SS-0022M-0001-SO	240-17796-2	N	Zinc	0.49	40.0	40.0	MG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-17796-2

Rejected Results

--No Records Found--

Anomalies Count

--No Records Found--

Reporting Anomalies

--No Records Found--

Worksheet

SDG Name: 240-17796-2

Method: SW6020

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?				
Were samples preserved properly and received in good condition?				
Were holding times met?				
Were sample reciept temperatures met?				
Were QAPP specified RLs achieved?				
Were all QAPP specified target analytes reported?				
Was the initial calibration curve within QAPP acceptance limits?			•	Not Required
Were the ICV/CCVs analyzed (frequency) as required in the QAPP?			•	Not Required
Were ICV/CCV results within QAPP acceptance limits?			•	Not Required

AUTOMATED DATA REVIEW SUMMARY for 240-17796-2

Method: SW6020

Review Questions	Yes	No	NA	Comment
Were the ICB/CCBs analyzed (frequency) as required in the QAPP?			•	Not Required
Was a method blank prepared and analyzed with each batch?				
Were target analytes detected in the ICB/CCB/method blank?			•	Not Required
Was a field blank collected and analyzed?				
Were target analytes reported in the field blank analyses above the MDL?				
Was an Interference Check Standard (ICS) run at the beginning and end of every run?			•	Not Required
Was the ICS recovery within QAPP acceptance limits?			•	Not Required
If a field duplicate was analyzed, were the RPDs within criteria?				
Was a LCS prepared and analyzed with each batch?				
Were the LCS recoveries within QAPP acceptance limits?				
Was a MS/MSD pair prepared with each batch?				
Is the MS/MSD parent sample the one designated by the sampling team?				
Were the MS/MSD within QAPP acceptance limits?				
Was a serial dilution prepared and analyzed with each batch?			•	Not Required
Was the serial dilution within QAPP acceptance limits?			•	Not Required
Were sample concentrations within calibration range?				
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?				
Are all samples associated with QC non-compliances flagged appropriately?				
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?				

This page intentionally left blank.

WORKSHEET 8

Automated Data Review Summary for 240-18735-2
Source Water

This page left intentionally blank.

AUTOMATED DATA REVIEW SUMMARY for J18735_SourceWater

Facility: Ravenna Army Ammunition Plant

Event: Fall 2012 SI/RI Sampling

Guidance Document: Ravenna Army Ammunition Plant, Quality Assurance Project Plan, Oct. 3, 2012

Contract Laboratory: TestAmerica, Inc., North Canton, OH

Field Contractor: Environmental Chemical Corporation, Abingdon, MD

Data Review Contractor:

SDG: J18735_SourceWater, Certified - 10/4/2013 by frederickroche

QC Level:

Project Manager:

Data Reviewer:

Data Reviewer Title:

Date of Review Report:

Samples Included in SDG J18735_SourceWater

Analytical Method/ Leach Method	Normal Water Samples	Field QC Water Samples
E353.2/NONE	2	0
M8015D/NONE	2	0
M8015V/NONE	2	0
SW6020/NONE	2	0
SW7470A/NONE	2	0
SW8081/NONE	2	0
SW8082/NONE	2	0

AUTOMATED DATA REVIEW SUMMARY for J18735_SourceWater

Analytical Method/ Leach Method	Normal Water Samples	Field QC Water Samples
SW8151A/NONE	2	0
SW8260B/NONE	2	0
SW8270C/NONE	2	0
SW8330B/NONE	2	0

AUTOMATED DATA REVIEW SUMMARY for J18735_SourceWater

This report assesses the analytical data quality associated with the analyses listed on the preceding cover page. This assessment has been made through a combination of automated data review (ADR) and supplemental manual review, the details of which are described below. The approach taken in the review of this data set is consistent with the requirements contained in the Ravenna Army Ammunition Plant, Quality Assurance Project Plan, Oct. 3, 2012 to the extent possible. Where definitive guidance is not provided, data has been evaluated in a conservative manner using professional judgment. In cases where two qualifiers are listed as an action, such as 'J/UJ', the first qualifier applies to positive results, and the second to non-detect results.

Samples were collected by Environmental Chemical Corporation, Abingdon, MD; analyses were performed by TestAmerica, Inc., North Canton, OH and were reported under sample delivery group (SDG) J18735_SourceWater. Results have been evaluated electronically using electronic data deliverables (EDDs) provided by the laboratory. The laboratory data summary forms (hard copy) have been reviewed during this effort and compared to the automated review output. Findings based on the automated data submission and manual data verification processes are detailed in the ADR narrative.

The following quality control elements were supported by the electronic deliverable and were evaluated during this review effort:

Prep Hold Time

Surrogate

Test Hold Time

The following quality control elements were either not applicable to the deliverable, or were not supported by the electronic deliverable, and were therefore not included in the automated data review. Those elements required for the project were reviewed manually, as narrated in the Comment section below.

Ambient Blank

Blank

Blank - Negative

Calibration Blank

Calibration Blank - Negative

Continuing Calibration Verification

Equipment Blank

Field Blank

Field Duplicate RPD

Initial Calibration Verification

Lab Replicate RPD

AUTOMATED DATA REVIEW SUMMARY for J18735_SourceWater

LCS Recovery

LCS RPD

Material Blank

MS Recovery

MS RPD

Trip Blank

AUTOMATED DATA REVIEW SUMMARY for J18735_SourceWater

A representative sampling or ten percent of sample and QC results were manually evaluated for compliance with project specific requirements and consistency with hard copy results. The following summaries were generated during the evaluation of this data set and are included in this report as applicable.

Batch – The analytical batch report is reviewed for completeness and compliance with project specific requirements. Incomplete or non-compliant run sequences are identified and their impact on data quality are discussed in the narrative.

QC Outlier – Results exceeding the evaluation criteria are reviewed for compliance with project requirements and a minimum of ten percent of the non-compliant QC values reported electronically are verified for consistency with hard-copy values.

Qualified Results – Qualified results are evaluated for compliance with project requirements and ten percent of qualified results are verified for consistency with the QC Outliers.

Rejected Results – All rejected results are evaluated for compliance with project requirements. The reason for rejection of the data is verified against hard copy data.

Field Duplicates – Field duplicate comparison results are evaluated for compliance with project requirements and ten percent of values reported are verified for consistency with the hard-copy data.

Data Submission Warnings – Warnings encountered during the data submission process are evaluated and their affect on data quality is discussed in the narrative below.

Analytical deficiencies, project non-compliance issues and inconsistencies with hard copy results observed during ADR evaluation process and their impact on data quality are summarized in the narrative below.

A total of 0 results (0.00%) out of the 370 results (sample and field QC samples) reported are qualified based on review and 0 results (0.00%) have been rejected. Trace values are not counted as qualified results in the above count. The qualified results are detailed in the following tables and discussed in the narrative below, where appropriate.

Narrative Comments

Analytical Method	Comment

AUTOMATED DATA REVIEW SUMMARY for J18735_SourceWater

Reviewed by ,

AUTOMATED DATA REVIEW SUMMARY for J18735_SourceWater

Reason and Comment Code Definitions

Reasons	
Code	**Definition**
A	Serial dilution
A1	Ambient Blank
B	The analyte was found in an associated blank as well as in the sample.
B2	CCB
B3	CCB - Neg
c	LCS - low
C	LCS Recovery
d	Field Duplicate RPD
D	MS RPD
D1	Lab Replicate RPD
D2	No precision available
F	Field Blank
F1	Hydrocarbon pattern does not match standard
G1	Initial Calibration RRF
G2	Initial Calibration RSD
h	Holding time exceeded by less than 2X.
H	Holding time exceeded by more than 2X.
H1	Test Hold Time
H2	Prep Hold Time
I	Surrogate recovery outside project limits.
J	CRA/CRI Recovery
K	An analyte (non-common laboratory artifact) was detected in the sample at a concentration less than 5X the concentration detected in the associated method blank.
L	Lab Blank
L1	Lab Blank - Neg
m	MS - low
M	MS Recovery
N	Blank - No Action

AUTOMATED DATA REVIEW SUMMARY for J18735_SourceWater

Reason and Comment Code Definitions

O	ICS
P	Sample preservation/collection requirement not met.
P1	Column RPD
P2	Improper preparation/extraction
q	Encore sample holding time exceeded by less than 2X.
Q	Encore sample holding time exceeded by more than 2X.
Q1	Material Blank
R	Exceeds LinearCalibration Range
S	Internal standard
T	Trip Blank
TI	Tentatively Identified Compound
TR	Trace Level Detect
U	Receipt Temperature
V	Equipment Blank
V1	ICV
V2	CCV
V3	CCV RRF
V4	Sample Receipt Condition
W	Column breakdown (pesticides)
X	Raised reporting limit
Y	Cooler temperature greater than 10 degreec C.
y	Cooler temperature greater than 4 degrees C, but less than 10 degreec C.
Y1	False Positive
Y2	Data rejected due to radiological anomolies
Z	LCS RPD
Z2	Analyte not confirmed on second column
Z3	High percent moisture in sample.

AUTOMATED DATA REVIEW SUMMARY for J18735_SourceWater

Flag Code and Definitions	
Flag	Definition
U	Undetected: The analyte was analyzed for, but not detected.
UJ	The analyte was not detected; however, the result is estimated due to discrepancies in meeting certain analyte-specific quality control criteria.
J	Estimated: The analyte was positively identified, the quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
R	The data are rejected due to deficiencies in meeting QC criteria and may not be used for decision making.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification".
NJ	The analysis indicates the presence of an analyte that has been “tentatively identified” and the associated numerical value represents its approximate concentration.

AUTOMATED DATA REVIEW SUMMARY for J18735_SourceWater

Batch Report

Test Method: E353.2; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
8009	7878	NA	BLDG-1036	WG	070-0056-0001-SOURCE WATER	240-18735-3		1/1	12-Dec-2012 1:00 PM	27-Dec-2012 6:07 AM	27-Dec-2012 1:51 PM	N
	7878	NA	BLDG-1036	WG	070-0057-0001-SOURCE WATER	240-18735-4		1/1	12-Dec-2012 1:15 PM	27-Dec-2012 6:07 AM	27-Dec-2012 1:53 PM	N

Test Method: M8015D; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
68949	68549	NA	BLDG-1036	WG	070-0056-0001-SOURCE WATER	240-18735-3		1/1	12-Dec-2012 1:00 PM	13-Dec-2012 11:26 AM	17-Dec-2012 9:35 PM	N
	68549	NA	BLDG-1036	WG	070-0057-0001-SOURCE WATER	240-18735-4		1/1	12-Dec-2012 1:15 PM	13-Dec-2012 11:26 AM	17-Dec-2012 10:05 PM	N

Test Method: M8015V; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
69738	69738	NA	BLDG-1036	WG	070-0056-0001-SOURCE WATER	240-18735-3		1/1	12-Dec-2012 1:00 PM	22-Dec-2012 4:18 PM	22-Dec-2012 4:18 PM	N
	69738	NA	BLDG-1036	WG	070-0057-0001-SOURCE WATER	240-18735-4		1/1	12-Dec-2012 1:15 PM	22-Dec-2012 4:56 PM	22-Dec-2012 4:56 PM	N

Test Method: SW6020; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
59694	59308	NA	BLDG-1036	WG	070-0056-0001-SOURCE WATER	240-18735-3		1/1	12-Dec-2012 1:00 PM	24-Dec-2012 10:24 AM	29-Dec-2012 4:07 AM	N
	59308	NA	BLDG-1036	WG	070-0057-0001-SOURCE WATER	240-18735-4		1/1	12-Dec-2012 1:15 PM	24-Dec-2012 10:24 AM	29-Dec-2012 4:11 AM	N

Test Method: SW7470A; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
70694	70255	NA	BLDG-1036	WG	070-0057-0001-SOURCE WATER	240-18735-4		1/1	12-Dec-2012 1:15 PM	27-Dec-2012 4:00 PM	29-Dec-2012 12:08 PM	N
	70255	NA	BLDG-1036	WG	070-0056-0001-SOURCE WATER	240-18735-3		1/1	12-Dec-2012 1:00 PM	27-Dec-2012 4:00 PM	29-Dec-2012 12:10 PM	N

AUTOMATED DATA REVIEW SUMMARY for J18735_SourceWater

Batch Report

Test Method: SW8081; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
69152	68554	NA	BLDG-1036	WG	070-0056-0001-SOURCE WATER	240-18735-3		1/1	12-Dec-2012 1:00 PM	13-Dec-2012 11:40 AM	18-Dec-2012 1:14 PM	N
	68554	NA	BLDG-1036	WG	070-0057-0001-SOURCE WATER	240-18735-4		1/1	12-Dec-2012 1:15 PM	13-Dec-2012 11:40 AM	18-Dec-2012 1:42 PM	N

Test Method: SW8082; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
69119	68553	NA	BLDG-1036	WG	070-0056-0001-SOURCE WATER	240-18735-3		1/1	12-Dec-2012 1:00 PM	13-Dec-2012 11:37 AM	18-Dec-2012 9:11 AM	N
	68553	NA	BLDG-1036	WG	070-0057-0001-SOURCE WATER	240-18735-4		1/1	12-Dec-2012 1:15 PM	13-Dec-2012 11:37 AM	18-Dec-2012 9:26 AM	N

Test Method: SW8151A; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
70037	69372	NA	BLDG-1036	WG	070-0056-0001-SOURCE WATER	240-18735-3		1/1	12-Dec-2012 1:00 PM	19-Dec-2012 9:51 AM	24-Dec-2012 5:40 PM	N
	69372	NA	BLDG-1036	WG	070-0057-0001-SOURCE WATER	240-18735-4		1/1	12-Dec-2012 1:15 PM	19-Dec-2012 9:51 AM	24-Dec-2012 6:03 PM	N

Test Method: SW8260B; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
69591	69591	NA	BLDG-1036	WG	070-0056-0001-SOURCE WATER	240-18735-3		1/1	12-Dec-2012 1:00 PM	20-Dec-2012 2:04 PM	20-Dec-2012 2:04 PM	N
	69591	NA	BLDG-1036	WG	070-0057-0001-SOURCE WATER	240-18735-4		1/1	12-Dec-2012 1:15 PM	20-Dec-2012 2:26 PM	20-Dec-2012 2:26 PM	N

Test Method: SW8270C; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
68962	68547	NA	BLDG-1036	WG	070-0056-0001-SOURCE WATER	240-18735-3		1/1	12-Dec-2012 1:00 PM	13-Dec-2012 11:21 AM	17-Dec-2012 12:28 PM	N
	68547	NA	BLDG-1036	WG	070-0057-0001-SOURCE WATER	240-18735-4		1/1	12-Dec-2012 1:15 PM	13-Dec-2012 11:21 AM	17-Dec-2012 12:51 PM	N

AUTOMATED DATA REVIEW SUMMARY for J18735_SourceWater

Batch Report

Test Method: SW8330B; Leach Method: NONE											
Analytical Batch	**Prep Batch**	**Leach Batch**	**Location**	**Matrix**	**Field Sample ID**	**Lab Sample ID**	**Calibration Ref**	**Run#/ Dil'n**	**Collection Date/Time**	**Extract Date/Time**	**Analysis Date/Time**	**Sample Type**
7620	7404	NA	BLDG-1036	WG	070-0056-0001-SOURCE WATER	240-18735-3		1/1	12-Dec-2012 1:00 PM	14-Dec-2012 11:07 AM	21-Dec-2012 3:22 PM	N
	7404	NA	BLDG-1036	WG	070-0057-0001-SOURCE WATER	240-18735-4		1/1	12-Dec-2012 1:15 PM	14-Dec-2012 11:07 AM	21-Dec-2012 4:02 PM	N
7855	7807	NA	BLDG-1036	WG	070-0056-0001-SOURCE WATER	240-18735-3		2/1	12-Dec-2012 1:00 PM	24-Dec-2012 12:40 PM	27-Dec-2012 4:51 AM	N
	7807	NA	BLDG-1036	WG	070-0057-0001-SOURCE WATER	240-18735-4		2/1	12-Dec-2012 1:15 PM	24-Dec-2012 12:40 PM	27-Dec-2012 5:06 AM	N

AUTOMATED DATA REVIEW SUMMARY for J18735_SourceWater

Field Batch Report

--No Records Found--

QC Outliers Report

--No Records Found--

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
M8015V/NONE	WG	070-0056-0001-SOURCE WATER	240-18735-3	N	Petroleum Hydrocarbons C6-C12	100	39.0	39.0 J		UG/L	TR
M8015V/NONE	WG	070-0057-0001-SOURCE WATER	240-18735-4	N	Petroleum Hydrocarbons C6-C12	100	36.0	36.0 J		UG/L	TR
Test Leach	**Matrix**	**FieldSample ID**	**LabSample ID**	**Type**	**Analyte**	**RL**	**Lab Result**	**Qualified Result**	**Bias**	**Units**	**Reason**
SW6020/NONE	WG	070-0056-0001-SOURCE WATER	240-18735-3	N	Aluminum	30.0	13.0	13.0 J		UG/L	TR
SW6020/NONE	WG	070-0056-0001-SOURCE WATER	240-18735-3	N	Arsenic	1.0	0.49	0.49 J		UG/L	TR
SW6020/NONE	WG	070-0056-0001-SOURCE WATER	240-18735-3	N	Cobalt	0.50	0.11	0.11 J		UG/L	TR
SW6020/NONE	WG	070-0056-0001-SOURCE WATER	240-18735-3	N	Copper	2.0	0.83	0.83 J		UG/L	TR
SW6020/NONE	WG	070-0057-0001-SOURCE WATER	240-18735-4	N	Barium	10.0	0.13	0.13 J		UG/L	TR
SW6020/NONE	WG	070-0057-0001-SOURCE WATER	240-18735-4	N	Calcium	100	59.0	59.0 J		UG/L	TR
SW6020/NONE	WG	070-0057-0001-SOURCE WATER	240-18735-4	N	Copper	2.0	0.60	0.60 J		UG/L	TR
SW6020/NONE	WG	070-0057-0001-SOURCE WATER	240-18735-4	N	Magnesium	100	29.0	29.0 J		UG/L	TR
Test Leach	**Matrix**	**FieldSample ID**	**LabSample ID**	**Type**	**Analyte**	**RL**	**Lab Result**	**Qualified Result**	**Bias**	**Units**	**Reason**
SW8260B/NONE	WG	070-0057-0001-SOURCE WATER	240-18735-4	N	2-Butanone (MEK)	10.0	1.2	1.2 J		UG/L	TR

AUTOMATED DATA REVIEW SUMMARY for J18735_SourceWater

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
SW8260B/NONE	WG	070-0057-0001-SOURCE WATER	240-18735-4	N	Acetone	10.0	2.1	2.1 J		UG/L	TR
SW8260B/NONE	WG	070-0057-0001-SOURCE WATER	240-18735-4	N	Toluene	1.0	0.15	0.15 J		UG/L	TR

AUTOMATED DATA REVIEW SUMMARY for J18735_SourceWater

AUTOMATED DATA REVIEW SUMMARY for J18735_SourceWater

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
M8015V/NONE	WG	070-0056-0001-SOURCE WATER	240-18735-3	N	Petroleum Hydrocarbons C6-C12	100	39.0	39.0 J	UG/L	TR
M8015V/NONE	WG	070-0057-0001-SOURCE WATER	240-18735-4	N	Petroleum Hydrocarbons C6-C12	100	36.0	36.0 J	UG/L	TR

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	WG	070-0056-0001-SOURCE WATER	240-18735-3	N	Aluminum	30.0	13.0	13.0 J	UG/L	TR
SW6020/NONE	WG	070-0056-0001-SOURCE WATER	240-18735-3	N	Arsenic	1.0	0.49	0.49 J	UG/L	TR
SW6020/NONE	WG	070-0056-0001-SOURCE WATER	240-18735-3	N	Barium	10.0	39.0	39.0	UG/L	
SW6020/NONE	WG	070-0056-0001-SOURCE WATER	240-18735-3	N	Calcium	100	66000	66000	UG/L	
SW6020/NONE	WG	070-0056-0001-SOURCE WATER	240-18735-3	N	Cobalt	0.50	0.11	0.11 J	UG/L	TR
SW6020/NONE	WG	070-0056-0001-SOURCE WATER	240-18735-3	N	Copper	2.0	0.83	0.83 J	UG/L	TR
SW6020/NONE	WG	070-0056-0001-SOURCE WATER	240-18735-3	N	Iron	50.0	440	440	UG/L	
SW6020/NONE	WG	070-0056-0001-SOURCE WATER	240-18735-3	N	Potassium	100	2500	2500	UG/L	
SW6020/NONE	WG	070-0056-0001-SOURCE WATER	240-18735-3	N	Magnesium	100	27000	27000	UG/L	
SW6020/NONE	WG	070-0056-0001-SOURCE WATER	240-18735-3	N	Manganese	5.0	77.0	77.0	UG/L	
SW6020/NONE	WG	070-0056-0001-SOURCE WATER	240-18735-3	N	Sodium	100	35000	35000	UG/L	
SW6020/NONE	WG	070-0056-0001-SOURCE WATER	240-18735-3	N	Zinc	5.0	18.0	18.0	UG/L	
SW6020/NONE	WG	070-0057-0001-SOURCE WATER	240-18735-4	N	Barium	10.0	0.13	0.13 J	UG/L	TR
SW6020/NONE	WG	070-0057-0001-SOURCE WATER	240-18735-4	N	Calcium	100	59.0	59.0 J	UG/L	TR
SW6020/NONE	WG	070-0057-0001-SOURCE WATER	240-18735-4	N	Copper	2.0	0.60	0.60 J	UG/L	TR
SW6020/NONE	WG	070-0057-0001-SOURCE WATER	240-18735-4	N	Magnesium	100	29.0	29.0 J	UG/L	TR
SW6020/NONE	WG	070-0057-0001-SOURCE WATER	240-18735-4	N	Sodium	100	1600	1600	UG/L	

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8260B/NONE	WG	070-0057-0001-SOURCE WATER	240-18735-4	N	Acetone	10.0	2.1	2.1 J	UG/L	TR
SW8260B/NONE	WG	070-0057-0001-SOURCE WATER	240-18735-4	N	Bromodichloromethane	1.0	3.6	3.6	UG/L	
SW8260B/NONE	WG	070-0057-0001-SOURCE WATER	240-18735-4	N	Toluene	1.0	0.15	0.15 J	UG/L	TR
SW8260B/NONE	WG	070-0057-0001-SOURCE WATER	240-18735-4	N	Dibromochloromethane	1.0	1.3	1.3	UG/L	
SW8260B/NONE	WG	070-0057-0001-SOURCE WATER	240-18735-4	N	2-Butanone (MEK)	10.0	1.2	1.2 J	UG/L	TR
SW8260B/NONE	WG	070-0057-0001-SOURCE WATER	240-18735-4	N	Chloroform	1.0	5.3	5.3	UG/L	

AUTOMATED DATA REVIEW SUMMARY for J18735_SourceWater

Rejected Results

--No Records Found--

AUTOMATED DATA REVIEW SUMMARY for J18735_SourceWater

Anomalies Count

SDG Name: J18735_SourceWater

Test/Extraction Method/Leach	# of Field Samples Outside of Compliance	# of Analytes Outside of Compliance
M8015D/SW3520C/NONE	2	4
SW6020/TOTAL/NONE	2	2
SW8081/SW3520C/NONE	2	10
SW8082/SW3520C/NONE	2	14
SW8151A/METHOD/NONE	2	22
SW8260B/SW5030B/NONE	2	2
SW8330B/METHOD/NONE	2	6

Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for J18735_SourceWater

Reporting Anomalies

SDG Name: J18735_SourceWater

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
M8015D/NONE	070-0056-0001-SOURCE WATER	N	1	C10-C20 Diesel Range Organics	480 U	230	480	0.5	UG/L
M8015D/NONE	070-0056-0001-SOURCE WATER	N	1	C20-C34 Motor Oil Range Organics	480 U	230	480	0.5	UG/L
M8015D/NONE	070-0057-0001-SOURCE WATER	N	1	C10-C20 Diesel Range Organics	480 U	230	480	0.5	UG/L
M8015D/NONE	070-0057-0001-SOURCE WATER	N	1	C20-C34 Motor Oil Range Organics	480 U	230	480	0.5	UG/L

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW6020/NONE	070-0056-0001-SOURCE WATER	N	1	Cadmium	1 U	0.13	1	0.5	UG/L
SW6020/NONE	070-0057-0001-SOURCE WATER	N	1	Cadmium	1 U	0.13	1	0.5	UG/L

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8081/NONE	070-0056-0001-SOURCE WATER	N	1	Aldrin	0.048 U	0.0078	0.048	0.03	UG/L
SW8081/NONE	070-0056-0001-SOURCE WATER	N	1	alpha-BHC (alpha-Hexachlorocyclohexane)	0.048 U	0.0067	0.048	0.03	UG/L
SW8081/NONE	070-0056-0001-SOURCE WATER	N	1	Dieldrin	0.048 U	0.0071	0.048	0.03	UG/L
SW8081/NONE	070-0056-0001-SOURCE WATER	N	1	Heptachlor	0.048 U	0.0076	0.048	0.03	UG/L
SW8081/NONE	070-0056-0001-SOURCE WATER	N	1	Heptachlor Epoxide	0.048 U	0.0068	0.048	0.03	UG/L
SW8081/NONE	070-0057-0001-SOURCE WATER	N	1	Aldrin	0.048 U	0.0078	0.048	0.03	UG/L
SW8081/NONE	070-0057-0001-SOURCE WATER	N	1	alpha-BHC (alpha-Hexachlorocyclohexane)	0.048 U	0.0067	0.048	0.03	UG/L
SW8081/NONE	070-0057-0001-SOURCE WATER	N	1	Dieldrin	0.048 U	0.0071	0.048	0.03	UG/L
SW8081/NONE	070-0057-0001-SOURCE WATER	N	1	Heptachlor	0.048 U	0.0076	0.048	0.03	UG/L

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for J18735_SourceWater

Reporting Anomalies

SDG Name: J18735_SourceWater

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8081/NONE	070-0057-0001-SOURCE WATER	N	1	Heptachlor Epoxide	0.048 U	0.0068	0.048	0.03	UG/L
	FieldSample ID	**Type**	**Dilution**	**Analyte**	**Result**	**DL**	**RL**	**Project RL**	**Units**
SW8082/NONE	070-0056-0001-SOURCE WATER	N	1	PCB-1016 (Arochlor 1016)	0.48 U	0.16	0.48	0.2	UG/L
SW8082/NONE	070-0056-0001-SOURCE WATER	N	1	PCB-1221 (Arochlor 1221)	0.48 U	0.12	0.48	0.2	UG/L
SW8082/NONE	070-0056-0001-SOURCE WATER	N	1	PCB-1232 (Arochlor 1232)	0.48 U	0.15	0.48	0.2	UG/L
SW8082/NONE	070-0056-0001-SOURCE WATER	N	1	PCB-1242 (Arochlor 1242)	0.48 U	0.21	0.48	0.2	UG/L
SW8082/NONE	070-0056-0001-SOURCE WATER	N	1	PCB-1248 (Arochlor 1248)	0.48 U	0.095	0.48	0.2	UG/L
SW8082/NONE	070-0056-0001-SOURCE WATER	N	1	PCB-1254 (Arochlor 1254)	0.48 U	0.15	0.48	0.2	UG/L
SW8082/NONE	070-0056-0001-SOURCE WATER	N	1	PCB-1260 (Arochlor 1260)	0.48 U	0.16	0.48	0.2	UG/L
SW8082/NONE	070-0057-0001-SOURCE WATER	N	1	PCB-1016 (Arochlor 1016)	0.48 U	0.16	0.48	0.2	UG/L
SW8082/NONE	070-0057-0001-SOURCE WATER	N	1	PCB-1221 (Arochlor 1221)	0.48 U	0.12	0.48	0.2	UG/L
SW8082/NONE	070-0057-0001-SOURCE WATER	N	1	PCB-1232 (Arochlor 1232)	0.48 U	0.15	0.48	0.2	UG/L
SW8082/NONE	070-0057-0001-SOURCE WATER	N	1	PCB-1242 (Arochlor 1242)	0.48 U	0.21	0.48	0.2	UG/L
SW8082/NONE	070-0057-0001-SOURCE WATER	N	1	PCB-1248 (Arochlor 1248)	0.48 U	0.095	0.48	0.2	UG/L
SW8082/NONE	070-0057-0001-SOURCE WATER	N	1	PCB-1254 (Arochlor 1254)	0.48 U	0.15	0.48	0.2	UG/L
SW8082/NONE	070-0057-0001-SOURCE WATER	N	1	PCB-1260 (Arochlor 1260)	0.48 U	0.16	0.48	0.2	UG/L
	FieldSample ID	**Type**	**Dilution**	**Analyte**	**Result**	**DL**	**RL**	**Project RL**	**Units**
SW8151A/NONE	070-0056-0001-SOURCE WATER	N	1	2,4 DB	4 U	0.69	4	0	UG/L

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for J18735_SourceWater

Reporting Anomalies

SDG Name: J18735_SourceWater

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8151A/NONE	070-0056-0001-SOURCE WATER	N	1	2,4,5-T (Trichlorophenoxyacetic Acid)	1 U	0.3	1	0	UG/L
SW8151A/NONE	070-0056-0001-SOURCE WATER	N	1	2,4-D (Dichlorophenoxyacetic Acid)	4 U	0.41	4	0	UG/L
SW8151A/NONE	070-0056-0001-SOURCE WATER	N	1	Dalapon	2 U	0.17	2	0	UG/L
SW8151A/NONE	070-0056-0001-SOURCE WATER	N	1	Dicamba	2 U	0.52	2	0	UG/L
SW8151A/NONE	070-0056-0001-SOURCE WATER	N	1	Dichloroprop	4 U	0.86	4	0	UG/L
SW8151A/NONE	070-0056-0001-SOURCE WATER	N	1	Dinoseb	0.6 U	0.087	0.6	0	UG/L
SW8151A/NONE	070-0056-0001-SOURCE WATER	N	1	MCPA	400 U	390	400	0	UG/L
SW8151A/NONE	070-0056-0001-SOURCE WATER	N	1	MCPP	400 U	400	400	0	UG/L
SW8151A/NONE	070-0056-0001-SOURCE WATER	N	1	Pentachlorophenol	0.1 U	0.024	0.1	0	UG/L
SW8151A/NONE	070-0056-0001-SOURCE WATER	N	1	Silvex (2,4,5-TP)	1 U	0.2	1	0	UG/L
SW8151A/NONE	070-0057-0001-SOURCE WATER	N	1	2,4 DB	4 U	0.69	4	0	UG/L
SW8151A/NONE	070-0057-0001-SOURCE WATER	N	1	2,4,5-T (Trichlorophenoxyacetic Acid)	1 U	0.3	1	0	UG/L
SW8151A/NONE	070-0057-0001-SOURCE WATER	N	1	2,4-D (Dichlorophenoxyacetic Acid)	4 U	0.41	4	0	UG/L
SW8151A/NONE	070-0057-0001-SOURCE WATER	N	1	Dalapon	2 U	0.17	2	0	UG/L
SW8151A/NONE	070-0057-0001-SOURCE WATER	N	1	Dicamba	2 U	0.52	2	0	UG/L
SW8151A/NONE	070-0057-0001-SOURCE WATER	N	1	Dichloroprop	4 U	0.86	4	0	UG/L
SW8151A/NONE	070-0057-0001-SOURCE WATER	N	1	Dinoseb	0.6 U	0.087	0.6	0	UG/L
SW8151A/NONE	070-0057-0001-SOURCE WATER	N	1	MCPA	400 U	390	400	0	UG/L

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for J18735_SourceWater

Reporting Anomalies

SDG Name: J18735_SourceWater

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8151A/NONE	070-0057-0001-SOURCE WATER	N	1	MCPP	400 U	400	400	0	UG/L
SW8151A/NONE	070-0057-0001-SOURCE WATER	N	1	Pentachlorophenol	0.1 U	0.024	0.1	0	UG/L
SW8151A/NONE	070-0057-0001-SOURCE WATER	N	1	Silvex (2,4,5-TP)	1 U	0.2	1	0	UG/L

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8260B/NONE	070-0056-0001-SOURCE WATER	N	1	1,2-Dichloroethene	2 U	0.34	2	1	UG/L
SW8260B/NONE	070-0057-0001-SOURCE WATER	N	1	1,2-Dichloroethene	2 U	0.34	2	1	UG/L

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8330B/NONE	070-0056-0001-SOURCE WATER	N	1	2-Nitrotoluene	0.5 U	0.088	0.5	0.2	UG/L
SW8330B/NONE	070-0056-0001-SOURCE WATER	N	1	3-Nitrotoluene	0.5 U	0.057	0.5	0.2	UG/L
SW8330B/NONE	070-0056-0001-SOURCE WATER	N	1	4-Nitrotoluene	0.5 U	0.088	0.5	0.2	UG/L
SW8330B/NONE	070-0057-0001-SOURCE WATER	N	1	2-Nitrotoluene	0.49 U	0.087	0.49	0.2	UG/L
SW8330B/NONE	070-0057-0001-SOURCE WATER	N	1	3-Nitrotoluene	0.49 U	0.056	0.49	0.2	UG/L
SW8330B/NONE	070-0057-0001-SOURCE WATER	N	1	4-Nitrotoluene	0.49 U	0.087	0.49	0.2	UG/L

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for J18735_SourceWater

Worksheet

SDG Name: J18735_SourceWater

AUTOMATED DATA REVIEW SUMMARY for 240-18735-1_(70-76-SB)

Facility: Ravenna Army Ammunition Plant

Event: Fall 2012 SI/RI Sampling

Guidance Document: Ravenna Army Ammunition Plant, Quality Assurance Project Plan, Oct. 3, 2012

Contract Laboratory: TestAmerica, Inc., North Canton, OH

Field Contractor: Environmental Chemical Corporation, Otis Ang Base, MA

Data Review Contractor:

SDG: 240-18735-1_(70-76-SB), Certified - 1/9/2013 by frederickroche

QC Level: ADR

Project Manager:

Data Reviewer:

Data Reviewer Title:

Date of Review Report:

Samples Included in SDG 240-18735-1_(70-76-SB)

Analytical Method/ Leach Method	Normal Soil Samples	Normal Water Samples	Field QC Soil Samples	Field QC Water Samples
M8015V/NONE	1	1	0	0
SW7196A/NONE	16		2	
SW8260B/NONE		1		0

AUTOMATED DATA REVIEW SUMMARY for 240-18735-1_(70-76-SB)

This report assesses the analytical data quality associated with the analyses listed on the preceding cover page. This assessment has been made through a combination of automated data review (ADR) and supplemental manual review, the details of which are described below. The approach taken in the review of this data set is consistent with the requirements contained in the Ravenna Army Ammunition Plant, Quality Assurance Project Plan, Oct. 3, 2012 to the extent possible. Where definitive guidance is not provided, data has been evaluated in a conservative manner using professional judgment. In cases where two qualifiers are listed as an action, such as 'J/UJ', the first qualifier applies to positive results, and the second to non-detect results.

Samples were collected by Environmental Chemical Corporation, Otis Ang Base, MA; analyses were performed by TestAmerica, Inc., North Canton, OH and were reported under sample delivery group (SDG) 240-18735-1_(70-76-SB). Results have been evaluated electronically using electronic data deliverables (EDDs) provided by the laboratory. The laboratory data summary forms (hard copy) have been reviewed during this effort and compared to the automated review output. Findings based on the automated data submission and manual data verification processes are detailed in the ADR narrative.

The following quality control elements were supported by the electronic deliverable and were evaluated during this review effort:

- Blank
- Blank - Negative
- Field Duplicate RPD
- LCS Recovery
- MS Recovery
- MS RPD
- Prep Hold Time
- Surrogate
- Test Hold Time

The following quality control elements were either not applicable to the deliverable, or were not supported by the electronic deliverable, and were therefore not included in the automated data review. Those elements required for the project were reviewed manually, as narrated in the Comment section below.

- Ambient Blank
- Calibration Blank
- Calibration Blank - Negative
- Continuing Calibration Verification
- Equipment Blank

AUTOMATED DATA REVIEW SUMMARY for 240-18735-1_(70-76-SB)

Field Blank

Initial Calibration Verification

Lab Replicate RPD

LCS RPD

Material Blank

Trip Blank

AUTOMATED DATA REVIEW SUMMARY for 240-18735-1_(70-76-SB)

A representative sampling or ten percent of sample and QC results were manually evaluated for compliance with project specific requirements and consistency with hard copy results. The following summaries were generated during the evaluation of this data set and are included in this report as applicable.

Batch – The analytical batch report is reviewed for completeness and compliance with project specific requirements. Incomplete or non-compliant run sequences are identified and their impact on data quality are discussed in the narrative.

QC Outlier – Results exceeding the evaluation criteria are reviewed for compliance with project requirements and a minimum of ten percent of the non-compliant QC values reported electronically are verified for consistency with hard-copy values.

Qualified Results – Qualified results are evaluated for compliance with project requirements and ten percent of qualified results are verified for consistency with the QC Outliers.

Rejected Results – All rejected results are evaluated for compliance with project requirements. The reason for rejection of the data is verified against hard copy data.

Field Duplicates – Field duplicate comparison results are evaluated for compliance with project requirements and ten percent of values reported are verified for consistency with the hard-copy data.

Data Submission Warnings – Warnings encountered during the data submission process are evaluated and their affect on data quality is discussed in the narrative below.

Analytical deficiencies, project non-compliance issues and inconsistencies with hard copy results observed during ADR evaluation process and their impact on data quality are summarized in the narrative below.

A total of 0 results (0.00%) out of the 56 results (sample and field QC samples) reported are qualified based on review and 0 results (0.00%) have been rejected. Trace values are not counted as qualified results in the above count. The qualified results are detailed in the following tables and discussed in the narrative below, where appropriate.

Narrative Comments

Analytical Method	Comment
M8015V	
SW7196A	

AUTOMATED DATA REVIEW SUMMARY for 240-18735-1_(70-76-SB)

SW8260B	

Reviewed by ,

AUTOMATED DATA REVIEW SUMMARY for 240-18735-1_(70-76-SB)

Reason and Comment Code Definitions

Reasons	
Code	**Definition**
A	Serial dilution
A1	Ambient Blank
B	The analyte was found in an associated blank as well as in the sample.
B2	CCB
B3	CCB - Neg
c	LCS - low
C	LCS Recovery
d	Field Duplicate RPD
D	MS RPD
D1	Lab Replicate RPD
D2	No precision available
F	Field Blank
F1	Hydrocarbon pattern does not match standard
G1	Initial Calibration RRF
G2	Initial Calibration RSD
h	Holding time exceeded by less than 2X.
H	Holding time exceeded by more than 2X.
H1	Test Hold Time
H2	Prep Hold Time
I	Surrogate recovery outside project limits.
J	CRA/CRI Recovery
K	An analyte (non-common laboratory artifact) was detected in the sample at a concentration less than 5X the concentration detected in the associated method blank.
L	Lab Blank
L1	Lab Blank - Neg
m	MS - low
M	MS Recovery
N	Blank - No Action

AUTOMATED DATA REVIEW SUMMARY for 240-18735-1_(70-76-SB)

Reason and Comment Code Definitions

O	ICS
P	Sample preservation/collection requirement not met.
P1	Column RPD
P2	Improper preparation/extraction
q	Encore sample holding time exceeded by less than 2X.
Q	Encore sample holding time exceeded by more than 2X.
Q1	Material Blank
R	Exceeds LinearCalibration Range
S	Internal standard
T	Trip Blank
TI	Tentatively Identified Compound
TR	Trace Level Detect
U	Receipt Temperature
V	Equipment Blank
V1	ICV
V2	CCV
V3	CCV RRF
V4	Sample Receipt Condition
W	Column breakdown (pesticides)
X	Raised reporting limit
Y	Cooler temperature greater than 10 degreec C.
y	Cooler temperature greater than 4 degrees C, but less than 10 degreec C.
Y1	False Positive
Y2	Data rejected due to radiological anomolies
Z	LCS RPD
Z2	Analyte not confirmed on second column
Z3	High percent moisture in sample.

AUTOMATED DATA REVIEW SUMMARY for 240-18735-1_(70-76-SB)

Flag Code and Definitions	
Flag	Definition
U	Undetected: The analyte was analyzed for, but not detected.
UJ	The analyte was not detected; however, the result is estimated due to discrepancies in meeting certain analyte-specific quality control criteria.
J	Estimated: The analyte was positively identified, the quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
R	The data are rejected due to deficiencies in meeting QC criteria and may not be used for decision making.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification".
NJ	The analysis indicates the presence of an analyte that has been “tentatively identified” and the associated numerical value represents its approximate concentration.

AUTOMATED DATA REVIEW SUMMARY for 240-18735-1_(70-76-SB)

Batch Report

Test Method: M8015V; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
69738	NA	NA	LABQC	SQ	LABQC	MB 240-69738/52		1/1	22-Dec-2012 6:53 PM		22-Dec-2012 6:53 PM	LB
	NA	NA	LABQC	SQ	LABQC	LCS 240-69738/53		1/1	22-Dec-2012 7:32 PM		22-Dec-2012 7:32 PM	BS
	69885	NA	70-4744-DU1-SB6	SO	070SB-0042M-0001-SO	240-18735-1		1/1	07-Dec-2012 11:45 AM	12-Dec-2012 10:10 PM	23-Dec-2012 7:33 AM	N
	69885	NA	70-4744-DU1-SB6	SO	070SB-0042M-0001-SO	240-18735-1		1/1	12-Dec-2012 12:00 AM	12-Dec-2012 10:10 PM	23-Dec-2012 8:10 AM	MS
	69885	NA	70-4744-DU1-SB6	SO	070SB-0042M-0001-SO	240-18735-1		1/1	12-Dec-2012 12:00 AM	12-Dec-2012 10:10 PM	23-Dec-2012 8:49 AM	SD
	69738	NA	LABQC	WQ	LABQC	MB 240-69738/36		1/1	22-Dec-2012 8:46 AM	22-Dec-2012 8:46 AM	22-Dec-2012 8:46 AM	LB
	69738	NA	LABQC	WQ	LABQC	LCS 240-69738/37		1/1	22-Dec-2012 9:24 AM	22-Dec-2012 9:24 AM	22-Dec-2012 9:24 AM	BS
	69738	NA	70-4744-DU1-SB6	WG	070SB-0055-0001-TB	240-18735-2		1/1	12-Dec-2012 12:00 AM	22-Dec-2012 3:41 PM	22-Dec-2012 3:41 PM	N

Test Method: SW7196A; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
70884	70771	NA	LABQC	SQ	LABQC	LCSI 240-70771/11-A		1/1	31-Dec-2012 1:31 PM	31-Dec-2012 1:31 PM	02-Jan-2013 12:00 AM	BS
	70771	NA	LABQC	SQ	LABQC	LCSS 240-70771/10-A		1/1	31-Dec-2012 1:31 PM	31-Dec-2012 1:31 PM	02-Jan-2013 12:00 AM	BS
	70771	NA	LABQC	SQ	LABQC	MB 240-70771/9-A		1/1	31-Dec-2012 1:31 PM	31-Dec-2012 1:31 PM	02-Jan-2013 12:00 AM	LB
	70771	NA	76-U3-UST-SB1	SO	076SB-0119-0001-SO	240-18735-8		1/1	11-Dec-2012 9:10 AM	31-Dec-2012 1:31 PM	02-Jan-2013 12:53 PM	N
	70771	NA	76-U3-UST-SB2	SO	076SB-0120-0001-SO	240-18735-9		1/1	11-Dec-2012 11:20 AM	31-Dec-2012 1:31 PM	02-Jan-2013 12:54 PM	N
	70771	NA	76-U3-UST-SB3	SO	076SB-0121-0001-SO	240-18735-10		1/1	11-Dec-2012 10:50 AM	31-Dec-2012 1:31 PM	02-Jan-2013 12:57 PM	N
	70771	NA	76-U3-UST-SB4	SO	076SB-0122-0001-SO	240-18735-11		1/1	11-Dec-2012 9:30 AM	31-Dec-2012 1:31 PM	02-Jan-2013 12:57 PM	N
	70771	NA	76-U3-UST-SB5	SO	076SB-0123-0001-SO	240-18735-12		1/1	11-Dec-2012 9:50 AM	31-Dec-2012 1:31 PM	02-Jan-2013 1:11 PM	N

AUTOMATED DATA REVIEW SUMMARY for 240-18735-1_(70-76-SB)

Batch Report

Test Method: SW7196A; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
70884	70771	NA	76-U3-UST-SB6	SO	076SB-0124-0001-SO	240-18735-13		1/1	11-Dec-2012 10:15 AM	31-Dec-2012 1:31 PM	02-Jan-2013 1:11 PM	N
	70771	NA	76-U6-UST-SB1	SO	076SB-0125-0001-SO	240-18735-14		1/1	12-Dec-2012 10:15 AM	31-Dec-2012 1:31 PM	02-Jan-2013 1:14 PM	MS
	70771	NA	76-U6-UST-SB1	SO	076SB-0125-0001-SO	240-18735-14		1/1	12-Dec-2012 10:15 AM	31-Dec-2012 1:31 PM	02-Jan-2013 1:15 PM	N
	70771	NA	76-U6-UST-SB2	SO	076SB-0126-0001-SO	240-18735-15		1/1	11-Dec-2012 3:55 PM	31-Dec-2012 1:31 PM	02-Jan-2013 1:17 PM	N
	70771	NA	76-U6-UST-SB2	SO	076SB-0127-0001-SO	240-18735-16		1/1	11-Dec-2012 3:55 PM	31-Dec-2012 1:31 PM	02-Jan-2013 1:18 PM	FD
	70771	NA	76-U6-UST-SB3	SO	076SB-0128-0001-SO	240-18735-17		1/1	11-Dec-2012 3:20 PM	31-Dec-2012 1:31 PM	02-Jan-2013 1:26 PM	N
	70771	NA	76-U6-UST-SB4	SO	076SB-0129-0001-SO	240-18735-18		1/1	11-Dec-2012 2:50 PM	31-Dec-2012 1:31 PM	02-Jan-2013 1:30 PM	N
	70771	NA	76-U6-UST-SB5	SO	076SB-0130-0001-SO	240-18735-19		1/1	12-Dec-2012 10:49 AM	31-Dec-2012 1:31 PM	02-Jan-2013 1:33 PM	N
	70771	NA	76-U6-UST-SB6	SO	076SB-0131-0001-SO	240-18735-20		1/1	12-Dec-2012 11:24 AM	31-Dec-2012 1:31 PM	02-Jan-2013 1:34 PM	N
	70771	NA	76-A1-UST-SB1	SO	076SB-0132-0001-SO	240-18735-21		1/1	11-Dec-2012 12:25 PM	31-Dec-2012 1:31 PM	02-Jan-2013 1:37 PM	N
	70771	NA	76-A1-UST-SB1	SO	076SB-0133-0001-SO	240-18735-22		1/1	11-Dec-2012 12:25 PM	31-Dec-2012 1:31 PM	02-Jan-2013 1:38 PM	FD
	70771	NA	76-A1-UST-SB2	SO	076SB-0134-0001-SO	240-18735-23		1/1	11-Dec-2012 1:15 PM	31-Dec-2012 1:31 PM	02-Jan-2013 1:43 PM	N
	70771	NA	76-A1-UST-SB3	SO	076SB-0135-0001-SO	240-18735-24		1/1	11-Dec-2012 1:40 PM	31-Dec-2012 1:31 PM	02-Jan-2013 1:43 PM	N
	70771	NA	76-A6-UST-SB13	SO	076SB-0136-0001-SO	240-18735-25		1/1	11-Dec-2012 2:10 PM	31-Dec-2012 1:31 PM	02-Jan-2013 1:47 PM	N

Test Method: SW8260B; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
69591	69591	NA	LABQC	WQ	LABQC	LCS 240-69591/4		1/1	20-Dec-2012 12:21 PM	20-Dec-2012 12:21 PM	20-Dec-2012 12:21 PM	BS
	69591	NA	LABQC	WQ	LABQC	MB 240-69591/6		1/1	20-Dec-2012 1:05 PM	20-Dec-2012 1:05 PM	20-Dec-2012 1:05 PM	LB

AUTOMATED DATA REVIEW SUMMARY for 240-18735-1_(70-76-SB)

Batch Report

Test Method: SW8260B; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
69591	69591	NA	70-4744-DU1-SB6	WG	070-0060-0001-TB	240-18735-7		1/1	12-Dec-2012 12:00 AM	20-Dec-2012 4:37 PM	20-Dec-2012 4:37 PM	N

AUTOMATED DATA REVIEW SUMMARY for 240-18735-1_(70-76-SB)

Field Batch Report

--No Records Found--

QC Outliers Report

--No Records Found--

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
M8015V/NONE	WG	070SB-0055-0001-TB	240-18735-2	N	Petroleum Hydrocarbons C6-C12	100	37.0	37.0 J		UG/L	TR
Test Leach	**Matrix**	**FieldSample ID**	**LabSample ID**	**Type**	**Analyte**	**RL**	**Lab Result**	**Qualified Result**	**Bias**	**Units**	**Reason**
SW7196A/NONE	SO	076SB-0120-0001-SO	240-18735-9	N	Chromium, Hexavalent	0.91	0.34	0.34 J		MG/KG	TR
SW7196A/NONE	SO	076SB-0126-0001-SO	240-18735-15	N	Chromium, Hexavalent	0.89	0.31	0.31 J		MG/KG	TR
SW7196A/NONE	SO	076SB-0133-0001-SO	240-18735-22	FD	Chromium, Hexavalent	0.98	0.39	0.39 J		MG/KG	TR
SW7196A/NONE	SO	076SB-0134-0001-SO	240-18735-23	N	Chromium, Hexavalent	0.91	0.37	0.37 J		MG/KG	TR
Test Leach	**Matrix**	**FieldSample ID**	**LabSample ID**	**Type**	**Analyte**	**RL**	**Lab Result**	**Qualified Result**	**Bias**	**Units**	**Reason**
SW8260B/NONE	WG	070-0060-0001-TB	240-18735-7	N	Chloroform	1.0	0.32	0.32 J		UG/L	TR

AUTOMATED DATA REVIEW SUMMARY for 240-18735-1_(70-76-SB)

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
M8015V/NONE	WG	070SB-0055-0001-TB	240-18735-2	N	Petroleum Hydrocarbons C6-C12	100	37.0	37.0 J	UG/L	TR

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW7196A/NONE	SO	076SB-0120-0001-SO	240-18735-9	N	Chromium, Hexavalent	0.91	0.34	0.34 J	MG/KG	TR
SW7196A/NONE	SO	076SB-0126-0001-SO	240-18735-15	N	Chromium, Hexavalent	0.89	0.31	0.31 J	MG/KG	TR
SW7196A/NONE	SO	076SB-0133-0001-SO	240-18735-22	FD	Chromium, Hexavalent	0.98	0.39	0.39 J	MG/KG	TR
SW7196A/NONE	SO	076SB-0134-0001-SO	240-18735-23	N	Chromium, Hexavalent	0.91	0.37	0.37 J	MG/KG	TR

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8260B/NONE	WG	070-0060-0001-TB	240-18735-7	N	Chloroform	1.0	0.32	0.32 J	UG/L	TR

AUTOMATED DATA REVIEW SUMMARY for 240-18735-1_(70-76-SB)

Rejected Results

--No Records Found--

AUTOMATED DATA REVIEW SUMMARY for 240-18735-1_(70-76-SB)

Anomalies Count

SDG Name: 240-18735-1_(70-76-SB)

Test/Extraction Method/Leach	# of Field Samples Outside of Compliance	# of Analytes Outside of Compliance
SW8260B/SW5030B/NONE	1	1

Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-18735-1_(70-76-SB)

Worksheet

SDG Name: 240-18735-1_(70-76-SB)

Method: M8015V

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report?				
Were samples preserved properly and received in good condition?				
Were sample reciept temperatures met?				
Were holding times for prep and analysis met?				
Does the initial calibration curve consist of 5 concentration levels, with the low standard near but > MDL?				
Is the ICAL %RSD within acceptance limits (%D =20%) on both columns?				
Was a second source verification analyzed after the ICAL and all analytes within criteria (%D =20%)?				
Was a CCV run at the beginning of the analytical sequence and every 12 hours?				
Was the CCV a mid-level standard from the initial calibration curve?				
Was the CCV %D within criteria (%D =20%)?				
Was a method blank prepared and analyzed with each batch?				
Were target analytes detected in the method blank above the MDL?				
Was a field blank (equipment or trip) collected and analyzed?				
Were target analytes reported in the field blank analyses above the MDL?				
Were surrogate recoveries within QAPP acceptance limits?				
Was an LCS/LCSD pair prepared and analyzed with each batch? (if applicable)				
Were the LCS recoveries within QAPP acceptance limits?				
Were the LCS/LCSD RPDs within QAPP acceptance limits? (if applicable)				
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits (RPD = 30%) ?				
Is the MS/MSD parent sample the one designated by the sampling team?				
Were MS/MSD recoveries and RPD within QAPP acceptance limits?				
Were all QAPP-specified target analytes reported?				
Were reported sample concentrations within calibration range?				
Are all samples associated with QC non-compliances flagged appropriately?				
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?				

AUTOMATED DATA REVIEW SUMMARY for 240-18735-1_(70-76-SB)

Method: M8015V

Review Questions	Yes	No	NA	Comment
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?				
Were sample prepration sheets present and filled out appropriately?				
Were instrument run logs present and filled out appropriately?				

Method: SW7196A

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?				
Were samples preserved properly and received in good condition?				
Were holding times met?				
Were sample reciept temperatures met?				
Were QAPP specified RLs achieved?				
Were all QAPP specified target analytes reported?				
Was the initial calibration curve within QAPP acceptance limits?			•	Not Required
Were the ICV/CCVs analyzed (frequency) as required in the QAPP?			•	Not Required
Were ICV/CCV results within QAPP acceptance limits?			•	Not Required
Were the ICB/CCBs analyzed (frequency) as required in the QAPP?			•	Not Required
Was a method blank prepared and analyzed with each batch?				
Were target analytes detected in the ICB/CCB/method blank?			•	Not Required
Was a field blank collected and analyzed?				
Were target analytes reported in the field blank analyses above the MDL?				
Was the ICS recovery within QAPP acceptance limits?			•	Not Required
If a field duplicate was analyzed, were the RPDs within criteria?				
Was a LCS prepared and analyzed with each batch?				
Were the LCS recoveries within QAPP acceptance limits?				
Was a MS/MSD pair prepared with each batch?				
Is the MS/MSD parent sample the one designated by the sampling team?				
Were the MS/MSD within QAPP acceptance limits?				
Were sample concentrations within calibration range?				
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?				

AUTOMATED DATA REVIEW SUMMARY for 240-18735-1_(70-76-SB)

Method: SW7196A

Review Questions	Yes	No	NA	Comment
Are all samples associated with QC non-compliances flagged appropriately?				
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?				

Method: SW8260B

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?				
Were samples preserved properly and received in good condition?				
Were holding times met?				
Were sample reciept temperatures met?				
Were QAPP specified PQLs achieved?				
Were all QAPP-specified target analytes reported?				
Was the GC/MS system properly tuned based on method criteria?			•	Not Required
Was the criteria met during each 12 hour shift (prior to ICAL and Cal Ver.)?			•	Not Required
Does the initial calibration curve consist of 5 concentration levels, with the low standard near but > MDL?			•	Not Required
Did the Calibration Check Compounds (CCCs) have a relative standard deviation within QAPP acceptance limits?			•	Not Required
Were the average response factors (RFs) for the System Performance Check Compounds (SPCCs) within QAPP acceptance limits?			•	Not Required
Were all other target analytes within criteria? OR Was the average across all target analytes within criteria? Was a different calibration option used?			•	Not Required
If a linear regression curve was used, was the correlation coefficient within criteria?			•	Not Required
Was a second source verification analyzed after the ICAL and all analytes within criteria?			•	Not Required
Was a CCV run at the beginning of the analytical sequence and every 12 hours?			•	Not Required
Was the CCV a mid-level standard from the initial calibration curve?			•	Not Required
Did the CCCs have a %Difference within QAPP acceptance limits?			•	Not Required
Were the average RFs for the SPCCs within QAPP acceptance limits?			•	Not Required
Was the average %D (difference or drift) for all target analytes within QAPP acceptance limits?			•	Not Required
Were the internal standards added to every standard, blank, matrix spike, matrix spike duplicate, and sample?			•	Not Required

AUTOMATED DATA REVIEW SUMMARY for 240-18735-1_(70-76-SB)

Method: SW8260B

Review Questions	Yes	No	NA	Comment
Were the retention times for all IS compounds within QAPP acceptance limits?			•	Not Required
Are the area counts of all IS compounds within QAPP acceptance limits?			•	Not Required
Was a method blank prepared and analyzed with each batch?				
Were target analytes detected in the method blank above the MDL?				
Was a field blank (equipment or trip) collected and analyzed at the required frequency?				
Were target analytes reported in the field blank analyses above the MDL?				
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?				
Was an LCS/LCSD pair prepared and analyzed with each batch?				
Were the LCS/LCSD recoveries within QAPP acceptance limits?				
Were the LCS/LCSD RPDs within QAPP acceptance limits?				
Was the duplicate RPD within QAPP acceptance limits?				
Are all samples associated with QC non-compliances flagged appropriately?				
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?				
Was a MS/MSD pair prepared with each batch?				
Is the MS/MSD parent sample the one designated by the sampling team?				
Were MS/MSD recoveries and RPD within QAPP acceptance limits?				
Were surrogate recoveries within QAPP acceptance limits?				
Were reported sample concentrations within calibration range?				
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?				
Were instrument run logs present and filled out appropriately?				
Were sample prepration sheets present and filled out appropriately?				

WORKSHEET 9

Automated Data Review Summary for 240-21987-1
Source Water

This page left intentionally blank.

AUTOMATED DATA REVIEW SUMMARY for 240-21987-1_79_SourceWater_TB_1

Facility: Ravenna Army Ammunition Plant

Event: Spring 2013 RI/SI Sampling Event

Guidance Document: Ravenna Army Ammunition Plant, Quality Assurance Project Plan, Oct. 3, 2012

Contract Laboratory: TestAmerica, Inc., North Canton, OH

Field Contractor: Environmental Chemical Corporation, Cincinnati, OH

Data Review Contractor: ECC

SDG: 240-21987-1_79_SourceWater_TB_1, Certified - 6/10/2013 by frederickroche

QC Level: ADR

Project Manager: Al Easterday

Data Reviewer: Samir A. Naguib

Data Reviewer Title: Sr. QA Chemist

Date of Review Report: June 11, 2013

Samples Included in SDG 240-21987-1_79_SourceWater_TB_1

Analytical Method/ Leach Method	Normal Water Samples	Field QC Water Samples
E353.2/NONE	1	0
M8015D/NONE	1	0
M8015V/NONE	2	0
SW6020/NONE	1	0
SW7196A/NONE	1	0
SW7470A/NONE	1	0
SW8081/NONE	1	0

AUTOMATED DATA REVIEW SUMMARY for 240-21987-1_79_SourceWater_TB_1

Analytical Method/ Leach Method	Normal Water Samples	Field QC Water Samples
SW8082/NONE	1	0
SW8151/NONE	1	0
SW8260B/NONE	2	0
SW8270C/NONE	1	0
SW8330B/NONE	1	0

AUTOMATED DATA REVIEW SUMMARY for 240-21987-1_79_SourceWater_TB_1

This report assesses the analytical data quality associated with the analyses listed on the preceding cover page. This assessment has been made through a combination of automated data review (ADR) and supplemental manual review, the details of which are described below. The approach taken in the review of this data set is consistent with the requirements contained in the Ravenna Army Ammunition Plant, Quality Assurance Project Plan, Oct. 3, 2012 to the extent possible. Where definitive guidance is not provided, data has been evaluated in a conservative manner using professional judgment. In cases where two qualifiers are listed as an action, such as 'J/UJ', the first qualifier applies to positive results, and the second to non-detect results.

Samples were collected by Environmental Chemical Corporation, Cincinnati, OH; analyses were performed by TestAmerica, Inc., North Canton, OH and were reported under sample delivery group (SDG) 240-21987-1_79_SourceWater_TB_1. Results have been evaluated electronically using electronic data deliverables (EDDs) provided by the laboratory. The laboratory data summary forms (hard copy) have been reviewed during this effort and compared to the automated review output. Findings based on the automated data submission and manual data verification processes are detailed in the ADR narrative.

The following quality control elements were supported by the electronic deliverable and were evaluated during this review effort:

- Blank
- Blank - Negative
- LCS Recovery
- LCS RPD
- MS Recovery
- MS RPD
- Prep Hold Time
- Surrogate
- Test Hold Time

The following quality control elements were either not applicable to the deliverable, or were not supported by the electronic deliverable, and were therefore not included in the automated data review. Those elements required for the project were reviewed manually, as narrated in the Comment section below.

- Ambient Blank
- Calibration Blank
- Calibration Blank - Negative
- Continuing Calibration Verification
- Equipment Blank

AUTOMATED DATA REVIEW SUMMARY for 240-21987-1_79_SourceWater_TB_1

Field Blank

Field Duplicate RPD

Initial Calibration Verification

Lab Replicate RPD

Material Blank

Trip Blank

AUTOMATED DATA REVIEW SUMMARY for 240-21987-1_79_SourceWater_TB_1

A representative sampling or ten percent of sample and QC results were manually evaluated for compliance with project specific requirements and consistency with hard copy results. The following summaries were generated during the evaluation of this data set and are included in this report as applicable.

Batch – The analytical batch report is reviewed for completeness and compliance with project specific requirements. Incomplete or non-compliant run sequences are identified and their impact on data quality are discussed in the narrative.

QC Outlier – Results exceeding the evaluation criteria are reviewed for compliance with project requirements and a minimum of ten percent of the non-compliant QC values reported electronically are verified for consistency with hard-copy values.

Qualified Results – Qualified results are evaluated for compliance with project requirements and ten percent of qualified results are verified for consistency with the QC Outliers.

Rejected Results – All rejected results are evaluated for compliance with project requirements. The reason for rejection of the data is verified against hard copy data.

Field Duplicates – Field duplicate comparison results are evaluated for compliance with project requirements and ten percent of values reported are verified for consistency with the hard-copy data.

Data Submission Warnings – Warnings encountered during the data submission process are evaluated and their affect on data quality is discussed in the narrative below.

Analytical deficiencies, project non-compliance issues and inconsistencies with hard copy results observed during ADR evaluation process and their impact on data quality are summarized in the narrative below.

A total of 23 results (10.31%) out of the 223 results (sample and field QC samples) reported are qualified based on review and 0 results (0.00%) have been rejected. Trace values are not counted as qualified results in the above count. The qualified results are detailed in the following tables and discussed in the narrative below, where appropriate.

Narrative Comments

Analytical Method	Comment
E353.2	
M8015D	

AUTOMATED DATA REVIEW SUMMARY for 240-21987-1_79_SourceWater_TB_1

M8015V	
SW6020	
SW7470A	
SW8081	
SW8260B	
SW8270C	
SW8330B	
SW7196A	
SW8082	
SW8151	

11-Jun-2013

Reviewed by Samir A. Naguib, Sr. QA Chemist

AUTOMATED DATA REVIEW SUMMARY for 240-21987-1_79_SourceWater_TB_1

Reason and Comment Code Definitions

Reasons	
Code	**Definition**
A	Serial dilution
A1	Ambient Blank
B	The analyte was found in an associated blank as well as in the sample.
B2	CCB
B3	CCB - Neg
c	LCS - low
C	LCS Recovery
d	Field Duplicate RPD
D	MS RPD
D1	Lab Replicate RPD
D2	No precision available
F	Field Blank
F1	Hydrocarbon pattern does not match standard
G1	Initial Calibration RRF
G2	Initial Calibration RSD
h	Holding time exceeded by less than 2X.
H	Holding time exceeded by more than 2X.
H1	Test Hold Time
H2	Prep Hold Time
I	Surrogate recovery outside project limits.
J	CRA/CRI Recovery
K	An analyte (non-common laboratory artifact) was detected in the sample at a concentration less than 5X the concentration detected in the associated method blank.
L	Lab Blank
L1	Lab Blank - Neg
m	MS - low
M	MS Recovery
N	Blank - No Action

AUTOMATED DATA REVIEW SUMMARY for 240-21987-1_79_SourceWater_TB_1

Reason and Comment Code Definitions

O	ICS
P	Sample preservation/collection requirement not met.
P1	Column RPD
P2	Improper preparation/extraction
q	Encore sample holding time exceeded by less than 2X.
Q	Encore sample holding time exceeded by more than 2X.
Q1	Material Blank
R	Exceeds LinearCalibration Range
S	Internal standard
T	Trip Blank
TI	Tentatively Identified Compound
TR	Trace Level Detect
U	Receipt Temperature
V	Equipment Blank
V1	ICV
V2	CCV
V3	CCV RRF
V4	Sample Receipt Condition
W	Column breakdown (pesticides)
X	Raised reporting limit
Y	Cooler temperature greater than 10 degreec C.
y	Cooler temperature greater than 4 degrees C, but less than 10 degreec C.
Y1	False Positive
Y2	Data rejected due to radiological anomolies
Z	LCS RPD
Z2	Analyte not confirmed on second column
Z3	High percent moisture in sample.

AUTOMATED DATA REVIEW SUMMARY for 240-21987-1_79_SourceWater_TB_1

Flag Code and Definitions	
Flag	Definition
U	Undetected: The analyte was analyzed for, but not detected.
UJ	The analyte was not detected; however, the result is estimated due to discrepancies in meeting certain analyte-specific quality control criteria.
J	Estimated: The analyte was positively identified, the quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
R	The data are rejected due to deficiencies in meeting QC criteria and may not be used for decision making.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification".
NJ	The analysis indicates the presence of an analyte that has been “tentatively identified” and the associated numerical value represents its approximate concentration.

AUTOMATED DATA REVIEW SUMMARY for 240-21987-1_79_SourceWater_TB_1

Batch Report

Test Method: E353.2; Leach Method: NONE											
Analytical Batch	**Prep Batch**	**Leach Batch**	**Location**	**Matrix**	**Field Sample ID**	**Lab Sample ID**	**Calibration Ref**	**Run#/ Dil'n**	**Collection Date/Time**	**Extract Date/Time**	**Analysis Date/Time**	**Sample Type**
13190	12938	NA	LABQC	WQ	LABQC	MB 320-12877/1-B		1/1	25-Mar-2013 8:23 AM	25-Mar-2013 8:23 AM	25-Mar-2013 12:47 PM	LB
	12938	NA	LABQC	WQ	LABQC	LCS 320-12877/2-B		1/1	25-Mar-2013 8:23 AM	25-Mar-2013 8:23 AM	25-Mar-2013 12:49 PM	BS
	12938	NA	79-841-DU1-SB	WG	079-0007-0001-SOURCEWATER	240-21987-1		1/1	14-Mar-2013 12:00 AM	25-Mar-2013 8:23 AM	25-Mar-2013 12:51 PM	N
	12938	NA	79-LL3-DU1-SB1	WG	079-0007-0001-SOURCEWATER	240-21987-1		1/1	14-Mar-2013 12:00 PM	25-Mar-2013 8:23 AM	25-Mar-2013 12:53 PM	MS
	12938	NA	79-LL3-DU1-SB1	WG	079-0007-0001-SOURCEWATER	240-21987-1		1/1	14-Mar-2013 12:00 PM	25-Mar-2013 8:23 AM	25-Mar-2013 12:55 PM	SD
Test Method: M8015D; Leach Method: NONE												
Analytical Batch	**Prep Batch**	**Leach Batch**	**Location**	**Matrix**	**Field Sample ID**	**Lab Sample ID**	**Calibration Ref**	**Run#/ Dil'n**	**Collection Date/Time**	**Extract Date/Time**	**Analysis Date/Time**	**Sample Type**
78992	78624	NA	79-LL3-DU1-SB1	WG	079-0007-0001-SOURCEWATER	240-21987-1		1/1	14-Mar-2013 12:00 PM	18-Mar-2013 10:31 AM	21-Mar-2013 5:45 PM	N
Test Method: M8015V; Leach Method: NONE												
Analytical Batch	**Prep Batch**	**Leach Batch**	**Location**	**Matrix**	**Field Sample ID**	**Lab Sample ID**	**Calibration Ref**	**Run#/ Dil'n**	**Collection Date/Time**	**Extract Date/Time**	**Analysis Date/Time**	**Sample Type**
79100	79100	NA	LABQC	WQ	LABQC	MB 240-79100/38		1/1	23-Mar-2013 8:14 AM	23-Mar-2013 8:14 AM	23-Mar-2013 8:14 AM	LB
	79100	NA	LABQC	WQ	LABQC	LCS 240-79100/39		1/1	23-Mar-2013 8:51 AM	23-Mar-2013 8:51 AM	23-Mar-2013 8:51 AM	BS
	79100	NA	79-841-DU1-SB	WG	079-0007-0001-SOURCEWATER	240-21987-1		1/1	14-Mar-2013 12:00 AM	23-Mar-2013 9:27 AM	23-Mar-2013 9:27 AM	N
	79100	NA	79-LL3-DU1-SB1	WG	079-0007-0001-SOURCEWATER	240-21987-1		1/1	14-Mar-2013 12:00 PM	23-Mar-2013 10:03 AM	23-Mar-2013 10:03 AM	MS
	79100	NA	79-LL3-DU1-SB1	WG	079-0007-0001-SOURCEWATER	240-21987-1		1/1	14-Mar-2013 12:00 PM	23-Mar-2013 10:40 AM	23-Mar-2013 10:40 AM	SD
	79100	NA	79-LL3-DU1-SB3	WG	079-0009-0001-TB TRIP BLANK	240-21987-3		1/1	14-Mar-2013 8:00 AM	23-Mar-2013 11:16 AM	23-Mar-2013 11:16 AM	N

AUTOMATED DATA REVIEW SUMMARY for 240-21987-1_79_SourceWater_TB_1

Batch Report

Test Method: SW6020; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
68058	66565	NA	LABQC	WQ	LABQC	MB 180-66565/1-A		1/1	18-Mar-2013 1:02 PM	18-Mar-2013 1:02 PM	01-Apr-2013 3:24 PM	LB
	66565	NA	LABQC	WQ	LABQC	LCS 180-66565/2-A		1/1	18-Mar-2013 1:02 PM	18-Mar-2013 1:02 PM	01-Apr-2013 3:29 PM	BS
	66565	NA	LABQC	WQ	LABQC	LCSD 180-66565/3-A		1/1	18-Mar-2013 1:02 PM	18-Mar-2013 1:02 PM	01-Apr-2013 3:34 PM	BD
	66565	NA	79-841-DU1-SB	WG	079-0007-0001-SOURCEWATER	240-21987-1		1/1	14-Mar-2013 12:00 AM	18-Mar-2013 1:02 PM	01-Apr-2013 3:42 PM	N

Test Method: SW7196A; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
78405	78405	NA	LABQC	WQ	LABQC	MB 240-78405/8		1/1	14-Mar-2013 5:42 PM	14-Mar-2013 5:42 PM	14-Mar-2013 5:42 PM	LB
	78405	NA	LABQC	WQ	LABQC	LCS 240-78405/9		1/1	14-Mar-2013 5:43 PM	14-Mar-2013 5:43 PM	14-Mar-2013 5:43 PM	BS
	78405	NA	79-841-DU1-SB	WG	079-0007-0001-SOURCEWATER	240-21987-1		1/1	14-Mar-2013 12:00 AM	14-Mar-2013 5:44 PM	14-Mar-2013 5:44 PM	N
	78405	NA	79-LL3-DU1-SB1	WG	079-0007-0001-SOURCEWATER	240-21987-1		1/1	14-Mar-2013 12:00 PM	14-Mar-2013 5:46 PM	14-Mar-2013 5:46 PM	MS
	78405	NA	79-LL3-DU1-SB1	WG	079-0007-0001-SOURCEWATER	240-21987-1		1/1	14-Mar-2013 12:00 PM	14-Mar-2013 5:47 PM	14-Mar-2013 5:47 PM	SD

Test Method: SW7470A; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
78674	78432	NA	79-841-DU1-SB	WG	079-0007-0001-SOURCEWATER	240-21987-1		1/1	14-Mar-2013 12:00 AM	15-Mar-2013 12:45 PM	18-Mar-2013 5:49 PM	N

Test Method: SW8081; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
79056	78726	NA	LABQC	WQ	LABQC	LCS 240-78726/3-A		1/1	19-Mar-2013 9:10 AM	19-Mar-2013 9:10 AM	21-Mar-2013 5:16 PM	BS
	78726	NA	79-841-DU1-SB	WG	079-0007-0001-SOURCEWATER	240-21987-1		1/1	14-Mar-2013 12:00 AM	19-Mar-2013 9:10 AM	21-Mar-2013 5:36 PM	N

AUTOMATED DATA REVIEW SUMMARY for 240-21987-1_79_SourceWater_TB_1

Batch Report

Test Method: SW8081; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
79056	78726	NA	LABQC	WQ	LABQC	MB 240-78726/2-A		1/1	19-Mar-2013 9:10 AM	19-Mar-2013 9:10 AM	21-Mar-2013 5:56 PM	LB

Test Method: SW8082; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
79577	78721	NA	79-LL3-DU1-SB1	WG	079-0007-0001-SOURCEWATER	240-21987-1		1/1	14-Mar-2013 12:00 PM	19-Mar-2013 8:52 AM	27-Mar-2013 10:07 AM	N
	78721	NA	LABQC	WQ	LABQC	MB 240-78721/17-A		1/1	19-Mar-2013 8:52 AM	19-Mar-2013 8:52 AM	27-Mar-2013 12:28 PM	LB
	78721	NA	LABQC	WQ	LABQC	LCS 240-78721/18-A		1/1	19-Mar-2013 8:52 AM	19-Mar-2013 8:52 AM	27-Mar-2013 2:59 PM	BS

Test Method: SW8151; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
79197	78626	NA	79-841-DU1-SB	WG	079-0007-0001-SOURCEWATER	240-21987-1		1/1	14-Mar-2013 12:00 AM	18-Mar-2013 10:35 AM	22-Mar-2013 8:57 PM	N
	78626	NA	LABQC	WQ	LABQC	MB 240-78626/3-A		1/1	18-Mar-2013 10:35 AM	18-Mar-2013 10:35 AM	22-Mar-2013 9:21 PM	LB
	78626	NA	LABQC	WQ	LABQC	LCS 240-78626/4-A		1/1	18-Mar-2013 10:35 AM	18-Mar-2013 10:35 AM	22-Mar-2013 9:44 PM	BS

Test Method: SW8260B; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
79725	79725	NA	LABQC	WQ	LABQC	LCS 240-79725/4		1/1	28-Mar-2013 10:02 AM	28-Mar-2013 10:02 AM	28-Mar-2013 10:02 AM	BS
	79725	NA	LABQC	WQ	LABQC	MB 240-79725/6		1/1	28-Mar-2013 10:55 AM	28-Mar-2013 10:55 AM	28-Mar-2013 10:55 AM	LB
	79725	NA	79-LL3-DU1-SB1	WG	079-0007-0001-SOURCEWATER	240-21987-1		1/1	14-Mar-2013 12:00 PM	28-Mar-2013 11:21 AM	28-Mar-2013 11:21 AM	N
	79725	NA	79-LL3-DU1-SB2	WG	079-0008-0001-TB TRIP BLANK	240-21987-2		1/1	14-Mar-2013 8:00 AM	28-Mar-2013 11:47 AM	28-Mar-2013 11:47 AM	N
	79725	NA	79-LL3-DU1-SB1	WG	079-0007-0001-SOURCEWATER	240-21987-1		1/1	14-Mar-2013 12:00 PM	28-Mar-2013 1:33 PM	28-Mar-2013 1:33 PM	MS

AUTOMATED DATA REVIEW SUMMARY for 240-21987-1_79_SourceWater_TB_1

Batch Report

Test Method: SW8260B; Leach Method: NONE												
Analytical Batch	**Prep Batch**	**Leach Batch**	**Location**	**Matrix**	**Field Sample ID**	**Lab Sample ID**	**Calibration Ref**	**Run#/ Dil'n**	**Collection Date/Time**	**Extract Date/Time**	**Analysis Date/Time**	**Sample Type**
79725	79725	NA	79-LL3-DU1-SB1	WG	079-0007-0001-SOURCEWATER	240-21987-1		1/1	14-Mar-2013 12:00 PM	28-Mar-2013 1:59 PM	28-Mar-2013 1:59 PM	SD

Test Method: SW8270C; Leach Method: NONE												
Analytical Batch	**Prep Batch**	**Leach Batch**	**Location**	**Matrix**	**Field Sample ID**	**Lab Sample ID**	**Calibration Ref**	**Run#/ Dil'n**	**Collection Date/Time**	**Extract Date/Time**	**Analysis Date/Time**	**Sample Type**
79745	78456	NA	LABQC	WQ	LABQC	MB 240-78456/17-A		1/1	15-Mar-2013 8:45 AM	15-Mar-2013 8:45 AM	28-Mar-2013 12:06 PM	LB
	78456	NA	LABQC	WQ	LABQC	LCS 240-78456/18-A		1/1	15-Mar-2013 8:45 AM	15-Mar-2013 8:45 AM	28-Mar-2013 12:29 PM	BS
	78456	NA	79-841-DU1-SB	WG	079-0007-0001-SOURCEWATER	240-21987-1		1/1	14-Mar-2013 12:00 AM	15-Mar-2013 8:45 AM	28-Mar-2013 12:53 PM	N

Test Method: SW8330B; Leach Method: NONE												
Analytical Batch	**Prep Batch**	**Leach Batch**	**Location**	**Matrix**	**Field Sample ID**	**Lab Sample ID**	**Calibration Ref**	**Run#/ Dil'n**	**Collection Date/Time**	**Extract Date/Time**	**Analysis Date/Time**	**Sample Type**
12703	12565	NA	LABQC	WQ	LABQC	MB 320-12565/1-A		1/1	19-Mar-2013 1:52 PM	19-Mar-2013 1:52 PM	21-Mar-2013 12:51 PM	LB
	12565	NA	LABQC	WQ	LABQC	LCS 320-12565/2-A		1/1	19-Mar-2013 1:52 PM	19-Mar-2013 1:52 PM	21-Mar-2013 1:31 PM	BS
	12565	NA	79-841-DU1-SB	WG	079-0007-0001-SOURCEWATER	240-21987-1		2/1	14-Mar-2013 12:00 AM	19-Mar-2013 1:52 PM	21-Mar-2013 2:11 PM	N
12714	12568	NA	LABQC	WQ	LABQC	MB 320-12568/1-A		1/1	19-Mar-2013 2:18 PM	19-Mar-2013 2:18 PM	21-Mar-2013 1:01 PM	LB
	12568	NA	LABQC	WQ	LABQC	LCS 320-12568/2-A		1/1	19-Mar-2013 2:18 PM	19-Mar-2013 2:18 PM	21-Mar-2013 1:16 PM	BS
	12568	NA	79-LL3-DU1-SB1	WG	079-0007-0001-SOURCEWATER	240-21987-1		1/1	14-Mar-2013 12:00 PM	19-Mar-2013 2:18 PM	21-Mar-2013 1:45 PM	MS
	12568	NA	79-LL3-DU1-SB1	WG	079-0007-0001-SOURCEWATER	240-21987-1		1/1	14-Mar-2013 12:00 PM	19-Mar-2013 2:18 PM	21-Mar-2013 2:00 PM	SD
12878	12568	NA	LABQC	WQ	LABQC	MB 320-12568/1-A		2/1	19-Mar-2013 2:18 PM	19-Mar-2013 2:18 PM	22-Mar-2013 3:32 PM	LB
	12568	NA	79-841-DU1-SB	WG	079-0007-0001-SOURCEWATER	240-21987-1		3/1	14-Mar-2013 12:00 AM	19-Mar-2013 2:18 PM	22-Mar-2013 3:53 PM	N

AUTOMATED DATA REVIEW SUMMARY for 240-21987-1_79_SourceWater_TB_1

Field Batch Report

--No Records Found--

AUTOMATED DATA REVIEW SUMMARY for 240-21987-1_79_SourceWater_TB_1

QC Outlier Report

Test/Prep/Leach	QC Element	Sample ID/ Lab Sample ID	Run# / Dil'n	Analyte	Result (Units)	Qualifier	Warning Limits	Control Limits	Reason	Comment	Rule	Action Level
M8015V / SW5030B/NONE	Blank	MB 240-79100/38 (LB) / MB 240-79100/38	1 / 1.00	Petroleum Hydrocarbons C6-C12	57.2 (UG/L)	U/None	< 25	< 100	L		1	57.2
SW6020 / TOTAL/NONE	Blank	MB 180-66565/1-A (LB) / MB 180-66565/1-A	1 / 1.00	Aluminum	4.6 (UG/L)	U/None	< 2.6	< 30	L		1	4.59
SW6020 / TOTAL/NONE	Blank	MB 180-66565/1-A (LB) / MB 180-66565/1-A	1 / 1.00	Barium	0.18 (UG/L)	U/None	< 0.098	< 10	L		1	0.181
SW6020 / TOTAL/NONE	Blank	MB 180-66565/1-A (LB) / MB 180-66565/1-A	1 / 1.00	Copper	0.32 (UG/L)	U/None	< 0.24	< 2	L		1	0.315
SW6020 / TOTAL/NONE	Blank	MB 180-66565/1-A (LB) / MB 180-66565/1-A	1 / 1.00	Lead	0.24 (UG/L)	U/None	< 0.15	< 1	L		1	0.236
SW6020 / TOTAL/NONE	Blank	MB 180-66565/1-A (LB) / MB 180-66565/1-A	1 / 1.00	Manganese	0.31 (UG/L)	U/None	< 0.16	< 5	L		1	0.314
SW6020 / TOTAL/NONE	Blank	MB 180-66565/1-A (LB) / MB 180-66565/1-A	1 / 1.00	Potassium	40.6 (UG/L)	U/None	< 32	< 100	L		1	40.6
SW6020 / TOTAL/NONE	Blank	MB 180-66565/1-A (LB) / MB 180-66565/1-A	1 / 1.00	Sodium	67.4 (UG/L)	U/None	< 27	< 100	L		1	67.4
SW8151 / METHOD/NONE	LCS Recovery	LCS 240-78626/4-A (BS) / LCS 240-78626/4-A	1 / 1.00	2,4,5-T (Trichlorophenoxyacetic Acid)	111 (PERCENT)	J/U	35 - 110	35 - 110	C			
SW8151 / METHOD/NONE	LCS Recovery	LCS 240-78626/4-A (BS) / LCS 240-78626/4-A	1 / 1.00	Dichloroprop	126 (PERCENT)	J/U	70 - 120	70 - 120	C			
SW8260B / SW5030B/NONE	Blank	MB 240-79725/6 (LB) / MB 240-79725/6	1 / 1.00	Methylene Chloride	0.34 (UG/L)	U/None	< 0.33	< 1	L		2	0.688
SW8260B / SW5030B	Test Hold Time	079-0008-0001-TB TRI (N) / 240-21987-2	1 / 1.00	All in Run	14.2 (Days)	J/UJ	< 14	< 28	H1	Test Exceeds UWL		
SW8270C / SW3510/NONE	Blank	MB 240-78456/17-A (LB) / MB 240-78456/17-A	1 / 1.00	bis(2-Ethylhexyl) Phthalate	0.86 (UG/L)	U/None	< 0.8	< 2	L		5	4.28
SW8270C / SW3510/NONE	LCS Recovery	LCS 240-78456/18-A (BS) / LCS 240-78456/18-A	1 / 1.00	Cresols, m & p	67.0 (PERCENT)	J/UJ	70 - 130	70 - 130	C			

AUTOMATED DATA REVIEW SUMMARY for 240-21987-1_79_SourceWater_TB_1

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
M8015V/NONE	WG	079-0007-0001-SOURCEWATER	240-21987-1	N	Petroleum Hydrocarbons C6-C12	100	74.0	100 U	+	UG/L	L
M8015V/NONE	WG	079-0009-0001-TB TRIP BLANK	240-21987-3	N	Petroleum Hydrocarbons C6-C12	100	81.0	100 U	+	UG/L	L
Test Leach	**Matrix**	**FieldSample ID**	**LabSample ID**	**Type**	**Analyte**	**RL**	**Lab Result**	**Qualified Result**	**Bias**	**Units**	**Reason**
SW6020/NONE	WG	079-0007-0001-SOURCEWATER	240-21987-1	N	Arsenic	1.0	0.48	0.48 J		UG/L	TR
SW6020/NONE	WG	079-0007-0001-SOURCEWATER	240-21987-1	N	Chromium	2.0	1.3	1.3 J		UG/L	TR
SW6020/NONE	WG	079-0007-0001-SOURCEWATER	240-21987-1	N	Cobalt	0.50	0.054	0.054 J		UG/L	TR
SW6020/NONE	WG	079-0007-0001-SOURCEWATER	240-21987-1	N	Copper	2.0	1.4	2.0 U	+	UG/L	L/B2
SW6020/NONE	WG	079-0007-0001-SOURCEWATER	240-21987-1	N	Thallium	1.0	0.11	0.11 J		UG/L	TR
Test Leach	**Matrix**	**FieldSample ID**	**LabSample ID**	**Type**	**Analyte**	**RL**	**Lab Result**	**Qualified Result**	**Bias**	**Units**	**Reason**
SW8081/NONE	WG	079-0007-0001-SOURCEWATER	240-21987-1	N	Methoxychlor	0.10	0.10	0.10 UJ		UG/L	V2
SW8081/NONE	WG	079-0007-0001-SOURCEWATER	240-21987-1	N	Toxaphene	2.0	2.0	2.0 UJ		UG/L	V1
Test Leach	**Matrix**	**FieldSample ID**	**LabSample ID**	**Type**	**Analyte**	**RL**	**Lab Result**	**Qualified Result**	**Bias**	**Units**	**Reason**
SW8151/NONE	WG	079-0007-0001-SOURCEWATER	240-21987-1	N	Dalapon	2.0	0.55	2.0 U		UG/L	P1/Y1
SW8151/NONE	WG	079-0007-0001-SOURCEWATER	240-21987-1	N	MCPA	400	400	400 UJ		UG/L	J
SW8151/NONE	WG	079-0007-0001-SOURCEWATER	240-21987-1	N	MCPP	400	400	400 UJ		UG/L	J
Test Leach	**Matrix**	**FieldSample ID**	**LabSample ID**	**Type**	**Analyte**	**RL**	**Lab Result**	**Qualified Result**	**Bias**	**Units**	**Reason**
SW8260B/NONE	WG	079-0007-0001-SOURCEWATER	240-21987-1	N	Carbon Tetrachloride	1.0	1.0	1.0 UJ		UG/L	V2
SW8260B/NONE	WG	079-0008-0001-TB TRIP BLANK	240-21987-2	N	Carbon Tetrachloride	1.0	1.0	1.0 UJ		UG/L	V2
SW8260B/NONE	WG	079-0008-0001-TB TRIP BLANK	240-21987-2	N	Chloroform	1.0	0.31	0.31 J		UG/L	TR
Test Leach	**Matrix**	**FieldSample ID**	**LabSample ID**	**Type**	**Analyte**	**RL**	**Lab Result**	**Qualified Result**	**Bias**	**Units**	**Reason**
SW8270C/NONE	WG	079-0007-0001-SOURCEWATER	240-21987-1	N	2,4-Dimethylphenol	2.0	2.0	2.0 UJ		UG/L	V1

AUTOMATED DATA REVIEW SUMMARY for 240-21987-1_79_SourceWater_TB_1

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
SW8270C/NONE	WG	079-0007-0001-SOURCEWATER	240-21987-1	N	2,4-Dinitrophenol	5.1	5.1	5.1 UJ		UG/L	V1
SW8270C/NONE	WG	079-0007-0001-SOURCEWATER	240-21987-1	N	2-Chlorophenol	1.0	1.0	1.0 UJ		UG/L	V1
SW8270C/NONE	WG	079-0007-0001-SOURCEWATER	240-21987-1	N	2-Methylphenol (o-Cresol)	1.0	1.0	1.0 UJ		UG/L	V1
SW8270C/NONE	WG	079-0007-0001-SOURCEWATER	240-21987-1	N	2-Nitrophenol	2.0	2.0	2.0 UJ		UG/L	V1
SW8270C/NONE	WG	079-0007-0001-SOURCEWATER	240-21987-1	N	3,3'-Dichlorobenzidine	5.1	5.1	5.1 UJ		UG/L	V1
SW8270C/NONE	WG	079-0007-0001-SOURCEWATER	240-21987-1	N	4,6-Dinitro-2-Methylphenol	5.1	5.1	5.1 UJ		UG/L	V1
SW8270C/NONE	WG	079-0007-0001-SOURCEWATER	240-21987-1	N	4-Nitroaniline	2.0	2.0	2.0 UJ		UG/L	V1
SW8270C/NONE	WG	079-0007-0001-SOURCEWATER	240-21987-1	N	4-Nitrophenol	5.1	5.1	5.1 UJ		UG/L	V1
SW8270C/NONE	WG	079-0007-0001-SOURCEWATER	240-21987-1	N	bis(2-Ethylhexyl) Phthalate	2.0	0.91	2.0 U	+	UG/L	L
SW8270C/NONE	WG	079-0007-0001-SOURCEWATER	240-21987-1	N	n-Nitrosodiphenylamine	1.0	1.0	1.0 UJ		UG/L	J
SW8270C/NONE	WG	079-0007-0001-SOURCEWATER	240-21987-1	N	Pentachlorophenol	5.1	5.1	5.1 UJ		UG/L	V1
SW8270C/NONE	WG	079-0007-0001-SOURCEWATER	240-21987-1	N	Phenol	1.0	1.0	1.0 UJ		UG/L	V1

AUTOMATED DATA REVIEW SUMMARY for 240-21987-1_79_SourceWater_TB_1

AUTOMATED DATA REVIEW SUMMARY for 240-21987-1_79_SourceWater_TB_1

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	WG	079-0007-0001-SOURCEWATER	240-21987-1	N	Arsenic	1.0	0.48	0.48 J	UG/L	TR
SW6020/NONE	WG	079-0007-0001-SOURCEWATER	240-21987-1	N	Barium	10.0	41.0	41.0	UG/L	
SW6020/NONE	WG	079-0007-0001-SOURCEWATER	240-21987-1	N	Calcium	100	65000	65000	UG/L	
SW6020/NONE	WG	079-0007-0001-SOURCEWATER	240-21987-1	N	Cobalt	0.50	0.054	0.054 J	UG/L	TR
SW6020/NONE	WG	079-0007-0001-SOURCEWATER	240-21987-1	N	Chromium	2.0	1.3	1.3 J	UG/L	TR
SW6020/NONE	WG	079-0007-0001-SOURCEWATER	240-21987-1	N	Iron	50.0	590	590	UG/L	
SW6020/NONE	WG	079-0007-0001-SOURCEWATER	240-21987-1	N	Potassium	100	2500	2500	UG/L	
SW6020/NONE	WG	079-0007-0001-SOURCEWATER	240-21987-1	N	Magnesium	100	27000	27000	UG/L	
SW6020/NONE	WG	079-0007-0001-SOURCEWATER	240-21987-1	N	Manganese	5.0	94.0	94.0	UG/L	
SW6020/NONE	WG	079-0007-0001-SOURCEWATER	240-21987-1	N	Sodium	100	37000	37000	UG/L	
SW6020/NONE	WG	079-0007-0001-SOURCEWATER	240-21987-1	N	Thallium	1.0	0.11	0.11 J	UG/L	TR
SW6020/NONE	WG	079-0007-0001-SOURCEWATER	240-21987-1	N	Zinc	5.0	5.1	5.1	UG/L	

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8260B/NONE	WG	079-0008-0001-TB TRIP BLANK	240-21987-2	N	Chloroform	1.0	0.31	0.31 J	UG/L	TR

AUTOMATED DATA REVIEW SUMMARY for 240-21987-1_79_SourceWater_TB_1

Rejected Results

--No Records Found--

AUTOMATED DATA REVIEW SUMMARY for 240-21987-1_79_SourceWater_TB_1

Anomalies Count

SDG Name: 240-21987-1_79_SourceWater_TB_1

Test/Extraction Method/Leach	# of Field Samples Outside of Compliance	# of Analytes Outside of Compliance
M8015D/SW3520C/NONE	1	2
SW6020/TOTAL/NONE	1	1
SW8081/SW3520C/NONE	1	5
SW8082/SW3520C/NONE	1	7
SW8260B/SW5030B/NONE	2	2
SW8270C/SW3510/NONE	1	4
SW8330B/METHOD/NONE	1	3

Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-21987-1_79_SourceWater_TB_1

Reporting Anomalies

SDG Name: 240-21987-1_79_SourceWater_TB_1

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
M8015D/NONE	079-0007-0001-SOURCEWATER	N	1	C10-C20 Diesel Range Organics	490 U	230	490	0.5	UG/L
M8015D/NONE	079-0007-0001-SOURCEWATER	N	1	C20-C34 Motor Oil Range Organics	490 U	230	490	0.5	UG/L
Test Leach	**FieldSample ID**	**Type**	**Dilution**	**Analyte**	**Result**	**DL**	**RL**	**Project RL**	**Units**
SW6020/NONE	079-0007-0001-SOURCEWATER	N	1	Cadmium	1 U	0.13	1	0.5	UG/L
Test Leach	**FieldSample ID**	**Type**	**Dilution**	**Analyte**	**Result**	**DL**	**RL**	**Project RL**	**Units**
SW8081/NONE	079-0007-0001-SOURCEWATER	N	1	Aldrin	0.05 U	0.0082	0.05	0.03	UG/L
SW8081/NONE	079-0007-0001-SOURCEWATER	N	1	alpha-BHC (alpha-Hexachlorocyclohexane)	0.05 U	0.007	0.05	0.03	UG/L
SW8081/NONE	079-0007-0001-SOURCEWATER	N	1	Dieldrin	0.05 U	0.0075	0.05	0.03	UG/L
SW8081/NONE	079-0007-0001-SOURCEWATER	N	1	Heptachlor	0.05 U	0.008	0.05	0.03	UG/L
SW8081/NONE	079-0007-0001-SOURCEWATER	N	1	Heptachlor Epoxide	0.05 U	0.0071	0.05	0.03	UG/L
Test Leach	**FieldSample ID**	**Type**	**Dilution**	**Analyte**	**Result**	**DL**	**RL**	**Project RL**	**Units**
SW8082/NONE	079-0007-0001-SOURCEWATER	N	1	PCB-1016 (Arochlor 1016)	0.5 U	0.17	0.5	0.2	UG/L
SW8082/NONE	079-0007-0001-SOURCEWATER	N	1	PCB-1221 (Arochlor 1221)	0.5 U	0.13	0.5	0.2	UG/L
SW8082/NONE	079-0007-0001-SOURCEWATER	N	1	PCB-1232 (Arochlor 1232)	0.5 U	0.16	0.5	0.2	UG/L
SW8082/NONE	079-0007-0001-SOURCEWATER	N	1	PCB-1242 (Arochlor 1242)	0.5 U	0.22	0.5	0.2	UG/L
SW8082/NONE	079-0007-0001-SOURCEWATER	N	1	PCB-1248 (Arochlor 1248)	0.5 U	0.1	0.5	0.2	UG/L
SW8082/NONE	079-0007-0001-SOURCEWATER	N	1	PCB-1254 (Arochlor 1254)	0.5 U	0.16	0.5	0.2	UG/L

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-21987-1_79_SourceWater_TB_1

Reporting Anomalies

SDG Name: 240-21987-1_79_SourceWater_TB_1

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8082/NONE	079-0007-0001-SOURCEWATER	N	1	PCB-1260 (Arochlor 1260)	0.5 U	0.17	0.5	0.2	UG/L

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8260B/NONE	079-0007-0001-SOURCEWATER	N	1	1,2-Dichloroethene	2 U	0.34	2	1	UG/L
SW8260B/NONE	079-0008-0001-TB TRIP BLANK	N	1	1,2-Dichloroethene	2 U	0.34	2	1	UG/L

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8270C/NONE	079-0007-0001-SOURCEWATER	N	1	2,4,5-Trichlorophenol	5.1 U	0.3	5.1	5	UG/L
SW8270C/NONE	079-0007-0001-SOURCEWATER	N	1	2,4,6-Trichlorophenol	5.1 U	0.81	5.1	5	UG/L
SW8270C/NONE	079-0007-0001-SOURCEWATER	N	1	3,3'-Dichlorobenzidine	5.1 UJ	0.37	5.1	5	UG/L
SW8270C/NONE	079-0007-0001-SOURCEWATER	N	1	Pentachlorophenol	5.1 UJ	2.4	5.1	5	UG/L

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8330B/NONE	079-0007-0001-SOURCEWATER	N	1	2-Nitrotoluene	0.51 U	0.09	0.51	0.2	UG/L
SW8330B/NONE	079-0007-0001-SOURCEWATER	N	1	3-Nitrotoluene	0.51 U	0.058	0.51	0.2	UG/L
SW8330B/NONE	079-0007-0001-SOURCEWATER	N	1	4-Nitrotoluene	0.51 U	0.09	0.51	0.2	UG/L

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-21987-1_79_SourceWater_TB_1

Worksheet

SDG Name: 240-21987-1_79_SourceWater_TB_1

Method: E353.2

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were sample reciept temperatures met?	•			
Were QAPP specified RLs achieved?	•			
Were all QAPP specified target analytes reported?	•			
Was the initial calibration curve within QAPP acceptance limits?	•			
Were the ICV/CCVs analyzed (frequency) as required in the QAPP?	•			
Were ICV/CCV results within QAPP acceptance limits?	•			
Were the ICB/CCBs analyzed (frequency) as required in the QAPP?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the ICB/CCB/method blank?		•		
Was a field blank collected and analyzed?			•	
Were target analytes reported in the field blank analyses above the MDL?			•	
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?			•	
Was a LCS prepared and analyzed with each batch?	•			
Were the LCS recoveries within QAPP acceptance limits?	•			
Was a duplicate sample prepared and analyzed with each batch?			•	
Was the duplicate RPD within QAPP acceptance limits?			•	
Was a MS/MSD pair prepared with each batch?	•			
Is the MS/MSD parent sample the one designated by the sampling team?			•	
Were the MS/MSD recoveries and RPDs within QAPP acceptance limits?	•			
Were sample concentrations within calibration range?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			

Method: M8015D

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report?	•			
Were samples preserved properly and received in good condition?	•			
Were sample reciept temperatures met?	•			
Were holding times for prep and analysis met?	•			
Does the initial calibration curve consist of 5 concentration levels, with the low standard near but > MDL?	•			
Is the ICAL %RSD within acceptance limits (%D =20%) on both columns?	•			
Was a second source verification analyzed after the ICAL and all analytes within criteria (%D =20%)?	•			
Was a CCV run at the beginning of the analytical sequence and every 12 hours?	•			
Was the CCV a mid-level standard from the initial calibration curve?	•			
Was the CCV %D within criteria (%D =20%)?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the method blank above the MDL?		•		
Was a field blank (equipment or trip) collected and analyzed?			•	
Were target analytes reported in the field blank analyses above the MDL?			•	
Were surrogate recoveries within QAPP acceptance limits?	•			
Was an LCS/LCSD pair prepared and analyzed with each batch? (if applicable)		•		LCS was extracted with preparation batch.
Were the LCS recoveries within QAPP acceptance limits?		•		
Were the LCS/LCSD RPDs within QAPP acceptance limits? (if applicable)			•	
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits (RPD = 30%) ?			•	
Is the MS/MSD parent sample the one designated by the sampling team?			•	
Were MS/MSD recoveries and RPD within QAPP acceptance limits?			•	
Were all QAPP-specified target analytes reported?	•			
Were reported sample concentrations within calibration range?	•			
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were sample prepration sheets present and filled out appropriately?	•			
Were instrument run logs present and filled out appropriately?	•			

Method: M8015V

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report?	•			
Were samples preserved properly and received in good condition?	•			
Were sample reciept temperatures met?	•			
Were holding times for prep and analysis met?	•			
Does the initial calibration curve consist of 5 concentration levels, with the low standard near but > MDL?	•			
Is the ICAL %RSD within acceptance limits (%D =20%) on both columns?	•			
Was a second source verification analyzed after the ICAL and all analytes within criteria (%D =20%)?	•			
Was a CCV run at the beginning of the analytical sequence and every 12 hours?	•			
Was the CCV a mid-level standard from the initial calibration curve?	•			
Was the CCV %D within criteria (%D =20%)?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the method blank above the MDL?	•			MB 240-79100/38: C6-C12 was detected above the MDL but below RL.
Was a field blank (equipment or trip) collected and analyzed?	•			
Were target analytes reported in the field blank analyses above the MDL?		•		
Were surrogate recoveries within QAPP acceptance limits?	•			
Was an LCS/LCSD pair prepared and analyzed with each batch? (if applicable)	•			LCS was analyzed with each analytical batch.
Were the LCS recoveries within QAPP acceptance limits?	•			
Were the LCS/LCSD RPDs within QAPP acceptance limits? (if applicable)			•	
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits (RPD = 30%) ?			•	
Is the MS/MSD parent sample the one designated by the sampling team?			•	
Were MS/MSD recoveries and RPD within QAPP acceptance limits?	•			
Were all QAPP-specified target analytes reported?	•			
Were reported sample concentrations within calibration range?	•			
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were sample prepration sheets present and filled out appropriately?	•			
Were instrument run logs present and filled out appropriately?	•			

AUTOMATED DATA REVIEW SUMMARY for 240-21987-1_79_SourceWater_TB_1

Method: SW6020

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were sample reciept temperatures met?	•			
Were QAPP specified RLs achieved?	•			
Were all QAPP specified target analytes reported?	•			
Was the initial calibration curve within QAPP acceptance limits?	•			
Were the ICV/CCVs analyzed (frequency) as required in the QAPP?	•			
Were ICV/CCV results within QAPP acceptance limits?	•			
Were the ICB/CCBs analyzed (frequency) as required in the QAPP?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the ICB/CCB/method blank?	•			CCB1: Cu, K, and Na were detected above MDL but below RL. 2. MB 180-66565/1-A: Al, Ba, Cu, Mn, Na, Pb, and K were detected above MDL but below RL.
Was a field blank collected and analyzed?			•	
Were target analytes reported in the field blank analyses above the MDL?			•	
Was an Interference Check Standard (ICS) run at the beginning and end of every run?	•			
Was the ICS recovery within QAPP acceptance limits?	•			
If a field duplicate was analyzed, were the RPDs within criteria?	•			
Was a LCS prepared and analyzed with each batch?	•			LCS and LCSD were digested in the preparation batch : 66565.
Were the LCS recoveries within QAPP acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?			•	
Is the MS/MSD parent sample the one designated by the sampling team?			•	
Were the MS/MSD within QAPP acceptance limits?			•	
Was a serial dilution prepared and analyzed with each batch?	•			
Was the serial dilution within QAPP acceptance limits?	•			
Were sample concentrations within calibration range?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			

Method: SW7196A

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were sample reciept temperatures met?	•			
Were QAPP specified RLs achieved?	•			
Were all QAPP specified target analytes reported?	•			
Was the initial calibration curve within QAPP acceptance limits?	•			
Were the ICV/CCVs analyzed (frequency) as required in the QAPP?	•			
Were ICV/CCV results within QAPP acceptance limits?	•			
Were the ICB/CCBs analyzed (frequency) as required in the QAPP?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the ICB/CCB/method blank?		•		
Was a field blank collected and analyzed?			•	
Were target analytes reported in the field blank analyses above the MDL?			•	
Was the ICS recovery within QAPP acceptance limits?			•	
If a field duplicate was analyzed, were the RPDs within criteria?			•	
Was a LCS prepared and analyzed with each batch?	•			
Were the LCS recoveries within QAPP acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			
Is the MS/MSD parent sample the one designated by the sampling team?			•	
Were the MS/MSD within QAPP acceptance limits?	•			
Were sample concentrations within calibration range?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			

Method: SW7470A

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			

Method: SW7470A

Review Questions	Yes	No	NA	Comment
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were sample reciept temperatures met?	•			
Were QAPP specified RLs achieved?	•			
Were all QAPP specified target analytes reported?	•			
Was the initial calibration curve within QAPP acceptance limits?	•			
Were the ICV/CCVs analyzed (frequency) as required in the QAPP?	•			
Were ICV/CCV results within QAPP acceptance limits?	•			
Were the ICB/CCBs analyzed (frequency) as required in the QAPP?	•			
Was a method blank prepared and analyzed with each batch?	•	•		
Were target analytes detected in the ICB/CCB/method blank?		•		
Was a field blank collected and analyzed?			•	
Were target analytes reported in the field blank analyses above the MDL?			•	
Was the ICS recovery within QAPP acceptance limits?			•	
If a field duplicate was analyzed, were the RPDs within criteria?			•	
Was a LCS prepared and analyzed with each batch?	•			
Were the LCS recoveries within QAPP acceptance limits?			•	
Was a MS/MSD pair prepared with each batch?			•	
Is the MS/MSD parent sample the one designated by the sampling team?			•	
Were the MS/MSD within QAPP acceptance limits?			•	
Were sample concentrations within calibration range?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			

Method: SW8081

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report?	•			
Were samples preserved properly and received in good condition?	•			
Were sample reciept temperatures met?	•			

AUTOMATED DATA REVIEW SUMMARY for 240-21987-1_79_SourceWater_TB_1

Method: SW8081

Review Questions	Yes	No	NA	Comment
Were holding times for prep and analysis met?	•			
Does the initial calibration curve consist of 5 concentration levels, with the low standard near but > MDL?	•			
Is the ICAL %RSD within acceptance limits (%D =20%) on both columns?	•			
Was a second source verification analyzed after the ICAL and all analytes within criteria (%D =20%)?		•		Toxaphene %D=38.9%.
Was a CCV run at the beginning of the analytical sequence and every 12 hours?	•			
Was the CCV a mid-level standard from the initial calibration curve?	•			
Was the CCV %D within criteria (%D =20%)?	•			CCV 240-7956/14: Methoxychlor %D=20.2%
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the method blank above the MDL?		•		
Was a field blank (equipment or trip) collected and analyzed?			•	
Were target analytes reported in the field blank analyses above the MDL?			•	
Were surrogate recoveries within QAPP acceptance limits?	•			
Was an LCS/LCSD pair prepared and analyzed with each batch? (if applicable)	•			LCS was extracted with each preparation batch.
Were the LCS recoveries within QAPP acceptance limits?	•			
Were the LCS/LCSD RPDs within QAPP acceptance limits? (if applicable)			•	
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits (RPD = 30%) ?			•	
Were the Breakdown products within QAPP acceptance limits?	•			
Is the MS/MSD parent sample the one designated by the sampling team?			•	
Were MS/MSD recoveries and RPD within QAPP acceptance limits?			•	
Were all QAPP-specified target analytes reported?	•			
Were reported sample concentrations within calibration range?	•			
Were RPDs between primary and confirmation columns < 40%?			•	All Pesticides compounds in the samples were reported as non-detects.
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were sample prepration sheets present and filled out appropriately?	•			
Were instrument run logs present and filled out appropriately?	•			

AUTOMATED DATA REVIEW SUMMARY for 240-21987-1_79_SourceWater_TB_1

Method: SW8082

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report?	•			
Were samples preserved properly and received in good condition?	•			
Were sample reciept temperatures met?	•			
Were holding times for prep and analysis met?	•			
Does the initial calibration curve consist of 5 concentration levels, with the low standard near but > MDL?	•			
Is the ICAL %RSD within acceptance limits (%D =20%) on both columns?	•			
Was a second source verification analyzed after the ICAL and all analytes within criteria (%D =20%)?	•			15%
Was a CCV run at the beginning of the analytical sequence and every 12 hours?	•			
Was the CCV a mid-level standard from the initial calibration curve?	•			
Was the CCV %D within criteria (%D =20%)?	•			15%
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the method blank above the MDL?		•		
Was a field blank (equipment or trip) collected and analyzed?			•	
Were target analytes reported in the field blank analyses above the MDL?			•	
Were surrogate recoveries within QAPP acceptance limits?	•			
Was an LCS/LCSD pair prepared and analyzed with each batch? (if applicable)	•			LCS was extracted with each preparation batch.
Were the LCS recoveries within QAPP acceptance limits?	•			
Were the LCS/LCSD RPDs within QAPP acceptance limits? (if applicable)			•	
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits (RPD = 30%) ?			•	
Were the Breakdown products within QAPP acceptance limits?			•	
Is the MS/MSD parent sample the one designated by the sampling team?			•	
Were MS/MSD recoveries and RPD within QAPP acceptance limits?			•	
Were all QAPP-specified target analytes reported?	•			
Were reported sample concentrations within calibration range?	•			
Were RPDs between primary and confirmation columns < 40%?			•	All PCBs were reported as non-detect.
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			

Method: SW8082

Review Questions	Yes	No	NA	Comment
Were sample prepration sheets present and filled out appropriately?	•			
Were instrument run logs present and filled out appropriately?	•			

Method: SW8151

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report?	•			
Were samples preserved properly and received in good condition?	•			
Were sample reciept temperatures met?	•			
Were holding times for prep and analysis met?	•			
Does the initial calibration curve consist of 5 concentration levels, with the low standard near but > MDL?	•			
Is the ICAL %RSD within acceptance limits (%D =20%) on both columns?	•			
Was a second source verification analyzed after the ICAL and all analytes within criteria (%D =20%)?	•			
Was a CCV run at the beginning of the analytical sequence and every 12 hours?	•			
Was the CCV a mid-level standard from the initial calibration curve?	•			
Was the CCV %D within criteria (%D =20%)?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the method blank above the MDL?		•		
Was a field blank (equipment or trip) collected and analyzed?			•	
Were target analytes reported in the field blank analyses above the MDL?			•	
Were surrogate recoveries within QAPP acceptance limits?	•			
Was an LCS/LCSD pair prepared and analyzed with each batch? (if applicable)	•			LCS was extracted with each preparation batch.
Were the LCS recoveries within QAPP acceptance limits?		•		LCS 240-78626/4-A: Dichlorprop and 2,4,5-T were recovered above the QC limits. No qualifications were required due to these compounds were not detected in the native sample.
Were the LCS/LCSD RPDs within QAPP acceptance limits? (if applicable)			•	
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits (RPD = 30%) ?			•	
Were the Breakdown products within QAPP acceptance limits?			•	
Is the MS/MSD parent sample the one designated by the sampling team?			•	
Were MS/MSD recoveries and RPD within QAPP acceptance limits?			•	

AUTOMATED DATA REVIEW SUMMARY for 240-21987-1_79_SourceWater_TB_1

Method: SW8151				
Review Questions	**Yes**	**No**	**NA**	**Comment**
Were all QAPP-specified target analytes reported?	•			
Were reported sample concentrations within calibration range?	•			
Were RPDs between primary and confirmation columns < 40%?		•		240-21987-1: Dalapon RPD was 56%. False Positive.
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were sample prepration sheets present and filled out appropriately?	•			
Were instrument run logs present and filled out appropriately?	•			

Method: SW8260B				
Review Questions	**Yes**	**No**	**NA**	**Comment**
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were sample reciept temperatures met?	•			
Were QAPP specified PQLs achieved?	•			
Were all QAPP-specified target analytes reported?	•			
Was the GC/MS system properly tuned based on method criteria?	•			
Was the criteria met during each 12 hour shift (prior to ICAL and Cal Ver.)?	•			
Does the initial calibration curve consist of 5 concentration levels, with the low standard near but > MDL?	•			
Did the Calibration Check Compounds (CCCs) have a relative standard deviation within QAPP acceptance limits?	•			
Were the average response factors (RFs) for the System Performance Check Compounds (SPCCs) within QAPP acceptance limits?	•			
Were all other target analytes within criteria? OR Was the average across all target analytes within criteria? Was a different calibration option used?	•			
If a linear regression curve was used, was the correlation coefficient within criteria?	•			
Was a second source verification analyzed after the ICAL and all analytes within criteria?	•			
Was a CCV run at the beginning of the analytical sequence and every 12 hours?				
Was the CCV a mid-level standard from the initial calibration curve?	•			

AUTOMATED DATA REVIEW SUMMARY for 240-21987-1_79_SourceWater_TB_1

Method: SW8260B

Review Questions	Yes	No	NA	Comment
Did the CCCs have a %Difference within QAPP acceptance limits?	•			
Were the average RFs for the SPCCs within QAPP acceptance limits?				
Was the average %D (difference or drift) for all target analytes within QAPP acceptance limits?		•		CCV 240-79725/2: Carbon tetrachloride: %D= 24.4.
Were the internal standards added to every standard, blank, matrix spike, matrix spike duplicate, and sample?	•			
Were the retention times for all IS compounds within QAPP acceptance limits?	•			
Are the area counts of all IS compounds within QAPP acceptance limits?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the method blank above the MDL?	•			MB 240-79725/6: Methylene chloride was detected above the MDL but below the RL.
Was a field blank (equipment or trip) collected and analyzed at the required frequency?	•			
Were target analytes reported in the field blank analyses above the MDL?	•			079-0008-0001-TB (Trip Blank): Chloroform was detected above the MDL but below the RL.
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?			•	
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			LCS was analyzed with each analytical batch.
Were the LCS/LCSD recoveries within QAPP acceptance limits?			•	
Were the LCS/LCSD RPDs within QAPP acceptance limits?			•	
Was the duplicate RPD within QAPP acceptance limits?			•	
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			
Was a MS/MSD pair prepared with each batch?	•			
Is the MS/MSD parent sample the one designated by the sampling team?			•	
Were MS/MSD recoveries and RPD within QAPP acceptance limits?	•			
Were surrogate recoveries within QAPP acceptance limits?	•			
Were reported sample concentrations within calibration range?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were instrument run logs present and filled out appropriately?	•			
Were sample prepration sheets present and filled out appropriately?	•			

Method: SW8270C

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were sample reciept temperatures met?	•			
Were QAPP specified PQLs achieved?	•			
Were all QAPP-specified target analytes reported?	•			
Was the GC/MS system properly tuned based on method criteria?	•			
Was the criteria met during each 12 hour shift (prior to ICAL and Cal Ver.)?	•			
Does the initial calibration curve consist of 5 concentration levels, with the low standard near but > MDL?	•			
Did the Calibration Check Compounds (CCCs) have a relative standard deviation within QAPP acceptance limits?	•			
Were the average response factors (RFs) for the System Performance Check Compounds (SPCCs) within QAPP acceptance limits?	•			
Were all other target analytes within criteria? OR Was the average across all target analytes within criteria? Was a different calibration option used?	•			
If a linear regression curve was used, was the correlation coefficient within criteria?	•			
Was a second source verification analyzed after the ICAL and all analytes within criteria?		•		ICV 240-79445/12: %Ds for several compounds were >20%. All non-detects compounds were qualified (UJ).
Was a CCV run at the beginning of the analytical sequence and every 12 hours?	•			
Was the CCV a mid-level standard from the initial calibration curve?	•			
Did the CCCs have a %Difference within QAPP acceptance limits?	•			
Were the average RFs for the SPCCs within QAPP acceptance limits?	•			
Was the average %D (difference or drift) for all target analytes within QAPP acceptance limits?	•			
Were the internal standards added to every standard, blank, matrix spike, matrix spike duplicate, and sample?	•			
Were the retention times for all IS compounds within QAPP acceptance limits?	•			
Are the area counts of all IS compounds within QAPP acceptance limits?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the method blank above the MDL?	•			MB 240-78456/17-A: Bis (2-ethylhexyl) phthalate was detected above the MDL but below the RL.
Was a field blank (equipment or trip) collected and analyzed at the required frequency?			•	

Method: SW8270C

Review Questions	Yes	No	NA	Comment
Were target analytes reported in the field blank analyses above the MDL?			•	
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?			•	
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			LCS was extracted with each preparation batch.
Were the LCS/LCSD recoveries within QAPP acceptance limits?	•			
Were the LCS/LCSD RPDs within QAPP acceptance limits?			•	
Was the duplicate RPD within QAPP acceptance limits?			•	
Are all samples associated with QC non-compliances flagged appropriately?			•	
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?				
Was a MS/MSD pair prepared with each batch?			•	
Is the MS/MSD parent sample the one designated by the sampling team?			•	
Were MS/MSD recoveries and RPD within QAPP acceptance limits?			•	
Were surrogate recoveries within QAPP acceptance limits?	•			
Were reported sample concentrations within calibration range?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were instrument run logs present and filled out appropriately?	•			
Were sample prepration sheets present and filled out appropriately?	•			

Method: SW8330B

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report?	•			
Were samples preserved properly and received in good condition?	•			
Were sample reciept temperatures met?	•			
Were holding times for prep and analysis met?	•			
Does the initial calibration curve consist of 5 concentration levels, with the low standard near but > MDL?	•			
Is the ICAL %RSD within acceptance limits (%D =20%) on both columns?	•			
Was a second source verification analyzed after the ICAL and all analytes within criteria (%D =20%)?	•			
Was a CCV run at the beginning of the analytical sequence and every 12 hours?	•			
Was the CCV a mid-level standard from the initial calibration curve?	•			
Was the CCV %D within criteria (%D =20%)?	•			

AUTOMATED DATA REVIEW SUMMARY for 240-21987-1_79_SourceWater_TB_1

Method: SW8330B

Review Questions	Yes	No	NA	Comment
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the method blank above the MDL?		•		
Was a field blank (equipment or trip) collected and analyzed?			•	
Were target analytes reported in the field blank analyses above the MDL?			•	
Were surrogate recoveries within QAPP acceptance limits?	•			
Was an LCS/LCSD pair prepared and analyzed with each batch? (if applicable)	•			LCS was extracted with each preparation batch.
Were the LCS recoveries within QAPP acceptance limits?	•			
Were the LCS/LCSD RPDs within QAPP acceptance limits? (if applicable)			•	
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits (RPD = 30%) ?			•	
Is the MS/MSD parent sample the one designated by the sampling team?			•	
Were MS/MSD recoveries and RPD within QAPP acceptance limits?	•			MS and MSD were performed on Nitroguanidine only.
Were all QAPP-specified target analytes reported?	•			
Were reported sample concentrations within calibration range?	•			
Were RPDs between primary and confirmation columns < 40%?		•		240-21987-1: Nitroguanidine was not confirmed on the column Hyrdo RP80A.
Did PDA spectra for reported compounds match associated standard spectra?			•	
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were sample prepration sheets present and filled out appropriately?	•			
Were instrument run logs present and filled out appropriately?	•			

This page intentionally left blank.

WORKSHEET 10

Automated Data Review Summary for 240-22804-1
Rinsate Blank

This page left intentionally blank.

AUTOMATED DATA REVIEW SUMMARY for 240-22804-1_74,79,SB,RN

Facility: Ravenna Army Ammunition Plant

Event: Spring 2013 RI/SI Sampling Event

Guidance Document: Ravenna Army Ammunition Plant, Quality Assurance Project Plan, Oct. 3, 2012

Contract Laboratory: TestAmerica, Inc., North Canton, OH

Field Contractor: Environmental Chemical Corporation, Otis Ang Base, MA

Data Review Contractor: ECC

SDG: 240-22804-1_74,79,SB,RN, Certified - 6/13/2013 by frederickroche

QC Level: ADR

Project Manager: AL Easterday

Data Reviewer: Samir A. Naguib

Data Reviewer Title: Sr. QA Chemist

Date of Review Report: June 20, 2013

Samples Included in SDG 240-22804-1_74,79,SB,RN

Analytical Method/ Leach Method	Normal Soil Samples	Normal Water Samples	Field QC Soil Samples	Field QC Water Samples
E353.2/NONE	1	1	0	0
M8015D/NONE	9	1	0	0
SW6020/NONE	1	1	0	0
SW7470A/NONE		1		0
SW7471A/NONE	1		0	
SW8081/NONE	1	1	0	0
SW8082/NONE	1	1	0	0

AUTOMATED DATA REVIEW SUMMARY for 240-22804-1_74,79,SB,RN

Analytical Method/ Leach Method	Normal Soil Samples	Normal Water Samples	Field QC Soil Samples	Field QC Water Samples
SW8260B/NONE	1	2	0	0
SW8270C/NONE	9	1	0	0
SW8330B/NONE	1	1	0	0

AUTOMATED DATA REVIEW SUMMARY for 240-22804-1_74,79,SB,RN

This report assesses the analytical data quality associated with the analyses listed on the preceding cover page. This assessment has been made through a combination of automated data review (ADR) and supplemental manual review, the details of which are described below. The approach taken in the review of this data set is consistent with the requirements contained in the Ravenna Army Ammunition Plant, Quality Assurance Project Plan, Oct. 3, 2012 to the extent possible. Where definitive guidance is not provided, data has been evaluated in a conservative manner using professional judgment. In cases where two qualifiers are listed as an action, such as 'J/UJ', the first qualifier applies to positive results, and the second to non-detect results.

Samples were collected by Environmental Chemical Corporation, Otis Ang Base, MA; analyses were performed by TestAmerica, Inc., North Canton, OH and were reported under sample delivery group (SDG) 240-22804-1_74,79,SB,RN. Results have been evaluated electronically using electronic data deliverables (EDDs) provided by the laboratory. The laboratory data summary forms (hard copy) have been reviewed during this effort and compared to the automated review output. Findings based on the automated data submission and manual data verification processes are detailed in the ADR narrative.

The following quality control elements were supported by the electronic deliverable and were evaluated during this review effort:

- Blank
- Blank - Negative
- LCS Recovery
- MS Recovery
- MS RPD
- Prep Hold Time
- Surrogate
- Test Hold Time

The following quality control elements were either not applicable to the deliverable, or were not supported by the electronic deliverable, and were therefore not included in the automated data review. Those elements required for the project were reviewed manually, as narrated in the Comment section below.

- Ambient Blank
- Calibration Blank
- Calibration Blank - Negative
- Continuing Calibration Verification
- Equipment Blank
- Field Blank

Field Duplicate RPD

Initial Calibration Verification

Lab Replicate RPD

LCS RPD

Material Blank

Trip Blank

AUTOMATED DATA REVIEW SUMMARY for 240-22804-1_74,79,SB,RN

A representative sampling or ten percent of sample and QC results were manually evaluated for compliance with project specific requirements and consistency with hard copy results. The following summaries were generated during the evaluation of this data set and are included in this report as applicable.

Batch – The analytical batch report is reviewed for completeness and compliance with project specific requirements. Incomplete or non-compliant run sequences are identified and their impact on data quality are discussed in the narrative.

QC Outlier – Results exceeding the evaluation criteria are reviewed for compliance with project requirements and a minimum of ten percent of the non-compliant QC values reported electronically are verified for consistency with hard-copy values.

Qualified Results – Qualified results are evaluated for compliance with project requirements and ten percent of qualified results are verified for consistency with the QC Outliers.

Rejected Results – All rejected results are evaluated for compliance with project requirements. The reason for rejection of the data is verified against hard copy data.

Field Duplicates – Field duplicate comparison results are evaluated for compliance with project requirements and ten percent of values reported are verified for consistency with the hard-copy data.

Data Submission Warnings – Warnings encountered during the data submission process are evaluated and their affect on data quality is discussed in the narrative below.

Analytical deficiencies, project non-compliance issues and inconsistencies with hard copy results observed during ADR evaluation process and their impact on data quality are summarized in the narrative below.

A total of 182 results (19.68%) out of the 925 results (sample and field QC samples) reported are qualified based on review and 10 results (1.08%) have been rejected. Trace values are not counted as qualified results in the above count. The qualified results are detailed in the following tables and discussed in the narrative below, where appropriate.

Narrative Comments

Analytical Method	Comment
E353.2	
M8015D	

AUTOMATED DATA REVIEW SUMMARY for 240-22804-1_74,79,SB,RN

SW6020	
SW7470A	
SW7471A	
SW8081	
SW8260B	
SW8270C	
SW8330B	
SW8082	

20-Jun-2013

Reviewed by Samir A. Naguib, Sr. QA Chemist

AUTOMATED DATA REVIEW SUMMARY for 240-22804-1_74,79,SB,RN

Reason and Comment Code Definitions

Reasons	
Code	**Definition**
A	Serial dilution
A1	Ambient Blank
B	The analyte was found in an associated blank as well as in the sample.
B2	CCB
B3	CCB - Neg
c	LCS - low
C	LCS Recovery
d	Field Duplicate RPD
D	MS RPD
D1	Lab Replicate RPD
D2	No precision available
F	Field Blank
F1	Hydrocarbon pattern does not match standard
G1	Initial Calibration RRF
G2	Initial Calibration RSD
h	Holding time exceeded by less than 2X.
H	Holding time exceeded by more than 2X.
H1	Test Hold Time
H2	Prep Hold Time
I	Surrogate recovery outside project limits.
J	CRA/CRI Recovery
K	An analyte (non-common laboratory artifact) was detected in the sample at a concentration less than 5X the concentration detected in the associated method blank.
L	Lab Blank
L1	Lab Blank - Neg
m	MS - low
M	MS Recovery
N	Blank - No Action

AUTOMATED DATA REVIEW SUMMARY for 240-22804-1_74,79,SB,RN

Reason and Comment Code Definitions

O	ICS
P	Sample preservation/collection requirement not met.
P1	Column RPD
P2	Improper preparation/extraction
q	Encore sample holding time exceeded by less than 2X.
Q	Encore sample holding time exceeded by more than 2X.
Q1	Material Blank
R	Exceeds LinearCalibration Range
S	Internal standard
T	Trip Blank
TI	Tentatively Identified Compound
TR	Trace Level Detect
U	Receipt Temperature
V	Equipment Blank
V1	ICV
V2	CCV
V3	CCV RRF
V4	Sample Receipt Condition
W	Column breakdown (pesticides)
X	Raised reporting limit
Y	Cooler temperature greater than 10 degreec C.
y	Cooler temperature greater than 4 degrees C, but less than 10 degreec C.
Y1	False Positive
Y2	Data rejected due to radiological anomolies
Z	LCS RPD
Z2	Analyte not confirmed on second column
Z3	High percent moisture in sample.

AUTOMATED DATA REVIEW SUMMARY for 240-22804-1_74,79,SB,RN

Flag Code and Definitions	
Flag	Definition
U	Undetected: The analyte was analyzed for, but not detected.
UJ	The analyte was not detected; however, the result is estimated due to discrepancies in meeting certain analyte-specific quality control criteria.
J	Estimated: The analyte was positively identified, the quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
R	The data are rejected due to deficiencies in meeting QC criteria and may not be used for decision making.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification".
NJ	The analysis indicates the presence of an analyte that has been “tentatively identified” and the associated numerical value represents its approximate concentration.

AUTOMATED DATA REVIEW SUMMARY for 240-22804-1_74,79,SB,RN

Batch Report

Test Method: E353.2; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
14024	13964	NA	LABQC	WQ	LABQC	MB 320-13864/1-B		1/1	10-Apr-2013 7:54 AM	10-Apr-2013 7:54 AM	10-Apr-2013 12:00 PM	LB
	13964	NA	LABQC	WQ	LABQC	LCS 320-13864/2-B		1/1	10-Apr-2013 7:54 AM	10-Apr-2013 7:54 AM	10-Apr-2013 12:02 PM	BS
	13964	NA	79-OSP-DU3-SW1	WS	079RN-0317-0001-RN	240-22804-11		1/1	03-Apr-2013 3:00 PM	10-Apr-2013 7:54 AM	10-Apr-2013 12:12 PM	N
14914	14752	NA	LABQC	SQ	LABQC	MB 320-14670/1-B		1/1	22-Apr-2013 6:13 AM	22-Apr-2013 6:13 AM	23-Apr-2013 12:45 PM	LB
	14752	NA	LABQC	SQ	LABQC	LCS 320-14670/2-B		1/1	22-Apr-2013 6:13 AM	22-Apr-2013 6:13 AM	23-Apr-2013 12:47 PM	BS
	14752	NA	74-1034-HL-SB8	SO	074SB-0010-0001-SO	240-22804-4		1/1	03-Apr-2013 11:40 AM	22-Apr-2013 6:13 AM	23-Apr-2013 1:23 PM	N

Test Method: M8015D; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
81310	80861	NA	LABQC	WQ	LABQC	MB 240-80861/11-A		1/1	06-Apr-2013 10:03 AM	06-Apr-2013 10:03 AM	10-Apr-2013 4:43 PM	LB
	80861	NA	LABQC	WQ	LABQC	LCS 240-80861/12-A		1/1	06-Apr-2013 10:03 AM	06-Apr-2013 10:03 AM	10-Apr-2013 5:14 PM	BS
	80861	NA	79-OSP-DU3-SW1	WS	079RN-0317-0001-RN	240-22804-11		1/1	03-Apr-2013 3:00 PM	06-Apr-2013 10:03 AM	10-Apr-2013 5:45 PM	N
82537	82097	NA	LABQC	SQ	LABQC	MB 240-82097/23-A		1/1	16-Apr-2013 10:04 AM	16-Apr-2013 10:04 AM	18-Apr-2013 8:41 PM	LB
	82097	NA	LABQC	SQ	LABQC	LCS 240-82097/24-A		1/1	16-Apr-2013 10:04 AM	16-Apr-2013 10:04 AM	18-Apr-2013 9:13 PM	BS
	82097	NA	74-1034-HL-SB11	SO	074SB-0013-0001-SO	240-22804-2		1/1	02-Apr-2013 5:37 PM	16-Apr-2013 10:04 AM	19-Apr-2013 1:54 AM	N
	82097	NA	74-1034-HL-SB11	SO	074SB-0015-0001-SO	240-22804-3		1/1	03-Apr-2013 5:40 PM	16-Apr-2013 10:04 AM	19-Apr-2013 2:25 AM	N
	82097	NA	74-1034-HL-SB12	SO	074SB-0023-0001-SO	240-22804-6		1/1	02-Apr-2013 4:25 PM	16-Apr-2013 10:04 AM	19-Apr-2013 2:57 AM	N
	82097	NA	74-1034-HL-SB13	SO	074SB-0024-0001-SO	240-22804-7		1/1	02-Apr-2013 4:50 PM	16-Apr-2013 10:04 AM	19-Apr-2013 3:28 AM	N
	82097	NA	74-1034-HL-SB11	SO	074SB-0025-0001-SO	240-22804-8		1/1	02-Apr-2013 5:35 PM	16-Apr-2013 10:04 AM	19-Apr-2013 4:00 AM	N

AUTOMATED DATA REVIEW SUMMARY for 240-22804-1_74,79,SB,RN

Batch Report

Test Method: M8015D; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
82321	82109	NA	LABQC	SQ	LABQC	MB 240-82109/20-A		1/1	16-Apr-2013 10:36 AM	16-Apr-2013 10:36 AM	17-Apr-2013 7:25 PM	LB
	82109	NA	LABQC	SQ	LABQC	LCS 240-82109/21-A		1/1	16-Apr-2013 10:36 AM	16-Apr-2013 10:36 AM	17-Apr-2013 7:55 PM	BS
	82109	NA	74-1034-HL-SB8	SO	074SB-0010-0001-SO	240-22804-4		1/1	03-Apr-2013 11:40 AM	16-Apr-2013 10:36 AM	17-Apr-2013 9:26 PM	N
	82109	NA	74-1034-HL-SB8	SO	074SB-0010-0001-SO	240-22804-4		1/1	03-Apr-2013 11:40 AM	16-Apr-2013 10:36 AM	17-Apr-2013 9:57 PM	MS
	82109	NA	74-1034-HL-SB8	SO	074SB-0010-0001-SO	240-22804-4		1/1	03-Apr-2013 11:40 AM	16-Apr-2013 10:36 AM	17-Apr-2013 10:27 PM	SD
	82109	NA	74-1034-HL-SB10	SO	074SB-0012-0001-SO	240-22804-5		1/1	03-Apr-2013 12:31 PM	16-Apr-2013 10:36 AM	17-Apr-2013 10:57 PM	N
	82109	NA	74-1034-HL-SB8	SO	074SB-0026-0001-SO	240-22804-9		1/1	03-Apr-2013 11:34 AM	16-Apr-2013 10:36 AM	17-Apr-2013 11:28 PM	N
	82109	NA	74-1034-HL-SB14	SO	074SB-0027-0001-SO	240-22804-10		1/1	03-Apr-2013 12:05 PM	16-Apr-2013 10:36 AM	17-Apr-2013 11:58 PM	N

Test Method: SW6020; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
71214	69392	NA	LABQC	SQ	LABQC	MB 180-69392/1-A		1/1	17-Apr-2013 10:27 AM	17-Apr-2013 10:27 AM	07-May-2013 1:04 PM	LB
	69392	NA	LABQC	SQ	LABQC	LCS 180-69392/2-A		1/1	17-Apr-2013 10:27 AM	17-Apr-2013 10:27 AM	07-May-2013 1:13 PM	BS
	69392	NA	74-1034-HL-SB8	SO	074SB-0010-0001-SO	240-22804-4		1/1	03-Apr-2013 11:40 AM	17-Apr-2013 10:27 AM	07-May-2013 1:29 PM	N
	70060	NA	LABQC	WQ	LABQC	MB 180-70060/1-A		1/1	25-Apr-2013 9:51 AM	25-Apr-2013 9:51 AM	07-May-2013 2:43 PM	LB
	70060	NA	LABQC	WQ	LABQC	LCS 180-70060/2-A		1/1	25-Apr-2013 9:51 AM	25-Apr-2013 9:51 AM	07-May-2013 2:51 PM	BS
	70060	NA	79-OSP-DU3-SW1	WS	079RN-0317-0001-RN	240-22804-11		1/1	03-Apr-2013 3:00 PM	25-Apr-2013 9:51 AM	07-May-2013 2:59 PM	N
	70060	NA	79-OSP-DU3-SW1	WS	079RN-0317-0001-RN	240-22804-11		1/1	03-Apr-2013 3:00 PM	25-Apr-2013 9:51 AM	07-May-2013 3:15 PM	MS
	70060	NA	79-OSP-DU3-SW1	WS	079RN-0317-0001-RN	240-22804-11		1/1	03-Apr-2013 3:00 PM	25-Apr-2013 9:51 AM	07-May-2013 3:24 PM	SD

AUTOMATED DATA REVIEW SUMMARY for 240-22804-1_74,79,SB,RN

Batch Report

Test Method: SW7470A; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
81255	80775	NA	LABQC	WQ	LABQC	MB 240-80775/1-A		1/1	05-Apr-2013 3:45 PM	05-Apr-2013 3:45 PM	09-Apr-2013 10:48 AM	LB
	80775	NA	LABQC	WQ	LABQC	LCS 240-80775/2-A		1/1	05-Apr-2013 3:45 PM	05-Apr-2013 3:45 PM	09-Apr-2013 10:49 AM	BS
	80775	NA	79-OSP-DU3-SW1	WS	079RN-0317-0001-RN	240-22804-11		1/1	03-Apr-2013 3:00 PM	05-Apr-2013 3:45 PM	09-Apr-2013 1:15 PM	N

Test Method: SW7471A; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
82912	82367	NA	LABQC	SQ	LABQC	MB 240-82367/1-A		1/1	17-Apr-2013 2:55 PM	17-Apr-2013 2:55 PM	19-Apr-2013 10:04 AM	LB
	82367	NA	LABQC	SQ	LABQC	LCS 240-82367/2-A		1/1	17-Apr-2013 2:55 PM	17-Apr-2013 2:55 PM	19-Apr-2013 10:06 AM	BS
	82367	NA	74-1034-HL-SB8	SO	074SB-0010-0001-SO	240-22804-4		1/1	03-Apr-2013 11:40 AM	17-Apr-2013 2:55 PM	19-Apr-2013 10:27 AM	N

Test Method: SW8081; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
82129	80943	NA	79-OSP-DU3-SW1	WS	079RN-0317-0001-RN	240-22804-11		1/1	03-Apr-2013 3:00 PM	08-Apr-2013 9:24 AM	16-Apr-2013 7:20 PM	N
	80943	NA	LABQC	WQ	LABQC	MB 240-80943/2-A		1/1	08-Apr-2013 9:24 AM	08-Apr-2013 9:24 AM	16-Apr-2013 7:40 PM	LB
	80943	NA	LABQC	WQ	LABQC	LCS 240-80943/3-A		1/1	08-Apr-2013 9:24 AM	08-Apr-2013 9:24 AM	16-Apr-2013 8:00 PM	BS
82685	81726	NA	LABQC	SQ	LABQC	MB 240-81726/21-A		1/1	12-Apr-2013 11:07 AM	12-Apr-2013 11:07 AM	19-Apr-2013 3:17 PM	LB
	81726	NA	LABQC	SQ	LABQC	LCS 240-81726/22-A		1/1	12-Apr-2013 11:07 AM	12-Apr-2013 11:07 AM	19-Apr-2013 3:37 PM	BS
82857	81726	NA	74-1034-HL-SB8	SO	074SB-0010-0001-SO	240-22804-4		1/1	03-Apr-2013 11:40 AM	12-Apr-2013 11:07 AM	20-Apr-2013 11:25 PM	N
83400	83135	NA	LABQC	SQ	LABQC	MB 240-83135/18-A		1/1	23-Apr-2013 8:54 AM	23-Apr-2013 8:54 AM	24-Apr-2013 9:54 PM	LB
	83135	NA	LABQC	SQ	LABQC	LCS 240-83135/19-A		1/1	23-Apr-2013 8:54 AM	23-Apr-2013 8:54 AM	24-Apr-2013 10:14 PM	BS

AUTOMATED DATA REVIEW SUMMARY for 240-22804-1_74,79,SB,RN

Batch Report

Test Method: SW8081; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
83482	83135	NA	74-1034-HL-SB8	SO	074SB-0010-0001-SO	240-22804-4		2/1	03-Apr-2013 11:40 AM	23-Apr-2013 8:54 AM	25-Apr-2013 10:57 AM	N

Test Method: SW8082; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
81995	80942	NA	79-OSP-DU3-SW1	WS	079RN-0317-0001-RN	240-22804-11		1/1	03-Apr-2013 3:00 PM	08-Apr-2013 9:21 AM	15-Apr-2013 4:20 PM	N
	80942	NA	LABQC	WQ	LABQC	MB 240-80942/6-A		1/1	08-Apr-2013 9:21 AM	08-Apr-2013 9:21 AM	15-Apr-2013 5:07 PM	LB
	80942	NA	LABQC	WQ	LABQC	LCS 240-80942/7-A		1/1	08-Apr-2013 9:21 AM	08-Apr-2013 9:21 AM	15-Apr-2013 5:23 PM	BS
82363	81730	NA	LABQC	SQ	LABQC	MB 240-81730/20-A		1/1	12-Apr-2013 11:18 AM	12-Apr-2013 11:18 AM	18-Apr-2013 12:13 PM	LB
	81730	NA	74-1034-HL-SB8	SO	074SB-0010-0001-SO	240-22804-4		1/1	03-Apr-2013 11:40 AM	12-Apr-2013 11:18 AM	18-Apr-2013 2:34 PM	N
	81730	NA	LABQC	SQ	LABQC	LCS 240-81730/21-A		1/1	12-Apr-2013 11:18 AM	12-Apr-2013 11:18 AM	18-Apr-2013 3:05 PM	BS

Test Method: SW8260B; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
80954	81012	NA	74-1034-HL-SB8	SO	074SB-0010-0001-SO	240-22804-4		1/1	03-Apr-2013 11:40 AM	04-Apr-2013 6:00 PM	08-Apr-2013 7:11 PM	N
81930	81012	NA	74-1034-HL-SB8	SO	074SB-0010-0001-SO	240-22804-4		2/1	03-Apr-2013 11:40 AM	04-Apr-2013 6:00 PM	15-Apr-2013 3:36 PM	N
80954	80943	NA	LABQC	SQ	LABQC	LCS 240-80954/6		1/1	08-Apr-2013 12:22 PM	08-Apr-2013 12:22 PM	08-Apr-2013 12:22 PM	BS
	80943	NA	LABQC	SQ	LABQC	MB 240-80954/7		1/1	08-Apr-2013 12:43 PM	08-Apr-2013 12:43 PM	08-Apr-2013 12:43 PM	LB
81013	81013	NA	LABQC	WQ	LABQC	LCS 240-81013/4		1/1	08-Apr-2013 12:50 PM	08-Apr-2013 12:50 PM	08-Apr-2013 12:50 PM	BS
	81013	NA	LABQC	WQ	LABQC	MB 240-81013/6		1/1	08-Apr-2013 1:34 PM	08-Apr-2013 1:34 PM	08-Apr-2013 1:34 PM	LB
	81013	NA	79-OSP-DU3-SW1	WS	079RN-0317-0001-RN	240-22804-11		1/1	03-Apr-2013 3:00 PM	08-Apr-2013 5:09 PM	08-Apr-2013 5:09 PM	N

AUTOMATED DATA REVIEW SUMMARY for 240-22804-1_74,79,SB,RN

Batch Report

Test Method: SW8260B; Leach Method: NONE												
Analytical Batch	**Prep Batch**	**Leach Batch**	**Location**	**Matrix**	**Field Sample ID**	**Lab Sample ID**	**Calibration Ref**	**Run#/ Dil'n**	**Collection Date/Time**	**Extract Date/Time**	**Analysis Date/Time**	**Sample Type**
81013	81013	NA	79-OSP-DU3-SW2	WG	079-0318-0001-TB	240-22804-12		1/1	03-Apr-2013 8:00 AM	08-Apr-2013 5:31 PM	08-Apr-2013 5:31 PM	N
81930	NA	NA	LABQC	SQ	LABQC	MB 240-81930/7		1/1	15-Apr-2013 1:05 PM	15-Apr-2013 1:05 PM	15-Apr-2013 1:05 PM	LB
	NA	NA	LABQC	SQ	LABQC	LCS 240-81930/35		1/1	15-Apr-2013 1:05 PM	15-Apr-2013 1:05 PM	15-Apr-2013 1:26 PM	BS
	NA	NA	LABQC	SQ	LABQC	LCS 240-81930/35		1/1	15-Apr-2013 1:26 PM	15-Apr-2013 1:26 PM	15-Apr-2013 1:26 PM	BS
Test Method: SW8270C; Leach Method: NONE												
Analytical Batch	**Prep Batch**	**Leach Batch**	**Location**	**Matrix**	**Field Sample ID**	**Lab Sample ID**	**Calibration Ref**	**Run#/ Dil'n**	**Collection Date/Time**	**Extract Date/Time**	**Analysis Date/Time**	**Sample Type**
82293	81130	NA	LABQC	WQ	LABQC	MB 240-81130/22-A		1/1	09-Apr-2013 10:13 AM	09-Apr-2013 10:13 AM	17-Apr-2013 11:13 AM	LB
	81130	NA	LABQC	WQ	LABQC	LCS 240-81130/23-A		1/1	09-Apr-2013 10:13 AM	09-Apr-2013 10:13 AM	17-Apr-2013 11:36 AM	BS
	81130	NA	79-OSP-DU3-SW1	WS	079RN-0317-0001-RN	240-22804-11		1/1	03-Apr-2013 3:00 PM	09-Apr-2013 10:13 AM	17-Apr-2013 2:21 PM	N
82940	81948	NA	LABQC	SQ	LABQC	MB 240-81948/23-A		1/1	15-Apr-2013 11:33 AM	15-Apr-2013 11:33 AM	22-Apr-2013 10:27 AM	LB
	81948	NA	LABQC	SQ	LABQC	LCS 240-81948/24-A		1/1	15-Apr-2013 11:33 AM	15-Apr-2013 11:33 AM	22-Apr-2013 10:53 AM	BS
83126	81948	NA	74-1034-HL-SB11	SO	074SB-0015-0001-SO	240-22804-3		1/1	03-Apr-2013 5:40 PM	15-Apr-2013 11:33 AM	23-Apr-2013 2:35 PM	N
	81948	NA	74-1034-HL-SB11	SO	074SB-0013-0001-SO	240-22804-2		1/1	02-Apr-2013 5:37 PM	15-Apr-2013 11:33 AM	23-Apr-2013 3:01 PM	N
	81948	NA	74-1034-HL-SB14	SO	074SB-0027-0001-SO	240-22804-10		1/1	03-Apr-2013 12:05 PM	15-Apr-2013 11:33 AM	23-Apr-2013 3:53 PM	N
	81948	NA	74-1034-HL-SB13	SO	074SB-0024-0001-SO	240-22804-7		1/1	02-Apr-2013 4:50 PM	15-Apr-2013 11:33 AM	23-Apr-2013 4:44 PM	N
	81948	NA	74-1034-HL-SB11	SO	074SB-0025-0001-SO	240-22804-8		1/1	02-Apr-2013 5:35 PM	15-Apr-2013 11:33 AM	23-Apr-2013 5:10 PM	N
	81948	NA	74-1034-HL-SB8	SO	074SB-0026-0001-SO	240-22804-9		1/1	03-Apr-2013 11:34 AM	15-Apr-2013 11:33 AM	23-Apr-2013 5:36 PM	N
	81948	NA	74-1034-HL-SB12	SO	074SB-0023-0001-SO	240-22804-6		1/5	02-Apr-2013 4:25 PM	15-Apr-2013 11:33 AM	23-Apr-2013 6:01 PM	N

AUTOMATED DATA REVIEW SUMMARY for 240-22804-1_74,79,SB,RN

Batch Report

Test Method: SW8270C; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
82940	81948	NA	LABQC	SQ	LABQC	MB 240-81948/23-A		1/1	15-Apr-2013 1:26 PM	15-Apr-2013 1:26 PM	22-Apr-2013 10:27 AM	LB
83882	83486	NA	LABQC	SQ	LABQC	MB 240-83486/23-A		1/1	25-Apr-2013 8:16 AM	25-Apr-2013 8:16 AM	28-Apr-2013 4:55 PM	LB
	83486	NA	LABQC	SQ	LABQC	LCS 240-83486/24-A		1/1	25-Apr-2013 8:16 AM	25-Apr-2013 8:16 AM	28-Apr-2013 5:21 PM	BS
	83486	NA	74-1034-HL-SB8	SO	074SB-0010-0001-SO	240-22804-4		1/1	03-Apr-2013 11:40 AM	25-Apr-2013 8:16 AM	28-Apr-2013 7:05 PM	N
	83486	NA	74-1034-HL-SB10	SO	074SB-0012-0001-SO	240-22804-5		1/1	03-Apr-2013 12:31 PM	25-Apr-2013 8:16 AM	28-Apr-2013 7:31 PM	N

Test Method: SW8330B; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
13918	13805	NA	LABQC	WQ	LABQC	MB 320-13805/1-A		1/1	08-Apr-2013 10:17 AM	08-Apr-2013 10:17 AM	10-Apr-2013 3:51 AM	LB
	13805	NA	LABQC	WQ	LABQC	LCS 320-13805/2-A		1/1	08-Apr-2013 10:17 AM	08-Apr-2013 10:17 AM	10-Apr-2013 4:08 AM	BS
	13805	NA	79-OSP-DU3-SW1	WS	079RN-0317-0001-RN	240-22804-11		1/1	03-Apr-2013 3:00 PM	08-Apr-2013 10:17 AM	10-Apr-2013 5:55 AM	N
15252	13819	NA	LABQC	WQ	LABQC	MB 320-13819/1-A		1/1	08-Apr-2013 11:28 AM	08-Apr-2013 11:28 AM	29-Apr-2013 4:21 PM	LB
	13819	NA	LABQC	WQ	LABQC	LCS 320-13819/2-A		1/1	08-Apr-2013 11:28 AM	08-Apr-2013 11:28 AM	29-Apr-2013 5:05 PM	BS
	13819	NA	79-OSP-DU3-SW1	WS	079RN-0317-0001-RN	240-22804-11		2/1	03-Apr-2013 3:00 PM	08-Apr-2013 11:28 AM	29-Apr-2013 5:48 PM	N
14412	13877	NA	LABQC	SQ	LABQC	MB 320-13877/1-A		1/1	09-Apr-2013 9:33 AM	09-Apr-2013 9:33 AM	19-Apr-2013 9:49 AM	LB
	13877	NA	LABQC	SQ	LABQC	LCS 320-13877/2-A		1/1	09-Apr-2013 9:33 AM	09-Apr-2013 9:33 AM	19-Apr-2013 11:43 AM	BS
	13877	NA	74-1034-HL-SB8	SO	074SB-0010-0001-SO	240-22804-4		2/1	03-Apr-2013 11:40 AM	09-Apr-2013 9:33 AM	19-Apr-2013 8:18 PM	N
14998	13877	NA	LABQC	SQ	LABQC	MB 320-13877/1-A		2/1	09-Apr-2013 9:33 AM	09-Apr-2013 9:33 AM	26-Apr-2013 10:34 AM	LB
	13877	NA	74-1034-HL-SB8	SO	074SB-0010-0001-SO	240-22804-4		3/1	03-Apr-2013 11:40 AM	09-Apr-2013 9:33 AM	26-Apr-2013 6:17 PM	N

AUTOMATED DATA REVIEW SUMMARY for 240-22804-1_74,79,SB,RN

Batch Report

Test Method: SW8330B; Leach Method: NONE

Analytical Batch	Prep Batch	Leach Batch	Location	Matrix	Field Sample ID	Lab Sample ID	Calibration Ref	Run#/ Dil'n	Collection Date/Time	Extract Date/Time	Analysis Date/Time	Sample Type
14120	13885	NA	LABQC	SQ	LABQC	MB 320-13885/1-A		1/1	09-Apr-2013 10:24 AM	09-Apr-2013 10:24 AM	11-Apr-2013 4:18 PM	LB
	13885	NA	LABQC	SQ	LABQC	LCS 320-13885/2-A		1/1	09-Apr-2013 10:24 AM	09-Apr-2013 10:24 AM	11-Apr-2013 4:36 PM	BS
	13885	NA	74-1034-HL-SB8	SO	074SB-0010-0001-SO	240-22804-4		1/1	03-Apr-2013 11:40 AM	09-Apr-2013 10:24 AM	11-Apr-2013 7:34 PM	N

AUTOMATED DATA REVIEW SUMMARY for 240-22804-1_74,79,SB,RN

Field Batch Report

--No Records Found--

AUTOMATED DATA REVIEW SUMMARY for 240-22804-1_74,79,SB,RN

QC Outlier Report

Test/Prep/Leach	QC Element	Sample ID/ Lab Sample ID	Run# / Dil'n	Analyte	Result (Units)	Qualifier	Warning Limits	Control Limits	Reason	Comment	Rule	Action Level
SW6020 / SW3050B/NONE	Blank	MB 180-69392/1-A (LB) / MB 180-69392/1-A	1 / 1.00	Barium	0.018 (MG/KG)	U/None	< 0.011	< 1	L		1	0.0175
SW6020 / SW3050B/NONE	Blank	MB 180-69392/1-A (LB) / MB 180-69392/1-A	1 / 1.00	Cadmium	0.015 (MG/KG)	U/None	< 0.013	< 0.1	L		1	0.0149
SW6020 / SW3050B/NONE	Blank	MB 180-69392/1-A (LB) / MB 180-69392/1-A	1 / 1.00	Calcium	2.5 (MG/KG)	U/None	< 1.3	< 10	L		1	2.53
SW6020 / SW3050B/NONE	Blank	MB 180-69392/1-A (LB) / MB 180-69392/1-A	1 / 1.00	Iron	1.2 (MG/KG)	U/None	< 1.1	< 5	L		1	1.17
SW6020 / SW3050B/NONE	Blank	MB 180-69392/1-A (LB) / MB 180-69392/1-A	1 / 1.00	Manganese	0.020 (MG/KG)	U/None	< 0.016	< 0.5	L		1	0.0198
SW6020 / TOTAL/NONE	Blank	MB 180-70060/1-A (LB) / MB 180-70060/1-A	1 / 1.00	Lead	0.41 (UG/L)	U/None	< 0.15	< 1	L		1	0.408
SW8260B / SW5035/NONE	Blank	MB 240-81930/7 (LB) / MB 240-81930/7	1 / 1.00	Acetone	7.1 (UG/KG)	U/None	< 6.3	< 20	L		2	14.2
SW8260B / SW5035/NONE	Surrogate	074SB-0010-0001-SO (N) / 240-22804-4	1 / 1.00	1-Bromo-4-fluorobenzene (4-Bromofluorobenzene)	34.6 (PERCENT)	J/UJ	85 - 120	10 - 120	I			
SW8260B / SW5035/NONE	Surrogate	074SB-0010-0001-SO (N) / 240-22804-4	1 / 1.00	Toluene-d8	54.0 (PERCENT)	J/UJ	85 - 115	10 - 115	I			
SW8270C / SW3550/NONE	Blank	MB 240-83486/23-A (LB) / MB 240-83486/23-A	1 / 1.00	Di-n-Butyl Phthalate	24.5 (UG/KG)	U/None	< 15	< 70	L		1	24.5
SW8270C / SW3550	Prep Hold Time	074SB-0010-0001-SO (N) / 240-22804-4	1 / 1.00	All in Run	21.9 (Days)	J/UJ	< 14	< 28	H2	Prep Exceeds UWL		
SW8270C / SW3550	Prep Hold Time	074SB-0012-0001-SO (N) / 240-22804-5	1 / 1.00	All in Run	21.8 (Days)	J/UJ	< 14	< 28	H2	Prep Exceeds UWL		
SW8330B / METHOD/NONE	Blank	MB 320-13877/1-A (LB) / MB 320-13877/1-A	2 / 1.00	Tetryl	0.011 (MG/KG)	U/None	< 0.01	< 0.25	L		1	0.0111

AUTOMATED DATA REVIEW SUMMARY for 240-22804-1_74,79,SB,RN

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
SW6020/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Selenium	0.59	0.26	0.26 J		MG/KG	TR
SW6020/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Silver	0.12	0.037	0.037 J		MG/KG	TR
SW6020/NONE	WS	079RN-0317-0001-RN	240-22804-11	N	Aluminum	30.0	4.5	30.0 U	+	UG/L	B2
SW6020/NONE	WS	079RN-0317-0001-RN	240-22804-11	N	Calcium	100	23.0	100 U	+	UG/L	B2
SW6020/NONE	WS	079RN-0317-0001-RN	240-22804-11	N	Cobalt	0.50	0.082	0.50 U	+	UG/L	B2
SW6020/NONE	WS	079RN-0317-0001-RN	240-22804-11	N	Copper	2.0	0.41	0.41 J		UG/L	TR
SW6020/NONE	WS	079RN-0317-0001-RN	240-22804-11	N	Lead	1.0	0.59	1.0 U	+	UG/L	B2
SW6020/NONE	WS	079RN-0317-0001-RN	240-22804-11	N	Manganese	5.0	0.74	5.0 U	+	UG/L	B2
SW6020/NONE	WS	079RN-0317-0001-RN	240-22804-11	N	Sodium	100	65.0	65.0 J		UG/L	TR
SW6020/NONE	WS	079RN-0317-0001-RN	240-22804-11	N	Zinc	5.0	3.2	3.2 J		UG/L	TR

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
SW8081/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Aldrin	4.7	4.7	4.7 UJ		UG/KG	h
SW8081/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	alpha-BHC (alpha-Hexachlorocyclohexane)	2.9	2.9	2.9 UJ		UG/KG	h
SW8081/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	alpha-Chlordane	3.5	3.5	3.5 UJ		UG/KG	h
SW8081/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	alpha-Endosulfan	2.0	2.0	2.0 UJ		UG/KG	h
SW8081/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	beta-BHC (beta-Hexachlorocyclohexane)	4.1	4.1	4.1 UJ		UG/KG	h
SW8081/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	beta-Endosulfan	2.9	2.9	2.9 UJ		UG/KG	h
SW8081/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	delta-BHC (delta-Hexachlorocyclohexane)	4.7	4.7	4.7 UJ		UG/KG	h
SW8081/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Dieldrin	2.0	2.0	2.0 UJ		UG/KG	h
SW8081/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Endosulfan Sulfate	3.5	3.5	3.5 UJ		UG/KG	h
SW8081/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Endrin	2.0	2.0	2.0 UJ		UG/KG	h
SW8081/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Endrin Aldehyde	3.5	3.5	3.5 UJ		UG/KG	h
SW8081/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Endrin Ketone	2.4	2.4	2.4 UJ		UG/KG	h
SW8081/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	gamma-BHC (Lindane)	2.9	2.9	2.9 UJ		UG/KG	h
SW8081/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	gamma-Chlordane	2.0	2.0	2.0 UJ		UG/KG	h
SW8081/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Heptachlor	4.1	4.1	4.1 UJ		UG/KG	h
SW8081/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Heptachlor Epoxide	2.9	2.9	2.9 UJ		UG/KG	h
SW8081/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Methoxychlor	5.9	5.9	5.9 UJ		UG/KG	h/V2

AUTOMATED DATA REVIEW SUMMARY for 240-22804-1_74,79,SB,RN

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
SW8081/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	p,p'-DDD	2.4	2.4	2.4 UJ		UG/KG	h
SW8081/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	p,p'-DDE	2.0	2.0	2.0 UJ		UG/KG	h
SW8081/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	p,p'-DDT	2.4	2.4	2.4 UJ		UG/KG	h
SW8081/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Toxaphene	79.0	79.0	79.0 UJ		UG/KG	h/V1
SW8081/NONE	WS	079RN-0317-0001-RN	240-22804-11	N	Methoxychlor	0.10	0.10	0.10 UJ		UG/L	V2
SW8081/NONE	WS	079RN-0317-0001-RN	240-22804-11	N	Toxaphene	2.0	2.0	2.0 UJ		UG/L	V1
Test Leach	**Matrix**	**FieldSample ID**	**LabSample ID**	**Type**	**Analyte**	**RL**	**Lab Result**	**Qualified Result**	**Bias**	**Units**	**Reason**
SW8260B/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	2-Butanone (MEK)	19.0	19.0	19.0 UJ	-	UG/KG	I
SW8260B/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	2-Hexanone	19.0	19.0	19.0 UJ	-	UG/KG	I
SW8260B/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	4-Methyl-2-pentanone (MIBK)	19.0	19.0	19.0 UJ	-	UG/KG	I
SW8260B/NONE	WG	079-0318-0001-TB	240-22804-12	N	Acetone	10.0	5.1	5.1 J		UG/L	TR/J
SW8260B/NONE	WS	079RN-0317-0001-RN	240-22804-11	N	Acetone	10.0	10.0	10.0 UJ		UG/L	J
SW8260B/NONE	WS	079RN-0317-0001-RN	240-22804-11	N	Chloroform	1.0	0.34	0.34 J		UG/L	TR
Test Leach	**Matrix**	**FieldSample ID**	**LabSample ID**	**Type**	**Analyte**	**RL**	**Lab Result**	**Qualified Result**	**Bias**	**Units**	**Reason**
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	1,2,4-Trichlorobenzene	58.0	58.0	58.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	1,2-Dichlorobenzene	58.0	58.0	58.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	1,3-Dichlorobenzene	58.0	58.0	58.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	1,4-Dichlorobenzene	58.0	58.0	58.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	2,4,5-Trichlorophenol	180	180	180 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	2,4,6-Trichlorophenol	180	180	180 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	2,4-Dichlorophenol	180	180	180 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	2,4-Dimethylphenol	180	180	180 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	2,4-Dinitrophenol	390	390	390 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	2,4-Dinitrotoluene	230	230	230 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	2,6-Dinitrotoluene	230	230	230 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	2-Chloronaphthalene	58.0	58.0	58.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	2-Chlorophenol	58.0	58.0	58.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	2-Methylnaphthalene	7.8	7.8	7.8 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	2-Methylphenol (o-Cresol)	230	230	230 UJ	-	UG/KG	H2

AUTOMATED DATA REVIEW SUMMARY for 240-22804-1_74,79,SB,RN

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	2-Nitroaniline	230	230	230 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	2-Nitrophenol	58.0	58.0	58.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	3,3'-Dichlorobenzidine	120	120	120 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	3-Nitroaniline	230	230	230 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	4,6-Dinitro-2-Methylphenol	180	180	180 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	4-Bromophenyl phenyl ether	58.0	58.0	58.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	4-Chloro-3-Methylphenol	180	180	180 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	4-Chloroaniline	180	180	180 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	4-Chlorophenyl Phenyl Ether	58.0	58.0	58.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	4-Nitroaniline	230	230	230 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	4-Nitrophenol	390	390	390 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Acenaphthene	7.8	7.8	7.8 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Acenaphthylene	7.8	7.8	7.8 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Anthracene	7.8	7.8	7.8 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Benzo(a)anthracene	7.8	7.8	7.8 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Benzo(a)pyrene	7.8	7.8	7.8 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Benzo(b)fluoranthene	7.8	7.8	7.8 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Benzo(g,h,i)perylene	7.8	7.8	7.8 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Benzo(k)fluoranthene	7.8	7.8	7.8 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Benzoic acid	770	770	770 R	-	UG/KG	H2/c
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Benzyl alcohol	390	390	390 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Benzyl butyl phthalate	82.0	82.0	82.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	bis(2-Chloroethoxy) Methane	120	120	120 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	120	120	120 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	bis(2-Chloroisopropyl) Ether	120	120	120 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	bis(2-Ethylhexyl) Phthalate	82.0	120	120 J	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Carbazole	58.0	58.0	58.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Chrysene	7.8	7.8	7.8 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Cresols, m & p	470	470	470 UJ	-	UG/KG	H2

AUTOMATED DATA REVIEW SUMMARY for 240-22804-1_74,79,SB,RN

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Dibenz(a,h)anthracene	7.8	7.8	7.8 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Dibenzofuran	58.0	58.0	58.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Diethyl Phthalate	82.0	82.0	82.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Dimethyl Phthalate	82.0	82.0	82.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Di-n-Butyl Phthalate	82.0	82.0	82.0 UJ		UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Di-n-Octylphthalate	82.0	82.0	82.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Fluoranthene	7.8	7.8	7.8 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Fluorene	7.8	7.8	7.8 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Hexachlorobenzene	7.8	7.8	7.8 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Hexachlorobutadiene	58.0	58.0	58.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Hexachlorocyclopentadiene	390	390	390 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Hexachloroethane	58.0	58.0	58.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Indeno(1,2,3-c,d)pyrene	7.8	7.8	7.8 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Isophorone	58.0	58.0	58.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Naphthalene	7.8	7.8	7.8 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Nitrobenzene	120	120	120 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	n-Nitrosodi-n-propylamine	58.0	58.0	58.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	n-Nitrosodiphenylamine	58.0	58.0	58.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Pentachlorophenol	180	180	180 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Phenanthrene	7.8	7.8	7.8 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Phenol	58.0	58.0	58.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Pyrene	7.8	7.8	7.8 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	1,2,4-Trichlorobenzene	60.0	60.0	60.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	1,2-Dichlorobenzene	60.0	60.0	60.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	1,3-Dichlorobenzene	60.0	60.0	60.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	1,4-Dichlorobenzene	60.0	60.0	60.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	2,4,5-Trichlorophenol	180	180	180 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	2,4,6-Trichlorophenol	180	180	180 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	2,4-Dichlorophenol	180	180	180 UJ	-	UG/KG	H2

AUTOMATED DATA REVIEW SUMMARY for 240-22804-1_74,79,SB,RN

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	2,4-Dimethylphenol	180	180	180 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	2,4-Dinitrophenol	400	400	400 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	2,4-Dinitrotoluene	240	240	240 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	2,6-Dinitrotoluene	240	240	240 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	2-Chloronaphthalene	60.0	60.0	60.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	2-Chlorophenol	60.0	60.0	60.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	2-Methylnaphthalene	8.0	8.0	8.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	2-Methylphenol (o-Cresol)	240	240	240 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	2-Nitroaniline	240	240	240 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	2-Nitrophenol	60.0	60.0	60.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	3,3'-Dichlorobenzidine	120	120	120 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	3-Nitroaniline	240	240	240 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	4,6-Dinitro-2-Methylphenol	180	180	180 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	4-Bromophenyl phenyl ether	60.0	60.0	60.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	4-Chloro-3-Methylphenol	180	180	180 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	4-Chloroaniline	180	180	180 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	4-Chlorophenyl Phenyl Ether	60.0	60.0	60.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	4-Nitroaniline	240	240	240 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	4-Nitrophenol	400	400	400 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	Acenaphthene	8.0	8.0	8.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	Acenaphthylene	8.0	8.0	8.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	Anthracene	8.0	8.0	8.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	Benzo(a)anthracene	8.0	8.0	8.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	Benzo(a)pyrene	8.0	8.0	8.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	Benzo(b)fluoranthene	8.0	8.0	8.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	Benzo(g,h,i)perylene	8.0	8.0	8.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	Benzo(k)fluoranthene	8.0	8.0	8.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	Benzoic acid	790	790	790 R	-	UG/KG	H2/c
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	Benzyl alcohol	400	400	400 UJ	-	UG/KG	H2

AUTOMATED DATA REVIEW SUMMARY for 240-22804-1_74,79,SB,RN

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	Benzyl butyl phthalate	84.0	84.0	84.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	bis(2-Chloroethoxy) Methane	120	120	120 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	120	120	120 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	bis(2-Chloroisopropyl) Ether	120	120	120 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	bis(2-Ethylhexyl) Phthalate	84.0	49.0	49.0 J	-	UG/KG	H2/TR
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	Carbazole	60.0	60.0	60.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	Chrysene	8.0	8.0	8.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	Cresols, m & p	480	480	480 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	Dibenz(a,h)anthracene	8.0	8.0	8.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	Dibenzofuran	60.0	60.0	60.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	Diethyl Phthalate	84.0	84.0	84.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	Dimethyl Phthalate	84.0	84.0	84.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	Di-n-Butyl Phthalate	84.0	31.0	84.0 U		UG/KG	L/H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	Di-n-Octylphthalate	84.0	84.0	84.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	Fluoranthene	8.0	8.0	8.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	Fluorene	8.0	8.0	8.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	Hexachlorobenzene	8.0	8.0	8.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	Hexachlorobutadiene	60.0	60.0	60.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	Hexachlorocyclopentadiene	400	400	400 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	Hexachloroethane	60.0	60.0	60.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	Indeno(1,2,3-c,d)pyrene	8.0	8.0	8.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	Isophorone	60.0	60.0	60.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	Naphthalene	8.0	8.0	8.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	Nitrobenzene	120	120	120 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	n-Nitrosodi-n-propylamine	60.0	60.0	60.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	n-Nitrosodiphenylamine	60.0	60.0	60.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	Pentachlorophenol	180	180	180 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	Phenanthrene	8.0	8.0	8.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	Phenol	60.0	60.0	60.0 UJ	-	UG/KG	H2

AUTOMATED DATA REVIEW SUMMARY for 240-22804-1_74,79,SB,RN

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	Pyrene	8.0	8.0	8.0 UJ	-	UG/KG	H2
SW8270C/NONE	SO	074SB-0013-0001-SO	240-22804-2	N	2,4-Dinitrophenol	390	390	390 UJ		UG/KG	J
SW8270C/NONE	SO	074SB-0013-0001-SO	240-22804-2	N	Benzoic acid	780	780	780 R		UG/KG	c
SW8270C/NONE	SO	074SB-0013-0001-SO	240-22804-2	N	bis(2-Ethylhexyl) Phthalate	83.0	23.0	23.0 J		UG/KG	TR
SW8270C/NONE	SO	074SB-0013-0001-SO	240-22804-2	N	Di-n-Butyl Phthalate	83.0	34.0	34.0 J		UG/KG	TR
SW8270C/NONE	SO	074SB-0015-0001-SO	240-22804-3	N	2,4-Dinitrophenol	390	390	390 UJ		UG/KG	J
SW8270C/NONE	SO	074SB-0015-0001-SO	240-22804-3	N	Benzoic acid	780	780	780 R		UG/KG	c
SW8270C/NONE	SO	074SB-0015-0001-SO	240-22804-3	N	Di-n-Butyl Phthalate	83.0	30.0	30.0 J		UG/KG	TR
SW8270C/NONE	SO	074SB-0015-0001-SO	240-22804-3	N	Fluoranthene	7.9	7.3	7.3 J		UG/KG	TR
SW8270C/NONE	SO	074SB-0015-0001-SO	240-22804-3	N	Pyrene	7.9	4.0	4.0 J		UG/KG	TR
SW8270C/NONE	SO	074SB-0023-0001-SO	240-22804-6	N	2,4-Dinitrophenol	2000	2000	2000 UJ		UG/KG	J
SW8270C/NONE	SO	074SB-0023-0001-SO	240-22804-6	N	Benzoic acid	4100	4100	4100 R		UG/KG	c
SW8270C/NONE	SO	074SB-0023-0001-SO	240-22804-6	N	Dibenzofuran	310	56.0	56.0 J		UG/KG	TR
SW8270C/NONE	SO	074SB-0024-0001-SO	240-22804-7	N	2,4-Dinitrophenol	390	390	390 UJ		UG/KG	J
SW8270C/NONE	SO	074SB-0024-0001-SO	240-22804-7	N	2-Methylnaphthalene	7.9	5.5	5.5 J		UG/KG	TR
SW8270C/NONE	SO	074SB-0024-0001-SO	240-22804-7	N	Benzoic acid	780	780	780 R		UG/KG	c
SW8270C/NONE	SO	074SB-0024-0001-SO	240-22804-7	N	bis(2-Ethylhexyl) Phthalate	83.0	66.0	66.0 J		UG/KG	TR
SW8270C/NONE	SO	074SB-0024-0001-SO	240-22804-7	N	Di-n-Butyl Phthalate	83.0	34.0	34.0 J		UG/KG	TR
SW8270C/NONE	SO	074SB-0024-0001-SO	240-22804-7	N	Naphthalene	7.9	6.3	6.3 J		UG/KG	TR
SW8270C/NONE	SO	074SB-0025-0001-SO	240-22804-8	N	2,4-Dinitrophenol	420	420	420 UJ		UG/KG	J
SW8270C/NONE	SO	074SB-0025-0001-SO	240-22804-8	N	Benzoic acid	830	830	830 R		UG/KG	c
SW8270C/NONE	SO	074SB-0025-0001-SO	240-22804-8	N	bis(2-Ethylhexyl) Phthalate	88.0	34.0	34.0 J		UG/KG	TR
SW8270C/NONE	SO	074SB-0025-0001-SO	240-22804-8	N	Carbazole	63.0	35.0	35.0 J		UG/KG	TR
SW8270C/NONE	SO	074SB-0025-0001-SO	240-22804-8	N	Di-n-Butyl Phthalate	88.0	33.0	33.0 J		UG/KG	TR
SW8270C/NONE	SO	074SB-0026-0001-SO	240-22804-9	N	2,4-Dinitrophenol	420	420	420 UJ		UG/KG	J
SW8270C/NONE	SO	074SB-0026-0001-SO	240-22804-9	N	Benzoic acid	830	830	830 R		UG/KG	c
SW8270C/NONE	SO	074SB-0026-0001-SO	240-22804-9	N	bis(2-Ethylhexyl) Phthalate	88.0	46.0	46.0 J		UG/KG	TR
SW8270C/NONE	SO	074SB-0026-0001-SO	240-22804-9	N	Dibenzofuran	63.0	34.0	34.0 J		UG/KG	TR
SW8270C/NONE	SO	074SB-0026-0001-SO	240-22804-9	N	Di-n-Butyl Phthalate	88.0	34.0	34.0 J		UG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-22804-1_74,79,SB,RN

Qualified Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Bias	Units	Reason
SW8270C/NONE	SO	074SB-0027-0001-SO	240-22804-10	N	2,4-Dinitrophenol	390	390	390 UJ		UG/KG	J
SW8270C/NONE	SO	074SB-0027-0001-SO	240-22804-10	N	Benzoic acid	780	780	780 R		UG/KG	c
SW8270C/NONE	SO	074SB-0027-0001-SO	240-22804-10	N	bis(2-Ethylhexyl) Phthalate	82.0	26.0	26.0 J		UG/KG	TR
SW8270C/NONE	SO	074SB-0027-0001-SO	240-22804-10	N	Di-n-Butyl Phthalate	82.0	33.0	33.0 J		UG/KG	TR
SW8270C/NONE	WS	079RN-0317-0001-RN	240-22804-11	N	Benzoic acid	26.0	26.0	26.0 R		UG/L	c
SW8270C/NONE	WS	079RN-0317-0001-RN	240-22804-11	N	Benzyl alcohol	5.3	5.3	5.3 UJ		UG/L	J
SW8270C/NONE	WS	079RN-0317-0001-RN	240-22804-11	N	Hexachloroethane	1.1	1.1	1.1 UJ		UG/L	J

AUTOMATED DATA REVIEW SUMMARY for 240-22804-1_74,79,SB,RN

AUTOMATED DATA REVIEW SUMMARY for 240-22804-1_74,79,SB,RN

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
M8015D/NONE	SO	074SB-0023-0001-SO	240-22804-6	N	C10-C20 Diesel Range Organics	21.0	56.0	56.0	MG/KG	
M8015D/NONE	SO	074SB-0023-0001-SO	240-22804-6	N	C20-C34 Motor Oil Range Organics	21.0	220	220	MG/KG	
M8015D/NONE	SO	074SB-0025-0001-SO	240-22804-8	N	C10-C20 Diesel Range Organics	21.0	210	210	MG/KG	
M8015D/NONE	SO	074SB-0025-0001-SO	240-22804-8	N	C20-C34 Motor Oil Range Organics	21.0	230	230	MG/KG	
M8015D/NONE	SO	074SB-0026-0001-SO	240-22804-9	N	C20-C34 Motor Oil Range Organics	21.0	54.0	54.0	MG/KG	

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Silver	0.12	0.037	0.037 J	MG/KG	TR
SW6020/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Aluminum	3.5	12000	12000	MG/KG	
SW6020/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Arsenic	0.12	8.2	8.2	MG/KG	
SW6020/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Barium	1.2	67.0	67.0	MG/KG	
SW6020/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Beryllium	0.12	0.60	0.60	MG/KG	
SW6020/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Calcium	12.0	32000	32000	MG/KG	
SW6020/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Cadmium	0.12	0.20	0.20	MG/KG	
SW6020/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Cobalt	0.059	12.0	12.0	MG/KG	
SW6020/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Chromium	0.24	19.0	19.0	MG/KG	
SW6020/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Copper	0.24	18.0	18.0	MG/KG	
SW6020/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Iron	5.9	24000	24000	MG/KG	
SW6020/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Potassium	12.0	2200	2200	MG/KG	
SW6020/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Magnesium	12.0	8000	8000	MG/KG	
SW6020/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Manganese	0.59	350	350	MG/KG	
SW6020/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Sodium	12.0	120	120	MG/KG	
SW6020/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Nickel	0.12	28.0	28.0	MG/KG	
SW6020/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Lead	0.12	11.0	11.0	MG/KG	
SW6020/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Selenium	0.59	0.26	0.26 J	MG/KG	TR
SW6020/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Thallium	0.12	0.19	0.19	MG/KG	
SW6020/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Vanadium	0.12	20.0	20.0	MG/KG	
SW6020/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	Zinc	0.59	52.0	52.0	MG/KG	
SW6020/NONE	WS	079RN-0317-0001-RN	240-22804-11	N	Chromium	2.0	3.2	3.2	UG/L	

AUTOMATED DATA REVIEW SUMMARY for 240-22804-1_74,79,SB,RN

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW6020/NONE	WS	079RN-0317-0001-RN	240-22804-11	N	Copper	2.0	0.41	0.41 J	UG/L	TR
SW6020/NONE	WS	079RN-0317-0001-RN	240-22804-11	N	Sodium	100	65.0	65.0 J	UG/L	TR
SW6020/NONE	WS	079RN-0317-0001-RN	240-22804-11	N	Nickel	1.0	5.9	5.9	UG/L	
SW6020/NONE	WS	079RN-0317-0001-RN	240-22804-11	N	Zinc	5.0	3.2	3.2 J	UG/L	TR

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8260B/NONE	WG	079-0318-0001-TB	240-22804-12	N	Acetone	10.0	5.1	5.1 J	UG/L	TR/J
SW8260B/NONE	WG	079-0318-0001-TB	240-22804-12	N	Methylene Chloride	1.0	1.1	1.1	UG/L	
SW8260B/NONE	WS	079RN-0317-0001-RN	240-22804-11	N	Chloroform	1.0	0.34	0.34 J	UG/L	TR

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8270C/NONE	SO	074SB-0010-0001-SO	240-22804-4	N	bis(2-Ethylhexyl) Phthalate	82.0	120	120 J -	UG/KG	H2
SW8270C/NONE	SO	074SB-0012-0001-SO	240-22804-5	N	bis(2-Ethylhexyl) Phthalate	84.0	49.0	49.0 J -	UG/KG	H2/TR
SW8270C/NONE	SO	074SB-0013-0001-SO	240-22804-2	N	bis(2-Ethylhexyl) Phthalate	83.0	23.0	23.0 J	UG/KG	TR
SW8270C/NONE	SO	074SB-0013-0001-SO	240-22804-2	N	Di-n-Butyl Phthalate	83.0	34.0	34.0 J	UG/KG	TR
SW8270C/NONE	SO	074SB-0015-0001-SO	240-22804-3	N	Di-n-Butyl Phthalate	83.0	30.0	30.0 J	UG/KG	TR
SW8270C/NONE	SO	074SB-0015-0001-SO	240-22804-3	N	Fluoranthene	7.9	7.3	7.3 J	UG/KG	TR
SW8270C/NONE	SO	074SB-0015-0001-SO	240-22804-3	N	2-Methylnaphthalene	7.9	15.0	15.0	UG/KG	
SW8270C/NONE	SO	074SB-0015-0001-SO	240-22804-3	N	Naphthalene	7.9	11.0	11.0	UG/KG	
SW8270C/NONE	SO	074SB-0015-0001-SO	240-22804-3	N	Pyrene	7.9	4.0	4.0 J	UG/KG	TR
SW8270C/NONE	SO	074SB-0023-0001-SO	240-22804-6	N	Acenaphthene	41.0	85.0	85.0	UG/KG	
SW8270C/NONE	SO	074SB-0023-0001-SO	240-22804-6	N	Anthracene	41.0	160	160	UG/KG	
SW8270C/NONE	SO	074SB-0023-0001-SO	240-22804-6	N	Benzo(a)anthracene	41.0	260	260	UG/KG	
SW8270C/NONE	SO	074SB-0023-0001-SO	240-22804-6	N	Benzo(a)pyrene	41.0	180	180	UG/KG	
SW8270C/NONE	SO	074SB-0023-0001-SO	240-22804-6	N	Benzo(b)fluoranthene	41.0	260	260	UG/KG	
SW8270C/NONE	SO	074SB-0023-0001-SO	240-22804-6	N	Benzo(g,h,i)perylene	41.0	120	120	UG/KG	
SW8270C/NONE	SO	074SB-0023-0001-SO	240-22804-6	N	Benzo(k)fluoranthene	41.0	87.0	87.0	UG/KG	
SW8270C/NONE	SO	074SB-0023-0001-SO	240-22804-6	N	Chrysene	41.0	330	330	UG/KG	
SW8270C/NONE	SO	074SB-0023-0001-SO	240-22804-6	N	Dibenzofuran	310	56.0	56.0 J	UG/KG	TR
SW8270C/NONE	SO	074SB-0023-0001-SO	240-22804-6	N	Fluorene	41.0	90.0	90.0	UG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22804-1_74,79,SB,RN

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8270C/NONE	SO	074SB-0023-0001-SO	240-22804-6	N	Fluoranthene	41.0	670	670	UG/KG	
SW8270C/NONE	SO	074SB-0023-0001-SO	240-22804-6	N	Indeno(1,2,3-c,d)pyrene	41.0	96.0	96.0	UG/KG	
SW8270C/NONE	SO	074SB-0023-0001-SO	240-22804-6	N	Phenanthrene	41.0	330	330	UG/KG	
SW8270C/NONE	SO	074SB-0023-0001-SO	240-22804-6	N	Pyrene	41.0	570	570	UG/KG	
SW8270C/NONE	SO	074SB-0024-0001-SO	240-22804-7	N	Acenaphthene	7.9	8.7	8.7	UG/KG	
SW8270C/NONE	SO	074SB-0024-0001-SO	240-22804-7	N	Anthracene	7.9	12.0	12.0	UG/KG	
SW8270C/NONE	SO	074SB-0024-0001-SO	240-22804-7	N	bis(2-Ethylhexyl) Phthalate	83.0	66.0	66.0 J	UG/KG	TR
SW8270C/NONE	SO	074SB-0024-0001-SO	240-22804-7	N	Benzo(a)anthracene	7.9	48.0	48.0	UG/KG	
SW8270C/NONE	SO	074SB-0024-0001-SO	240-22804-7	N	Benzo(a)pyrene	7.9	39.0	39.0	UG/KG	
SW8270C/NONE	SO	074SB-0024-0001-SO	240-22804-7	N	Benzo(b)fluoranthene	7.9	60.0	60.0	UG/KG	
SW8270C/NONE	SO	074SB-0024-0001-SO	240-22804-7	N	Benzo(g,h,i)perylene	7.9	34.0	34.0	UG/KG	
SW8270C/NONE	SO	074SB-0024-0001-SO	240-22804-7	N	Benzo(k)fluoranthene	7.9	22.0	22.0	UG/KG	
SW8270C/NONE	SO	074SB-0024-0001-SO	240-22804-7	N	Chrysene	7.9	49.0	49.0	UG/KG	
SW8270C/NONE	SO	074SB-0024-0001-SO	240-22804-7	N	Di-n-Butyl Phthalate	83.0	34.0	34.0 J	UG/KG	TR
SW8270C/NONE	SO	074SB-0024-0001-SO	240-22804-7	N	Fluorene	7.9	13.0	13.0	UG/KG	
SW8270C/NONE	SO	074SB-0024-0001-SO	240-22804-7	N	Fluoranthene	7.9	100	100	UG/KG	
SW8270C/NONE	SO	074SB-0024-0001-SO	240-22804-7	N	Indeno(1,2,3-c,d)pyrene	7.9	26.0	26.0	UG/KG	
SW8270C/NONE	SO	074SB-0024-0001-SO	240-22804-7	N	2-Methylnaphthalene	7.9	5.5	5.5 J	UG/KG	TR
SW8270C/NONE	SO	074SB-0024-0001-SO	240-22804-7	N	Naphthalene	7.9	6.3	6.3 J	UG/KG	TR
SW8270C/NONE	SO	074SB-0024-0001-SO	240-22804-7	N	Phenanthrene	7.9	61.0	61.0	UG/KG	
SW8270C/NONE	SO	074SB-0024-0001-SO	240-22804-7	N	Pyrene	7.9	86.0	86.0	UG/KG	
SW8270C/NONE	SO	074SB-0025-0001-SO	240-22804-8	N	Acenaphthene	8.4	51.0	51.0	UG/KG	
SW8270C/NONE	SO	074SB-0025-0001-SO	240-22804-8	N	Acenaphthylene	8.4	9.9	9.9	UG/KG	
SW8270C/NONE	SO	074SB-0025-0001-SO	240-22804-8	N	Anthracene	8.4	90.0	90.0	UG/KG	
SW8270C/NONE	SO	074SB-0025-0001-SO	240-22804-8	N	bis(2-Ethylhexyl) Phthalate	88.0	34.0	34.0 J	UG/KG	TR
SW8270C/NONE	SO	074SB-0025-0001-SO	240-22804-8	N	Benzo(a)anthracene	8.4	110	110	UG/KG	
SW8270C/NONE	SO	074SB-0025-0001-SO	240-22804-8	N	Benzo(a)pyrene	8.4	100	100	UG/KG	
SW8270C/NONE	SO	074SB-0025-0001-SO	240-22804-8	N	Benzo(b)fluoranthene	8.4	150	150	UG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22804-1_74,79,SB,RN

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8270C/NONE	SO	074SB-0025-0001-SO	240-22804-8	N	Benzo(g,h,i)perylene	8.4	80.0	80.0	UG/KG	
SW8270C/NONE	SO	074SB-0025-0001-SO	240-22804-8	N	Benzo(k)fluoranthene	8.4	55.0	55.0	UG/KG	
SW8270C/NONE	SO	074SB-0025-0001-SO	240-22804-8	N	Carbazole	63.0	35.0	35.0 J	UG/KG	TR
SW8270C/NONE	SO	074SB-0025-0001-SO	240-22804-8	N	Chrysene	8.4	120	120	UG/KG	
SW8270C/NONE	SO	074SB-0025-0001-SO	240-22804-8	N	Dibenz(a,h)anthracene	8.4	20.0	20.0	UG/KG	
SW8270C/NONE	SO	074SB-0025-0001-SO	240-22804-8	N	Dibenzofuran	63.0	78.0	78.0	UG/KG	
SW8270C/NONE	SO	074SB-0025-0001-SO	240-22804-8	N	Di-n-Butyl Phthalate	88.0	33.0	33.0 J	UG/KG	TR
SW8270C/NONE	SO	074SB-0025-0001-SO	240-22804-8	N	Fluorene	8.4	93.0	93.0	UG/KG	
SW8270C/NONE	SO	074SB-0025-0001-SO	240-22804-8	N	Fluoranthene	8.4	310	310	UG/KG	
SW8270C/NONE	SO	074SB-0025-0001-SO	240-22804-8	N	Indeno(1,2,3-c,d)pyrene	8.4	66.0	66.0	UG/KG	
SW8270C/NONE	SO	074SB-0025-0001-SO	240-22804-8	N	2-Methylnaphthalene	8.4	51.0	51.0	UG/KG	
SW8270C/NONE	SO	074SB-0025-0001-SO	240-22804-8	N	Naphthalene	8.4	30.0	30.0	UG/KG	
SW8270C/NONE	SO	074SB-0025-0001-SO	240-22804-8	N	Phenanthrene	8.4	170	170	UG/KG	
SW8270C/NONE	SO	074SB-0025-0001-SO	240-22804-8	N	Pyrene	8.4	270	270	UG/KG	
SW8270C/NONE	SO	074SB-0026-0001-SO	240-22804-9	N	Acenaphthene	8.4	21.0	21.0	UG/KG	
SW8270C/NONE	SO	074SB-0026-0001-SO	240-22804-9	N	Anthracene	8.4	48.0	48.0	UG/KG	
SW8270C/NONE	SO	074SB-0026-0001-SO	240-22804-9	N	bis(2-Ethylhexyl) Phthalate	88.0	46.0	46.0 J	UG/KG	TR
SW8270C/NONE	SO	074SB-0026-0001-SO	240-22804-9	N	Benzo(a)anthracene	8.4	98.0	98.0	UG/KG	
SW8270C/NONE	SO	074SB-0026-0001-SO	240-22804-9	N	Benzo(a)pyrene	8.4	74.0	74.0	UG/KG	
SW8270C/NONE	SO	074SB-0026-0001-SO	240-22804-9	N	Benzo(b)fluoranthene	8.4	130	130	UG/KG	
SW8270C/NONE	SO	074SB-0026-0001-SO	240-22804-9	N	Benzo(g,h,i)perylene	8.4	63.0	63.0	UG/KG	
SW8270C/NONE	SO	074SB-0026-0001-SO	240-22804-9	N	Benzo(k)fluoranthene	8.4	35.0	35.0	UG/KG	
SW8270C/NONE	SO	074SB-0026-0001-SO	240-22804-9	N	Chrysene	8.4	110	110	UG/KG	
SW8270C/NONE	SO	074SB-0026-0001-SO	240-22804-9	N	Dibenzofuran	63.0	34.0	34.0 J	UG/KG	TR
SW8270C/NONE	SO	074SB-0026-0001-SO	240-22804-9	N	Di-n-Butyl Phthalate	88.0	34.0	34.0 J	UG/KG	TR
SW8270C/NONE	SO	074SB-0026-0001-SO	240-22804-9	N	Fluorene	8.4	46.0	46.0	UG/KG	
SW8270C/NONE	SO	074SB-0026-0001-SO	240-22804-9	N	Fluoranthene	8.4	280	280	UG/KG	
SW8270C/NONE	SO	074SB-0026-0001-SO	240-22804-9	N	Indeno(1,2,3-c,d)pyrene	8.4	53.0	53.0	UG/KG	

AUTOMATED DATA REVIEW SUMMARY for 240-22804-1_74,79,SB,RN

Detected Results

Test Leach	Matrix	FieldSample ID	LabSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8270C/NONE	SO	074SB-0026-0001-SO	240-22804-9	N	2-Methylnaphthalene	8.4	9.7	9.7	UG/KG	
SW8270C/NONE	SO	074SB-0026-0001-SO	240-22804-9	N	Naphthalene	8.4	10.0	10.0	UG/KG	
SW8270C/NONE	SO	074SB-0026-0001-SO	240-22804-9	N	Phenanthrene	8.4	79.0	79.0	UG/KG	
SW8270C/NONE	SO	074SB-0026-0001-SO	240-22804-9	N	Pyrene	8.4	240	240	UG/KG	
SW8270C/NONE	SO	074SB-0027-0001-SO	240-22804-10	N	bis(2-Ethylhexyl) Phthalate	82.0	26.0	26.0 J	UG/KG	TR
SW8270C/NONE	SO	074SB-0027-0001-SO	240-22804-10	N	Di-n-Butyl Phthalate	82.0	33.0	33.0 J	UG/KG	TR

AUTOMATED DATA REVIEW SUMMARY for 240-22804-1_74,79,SB,RN

AUTOMATED DATA REVIEW SUMMARY for 240-22804-1_74,79,SB,RN

Rejected Results

Test Leach	Matrix	FieldSample ID	Type	Analyte	RL	Lab Result	Qualified Result	Units	Reason
SW8270C/NONE	SO	074SB-0010-0001-SO	N	Benzoic acid	770	770	R	UG/KG	H2/c
SW8270C/NONE	SO	074SB-0012-0001-SO	N	Benzoic acid	790	790	R	UG/KG	H2/c
SW8270C/NONE	SO	074SB-0013-0001-SO	N	Benzoic acid	780	780	R	UG/KG	c
SW8270C/NONE	SO	074SB-0015-0001-SO	N	Benzoic acid	780	780	R	UG/KG	c
SW8270C/NONE	SO	074SB-0023-0001-SO	N	Benzoic acid	4100	4100	R	UG/KG	c
SW8270C/NONE	SO	074SB-0024-0001-SO	N	Benzoic acid	780	780	R	UG/KG	c
SW8270C/NONE	SO	074SB-0025-0001-SO	N	Benzoic acid	830	830	R	UG/KG	c
SW8270C/NONE	SO	074SB-0026-0001-SO	N	Benzoic acid	830	830	R	UG/KG	c
SW8270C/NONE	SO	074SB-0027-0001-SO	N	Benzoic acid	780	780	R	UG/KG	c
SW8270C/NONE	WS	079RN-0317-0001-RN	N	Benzoic acid	26.0	26.0	R	UG/L	c

AUTOMATED DATA REVIEW SUMMARY for 240-22804-1_74,79,SB,RN

Anomalies Count

SDG Name: 240-22804-1_74,79,SB,RN

Test/Extraction Method/Leach	# of Field Samples Outside of Compliance	# of Analytes Outside of Compliance
E353.2/METHOD/NONE	1	1
M8015D/SW3540C/NONE	9	18
SW6020/SW3050B/NONE	1	6
SW7471A/TOTAL/NONE	1	1
SW8081/SW3520C/NONE	1	5
SW8082/SW3520C/NONE	1	7
SW8260B/SW5035/NONE	1	1
SW8270C/SW3510/NONE	1	16
SW8330B/METHOD/NONE	1	6

Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-22804-1_74,79,SB,RN

Reporting Anomalies

SDG Name: 240-22804-1_74,79,SB,RN

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
E353.2/NONE	074SB-0010-0001-SO	N	1	Nitrocellulose	5.9 U	0.92	5.9	5	MG/KG

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
M8015D/NONE	074SB-0010-0001-SO	N	1	C10-C20 Diesel Range Organics	20 U	11	20	10	MG/KG
M8015D/NONE	074SB-0010-0001-SO	N	1	C20-C34 Motor Oil Range Organics	20 U	11	20	10	MG/KG
M8015D/NONE	074SB-0012-0001-SO	N	1	C10-C20 Diesel Range Organics	20 U	11	20	10	MG/KG
M8015D/NONE	074SB-0012-0001-SO	N	1	C20-C34 Motor Oil Range Organics	20 U	11	20	10	MG/KG
M8015D/NONE	074SB-0013-0001-SO	N	1	C10-C20 Diesel Range Organics	20 U	11	20	10	MG/KG
M8015D/NONE	074SB-0013-0001-SO	N	1	C20-C34 Motor Oil Range Organics	20 U	11	20	10	MG/KG
M8015D/NONE	074SB-0015-0001-SO	N	1	C10-C20 Diesel Range Organics	20 U	11	20	10	MG/KG
M8015D/NONE	074SB-0015-0001-SO	N	1	C20-C34 Motor Oil Range Organics	20 U	11	20	10	MG/KG
M8015D/NONE	074SB-0023-0001-SO	N	1	C10-C20 Diesel Range Organics	56	12	21	10	MG/KG
M8015D/NONE	074SB-0023-0001-SO	N	1	C20-C34 Motor Oil Range Organics	220	12	21	10	MG/KG
M8015D/NONE	074SB-0024-0001-SO	N	1	C10-C20 Diesel Range Organics	20 U	11	20	10	MG/KG
M8015D/NONE	074SB-0024-0001-SO	N	1	C20-C34 Motor Oil Range Organics	20 U	11	20	10	MG/KG
M8015D/NONE	074SB-0025-0001-SO	N	1	C10-C20 Diesel Range Organics	210	12	21	10	MG/KG
M8015D/NONE	074SB-0025-0001-SO	N	1	C20-C34 Motor Oil Range Organics	230	12	21	10	MG/KG
M8015D/NONE	074SB-0026-0001-SO	N	1	C10-C20 Diesel Range Organics	21 U	12	21	10	MG/KG
M8015D/NONE	074SB-0026-0001-SO	N	1	C20-C34 Motor Oil Range Organics	54	12	21	10	MG/KG
M8015D/NONE	074SB-0027-0001-SO	N	1	C10-C20 Diesel Range Organics	20 U	11	20	10	MG/KG
M8015D/NONE	074SB-0027-0001-SO	N	1	C20-C34 Motor Oil Range Organics	20 U	11	20	10	MG/KG
M8015D/NONE	079RN-0317-0001-RN	N	1	C10-C20 Diesel Range Organics	500 U	240	500	0.5	UG/L
M8015D/NONE	079RN-0317-0001-RN	N	1	C20-C34 Motor Oil Range Organics	500 U	240	500	0.5	UG/L

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW6020/NONE	074SB-0010-0001-SO	N	1	Barium	67	0.013	1.2	1	MG/KG
SW6020/NONE	074SB-0010-0001-SO	N	1	Beryllium	0.6	0.0088	0.12	0.1	MG/KG
SW6020/NONE	074SB-0010-0001-SO	N	1	Cadmium	0.2	0.016	0.12	0.1	MG/KG
SW6020/NONE	074SB-0010-0001-SO	N	1	Calcium	32000	1.6	12	10	MG/KG
SW6020/NONE	074SB-0010-0001-SO	N	1	Magnesium	8000	1.3	12	10	MG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-22804-1_74,79,SB,RN

Reporting Anomalies

SDG Name: 240-22804-1_74,79,SB,RN

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW6020/NONE	074SB-0010-0001-SO	N	1	Selenium	0.26 J	0.06	0.59	0.5	MG/KG
SW6020/NONE	079RN-0317-0001-RN	N	1	Cadmium	1 U	0.13	1	0.5	UG/L

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW7471A/NONE	074SB-0010-0001-SO	N	1	Mercury	0.12 U	0.017	0.12	0.1	MG/KG

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8081/NONE	074SB-0010-0001-SO	N	1	Aldrin	4.7 UJ	1.4	4.7	1.7	UG/KG
SW8081/NONE	074SB-0010-0001-SO	N	1	alpha-BHC (alpha-Hexachlorocyclohexane)	2.9 UJ	0.86	2.9	1.7	UG/KG
SW8081/NONE	074SB-0010-0001-SO	N	1	alpha-Chlordane	3.5 UJ	1.1	3.5	1.7	UG/KG
SW8081/NONE	074SB-0010-0001-SO	N	1	alpha-Endosulfan	2 UJ	0.61	2	1.7	UG/KG
SW8081/NONE	074SB-0010-0001-SO	N	1	beta-BHC (beta-Hexachlorocyclohexane)	4.1 UJ	1.3	4.1	1.7	UG/KG
SW8081/NONE	074SB-0010-0001-SO	N	1	beta-Endosulfan	2.9 UJ	0.97	2.9	1.7	UG/KG
SW8081/NONE	074SB-0010-0001-SO	N	1	delta-BHC (delta-Hexachlorocyclohexane)	4.7 UJ	1.4	4.7	1.7	UG/KG
SW8081/NONE	074SB-0010-0001-SO	N	1	Dieldrin	2 UJ	0.55	2	1.7	UG/KG
SW8081/NONE	074SB-0010-0001-SO	N	1	Endosulfan Sulfate	3.5 UJ	1	3.5	1.7	UG/KG
SW8081/NONE	074SB-0010-0001-SO	N	1	Endrin	2 UJ	0.59	2	1.7	UG/KG
SW8081/NONE	074SB-0010-0001-SO	N	1	Endrin Aldehyde	3.5 UJ	1.2	3.5	1.7	UG/KG
SW8081/NONE	074SB-0010-0001-SO	N	1	Endrin Ketone	2.4 UJ	0.74	2.4	1.7	UG/KG
SW8081/NONE	074SB-0010-0001-SO	N	1	gamma-BHC (Lindane)	2.9 UJ	0.87	2.9	1.7	UG/KG
SW8081/NONE	074SB-0010-0001-SO	N	1	gamma-Chlordane	2 UJ	0.49	2	1.7	UG/KG
SW8081/NONE	074SB-0010-0001-SO	N	1	Heptachlor	4.1 UJ	1.3	4.1	1.7	UG/KG
SW8081/NONE	074SB-0010-0001-SO	N	1	Heptachlor Epoxide	2.9 UJ	0.94	2.9	1.7	UG/KG
SW8081/NONE	074SB-0010-0001-SO	N	1	Methoxychlor	5.9 UJ	1.8	5.9	1.7	UG/KG
SW8081/NONE	074SB-0010-0001-SO	N	1	p,p'-DDD	2.4 UJ	0.73	2.4	1.7	UG/KG
SW8081/NONE	074SB-0010-0001-SO	N	1	p,p'-DDE	2 UJ	0.46	2	1.7	UG/KG
SW8081/NONE	074SB-0010-0001-SO	N	1	p,p'-DDT	2.4 UJ	0.74	2.4	1.7	UG/KG
SW8081/NONE	079RN-0317-0001-RN	N	1	Aldrin	0.05 U	0.0082	0.05	0.03	UG/L
SW8081/NONE	079RN-0317-0001-RN	N	1	alpha-BHC (alpha-Hexachlorocyclohexane)	0.05 U	0.007	0.05	0.03	UG/L
SW8081/NONE	079RN-0317-0001-RN	N	1	Dieldrin	0.05 U	0.0075	0.05	0.03	UG/L

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-22804-1_74,79,SB,RN

Reporting Anomalies

SDG Name: 240-22804-1_74,79,SB,RN

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8081/NONE	079RN-0317-0001-RN	N	1	Heptachlor	0.05 U	0.008	0.05	0.03	UG/L
SW8081/NONE	079RN-0317-0001-RN	N	1	Heptachlor Epoxide	0.05 U	0.0071	0.05	0.03	UG/L

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8082/NONE	074SB-0010-0001-SO	N	1	PCB-1016 (Arochlor 1016)	77 U	25	77	33	UG/KG
SW8082/NONE	074SB-0010-0001-SO	N	1	PCB-1221 (Arochlor 1221)	59 U	19	59	33	UG/KG
SW8082/NONE	074SB-0010-0001-SO	N	1	PCB-1232 (Arochlor 1232)	53 U	16	53	33	UG/KG
SW8082/NONE	074SB-0010-0001-SO	N	1	PCB-1242 (Arochlor 1242)	47 U	15	47	33	UG/KG
SW8082/NONE	074SB-0010-0001-SO	N	1	PCB-1248 (Arochlor 1248)	65 U	20	65	33	UG/KG
SW8082/NONE	074SB-0010-0001-SO	N	1	PCB-1254 (Arochlor 1254)	65 U	20	65	33	UG/KG
SW8082/NONE	074SB-0010-0001-SO	N	1	PCB-1260 (Arochlor 1260)	65 U	20	65	33	UG/KG
SW8082/NONE	079RN-0317-0001-RN	N	1	PCB-1016 (Arochlor 1016)	0.5 U	0.17	0.5	0.2	UG/L
SW8082/NONE	079RN-0317-0001-RN	N	1	PCB-1221 (Arochlor 1221)	0.5 U	0.13	0.5	0.2	UG/L
SW8082/NONE	079RN-0317-0001-RN	N	1	PCB-1232 (Arochlor 1232)	0.5 U	0.16	0.5	0.2	UG/L
SW8082/NONE	079RN-0317-0001-RN	N	1	PCB-1242 (Arochlor 1242)	0.5 U	0.22	0.5	0.2	UG/L
SW8082/NONE	079RN-0317-0001-RN	N	1	PCB-1248 (Arochlor 1248)	0.5 U	0.1	0.5	0.2	UG/L
SW8082/NONE	079RN-0317-0001-RN	N	1	PCB-1254 (Arochlor 1254)	0.5 U	0.16	0.5	0.2	UG/L
SW8082/NONE	079RN-0317-0001-RN	N	1	PCB-1260 (Arochlor 1260)	0.5 U	0.17	0.5	0.2	UG/L

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8260B/NONE	074SB-0010-0001-SO	N	1	1,2-Dichloroethene	9.1 U	0.7	9.1	5	UG/KG
SW8260B/NONE	079-0318-0001-TB	N	1	1,2-Dichloroethene	2 U	0.34	2	1	UG/L
SW8260B/NONE	079RN-0317-0001-RN	N	1	1,2-Dichloroethene	2 U	0.34	2	1	UG/L

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8270C/NONE	074SB-0010-0001-SO	N	1	Benzyl alcohol	390 UJ	25	390	330	UG/KG
SW8270C/NONE	074SB-0010-0001-SO	N	1	Carbazole	58 UJ	32	58	50	UG/KG
SW8270C/NONE	074SB-0010-0001-SO	N	1	Cresols, m & p	470 UJ	23	470	300	UG/KG
SW8270C/NONE	074SB-0010-0001-SO	N	1	Hexachlorocyclopentadiene	390 UJ	32	390	330	UG/KG
SW8270C/NONE	074SB-0012-0001-SO	N	1	Benzyl alcohol	400 UJ	25	400	330	UG/KG
SW8270C/NONE	074SB-0012-0001-SO	N	1	Carbazole	60 UJ	32	60	50	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-22804-1_74,79,SB,RN

Reporting Anomalies

SDG Name: 240-22804-1_74,79,SB,RN

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8270C/NONE	074SB-0012-0001-SO	N	1	Cresols, m & p	480 UJ	24	480	300	UG/KG
SW8270C/NONE	074SB-0012-0001-SO	N	1	Hexachlorocyclopentadiene	400 UJ	32	400	330	UG/KG
SW8270C/NONE	074SB-0013-0001-SO	N	1	Benzyl alcohol	390 U	25	390	330	UG/KG
SW8270C/NONE	074SB-0013-0001-SO	N	1	Carbazole	59 U	32	59	50	UG/KG
SW8270C/NONE	074SB-0013-0001-SO	N	1	Cresols, m & p	480 U	24	480	300	UG/KG
SW8270C/NONE	074SB-0013-0001-SO	N	1	Hexachlorocyclopentadiene	390 U	32	390	330	UG/KG
SW8270C/NONE	074SB-0015-0001-SO	N	1	Benzyl alcohol	390 U	25	390	330	UG/KG
SW8270C/NONE	074SB-0015-0001-SO	N	1	Carbazole	59 U	32	59	50	UG/KG
SW8270C/NONE	074SB-0015-0001-SO	N	1	Cresols, m & p	470 U	24	470	300	UG/KG
SW8270C/NONE	074SB-0015-0001-SO	N	1	Hexachlorocyclopentadiene	390 U	32	390	330	UG/KG
SW8270C/NONE	074SB-0023-0001-SO	N	5	2,4,5-Trichlorophenol	930 U	150	930	800	UG/KG
SW8270C/NONE	074SB-0023-0001-SO	N	5	2,4,6-Trichlorophenol	930 U	500	930	330	UG/KG
SW8270C/NONE	074SB-0023-0001-SO	N	5	2,4-Dichlorophenol	930 U	120	930	330	UG/KG
SW8270C/NONE	074SB-0023-0001-SO	N	5	2,4-Dimethylphenol	930 U	120	930	330	UG/KG
SW8270C/NONE	074SB-0023-0001-SO	N	5	2,4-Dinitrophenol	2000 UJ	500	2000	800	UG/KG
SW8270C/NONE	074SB-0023-0001-SO	N	5	2,4-Dinitrotoluene	1200 U	170	1200	330	UG/KG
SW8270C/NONE	074SB-0023-0001-SO	N	5	2,6-Dinitrotoluene	1200 U	130	1200	330	UG/KG
SW8270C/NONE	074SB-0023-0001-SO	N	5	2-Methylphenol (o-Cresol)	1200 U	500	1200	330	UG/KG
SW8270C/NONE	074SB-0023-0001-SO	N	5	2-Nitroaniline	1200 U	56	1200	800	UG/KG
SW8270C/NONE	074SB-0023-0001-SO	N	5	3,3'-Dichlorobenzidine	620 U	110	620	330	UG/KG
SW8270C/NONE	074SB-0023-0001-SO	N	5	3-Nitroaniline	1200 U	99	1200	800	UG/KG
SW8270C/NONE	074SB-0023-0001-SO	N	5	4,6-Dinitro-2-Methylphenol	930 U	500	930	800	UG/KG
SW8270C/NONE	074SB-0023-0001-SO	N	5	4-Chloro-3-Methylphenol	930 U	130	930	330	UG/KG
SW8270C/NONE	074SB-0023-0001-SO	N	5	4-Chloroaniline	930 U	110	930	330	UG/KG
SW8270C/NONE	074SB-0023-0001-SO	N	5	4-Nitroaniline	1200 U	160	1200	800	UG/KG
SW8270C/NONE	074SB-0023-0001-SO	N	5	4-Nitrophenol	2000 U	500	2000	800	UG/KG
SW8270C/NONE	074SB-0023-0001-SO	N	5	Benzoic acid	4100 R	2100	4100	800	UG/KG
SW8270C/NONE	074SB-0023-0001-SO	N	5	Benzyl alcohol	2000 U	130	2000	330	UG/KG
SW8270C/NONE	074SB-0023-0001-SO	N	5	Benzyl butyl phthalate	430 U	62	430	330	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-22804-1_74,79,SB,RN

Reporting Anomalies

SDG Name: 240-22804-1_74,79,SB,RN

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8270C/NONE	074SB-0023-0001-SO	N	5	bis(2-Chloroethoxy) Methane	620 U	140	620	330	UG/KG
SW8270C/NONE	074SB-0023-0001-SO	N	5	bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	620 U	12	620	330	UG/KG
SW8270C/NONE	074SB-0023-0001-SO	N	5	bis(2-Chloroisopropyl) Ether	620 U	59	620	330	UG/KG
SW8270C/NONE	074SB-0023-0001-SO	N	5	Carbazole	310 U	170	310	50	UG/KG
SW8270C/NONE	074SB-0023-0001-SO	N	5	Cresols, m & p	2500 U	120	2500	300	UG/KG
SW8270C/NONE	074SB-0023-0001-SO	N	5	Diethyl Phthalate	430 U	99	430	330	UG/KG
SW8270C/NONE	074SB-0023-0001-SO	N	5	Dimethyl Phthalate	430 U	110	430	330	UG/KG
SW8270C/NONE	074SB-0023-0001-SO	N	5	Di-n-Butyl Phthalate	430 U	93	430	330	UG/KG
SW8270C/NONE	074SB-0023-0001-SO	N	5	Di-n-Octylphthalate	430 U	170	430	330	UG/KG
SW8270C/NONE	074SB-0023-0001-SO	N	5	Hexachlorocyclopentadiene	2000 U	170	2000	330	UG/KG
SW8270C/NONE	074SB-0023-0001-SO	N	5	Nitrobenzene	620 U	14	620	330	UG/KG
SW8270C/NONE	074SB-0023-0001-SO	N	5	Pentachlorophenol	930 U	500	930	800	UG/KG
SW8270C/NONE	074SB-0024-0001-SO	N	1	Benzyl alcohol	390 U	25	390	330	UG/KG
SW8270C/NONE	074SB-0024-0001-SO	N	1	Carbazole	59 U	32	59	50	UG/KG
SW8270C/NONE	074SB-0024-0001-SO	N	1	Cresols, m & p	470 U	24	470	300	UG/KG
SW8270C/NONE	074SB-0024-0001-SO	N	1	Hexachlorocyclopentadiene	390 U	32	390	330	UG/KG
SW8270C/NONE	074SB-0025-0001-SO	N	1	Benzoic acid	830 R	420	830	800	UG/KG
SW8270C/NONE	074SB-0025-0001-SO	N	1	Benzyl alcohol	420 U	26	420	330	UG/KG
SW8270C/NONE	074SB-0025-0001-SO	N	1	Carbazole	35 J	34	63	50	UG/KG
SW8270C/NONE	074SB-0025-0001-SO	N	1	Cresols, m & p	500 U	25	500	300	UG/KG
SW8270C/NONE	074SB-0025-0001-SO	N	1	Hexachlorocyclopentadiene	420 U	34	420	330	UG/KG
SW8270C/NONE	074SB-0026-0001-SO	N	1	Benzoic acid	830 R	420	830	800	UG/KG
SW8270C/NONE	074SB-0026-0001-SO	N	1	Benzyl alcohol	420 U	26	420	330	UG/KG
SW8270C/NONE	074SB-0026-0001-SO	N	1	Carbazole	63 U	34	63	50	UG/KG
SW8270C/NONE	074SB-0026-0001-SO	N	1	Cresols, m & p	500 U	25	500	300	UG/KG
SW8270C/NONE	074SB-0026-0001-SO	N	1	Hexachlorocyclopentadiene	420 U	34	420	330	UG/KG
SW8270C/NONE	074SB-0027-0001-SO	N	1	Benzyl alcohol	390 U	25	390	330	UG/KG
SW8270C/NONE	074SB-0027-0001-SO	N	1	Carbazole	59 U	32	59	50	UG/KG
SW8270C/NONE	074SB-0027-0001-SO	N	1	Cresols, m & p	470 U	24	470	300	UG/KG

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-22804-1_74,79,SB,RN

Reporting Anomalies

SDG Name: 240-22804-1_74,79,SB,RN

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8270C/NONE	074SB-0027-0001-SO	N	1	Hexachlorocyclopentadiene	390 U	32	390	330	UG/KG
SW8270C/NONE	079RN-0317-0001-RN	N	1	1,4-Dichlorobenzene	1.1 U	0.36	1.1	1	UG/L
SW8270C/NONE	079RN-0317-0001-RN	N	1	2,4,5-Trichlorophenol	5.3 U	0.32	5.3	5	UG/L
SW8270C/NONE	079RN-0317-0001-RN	N	1	2,4,6-Trichlorophenol	5.3 U	0.85	5.3	5	UG/L
SW8270C/NONE	079RN-0317-0001-RN	N	1	3,3'-Dichlorobenzidine	5.3 U	0.39	5.3	5	UG/L
SW8270C/NONE	079RN-0317-0001-RN	N	1	Benzo(a)anthracene	0.21 U	0.11	0.21	0.2	UG/L
SW8270C/NONE	079RN-0317-0001-RN	N	1	Benzo(a)pyrene	0.21 U	0.11	0.21	0.2	UG/L
SW8270C/NONE	079RN-0317-0001-RN	N	1	Benzo(b)fluoranthene	0.21 U	0.11	0.21	0.2	UG/L
SW8270C/NONE	079RN-0317-0001-RN	N	1	Benzo(k)fluoranthene	0.21 U	0.11	0.21	0.2	UG/L
SW8270C/NONE	079RN-0317-0001-RN	N	1	Benzoic acid	26 R	11	26	25	UG/L
SW8270C/NONE	079RN-0317-0001-RN	N	1	bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	1.1 U	0.11	1.1	1	UG/L
SW8270C/NONE	079RN-0317-0001-RN	N	1	Dibenz(a,h)anthracene	0.21 U	0.11	0.21	0.2	UG/L
SW8270C/NONE	079RN-0317-0001-RN	N	1	Hexachlorobenzene	0.21 U	0.11	0.21	0.2	UG/L
SW8270C/NONE	079RN-0317-0001-RN	N	1	Hexachlorobutadiene	1.1 U	0.29	1.1	1	UG/L
SW8270C/NONE	079RN-0317-0001-RN	N	1	Hexachlorocyclopentadiene	11 U	0.85	11	10	UG/L
SW8270C/NONE	079RN-0317-0001-RN	N	1	Indeno(1,2,3-c,d)pyrene	0.21 U	0.11	0.21	0.2	UG/L
SW8270C/NONE	079RN-0317-0001-RN	N	1	Pentachlorophenol	5.3 U	2.5	5.3	5	UG/L

Test Leach	FieldSample ID	Type	Dilution	Analyte	Result	DL	RL	Project RL	Units
SW8330B/NONE	079RN-0317-0001-RN	N	1	2,4-Dinitrotoluene	0.11 U	0.056	0.11	0.1	UG/L
SW8330B/NONE	079RN-0317-0001-RN	N	1	2,6-Dinitrotoluene	0.11 U	0.056	0.11	0.1	UG/L
SW8330B/NONE	079RN-0317-0001-RN	N	1	2-Amino-4,6-dinitrotoluene	0.22 U	0.017	0.22	0.2	UG/L
SW8330B/NONE	079RN-0317-0001-RN	N	1	2-Nitrotoluene	0.56 U	0.098	0.56	0.2	UG/L
SW8330B/NONE	079RN-0317-0001-RN	N	1	3-Nitrotoluene	0.56 U	0.064	0.56	0.2	UG/L
SW8330B/NONE	079RN-0317-0001-RN	N	1	4-Nitrotoluene	0.56 U	0.098	0.56	0.2	UG/L

Reporting Anomalies are cases where the reported RL exceeds that specified in the governing project document.

AUTOMATED DATA REVIEW SUMMARY for 240-22804-1_74,79,SB,RN

Worksheet

SDG Name: 240-22804-1_74,79,SB,RN

Method: E353.2

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were sample reciept temperatures met?	•			
Were QAPP specified RLs achieved?	•			
Were all QAPP specified target analytes reported?	•			
Was the initial calibration curve within QAPP acceptance limits?	•			
Were the ICV/CCVs analyzed (frequency) as required in the QAPP?	•			
Were ICV/CCV results within QAPP acceptance limits?	•			
Were the ICB/CCBs analyzed (frequency) as required in the QAPP?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the ICB/CCB/method blank?		•		
Was a field blank collected and analyzed?	•			Rinsate Blank
Were target analytes reported in the field blank analyses above the MDL?		•		
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?			•	
Was a LCS prepared and analyzed with each batch?	•			
Were the LCS recoveries within QAPP acceptance limits?	•			
Was a duplicate sample prepared and analyzed with each batch?			•	
Was the duplicate RPD within QAPP acceptance limits?			•	
Was a MS/MSD pair prepared with each batch?			•	
Is the MS/MSD parent sample the one designated by the sampling team?			•	
Were the MS/MSD recoveries and RPDs within QAPP acceptance limits?			•	
Were sample concentrations within calibration range?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			

AUTOMATED DATA REVIEW SUMMARY for 240-22804-1_74,79,SB,RN

Method: M8015D

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report?	•			
Were samples preserved properly and received in good condition?	•			
Were sample reciept temperatures met?	•			
Were holding times for prep and analysis met?	•			
Does the initial calibration curve consist of 5 concentration levels, with the low standard near but > MDL?	•			
Is the ICAL %RSD within acceptance limits (%D =20%) on both columns?	•			
Was a second source verification analyzed after the ICAL and all analytes within criteria (%D =20%)?	•			
Was a CCV run at the beginning of the analytical sequence and every 12 hours?	•			
Was the CCV a mid-level standard from the initial calibration curve?	•			
Was the CCV %D within criteria (%D =20%)?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the method blank above the MDL?		•		
Was a field blank (equipment or trip) collected and analyzed?	•			Rinsate Blank
Were target analytes reported in the field blank analyses above the MDL?		•		
Were surrogate recoveries within QAPP acceptance limits?	•			
Was an LCS/LCSD pair prepared and analyzed with each batch? (if applicable)	•			LCS was extracted with each preparation batch.
Were the LCS recoveries within QAPP acceptance limits?	•			
Were the LCS/LCSD RPDs within QAPP acceptance limits? (if applicable)			•	
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits (RPD = 30%) ?			•	
Is the MS/MSD parent sample the one designated by the sampling team?	•			
Were MS/MSD recoveries and RPD within QAPP acceptance limits?	•			
Were all QAPP-specified target analytes reported?	•			
Were reported sample concentrations within calibration range?	•			
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were sample prepration sheets present and filled out appropriately?	•			
Were instrument run logs present and filled out appropriately?	•			

AUTOMATED DATA REVIEW SUMMARY for 240-22804-1_74,79,SB,RN

Method: SW6020

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were sample reciept temperatures met?	•			
Were QAPP specified RLs achieved?	•			
Were all QAPP specified target analytes reported?	•			
Was the initial calibration curve within QAPP acceptance limits?	•			
Were the ICV/CCVs analyzed (frequency) as required in the QAPP?	•			
Were ICV/CCV results within QAPP acceptance limits?	•			
Were the ICB/CCBs analyzed (frequency) as required in the QAPP?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the ICB/CCB/method blank?	•			1. MB 180-70060/1-A: Pb was detected above the MDL but below the RL. CCB2 180-71214/25: Al, Ca, Fe, Mn, Mg, were detected above the MDL but below RL. CCB3 180-71214/37: Cd, Ca, Co, Fe, and Pb were detected above the MDL but below the RL. 3. MB 180-69392/1-A: Ba,Ca, Cd, Fe, and Mn were detected above MDL but below the RL.
Was a field blank collected and analyzed?	•			Rinsate Blank
Were target analytes reported in the field blank analyses above the MDL?	•			Cr, and Ni were above RL. Cu, Na, and Zn were detected above the MDL but below the RL.
Was an Interference Check Standard (ICS) run at the beginning and end of every run?	•			
Was the ICS recovery within QAPP acceptance limits?	•			
If a field duplicate was analyzed, were the RPDs within criteria?			•	
Was a LCS prepared and analyzed with each batch?	•			
Were the LCS recoveries within QAPP acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			
Is the MS/MSD parent sample the one designated by the sampling team?			•	
Were the MS/MSD within QAPP acceptance limits?	•			
Was a serial dilution prepared and analyzed with each batch?	•			
Was the serial dilution within QAPP acceptance limits?	•			
Were sample concentrations within calibration range?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			

AUTOMATED DATA REVIEW SUMMARY for 240-22804-1_74,79,SB,RN

Method: SW6020

Review Questions	Yes	No	NA	Comment
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			

Method: SW7470A

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were sample reciept temperatures met?	•			
Were QAPP specified RLs achieved?	•			
Were all QAPP specified target analytes reported?	•			
Was the initial calibration curve within QAPP acceptance limits?	•			
Were the ICV/CCVs analyzed (frequency) as required in the QAPP?	•			
Were ICV/CCV results within QAPP acceptance limits?	•			
Were the ICB/CCBs analyzed (frequency) as required in the QAPP?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the ICB/CCB/method blank?		•		
Was a field blank collected and analyzed?	•			Rinsate Blank
Were target analytes reported in the field blank analyses above the MDL?		•		
Was the ICS recovery within QAPP acceptance limits?			•	
If a field duplicate was analyzed, were the RPDs within criteria?			•	
Was a LCS prepared and analyzed with each batch?	•			
Were the LCS recoveries within QAPP acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?			•	
Is the MS/MSD parent sample the one designated by the sampling team?			•	
Were the MS/MSD within QAPP acceptance limits?			•	
Were sample concentrations within calibration range?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			

AUTOMATED DATA REVIEW SUMMARY for 240-22804-1_74,79,SB,RN

Method: SW7470A

Review Questions	Yes	No	NA	Comment
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			

Method: SW7471A

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were sample reciept temperatures met?	•			
Were QAPP specified RLs achieved?	•			
Were all QAPP specified target analytes reported?	•			
Was the initial calibration curve within QAPP acceptance limits?	•			
Were the ICV/CCVs analyzed (frequency) as required in the QAPP?	•			
Were ICV/CCV results within QAPP acceptance limits?	•			
Were the ICB/CCBs analyzed (frequency) as required in the QAPP?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the ICB/CCB/method blank?		•		
Was a field blank collected and analyzed?	•			Rinsate Blank
Were target analytes reported in the field blank analyses above the MDL?		•		
Was the ICS recovery within QAPP acceptance limits?			•	
If a field duplicate was analyzed, were the RPDs within criteria?			•	
Was a LCS prepared and analyzed with each batch?	•			
Were the LCS recoveries within QAPP acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?			•	
Is the MS/MSD parent sample the one designated by the sampling team?			•	
Were the MS/MSD within QAPP acceptance limits?			•	
Were sample concentrations within calibration range?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			

AUTOMATED DATA REVIEW SUMMARY for 240-22804-1_74,79,SB,RN

Method: SW7471A

Review Questions	Yes	No	NA	Comment
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			

Method: SW8081

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report?	•			
Were samples preserved properly and received in good condition?	•			
Were sample reciept temperatures met?	•			
Were holding times for prep and analysis met?		•		Sample 240-22804-4 was re-extracted outside the method recommended holding time, due to low surrogate recovery in the initial extraction.
Does the initial calibration curve consist of 5 concentration levels, with the low standard near but > MDL?	•			
Is the ICAL %RSD within acceptance limits (%D =20%) on both columns?	•			
Was a second source verification analyzed after the ICAL and all analytes within criteria (%D =20%)?		•		Toxaphene %D= 28.9%.
Was a CCV run at the beginning of the analytical sequence and every 12 hours?	•			
Was the CCV a mid-level standard from the initial calibration curve?	•			
Was the CCV %D within criteria (%D =20%)?		•		CCV 240-82129/13 and 26; CCV 240-83482/12: Methoxychlor %D >20%.
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the method blank above the MDL?		•		
Was a field blank (equipment or trip) collected and analyzed?	•			Rinsate Blank
Were target analytes reported in the field blank analyses above the MDL?		•		
Were surrogate recoveries within QAPP acceptance limits?	•			Surrogate recovery in sample 240-22804-4 recovered below the control limits in the initial extraction.
Was an LCS/LCSD pair prepared and analyzed with each batch? (if applicable)			•	
Were the LCS recoveries within QAPP acceptance limits?	•			
Were the LCS/LCSD RPDs within QAPP acceptance limits? (if applicable)			•	
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits (RPD = 30%) ?			•	
Were the Breakdown products within QAPP acceptance limits?	•			
Is the MS/MSD parent sample the one designated by the sampling team?			•	

AUTOMATED DATA REVIEW SUMMARY for 240-22804-1_74,79,SB,RN

Method: SW8081

Review Questions	Yes	No	NA	Comment
Were MS/MSD recoveries and RPD within QAPP acceptance limits?			•	
Were all QAPP-specified target analytes reported?	•			
Were reported sample concentrations within calibration range?	•			
Were RPDs between primary and confirmation columns < 40%?			•	All pesticides were reported as non-detects.
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were sample prepration sheets present and filled out appropriately?	•			
Were instrument run logs present and filled out appropriately?	•			

Method: SW8082

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report?	•			
Were samples preserved properly and received in good condition?	•			
Were sample reciept temperatures met?	•			
Were holding times for prep and analysis met?	•			
Does the initial calibration curve consist of 5 concentration levels, with the low standard near but > MDL?	•			
Is the ICAL %RSD within acceptance limits (%D =20%) on both columns?	•			
Was a second source verification analyzed after the ICAL and all analytes within criteria (%D =20%)?	•			
Was a CCV run at the beginning of the analytical sequence and every 12 hours?	•			
Was the CCV a mid-level standard from the initial calibration curve?	•			
Was the CCV %D within criteria (%D =20%)?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the method blank above the MDL?		•		
Was a field blank (equipment or trip) collected and analyzed?	•			Rinsate Blank
Were target analytes reported in the field blank analyses above the MDL?		•		
Were surrogate recoveries within QAPP acceptance limits?	•			
Was an LCS/LCSD pair prepared and analyzed with each batch? (if applicable)	•			LCS was extracted with each preparation batch.
Were the LCS recoveries within QAPP acceptance limits?	•			

AUTOMATED DATA REVIEW SUMMARY for 240-22804-1_74,79,SB,RN

Method: SW8082

Review Questions	Yes	No	NA	Comment
Were the LCS/LCSD RPDs within QAPP acceptance limits? (if applicable)			•	
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits (RPD = 30%) ?			•	
Were the Breakdown products within QAPP acceptance limits?			•	
Is the MS/MSD parent sample the one designated by the sampling team?			•	
Were MS/MSD recoveries and RPD within QAPP acceptance limits?			•	
Were all QAPP-specified target analytes reported?	•			
Were reported sample concentrations within calibration range?	•			
Were RPDs between primary and confirmation columns < 40%?			•	All PCBs were reported as non-detects.
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were sample prepration sheets present and filled out appropriately?	•			
Were instrument run logs present and filled out appropriately?	•			

Method: SW8260B

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were sample reciept temperatures met?	•			
Were QAPP specified PQLs achieved?	•			
Were all QAPP-specified target analytes reported?	•			
Was the GC/MS system properly tuned based on method criteria?	•			
Was the criteria met during each 12 hour shift (prior to ICAL and Cal Ver.)?	•			
Does the initial calibration curve consist of 5 concentration levels, with the low standard near but > MDL?	•			
Did the Calibration Check Compounds (CCCs) have a relative standard deviation within QAPP acceptance limits?	•			
Were the average response factors (RFs) for the System Performance Check Compounds (SPCCs) within QAPP acceptance limits?	•			

Method: SW8260B

Review Questions	Yes	No	NA	Comment
Were all other target analytes within criteria? OR Was the average across all target analytes within criteria? Was a different calibration option used?	•			
If a linear regression curve was used, was the correlation coefficient within criteria?	•			
Was a second source verification analyzed after the ICAL and all analytes within criteria?	•			
Was a CCV run at the beginning of the analytical sequence and every 12 hours?	•			
Was the CCV a mid-level standard from the initial calibration curve?	•			
Did the CCCs have a %Difference within QAPP acceptance limits?	•			
Were the average RFs for the SPCCs within QAPP acceptance limits?	•			
Was the average %D (difference or drift) for all target analytes within QAPP acceptance limits?	•			
Were the internal standards added to every standard, blank, matrix spike, matrix spike duplicate, and sample?	•			
Were the retention times for all IS compounds within QAPP acceptance limits?	•			
Are the area counts of all IS compounds within QAPP acceptance limits?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the method blank above the MDL?	•			MB 240-81930/7: Acetone was detected above the MDL but below the RL.
Was a field blank (equipment or trip) collected and analyzed at the required frequency?	•			Rinsate and trip blank were submitted with this SDG.
Were target analytes reported in the field blank analyses above the MDL?	•			079-0318-001-TB (240-22804-12): Acetone was detected above the MDL but below the RL. Methylene chloride was detected above the RL.
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?			•	
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			LCS was analyzed with each batch.
Were the LCS/LCSD recoveries within QAPP acceptance limits?	•			
Were the LCS/LCSD RPDs within QAPP acceptance limits?			•	
Was the duplicate RPD within QAPP acceptance limits?			•	
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			
Was a MS/MSD pair prepared with each batch?			•	
Is the MS/MSD parent sample the one designated by the sampling team?			•	
Were MS/MSD recoveries and RPD within QAPP acceptance limits?			•	
Were surrogate recoveries within QAPP acceptance limits?		•		1. Sample 240-22804-4: two surrogate were recovered below the control limits. This only impact the following compounds: MIBK, 2-Hexanone and MEK.

Method: SW8260B				
Review Questions	**Yes**	**No**	**NA**	**Comment**
Were reported sample concentrations within calibration range?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were instrument run logs present and filled out appropriately?	•			
Were sample prepration sheets present and filled out appropriately?	•			

Method: SW8270C				
Review Questions	**Yes**	**No**	**NA**	**Comment**
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?		•		Samples 240-22804-4 and 5 were re-extracted outside the recommended method holding time, due to low acid surrogate recovery in the initial analysis.
Were sample reciept temperatures met?	•			
Were QAPP specified PQLs achieved?	•			
Were all QAPP-specified target analytes reported?	•			
Was the GC/MS system properly tuned based on method criteria?	•			
Was the criteria met during each 12 hour shift (prior to ICAL and Cal Ver.)?	•			
Does the initial calibration curve consist of 5 concentration levels, with the low standard near but > MDL?	•			
Did the Calibration Check Compounds (CCCs) have a relative standard deviation within QAPP acceptance limits?	•			
Were the average response factors (RFs) for the System Performance Check Compounds (SPCCs) within QAPP acceptance limits?	•			
Were all other target analytes within criteria? OR Was the average across all target analytes within criteria? Was a different calibration option used?	•			
If a linear regression curve was used, was the correlation coefficient within criteria?	•			
Was a second source verification analyzed after the ICAL and all analytes within criteria?	•			
Was a CCV run at the beginning of the analytical sequence and every 12 hours?	•			
Was the CCV a mid-level standard from the initial calibration curve?	•			
Did the CCCs have a %Difference within QAPP acceptance limits?	•			
Were the average RFs for the SPCCs within QAPP acceptance limits?	•			

Method: SW8270C

Review Questions	Yes	No	NA	Comment
Was the average %D (difference or drift) for all target analytes within QAPP acceptance limits?	•			
Were the internal standards added to every standard, blank, matrix spike, matrix spike duplicate, and sample?	•			
Were the retention times for all IS compounds within QAPP acceptance limits?	•			
Are the area counts of all IS compounds within QAPP acceptance limits?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the method blank above the MDL?	•			MB 240-83486/23-A: Di-n-butyl phthalate was detected above the MDL but below the RL.
Was a field blank (equipment or trip) collected and analyzed at the required frequency?	•			Rinsate Blank
Were target analytes reported in the field blank analyses above the MDL?		•		
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?			•	
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			LCS was extracted with each batch.
Were the LCS/LCSD recoveries within QAPP acceptance limits?		•		LCS 240-81130/23-A, LCS 240-81948/24-A, and LCS 240-83486/24-A: Benzoic acid was not recovered. Benzoic acid was qualified (R) in the following samples 2-11.
Were the LCS/LCSD RPDs within QAPP acceptance limits?			•	
Was the duplicate RPD within QAPP acceptance limits?			•	
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			
Was a MS/MSD pair prepared with each batch?			•	
Is the MS/MSD parent sample the one designated by the sampling team?			•	
Were MS/MSD recoveries and RPD within QAPP acceptance limits?			•	
Were surrogate recoveries within QAPP acceptance limits?	•			
Were reported sample concentrations within calibration range?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were instrument run logs present and filled out appropriately?	•			
Were sample prepration sheets present and filled out appropriately?	•			

Method: SW8330B

Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report?	•			

Method: SW8330B

Review Questions	Yes	No	NA	Comment
Were samples preserved properly and received in good condition?	•			
Were sample reciept temperatures met?	•			
Were holding times for prep and analysis met?	•			
Does the initial calibration curve consist of 5 concentration levels, with the low standard near but > MDL?	•			
Is the ICAL %RSD within acceptance limits (%D =20%) on both columns?	•			
Was a second source verification analyzed after the ICAL and all analytes within criteria (%D =20%)?	•			
Was a CCV run at the beginning of the analytical sequence and every 12 hours?	•			
Was the CCV a mid-level standard from the initial calibration curve?	•			
Was the CCV %D within criteria (%D =20%)?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes detected in the method blank above the MDL?		•		1. MB 320-143877/1-A: Tetryl was not detected on the primary column (C18); however it was detected on the confirmation column (Zorbax CN). Tetryl was false positive.
Was a field blank (equipment or trip) collected and analyzed?	•			Rinsate Blank.
Were target analytes reported in the field blank analyses above the MDL?		•		
Were surrogate recoveries within QAPP acceptance limits?	•			
Was an LCS/LCSD pair prepared and analyzed with each batch? (if applicable)	•			LCS was extracted with each preparation batch.
Were the LCS recoveries within QAPP acceptance limits?	•			
Were the LCS/LCSD RPDs within QAPP acceptance limits? (if applicable)			•	
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits (RPD = 30%) ?			•	
Is the MS/MSD parent sample the one designated by the sampling team?			•	
Were MS/MSD recoveries and RPD within QAPP acceptance limits?			•	
Were all QAPP-specified target analytes reported?	•			
Were reported sample concentrations within calibration range?				
Were RPDs between primary and confirmation columns < 40%?			•	All explosives were reported as non-detect.
Did PDA spectra for reported compounds match associated standard spectra?			•	
Are all samples associated with QC non-compliances flagged appropriately?	•			
Are the Qualified, Detected, and Rejected tables of the ADR report in agreement?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			

Method: SW8330B

Review Questions	Yes	No	NA	Comment
Were sample prepration sheets present and filled out appropriately?	•			
Were instrument run logs present and filled out appropriately?	•			

WORKSHEET 11

Automated Data Review Summary for Field Duplicates

This page left intentionally blank.

Field Duplicate Report By Event and Site
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012

Location	Analysis
68-FBDD-DU3-SS	E353.2

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Nitrocellulose	0.880	ND	4.80	NA	40	NA	OK

Location	Analysis
68-FBDD-DU3-SS	SW6020

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Aluminum	13000	16000	8.50	20.7	50	OK	NA
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Antimony	2.16	ND	0.850	NA	50	NA	2.16
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Arsenic	12.0	11.0	0.430	8.70	50	OK	NA
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Barium	90.5	83.0	2.10	8.65	50	OK	NA
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Beryllium	0.870	0.830	0.0850	4.71	50	OK	NA
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Cadmium	0.120	0.100	0.170	18.2	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Calcium	3900	3900	170	0.00	50	OK	NA
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Chromium	22.0	24.0	0.430	8.70	50	OK	NA
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Cobalt	13.0	11.0	0.0850	16.7	50	OK	NA
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Copper	18.0	22.0	0.340	20.0	50	OK	NA
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Iron	29800	29000	210	2.72	50	OK	NA
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Lead	26.3	16.0	1.30	48.7	50	OK	NA
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Magnesium	3700	4500	85.0	19.5	50	OK	NA
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Manganese	386	280	2.10	31.8	50	OK	NA

Field Duplicate Report By Event and Site
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012

Location	Analysis
68-FBDD-DU3-SS	SW6020

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Nickel	28.0	33.0	0.430	16.4	50	OK	NA
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Potassium	1200	1600	85.0	28.6	50	OK	NA
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Selenium	0.570	0.560	0.430	1.77	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Silver	0.0290	0.0300	0.0850	3.39	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Sodium	52.0	72.0	85.0	32.3	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Thallium	7.97	0.260	0.850	187	50	NA	7.71
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Vanadium	21.0	24.0	0.430	13.3	50	OK	NA
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Zinc	63.0	74.0	3.40	16.1	50	NA	11

Location	Analysis
68-FBDD-DU3-SS	SW7471A

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Mercury	ND	ND	0.0980	NA	50	NA	OK

Location	Analysis
68-FBDD-DU3-SS	SW8081

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Aldrin	ND	ND	40.0	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	alpha-BHC (alpha-Hexachlorocyclohexane)	ND	ND	25.0	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	alpha-Chlordane	ND	ND	30.0	NA	50	NA	OK

Field Duplicate Report By Event and Site
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012

Location	Analysis
68-FBDD-DU3-SS	SW8081

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	alpha-Endosulfan	ND	ND	17.0	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	beta-BHC (beta-Hexachlorocyclohexane)	ND	ND	35.0	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	beta-Endosulfan	ND	ND	25.0	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	delta-BHC (delta-Hexachlorocyclohexane)	ND	ND	40.0	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Dieldrin	ND	ND	17.0	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Endosulfan Sulfate	ND	ND	30.0	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Endrin	ND	ND	17.0	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Endrin Aldehyde	ND	ND	30.0	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Endrin Ketone	ND	ND	20.0	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	gamma-BHC (Lindane)	ND	ND	25.0	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	gamma-Chlordane	ND	ND	17.0	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Heptachlor	ND	ND	35.0	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Heptachlor Epoxide	ND	ND	25.0	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Methoxychlor	ND	ND	50.0	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	p,p'-DDD	ND	ND	20.0	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	p,p'-DDE	ND	ND	17.0	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	p,p'-DDT	ND	ND	20.0	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Toxaphene	ND	ND	670	NA	50	NA	OK

Field Duplicate Report By Event and Site
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012

Location	Analysis
68-FBDD-DU3-SS	SW8082

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	PCB-1016 (Arochlor 1016)	ND	ND	65.0	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	PCB-1221 (Arochlor 1221)	ND	ND	50.0	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	PCB-1232 (Arochlor 1232)	ND	ND	45.0	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	PCB-1242 (Arochlor 1242)	ND	ND	40.0	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	PCB-1248 (Arochlor 1248)	ND	ND	55.0	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	PCB-1254 (Arochlor 1254)	ND	ND	55.0	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	PCB-1260 (Arochlor 1260)	ND	ND	55.0	NA	50	NA	OK

Location	Analysis
68-FBDD-DU3-SS	SW8260B

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	1,1,1-Trichloroethane	ND	ND	4.00	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	1,1,2,2-Tetrachloroethane	ND	ND	4.00	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	1,1,2-Trichloroethane	ND	ND	4.00	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	1,1-Dichloroethane	ND	ND	4.00	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	1,1-Dichloroethene	ND	ND	4.00	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	1,2-Dibromoethane (EDB)	ND	ND	4.00	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	1,2-Dichloroethane	ND	ND	4.00	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	1,2-Dichloroethene	ND	ND	8.00	NA	50	NA	OK

Field Duplicate Report By Event and Site
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012

Location	Analysis
68-FBDD-DU3-SS	SW8260B

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	1,2-Dichloropropane	ND	ND	4.00	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	2-Butanone (MEK)	ND	ND	16.0	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	2-Hexanone	ND	ND	16.0	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	4-Methyl-2-pentanone (MIBK)	ND	ND	16.0	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Acetone	ND	ND	16.0	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Benzene	ND	ND	4.00	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Bromochloromethane	ND	ND	4.00	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Bromodichloromethane	ND	ND	4.00	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Bromoform	ND	ND	4.00	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Bromomethane	ND	ND	4.00	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Carbon Disulfide	0.690	0.660	4.00	4.44	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Carbon Tetrachloride	ND	ND	4.00	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Chlorobenzene	ND	ND	4.00	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Chloroethane	ND	ND	4.00	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Chloroform	ND	ND	4.00	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Chloromethane	ND	ND	4.00	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	cis-1,3-Dichloropropene	ND	ND	4.00	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Dibromochloromethane	ND	ND	4.00	NA	50	NA	OK

Field Duplicate Report By Event and Site
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012

Location	Analysis
68-FBDD-DU3-SS	SW8260B

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Ethylbenzene	ND	ND	4.00	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Methylene Chloride	ND	ND	4.00	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Styrene	ND	0.140	4.00	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Tetrachloroethene (PCE)	ND	ND	4.00	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Toluene	ND	ND	4.00	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	trans-1,3-Dichloropropene	ND	ND	4.00	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Trichloroethene (TCE)	ND	ND	4.00	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Vinyl Chloride	ND	ND	4.00	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Xylenes, Total	ND	ND	8.00	NA	50	NA	OK

Location	Analysis
68-FBDD-DU3-SS	SW8270C

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	1,2,4-Trichlorobenzene	ND	ND	50.0	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	1,2-Dichlorobenzene	ND	ND	50.0	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	1,3-Dichlorobenzene	ND	ND	50.0	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	1,4-Dichlorobenzene	ND	ND	50.0	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	2,4,5-Trichlorophenol	ND	ND	150	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	2,4,6-Trichlorophenol	ND	ND	150	NA	50	NA	OK

Field Duplicate Report By Event and Site
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012

Location **Analysis**

68-FBDD-DU3-SS SW8270C

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	2,4-Dichlorophenol	ND	ND	150	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	2,4-Dimethylphenol	ND	ND	150	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	2,4-Dinitrophenol	ND	ND	330	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	2,4-Dinitrotoluene	ND	ND	200	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	2,6-Dinitrotoluene	ND	ND	200	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	2-Chloronaphthalene	ND	ND	50.0	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	2-Chlorophenol	ND	ND	50.0	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	2-Methylnaphthalene	30.0	23.0	6.70	26.4	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	2-Methylphenol (o-Cresol)	ND	ND	200	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	2-Nitroaniline	ND	ND	200	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	2-Nitrophenol	ND	ND	50.0	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	3,3'-Dichlorobenzidine	ND	ND	100	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	3-Nitroaniline	ND	ND	200	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	4,6-Dinitro-2-Methylphenol	ND	ND	150	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	4-Bromophenyl phenyl ether	ND	ND	50.0	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	4-Chloro-3-Methylphenol	ND	ND	150	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	4-Chloroaniline	ND	ND	150	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	4-Chlorophenyl Phenyl Ether	ND	ND	50.0	NA	50	NA	OK

Field Duplicate Report By Event and Site
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012

Location	Analysis
68-FBDD-DU3-SS	SW8270C

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	4-Nitroaniline	ND	ND	200	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	4-Nitrophenol	ND	ND	330	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Acenaphthene	17.0	ND	6.70	NA	50	NA	17
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Acenaphthylene	9.20	ND	6.70	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Anthracene	48.0	28.0	6.70	52.6	50	NA	20
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Benzo(a)anthracene	270	190	6.70	34.8	50	OK	NA
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Benzo(a)pyrene	330	250	6.70	27.6	50	OK	NA
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Benzo(b)fluoranthene	520	390	6.70	28.6	50	OK	NA
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Benzo(g,h,i)perylene	260	130	6.70	66.7	50	NA	130
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Benzo(k)fluoranthene	180	100	6.70	57.1	50	NA	80
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Benzoic acid	ND	ND	660	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Benzyl alcohol	448	ND	330	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Benzyl butyl phthalate	ND	ND	50.0	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	bis(2-Chloroethoxy) Methane	ND	ND	100	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	ND	ND	100	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	bis(2-Chloroisopropyl) Ether	ND	ND	100	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	bis(2-Ethylhexyl) Phthalate	ND	ND	50.0	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Carbazole	44.0	ND	50.0	NA	50	NA	OK

Field Duplicate Report By Event and Site
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012

Location **Analysis**

68-FBDD-DU3-SS SW8270C

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Chrysene	340	230	6.70	38.6	50	OK	NA
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Cresols, m & p	ND	ND	400	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Di-n-Butyl Phthalate	19.0	ND	50.0	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Di-n-Octylphthalate	ND	ND	50.0	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Dibenz(a,h)anthracene	57.0	ND	6.70	NA	50	NA	57
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Dibenzofuran	15.0	ND	50.0	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Diethyl Phthalate	22.0	ND	50.0	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Dimethyl Phthalate	ND	ND	50.0	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Fluoranthene	650	410	6.70	45.3	50	OK	NA
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Fluorene	16.0	ND	6.70	NA	50	NA	16
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Hexachlorobenzene	ND	ND	6.70	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Hexachlorobutadiene	ND	ND	50.0	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Hexachlorocyclopentadiene	ND	ND	330	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Hexachloroethane	ND	ND	50.0	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Indeno(1,2,3-c,d)pyrene	220	140	6.70	44.4	50	NA	80
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Isophorone	16.0	ND	50.0	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	n-Nitrosodi-n-propylamine	ND	ND	50.0	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	n-Nitrosodiphenylamine	ND	ND	50.0	NA	50	NA	OK

Field Duplicate Report By Event and Site
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012

Location	Analysis
68-FBDD-DU3-SS	SW8270C

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Naphthalene	24.0	ND	6.70	NA	50	NA	24
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Nitrobenzene	ND	ND	100	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Pentachlorophenol	ND	ND	150	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Phenanthrene	250	150	6.70	50.0	50	NA	100
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Phenol	ND	ND	50.0	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Pyrene	480	310	6.70	43.0	50	OK	NA

Location	Analysis
68-FBDD-DU3-SS	SW8330B

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	1,3,5-Trinitrobenzene	ND	ND	0.250	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	1,3-Dinitrobenzene	ND	ND	0.250	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	2,4,6-Trinitrotoluene	ND	ND	0.250	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	2,4-Dinitrotoluene	ND	ND	0.250	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	2,6-Dinitrotoluene	ND	ND	0.250	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	2-Amino-4,6-dinitrotoluene	ND	ND	0.250	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	2-Nitrotoluene	ND	ND	0.250	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	3-Nitrotoluene	ND	ND	0.250	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	4-Amino-2,6-Dinitrotoluene	ND	ND	0.250	NA	50	NA	OK

Field Duplicate Report By Event and Site
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012

Location	Analysis
68-FBDD-DU3-SS	SW8330B

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	4-Nitrotoluene	ND	ND	0.250	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine (RDX)	ND	ND	0.250	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Nitrobenzene	ND	ND	0.250	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Nitroglycerin	ND	ND	0.500	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine (HMX)	ND	ND	0.250	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Pentaerythritol Tetranitrate	ND	ND	0.500	NA	50	NA	OK
Nov 6 2012	068SS-0003M-0001-SO / 068SS-0004M-0001-SO	240-17317-7 / 240-17317-8	Tetryl	0.0310	0.0390	0.250	22.9	50	NA	OK

Location	Analysis
68-SS3-SD	SW6020

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	Aluminum	12000	13000	9.60	8.00	50	OK	NA
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	Antimony	0.130	0.130	0.190	0.00	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	Arsenic	16.0	16.0	0.480	0.00	50	OK	NA
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	Barium	78.0	75.0	0.480	3.92	50	OK	NA
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	Beryllium	0.760	0.740	0.0960	2.67	50	OK	NA
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	Cadmium	0.610	0.490	0.190	21.8	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	Calcium	1500	1200	190	22.2	50	OK	NA
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	Chromium	21.0	22.0	0.480	4.65	50	OK	NA

Field Duplicate Report By Event and Site
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012

Location	Analysis
68-SS3-SD	SW6020

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	Cobalt	12.0	12.0	0.0960	0.00	50	OK	NA
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	Copper	30.0	27.0	0.380	10.5	50	OK	NA
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	Iron	26000	30000	48.0	14.3	50	OK	NA
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	Lead	23.0	21.0	0.290	9.09	50	OK	NA
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	Magnesium	2400	2400	96.0	0.00	50	OK	NA
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	Manganese	891	770	4.80	14.6	50	OK	NA
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	Nickel	24.0	25.0	0.480	4.08	50	OK	NA
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	Potassium	790	790	96.0	0.00	50	OK	NA
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	Selenium	0.800	0.780	0.480	2.53	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	Silver	0.0560	0.0500	0.0960	11.3	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	Sodium	47.0	43.0	96.0	8.89	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	Thallium	0.220	0.230	0.190	4.44	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	Vanadium	19.0	19.0	0.480	0.00	50	OK	NA
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	Zinc	160	130	3.80	20.7	50	OK	NA

Location	Analysis
68-SS3-SD	SW7471A

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	Mercury	ND	ND	0.0950	NA	50	NA	OK

Field Duplicate Report By Event and Site
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012

Location	Analysis
68-SS3-SD	SW8082

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	PCB-1016 (Arochlor 1016)	ND	ND	64.0	NA	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	PCB-1221 (Arochlor 1221)	ND	ND	49.0	NA	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	PCB-1232 (Arochlor 1232)	ND	ND	44.0	NA	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	PCB-1242 (Arochlor 1242)	ND	ND	39.0	NA	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	PCB-1248 (Arochlor 1248)	ND	ND	54.0	NA	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	PCB-1254 (Arochlor 1254)	ND	ND	54.0	NA	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	PCB-1260 (Arochlor 1260)	ND	ND	54.0	NA	50	NA	OK

Location	Analysis
68-SS3-SD	SW8270C

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	1,2,4-Trichlorobenzene	ND	ND	49.0	NA	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	1,2-Dichlorobenzene	ND	ND	49.0	NA	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	1,3-Dichlorobenzene	ND	ND	49.0	NA	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	1,4-Dichlorobenzene	ND	20.0	49.0	NA	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	2,4,5-Trichlorophenol	ND	ND	150	NA	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	2,4,6-Trichlorophenol	ND	ND	150	NA	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	2,4-Dichlorophenol	ND	ND	150	NA	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	2,4-Dimethylphenol	ND	ND	150	NA	50	NA	OK

Field Duplicate Report By Event and Site
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012

Location	Analysis
68-SS3-SD	SW8270C

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	2,4-Dinitrophenol	ND	ND	330	NA	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	2,4-Dinitrotoluene	ND	ND	200	NA	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	2,6-Dinitrotoluene	ND	ND	200	NA	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	2-Chloronaphthalene	ND	ND	49.0	NA	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	2-Chlorophenol	ND	ND	49.0	NA	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	2-Methylnaphthalene	13.0	14.0	6.60	7.41	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	2-Methylphenol (o-Cresol)	ND	ND	200	NA	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	2-Nitroaniline	ND	ND	200	NA	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	2-Nitrophenol	ND	ND	49.0	NA	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	3,3'-Dichlorobenzidine	ND	ND	99.0	NA	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	3-Nitroaniline	ND	ND	200	NA	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	4,6-Dinitro-2-Methylphenol	ND	ND	150	NA	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	4-Bromophenyl phenyl ether	ND	ND	49.0	NA	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	4-Chloro-3-Methylphenol	ND	ND	150	NA	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	4-Chloroaniline	ND	ND	150	NA	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	4-Chlorophenyl Phenyl Ether	ND	ND	49.0	NA	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	4-Nitroaniline	ND	ND	200	NA	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	4-Nitrophenol	ND	ND	330	NA	50	NA	OK

Field Duplicate Report By Event and Site
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012

Location	Analysis
68-SS3-SD	SW8270C

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	Acenaphthene	ND	ND	6.60	NA	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	Acenaphthylene	ND	ND	6.60	NA	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	Anthracene	3.30	3.40	6.60	2.99	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	Benzo(a)anthracene	16.0	18.0	6.60	11.8	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	Benzo(a)pyrene	26.0	27.0	6.60	3.77	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	Benzo(b)fluoranthene	46.0	51.0	6.60	10.3	50	OK	NA
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	Benzo(g,h,i)perylene	16.0	16.0	6.60	0.00	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	Benzo(k)fluoranthene	12.0	11.0	6.60	8.70	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	Benzoic acid	ND	ND	650	NA	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	Benzyl alcohol	ND	ND	330	NA	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	Benzyl butyl phthalate	ND	ND	49.0	NA	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	bis(2-Chloroethoxy) Methane	ND	ND	99.0	NA	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	ND	ND	99.0	NA	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	bis(2-Chloroisopropyl) Ether	ND	ND	99.0	NA	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	bis(2-Ethylhexyl) Phthalate	ND	ND	49.0	NA	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	Carbazole	ND	ND	49.0	NA	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	Chrysene	28.0	36.0	6.60	25.0	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	Cresols, m & p	ND	ND	400	NA	50	NA	OK

Field Duplicate Report By Event and Site
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012

Location	Analysis
68-SS3-SD	SW8270C

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	Di-n-Butyl Phthalate	ND	ND	49.0	NA	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	Di-n-Octylphthalate	ND	ND	49.0	NA	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	Dibenz(a,h)anthracene	ND	ND	6.60	NA	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	Dibenzofuran	ND	4.70	49.0	NA	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	Diethyl Phthalate	ND	ND	49.0	NA	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	Dimethyl Phthalate	ND	ND	49.0	NA	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	Fluoranthene	38.0	50.0	6.60	27.3	50	OK	NA
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	Fluorene	ND	3.80	6.60	NA	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	Hexachlorobenzene	ND	ND	6.60	NA	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	Hexachlorobutadiene	ND	ND	49.0	NA	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	Hexachlorocyclopentadiene	ND	ND	330	NA	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	Hexachloroethane	ND	ND	49.0	NA	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	Indeno(1,2,3-c,d)pyrene	17.0	20.0	6.60	16.2	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	Isophorone	ND	14.0	49.0	NA	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	n-Nitrosodi-n-propylamine	ND	ND	49.0	NA	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	n-Nitrosodiphenylamine	ND	ND	49.0	NA	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	Naphthalene	11.0	15.0	6.70	30.8	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	Nitrobenzene	ND	ND	99.0	NA	50	NA	OK

Field Duplicate Report By Event and Site
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012

Location	Analysis
68-SS3-SD	SW8270C

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	Pentachlorophenol	ND	ND	150	NA	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	Phenanthrene	22.0	25.0	6.60	12.8	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	Phenol	ND	ND	49.0	NA	50	NA	OK
Nov 8 2012	068SD-0009-0001-SO / 068SD-00010-0001-SO	240-17422-9 / 240-17422-10	Pyrene	28.0	35.0	6.60	22.2	50	NA	OK

Location	Analysis
68-SS3-SW3	SW6020

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	Aluminum	320	250	60.0	24.6	30	NA	70
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	Antimony	1.00	ND	2.00	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	Arsenic	0.780	0.700	5.00	10.8	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	Barium	34.0	32.0	5.00	6.06	30	OK	NA
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	Beryllium	ND	ND	1.00	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	Cadmium	ND	ND	2.00	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	Calcium	31000	33000	2000	6.25	30	OK	NA
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	Chromium	ND	ND	2.00	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	Cobalt	ND	ND	1.00	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	Copper	1.60	ND	4.00	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	Iron	1300	1000	150	26.1	30	OK	NA

Field Duplicate Report By Event and Site
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012

Location	Analysis
68-SS3-SW3	SW6020

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	Lead	ND	ND	1.00	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	Magnesium	8300	9000	1000	8.09	30	OK	NA
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	Manganese	330	240	5.00	31.6	30	Out	NA
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	Nickel	0.900	0.740	5.00	19.5	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	Potassium	1900	2000	1000	5.13	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	Selenium	ND	ND	5.00	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	Silver	ND	ND	1.00	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	Sodium	3900	4100	1000	5.00	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	Thallium	ND	ND	2.00	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	Vanadium	0.720	0.550	5.00	26.8	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	Zinc	ND	ND	40.0	NA	30	NA	OK

Location	Analysis
68-SS3-SW3	SW7470A

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	Mercury	ND	ND	0.200	NA	30	NA	OK

Field Duplicate Report By Event and Site
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012

Location	Analysis
68-SS3-SW3	SW8270C

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	1,2,4-Trichlorobenzene	ND	ND	0.950	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	1,2-Dichlorobenzene	ND	ND	0.950	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	1,3-Dichlorobenzene	ND	ND	0.950	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	1,4-Dichlorobenzene	ND	ND	0.950	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	2,4,5-Trichlorophenol	ND	ND	4.80	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	2,4,6-Trichlorophenol	ND	ND	4.80	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	2,4-Dichlorophenol	ND	ND	1.90	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	2,4-Dimethylphenol	ND	ND	1.90	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	2,4-Dinitrophenol	ND	ND	4.80	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	2,4-Dinitrotoluene	ND	ND	4.80	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	2,6-Dinitrotoluene	ND	ND	4.80	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	2-Chloronaphthalene	ND	ND	0.950	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	2-Chlorophenol	ND	ND	0.950	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	2-Methylnaphthalene	ND	ND	0.190	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	2-Methylphenol (o-Cresol)	ND	ND	0.950	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	2-Nitroaniline	ND	ND	1.90	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	2-Nitrophenol	ND	ND	1.90	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	3,3'-Dichlorobenzidine	ND	ND	4.80	NA	30	NA	OK

Field Duplicate Report By Event and Site
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012

Location	Analysis
68-SS3-SW3	SW8270C

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	3-Nitroaniline	ND	ND	1.90	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	4,6-Dinitro-2-Methylphenol	ND	ND	4.80	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	4-Bromophenyl phenyl ether	ND	ND	1.90	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	4-Chloro-3-Methylphenol	ND	ND	1.90	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	4-Chloroaniline	ND	ND	1.90	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	4-Chlorophenyl Phenyl Ether	ND	ND	1.90	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	4-Nitroaniline	ND	ND	1.90	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	4-Nitrophenol	ND	ND	4.80	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	Acenaphthene	ND	ND	0.190	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	Acenaphthylene	ND	ND	0.190	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	Anthracene	ND	ND	0.190	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	Benzo(a)anthracene	ND	ND	0.190	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	Benzo(a)pyrene	ND	ND	0.190	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	Benzo(b)fluoranthene	ND	ND	0.190	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	Benzo(g,h,i)perylene	ND	ND	0.190	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	Benzo(k)fluoranthene	ND	ND	0.190	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	Benzoic acid	ND	ND	24.0	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	Benzyl alcohol	ND	ND	4.80	NA	30	NA	OK

Field Duplicate Report By Event and Site
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012

Location	Analysis
68-SS3-SW3	SW8270C

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	Benzyl butyl phthalate	ND	ND	0.950	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	bis(2-Chloroethoxy) Methane	ND	ND	0.950	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	ND	ND	0.950	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	bis(2-Chloroisopropyl) Ether	ND	ND	0.950	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	bis(2-Ethylhexyl) Phthalate	ND	2.80	1.90	NA	30	NA	2.8
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	Carbazole	ND	ND	0.950	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	Chrysene	ND	ND	0.190	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	Cresols, m & p	ND	ND	1.90	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	Di-n-Butyl Phthalate	ND	ND	0.950	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	Di-n-Octylphthalate	ND	ND	0.950	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	Dibenz(a,h)anthracene	ND	ND	0.190	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	Dibenzofuran	ND	ND	0.950	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	Diethyl Phthalate	ND	ND	0.950	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	Dimethyl Phthalate	ND	ND	0.950	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	Fluoranthene	ND	ND	0.190	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	Fluorene	ND	ND	0.190	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	Hexachlorobenzene	ND	ND	0.190	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	Hexachlorobutadiene	ND	ND	0.950	NA	30	NA	OK

Field Duplicate Report By Event and Site
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012

Location	Analysis
68-SS3-SW3	SW8270C

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	Hexachlorocyclopentadiene	ND	ND	9.50	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	Hexachloroethane	ND	ND	0.950	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	Indeno(1,2,3-c,d)pyrene	ND	ND	0.190	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	Isophorone	ND	ND	0.950	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	n-Nitrosodi-n-propylamine	ND	ND	0.950	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	n-Nitrosodiphenylamine	ND	ND	0.950	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	Naphthalene	ND	ND	0.190	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	Nitrobenzene	ND	ND	0.950	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	Pentachlorophenol	ND	ND	4.80	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	Phenanthrene	ND	ND	0.190	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	Phenol	ND	ND	0.950	NA	30	NA	OK
Nov 8 2012	068SW-0016-0001-SW / 068SW-0014-0001-SW	240-17477-4 / 240-17477-2	Pyrene	ND	ND	0.190	NA	30	NA	OK

Field Duplicate Report By Event and Site
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012

Location	Analysis
68-ESSE-DU1-SB1	SW6020

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	Aluminum	12000	11000	2.70	8.70	50	OK	NA
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	Antimony	ND	ND	0.180	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	Arsenic	11.0	9.40	0.0900	15.7	50	OK	NA
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	Barium	64.0	63.0	0.900	1.57	50	OK	NA
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	Beryllium	0.560	0.550	0.0900	1.80	50	OK	NA
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	Cadmium	0.140	0.160	0.0900	13.3	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	Calcium	2300	1900	9.00	19.0	50	OK	NA
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	Chromium	16.0	15.0	0.180	6.45	50	OK	NA
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	Cobalt	10.0	16.0	0.0450	46.2	50	OK	NA
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	Copper	19.0	16.0	0.180	17.1	50	OK	NA
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	Iron	26000	24000	4.50	8.00	50	OK	NA
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	Lead	13.0	15.0	0.0900	14.3	50	OK	NA
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	Magnesium	3300	2900	9.00	12.9	50	OK	NA
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	Manganese	360	620	0.450	53.1	50	Out	NA
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	Nickel	24.0	22.0	0.0900	8.70	50	OK	NA
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	Potassium	1200	1100	9.00	8.70	50	OK	NA
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	Selenium	0.290	0.350	0.450	18.8	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	Silver	0.0310	0.0280	0.0900	10.2	50	NA	OK

Field Duplicate Report By Event and Site
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012

Location	Analysis
68-ESSE-DU1-SB1	SW6020

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	Sodium	41.0	38.0	9.00	7.59	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	Thallium	0.160	0.150	0.0900	6.45	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	Vanadium	18.0	19.0	0.0900	5.41	50	OK	NA
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	Zinc	53.0	55.0	0.450	3.70	50	OK	NA

Location	Analysis
68-ESSE-DU1-SB1	SW7471A

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	Mercury	0.0150	0.0190	0.110	23.5	50	NA	OK

Location	Analysis
68-ESSE-DU1-SB1	SW8082

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	PCB-1016 (Arochlor 1016)	ND	ND	64.0	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	PCB-1221 (Arochlor 1221)	ND	ND	49.0	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	PCB-1232 (Arochlor 1232)	ND	ND	44.0	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	PCB-1242 (Arochlor 1242)	ND	ND	39.0	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	PCB-1248 (Arochlor 1248)	ND	ND	54.0	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	PCB-1254 (Arochlor 1254)	ND	ND	54.0	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	PCB-1260 (Arochlor 1260)	ND	ND	54.0	NA	50	NA	OK

Field Duplicate Report By Event and Site
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012

Location **Analysis**

68-ESSE-DU1-SB1 SW8270C

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	1,2,4-Trichlorobenzene	ND	ND	50.0	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	1,2-Dichlorobenzene	ND	ND	50.0	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	1,3-Dichlorobenzene	ND	ND	50.0	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	1,4-Dichlorobenzene	ND	ND	50.0	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	2,4,5-Trichlorophenol	ND	ND	150	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	2,4,6-Trichlorophenol	ND	ND	150	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	2,4-Dichlorophenol	ND	ND	150	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	2,4-Dimethylphenol	ND	ND	150	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	2,4-Dinitrophenol	ND	ND	330	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	2,4-Dinitrotoluene	ND	ND	200	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	2,6-Dinitrotoluene	ND	ND	200	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	2-Chloronaphthalene	ND	ND	50.0	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	2-Chlorophenol	ND	ND	50.0	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	2-Methylnaphthalene	7.80	6.50	6.60	18.2	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	2-Methylphenol (o-Cresol)	ND	ND	200	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	2-Nitroaniline	ND	ND	200	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	2-Nitrophenol	ND	ND	50.0	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	3,3'-Dichlorobenzidine	ND	ND	99.0	NA	50	NA	OK

Field Duplicate Report By Event and Site
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012

Location	Analysis
68-ESSE-DU1-SB1	SW8270C

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	3-Nitroaniline	ND	ND	200	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	4,6-Dinitro-2-Methylphenol	ND	ND	150	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	4-Bromophenyl phenyl ether	ND	ND	50.0	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	4-Chloro-3-Methylphenol	ND	ND	150	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	4-Chloroaniline	ND	ND	150	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	4-Chlorophenyl Phenyl Ether	ND	ND	50.0	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	4-Nitroaniline	ND	ND	200	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	4-Nitrophenol	ND	ND	330	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	Acenaphthene	ND	ND	6.60	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	Acenaphthylene	ND	ND	6.60	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	Anthracene	ND	ND	6.60	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	Benzo(a)anthracene	ND	ND	6.60	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	Benzo(a)pyrene	ND	ND	6.60	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	Benzo(b)fluoranthene	ND	ND	6.60	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	Benzo(g,h,i)perylene	ND	ND	6.60	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	Benzo(k)fluoranthene	ND	ND	6.60	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	Benzoic acid	ND	ND	650	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	Benzyl alcohol	ND	ND	330	NA	50	NA	OK

Field Duplicate Report By Event and Site
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012

Location	Analysis
68-ESSE-DU1-SB1	SW8270C

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	Benzyl butyl phthalate	ND	ND	69.0	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	bis(2-Chloroethoxy) Methane	ND	ND	99.0	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	ND	ND	99.0	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	bis(2-Chloroisopropyl) Ether	ND	ND	99.0	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	bis(2-Ethylhexyl) Phthalate	ND	ND	73.0	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	Carbazole	ND	ND	50.0	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	Chrysene	ND	ND	6.60	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	Cresols, m & p	ND	ND	400	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	Di-n-Butyl Phthalate	ND	ND	69.0	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	Di-n-Octylphthalate	ND	ND	69.0	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	Dibenz(a,h)anthracene	ND	ND	6.60	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	Dibenzofuran	ND	ND	50.0	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	Diethyl Phthalate	ND	ND	69.0	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	Dimethyl Phthalate	ND	ND	69.0	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	Fluoranthene	ND	ND	6.60	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	Fluorene	ND	ND	6.60	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	Hexachlorobenzene	ND	ND	6.60	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	Hexachlorobutadiene	ND	ND	50.0	NA	50	NA	OK

Field Duplicate Report By Event and Site
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012

Location	Analysis
68-ESSE-DU1-SB1	SW8270C

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	Hexachlorocyclopentadiene	ND	ND	330	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	Hexachloroethane	ND	ND	50.0	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	Indeno(1,2,3-c,d)pyrene	ND	ND	6.60	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	Isophorone	ND	ND	50.0	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	n-Nitrosodi-n-propylamine	ND	ND	50.0	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	n-Nitrosodiphenylamine	ND	ND	50.0	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	Naphthalene	10.0	8.30	6.60	18.6	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	Nitrobenzene	ND	ND	99.0	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	Pentachlorophenol	ND	ND	150	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	Phenanthrene	4.60	ND	6.60	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	Phenol	ND	ND	50.0	NA	50	NA	OK
Mar 29 2013	068SB-0035M-0001-SO / 068SB-0036M-0001-SO	240-22648-48 / 240-22648-50	Pyrene	ND	ND	6.60	NA	50	NA	OK

Location	Analysis
68-ESSW-DU1-SB1	SW6020

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	Aluminum	11000	11000	3.00	0.00	50	OK	NA
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	Antimony	ND	ND	0.200	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	Arsenic	11.0	11.0	0.0990	0.00	50	OK	NA

Field Duplicate Report By Event and Site
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012

Location	Analysis
68-ESSW-DU1-SB1	SW6020

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	Barium	74.0	61.0	0.990	19.3	50	OK	NA
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	Beryllium	0.570	0.560	0.0990	1.77	50	OK	NA
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	Cadmium	0.230	0.190	0.0990	19.0	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	Calcium	25000	26000	9.90	3.92	50	OK	NA
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	Chromium	18.0	17.0	0.200	5.71	50	OK	NA
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	Cobalt	12.0	13.0	0.0500	8.00	50	OK	NA
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	Copper	20.0	19.0	0.200	5.13	50	OK	NA
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	Iron	26000	25000	5.00	3.92	50	OK	NA
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	Lead	12.0	11.0	0.0990	8.70	50	OK	NA
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	Magnesium	7400	7400	9.90	0.00	50	OK	NA
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	Manganese	360	380	0.500	5.41	50	OK	NA
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	Nickel	29.0	29.0	0.0990	0.00	50	OK	NA
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	Potassium	1500	1400	9.90	6.90	50	OK	NA
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	Selenium	0.310	0.280	0.500	10.2	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	Silver	0.0400	0.0370	0.0990	7.79	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	Sodium	120	120	9.90	0.00	50	OK	NA
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	Thallium	0.160	0.160	0.0990	0.00	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	Vanadium	18.0	18.0	0.0990	0.00	50	OK	NA

Field Duplicate Report By Event and Site
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012

Location	Analysis
68-ESSW-DU1-SB1	SW6020

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	Zinc	49.0	48.0	0.500	2.06	50	OK	NA

Location	Analysis
68-ESSW-DU1-SB1	SW7471A

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	Mercury	0.0210	0.0190	0.100	10.0	50	NA	OK

Location	Analysis
68-ESSW-DU1-SB1	SW8082

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	PCB-1016 (Arochlor 1016)	ND	ND	66.0	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	PCB-1221 (Arochlor 1221)	ND	ND	51.0	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	PCB-1232 (Arochlor 1232)	ND	ND	46.0	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	PCB-1242 (Arochlor 1242)	ND	ND	41.0	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	PCB-1248 (Arochlor 1248)	ND	ND	56.0	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	PCB-1254 (Arochlor 1254)	ND	ND	56.0	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	PCB-1260 (Arochlor 1260)	ND	ND	56.0	NA	50	NA	OK

Field Duplicate Report By Event and Site
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012

Location	Analysis
68-ESSW-DU1-SB1	SW8270C

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	1,2,4-Trichlorobenzene	ND	ND	250	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	1,2-Dichlorobenzene	ND	ND	250	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	1,3-Dichlorobenzene	ND	ND	250	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	1,4-Dichlorobenzene	ND	ND	250	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	2,4,5-Trichlorophenol	ND	ND	740	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	2,4,6-Trichlorophenol	ND	ND	740	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	2,4-Dichlorophenol	ND	ND	740	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	2,4-Dimethylphenol	ND	ND	740	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	2,4-Dinitrophenol	ND	ND	1600	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	2,4-Dinitrotoluene	ND	ND	990	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	2,6-Dinitrotoluene	ND	ND	990	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	2-Chloronaphthalene	ND	ND	250	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	2-Chlorophenol	ND	ND	250	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	2-Methylnaphthalene	ND	ND	33.0	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	2-Methylphenol (o-Cresol)	ND	ND	990	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	2-Nitroaniline	ND	ND	990	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	2-Nitrophenol	ND	ND	250	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	3,3'-Dichlorobenzidine	ND	ND	490	NA	50	NA	OK

Field Duplicate Report By Event and Site
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012

Location	Analysis
68-ESSW-DU1-SB1	SW8270C

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	3-Nitroaniline	ND	ND	990	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	4,6-Dinitro-2-Methylphenol	ND	ND	740	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	4-Bromophenyl phenyl ether	ND	ND	250	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	4-Chloro-3-Methylphenol	ND	ND	740	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	4-Chloroaniline	ND	ND	740	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	4-Chlorophenyl Phenyl Ether	ND	ND	250	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	4-Nitroaniline	ND	ND	990	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	4-Nitrophenol	ND	ND	1600	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	Acenaphthene	ND	ND	33.0	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	Acenaphthylene	ND	ND	33.0	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	Anthracene	ND	ND	33.0	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	Benzo(a)anthracene	ND	ND	33.0	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	Benzo(a)pyrene	ND	ND	33.0	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	Benzo(b)fluoranthene	ND	ND	33.0	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	Benzo(g,h,i)perylene	ND	ND	33.0	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	Benzo(k)fluoranthene	ND	ND	33.0	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	Benzoic acid	ND	ND	3300	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	Benzyl alcohol	ND	ND	1600	NA	50	NA	OK

Field Duplicate Report By Event and Site
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012

Location	Analysis
68-ESSW-DU1-SB1	SW8270C

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	Benzyl butyl phthalate	ND	ND	340	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	bis(2-Chloroethoxy) Methane	ND	ND	490	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	ND	ND	490	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	bis(2-Chloroisopropyl) Ether	ND	ND	490	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	bis(2-Ethylhexyl) Phthalate	ND	ND	340	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	Carbazole	ND	ND	250	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	Chrysene	ND	ND	33.0	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	Cresols, m & p	ND	ND	2000	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	Di-n-Butyl Phthalate	ND	ND	340	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	Di-n-Octylphthalate	ND	ND	340	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	Dibenz(a,h)anthracene	ND	ND	33.0	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	Dibenzofuran	ND	ND	250	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	Diethyl Phthalate	ND	ND	340	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	Dimethyl Phthalate	ND	ND	340	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	Fluoranthene	ND	ND	33.0	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	Fluorene	ND	ND	33.0	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	Hexachlorobenzene	ND	ND	33.0	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	Hexachlorobutadiene	ND	ND	250	NA	50	NA	OK

Field Duplicate Report By Event and Site
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012

Location	Analysis
68-ESSW-DU1-SB1	SW8270C

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	Hexachlorocyclopentadiene	ND	ND	1600	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	Hexachloroethane	ND	ND	250	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	Indeno(1,2,3-c,d)pyrene	ND	ND	33.0	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	Isophorone	ND	ND	250	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	n-Nitrosodi-n-propylamine	ND	ND	250	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	n-Nitrosodiphenylamine	ND	ND	250	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	Naphthalene	ND	ND	33.0	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	Nitrobenzene	ND	ND	490	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	Pentachlorophenol	ND	ND	740	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	Phenanthrene	ND	ND	33.0	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	Phenol	ND	ND	250	NA	50	NA	OK
Mar 29 2013	068SB-0019M-0001-SO / 068SB-0022M-0001-SO	240-22663-33 / 240-22663-34	Pyrene	ND	ND	33.0	NA	50	NA	OK

Location	Analysis
68-ESSW-DU2-SB1	SW6020

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Aluminum	12000	8900	3.00	29.7	50	OK	NA
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Antimony	ND	0.150	0.200	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Arsenic	9.90	7.10	0.100	32.9	50	OK	NA

Field Duplicate Report By Event and Site
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012

Location	Analysis
68-ESSW-DU2-SB1	SW6020

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Barium	79.0	56.0	1.00	34.1	50	OK	NA
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Beryllium	0.660	0.430	0.100	42.2	50	NA	0.23
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Cadmium	0.220	0.170	0.100	25.6	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Calcium	28000	21000	10.0	28.6	50	OK	NA
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Chromium	18.0	13.0	0.200	32.3	50	OK	NA
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Cobalt	12.0	8.40	0.0500	35.3	50	OK	NA
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Copper	19.0	14.0	0.200	30.3	50	OK	NA
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Iron	26000	18000	5.00	36.4	50	OK	NA
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Lead	12.0	8.40	0.100	35.3	50	OK	NA
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Magnesium	7500	5500	10.0	30.8	50	OK	NA
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Manganese	420	280	0.500	40.0	50	OK	NA
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Nickel	29.0	21.0	0.100	32.0	50	OK	NA
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Potassium	1600	1400	10.0	13.3	50	OK	NA
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Selenium	0.320	0.240	0.500	28.6	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Silver	0.0370	0.0270	0.100	31.3	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Sodium	110	77.0	10.0	35.3	50	OK	NA
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Thallium	0.170	0.130	0.100	26.7	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Vanadium	19.0	15.0	0.100	23.5	50	OK	NA

Field Duplicate Report By Event and Site
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012

Location	Analysis
68-ESSW-DU2-SB1	SW6020

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Zinc	50.0	35.0	0.500	35.3	50	OK	NA

Location	Analysis
68-ESSW-DU2-SB1	SW7471A

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Mercury	0.0300	ND	0.110	NA	50	NA	OK

Location	Analysis
68-ESSW-DU2-SB1	SW8082

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	PCB-1016 (Arochlor 1016)	ND	ND	66.0	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	PCB-1221 (Arochlor 1221)	ND	ND	50.0	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	PCB-1232 (Arochlor 1232)	ND	ND	45.0	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	PCB-1242 (Arochlor 1242)	ND	ND	40.0	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	PCB-1248 (Arochlor 1248)	ND	ND	55.0	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	PCB-1254 (Arochlor 1254)	ND	ND	55.0	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	PCB-1260 (Arochlor 1260)	ND	ND	55.0	NA	50	NA	OK

Field Duplicate Report By Event and Site
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012

Location	Analysis
68-ESSW-DU2-SB1	SW8270C

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	1,2,4-Trichlorobenzene	ND	ND	250	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	1,2-Dichlorobenzene	ND	ND	250	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	1,3-Dichlorobenzene	ND	ND	250	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	1,4-Dichlorobenzene	ND	ND	250	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	2,4,5-Trichlorophenol	ND	ND	750	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	2,4,6-Trichlorophenol	ND	ND	750	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	2,4-Dichlorophenol	ND	ND	750	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	2,4-Dimethylphenol	ND	ND	750	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	2,4-Dinitrophenol	ND	ND	1600	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	2,4-Dinitrotoluene	ND	ND	1000	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	2,6-Dinitrotoluene	ND	ND	1000	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	2-Chloronaphthalene	ND	ND	250	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	2-Chlorophenol	ND	ND	250	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	2-Methylnaphthalene	ND	ND	33.0	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	2-Methylphenol (o-Cresol)	ND	ND	1000	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	2-Nitroaniline	ND	ND	1000	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	2-Nitrophenol	ND	ND	250	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	3,3'-Dichlorobenzidine	ND	ND	500	NA	50	NA	OK

Field Duplicate Report By Event and Site
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012

Location	Analysis
68-ESSW-DU2-SB1	SW8270C

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	3-Nitroaniline	ND	ND	1000	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	4,6-Dinitro-2-Methylphenol	ND	ND	750	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	4-Bromophenyl phenyl ether	ND	ND	250	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	4-Chloro-3-Methylphenol	ND	ND	750	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	4-Chloroaniline	ND	ND	750	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	4-Chlorophenyl Phenyl Ether	ND	ND	250	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	4-Nitroaniline	ND	ND	1000	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	4-Nitrophenol	ND	ND	1600	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Acenaphthene	ND	ND	33.0	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Acenaphthylene	ND	ND	33.0	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Anthracene	ND	ND	33.0	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Benzo(a)anthracene	ND	ND	33.0	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Benzo(a)pyrene	ND	ND	33.0	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Benzo(b)fluoranthene	ND	ND	33.0	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Benzo(g,h,i)perylene	ND	ND	33.0	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Benzo(k)fluoranthene	ND	ND	33.0	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Benzoic acid	ND	ND	3300	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Benzyl alcohol	ND	88.0	1600	NA	50	NA	OK

Field Duplicate Report By Event and Site
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012

Location	Analysis
68-ESSW-DU2-SB1	SW8270C

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Benzyl butyl phthalate	ND	ND	350	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	bis(2-Chloroethoxy) Methane	ND	ND	500	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	ND	ND	500	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	bis(2-Chloroisopropyl) Ether	ND	ND	500	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	bis(2-Ethylhexyl) Phthalate	ND	ND	350	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Carbazole	ND	ND	250	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Chrysene	ND	ND	33.0	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Cresols, m & p	ND	ND	2000	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Di-n-Butyl Phthalate	130	100	350	26.1	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Di-n-Octylphthalate	ND	ND	350	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Dibenz(a,h)anthracene	ND	ND	33.0	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Dibenzofuran	ND	ND	250	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Diethyl Phthalate	ND	ND	350	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Dimethyl Phthalate	ND	ND	350	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Fluoranthene	18.0	ND	33.0	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Fluorene	ND	ND	33.0	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Hexachlorobenzene	ND	ND	33.0	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Hexachlorobutadiene	ND	ND	250	NA	50	NA	OK

Field Duplicate Report By Event and Site
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012

Location	Analysis
68-ESSW-DU2-SB1	SW8270C

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Hexachlorocyclopentadiene	ND	ND	1600	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Hexachloroethane	ND	ND	250	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Indeno(1,2,3-c,d)pyrene	ND	ND	33.0	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Isophorone	ND	ND	250	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	n-Nitrosodi-n-propylamine	ND	ND	250	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	n-Nitrosodiphenylamine	ND	ND	250	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Naphthalene	ND	ND	33.0	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Nitrobenzene	ND	ND	500	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Pentachlorophenol	ND	ND	750	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Phenanthrene	ND	ND	33.0	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Phenol	ND	ND	250	NA	50	NA	OK
Apr 4 2013	068SB-0060M-0001-SO / 068SB-0061M-0001-SO	240-22852-1 / 240-22852-2	Pyrene	ND	ND	33.0	NA	50	NA	OK

Location	Analysis
68-SS3-DU1-SB2	SW6020

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	Aluminum	8700	8400	2.70	3.51	50	OK	NA
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	Antimony	0.0460	0.0540	0.180	16.0	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	Arsenic	11.0	12.0	0.0910	8.70	50	OK	NA

Field Duplicate Report By Event and Site
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012

Location	Analysis
68-SS3-DU1-SB2	SW6020

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	Barium	53.0	58.0	0.910	9.01	50	OK	NA
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	Beryllium	0.500	0.470	0.0910	6.19	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	Cadmium	0.120	0.130	0.0910	8.00	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	Calcium	3400	910	9.10	116	50	Out	NA
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	Chromium	12.0	12.0	0.180	0.00	50	OK	NA
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	Cobalt	8.60	9.10	0.0450	5.65	50	OK	NA
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	Copper	16.0	18.0	0.180	11.8	50	OK	NA
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	Iron	21000	21000	4.50	0.00	50	OK	NA
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	Lead	13.0	15.0	0.0910	14.3	50	OK	NA
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	Magnesium	2400	2300	9.10	4.26	50	OK	NA
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	Manganese	370	310	0.450	17.6	50	OK	NA
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	Nickel	18.0	20.0	0.0910	10.5	50	OK	NA
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	Potassium	770	870	9.10	12.2	50	OK	NA
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	Selenium	0.290	0.290	0.450	0.00	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	Silver	0.0280	0.0280	0.0910	0.00	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	Sodium	44.0	37.0	9.10	17.3	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	Thallium	0.120	0.130	0.0910	8.00	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	Vanadium	15.0	14.0	0.0910	6.90	50	OK	NA

Field Duplicate Report By Event and Site
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012

Location	Analysis
68-SS3-DU1-SB2	SW6020

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	Zinc	40.0	42.0	0.450	4.88	50	OK	NA

Location	Analysis
68-SS3-DU1-SB2	SW7471A

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	Mercury	0.0150	0.0140	0.100	6.90	50	NA	OK

Location	Analysis
68-SS3-DU1-SB2	SW8082

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	PCB-1016 (Arochlor 1016)	ND	ND	65.0	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	PCB-1221 (Arochlor 1221)	ND	ND	50.0	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	PCB-1232 (Arochlor 1232)	ND	ND	45.0	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	PCB-1242 (Arochlor 1242)	ND	ND	40.0	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	PCB-1248 (Arochlor 1248)	ND	ND	55.0	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	PCB-1254 (Arochlor 1254)	ND	ND	55.0	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	PCB-1260 (Arochlor 1260)	ND	ND	55.0	NA	50	NA	OK

Field Duplicate Report By Event and Site
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012

Location	Analysis
68-SS3-DU1-SB2	SW8270C

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	1,2,4-Trichlorobenzene	ND	ND	50.0	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	1,2-Dichlorobenzene	ND	ND	50.0	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	1,3-Dichlorobenzene	ND	ND	50.0	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	1,4-Dichlorobenzene	ND	ND	50.0	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	2,4,5-Trichlorophenol	ND	ND	150	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	2,4,6-Trichlorophenol	ND	ND	150	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	2,4-Dichlorophenol	ND	ND	150	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	2,4-Dimethylphenol	ND	ND	150	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	2,4-Dinitrophenol	ND	ND	330	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	2,4-Dinitrotoluene	ND	ND	200	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	2,6-Dinitrotoluene	ND	ND	200	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	2-Chloronaphthalene	ND	ND	50.0	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	2-Chlorophenol	ND	ND	50.0	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	2-Methylnaphthalene	4.40	9.60	6.60	74.3	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	2-Methylphenol (o-Cresol)	ND	ND	200	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	2-Nitroaniline	ND	ND	200	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	2-Nitrophenol	ND	ND	50.0	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	3,3'-Dichlorobenzidine	ND	ND	100	NA	50	NA	OK

Field Duplicate Report By Event and Site
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012

Location	Analysis
68-SS3-DU1-SB2	SW8270C

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	3-Nitroaniline	ND	ND	200	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	4,6-Dinitro-2-Methylphenol	ND	ND	150	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	4-Bromophenyl phenyl ether	ND	ND	50.0	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	4-Chloro-3-Methylphenol	ND	ND	150	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	4-Chloroaniline	ND	ND	150	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	4-Chlorophenyl Phenyl Ether	ND	ND	50.0	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	4-Nitroaniline	ND	ND	200	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	4-Nitrophenol	ND	ND	330	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	Acenaphthene	ND	ND	6.60	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	Acenaphthylene	ND	ND	6.60	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	Anthracene	ND	ND	6.60	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	Benzo(a)anthracene	ND	ND	6.60	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	Benzo(a)pyrene	ND	ND	6.60	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	Benzo(b)fluoranthene	ND	ND	6.60	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	Benzo(g,h,i)perylene	ND	ND	6.60	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	Benzo(k)fluoranthene	ND	ND	6.60	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	Benzoic acid	ND	ND	660	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	Benzyl alcohol	ND	ND	330	NA	50	NA	OK

Field Duplicate Report By Event and Site
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012

Location	Analysis
68-SS3-DU1-SB2	SW8270C

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	Benzyl butyl phthalate	ND	ND	70.0	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	bis(2-Chloroethoxy) Methane	ND	ND	100	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	ND	ND	100	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	bis(2-Chloroisopropyl) Ether	ND	ND	100	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	bis(2-Ethylhexyl) Phthalate	ND	ND	74.0	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	Carbazole	ND	ND	50.0	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	Chrysene	ND	ND	6.60	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	Cresols, m & p	ND	ND	400	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	Di-n-Butyl Phthalate	ND	ND	70.0	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	Di-n-Octylphthalate	ND	ND	70.0	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	Dibenz(a,h)anthracene	ND	ND	6.60	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	Dibenzofuran	ND	ND	50.0	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	Diethyl Phthalate	ND	ND	70.0	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	Dimethyl Phthalate	ND	ND	70.0	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	Fluoranthene	ND	ND	6.60	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	Fluorene	ND	ND	6.60	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	Hexachlorobenzene	ND	ND	6.60	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	Hexachlorobutadiene	ND	ND	50.0	NA	50	NA	OK

Field Duplicate Report By Event and Site
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012

Location	Analysis
68-SS3-DU1-SB2	SW8270C

Sample Date	Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	Hexachlorocyclopentadiene	ND	ND	330	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	Hexachloroethane	ND	ND	50.0	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	Indeno(1,2,3-c,d)pyrene	ND	ND	6.60	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	Isophorone	ND	ND	50.0	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	n-Nitrosodi-n-propylamine	ND	ND	50.0	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	n-Nitrosodiphenylamine	ND	ND	50.0	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	Naphthalene	ND	ND	6.60	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	Nitrobenzene	ND	ND	100	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	Pentachlorophenol	ND	ND	150	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	Phenanthrene	ND	5.40	6.60	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	Phenol	ND	ND	50.0	NA	50	NA	OK
Mar 29 2013	068SB-0053M-0001-SO / 068SB-0054M-0001-SO	240-22648-58 / 240-22648-59	Pyrene	ND	ND	6.60	NA	50	NA	OK

FD = Field Duplicate
RL = Reporting Limit
RPD = Relative Percent Difference

RL Check = If either the primary sample or field duplicate result is less than 5 times the RL then the criteria used to determine if the field duplicate is outside QC limits is +/- RL for Water and +/- 2 times RL for Soil

ATTACHMENT A

Quality Control – Trip Blanks and Equipment Rinsate Blanks

This page left intentionally blank.

Equipment Blank
Chemistry Results
Ravenna Army Ammunition Plant, Quality Assurance Project Plan, Oct. 3, 2012
Ravenna Army Ammunition Plant

Locations:	ER-1	ER-3
Field Sample ID:	076-0067-0001-ER	079RN-0317-0001-RN
Sample Begin Depth:	0	0
Sample End Depth:	0	0
Sample Date:	11/15/2012	04/03/2013
Volatile Organic Compounds by Capillary GC/MS		
1,1,1-Trichloroethane (UG/L)	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane (UG/L)	1.0 U	1.0 U
1,1,2-Trichloroethane (UG/L)	1.0 U	1.0 U
1,1-Dichloroethane (UG/L)	1.0 U	1.0 U
1,1-Dichloroethene (UG/L)	1.0 U	1.0 U
1,2-Dibromoethane (EDB) (UG/L)	1.0 U	1.0 U
1,2-Dichloroethane (UG/L)	1.0 U	1.0 U
1,2-Dichloroethene (UG/L)	2.0 U	2.0 U
1,2-Dichloropropane (UG/L)	1.0 U	1.0 U
2-Butanone (MEK) (UG/L)	10.0 U	10.0 U
2-Hexanone (UG/L)	10.0 U	10.0 U
4-Methyl-2-pentanone (MIBK) (UG/L)	10.0 U	10.0 U
Acetone (UG/L)	10.0 UJ	10.0 UJ
Benzene (UG/L)	1.0 U	1.0 U
Bromochloromethane (UG/L)	1.0 U	1.0 U
Bromodichloromethane (UG/L)	1.0 U	1.0 U
Bromoform (UG/L)	1.0 U	1.0 U
Bromomethane (UG/L)	1.0 U	1.0 U
Carbon Disulfide (UG/L)	1.0 U	1.0 U
Carbon Tetrachloride (UG/L)	1.0 U	1.0 U
Chlorobenzene (UG/L)	1.0 U	1.0 U
Chloroethane (UG/L)	1.0 U	1.0 U
Chloroform (UG/L)	**0.61 J**	**0.34 J**
Chloromethane (UG/L)	1.0 U	1.0 U
cis-1,3-Dichloropropene (UG/L)	1.0 U	1.0 U
Dibromochloromethane (UG/L)	1.0 U	1.0 U
Ethylbenzene (UG/L)	1.0 U	1.0 U

Equipment Blank
Chemistry Results
Ravenna Army Ammunition Plant, Quality Assurance Project Plan, Oct. 3, 2012
Ravenna Army Ammunition Plant

Locations:	ER-1	ER-3
Field Sample ID:	076-0067-0001-ER	079RN-0317-0001-RN
Sample Begin Depth:	0	0
Sample End Depth:	0	0
Sample Date:	11/15/2012	04/03/2013
Volatile Organic Compounds by Capillary GC/MS		
Methylene Chloride (UG/L)	1.0 U	1.0 U
Styrene (UG/L)	1.0 UJ	1.0 U
tert-Butyl Methyl Ether (MTBE) (UG/L)	1.0 U	1.0 U
Tetrachloroethene (PCE) (UG/L)	1.0 U	1.0 U
Toluene (UG/L)	1.0 U	1.0 U
trans-1,3-Dichloropropene (UG/L)	1.0 U	1.0 U
Trichloroethene (TCE) (UG/L)	1.0 U	1.0 U
Vinyl Chloride (UG/L)	1.0 U	1.0 U
Xylenes, Total (UG/L)	2.0 U	2.0 U

Equipment Blank
Chemistry Results
Ravenna Army Ammunition Plant, Quality Assurance Project Plan, Oct. 3, 2012
Ravenna Army Ammunition Plant

Locations:	ER-1	ER-3
Field Sample ID:	076-0067-0001-ER	079RN-0317-0001-RN
Sample Begin Depth:	0	0
Sample End Depth:	0	0
Sample Date:	11/15/2012	04/03/2013
Semivolatile Organic Compounds by Capillary GC/MS		
1,2,4-Trichlorobenzene (UG/L)	0.97 U	1.1 U
1,2-Dichlorobenzene (UG/L)	0.97 U	1.1 U
1,3-Dichlorobenzene (UG/L)	0.97 U	1.1 U
1,4-Dichlorobenzene (UG/L)	0.97 U	1.1 U
2,4,5-Trichlorophenol (UG/L)	4.9 U	5.3 U
2,4,6-Trichlorophenol (UG/L)	4.9 U	5.3 U
2,4-Dichlorophenol (UG/L)	1.9 U	2.1 U
2,4-Dimethylphenol (UG/L)	1.9 U	2.1 U
2,4-Dinitrophenol (UG/L)	4.9 U	5.3 U
2,4-Dinitrotoluene (UG/L)	4.9 U	5.3 U
2,6-Dinitrotoluene (UG/L)	4.9 U	5.3 U
2-Chloronaphthalene (UG/L)	0.97 U	1.1 U
2-Chlorophenol (UG/L)	0.97 U	1.1 U
2-Methylnaphthalene (UG/L)	0.19 U	0.21 U
2-Methylphenol (o-Cresol) (UG/L)	0.97 U	1.1 U
2-Nitroaniline (UG/L)	1.9 U	2.1 U
2-Nitrophenol (UG/L)	1.9 U	2.1 U
3,3'-Dichlorobenzidine (UG/L)	4.9 UJ	5.3 U
3-Nitroaniline (UG/L)	1.9 U	2.1 U
4,6-Dinitro-2-Methylphenol (UG/L)	4.9 U	5.3 U
4-Bromophenyl phenyl ether (UG/L)	1.9 U	2.1 U
4-Chloro-3-Methylphenol (UG/L)	1.9 U	2.1 U
4-Chloroaniline (UG/L)	1.9 U	2.1 U
4-Chlorophenyl Phenyl Ether (UG/L)	1.9 U	2.1 U
4-Nitroaniline (UG/L)	1.9 U	2.1 U
4-Nitrophenol (UG/L)	4.9 U	5.3 U

Equipment Blank
Chemistry Results
Ravenna Army Ammunition Plant, Quality Assurance Project Plan, Oct. 3, 2012
Ravenna Army Ammunition Plant

Locations:	ER-1	ER-3
Field Sample ID:	076-0067-0001-ER	079RN-0317-0001-RN
Sample Begin Depth:	0	0
Sample End Depth:	0	0
Sample Date:	11/15/2012	04/03/2013
Semivolatile Organic Compounds by Capillary GC/MS		
Acenaphthene (UG/L)	0.19 U	0.21 U
Acenaphthylene (UG/L)	0.19 U	0.21 U
Anthracene (UG/L)	0.19 U	0.21 U
Benzo(a)anthracene (UG/L)	0.19 U	0.21 U
Benzo(a)pyrene (UG/L)	0.19 U	0.21 U
Benzo(b)fluoranthene (UG/L)	0.19 U	0.21 U
Benzo(g,h,i)perylene (UG/L)	0.19 U	0.21 U
Benzo(k)fluoranthene (UG/L)	0.19 U	0.21 U
Benzoic acid (UG/L)	24.0 U	26.0 R
Benzyl alcohol (UG/L)	4.9 U	5.3 UJ
Benzyl butyl phthalate (UG/L)	0.97 U	2.1 U
bis(2-Chloroethoxy) Methane (UG/L)	0.97 U	1.1 U
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether) (UG/L)	0.97 U	1.1 U
bis(2-Chloroisopropyl) Ether (UG/L)	0.97 U	1.1 U
bis(2-Ethylhexyl) Phthalate (UG/L)	1.9 U	2.1 U
Carbazole (UG/L)	0.97 U	1.1 U
Chrysene (UG/L)	0.19 U	0.21 U
Cresols, m & p (UG/L)	1.9 U	2.1 U
Dibenz(a,h)anthracene (UG/L)	0.19 U	0.21 U
Dibenzofuran (UG/L)	0.97 U	1.1 U
Diethyl Phthalate (UG/L)	0.97 U	2.1 U
Dimethyl Phthalate (UG/L)	0.97 U	2.1 U
Di-n-Butyl Phthalate (UG/L)	0.97 U	2.1 U
Di-n-Octylphthalate (UG/L)	0.97 U	2.1 U
Fluoranthene (UG/L)	0.19 U	0.21 U
Fluorene (UG/L)	0.19 U	0.21 U

Equipment Blank
Chemistry Results
Ravenna Army Ammunition Plant, Quality Assurance Project Plan, Oct. 3, 2012
Ravenna Army Ammunition Plant

Locations:	ER-1	ER-3
Field Sample ID:	076-0067-0001-ER	079RN-0317-0001-RN
Sample Begin Depth:	0	0
Sample End Depth:	0	0
Sample Date:	11/15/2012	04/03/2013
Semivolatile Organic Compounds by Capillary GC/MS		
Hexachlorobenzene (UG/L)	0.19 U	0.21 U
Hexachlorobutadiene (UG/L)	0.97 U	1.1 U
Hexachlorocyclopentadiene (UG/L)	9.7 U	11.0 U
Hexachloroethane (UG/L)	0.97 U	1.1 UJ
Indeno(1,2,3-c,d)pyrene (UG/L)	0.19 U	0.21 U
Isophorone (UG/L)	0.97 U	1.1 U
Naphthalene (UG/L)	0.19 U	0.21 U
Nitrobenzene (UG/L)	0.97 U	1.1 U
n-Nitrosodi-n-propylamine (UG/L)	0.97 U	1.1 U
n-Nitrosodiphenylamine (UG/L)	0.97 UJ	1.1 U
Pentachlorophenol (UG/L)	4.9 U	5.3 U
Phenanthrene (UG/L)	0.19 U	0.21 U
Phenol (UG/L)	0.97 U	1.1 U
Pyrene (UG/L)	0.19 U	0.21 U

Equipment Blank
Chemistry Results
Ravenna Army Ammunition Plant, Quality Assurance Project Plan, Oct. 3, 2012
Ravenna Army Ammunition Plant

Locations:	ER-1	ER-3
Field Sample ID:	076-0067-0001-ER	079RN-0317-0001-RN
Sample Begin Depth:	0	0
Sample End Depth:	0	0
Sample Date:	11/15/2012	04/03/2013
Trace Metals by Inductively Coupled Plasma/Mass Spectrometry		
Aluminum (UG/L)	60.0 U	30.0 U
Antimony (UG/L)	**0.34 J**	2.0 U
Arsenic (UG/L)	5.0 U	1.0 U
Barium (UG/L)	5.0 U	10.0 U
Beryllium (UG/L)	1.0 U	1.0 U
Cadmium (UG/L)	2.0 U	1.0 U
Calcium (UG/L)	2000 U	100 U
Chromium (UG/L)	**0.60 J**	**3.2**
Cobalt (UG/L)	1.0 U	0.50 U
Copper (UG/L)	4.0 U	**0.41 J**
Iron (UG/L)	150 U	50.0 U
Lead (UG/L)	1.0 U	1.0 U
Magnesium (UG/L)	1000 U	100 U
Manganese (UG/L)	**3.5 J**	5.0 U
Nickel (UG/L)	**20.0**	**5.9**
Potassium (UG/L)	1000 U	100 U
Selenium (UG/L)	5.0 U	5.0 U
Silver (UG/L)	1.0 U	1.0 U
Sodium (UG/L)	1000 U	**65.0 J**
Thallium (UG/L)	**0.75 J**	1.0 U
Vanadium (UG/L)	5.0 U	1.0 U
Zinc (UG/L)	**10.0 J**	**3.2 J**

Equipment Blank
Chemistry Results
Ravenna Army Ammunition Plant, Quality Assurance Project Plan, Oct. 3, 2012
Ravenna Army Ammunition Plant

Locations:	ER-1	ER-3
Field Sample ID:	076-0067-0001-ER	079RN-0317-0001-RN
Sample Begin Depth:	0	0
Sample End Depth:	0	0
Sample Date:	11/15/2012	04/03/2013
Mercury in Water (Manual Cold-Vapor Techique)		
Mercury (UG/L)	0.20 U	0.20 U

Equipment Blank
Chemistry Results
Ravenna Army Ammunition Plant, Quality Assurance Project Plan, Oct. 3, 2012
Ravenna Army Ammunition Plant

Locations:	ER-1	ER-3
Field Sample ID:	076-0067-0001-ER	079RN-0317-0001-RN
Sample Begin Depth:	0	0
Sample End Depth:	0	0
Sample Date:	11/15/2012	04/03/2013
Polychlorinated Biphenyls (PCB)		
PCB-1016 (Arochlor 1016) (UG/L)	0.48 U	0.50 U
PCB-1221 (Arochlor 1221) (UG/L)	0.48 U	0.50 U
PCB-1232 (Arochlor 1232) (UG/L)	0.48 U	0.50 U
PCB-1242 (Arochlor 1242) (UG/L)	0.48 U	0.50 U
PCB-1248 (Arochlor 1248) (UG/L)	0.48 U	0.50 U
PCB-1254 (Arochlor 1254) (UG/L)	0.48 U	0.50 U
PCB-1260 (Arochlor 1260) (UG/L)	0.48 U	0.50 U

Equipment Blank
Chemistry Results
Ravenna Army Ammunition Plant, Quality Assurance Project Plan, Oct. 3, 2012
Ravenna Army Ammunition Plant

Locations:	ER-1	ER-3
Field Sample ID:	076-0067-0001-ER	079RN-0317-0001-RN
Sample Begin Depth:	0	0
Sample End Depth:	0	0
Sample Date:	11/15/2012	04/03/2013
Organochlorine Pesticides and PCBs by Capillary GC		
Aldrin (UG/L)	0.048 U	0.050 U
alpha-BHC (alpha-Hexachlorocyclohexane) (UG/L)	0.048 U	0.050 U
alpha-Chlordane (UG/L)	0.048 U	0.050 U
alpha-Endosulfan (UG/L)	0.048 U	0.050 U
beta-BHC (beta-Hexachlorocyclohexane) (UG/L)	0.048 U	0.050 U
beta-Endosulfan (UG/L)	0.048 U	0.050 U
delta-BHC (delta-Hexachlorocyclohexane) (UG/L)	0.048 U	0.050 U
Dieldrin (UG/L)	0.048 U	0.050 U
Endosulfan Sulfate (UG/L)	0.048 U	0.050 U
Endrin (UG/L)	0.048 U	0.050 U
Endrin Aldehyde (UG/L)	0.048 U	0.050 U
Endrin Ketone (UG/L)	0.048 U	0.050 U
gamma-BHC (Lindane) (UG/L)	0.048 U	0.050 U
gamma-Chlordane (UG/L)	0.048 U	0.050 U
Heptachlor (UG/L)	0.048 U	0.050 U
Heptachlor Epoxide (UG/L)	0.048 U	0.050 U
Methoxychlor (UG/L)	0.096 U	0.10 UJ
p,p'-DDD (UG/L)	0.048 U	0.050 U
p,p'-DDE (UG/L)	0.048 U	0.050 U
p,p'-DDT (UG/L)	0.048 U	0.050 U
Toxaphene (UG/L)	1.9 U	2.0 UJ

Equipment Blank
Chemistry Results
Ravenna Army Ammunition Plant, Quality Assurance Project Plan, Oct. 3, 2012
Ravenna Army Ammunition Plant

Locations:	ER-1	ER-3
Field Sample ID:	076-0067-0001-ER	079RN-0317-0001-RN
Sample Begin Depth:	0	0
Sample End Depth:	0	0
Sample Date:	11/15/2012	04/03/2013
Chlorinated Herbicides by GC Using Methylation or Pentafluorobenzylation Derivatization: Capillary Column Technique		
2,4 DB (UG/L)	4.0 U	-
2,4,5-T (Trichlorophenoxyacetic Acid) (UG/L)	1.0 U	-
2,4-D (Dichlorophenoxyacetic Acid) (UG/L)	4.0 U	-
Dalapon (UG/L)	2.0 U	-
Dicamba (UG/L)	2.0 U	-
Dichloroprop (UG/L)	4.0 U	-
Dinoseb (UG/L)	0.60 U	-
MCPA (UG/L)	400 UJ	-
MCPP (UG/L)	400 U	-
Pentachlorophenol (UG/L)	0.10 U	-
Silvex (2,4,5-TP) (UG/L)	1.0 U	-

Equipment Blank
Chemistry Results
Ravenna Army Ammunition Plant, Quality Assurance
Project Plan, Oct. 3, 2012
Ravenna Army Ammunition Plant

Locations:	ER-1	ER-3
Field Sample ID:	076-0067-0001-ER	079RN-0317-0001-RN
Sample Begin Depth:	0	0
Sample End Depth:	0	0
Sample Date:	11/15/2012	04/03/2013
Modified SW8015 for the Determination of Diesel Range Organics in Soil and Water, GC/FID		
C10-C20 Diesel Range Organics (UG/L)	-	500 U
C20-C34 Motor Oil Range Organics (UG/L)	-	500 U

Equipment Blank
Chemistry Results
Ravenna Army Ammunition Plant, Quality Assurance Project Plan, Oct. 3, 2012
Ravenna Army Ammunition Plant

Locations:	ER-1	ER-3
Field Sample ID:	076-0067-0001-ER	079RN-0317-0001-RN
Sample Begin Depth:	0	0
Sample End Depth:	0	0
Sample Date:	11/15/2012	04/03/2013
Modified SW8015 for the Determination of Gasoline Range Organics in Soil and Water, GC/FID		
Petroleum Hydrocarbons C6-C12 (UG/L)	**33.0 J**	-

Equipment Blank
Chemistry Results
Ravenna Army Ammunition Plant, Quality Assurance
Project Plan, Oct. 3, 2012
Ravenna Army Ammunition Plant

Locations:	ER-1	ER-3
Field Sample ID:	076-0067-0001-ER	079RN-0317-0001-RN
Sample Begin Depth:	0	0
Sample End Depth:	0	0
Sample Date:	11/15/2012	04/03/2013
Nitroaromatics and Nitramines by HPLC		
1,3,5-Trinitrobenzene (UG/L)	0.10 U	0.11 U
1,3-Dinitrobenzene (UG/L)	0.10 U	0.11 U
2,4,6-Trinitrotoluene (UG/L)	0.10 U	0.11 U
2,4-Dinitrotoluene (UG/L)	0.10 U	0.11 U
2,6-Dinitrotoluene (UG/L)	0.10 U	0.11 U
2-Amino-4,6-dinitrotoluene (UG/L)	0.21 U	0.22 U
2-Nitrotoluene (UG/L)	0.51 U	0.56 U
3-Nitrotoluene (UG/L)	0.51 U	0.56 U
4-Amino-2,6-Dinitrotoluene (UG/L)	0.10 U	0.11 U
4-Nitrotoluene (UG/L)	0.51 U	0.56 U
Hexahydro-1,3,5-Trinitro-1,3,5-Triazine (RDX) (UG/L)	0.10 U	0.11 U
Nitrobenzene (UG/L)	0.10 U	0.11 U
Nitroglycerin (UG/L)	0.67 U	0.72 U
NITROGUANIDINE (UG/L)	20.0 U	20.0 U
Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine (HMX) (UG/L)	0.10 U	0.11 U
Pentaerythritol Tetranitrate (UG/L)	0.67 U	0.72 U
Tetryl (UG/L)	0.10 U	0.11 U

Equipment Blank
Chemistry Results
Ravenna Army Ammunition Plant, Quality Assurance
Project Plan, Oct. 3, 2012
Ravenna Army Ammunition Plant

Locations:	ER-1	ER-3
Field Sample ID:	076-0067-0001-ER	079RN-0317-0001-RN
Sample Begin Depth:	0	0
Sample End Depth:	0	0
Sample Date:	11/15/2012	04/03/2013
Nitrogen, Nitrate-Nitrite (Colorimetric Automated, Cadmium Reduction)		
Nitrocellulose (MG/L)	2.0 U	2.0 U

Trip Blank
Chemistry Results
Ravenna Army Ammunition Plant,
Quality Assurance Project Plan, Oct. 3, 2012
Ravenna Army Ammunition Plant

	TB-1	TB-2	TB-3	QC TB-1	QC TB-5	QC TB-7	QC TB-10
Locations:	76-A3-DU-SS	68-ESSW-DU1-SB4	73-NLCT-DW-SW3	70-4744-DU1-SB6	76-A3-DU1-SB4	76-A3-DU1-SB4	79-OSP-DU3-SW2
Field Sample ID:	076SB-0027-0001-TB	068SB-0026-0001-TB	073SW-0057-0001-TB	070-0060-0001-TB	079-0008-0001-TB	076-0068-0001-TB	079-0318-0001-TB
Sample Begin Depth:	0	0	0	0	0	0	0
Sample End Depth:	0	0	0	0	0	0	0
Sample Date:	11/7/2012	04/01/2013	03/29/2013	12/12/2012	11/15/2012	11/15/2012	04/03/2013
Volatile Organic Compounds by Capillary GC/MS							
1,1,1-Trichloroethane (UG/L)	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane (UG/L)	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane (UG/L)	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane (UG/L)	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene (UG/L)	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (EDB) (UG/L)	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane (UG/L)	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethene (UG/L)	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2-Dichloropropane (UG/L)	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone (MEK) (UG/L)	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
2-Hexanone (UG/L)	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
4-Methyl-2-pentanone (MIBK) (UG/L)	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Acetone (UG/L)	10.0 U	**6.2 J**	**7.0 J**	10.0 U	10.0 UJ	10.0 UJ	**5.1 J**
Benzene (UG/L)	1.0 U	1.0 U	1.0 U		1.0 U	1.0 U	1.0 U
Bromochloromethane (UG/L)	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane (UG/L)	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform (UG/L)	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (UG/L)	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Disulfide (UG/L)	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Tetrachloride (UG/L)	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene (UG/L)	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane (UG/L)	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (UG/L)	1.0 U	1.0 U	1.0 U	**0.32 J**	1.0 U	1.0 U	1.0 U
Chloromethane (UG/L)	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene (UG/L)	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane (UG/L)	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene (UG/L)	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene Chloride (UG/L)	1.0 U	**1.2**	**1.2**	1.0 U	1.0 U	1.0 U	**1.1**
Styrene (UG/L)	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 UJ	1.0 U
tert-Butyl Methyl Ether (MTBE) (UG/L)	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene (PCE) (UG/L)	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene (UG/L)	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene (UG/L)	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene (TCE) (UG/L)	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl Chloride (UG/L)	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes, Total (UG/L)	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U

Trip Blank
Chemistry Results
Ravenna Army Ammunition Plant,
Quality Assurance Project Plan, Oct.
3, 2012
Ravenna Army Ammunition Plant

	TB-1	QC TB-2	QC TB-6
Locations:	76-A3-DU-SS	70-4744-DU1-SB6	79-LL3-DU1-SB3
Field Sample ID:	076SB-0027-0001-TB	070SB-0055-0001-TB	079-0009-0001-TB
Sample Begin Depth:	0	0	0
Sample End Depth:	0	0	0
Sample Date:	11/7/2012	12/12/2012	03/14/2013
Modified SW8015 for the Determination of Gasoline Range Organics in Soil and Water, GC/FID			
Petroleum Hydrocarbons C6-C12 (UG/L)	**55 J**	**37.0 J**	100 U

ATTACHMENT B

Source Water

This page left intentionally blank.

ECC
Chemistry Results
Ravenna Army Ammunition Plant, Quality Assurance Project Plan,
Oct. 3, 2012
Ravenna Army Ammunition Plant

Locations:	SorW-1	SorW-3
Field Sample ID:	070-0056-0001-SOURCE WATER	079-0007-0001-SOURCEWATER
Sample Begin Depth:	0	0
Sample End Depth:	0	0
Sample Date:	12/12/2012	03/14/2013
Volatile Organic Compounds by Capillary GC/MS		
1,1,1-Trichloroethane (UG/L)	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane (UG/L)	1.0 U	1.0 U
1,1,2-Trichloroethane (UG/L)	1.0 U	1.0 U
1,1-Dichloroethane (UG/L)	1.0 U	1.0 U
1,1-Dichloroethene (UG/L)	1.0 U	1.0 U
1,2-Dibromoethane (EDB) (UG/L)	1.0 U	1.0 U
1,2-Dichloroethane (UG/L)	1.0 U	1.0 U
1,2-Dichloroethene (UG/L)	2.0 U	2.0 U
1,2-Dichloropropane (UG/L)	1.0 U	1.0 U
2-Butanone (MEK) (UG/L)	10.0 U	10.0 U
2-Hexanone (UG/L)	10.0 U	10.0 U
4-Methyl-2-pentanone (MIBK) (UG/L)	10.0 U	10.0 U
Acetone (UG/L)	10.0 U	10.0 U
Benzene (UG/L)	1.0 U	1.0 U
Bromochloromethane (UG/L)	1.0 U	1.0 U
Bromodichloromethane (UG/L)	1.0 U	1.0 U
Bromoform (UG/L)	1.0 U	1.0 U
Bromomethane (UG/L)	1.0 U	1.0 U
Carbon Disulfide (UG/L)	1.0 U	1.0 U
Carbon Tetrachloride (UG/L)	1.0 U	1.0 UJ
Chlorobenzene (UG/L)	1.0 U	1.0 U
Chloroethane (UG/L)	1.0 U	1.0 U
Chloroform (UG/L)	1.0 U	1.0 U
Chloromethane (UG/L)	1.0 U	1.0 U
cis-1,3-Dichloropropene (UG/L)	1.0 U	1.0 U
Dibromochloromethane (UG/L)	1.0 U	1.0 U
Ethylbenzene (UG/L)	1.0 U	1.0 U
Methylene Chloride (UG/L)	1.0 U	1.0 U
Styrene (UG/L)	1.0 U	1.0 U
tert-Butyl Methyl Ether (MTBE) (UG/L)	1.0 U	1.0 U
Tetrachloroethene (PCE) (UG/L)	1.0 U	1.0 U

ECC
Chemistry Results
Ravenna Army Ammunition Plant, Quality Assurance Project Plan,
Oct. 3, 2012
Ravenna Army Ammunition Plant

Locations:	SorW-1	SorW-3
Field Sample ID:	070-0056-0001-SOURCE WATER	079-0007-0001-SOURCEWATER
Sample Begin Depth:	0	0
Sample End Depth:	0	0
Sample Date:	12/12/2012	03/14/2013
Volatile Organic Compounds by Capillary GC/MS		
Toluene (UG/L)	1.0 U	1.0 U
trans-1,3-Dichloropropene (UG/L)	1.0 U	1.0 U
Trichloroethene (TCE) (UG/L)	1.0 U	1.0 U
Vinyl Chloride (UG/L)	1.0 U	1.0 U
Xylenes, Total (UG/L)	2.0 U	2.0 U

ECC
Chemistry Results
Ravenna Army Ammunition Plant, Quality Assurance Project Plan,
Oct. 3, 2012
Ravenna Army Ammunition Plant

Locations:	SorW-1	SorW-3
Field Sample ID:	070-0056-0001-SOURCE WATER	079-0007-0001-SOURCEWATER
Sample Begin Depth:	0	1
Sample End Depth:	0	4
Sample Date:	12/12/2012	03/14/2013
Semivolatile Organic Compounds by Capillary GC/MS		
1,2,4-Trichlorobenzene (UG/L)	0.95 U	1.0 U
1,2-Dichlorobenzene (UG/L)	0.95 U	1.0 U
1,3-Dichlorobenzene (UG/L)	0.95 U	1.0 U
1,4-Dichlorobenzene (UG/L)	0.95 U	1.0 U
2,4,5-Trichlorophenol (UG/L)	4.8 U	5.1 U
2,4,6-Trichlorophenol (UG/L)	4.8 U	5.1 U
2,4-Dichlorophenol (UG/L)	1.9 U	2.0 U
2,4-Dimethylphenol (UG/L)	1.9 U	2.0 UJ
2,4-Dinitrophenol (UG/L)	4.8 U	5.1 UJ
2,4-Dinitrotoluene (UG/L)	4.8 U	5.1 U
2,6-Dinitrotoluene (UG/L)	4.8 U	5.1 U
2-Chloronaphthalene (UG/L)	0.95 U	1.0 U
2-Chlorophenol (UG/L)	0.95 U	1.0 UJ
2-Methylnaphthalene (UG/L)	0.19 U	0.20 U
2-Methylphenol (o-Cresol) (UG/L)	0.95 U	1.0 UJ
2-Nitroaniline (UG/L)	1.9 U	2.0 U
2-Nitrophenol (UG/L)	1.9 U	2.0 UJ
3,3'-Dichlorobenzidine (UG/L)	4.8 U	5.1 UJ
3-Nitroaniline (UG/L)	1.9 U	2.0 U
4,6-Dinitro-2-Methylphenol (UG/L)	4.8 U	5.1 UJ
4-Bromophenyl phenyl ether (UG/L)	1.9 U	2.0 U
4-Chloro-3-Methylphenol (UG/L)	1.9 U	2.0 U
4-Chloroaniline (UG/L)	1.9 U	2.0 U
4-Chlorophenyl Phenyl Ether (UG/L)	1.9 U	2.0 U
4-Nitroaniline (UG/L)	1.9 U	2.0 UJ
4-Nitrophenol (UG/L)	4.8 U	5.1 UJ
Acenaphthene (UG/L)	0.19 U	0.20 U

ECC
Chemistry Results
Ravenna Army Ammunition Plant, Quality Assurance Project Plan,
Oct. 3, 2012
Ravenna Army Ammunition Plant

Locations:	SorW-1	SorW-3
Field Sample ID:	070-0056-0001-SOURCE WATER	079-0007-0001-SOURCEWATER
Sample Begin Depth:	0	1
Sample End Depth:	0	4
Sample Date:	12/12/2012	03/14/2013
Semivolatile Organic Compounds by Capillary GC/MS		
Acenaphthylene (UG/L)	0.19 U	0.20 U
Anthracene (UG/L)	0.19 U	0.20 U
Benzo(a)anthracene (UG/L)	0.19 U	0.20 U
Benzo(a)pyrene (UG/L)	0.19 U	0.20 U
Benzo(b)fluoranthene (UG/L)	0.19 U	0.20 U
Benzo(g,h,i)perylene (UG/L)	0.19 U	0.20 U
Benzo(k)fluoranthene (UG/L)	0.19 U	0.20 U
Benzoic acid (UG/L)	24.0 U	25.0 U
Benzyl alcohol (UG/L)	4.8 U	5.1 U
Benzyl butyl phthalate (UG/L)	0.95 U	1.0 U
bis(2-Chloroethoxy) Methane (UG/L)	0.95 U	1.0 U
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether) (UG/L)	0.95 U	1.0 U
bis(2-Chloroisopropyl) Ether (UG/L)	0.95 U	1.0 U
bis(2-Ethylhexyl) Phthalate (UG/L)	1.9 U	2.0 U
Carbazole (UG/L)	0.95 U	1.0 U
Chrysene (UG/L)	0.19 U	0.20 U
Cresols, m & p (UG/L)	1.9 U	2.0 U
Dibenz(a,h)anthracene (UG/L)	0.19 U	0.20 U
Dibenzofuran (UG/L)	0.95 U	1.0 U
Diethyl Phthalate (UG/L)	0.95 U	1.0 U
Dimethyl Phthalate (UG/L)	0.95 U	1.0 U
Di-n-Butyl Phthalate (UG/L)	0.95 U	1.0 U
Di-n-Octylphthalate (UG/L)	0.95 U	1.0 U
Fluoranthene (UG/L)	0.19 U	0.20 U
Fluorene (UG/L)	0.19 U	0.20 U
Hexachlorobenzene (UG/L)	0.19 U	0.20 U
Hexachlorobutadiene (UG/L)	0.95 U	1.0 U

ECC
Chemistry Results
Ravenna Army Ammunition Plant, Quality Assurance Project Plan,
Oct. 3, 2012
Ravenna Army Ammunition Plant

Locations:	SorW-1	SorW-3
Field Sample ID:	070-0056-0001-SOURCE WATER	079-0007-0001-SOURCEWATER
Sample Begin Depth:	0	1
Sample End Depth:	0	4
Sample Date:	12/12/2012	03/14/2013
Semivolatile Organic Compounds by Capillary GC/MS		
Hexachlorocyclopentadiene (UG/L)	9.5 U	10.0 U
Hexachloroethane (UG/L)	0.95 U	1.0 U
Indeno(1,2,3-c,d)pyrene (UG/L)	0.19 U	0.20 U
Isophorone (UG/L)	0.95 U	1.0 U
Naphthalene (UG/L)	0.19 U	0.20 U
Nitrobenzene (UG/L)	0.95 U	1.0 U
n-Nitrosodi-n-propylamine (UG/L)	0.95 U	1.0 U
n-Nitrosodiphenylamine (UG/L)	0.95 U	1.0 UJ
Pentachlorophenol (UG/L)	4.8 U	5.1 UJ
Phenanthrene (UG/L)	0.19 U	0.20 U
Phenol (UG/L)	0.95 U	1.0 UJ
Pyrene (UG/L)	0.19 U	0.20 U

ECC
Chemistry Results
Ravenna Army Ammunition Plant, Quality Assurance Project Plan,
Oct. 3, 2012
Ravenna Army Ammunition Plant

Locations:	SorW-1	SorW-3
Field Sample ID:	070-0056-0001-SOURCE WATER	079-0007-0001-SOURCEWATER
Sample Begin Depth:	0	1
Sample End Depth:	0	4
Sample Date:	12/12/2012	03/14/2013
Modified SW8015 for the Determination of Gasoline Range Organics in Soil and Water, GC/FID		
Petroleum Hydrocarbons C6-C12 (UG/L)	**39.0 J**	100 U

ECC
Chemistry Results
Ravenna Army Ammunition Plant, Quality Assurance Project Plan, Oct. 3, 2012
Ravenna Army Ammunition Plant

Locations:	SorW-1	SorW-3
Field Sample ID:	070-0056-0001-SOURCE WATER	079-0007-0001-SOURCEWATER
Sample Begin Depth:	0	0
Sample End Depth:	0	0
Sample Date:	12/12/2012	03/14/2013
Modified SW8015 for the Determination of Diesel Range Organics in Soil and Water, GC/FID		
C10-C20 Diesel Range Organics (UG/L)	480 U	490 U
C20-C34 Motor Oil Range Organics (UG/L)	480 U	490 U

ECC

Chemistry Results

Ravenna Army Ammunition Plant, Quality Assurance Project Plan, Oct. 3, 2012

Ravenna Army Ammunition Plant

Locations:	SorW-1	SorW-3
Field Sample ID:	070-0056-0001-SOURCE WATER	079-0007-0001-SOURCEWATER
Sample Begin Depth:	0	1
Sample End Depth:	0	4
Sample Date:	12/12/2012	03/14/2013
Trace Metals by Inductively Coupled Plasma/Mass Spectrometry		
Aluminum (UG/L)	**13.0 J**	30.0 U
Antimony (UG/L)	2.0 U	2.0 U
Arsenic (UG/L)	**0.49 J**	**0.48 J**
Barium (UG/L)	**39.0**	**41.0**
Beryllium (UG/L)	1.0 U	1.0 U
Cadmium (UG/L)	1.0 U	1.0 U
Calcium (UG/L)	**66000**	**65000**
Chromium (UG/L)	2.0 U	**1.3 J**
Cobalt (UG/L)	**0.11 J**	**0.054 J**
Copper (UG/L)	**0.83 J**	2.0 U
Iron (UG/L)	**440**	**590**
Lead (UG/L)	1.0 U	1.0 U
Magnesium (UG/L)	**27000**	**27000**
Manganese (UG/L)	**77.0**	**94.0**
Nickel (UG/L)	1.0 U	1.0 U
Potassium (UG/L)	**2500**	**2500**
Selenium (UG/L)	5.0 U	5.0 U
Silver (UG/L)	1.0 U	1.0 U
Sodium (UG/L)	**35000**	**37000**
Thallium (UG/L)	1.0 U	**0.11 J**
Vanadium (UG/L)	1.0 U	1.0 U
Zinc (UG/L)	**18.0**	**5.1**

ECC

Chemistry Results

Ravenna Army Ammunition Plant, Quality Assurance Project Plan,
Oct. 3, 2012
Ravenna Army Ammunition Plant

Locations:	SorW-1	SorW-3
Field Sample ID:	070-0056-0001-SOURCE WATER	079-0007-0001-SOURCEWATER
Sample Begin Depth:	0	1
Sample End Depth:	0	4
Sample Date:	12/12/2012	03/14/2013
Mercury in Water (Manual Cold-Vapor Techique)		
Mercury (UG/L)	0.20 U	0.20 U

ECC
Chemistry Results
Ravenna Army Ammunition Plant, Quality Assurance
Project Plan, Oct. 3, 2012
Ravenna Army Ammunition Plant

Locations:	SorW-1	SorW-3
Field Sample ID:	070-0056-0001-SOURCE WATER	079-0007-0001-SOURCEWATER
Sample Begin Depth:	0	1
Sample End Depth:	0	4
Sample Date:	12/12/2012	03/14/2013
Polychlorinated Biphenyls (PCB)		
PCB-1016 (Arochlor 1016) (UG/L)	0.48 U	0.50 U
PCB-1221 (Arochlor 1221) (UG/L)	0.48 U	0.50 U
PCB-1232 (Arochlor 1232) (UG/L)	0.48 U	0.50 U
PCB-1242 (Arochlor 1242) (UG/L)	0.48 U	0.50 U
PCB-1248 (Arochlor 1248) (UG/L)	0.48 U	0.50 U
PCB-1254 (Arochlor 1254) (UG/L)	0.48 U	0.50 U
PCB-1260 (Arochlor 1260) (UG/L)	0.48 U	0.50 U

ECC
Chemistry Results
Ravenna Army Ammunition Plant, Quality Assurance Project Plan,
Oct. 3, 2012
Ravenna Army Ammunition Plant

Locations:	SorW-1	SorW-3
Field Sample ID:	070-0056-0001-SOURCE WATER	079-0007-0001-SOURCEWATER
Sample Begin Depth:	0	1
Sample End Depth:	0	4
Sample Date:	12/12/2012	03/14/2013
Organochlorine Pesticides by Capillary GC		
Aldrin (UG/L)	0.048 U	0.050 U
alpha-BHC (alpha-Hexachlorocyclohexane) (UG/L)	0.048 U	0.050 U
alpha-Chlordane (UG/L)	0.048 U	0.050 U
alpha-Endosulfan (UG/L)	0.048 U	0.050 U
beta-BHC (beta-Hexachlorocyclohexane) (UG/L)	0.048 U	0.050 U
beta-Endosulfan (UG/L)	0.048 U	0.050 U
delta-BHC (delta-Hexachlorocyclohexane) (UG/L)	0.048 U	0.050 U
Dieldrin (UG/L)	0.048 U	0.050 U
Endosulfan Sulfate (UG/L)	0.048 U	0.050 U
Endrin (UG/L)	0.048 U	0.050 U
Endrin Aldehyde (UG/L)	0.048 U	0.050 U
Endrin Ketone (UG/L)	0.048 U	0.050 U
gamma-BHC (Lindane) (UG/L)	0.048 U	0.050 U
gamma-Chlordane (UG/L)	0.048 U	0.050 U
Heptachlor (UG/L)	0.048 U	0.050 U
Heptachlor Epoxide (UG/L)	0.048 U	0.050 U
Methoxychlor (UG/L)	0.095 U	0.10 UJ
p,p'-DDD (UG/L)	0.048 U	0.050 U
p,p'-DDE (UG/L)	0.048 U	0.050 U
p,p'-DDT (UG/L)	0.048 U	0.050 U
Toxaphene (UG/L)	1.9 U	2.0 UJ

ECC
Chemistry Results
Ravenna Army Ammunition Plant, Quality Assurance
Project Plan, Oct. 3, 2012
Ravenna Army Ammunition Plant

Locations:	SorW-1	SorW-3
Field Sample ID:	070-0056-0001-SOURCE WATER	079-0007-0001-SOURCEWATER
Sample Begin Depth:	0	1
Sample End Depth:	0	4
Sample Date:	12/12/2012	03/14/2013
Chlorinated Herbicides by GC Using Methylation or Pentafluorobenzylation Derivatization: Capillary Column Technique		
2,4 DB (UG/L)	4.0 U	4.0 U
2,4,5-T (Trichlorophenoxyacetic Acid) (UG/L)	1.0 U	1.0 U
2,4-D (Dichlorophenoxyacetic Acid) (UG/L)	4.0 U	4.0 U
Dalapon (UG/L)	2.0 U	2.0 U
Dicamba (UG/L)	2.0 U	2.0 U
Dichloroprop (UG/L)	4.0 U	4.0 U
Dinoseb (UG/L)	0.60 U	0.60 U
MCPA (UG/L)	400 U	400 UJ
MCPP (UG/L)	400 U	400 UJ
Pentachlorophenol (UG/L)	0.10 U	0.10 U
Silvex (2,4,5-TP) (UG/L)	1.0 U	1.0 U

ECC
Chemistry Results
Ravenna Army Ammunition Plant, Quality Assurance Project Plan,
Oct. 3, 2012
Ravenna Army Ammunition Plant

Locations:	SorW-1	SorW-3
Field Sample ID:	070-0056-0001-SOURCE WATER	079-0007-0001-SOURCEWATER
Sample Begin Depth:	0	1
Sample End Depth:	0	4
Sample Date:	12/12/2012	03/14/2013
Nitroaromatics and Nitramines by HPLC		
1,3,5-Trinitrobenzene (UG/L)	0.10 U	0.10 U
1,3-Dinitrobenzene (UG/L)	0.10 U	0.10 U
2,4,6-Trinitrotoluene (UG/L)	0.10 U	0.10 U
2,4-Dinitrotoluene (UG/L)	0.10 U	0.10 U
2,6-Dinitrotoluene (UG/L)	0.10 U	0.10 U
2-Amino-4,6-dinitrotoluene (UG/L)	0.20 U	0.20 U
2-Nitrotoluene (UG/L)	0.50 U	0.51 U
3-Nitrotoluene (UG/L)	0.50 U	0.51 U
4-Amino-2,6-Dinitrotoluene (UG/L)	0.10 U	0.10 U
4-Nitrotoluene (UG/L)	0.50 U	0.51 U
Hexahydro-1,3,5-Trinitro-1,3,5-Triazine (RDX) (UG/L)	0.10 U	0.10 U
Nitrobenzene (UG/L)	0.10 U	0.10 U
Nitroglycerin (UG/L)	0.65 U	0.66 U
NITROGUANIDINE (UG/L)	20.0 U	20.0 U
Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine (HMX) (UG/L)	0.10 U	0.10 U
Pentaerythritol Tetranitrate (UG/L)	0.65 U	0.66 U
Tetryl (UG/L)	0.10 U	0.10 U

ECC

Chemistry Results

Ravenna Army Ammunition Plant, Quality Assurance Project Plan, Oct. 3, 2012

Ravenna Army Ammunition Plant

Locations:	SorW-1	SorW-3
Field Sample ID:	070-0056-0001-SOURCE WATER	079-0007-0001-SOURCEWATER
Sample Begin Depth:	0	1
Sample End Depth:	0	4
Sample Date:	12/12/2012	03/14/2013
Chromium, Hexavalent (Colorimetric)		
Chromium, Hexavalent (MG/L)	-	0.020 U

ECC
Chemistry Results
Ravenna Army Ammunition Plant, Quality Assurance
Project Plan, Oct. 3, 2012
Ravenna Army Ammunition Plant

Locations:	SorW-1	SorW-3
Field Sample ID:	070-0056-0001-SOURCE WATER	079-0007-0001-SOURCEWATER
Sample Begin Depth:	0	1
Sample End Depth:	0	4
Sample Date:	12/12/2012	03/14/2013
Nitrogen, Nitrate-Nitrite (Colorimetric Automated, Cadmium Reduction)		
Nitrocellulose (MG/L)	2.0 U	2.0 U

This page intentionally left blank.

APPENDIX C

Field Activity Forms

This page intentionally left blank.

APPENDIX C.1

Surface Soil Sampling Summary Forms

This page intentionally left blank.

FIELD LOG FORM

SURFACE SOIL ISM SAMPLING

2011 PBA ENVIRONMENTAL INVESTIGATION AND REMEDIATION AT 14 CR SITES

USACE Contract No. W91QR-04-D-0039

Ravenna Army Ammunition Plant, Ravenna, Ohio

CR Site No. CC-RVAAP-68 **CR Site Name:** WEST ELEC. SUBSTATION

Decision Unit: DU01 **Building No.** —

Sample Date: 11-16-12 **Time:** 1240 **Weather:** CLEAR ~30's

Sample ID: 06855-0001M-0001-SO

Duplicate Sample ID: —

Field Sampler: FA, DC

Depth of Sample: 0-1'

Material: SOIL

Remarks:

Laboratory Analysis:

☐ VOC ☒ TAL METALS ☒ SVOCs ☐ EXPLOSIVES ☐ TPH GRO/DRO ☒ PCBs ☐ PROPELLANTS

☐ FULL SUITE (VOCs, SVOCs, TAL Metals, Explosives, Propellants, PCBs, Pesticides)

☐ MS/MSD Sample Collected

☐ QA Sample Collected

RECORDED BY: _____ **DATE:** 11-6-12
(Signature)

FIELD LOG FORM

SURFACE SOIL ISM SAMPLING

2011 PBA ENVIRONMENTAL INVESTIGATION AND REMEDIATION AT 14 CR SITES

USACE Contract No. W91QR-04-D-0039

Ravenna Army Ammunition Plant, Ravenna, Ohio

CR Site No. CC-RVAAP- 68 **CR Site Name:** WEST ELKC. SUBSTATION

Decision Unit: DU02 **Building No.** —

Sample Date: 11-6-12 **Time:** 1210 **Weather:** CLEAR -30's

Sample ID: 06855-0002M-001-SO

Duplicate Sample ID: —

Field Sampler: FR, DC

Depth of Sample: 0-1'

Material: SOIL

Remarks:

Laboratory Analysis:

☐ VOC ☒ TAL METALS ☒ SVOCs ☐ EXPLOSIVES ☐ TPH GRO/DRO ☒ PCBs ☐ PROPELLANTS

☐ FULL SUITE (VOCs, SVOCs, TAL Metals, Explosives, Propellants, PCBs, Pesticides)

☐ MS/MSD Sample Collected

☐ QA Sample Collected

RECORDED BY: Jeff Dean **DATE:** 11-6-12

(Signature)

FIELD LOG FORM

SURFACE SOIL ISM SAMPLING

2011 PBA ENVIRONMENTAL INVESTIGATION AND REMEDIATION AT 14 CR SITES

USACE Contract No. W91QR-04-D-0039

Ravenna Army Ammunition Plant, Ravenna, Ohio

CR Site No. CC-RVAAP- 68 **CR Site Name:** WEST BLDG. SUBSTATION

Decision Unit: DU03 **Building No.** —

Sample Date: 11-6-12 **Time:** 1200 **Weather:** CLEAR ~30's

Sample ID: 06SS-0003M-0001-SO

Duplicate Sample ID: 06SS-0004M-0001-SO

Field Sampler: FR, DC

Depth of Sample: 0-1'

Material: SOIL

Remarks:

Laboratory Analysis:

☐ VOC ☒ TAL METALS ☒ SVOCs ☐ EXPLOSIVES ☐ TPH GRO/DRO ☒ PCBs ☐ PROPELLANTS

☒ FULL SUITE (VOCs, SVOCs, TAL Metals, Explosives, Propellants, PCBs, Pesticides)

☒ MS/MSD Sample Collected 06SS-0003M-0002-SO

☐ QA Sample Collected

RECORDED BY: _____ **DATE:** 11-6-12
(Signature)

FIELD LOG FORM

SURFACE SOIL ISM SAMPLING

2011 PBA ENVIRONMENTAL INVESTIGATION AND REMEDIATION AT 14 CR SITES

USACE Contract No. W91QR-04-D-0039

Ravenna Army Ammunition Plant, Ravenna, Ohio

CR Site No. CC-RVAAP-68 **CR Site Name:** SUBSTATION NO. 3

Decision Unit: DU 01 **Building No.** —

Sample Date: 11-6-12 **Time:** 1350 **Weather:** CLEAR -30's

Sample ID: 06855-0005M-0001-SO

Duplicate Sample ID: —

Field Sampler: FR, DC

Depth of Sample: 0-1'

Material: Soil

Remarks:

Laboratory Analysis:

☐ VOC ☒ TAL METALS ☒ SVOCs ☐ EXPLOSIVES ☐ TPH GRO/DRO ☒ PCBs ☐ PROPELLANTS

☐ FULL SUITE (VOCs, SVOCs, TAL Metals, Explosives, Propellants, PCBs, Pesticides)

☐ MS/MSD Sample Collected

☐ QA Sample Collected

RECORDED BY: Jeff Dawn **DATE:** 11-6-12

(Signature)

FIELD LOG FORM

SURFACE SOIL ISM SAMPLING

2011 PBA ENVIRONMENTAL INVESTIGATION AND REMEDIATION AT 14 CR SITES

USACE Contract No. W91QR-04-D-0039

Ravenna Army Ammunition Plant, Ravenna, Ohio

CR Site No. CC-RVAAP- 68 **CR Site Name:** EAST SUBSTATION

Decision Unit: DU01 **Building No.** —

Sample Date: 11-6-12 **Time:** _____ **Weather:** CLEAR - 30's

Sample ID: 0685S-0006M-0001-SO

Duplicate Sample ID: —

Field Sampler: FR, DC

Depth of Sample: 0-1'

Material: SOIL

Remarks: _____

Laboratory Analysis:

☐ VOC ☒ TAL METALS ☒ SVOCs ☐ EXPLOSIVES ☐ TPH GRO/DRO ☒ PCBs ☐ PROPELLANTS

☐ FULL SUITE (VOCs, SVOCs, TAL Metals, Explosives, Propellants, PCBs, Pesticides)

☐ MS/MSD Sample Collected

☐ QA Sample Collected

RECORDED BY: _____ **DATE:** 11-6-12

(Signature)

FIELD LOG FORM

SURFACE SOIL ISM SAMPLING

2011 PBA ENVIRONMENTAL INVESTIGATION AND REMEDIATION AT 14 CR SITES

USACE Contract No. W91QR-04-D-0039

Ravenna Army Ammunition Plant, Ravenna, Ohio

CR Site No. CC-RVAAP- 68 **CR Site Name:** EAST SUBSTATION

Decision Unit: DU02 **Building No.** —

Sample Date: 11-6-12 **Time:** 1615 **Weather:** CLEAR ~30's

Sample ID: 0685S-0007M-0001-SO

Duplicate Sample ID: —

Field Sampler: FR, DC

Depth of Sample: 0--1'

Material: SOIL

Remarks:

Laboratory Analysis:

☐ VOC ☒ TAL METALS ☒ SVOCs ☐ EXPLOSIVES ☐ TPH GRO/DRO ☒ PCBs ☐ PROPELLANTS

☐ FULL SUITE (VOCs, SVOCs, TAL Metals, Explosives, Propellants, PCBs, Pesticides)

☐ MS/MSD Sample Collected

☐ QA Sample Collected

RECORDED BY: _____ **DATE:** 11-6-12

(Signature)

FIELD LOG FORM

SURFACE SOIL ISM SAMPLING

2011 PBA ENVIRONMENTAL INVESTIGATION AND REMEDIATION AT 14 CR SITES

USACE Contract No. W91QR-04-D-0039

Ravenna Army Ammunition Plant, Ravenna, Ohio

CR Site No. CC-RVAAP-68 **CR Site Name:** EAST SUBSTATION

Decision Unit: DU03 **Building No.** —

Sample Date: 11-6-12 **Time:** 1510 **Weather:** CLEAR - 30's

Sample ID: 0685S-0008M-0001-SO

Duplicate Sample ID: —

Field Sampler: FA, DC

Depth of Sample: 0-1'

Material: SOIL

Remarks:

Laboratory Analysis:

☐ VOC ☒ TAL METALS ☒ SVOCs ☐ EXPLOSIVES ☐ TPH GRO/DRO ☒ PCBs ☐ PROPELLANTS

☐ FULL SUITE (VOCs, SVOCs, TAL Metals, Explosives, Propellants, PCBs, Pesticides)

☐ MS/MSD Sample Collected

☐ QA Sample Collected

RECORDED BY: _____ **DATE:** 11-6-12

(Signature)

This page intentionally left blank.

APPENDIX C.2

Surface Water and Sediment Sampling Summary Forms

This page intentionally left blank.

FIELD LOG FORM

SURFACE WATER SAMPLING

2011 PBA ENVIRONMENTAL INVESTIGATION AND REMEDIATION AT 14 CR SITES

USACE Contract No. W91QR-04-D-0039

Ravenna Army Ammunition Plant, Ravenna, Ohio

CR Site No. CC-RVAAP- 68 **CR Site Name:** ELEC. SUBSTATION #3 SW#1

Decision Unit: DU01 **Building No.** —

Sample Date: 11-8-12 **Time:** 1400 **Weather:** PTLY CLOUDY - 30's

Sample ID: 068SW-0013-0001-SW

Duplicate Sample ID: —

Field Sampler: FR, JM

Water Depth: 8" **Flow Velocity (fps):** 0.2

Temprature: 6.38 C° **pH (units):** 7.04

ORP (mV): 191.3 **Specific Conductance (uS/cm^{C}):** 0.326

Turbidity (NTU): 1.2 **Dissolved Oxygen (mg/L):** 6.91

Sample Observations: **Odor** NONE **Color:** CLEAR

Other: SW #1

Remarks:

Equipment:	**Make:**	**Model:**	**Serial Number:**
	YSI	650MDS	10J101789
	YSI	6000XL	02D1015
	LAMOTTE	2020WE	1138-2911

Laboratory Analysis:

☐ VOC ☒ TAL METALS ☒ SVOCs ☐ EXPLOSIVES ☐ TPH GRO/DRO ☒ PCBs ☐ PROPELLANTS

☐ FULL SUITE (VOCs, SVOCs, TAL Metals, Explosives, Propellants, PCBs, Pesticides)

☐ MS/MSD Sample Collected

RECORDED BY: Jeff Dum **DATE:** 11-8-12

(Signature)

FIELD LOG FORM

SURFACE WATER SAMPLING

2011 PBA ENVIRONMENTAL INVESTIGATION AND REMEDIATION AT 14 CR SITES

USACE Contract No. W91QR-04-D-0039

Ravenna Army Ammunition Plant, Ravenna, Ohio

CR Site No. CC-RVAAP-68 **CR Site Name:** ELEC. SUBSTATION #3 SWA2

Decision Unit: DU01 **Building No.** —

Sample Date: 11-8-12 **Time:** 1340 **Weather:** PTLY cloudy -30's

Sample ID: 068SW-0015-0001-SW

Duplicate Sample ID: —

Field Sampler: FA, BM

Water Depth: 10" **Flow Velocity (fps):** 0.2

Temprature: 6.41 c° **pH (units):** 7.0

ORP (mV): 201.3 **Specific Conductance (uS/cm^{c}):** 0.141

Turbidity (NTU): 1.6 **Dissolved Oxygen (mg/L):** 6.85

Sample Observations: **Odor** NONE **Color:** CLEAR

Other: SW #2

Remarks:

Equipment:	Make:	Model:	Serial Number:
	YSI	650MDS	10J101789
	YSI	6000XL	02D1015
	LAMOTTE	2020WE	1138-2811

Laboratory Analysis:

☐ VOC ☒ TAL METALS ☒ SVOCs ☐ EXPLOSIVES ☐ TPH GRO/DRO ☒ PCBs ☐ PROPELLANTS

☐ FULL SUITE (VOCs, SVOCs, TAL Metals, Explosives, Propellants, PCBs, Pesticides)

☐ MS/MSD Sample Collected

RECORDED BY: _____ **DATE:** 11-8-12

(Signature)

FIELD LOG FORM

SURFACE WATER SAMPLING

2011 PBA ENVIRONMENTAL INVESTIGATION AND REMEDIATION AT 14 CR SITES

USACE Contract No. W91QR-04-D-0039

Ravenna Army Ammunition Plant, Ravenna, Ohio

CR Site No. CC-RVAAP- 68 **CR Site Name:** ELEC. SUBSTATION #3 SW #3

Decision Unit: Duo1 **Building No.** —

Sample Date: 11-8-12 **Time:** 1325 **Weather:** Ptly cloudy -30's

Sample ID: 068SW-0016-0001-SW

Duplicate Sample ID: 068-0014-0001-SW

Field Sampler: EA, AM

Water Depth: 0,8" **Flow Velocity (fps):** 0,2

Temprature: 6.41 **pH (units):** 7,03

ORP (mV): 197,6 **Specific Conductance (uS/cm^c):** 0,381

Turbidity (NTU): 1,4 **Dissolved Oxygen (mg/L):** 6,89

Sample Observations: **Odor** NONE **Color:** CLEAR

Other: SW #3

Remarks:

Equipment:	Make:	Model:	Serial Number:
	YSI	650MDS	10J101789
	YSI	6004L	0201015
	LAMOTTE	2020WE	1138-2811

Laboratory Analysis:

☐ VOC ☒ TAL METALS ☒ SVOCs ☐ EXPLOSIVES ☐ TPH GRO/DRO ☒ PCBs ☐ PROPELLANTS

☐ FULL SUITE (VOCs, SVOCs, TAL Metals, Explosives, Propellants, PCBs, Pesticides)

☒ MS/MSD Sample Collected 068SW-0016-0002SW

RECORDED BY: Jeff Dunn **DATE:** 11-8-12

(Signature)

FIELD LOG FORM

SEDIMENT SOIL SAMPLING

2011 PBA ENVIRONMENTAL INVESTIGATION AND REMEDIATION AT 14 CR SITES

USACE Contract No. W91QR-04-D-0039

Ravenna Army Ammunition Plant, Ravenna, Ohio

CR Site No. CC-RVAAP-68 **CR Site Name:** SUBSTATION #3 SW #1

Decision Unit: 0001 **Building No.** —

Sample Type: ☒ Discrete ☐ Composite

Sample Date: 11-8-12 **Time:** 1235 **Weather:** PTLY CLOUDY -30's

Sediment Sample ID: 06850-0009-0001-SO

Duplicate Sample ID: 06850-~~0010~~ 0010 -0001-SO

Field Samplers: FR, AM

Subcontractor (Name/Company): PRUDENT

Remarks:

Laboratory Analysis:

☐ VOC ☒ TAL METALS ☒ SVOCs ☐ EXPLOSIVES ☐ TPH GRO/DRO ☒ PCBs ☐ PROPELLANTS

☐ FULL SUITE (VOCs, SVOCs, TAL Metals, Explosives, Propellants, PCBs, Pesticides)

☒ MS/MSD Sample Collected 06850-0009-0002-SO

☐ QA Sample Collected

RECORDED BY: _____ **DATE:** 11-8-12
(Signature)

FIELD LOG FORM

SEDIMENT SOIL SAMPLING

2011 PBA ENVIRONMENTAL INVESTIGATION AND REMEDIATION AT 14 CR SITES

USACE Contract No. W91QR-04-D-0039

Ravenna Army Ammunition Plant, Ravenna, Ohio

CR Site No. CC-RVAAP- **CR Site Name:** SUBSTATION #3 SED #2

Decision Unit: DU01 **Building No.** —

Sample Type: ☒ Discrete ☐ Composite

Sample Date: 11-8-12 **Time:** 1242 **Weather:** PTLY CLOUDY ~30's

Sediment Sample ID: 0685D-0011-0001-SO

Duplicate Sample ID: —

Field Samplers: FR, AM

Subcontractor (Name/Company): PARSONS

Remarks: —

Laboratory Analysis:

☐ VOC ☒ TAL METALS ☒ SVOCs ☐ EXPLOSIVES ☐ TPH GRO/DRO ☒ PCBs ☐ PROPELLANTS

☐ FULL SUITE (VOCs, SVOCs, TAL Metals, Explosives, Propellants, PCBs, Pesticides)

☐ MS/MSD Sample Collected

☐ QA Sample Collected

RECORDED BY: [signature] **DATE:** 11-8-12

(Signature)

FIELD LOG FORM

SEDIMENT SOIL SAMPLING

2011 PBA ENVIRONMENTAL INVESTIGATION AND REMEDIATION AT 14 CR SITES

USACE Contract No. W91QR-04-D-0039

Ravenna Army Ammunition Plant, Ravenna, Ohio

CR Site No. CC-RVAAP- 68 **CR Site Name:** SUBSTATION #3 SEO #3

Decision Unit: DU01 **Building No.** —

Sample Type: ☒ **Discrete** ☐ **Composite**

Sample Date: 11-8-12 **Time:** 1235 **Weather:** PRT CLOUDY - 30's

Sediment Sample ID: 06850-0012-0001-SO

Duplicate Sample ID: —

Field Samplers: FR, JM

Subcontractor (Name/Company): PAVOCNJ

Remarks:

Laboratory Analysis:

☐ VOC ☒ TAL METALS ☒ SVOCs ☐ EXPLOSIVES ☐ TPH GRO/DRO ☒ PCBs ☐ PROPELLANTS

☐ FULL SUITE (VOCs, SVOCs, TAL Metals, Explosives, Propellants, PCBs, Pesticides)

☐ MS/MSD Sample Collected

☐ QA Sample Collected

RECORDED BY: _____ **DATE:** 11-8-12

(Signature)

APPENDIX C.3

Subsurface Soil Sampling Summary Forms

This page intentionally left blank.

FIELD LOG FORM

SUBSURFACE SOIL ISM SAMPLING

2011 PBA ENVIRONMENTAL INVESTIGATION AND REMEDIATION AT 14 CR SITES

USACE Contract No. W91QR-04-D-0039

Ravenna Army Ammunition Plant, Ravenna, Ohio

CR Site No. CC-RVAAP- 68 **CR Site Name:** East Substation

Decision Unit: DU01 **Building No.** 25-27 **Vertical Geoprobe No.** SB01

Sample Date: 3/29/13 **Time:** 0826 **Weather:** 40°, Mstly Cldy, Calm

Subsurface ~~Horizontal~~ VERT Sample ID: 0685B-0035M-0001-SO 0825

HORZ. 1-4' 0685B-0033M-0001-SO 0915

4-7' 0685B-0034M-0001-SO 0919

Duplicate Sample ID: 0685B-0036M-0001-SO 0825

DSB 7-13 FT 0685B-0042-0001-SO 0912

Field Samplers: FR, JS

Tube A Time 0814 **Interval Drilled (ft bgs) :** 1-4 **Recovery (ft/in):** 33"

Tube B Time 0819 **Interval Drilled (ft bgs) :** 4-7 **Recovery (ft/in):** 48"

Tube C Time 0822 **Interval Drilled (ft bgs) :** 7-10 / 10-13 **Recovery (ft/in):** 48" / 48"

Subcontractor (Name/Company): FRONTIER

Remarks: Not enough recovery on 1st 1-4' sleeve.

Laboratory Analysis:

☐ VOC ☒ TAL METALS ☒ SVOCs ☐ EXPLOSIVES ☒ PCBs ☐ PROPELLANTS

☐ FULL SUITE (VOCs, SVOCs, TAL Metals, Explosives, Propellants, PCBs, Pesticides)

☐ MS/MSD Sample Collected

☒ QA Sample Collected 0685B-0037M-0001-SO 0826

RECORDED BY: _____ **DATE:** 3/29/13

(Signature)

FIELD LOG FORM

SUBSURFACE SOIL ISM SAMPLING

2011 PBA ENVIRONMENTAL INVESTIGATION AND REMEDIATION AT 14 CR SITES

USACE Contract No. W91QR-04-D-0039

Ravenna Army Ammunition Plant, Ravenna, Ohio

CR Site No. CC-RVAAP-68 **CR Site Name:** East Electric Substation

Decision Unit: DU01 **Building No.** 25-27 **Vertical Geoprobe No.** SB 2

Sample Date: 3/29/13 **Time:** 0920 **Weather:** 40°, Mstly Cldy, WS 0-2

Subsurface ~~Horizontal~~ VERTICAL Sample ID: 0685A-0038A-0001-SO

Duplicate Sample ID: ____

Field Samplers: F. Roche

Tube A Time 0911 **Interval Drilled (ft bgs) :** 1-4 **Recovery (ft/in):** 38"

Tube B Time 0915 **Interval Drilled (ft bgs) :** 4-7 **Recovery (ft/in):** 36"

Tube C Time _____ **Interval Drilled (ft bgs) :** _____ **Recovery (ft/in):** _____

Subcontractor (Name/Company): Front2

Remarks: _____

Laboratory Analysis:

☐ VOC ☒ TAL METALS ☒ SVOCs ☐ EXPLOSIVES ☒ PCBs ☐ PROPELLANTS

☐ FULL SUITE (VOCs, SVOCs, TAL Metals, Explosives, Propellants, PCBs, Pesticides)

☐ MS/MSD Sample Collected

☐ QA Sample Collected

RECORDED BY: _____ **DATE:** 3/29/13
(Signature)

FIELD LOG FORM

SUBSURFACE SOIL ISM SAMPLING

2011 PBA ENVIRONMENTAL INVESTIGATION AND REMEDIATION AT 14 CR SITES

USACE Contract No. W91QR-04-D-0039

Ravenna Army Ammunition Plant, Ravenna, Ohio

CR Site No. CC-RVAAP-68 **CR Site Name:** East Substation

Decision Unit: DU01 **Building No.** 25-27 **Vertical Geoprobe No.** SB03

Sample Date: 3/29/13 **Time:** 0852 **Weather:** 40°, Mstly Cldy, Calm

Subsurface ~~Horizontal~~ VERT Sample ID: 06858-0039M-0001-SO

Duplicate Sample ID: —

Field Samplers: FR, JS

Tube A Time 0841 **Interval Drilled (ft bgs) :** 1-4 **Recovery (ft/in):** 36"

Tube B Time 0844 **Interval Drilled (ft bgs) :** 4-7 **Recovery (ft/in):** 36"

Tube C Time _____ **Interval Drilled (ft bgs) :** _____ **Recovery (ft/in):** _____

Subcontractor (Name/Company): FRONTZ

Remarks: Very easy drilling 1-4'

Laboratory Analysis:

☐ VOC ☒ TAL METALS ☒ SVOCs ☐ EXPLOSIVES ☒ PCBs ☐ PROPELLANTS

☐ FULL SUITE (VOCs, SVOCs, TAL Metals, Explosives, Propellants, PCBs, Pesticides)

☐ MS/MSD Sample Collected

☐ QA Sample Collected

RECORDED BY: _____ **DATE:** 3/29/13
(Signature)

FIELD LOG FORM

SUBSURFACE SOIL ISM SAMPLING

2011 PBA ENVIRONMENTAL INVESTIGATION AND REMEDIATION AT 14 CR SITES

USACE Contract No. W91QR-04-D-0039

Ravenna Army Ammunition Plant, Ravenna, Ohio

CR Site No. CC-RVAAP- 68 **CR Site Name:** East Substation

Decision Unit: DU01 **Building No.** 25-27 **Vertical Geoprobe No.** SB04

Sample Date: 3/29/13 **Time:** 0859 **Weather:** 40°, Mstly Cldy, WO-2

Subsurface ~~Horizontal~~ VERT. Sample ID: 0685B-0040-0001-SO

Duplicate Sample ID: —

Field Samplers: F. Rocke

Tube A Time 0850 **Interval Drilled (ft bgs) :** 1-4 **Recovery (ft/in):** 30"

Tube B Time 0855 **Interval Drilled (ft bgs) :** 4-7 **Recovery (ft/in):** 32"

Tube C Time _____ **Interval Drilled (ft bgs) :** _____ **Recovery (ft/in):** _____

Subcontractor (Name/Company): ENDRT

Remarks: Black stain @ ~3.5', 2" thick, No HC odor

Laboratory Analysis:

☐ VOC ☒ TAL METALS ☒ SVOCs ☐ EXPLOSIVES ☒ PCBs ☐ PROPELLANTS

☐ FULL SUITE (VOCs, SVOCs, TAL Metals, Explosives, Propellants, PCBs, Pesticides)

☐ MS/MSD Sample Collected

☐ QA Sample Collected

RECORDED BY: _____ **DATE:** 3/29/13
(Signature)

FIELD LOG FORM

SUBSURFACE SOIL ISM SAMPLING

2011 PBA ENVIRONMENTAL INVESTIGATION AND REMEDIATION AT 14 CR SITES

USACE Contract No. W91QR-04-D-0039

Ravenna Army Ammunition Plant, Ravenna, Ohio

CR Site No. CC-RVAAP-68 **CR Site Name:** East Electrical Substation

Decision Unit: ~~SS01~~ DU01 **Building No.** 25-27 **Vertical Geoprobe No.** SB 5

Sample Date: 3/26/13 **Time:** 0912 **Weather:** 40°, Mstly Cldy

Subsurface ~~Horizontal~~ VERT Sample ID: 068SB-00401M-0001-SO

Duplicate Sample ID: —

Field Samplers: FR, JS

Tube A Time 0900 **Interval Drilled (ft bgs) :** 1-4 **Recovery (ft/in):** ~~14~~ 26"

Tube B Time 0905 **Interval Drilled (ft bgs) :** 4-7 **Recovery (ft/in):** 24"

Tube C Time _____ **Interval Drilled (ft bgs) :** _____ **Recovery (ft/in):** _____

Subcontractor (Name/Company): FRONTZ

Remarks: _____

Laboratory Analysis:

☐ VOC ☐ TAL METALS ☐ SVOCs ☐ EXPLOSIVES ☐ PCBs ☐ PROPELLANTS

☒ FULL SUITE (VOCs, SVOCs, TAL Metals, Explosives, Propellants, PCBs, Pesticides)

☐ MS/MSD Sample Collected

☐ QA Sample Collected

RECORDED BY: _____ **DATE:** 3/28/13
(Signature)

FIELD LOG FORM

SUBSURFACE SOIL ISM SAMPLING

2011 PBA ENVIRONMENTAL INVESTIGATION AND REMEDIATION AT 14 CR SITES

USACE Contract No. W91QR-04-D-0039

Ravenna Army Ammunition Plant, Ravenna, Ohio

CR Site No. CC-RVAAP-66 **CR Site Name:** East Electric

Decision Unit: D42 **Building No.** 25-27 **Vertical Geoprobe No.** SB01

Sample Date: 3/29/13 **Time:** 0937 **Weather:** 40°, Mstly Cldy, W 0-2

Subsurface ~~Horizontal~~ Vertical Sample ID: 06858-0046M-0001-SO

HOR2. 1-4' 06853-0044M-0001-SO 1021

4-7' 06858-0045M-0001-SO 1023

Duplicate Sample ID:

Field Samplers: FR

Tube A Time 0926 **Interval Drilled (ft bgs) :** 1-4 **Recovery (ft/in):** 36"

Tube B Time 0930 **Interval Drilled (ft bgs) :** 4-7 **Recovery (ft/in):** 28"

Tube C Time _____ **Interval Drilled (ft bgs) :** _____ **Recovery (ft/in):** _____

Subcontractor (Name/Company): FRONTZ

Remarks:

Laboratory Analysis:

☐ VOC ☒ TAL METALS ☒ SVOCs ☐ EXPLOSIVES ☒ PCBs ☐ PROPELLANTS

☒ FULL SUITE (VOCs, SVOCs, TAL Metals, Explosives, Propellants, PCBs, Pesticides) (-0046M)

☐ MS/MSD Sample Collected

☐ QA Sample Collected

RECORDED BY: _____ **DATE:** 3/29/13

(Signature)

FIELD LOG FORM

SUBSURFACE SOIL ISM SAMPLING

2011 PBA ENVIRONMENTAL INVESTIGATION AND REMEDIATION AT 14 CR SITES

USACE Contract No. W91QR-04-D-0039

Ravenna Army Ammunition Plant, Ravenna, Ohio

CR Site No. CC-RVAAP- 68 **CR Site Name:** East Electric

Decision Unit: DU2 **Building No.** 25-27 **Vertical Geoprobe No.** SB-2

Sample Date: 3/29/13 **Time:** 1025 **Weather:** 40°, Pt. Cldy, W 0-5

Subsurface Horizontal Sample ID: 06858-0047M-0001-SO

Duplicate Sample ID: —

Field Samplers: FR

Tube A Time 1016 **Interval Drilled (ft bgs) :** 1-4 **Recovery (ft/in):** 40"

Tube B Time 1019 **Interval Drilled (ft bgs) :** 4-7 **Recovery (ft/in):** 37 4/8"

Tube C Time _____ **Interval Drilled (ft bgs) :** _____ **Recovery (ft/in):** _____

Subcontractor (Name/Company): FRONTZ

Remarks: _____

Laboratory Analysis:

☐ VOC ☒ TAL METALS ☒ SVOCs ☐ EXPLOSIVES ☒ PCBs ☐ PROPELLANTS

☐ FULL SUITE (VOCs, SVOCs, TAL Metals, Explosives, Propellants, PCBs, Pesticides)

☐ MS/MSD Sample Collected

☐ QA Sample Collected

RECORDED BY: _____ **DATE:** 3/29/13

(Signature)

FIELD LOG FORM

SUBSURFACE SOIL ISM SAMPLING

2011 PBA ENVIRONMENTAL INVESTIGATION AND REMEDIATION AT 14 CR SITES

USACE Contract No. W91QR-04-D-0039

Ravenna Army Ammunition Plant, Ravenna, Ohio

CR Site No. CC-RVAAP- 68 **CR Site Name:** East Electric

Decision Unit: DU2 **Building No.** 25-27 **Vertical Geoprobe No.** SB-03

Sample Date: 3/29/13 **Time:** _____ **Weather:** 40°, Mstly Cldy, WS-2

Subsurface ~~Horizontal~~ VERT Sample ID: NO VERT. SAMPLE COLL JUST 1-4 FT-?'

Duplicate Sample ID: _____

Field Samplers: JS, FR

Tube A Time 0942 **Interval Drilled (ft bgs) :** 1-4 **Recovery (ft/in):** 30"

Tube B Time 0944 **Interval Drilled (ft bgs) :** 4-7 **Recovery (ft/in):** 41"

Tube C Time _____ **Interval Drilled (ft bgs) :** _____ **Recovery (ft/in):** _____

Subcontractor (Name/Company): _____

Remarks: ~~BIO~~ DID NOT COLL 1-7 FT INTERVAL PER WORK PLAN

Laboratory Analysis:

☐ VOC ☒ TAL METALS ☒ SVOCs ☐ EXPLOSIVES ☒ PCBs ☐ PROPELLANTS

☐ FULL SUITE (VOCs, SVOCs, TAL Metals, Explosives, Propellants, PCBs, Pesticides)

☐ MS/MSD Sample Collected

☐ QA Sample Collected

RECORDED BY: _____ **DATE:** 3/29/13
(Signature)

FIELD LOG FORM

SUBSURFACE SOIL ISM SAMPLING

2011 PBA ENVIRONMENTAL INVESTIGATION AND REMEDIATION AT 14 CR SITES

USACE Contract No. W91QR-04-D-0039

Ravenna Army Ammunition Plant, Ravenna, Ohio

CR Site No. CC-RVAAP-68 **CR Site Name:** East Electric

Decision Unit: DU2 **Building No.** 25-27 **Vertical Geoprobe No.** SB-4

Sample Date: 3/29/13 **Time:** 1007 **Weather:** 40°; Pt. Cldy, WO-5

Subsurface Horizontal Sample ID: 0685B-0048m-0001-So

Duplicate Sample ID: —

Field Samplers: JS, FR

Tube A Time 0956 **Interval Drilled (ft bgs) :** 1-4 **Recovery (ft/in):** 36"

Tube B Time 1000 **Interval Drilled (ft bgs) :** 4-7 **Recovery (ft/in):** 38"

Tube C Time _____ **Interval Drilled (ft bgs) :** _____ **Recovery (ft/in):** _____

Subcontractor (Name/Company): FRONTZ

Remarks: _____

Laboratory Analysis:

☐ VOC ☒ TAL METALS ☒ SVOCs ☐ EXPLOSIVES ☒ PCBs ☐ PROPELLANTS

☐ FULL SUITE (VOCs, SVOCs, TAL Metals, Explosives, Propellants, PCBs, Pesticides)

☐ MS/MSD Sample Collected

☐ QA Sample Collected

RECORDED BY: _____ **DATE:** 3/29/13

(Signature)

FIELD LOG FORM

SUBSURFACE SOIL ISM SAMPLING

2011 PBA ENVIRONMENTAL INVESTIGATION AND REMEDIATION AT 14 CR SITES

USACE Contract No. W91QR-04-D-0039

Ravenna Army Ammunition Plant, Ravenna, Ohio

CR Site No. CC-RVAAP-68 **CR Site Name:** East Electrical Substation

Decision Unit: DU2 **Building No.** 25-27 **Vertical Geoprobe No.** SB 5

Sample Date: 3/25/13 **Time:** _____ **Weather:** 40°, Pt. Cldy, LD 0.5

Subsurface ~~Horizontal~~ VERT Sample ID: NOT COLL JUST 1-4 4-7'

Duplicate Sample ID: —

Field Samplers: JS, FR

Tube A Time 1008 **Interval Drilled (ft bgs) :** 1-4 **Recovery (ft/in):** 48"

Tube B Time 1009 **Interval Drilled (ft bgs) :** 4-7 **Recovery (ft/in):** 39"

Tube C Time _____ **Interval Drilled (ft bgs) :** _____ **Recovery (ft/in):** _____

Subcontractor (Name/Company): FRANTZ

Remarks: DID NOT COLL. VERT. SAMPLE (1-2FT) PER WORK PLAN

Laboratory Analysis:

☐ VOC ☒ TAL METALS ☒ SVOCs ☐ EXPLOSIVES ☒ PCBs ☐ PROPELLANTS

☐ FULL SUITE (VOCs, SVOCs, TAL Metals, Explosives, Propellants, PCBs, Pesticides)

☐ MS/MSD Sample Collected

☐ QA Sample Collected

RECORDED BY: _____ **DATE:** 3/25/13
(Signature)

FIELD LOG FORM

SUBSURFACESOIL ISM SAMPLING

2011 PBA ENVIRONMENTAL INVESTIGATION AND REMEDIATION AT 14 CR SITES

USACE Contract No. W91QR-04-D-0039

Ravenna Army Ammunition Plant, Ravenna, Ohio

CR Site No. CC-RVAAP-68 **CR Site Name:** SUBSTATION #3

Decision Unit: DU1 **Building No.** — **VerticalGeoprobe No.** SB1

Sample Date: 3/29/13 **Time:** ~~0826~~ 1200 **Weather:** 41°, CLEAR

VERTICAL 0685B-0052M-0001-SO 1200

Subsurface Horizontal Sample ID: 1-4' 0685B-0050M-0001-SO 1157

4-7' 0685B-0051M-0001-SO 1158

Duplicate Sample ID: ~~0685B-DUP~~

Field Samplers: FR

Tube A Time 1147 **Interval Drilled (ftbgs) :** 1-4 **Recovery (ft/in):** 48"

Tube B Time 1149 **Interval Drilled (ftbgs) :** 4-7 **Recovery (ft/in):** 36"

Tube C Time _____ **Interval Drilled (ftbgs) :** _____ **Recovery (ft/in):** _____

Subcontractor (Name/Company): FRONTZ

Remarks: _____

Laboratory Analysis:

☐VOC ☒ TAL METALS ☒SVOCs ☐EXPLOSIVES ☒PCBs ☐ PROPELLANTS

☐ FULL SUITE (VOCs, SVOCs, TAL Metals, Explosives, Propellants, PCBs, Pesticides)

☐ MS/MSD Sample Collected

~~☒~~ QA Sample Collected NO

RECORDED BY: Jeff Dom **DATE:** 3/29/13

(Signature)

FIELD LOG FORM

SUBSURFACE SOIL ISM SAMPLING

2011 PBA ENVIRONMENTAL INVESTIGATION AND REMEDIATION AT 14 CR SITES

USACE Contract No. W91QR-04-D-0039

Ravenna Army Ammunition Plant, Ravenna, Ohio

CR Site No. CC-RVAAP-68 **CR Site Name:** Substation 3

Decision Unit: DU01 **Building No.** — **Vertical Geoprobe No.** SB2

Sample Date: 3/25/13 **Time:** 1118 **Weather:** Clear, 41°, Calm

Subsurface ~~Horizontal~~ VERTICAL Sample ID: 0685B-0053M-0001-SO

Duplicate Sample ID: 0685B-0054M-0001-SO 1118

Field Samplers: FR

Tube A Time 1107 **Interval Drilled (ft bgs) :** 1-4 **Recovery (ft/in):** 32"

Tube B Time 1110 **Interval Drilled (ft bgs) :** 4-7 **Recovery (ft/in):** 37"

Tube C Time _____ **Interval Drilled (ft bgs) :** _____ **Recovery (ft/in):** _____

Subcontractor (Name/Company): FRONTIER

Remarks: Black staining @ 8-11", No HC odor, no PID hits

Laboratory Analysis:

☐ VOC ☒ TAL METALS ☒ SVOCs ☐ EXPLOSIVES ☒ PCBs ☐ PROPELLANTS

☐ FULL SUITE (VOCs, SVOCs, TAL Metals, Explosives, Propellants, PCBs, Pesticides)

☐ MS/MSD Sample Collected

☒ QA Sample Collected 0685B-0053M-0001-SO 1118

RECORDED BY: _____ **DATE:** 3/26/13
(Signature)

FIELD LOG FORM

SUBSURFACE SOIL ISM SAMPLING

2011 PBA ENVIRONMENTAL INVESTIGATION AND REMEDIATION AT 14 CR SITES

USACE Contract No. W91QR-04-D-0039

Ravenna Army Ammunition Plant, Ravenna, Ohio

CR Site No. CC-RVAAP-68 **CR Site Name:** Substation 3

Decision Unit: DU1 **Building No.** — **Vertical Geoprobe No.** SB3

Sample Date: 3/29/13 **Time:** 1135 **Weather:** 41°, Clear, W 0-5

Subsurface ~~Horizontal~~ VERTICAL Sample ID: 0685B-0056M-00101SO

Duplicate Sample ID: —

Field Samplers: FR

Tube A Time 1126 **Interval Drilled (ft bgs) :** 1-4 **Recovery (ft/in):** 48"

Tube B Time 1131 **Interval Drilled (ft bgs) :** 4-7 **Recovery (ft/in):** 35"

Tube C Time _____ **Interval Drilled (ft bgs) :** _____ **Recovery (ft/in):** _____

Subcontractor (Name/Company): Prondz

Remarks: _____

Laboratory Analysis:

☐ VOC ☒ TAL METALS ☒ SVOCs ☐ EXPLOSIVES ☒ PCBs ☐ PROPELLANTS

☐ FULL SUITE (VOCs, SVOCs, TAL Metals, Explosives, Propellants, PCBs, Pesticides)

☐ MS/MSD Sample Collected

☐ QA Sample Collected

RECORDED BY: _____ **DATE:** 3/29/13

(Signature)

4

FIELD LOG FORM

SUBSURFACE SOIL ISM SAMPLING

2011 PBA ENVIRONMENTAL INVESTIGATION AND REMEDIATION AT 14 CR SITES

USACE Contract No. W91QR-04-D-0039

Ravenna Army Ammunition Plant, Ravenna, Ohio

CR Site No. CC-RVAAP-68 **CR Site Name:** Substation 3

Decision Unit: DU1 **Building No.** — **Vertical Geoprobe No.** SB4

Sample Date: 3/26/13 **Time:** 1126 **Weather:** Clear, 40°, ~ 0-5

Subsurface ~~Horizontal~~ Sample ID: 0685B-0057M-0001-SO

Duplicate Sample ID: —

Field Samplers: FR

Tube A Time 1116 **Interval Drilled (ft bgs) :** 1-4 **Recovery (ft/in):** 48"

Tube B Time 1120 **Interval Drilled (ft bgs) :** 4-7 **Recovery (ft/in):** 30"

Tube C Time _____ **Interval Drilled (ft bgs) :** _____ **Recovery (ft/in):** _____

Subcontractor (Name/Company): Front2

Remarks: _____

Laboratory Analysis:

☒ VOC ☒ TAL METALS ☒ SVOCs ☐ EXPLOSIVES ☒ PCBs ☐ PROPELLANTS

~~☒ FULL SUITE~~ (VOCs, SVOCs, TAL Metals, Explosives, Propellants, PCBs, Pesticides)

☐ MS/MSD Sample Collected

☐ QA Sample Collected

RECORDED BY: _____ **DATE:** 3/29/13

(Signature)

FIELD LOG FORM

SUBSURFACE SOIL ISM SAMPLING

2011 PBA ENVIRONMENTAL INVESTIGATION AND REMEDIATION AT 14 CR SITES

USACE Contract No. W91QR-04-D-0039

Ravenna Army Ammunition Plant, Ravenna, Ohio

CR Site No. CC-RVAAP-68 **CR Site Name:** Substation 3

Decision Unit: DU1 **Building No.** — **Vertical Geoprobe No.** SB5

Sample Date: 3/25/13 **Time:** 1147 **Weather:** Clear, 42°, W 0-5

Subsurface ~~Horizontal~~ Vertical Sample ID: 0868B-0059M-0001-SO

Duplicate Sample ID: —

Field Samplers: FR

Tube A Time 1138 **Interval Drilled (ft bgs) :** 1-4 **Recovery (ft/in):** 34"

Tube B Time 1140 **Interval Drilled (ft bgs) :** 4-7 **Recovery (ft/in):** 42"

Tube C Time _____ **Interval Drilled (ft bgs) :** _____ **Recovery (ft/in):** _____

Subcontractor (Name/Company): FAMTZ

Remarks: _____

Laboratory Analysis:

☐ VOC ☒ TAL METALS ☒ SVOCs ☐ EXPLOSIVES ☒ PCBs ☐ PROPELLANTS

☐ FULL SUITE (VOCs, SVOCs, TAL Metals, Explosives, Propellants, PCBs, Pesticides)

☐ MS/MSD Sample Collected

☐ QA Sample Collected

RECORDED BY: Jeff Dam **DATE:** 3/29/13

(Signature)

FIELD LOG FORM

SUBSURFACESOIL ISM SAMPLING

2011 PBA ENVIRONMENTAL INVESTIGATION AND REMEDIATION AT 14 CR SITES

USACE Contract No. W91QR-04-D-0039

Ravenna Army Ammunition Plant, Ravenna, Ohio

CR Site No. CC-RVAAP-68 **CR Site Name:** West Substation

Decision Unit: 1 **Building No.** 28-28 **VerticalGeoprobe No.** SB1

Sample Date: 3/29/13 **Time:** 1521 **Weather:** 48°, Pt. Cldy, W 0-5

Subsurface ~~Horizontal~~ VERT. Sample ID: 0685B-0018M-0001-SO 1521

HORZ. 1-4' 0685B-0018M-0001-SO 1542

4-7' 0685B-0018M-0001-SO 1543

Duplicate Sample ID: 0685B-0022M-0001-SO ~~EQR~~ 1521

DSB 7-13' 0685B-0032-0001-SO 1530

Field Samplers: JJ, FR

Tube A Time 1513 **Interval Drilled (ftbgs) :** 1-5 **Recovery (ft/in):** 48"

Tube B Time 1516 **Interval Drilled (ftbgs) :** 5-9 **Recovery (ft/in):** 48"

Tube C Time 1522 **Interval Drilled (ftbgs) :** 9-13 **Recovery (ft/in):** 48"

Subcontractor (Name/Company): Joe Tek ; Frontz

Remarks:

Laboratory Analysis:

☐VOC ☒TAL METALS ☒SVOCs ☐EXPLOSIVES ☒PCBs ☐ PROPELLANTS

☐ FULL SUITE (VOCs, SVOCs, TAL Metals, Explosives, Propellants, PCBs, Pesticides)

☐ MS/MSD Sample Collected

☐ QA Sample Collected

RECORDED BY: _____ **DATE:** 3/29/13

(Signature)

FIELD LOG FORM

SUBSURFACESOIL ISM SAMPLING

2011 PBA ENVIRONMENTAL INVESTIGATION AND REMEDIATION AT 14 CR SITES

USACE Contract No. W91QR-04-D-0039

Ravenna Army Ammunition Plant, Ravenna, Ohio

CR Site No. CC-RVAAP-68 **CR Site Name:** West Substation

Decision Unit: 1 **Building No.** 28-28 **VerticalGeoprobe No.** SB-2

Sample Date: 3/28/13 **Time:** 1550 **Weather:** 45°, Pt. Cldy, W 0-5

Subsurface Horizontal Sample ID: 0685B-0020M-0001-SO

Duplicate Sample ID: —

Field Samplers: JS, FR

Tube A Time 1537 **Interval Drilled (ftbgs) :** 1-4 **Recovery (ft/in):** 36"

Tube B Time 1541 **Interval Drilled (ftbgs) :** 4-7 **Recovery (ft/in):** 34"

Tube C Time _____ **Interval Drilled (ftbgs) :** _____ **Recovery (ft/in):** _____

Subcontractor (Name/Company): Fronte

Remarks: _____

Laboratory Analysis:

☐VOC ☒ TAL METALS ☒SVOCs ☐EXPLOSIVES ☒PCBs ☐ PROPELLANTS

☐ FULL SUITE (VOCs, SVOCs, TAL Metals, Explosives, Propellants, PCBs, Pesticides)

☐ MS/MSD Sample Collected

☒ QA Sample Collected 0685B-0021M-0001-SO 1550

RECORDED BY: _____ **DATE:** 3/29/13
(Signature)

FIELD LOG FORM

SUBSURFACESOIL ISM SAMPLING

2011 PBA ENVIRONMENTAL INVESTIGATION AND REMEDIATION AT 14 CR SITES

USACE Contract No. W91QR-04-D-0039

Ravenna Army Ammunition Plant, Ravenna, Ohio

CR Site No. CC-RVAAP-68 **CR Site Name:** West Substation

Decision Unit: DU1 **Building No.** 28-28 **VerticalGeoprobe No.** SB-3

Sample Date: 3/29/13 **Time:** 1440 **Weather:** 48°, Pt. Cldy, WO-5

Subsurface Horizontal Sample ID: 06858-0023m-001-SO

Duplicate Sample ID: —

Field Samplers: JS, FR

Tube A Time 1425 **Interval Drilled (ftbgs) :** 1-4 **Recovery (ft/in):** 24" Refusal @ 4'

Tube B Time _____ **Interval Drilled (ftbgs) :** _____ **Recovery (ft/in):** _____

Tube C Time _____ **Interval Drilled (ftbgs) :** _____ **Recovery (ft/in):** _____

Subcontractor (Name/Company): FRONTL

Remarks: Switch to Dual tube, Out of macro liners, Refusal @ 4'

Laboratory Analysis:

☐VOC ☒TAL METALS ☒SVOCs ☐EXPLOSIVES ☒PCBs ☐ PROPELLANTS

☐ FULL SUITE (VOCs, SVOCs, TAL Metals, Explosives, Propellants, PCBs, Pesticides)

☐ MS/MSD Sample Collected

☐ QA Sample Collected

RECORDED BY: _____ **DATE:** 3/29
(Signature)

FIELD LOG FORM

SUBSURFACESOIL ISM SAMPLING

2011 PBA ENVIRONMENTAL INVESTIGATION AND REMEDIATION AT 14 CR SITES

USACE Contract No. W91QR-04-D-0039

Ravenna Army Ammunition Plant, Ravenna, Ohio

CR Site No. CC-RVAAP- 68 **CR Site Name:** West Substation

Decision Unit: DU1 **Building No.** 28-28 **VerticalGeoprobe No.** SB-4

Sample Date: 3/25/13 **Time:** 1420 **Weather:** 48°, Pt. Cldy, WO-5

Subsurface ~~Horizontal~~ VERT. Sample ID: 0685B-0024M-0001-SO

Duplicate Sample ID: —

Field Samplers: TS, FR

Tube A Time 1407 **Interval Drilled (ftbgs) :** 1-4 **Recovery (ft/in):** 24"

Tube B Time 1410 **Interval Drilled (ftbgs) :** 4-7 **Recovery (ft/in):** 32"

Tube C Time _____ **Interval Drilled (ftbgs) :** _____ **Recovery (ft/in):** _____

Subcontractor (Name/Company): FRONTZ

Remarks:

Laboratory Analysis:

☐VOC ☒TAL METALS ☒SVOCs ☐EXPLOSIVES ☒PCBs ☐ PROPELLANTS

☐ FULL SUITE (VOCs, SVOCs, TAL Metals, Explosives, Propellants, PCBs, Pesticides)

☐ MS/MSD Sample Collected

☐ QA Sample Collected

RECORDED BY: _____ **DATE:** 3/25
(Signature)

FIELD LOG FORM

SUBSURFACESOIL ISM SAMPLING

2011 PBA ENVIRONMENTAL INVESTIGATION AND REMEDIATION AT 14 CR SITES

USACE Contract No. W91QR-04-D-0039

Ravenna Army Ammunition Plant, Ravenna, Ohio

CR Site No. CC-RVAAP-68 **CR Site Name:** West Substation

Decision Unit: DU1 **Building No.** 28-28 **VerticalGeoprobe No.** SB-5

Sample Date: 3/29/13 **Time:** 1445 **Weather:** 48°, Pt. Cldy W 0-5

Subsurface Horizontal Sample ID: 0685B-0025M-0001-SO

Duplicate Sample ID: —

Field Samplers: JS, FA

Tube A Time 1435 **Interval Drilled (ftbgs) :** 0-5 **Recovery (ft/in):** 24"

Tube B Time 1440 **Interval Drilled (ftbgs) :** 5-9 **Recovery (ft/in):** 0 - Pushed Rock

Tube C Time 1450 **Interval Drilled (ftbgs) :** 0-5 **Recovery (ft/in):** 30"
1501 5-9

Subcontractor (Name/Company):

Remarks: low Recovery, lots of gravel, 5-9 No recovery, Refusal

Laboratory Analysis:

☐VOC ☒TAL METALS ☒SVOCs ☐EXPLOSIVES ☒PCBs ☐ PROPELLANTS

☐ FULL SUITE (VOCs, SVOCs, TAL Metals, Explosives, Propellants, PCBs, Pesticides)

☐ MS/MSD Sample Collected

☐ QA Sample Collected

RECORDED BY: (Signature) **DATE:** 3/29/13

FIELD LOG FORM

SUBSURFACESOIL ISM SAMPLING

2011 PBA ENVIRONMENTAL INVESTIGATION AND REMEDIATION AT 14 CR SITES

USACE Contract No. W91QR-04-D-0039

Ravenna Army Ammunition Plant, Ravenna, Ohio

CR Site No. CC-RVAAP-68 **CR Site Name:** West Substation

Decision Unit: DU02 **Building No.** — **VerticalGeoprobe No.** 5801

Sample Date: ~~3/25/13~~ 4-4-13 **Time:** 1410 **Weather:** 47°, Clear, W WES

Subsurface ~~Horizontal~~ Sample ID: 0685B-0060M-0001-SO 1410 4-4-13 CERT
HOR 2 1-4': 0685B-0027M-0001-SO 3-29-13 1400
4-7': 0685B-0028M-0001-SO ↓ 1402

Duplicate Sample ID: † 0685B-0061M-0001-SO 1410 4-4-13

Field Samplers: FR

Tube A Time R42 **Interval Drilled (ftbgs) :** 0-4 **Recovery (ft/in):** 50"

Tube B Time 1243 **Interval Drilled (ftbgs) :** 4-8 **Recovery (ft/in):** 47"

Tube C Time 1247 **Interval Drilled (ftbgs) :** 8-13 **Recovery (ft/in):** 0

Subcontractor (Name/Company): FRONTZ

Remarks: Split liner on 8-13, no recovery. Will move DSB.

Laboratory Analysis:

☐VOC ☒ TAL METALS ☒ SVOCs ☐EXPLOSIVES ☒ PCBs ☐ PROPELLANTS

☐ FULL SUITE (VOCs, SVOCs, TAL Metals, Explosives, Propellants, PCBs, Pesticides)

☒ MS/MSD Sample Collected 0685B-0060M-0002-SO 1410

☐ QA Sample Collected

RECORDED BY: _____ **DATE:** 3/24/13 4-4-13
(Signature)

FIELD LOG FORM

SUBSURFACESOIL ISM SAMPLING

2011 PBA ENVIRONMENTAL INVESTIGATION AND REMEDIATION AT 14 CR SITES

USACE Contract No. W91QR-04-D-0039

Ravenna Army Ammunition Plant, Ravenna, Ohio

CR Site No. CC-RVAAP- 68 **CR Site Name:** West Substation

Decision Unit: DU2 **Building No.** 28-28 **VerticalGeoprobe No.** SB 2

Sample Date: 3/29/13 **Time:** _____ **Weather:** 47°, Clear, WD-5

Subsurface Horizontal Sample ID: FOR 1-4 & 4-7 HOR 2. SAMPLES

Duplicate Sample ID: —

Field Samplers: JS, FA

Tube A Time 1514 **Interval Drilled (ftbgs) :** 1-4 **Recovery (ft/in):** 43"

Tube B Time _____ **Interval Drilled (ftbgs) :** 4-7 **Recovery (ft/in):** 38"

Tube C Time _____ **Interval Drilled (ftbgs) :** _____ **Recovery (ft/in):** _____

Subcontractor (Name/Company): FRONTZ

Remarks: No 4 1-7' Sample PBA work plan

Laboratory Analysis:

☐VOC ☒TAL METALS ☒SVOCs ☐EXPLOSIVES ☒ PCBs ☐ PROPELLANTS

☐ FULL SUITE (VOCs, SVOCs, TAL Metals, Explosives, Propellants, PCBs, Pesticides)

☐ MS/MSD Sample Collected

☐ QA Sample Collected

RECORDED BY: _____ **DATE:** 3-29-13
(Signature)

FIELD LOG FORM

SUBSURFACE SOIL ISM SAMPLING

2011 PBA ENVIRONMENTAL INVESTIGATION AND REMEDIATION AT 14 CR SITES

USACE Contract No. W91QR-04-D-0039

Ravenna Army Ammunition Plant, Ravenna, Ohio

CR Site No. CC-RVAAP-68 **CR Site Name:** West Substation

Decision Unit: DU2 **Building No.** 28-28 **Vertical Geoprobe No.** SB-3

Sample Date: 3/28/13 **Time:** 1405 **Weather:** 48°, Pt. Cldy, W 0-5

Subsurface Horizontal Sample ID: 0685B-0030M-0001-SO

Duplicate Sample ID: —

Field Samplers: JS, FR

Tube A Time 1356 **Interval Drilled (ft bgs) :** 1-4 **Recovery (ft/in):** 40"

Tube B Time 1400 **Interval Drilled (ft bgs) :** 4-7 **Recovery (ft/in):** 38"

Tube C Time _____ **Interval Drilled (ft bgs) :** _____ **Recovery (ft/in):** _____

Subcontractor (Name/Company): FRONTIER

Remarks: See DU2-SB4 for bore log

Laboratory Analysis:

☐ VOC ☒ TAL METALS ☒ SVOCs ☐ EXPLOSIVES ☒ PCBs ☐ PROPELLANTS

☐ FULL SUITE (VOCs, SVOCs, TAL Metals, Explosives, Propellants, PCBs, Pesticides)

☐ MS/MSD Sample Collected

☐ QA Sample Collected

RECORDED BY: Jeff Dam **DATE:** 3/29/13

(Signature)

FIELD LOG FORM

SUBSURFACE SOIL ISM SAMPLING

2011 PBA ENVIRONMENTAL INVESTIGATION AND REMEDIATION AT 14 CR SITES

USACE Contract No. W91QR-04-D-0039

Ravenna Army Ammunition Plant, Ravenna, Ohio

CR Site No. CC-RVAAP-68 **CR Site Name:** West Substation

Decision Unit: DU2 **Building No.** 28-28 **Vertical Geoprobe No.** SB04

Sample Date: 3/29/13 **Time:** _____ **Weather:** 48°, Pt. Cldy, W 0-5

Subsurface Horizontal Sample ID: FSA 1-4' & 4-7' HORZ. ISM SAMPLES

Duplicate Sample ID: —

Field Samplers: FR

Tube A Time 1346 **Interval Drilled (ft bgs) :** 1-4 **Recovery (ft/in):** _____

Tube B Time 1350 **Interval Drilled (ft bgs) :** 4-7 **Recovery (ft/in):** _____

Tube C Time _____ **Interval Drilled (ft bgs) :** _____ **Recovery (ft/in):** _____

Subcontractor (Name/Company): Joe; Frontz

Remarks: NO 1-7' VERT. SAMPLE COLL. PER WORK PLAN

Laboratory Analysis:

☐ VOC ☒ TAL METALS ☒ SVOCs ☒ EXPLOSIVES ☒ PCBs ☐ PROPELLANTS

☐ FULL SUITE (VOCs, SVOCs, TAL Metals, Explosives, Propellants, PCBs, Pesticides)

☐ MS/MSD Sample Collected

☐ QA Sample Collected

RECORDED BY: _____ **DATE:** 3/29/13
(Signature)

FIELD LOG FORM

SUBSURFACESOIL ISM SAMPLING

2011 PBA ENVIRONMENTAL INVESTIGATION AND REMEDIATION AT 14 CR SITES

USACE Contract No. W91QR-04-D-0039

Ravenna Army Ammunition Plant, Ravenna, Ohio

CR Site No. CC-RVAAP-68 **CR Site Name:** West Substation

Decision Unit: DU2 **Building No.** 2828 **VerticalGeoprobe No.** SB 5

Sample Date: 3/25/13 **Time:** 1344 **Weather:** 48°, Pt. Cldy, W 0-5

Subsurface ~~Horizontal~~ VERTICAL Sample ID: 06BSB-0031m-0001-SO

Duplicate Sample ID: —

Field Samplers: FR

Tube A Time 1327 **Interval Drilled (ftbgs) :** 1-4 **Recovery (ft/in):** Refusal @ 2'

Tube B Time 1335 **Interval Drilled (ftbgs) :** 1-4 **Recovery (ft/in):** 35"

Tube C Time 1338 **Interval Drilled (ftbgs) :** 4-7 **Recovery (ft/in):** 48"

Subcontractor (Name/Company): Henry ; Frontz

Remarks:

Laboratory Analysis:

☐VOC ☒ TAL METALS ☒ SVOCs ☐EXPLOSIVES ☒ PCBs ☐ PROPELLANTS

☐ FULL SUITE (VOCs, SVOCs, TAL Metals, Explosives, Propellants, PCBs, Pesticides)

☐ MS/MSD Sample Collected

☐ QA Sample Collected

RECORDED BY: _____ **DATE:** 3/29/13
(Signature)

This page intentionally left blank.

APPENDIX C.4

Daily Health and Safety Forms

This page intentionally left blank.

Vision Integrity Results	ECC	DAILY SAFETY MEETING SIGN-IN SHEET

Date: 11-6-12 Project Name/Location: Ravenna AAP, Ravenna, OH

Company: ECC Person Conducting Briefing: JEFF DONOVAN

1. AWARENESS (e.g., special EHS concerns, pollution prevention, recent incidents, etc.):

- check for Ticks often
- Be aware of Pinch Points with hand tools.
- wildlife running in front of vehicles
- Level D
- SAFETY GLASSES WHILE TRACKING TO SAMPLE LOCATIONS IN WOODED AREAS.

2. OTHER ISSUES (HASP changes, new AHAs, attendee comments, etc.):

- Dress weather appropriate

3. DISCUSSION OF DAILY ACTIVITIES/TASKS AND SAFETY MEASURES TO BE USED:

- GREENSTAR WILL EM/GPR AT UST LOCATIONS BLDG 1026 (RV4, RVBG, RV87), RV-41, AND RV-46 (BOLTON MANOR), AND RV-88.
- ECC AND PRUDENT - SOIL SAMPLING ISM AT DEPOT AREA

4. ATTENDEES (Print Name):

1. JEFF DONOVAN	2.
3. Amanda Miller	4.
5. Tomas Hernandez Jr.	6.
7. Fred Roche	8.
9. David Conlan	10.
11. AL EASTERDAY	12.
13. Nathan Maier	14.
15.	16.
17.	18.
19.	20.
21.	22.
23.	24.
25.	26.
27.	28.
29.	30.

Vision Integrity Results	ECC	DAILY SAFETY MEETING SIGN-IN SHEET

Date: 11-8-12 Project Name/Location: Ravenna AAP, Ravenna, OH
Company: ECC Person Conducting Briefing: JEFF DONOVAN

1. AWARENESS (e.g., special EHS concerns, pollution prevention, recent incidents, etc.):

MIDS FALLS - THORN BUSH'S
MAKE SURE YOU WEAR SAFETY GLASSES WHEN
SAMPLING.

2. OTHER ISSUES (HASP changes, new AHAs, attendee comments, etc.):

3. DISCUSSION OF DAILY ACTIVITIES/TASKS AND SAFETY MEASURES TO BE USED:

CONT. SAMPLING AT OAE STORAGE AREAS - COAL STORAGE
AREAS - BLD U-20 SUR. WATER - MLRC SUBSTATION #3
SUR + SED.

4. ATTENDEES (Print Name):

1. JEFF DONOVAN	2. Tomas Hernandez Jr.
3. Fred Roche	4. Amanda Miller
5.	6.
7.	8.
9.	10.
11.	12.
13.	14.
15.	16.
17.	18.
19.	20.
21.	22.
23.	24.
25.	26.
27.	28.
29.	30.

Vision Integrity Results	ECC	DAILY SAFETY MEETING SIGN-IN SHEET

Date: 3-29-13 Project Name/Location: Ravenna AAP, Ravenna, OH

Company: ECC Person Conducting Briefing: Jeff Donovan

1. AWARENESS (e.g., special EHS concerns, pollution prevention, recent incidents, etc.):

Vehicle Awareness – Speed Limit on Base

Lifting Coolers, sampling equipment, lift with your legs

Level D PPE unless upgraded due to site conditions

Use caution when working around drill rig

2. OTHER ISSUES (HASP changes, new AHAs, attendee comments, etc.):

3. DISCUSSION OF DAILY ACTIVITIES/TASKS AND SAFETY MEASURES TO BE USED:

CONTINUE OP LSM SAMPLING

4. ATTENDEES (Print Name):

1. Jeff Donovan	2. Jason Scott
3. Roxann Williams	4. Henry Millard JR
5. Joe Teter	6. Fred Roche
7.	8.
9.	10.
11.	12.
13.	14.
15.	16.
17.	18.
19.	20.
21.	22.
23.	24.
25.	26.
27.	28.
29.	30.

Vision Integrity Results	ECC	DAILY SAFETY MEETING SIGN-IN SHEET

Date: 4-4-13 Project Name/Location: Ravenna AAP, Ravenna, OH

Company: ECC Person Conducting Briefing: Jeff Donovan

1. AWARENESS (e.g., special EHS concerns, pollution prevention, recent incidents, etc.):

Vehicle Awareness – Speed Limit on Base

Lifting Coolers, sampling equipment, lift with your legs

Level D PPE unless upgraded due to site conditions

Use caution when working around drill rig

2. OTHER ISSUES (HASP changes, new AHAs, attendee comments, etc.):

NO NEW ISSUES

3. DISCUSSION OF DAILY ACTIVITIES/TASKS AND SAFETY MEASURES TO BE USED:

CONT. SUBSURFACE SOIL SAMPLING AT CC24 HYDRAULIC LIFT.

4. ATTENDEES (Print Name):

1. Jeff Donovan	2. Jason Scott
3. Roxann Williams	4. Fred Rohe
5. Henry Millard JR	6. Joe Teter
7.	8.
9.	10.
11.	12.
13.	14.
15.	16.
17.	18.
19.	20.
21.	22.
23.	24.
25.	26.
27.	28.
29.	30.

APPENDIX C.5

Field Notes

This page intentionally left blank.

- 0

11-6-12 CLEAN - 30's - 40's RAVENNA

0730 H&S & PRUDENT AT BLD 1036 H&S MEETING

WILL MOB TO DEPOT AREA TO CONDUCT IS SURFACE SOIL SAMPLING.

SAMPLES COLL IN THE DEPOT AREA (CC-76) WILL BE IDENTIFIED IN THE FOLLOWING MANNER.

COLL TIME 11-6-12

0923 076 SS-0001m-0007-SO = DUP OF BLD C-5

0840 -0002m- = BLD DRAIN, DITCH

0920 -0003m- = DUP OF BLD V-4

-0004m- = DUP OF BLD V-4

-0005m- = B-19 A2 A

-0006m- = BLD A5

-0007m- = BLD. V-20

-0008m- = DUP OF 0007m

-0009m- = BOILER DRAIN

-0010m = [illegible] OF [illegible]

-0011m = [illegible] ACM

-0012 [illegible]

0013 [illegible]

JEFF Dawson - EE

RAVENNA 11-6-12 ②

CC-RVAAP-76 - DEPOT AREA SAMPLING SUMMARY

SAMPLE	DATE	TIME	ANALYSIS
-0001m-	11-6-12	0923	VOC, SVOC, TAL METALS, PCB
-0002m-		0840	↓ ↓ ↓ ↓
-0003m-		0920	VOC, SVOC, TAL METALS
-0004m-		0950	↓ ↓ ↓
-0005m-		1830	VOC, SVOC, TAL METALS
-0006m-		1800	↓ ↓ ↓
-0007m-			SVOC, TAL METALS, PCB EXPLOSIVES - PROPELLANTS
-0008m-			VOC, SVOC, TAL METALS
-0009m-			VOC, SVOC, TAL METALS PCB EXPLOSIVES/PROPELLANTS PEST
-0010m			DUP OF 9
-0011 (B)		0001(6, 0001(8 (A)	1710 (C) 1715-1720 ACM SAMPLES BLDGS C-101

1025 MOB TO DRAINAGE TRENCH IN CONTAMINATED PORTION OF DEPOT AREA, CANNOT CONT. SAMPLING. WILL MOB TO UNCONTAMINATED SUBSTATION AND SAMPLE.

1050 AT CC-RVAAP-68 WEST ELEC. SUBSTATION

(3)

11-6-12 RAVENNA

3 DU's AT WEST SUBSTATION

SAMPLES COLL. AT WEST SUBSTATION WILL BE LABELED AS FOLLOWS:

0003M-0002-SO (MS/MSD) 2 JARS

068.55 - 0001M - 0001 - SO = DU01 ✓

" - 0002M - 0001 " = DU02 ✓

" - 0003M - 0001 " = DU03

" - 0004M - 0601 " = DUP OF 0003M

NOTE: WILL COLL FULL SUITE, DUPLICATE SAMPLE, AND MS/MSD AT SAMPLE 0003M - DU03 DRAINAGE DITCH

CC-68 SAMPLING SUMMARY:

WEST SUBSTATION

SAMPLE	TIME	DATE	ANALYSIS
0001M	1240	11-6-12	SVOC, TAL METALS, PCB
0002M	1210		
0003M	1200		
0004M	1200		DUP OF 0003M

NOTE: FULL SUITE, DUPLICATE, AND MS/DS COLL. AT 0003M DU03 DRAINAGE DITCH

(4)

RAVENNA 11-6-12

1300 AT CC-RUANN-68 - SUBSTATION #3 TO CONDUCT SS IN SAMPLING. WILL NOT COLL SURFACE WATER & WET SEDIMENT SAMPLES IN WETLAND AREA TO THE SOUTH DO NOT HAVE SAMPLE CONTAINERS FOR THIS MATRIX

SAMPLES WILL BE COLL. AT CC-68 SUBSTATION #3 LABELED AS FOLLOWS. (ONLY ONE DU AT THIS SUBSTATION)

068.55 - 0003M - 0001 - SO = DU01

* WILL COLL SUR. WAT & SEDIMENT WATER - NO BOTTLES

#3 SAMPLING SUMMARY:

SAMPLE	TIME	DATE	ANALYSIS
0003M	1350	11-6-12	SVOC, TAL METALS, PCB

1600 TEST AMERICAS COURIER AT BLD 1036 TO PICK UP SAMPLES

Jeff Doman

(5)

11-6-12

1600 AT CC-16 DEPOT AREA WILL SAMPLE A-2, A-3 + V-20.

1820 BACK AT BLD 1036 PRUDENT OFFSITE WILL BE CON IN THE MORNING

SAMPLES COLL. AT EAST SUBSTATION WILL BE LOGGED AS FOLLOWS:

06855-0006M-0001-SO = DV01 ✓
" -0007M - " -SO = DV02 ✓
" -0009M - " -SO = DV03 ✓

SAMPLE SUMMARY

	TIME	DATE
06855-0006M-0001-SO	1545	11-6-12
-0007M	1615	↓
-0009M	1610	↓

Jeff Duncan

(1)

11-7-12

0730 PCC + PRUDENT + GREENSON (EPR SUBS) AT BLD 1036

1745 MIDNIGHT

DE-CON SAMPLING EQUIP.

*NOTE!
0943 PER CALL TO LAB (MARK LOGG) SAMPLE FROM EAST. CLASS, VIAL 0006M, 0008M, AND 0009M WILL BE COMBINED FOR MS/MSD (0007M WAS RUN)

*NOTE
1015 COLL. VOC SAMPLES AT CC-16 DEPOT AREA GRID V-4 FOR POT TP COLL. ON 11-6-12

1000 COLL 07655-0004M-0001-SO
11-7-12 @ 1000 DV02

1015 COLL 07655-0003M-0001-SO
11-7-12 @ 1015 DV01
WILL SUBMIT TODAY

11-8-12 RAVENNA

1130 J. DONOVAN CLKS. SITE TO PREP SAMPLES AT BLD 103C D. CAMRAN & FRED ROCHE WILL MEET PRUDENT AT F-16 COAL STORAGE TO SAMPLE.

CC-73 FW COAL STORAGE AREA SAMPLES COAL FOR PROX+TAL. PROX+TALS. SAMPLES AT SAND CREEK COAL TIPPLE ANALYZED FOR FULL SUITE, + DUP + MS/MSD

SAMPLE SUMMARY FOR CC-73:

CC7355-0001M-0001-SO = DUO1 EAST, CLASS TO
-0002M- = DUO1 SAND CREEK TIPPLE
-0002M-0002- = MS/MSD
-0003M-0001 = DUP OF 0002M
-0004M- = BLD U-16 BOILER HOUSE
-0005M- = N. COAL TIPPLE
-0006- = TRIP BLANK

TRIP BLANK - ECC RAVENNA 11-8-12

SAMPLE SUMMARY FOR SW + SED AT ELEC. SUBSTATION #3

SEDIMENT

TIME	
1225	0685D-0009-0001-SO = SED #1
	-0009-0002- = MS/MSD
	-0010-0001- = DUP OF SED #1
1242	-0011- = SED #2
1235	-0012- = SED #3

SURFACE WATER

1400	0685W-0013-0001-SW = SW #1
1325	-0016-0002-SW = MS/MSD AT #3
1325	-0014-0001-SW = DUP OF #3
1340	-0015 " " = SW #2
1325	-0016 " " = SW #3

SAMPLE SUMMARY - BLD U-20 DEPOT AREA - SW

TIME	
1430	0736SW-0013-0001-SW = SW AT SED #1
	-0013-0002-SW = MS/MSD
	-0014-0001-SW = DUP OF SW AT SED #1
1500	-0015-0001-SW = SW AT SED #2

TRIP BLK = 0735S-0006-0001-TB

(13) 3-28-13 THURSDAY P/C - cold

7:24am AT SITE
8:30am SET UP AT CC73 DU1
9:45am Sonny OK - OSPA2 @ 9:30 AM
SEVERAL LOSSES - DRILLING DOWN
NOTES

3-29-13 (A) (M)

RUAAP Jason Scott
Weather: 40°, Mstly Cldy, W 0-2
Personnel: J. Donovan, J. Scott, F. Rocche, Frontz.
Objectives: Collect DP subsurface samples @ CC68 Sites.

0730 All personnel @ sampling bldg. Attend Daily briefing. Mobe for day
0755 Arrive @ CC68, East Substation
0910 Set up for DP @ SB01, DU01.
1025 Complete DP borings @ East Elec. Substation. Begin mobe to Substation 3.
1100 Drillers setting up @ Sub 3
1117 Finish DP borings @ Sub 3. Begin mobe to West Substation.
1239 Begin DP @ West Electric Substa.
1414 Switch from Macro core to dual-tube. Out of Macro core liners.
1554 Complete all SBs @ West Substation.
Demobe to sampling Bldg
1637 End of day

Jason Scott

RVAAP (4) Wed, 3 Apr 2013

Weather: 30°, Clear, Calm @ 0800
Personnel: J. Scott, J. Dawson, R. Williams, E. Rohe, J. Tofer (Fronte).
Objectives: Cont. Boring in 1034, Complete chipping

0730 All ECC persons onsite @ 1036.
0815 Fronte, JS, RW @ 1034. Set up to Core + bore.
0900 JS + FR Continue chipping @ Depot area + U16.
1030 Complete Chipping + Return to Bldg. 1034.
1100 FR Returns Chipper.
1200 FR + RW offsite Break for lunch.
1300 Resume Coring in Bldg 1034.
1630 Sampler lost down borehole. Driller to Core new hole + back for day.
1700 End of day

Jason Scott

RVAAP (5) Thu. 4 Apr 2013

Weather: 20° Clear, Calm
Personnel: JD, JS, FR RW, Fronte
Objectives: Complete Boring in 1034 + one add'l

0720 All ECC persons onsite.
0745 Fronte persons onsite.
0820 SB17 has faint HC odors step out + Core add'l boring.
1115 Completed all add'l cores + bores. Drillers patching hole
1250 Set up @ U16, SB3 to Collect
1300 Collect VOC sample @ 18-24" @ SB.
1321 Set up @ site CC73 to collect QA & VOC @ SB01
1336 Begin Collection of sample @ CC73, SB1
1345 Mobe to West Substation
1405 Begin boring @ DU2-SB2, W. Substn.
1415 Complete boring @ W Substn. Mobe to 1036.

Jason Scott

APPENDIX C.6

Photoionization Detector
Calibration Forms

This page intentionally left blank.

INSTRUMENT CALIBRATION LOG

Project/Site Name RAVENNA, OHIO **Calibrated By** J. DONOVAN

Instrument/Serial Number	Pre-calibration Reading	Post-calibration Reading	Calibration Gas/Concentration	Date
MiniRae 3000 PID 10547	0.0/114.7	0.0/99.7	Isobutylene / 100ppm	11-12-12
MiniRae 3000 PID 10547	0.0/111.3	0.0/103.2	Isobutylene / 100ppm	11-13-12
MiniRae 3000 PID 10547	0.0/99.8	0.0/103.7	Isobutylene / 100ppm	11-14-12
MiniRae 3000 PID 10547	0.0/99.1	0.0/99.6	Isobutylene / 100ppm	11-15-12
MiniRae 3000 PID 10547	0.0/101.2	0.0/102.4	Isobutylene / 100ppm	11-16-12
MiniRae 3000 PID			Isobutylene / 100ppm	
MiniRae 3000 PID			Isobutylene / 100ppm	
MiniRae 3000 PID			Isobutylene / 100ppm	
MiniRae 3000 PID			Isobutylene / 100ppm	
MiniRae 3000 PID			Isobutylene / 100ppm	
MiniRae 3000 PID			Isobutylene / 100ppm	
MiniRae 3000 PID			Isobutylene / 100ppm	

INSTRUMENT CALIBRATION LOG

Project/Site Name Ravenna, Ohio **Calibrated By** David Comeau

Instrument/Serial Number	Pre-calibration Reading	Post-calibration Reading	Calibration Gas/Concentration	Date
MiniRae ~~3000~~ 2000 PID 06087	0.8 / 102	0.3 / 99.8	Isobutylene / 100ppm	3-18-13
MiniRae ~~3000~~ 2000 PID 3443	0.4 / 107	1.0 / 101	Isobutylene / 100ppm	3-18-13
MiniRae ~~3000~~ 2000 PID 3443	0.7 / 101	0.5 / 98.7	Isobutylene / 100ppm	3-19-13
MiniRae ~~3000~~ 2000 PID 3443	0.2 / 104	1.2 / 103	Isobutylene / 100ppm	3-20-13
MiniRae ~~3000~~ 2000 PID 3443	0.4 / 101	0.9 / 99.8	Isobutylene / 100ppm	3-21-13
MiniRae 3000 PID 3443	0.8 / 102	1.1 / 98.9	Isobutylene / 100ppm	3-22-13
MiniRae 3000 PID 3443	0.5 / 99.8	1.2 / 101.3	Isobutylene / 100ppm	3-23-13
MiniRae 3000 PID 3443	0.2 / 101	0.8 / 98.7	Isobutylene / 100ppm	3-25-13
MiniRae 3000 PID 3443	0.4 / 98.8	0.4 / 100.2	Isobutylene / 100ppm	3-26-13
MiniRae 3000 PID 3443	1.1 / 101.2	0.3 / 99.2	Isobutylene / 100ppm	3-27-13
MiniRae 3000 PID 3443	0.7 / 98.9	0.6 / 100.7	Isobutylene / 100ppm	3-28-13
MiniRae 3000 PID 3443	0.8 / 99.7	0.2 / 101.1	Isobutylene / 100ppm	3-29-13

INSTRUMENT CALIBRATION LOG

Project/Site Name RAYONIER **Calibrated By** JEFF DONOVAN

Instrument/Serial Number	Pre-calibration Reading	Post-calibration Reading	Calibration Gas/Concentration	Date
MiniRae ~~3000~~ 2000 PID 3443	0.6/101.2	1.0/101.4	Isobutylene / 100ppm	4-1-13
MiniRae ~~3000~~ 2000 PID 3443	1.0/100.6	0.7/98.5	Isobutylene / 100ppm	4-2-13
MiniRae ~~3000~~ 2000 PID 3443	0.3/99.7	0.8/100.2	Isobutylene / 100ppm	4-3-13
MiniRae ~~3000~~ 2000 PID 3443	0.5/101.2	1.1/98.9	Isobutylene / 100ppm	4-4-13
MiniRae 3000 PID			Isobutylene / 100ppm	
MiniRae 3000 PID			Isobutylene / 100ppm	
MiniRae 3000 PID			Isobutylene / 100ppm	
MiniRae 3000 PID			Isobutylene / 100ppm	
MiniRae 3000 PID			Isobutylene / 100ppm	
MiniRae 3000 PID			Isobutylene / 100ppm	
MiniRae 3000 PID			Isobutylene / 100ppm	
MiniRae 3000 PID			Isobutylene / 100ppm	

This page intentionally left blank.

APPENDIX D

Site Photographs

This page intentionally left blank.



West Substation
Front of West Substation building. View is to the northeast.
DU03 Drainage Ditch is visible in left of photo.



West Substation
View of rear of building.



West Substation
View of east side of building.



West Substation
View of front entrance to building with soil boring SB05, DU02 location.



West Substation
Soil Boring SB03, DU02 location.



West Substation
Soil Boring SB05, DU01 near former transformer pad.



West Substation
Soil Boring SB05, DU01 location.



West Substation
Soil Boring SB04, DU01 location.



West Substation
Soil Boring SB05, DU02 in front of front door.



Substation No. 3
View is looking west.



Substation No. 3
View is looking to the west southwest.



Substation No. 3
Tributary to Sand Creek where surface water and sediment samples were collected.



Substation No. 3
Tributary to Sand Creek where surface water and sediment samples were collected.



East Substation
Back of East Substation building



East Substation
Front of East Substation building. View is to the south.



East Substation
Interior of East Substation building



East Substation
Interior of East Substation building



East Substation
Northeast corner of building. View is to the north. SB stake with flagging visible



East Substation
Northeast corner of building. View is to the south. SB stakes with flagging visible.



East Substation
Northeast corner of building. View is to the west-northwest. SB stake with flagging visible.



East Substation
Northwest corner of building. View is to the south-southeast.



East Substation
Siebert stake denoting northeast corner of AOC



East Substation
West side of building. SB stakes with flagging visible



East Substation
West side of building. View is to the east-southeast.

APPENDIX E

Survey Data

This page intentionally left blank.

CAMPBELL & ASSOCIATES, INC.
Land Surveyors

3485 Fortuna Drive, Suite 100
Akron, OH 44312
330.945.4117
FAX 330.945.4140
800-233-4117

August 20, 2013

Dear Mr. Easterday,

Please find the enclosed survey data for the following AOCs located at Camp Ravenna OH:

CC-RVAAP-68
CC-RVAAP-69
CC-RVAAP-70
CC-RVAAP-71
CC-RVAAP-72
CC-RVAAP-73
CC-RVAAP-74
CC-RVAAP-75
CC-RVAAP-76
CC-RVAAP-77
CC-RVAAP-78
CC-RVAAP-79
CC-RVAAP-83

If you have any questions please feel free to contact me.

Sincerely,

James P. Yurkschatt,
Ohio Surveyor License No. 7809
Vice President
Campbell and Associates, Inc.

CC68 UTM Zone 17 NAD 83 - 8/13/13

Easting (X)	Northing (Y)	Elev. Meters	Description	Ft Msl
491447.959	4558855.451	339.996	BORE cc68-west sub-du2-sb1	1115.459
491452.226	4558849.764	339.942	BORE cc68-west sub-du2-sb2	1115.282
491459.697	4558854.181	339.972	BORE cc68-west sub-du2-sb5	1115.380
491464.827	4558856.958	339.925	BORE cc68-west sub-du2-sb4	1115.226
491463.342	4558862.927	339.876	BORE cc68-west sub-du2-sb3	1115.065
491460.566	4558867.918	339.847	BORE cc68-west sub-du1-sb4	1114.970
491458.946	4558871.921	339.851	BORE cc68-west sub-du1-sb2	1114.983
491455.477	4558868.151	339.784	BORE cc68-west sub-du1-sb5	1114.763
491449.447	4558861.170	340.045	BORE cc68-west sub-du1-sb3	1115.620
491444.546	4558863.590	339.910	BORE cc68-west sub-du1-sb1	1115.177
491447.803	4558858.951	339.986	cc68-west sub-nw-cor	1115.426
491451.832	4558851.893	340.057	cc68-west sub-sw-cor	1115.659
491463.038	4558858.330	339.939	cc68-west sub-se-cor	1115.272
491459.009	4558865.404	339.896	cc68-west sub-ne-cor	1115.131
491487.050	4558850.398	338.826	cc68-west sub-dd3	1111.620
491456.543	4558833.887	339.571	cc68-west sub-dd2	1114.065
491439.028	4558865.742	339.673	cc68-west sub-dd1	1114.399
496946.504	4561214.692	302.755	BORE cc68-eastsub-du2sb2	993.279
496950.488	4561208.600	302.804	BORE cc68-eastsub-du2sb5	993.439
496944.252	4561204.818	302.755	BORE cc68-eastsub-du2sb4	993.279
496937.022	4561197.590	302.727	BORE cc68-eastsub-du2sb3	993.187
496932.396	4561202.856	302.817	BORE cc68-eastsub-du2sb1	993.482
496922.663	4561217.273	302.759	BORE cc68-eastsub-du1sb1	993.292
496931.645	4561212.808	302.757	BORE cc68-eastsub-du1sb3	993.285
496934.923	4561214.529	302.765	BORE cc68-eastsub-du1sb4	993.311
496938.009	4561217.250	302.751	BORE cc68-eastsub-du1sb5	993.265
496936.782	4561228.370	302.814	BORE cc68-eastsub-du1sb2	993.472
496930.717	4561206.868	302.792	BORE cc68-eastsub-nw-cor	993.400
496947.711	4561208.531	302.756	BORE cc68-eastsub-se-cor	993.282
496942.486	4561215.628	302.646	BORE cc68-eastsub-ne-cor	992.921
496960.967	4561240.987	302.355	cc68-eastsub-dd2	991.966
496887.229	4561240.842	300.694	cc68-eastsub-dd1	986.517
491680.213	4559510.105	332.100	BORE 68-sub3-du1sb2	1089.554
491663.239	4559495.349	331.955	BORE 68-sub3-du1sb4	1089.078
491651.818	4559509.706	332.208	BORE 68-sub3-du1sb3	1089.908
491665.632	4559511.051	332.301	BORE 68-sub3-du1sb5	1090.213
491673.143	4559519.162	332.161	BORE 68-sub3-du1sb1	1089.754
491702.984	4559496.886	330.881	68-sub3-sed3	1085.554
491692.400	4559505.502	330.951	68-sub3-sed1	1085.784
491677.286	4559490.881	330.911	68-sub3-sed2	1085.653
491713.368	4559483.160	330.132	68-svb3-sw3	1083.097
491676.479	4559458.102	330.926	68-svb3-sw1	1085.702
491679.058	4559470.641	330.854	68-svb3-sw2offset24.84	1085.466
491676.423	4559470.089	331.191	68-svb3-sw2offsetline	1086.571

APPENDIX F

IDW Disposal Letter Reports

This page intentionally left blank.

Regional Office
33 Boston Post Rd West
Suite 340
Marlborough, MA 01752

Phone: 508.229.2270
Fax: 508.229.7737

Corporate Office
1240 Bayshore Highway
Burlingame, CA 94010

Phone: (650) 347-1555
Fax: (650) 347-8789
www.ecc.net

February 8, 2013

Mr. Eric Cheng, P.E.
Technical Manager
U.S. Army Corps of Engineers, Louisville District
600 Martin Luther King Jr. Place
Louisville, Kentucky 40202-0059

Subject: Investigation-Derived Waste Letter Report
2011 Performance-Based Acquisition
Environmental Investigation and Remediation
14 Compliance Restoration Sites
Ravenna Army Ammunition Plant, Ravenna, Ohio
Contract No. W912QR-04-D-0039
Delivery Order No. 0004
Project No. 5161.004

Dear Mr. Cheng:

Investigation activities in accordance with the Site Inspection and Remedial Investigation Work Plan (October 2012) were conducted from November 5, 2012 through December 12, 2012. These activities resulted in the generation of Investigation-Derived Waste (IDW) consisting of soil cuttings from direct push borings and equipment decontamination fluids. The purpose of this letter report is to characterize and classify IDW for disposal and to propose methods for disposing the IDW.

This letter report includes a summary of IDW generated, the origin of the IDW (Table 1), as well as proposed classification and recommendations for disposal of the IDW (Table 2). This letter report follows guidance established by the following:

1.) The Facility-Wide Sampling and Analysis Plan (SAIC 2011), and
2.) Final Site Inspection and Remedial Investigation (SI/RI) Work Plan (ECC 2012).

Three distinct IDW streams were sampled as part of the SI/RI Work Plan field activities. Each waste stream was composited and sampled per requirements outlined in Section 7.0 of the Facility-Wide Sampling and Analysis Plan (FWSAP) and SI/RI Work Plan. IDW streams generated are:

- One (1) 55-gallon drum containing equipment decontamination fluids (Liquinox, distilled water [DI], and diluted hydrochloric/nitric acids), sampled on December 12, 2012,
- Three (3) 55-gallon drums containing soils from SI/RI sampling activities, sampled on December 12, 2012, and
- One (1) 20-gallon drum containing soils from RI sampling activities, sampled on December 21, 2012.

Per Section 7.0 of the Facility-Wide SAP, three composite samples were collected for Toxicity Characteristic Leaching Procedure (TCLP) parameters and submitted for laboratory analysis to characterize the following waste streams for disposal:

- Liquid IDW

The liquid sample (070-0059-0001-IDW TCLP) characterized one drum of decontamination fluid containing 2% hydrochloric/10% nitric acids, DI water, and Liquinox.

- Solid IDW

The solid sample (070-0058-0001-IDW TCLP) was composited from three, 55-gallon drums containing soil cuttings.

A third solid sample (076-0146-0001-IDW-TCLP) was composited from one, 20-gallon drum containing soil cuttings. This drum was sampled separately as the soils may have been impacted with poly chlorinated biphynels (PCBs). These soils originated from drill cuttings collected at Building U-20 at CC-RVAAP-76 Depot Area. Building U-20 is a former incinerator.

Table 1 summarizes the IDW samples collected.

Table 1 – Summary of Site Inspection/Remedial Investigation Investigation-Derived Waste

Container Type and Size	Contents	Generation Dates	Sample ID
55- Gallon Closed Top Drum	De-con fluids from sampling equipment and decontamination	5 November 2012 through 12 December 2012	070-0059-0001-IDW TCLP
55- Gallon Closed Top Drum	Soil Cuttings	5 November 2012 through 12 December 2012	070-0058-0001-IDW TCLP
55- Gallon Closed Top Drum	Soil Cuttings	5 November 2012 through 12 December 2012	070-0058-0001-IDW TCLP
55- Gallon Closed Top Drum	Soil Cuttings	5 November 2012 through 12 December 2012	070-0058-0001-IDW TCLP
20-Gallon Closed Top Drum	Soil Cuttings	21 December 2012	076-0146-0001-IDW-TCLP

Per Section 8.0 of the FWSAP, non-indiginous IDW is characterized for disposal on the basis of composite samples collected and submitted for laboratory analysis to characterize the waste stream for disposal. Upon receipt of analytical results from the laboratory, the analytical data was reviewed to determine if the waste was potentially hazardous. This review consisted of a comparison of the analytical results against the TCLP criteria presented in Table 8-1 and 8-2, Maximum Concentration of Contaminants for the Toxicity Characteristic (40 Code of Federal Regulation (CFR) 261.24), as presented in the FWSAP. The results of this review are summarized below.

IDW –FLUIDS

One liquid composite sample (070-0059-0001-IDW TCLP) was collected. **Attachment 1** presents the analytical laboratory data for TCLP analysis for IDW fluids generated during the November 5 through December 12, 2012 field activities. All analytical results were below regulatory levels as presented in Tables 8-1 and 8-2 in the FWSAP.

IDW –SOLIDS

Two solid composite samples (070-0059-0001-IDW TCLP, and 076-0146-0001-IDW TCLP) were collected. **Attachment 2** presents the analytical laboratory data for TCLP analysis for IDW solids generated during the November 5 through December 12, 2012 field activities. All analytical results were below regulatory levels as presented in Tables 8-1 and 8-2 in the FWSAP.

Please note the IDW addressed in this letter report has been characterized under provisions of the FWSAP using TCLP analysis and process knowledge. Unless RVAAP has additional information that would result in the IDW meeting, or containing materials that meet, the definition of a listed hazardous waste as defined in 40 CFR Part 261 Subpart D, it is recommended that the IDW, as presently characterized, be disposed as summarized in Table 2.

Table 2 - Summary of Final Waste Classification and Recommended Options

Medium	Waste Criterion	Disposal Recommendation
Water	Inorganics, Organics	Permitted Wastewater Treatment Facility or Permitted Solid Waste Facility
Soils	Inorganics, Organics	Permitted Wastewater Treatment Facility or Permitted Solid Waste Facility
Soils	Inorganics, Organics	Permitted Wastewater Treatment Facility or Permitted Solid Waste Facility

Since RVAAP, under RCRA, is the generator of this material, ECC requests concurrence or direction on the waste classification prior to disposal to ensure materials are properly disposed. Following your direction and immediate approval, ECC will proceed with appropriate waste disposal.

Should you have any questions or wish to discuss the proposed activities further, please do not hesitate to contact the undersigned at 508-229-2270, ext. 109, or via email.

Regards,
ECC



Alexander Easterday
Sr. Project Manager

Copy: Ann Wood, ARNGD
Katie Tait, OHARNG
Mark Patterson, RVAAP Facility Manager
Eileen Mohr, Ohio EPA
Kevin Palombo, Ohio EPA

This page left intentionally blank.

ATTACHMENTS

This page left intentionally blank.

Attachment 1 – IDW Analytical Results – Fluids

Analysis Type	Chemical	Units	Reporting Limit (mg/L)	TCLP Criteria (mg/L)	Results
					070-0059-0001-IDW-TCLP
Semi-Volatile Organics	1,4-Dichlorobenzene	mg/L	0.0040	7.50	0.00080 U
Semi-Volatile Organics	2,4,5-Trichlorophenol	mg/L	0.020	400.00	0.00080 U
Semi-Volatile Organics	2,4,6-Trichlorophenol	mg/L	0.020	2.00	0.00080 U
Semi-Volatile Organics	2,4-Dinitrotoluene	mg/L	0.020	0.13	0.00080 U
Semi-Volatile Organics	Hexachlorobenzene	mg/L	0.020	0.13	0.00010 U
Semi-Volatile Organics	Hexachlorobutadiene	mg/L	0.020	0.50	0.00080 U
Semi-Volatile Organics	Hexachloroethane	mg/L	0.020	3.00	0.00080 U
Semi-Volatile Organics	Nitrobenzene	mg/L	0.0040	2.00	0.00010 U
Semi-Volatile Organics	Pentachlorophenol	mg/L	0.040	100.00	0.0024 U
Semi-Volatile Organics	Pyidine	mg/L	0.020	5.00	0.00080 U
TCLP Metals	Arsenic	mg/L	2.0	5.00	0.0040 U
TCLP Metals	Barium	mg/L	40	100.00	0.24 J
TCLP Metals	Cadmium	mg/L	0.40	1.00	0.0040 U
TCLP Metals	Chromium	mg/L	2.0	5.00	0.012 J
TCLP Metals	Lead	mg/L	2.0	5.00	0.015 J
TCLP Metals	Mercury	mg/L	0.0020	0.20	0.00020 J
TCLP Metals	Selenium	mg/L	1.0	1.00	0.040 U
TCLP Metals	Silver	mg/L	2.0	5.00	0.0020 U
TCLP Herbicides	2,4,5-TP (Silvex)	mg/L	0.050	1.00	0.00010 U
TCLP Herbicides	2,4-D	mg/L	0.25	10.00	0.00039 J
TCLP Pesticides and/or PCBs	Chlordane	mg/L	0.030	0.03	0.000079 U
TCLP Pesticides and/or PCBs	Endrin	mg/L	0.010	0.02	0.000026 U
TCLP Pesticides and/or PCBs	Gamma-BHC (Lindane)	mg/L	0.010	0.40	0.000024 U
TCLP Pesticides and/or PCBs	Heptachlor	mg/L	0.010	0.01	0.000024 U
TCLP Pesticides and/or PCBs	Heptachlor Epoxide	mg/L	0.010	0.01	0.000024 U
TCLP Pesticides and/or PCBs	Methoxychlor	mg/L	0.030	10.00	0.000077 U
TCLP Pesticides and/or PCBs	Toxaphene	mg/L	0.50	0.50	0.0012 U
Volatile Organics	1,1-Dichloroethene	mg/L	0.050	0.7	0.025 U
Volatile Organics	1,2-Dichloroethane	mg/L	0.050	0.50	0.025 U
Volatile Organics	2-Butanone	mg/L	0.50	200	0.050 U
Volatile Organics	Benzene	mg/L	0.050	0.50	0.025 U
Volatile Organics	Carbon Tetrachloride	mg/L	0.050	0.50	0.025 U
Volatile Organics	Chlorobenzene	mg/L	0.050	100.00	0.025 U
Volatile Organics	Chloroform	mg/L	0.050	6.00	0.027 J
Volatile Organics	Tetrachloroethylene	mg/L	0.050	0.70	0.025 U
Volatile Organics	Trichloroethene	mg/L	0.050	0.50	0.025 U
Volatile Organics	Vinyl Chloride	mg/L	0.050	0.2	0.025 U

Notes:
J – Estimated Value
mg/L – milligrams per liter
U- Undetected above laboratory reporting limit

Attachment 2 – IDW Analytical Results – Solids

Analysis Type	Chemical	Units	Reporting Limit (mg/L)	TCLP Criteria (mg/L)	Results	
					070-0058-0001-IDW- TCLP	076-0146-0001-IDW-TCLP[1]
Semi-Volatile Organics	1,4-Dichlorobenzene	mg/L	0.0040	7.50	0.00080 U	0.00080 U
Semi-Volatile Organics	2,4,5-Trichlorophenol	mg/L	0.020	400.00	0.00080 U	0.00080 U
Semi-Volatile Organics	2,4,6-Trichlorophenol	mg/L	0.020	2.00	0.00080 U	0.00080 U
Semi-Volatile Organics	2,4-Dinitrotoluene	mg/L	0.020	0.13	0.00080 U	0.00080 U
Semi-Volatile Organics	Hexachlorobenzene	mg/L	0.020	0.13	0.00010 U	0.00010 U
Semi-Volatile Organics	Hexachlorobutadiene	mg/L	0.020	0.50	0.00080 U	0.00080 U
Semi-Volatile Organics	Hexachloroethane	mg/L	0.020	3.00	0.00080 U	0.00080 U
Semi-Volatile Organics	Nitrobenzene	mg/L	0.0040	2.00	0.00010 U	0.00010 U
Semi-Volatile Organics	Pentachlorophenol	mg/L	0.040	100.00	0.0024 U	0.0024 U
Semi-Volatile Organics	Pyidine	mg/L	0.020	5.00	0.00080 U	0.00080 U
TCLP Metals	Arsenic	mg/L	0.50	5.00	0.0044 J	0.0045 J
TCLP Metals	Barium	mg/L	10	100.00	0.29 J	0.28 J
TCLP Metals	Cadmium	mg/L	0.10	1.00	0.0016 J	0.00089 J
TCLP Metals	Chromium	mg/L	0.50	5.00	0.0024 J	0.0035 J
TCLP Metals	Lead	mg/L	0.50	5.00	0.0090 J	0.0050 J
TCLP Metals	Mercury	mg/L	0.0020	0.20	0.00020 J	0.00020 J
TCLP Metals	Selenium	mg/L	0.25	1.00	0.0066 J	0.0054 J
TCLP Metals	Silver	mg/L	0.50	5.00	0.0050 U	0.0050 U
TCLP Herbicides	2,4,5-TP (Silvex)	mg/L	0.050	1.00	0.00010 U	0.00010 U
TCLP Herbicides	2,4-D	mg/L	0.25	10.00	0.00025 U	0.00025 U
TCLP Pesticides	Chlordane	mg/L	0.030	0.03	0.000079 U	0.000079 U
TCLP Pesticides	Endrin	mg/L	0.010	0.02	0.000026 U	0.000026 U
TCLP Pesticides	Gamma-BHC (Lindane)	mg/L	0.010	0.40	0.000024 U	0.000024 U
TCLP Pesticides	Heptachlor	mg/L	0.010	0.01	0.000024 U	0.000024 U
TCLP Pesticides	Heptachlor Epoxide	mg/L	0.010	0.01	0.000024 U	0.000024 U
TCLP Pesticides	Methoxychlor	mg/L	0.030	10.00	0.000077 U	0.000077 U
TCLP Pesticides	Toxaphene	mg/L	0.5	0.50	0.0012 U	0.0012 U
Volatile Organics	1,1-Dichloroethene	mg/L	0.025	0.7	0.013 U	0.013 U
Volatile Organics	1,2-Dichloroethane	mg/L	0.025	0.50	0.013 U	0.013 U
Volatile Organics	2-Butanone	mg/L	0.25	200	0.025 U	0.025 U
Volatile Organics	Benzene	mg/L	0.025	0.50	0.013 U	0.013 U
Volatile Organics	Carbon Tetrachloride	mg/L	0.025	0.50	0.013 U	0.013 U
Volatile Organics	Chlorobenzene	mg/L	0.025	100.00	0.013 U	0.013 U
Volatile Organics	Chloroform	mg/L	0.025	6.00	0.013 U	0.013 U
Volatile Organics	Tetrachloroethylene	mg/L	0.025	0.70	0.025 U	0.025 U
Volatile Organics	Trichloroethene	mg/L	0.025	0.50	0.013 U	0.013 U
Volatile Organics	Vinyl Chloride	mg/L	0.025	0.20	0.013 U	0.013 U
PCBs	Aroclor – 1221	µg/Kg	60	NC	NA	30 U
PCBs	Aroclor – 1016	µg/Kg	78	NC	NA	30 U
PCBs	Aroclor – 1232	µg/Kg	54	NC	NA	30 U
PCBs	Aroclor – 1242	µg/Kg	48	NC	NA	30 U
PCBs	Aroclor – 1248	µg/Kg	66	NC	NA	30 U
PCBs	Aroclor – 1254	µg/Kg	66	NC	NA	30 U
PCBs	Aroclor – 1260	µg/Kg	68	NC	NA	30 U

Notes:

1 – Sample analysis included PCBs. IDW originated from Building U-20 located at CC-RVAAP-76 Depot Area.
NA – Not Analyzed
J – Estimated Value
mg/L – milligrams per liter
U- Undetected above laboratory reporting limit
µg/Kg – micrograms per kilogram
NC – No Criteria

Ohio EPA
40 years and moving forward

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

March 15, 2013

CERTIFIED MAIL
7012 1010 0000 9467 5335

Mr. Mark Patterson, Facility Manager
Ravenna Army Ammunition Plant
8451 State Route 5
Ravenna, OH 44266

Re: Investigation-Derived Waste Report 2011 Performance-Based Acquisition Environmental Investigation and Remediation 14 Compliance Restoration Sites, Ravenna Army Ammunition Plant (Ohio EPA ID # 267-000859-155)

Dear Mr. Patterson:

The Ohio Environmental Protection Agency (Ohio EPA) has received and reviewed the Investigation-Derived Waste Report 2011 Performance-Based Acquisition Environmental Investigation and Remediation 14 Compliance Restoration Sites, Ravenna Army Ammunition Plant. The document was received at Ohio EPA, Northeast District Office (NEDO), Division of Environmental Response and Revitalization (DERR) on March 7, 2013. The document was prepared for the U.S. Army Corps of Engineers (USACE), Louisville District by Environmental Chemical Corporation (ECC), under contract No. W912QR-04-D-0039.

This report is approved and Ohio EPA concurs that the IDW (soil cuttings) from the December 12, 2012 sampling event may be disposed as contaminated, non-hazardous waste and that it be sent off-site for disposal to a permitted water treatment facility.

If you have any questions, please call Eileen Mohr, NEDO, DERR at (330) 963-1221.

Sincerely,

Nancy Zikmanis

Nancy Zikmanis, CHMM, Environmental Supervisor
Division of Environmental Response and Revitalization

ED:NZ/kss

cc: Katie Tate, OHNGB
Ann Wood, NGB

ec: Vicki Deppisch, Ohio EPA, NEDO, DERR
Eileen Mohr, Ohio EPA, NEDO, DERR
Justin Burke, Ohio EPA, NEDO, DERR

E-MAILED 3-18-2013 GH

Scanned By: GH Date: 3-18-2013

Northeast District Office • 2110 East Aurora Road • Twinsburg, OH 44087-1924
www.epa.ohio.gov • (330) 963-1200 • (330) 487-0769 (fax)

RECEIVED 3-18-2013 GH

UNITED STATES POSTAL SERVICE

First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

• Sender: Please print your name, address, and ZIP+4 in this box •

OHIO EPA
NORTHEAST DISTRICT OFFICE
2110 EAST AURORA ROAD
TWINSBURG OH 44087

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

MARK PATTERSON
RAVENNA ARMY AMMUNITION PLANT
8451 STATE ROUTE 5
RAVENNA OH 44266

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☒ Agent ☐ Addressee

B. Received by *(Printed Name)* Gail Harris
C. Date of Delivery 3-18-2013

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☒ No

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Article Number 7012 1010 0000 9467 5335 (03/15/13 K.Schillo for ED)
(Transfer from service label)

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

COPY

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
OH5 210 020 736	1	330-677-0785	040513-01

GENERATOR

5. Generator's Name and Mailing Address
Ravenna Army Ammunition Plant
8451 State Route 5
Ravenna, Ohio 44266
Generator's Phone: 330-358-2920

Generator's Site Address (if different than mailing address)
Same

6. Transporter 1 Company Name: Emerald Environmental Services, Inc
U.S. EPA ID Number: OHR 000 102 053

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
Vexor Technology
955 West Smith Road
Medina, Ohio 44256
Facility's Phone: 330-721-9773
U.S. EPA ID Number: OHD 077 772 895

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non DOT Regulated, Non Hazardous Material (Decon Fluid)	001	DM	EST 40 ~~300~~	G	
2.	Non DOT Regulated, Non Hazardous Material (Soil Cuttings)	004	DM	EST 1100	P	
3.						
4.						

13. Special Handling Instructions and Additional Information
9. 1.) Approval # VEX25095
9. 2.) Approval # VEX25094
Alternative Emergency Contact: John Miller 508-509-1784
Job Number 13-0081 EES

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.
Generator's/Offeror's Printed/Typed Name: Christy Esler
Signature: Christy Esler
Month 4 Day 5 Year 2013

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: SCOTT PFAHL
Signature: Scott Pfahl
Month 4 Day 5 Year 13
Transporter 2 Printed/Typed Name
Signature
Month Day Year

DESIGNATED FACILITY

17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
17b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:
17c. Signature of Alternate Facility (or Generator)
Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name: JOE MYERS
Signature
Month 4 Day 5 Year 13

169-BLC-O 5 11977 (Rev. 8/06)

TRANSPORTER #1

This page intentionally left blank.

Regional Office
33 Boston Post Rd West
Suite 420
Marlborough, MA 01752

Phone: 508.229.2270
Fax: 508.229.7737

May 22, 2013

Mr. Eric Cheng, P.E.
Technical Manager
U.S. Army Corps of Engineers, Louisville District
600 Martin Luther King Jr. Place
Louisville, Kentucky 40202-0059

Subject: Investigation-Derived Waste Letter Report
2011 Performance-Based Acquisition
Environmental Investigation and Remediation
14 Compliance Restoration Sites
Ravenna Army Ammunition Plant, Ravenna, Ohio
Contract No. W912QR-04-D-0039
Delivery Order No. 0004
Project No. 5161.004

Dear Mr. Cheng:

Investigation activities in accordance with the Site Inspection and Remedial Investigation Work Plan (October 2012) were conducted from 18 March 2013 through 5 April 2013. These activities resulted in the generation of Investigation-Derived Waste (IDW) consisting of soil cuttings from direct push borings and equipment decontamination fluids. The purpose of this letter report is to characterize and classify IDW for disposal and to propose methods for disposing of the IDW.

This letter report includes a summary of IDW generated, the origin of the IDW (Table 1), as well as proposed classification and recommendations for disposal of the IDW (Table 2). This letter report follows guidance established by the following:

1.) The Facility-Wide Sampling and Analysis Plan (SAIC 2011), and
2.) Final Site Inspection and Remedial Investigation (SI/RI) Work Plan (ECC 2012).

Three distinct IDW streams were sampled as part of the SI/RI Work Plan field activities. Each waste stream was composited and sampled per requirements outlined in Section 7.0 of the Facility-Wide Sampling and Analysis Plan (FWSAP) and SI/RI Work Plan. IDW streams generated are:

- One (1) 55-gallon drum containing equipment decontamination fluids (Liquinox, distilled water (DI), and HCL/nitric acid), sampled on 5 April 2013
- One (1) 55-gallon drum containing soils from RI sampling activities conducted at CC RVAAP-68 Electrical Substations East, West, and No. 3, sampled on 3 April 2013. This drum was sampled separately due to possible poly chlorinated byphynel (PCB) contamination
- Three (3) 55-gallon drums containing soils from RI sampling activities, sampled on 5 April 2013.

Corporate Office
1240 Bayshore Highway
Burlingame, CA 94010

Phone: (650) 347-1555
Fax: (650) 347-8789
www.ecc.net

Per Section 7.0 of the Facility-Wide SAP, three composite samples were collected for Toxicity Characteristic Leaching Procedure (TCLP) parameters, flashpoint, reactivity, and corrosivity and submitted for laboratory analysis to characterize the following waste streams for disposal:

- Liquid IDW

The first sample (068SB-0063-0001-IDW) characterized one drum of decontamination fluid containing 2% hydrochloric acid (HCL)/10% nitric acid, deionized (DI) water, and Liquinox). This sample was analyzed for full TCLP plus poly chlorinated biphenyls (PCBs), flashpoint, reactivity, and corrosivity. Sampling equipment used at CC RVAAP-68 Electrical Substations East, West, and No. 3 were decontaminated following standard protocol. Liquid decontamination fluids generated during sampling at CC RVAAP-68 were containerized in the same drum as non-PCB sites. PCB's were a possible site chemical of concern (COC) at the Electrical Substations East, West, and No. 3 due to the former presence of transformers at these sites.

- Solid IDW

The second sample (068SB-0062-0001-IDW) was composited from three, 55-gallon drums containing soil cuttings.

- Solid IDW with possible PCBs

The third sample (078SB-0059-0001-IDW) was composited from one, 55-gallon drum containing soil cuttings. This drum was sampled separately as the soils may have been impacted with PCBs. These soils originated from drill cuttings collected at CC RVAAP-68 Electrical Substations East, West, and No. 3.

Table 1 summarizes the IDW samples collected.

Table 1 – Summary of Site Inspection/Remedial Investigation Investigation-Derived Waste

Container Type and Size	Contents	Generation Dates	Sample ID
55- Gallon Closed Top Drum	De-con Fluids from sampling equipment decontamination	18 March 2013 through 4 April 2013	068SB-0063-0001-IDW
55- Gallon Closed Top Drum	Soil Cuttings	18 March 2013 through 4 April 2013	068SB-0062-0001-IDW
55- Gallon Closed Top Drum	Soil Cuttings	18 March 2013 through 4 April 2013	068SB-0062-0001-IDW
55- Gallon Closed Top Drum	Soil Cuttings	18 March 2013 through 4 April 2013	068SB-0062-0001-IDW
55-Gallon Closed Top Drum	Soil Cuttings	29 March 2013 through 4 April 2013	078SB-0059-0001-IDW

Per Section 8.0 of the FWSAP, non-indigenous IDW is characterized for disposal on the basis of composite samples collected and submitted for laboratory analysis to characterize the waste stream for disposal. Upon receipt of analytical results from the laboratory, the analytical data was reviewed to determine if the waste was potentially hazardous. This review consisted of a comparison of the analytical results against the TCLP criteria presented in Table 8-1 and 8-2, Maximum Concentration of Contaminants for the Toxicity Characteristic (40 Code of Federal Regulation (CFR) 261.24), presented in the FWSAP. The results of this review are summarized below.

IDW –FLUIDS

One liquid composite sample (068SB-0063-0001-IDW) was collected. **Attachment 1** presents the analytical laboratory data for TCLP flashpoint, reactivity, and corrosivity analyses for IDW fluids generated during the 18 March through 5 April field activities. All analytical results were below regulatory levels as presented in Tables 8-1 and 8-2 in the FWSAP.

IDW –SOLIDS

Two solid composite samples (078SB-0059-0001-IDW, and 068SB-0062-0001-IDW) were collected. **Attachment 2** presents the analytical laboratory data for TCLP, flashpoint, reactivity, and corrosivity analyses for IDW solids generated during the 18 March through 5 April 2013 field activities. All analytical results were below regulatory levels as presented in Tables 8-1 and 8-2 in the FWSAP.

Please note the IDW addressed in this letter report has been characterized under provisions of the FWSAP using TCLP analysis and process knowledge. Unless RVAAP has additional information that would result in the IDW meeting, or containing materials that meet, the definition of a listed hazardous waste as defined in 40 CFR Part 261 Subpart D, it is recommended that the IDW, as presently characterized, be disposed as summarized in Table 2.

Table 2 - Summary of Final Waste Classification and Recommended Options

Medium	Waste Criterion	Disposal Recommendation
Water	Inorganics, Organics	Permitted Wastewater Treatment Facility or Permitted Solid Waste Facility
Soils	Inorganics, Organics	Permitted Wastewater Treatment Facility or Permitted Solid Waste Facility
Soils	Inorganics, Organics	Permitted Wastewater Treatment Facility or Permitted Solid Waste Facility

Since RVAAP, under RCRA, is the generator of this material, ECC requests concurrence or direction in the waste classification prior to disposal to ensure materials are properly disposed. Following your direction and immediate approval, ECC will proceed with appropriate waste disposal.

Should you have any questions or wish to discuss the proposed activities further, please do not hesitate to contact the undersigned at (508) 229-2270, ext. 22109, or via email.

Regards,
ECC



Alexander Easterday
Senior Project Manager

Copy: Ann Wood, ARNG
Katie Tait, OHARNG
Mark Patterson, RVAAP Facility Manager
Eileen Mohr, Ohio EPA
Ed D'Amato, Ohio EPA

ATTACHMENTS

This page intentionally left blank.

Attachment 1 – IDW Analytical Results - Fluids

Analysis Type	Chemical	Units	Reporting Limit	TCLP Criteria	Results
					068SB-0063-0001-IDW
TCLP Semi-Volatile Organics	1,4-Dichlorobenzene	mg/L	0.00080	7.50	0.00080 U
TCLP Semi-Volatile Organics	2,4,5-Trichlorophenol	mg/L	0.00080	400.00	0.00080 U
TCLP Semi-Volatile Organics	2,4,6-Trichlorophenol	mg/L	0.00080	2.00	0.00080 U
TCLP Semi-Volatile Organics	2,4-Dinitrotoluene	mg/L	0.00080	0.13	0.00080 U
TCLP Semi-Volatile Organics	Hexachlorobenzene	mg/L	0.00010	0.13	0.00010 U
TCLP Semi-Volatile Organics	Hexachlorobutadiene	mg/L	0.00080	0.50	0.00080 U
TCLP Semi-Volatile Organics	Hexachloroethane	mg/L	0.00080	3.00	0.00080 U
TCLP Semi-Volatile Organics	3 &4 Methylphenol	mg/L	0.00080	200	0.00080 U
TCLP Semi-Volatile Organics	2-Methylphenol	mg/L	0.00080	200	0.00080 U
TCLP Semi-Volatile Organics	Nitrobenzene	mg/L	0.00010	2.00	0.00010 U
TCLP Semi-Volatile Organics	Pentachlorophenol	mg/L	00024	100.00	0.0024 U
TCLP Semi-Volatile Organics	Pyidine	mg/L	0.00080	5.00	0.00080 U
TCLP Metals	Arsenic	mg/L	0.010	5.00	0.010 U
TCLP Metals	Barium	mg/L	0.0050	100.00	0.20 J
TCLP Metals	Cadmium	mg/L	0.0010	1.00	0.00057 J
TCLP Metals	Chromium	mg/L	0.0040	5.00	0.0040 U
TCLP Metals	Lead	mg/L	0.0050	5.00	0.0050 U
TCLP Metals	Mercury	mg/L	0.00020	0.20	0.00020 U
TCLP Metals	Selenium	mg/L	0.010	1.00	0.010 U
TCLP Metals	Silver	mg/L	0.0050	5.00	0.0050 U
TCLP Herbicides	2,4,5-TP (Silvex)	mg/L	0.00010	1.00	0.00010 U
TCLP Herbicides	2,4-D	mg/L	0.00025	10.00	0.00025 U
TCLP Pesticides	Chlordane	mg/L	0.000079	0.03	0.000079 U
TCLP Pesticides	Endrin	mg/L	0.000026	0.02	0.000026 U
TCLP Pesticides	Gamma-BHC (Lindane)	mg/L	0.000024	0.40	0.000024 U
TCLP Pesticides	Heptachlor	mg/L	0.000024	0.01	0.000024 U
TCLP Pesticides	Heptachlor Epoxide	mg/L	0.000024	0.01	0.000024 U
TCLP Pesticides	Methoxychlor	mg/L	0.000077	10.00	0.000077 U
TCLP Pesticides	Toxaphene	mg/L	0.0012	0.50	0.0012 U
TCLP Volatile Organics	1,1-Dichloroethene	mg/L	0.013	0.70	0.013 U
TCLP Volatile Organics	1,2-Dichloroethane	mg/L	0.013	0.50	0.013 U
TCLP Volatile Organics	2-Butanone	mg/L	0.025	200	0.030 J
TCLP Volatile Organics	Benzene	mg/L	0.013	0.50	0.013 U
TCLP Volatile Organics	Carbon Tetrachloride	mg/L	0.013	0.50	0.013 U
TCLP Volatile Organics	Chlorobenzene	mg/L	0.013	100.00	0.013 U
TCLP Volatile Organics	Chloroform	mg/L	0.025	6.00	0.013 U
TCLP Volatile Organics	Tetrachloroethylene	mg/L	0.025	0.70	0.025 U
TCLP Volatile Organics	Trichloroethene	mg/L	0.013	0.50	0.013 U
TCLP Volatile Organics	Vinyl Chloride	mg/L	0.013	0.20	0.013 U
PCBs	Aroclor – 1221	µg/L	1.1	-	1.1 U
PCBs	Aroclor – 1016	µg/L	1.1	-	1.1 U
PCBs	Aroclor – 1232	µg/L	2.2	-	1.1 U
PCBs	Aroclor – 1242	µg/L	1.1	-	2.2 U
PCBs	Aroclor – 1248	µg/L	1.1	-	1.1 U
PCBs	Aroclor – 1254	µg/L	1.1	-	1.1 U
PCBs	Aroclor – 1260	µg/L	1.1	-	1.1 U
Flashpoint	Flashpoint	°F	1.0	-	>180 °F
Reactivity	Cyanide, total	mg/L	0.010	-	0.010 U
Reactivity	Sulfide	mg/L	2.5	-	2.5 U
Corrosivity	Corrosivity	SU	0.100	-	7.87

Notes:
J – Estimated value
U – Undetected above laboratory reporting limit
mg/L – milligrams per liter
µg/L – mircograms per liter
SU – Standard units
°F – degrees Fahrenheit

Attachment 2 – IDW Analytical Results - Solids

Analysis Type	Chemical	Units	Reporting Limit	TCLP Criteria	Results	
					068SB-0062-0001-IDW	078SB-0059-0001-IDW
TCLP Semi-Volatile Organics	1,4-Dichlorobenzene	mg/L	0.00080	7.50	0.00080 U	0.00080 U
TCLP Semi-Volatile Organics	2,4,5-Trichlorophenol	mg/L	0.00080	400.00	0.00080 U	0.00080 U
TCLP Semi-Volatile Organics	2,4,6-Trichlorophenol	mg/L	0.00080	2.00	0.00080 U	0.00080 U
TCLP Semi-Volatile Organics	2,4-Dinitrotoluene	mg/L	0.00080	0.13	0.00080 U	0.00080 U
TCLP Semi-Volatile Organics	Hexachlorobenzene	mg/L	0.00010	0.13	0.00010 U	0.00010 U
TCLP Semi-Volatile Organics	Hexachlorobutadiene	mg/L	0.00080	0.50	0.00080 U	0.00080 U
TCLP Semi-Volatile Organics	Hexachloroethane	mg/L	0.00080	3.00	0.00080 U	0.00080 U
TCLP Semi-Volatile Organics	3 & 4 Methylphenol	mg/L	0.00080	200	0.00080 U	0.00080 U
TCLP Semi-Volatile Organics	2-Methylphenol	mg/L	0.00080	200	0.00080 U	0.00080 U
TCLP Semi-Volatile Organics	Nitrobenzene	mg/L	0.00010	2.00	0.00010 U	0.00010 U
TCLP Semi-Volatile Organics	Pentachlorophenol	mg/L	00024	100.00	0.0024 U	0.0024 U
TCLP Semi-Volatile Organics	Pyidine	mg/L	0.00080	5.00	0.00080 U	0.00080 U
TCLP Metals	Arsenic	mg/L	0.010	5.00	0.0045 J	0.0042 J
TCLP Metals	Barium	mg/L	0.0050	100.00	0.60 J	0.46 J
TCLP Metals	Cadmium	mg/L	0.0010	1.00	0.0023 J	0.00043 J
TCLP Metals	Chromium	mg/L	0.0040	5.00	0.0027 J	0.0018 J
TCLP Metals	Lead	mg/L	0.0050	5.00	0.0050 U	0.0050 U
TCLP Metals	Mercury	mg/L	0.00020	0.20	0.00020 U	0.00020 U
TCLP Metals	Selenium	mg/L	0.010	1.00	0.0051 J	0.0042 J
TCLP Metals	Silver	mg/L	0.0050	5.00	0.0050 U	0.0050 U
TCLP Herbicides	2,4,5-TP (Silvex)	mg/L	0.00010	1.00	0.00010 U	0.00010 U
TCLP Herbicides	2,4-D	mg/L	0.00025	10.00	0.00033 J	0.00025 U
TCLP Pesticides	Chlordane	mg/L	0.000079	0.03	0.000079 U	0.000079 U
TCLP Pesticides	Endrin	mg/L	0.000026	0.02	0.000026 U	0.000026 U
TCLP Pesticides	Gamma-BHC (Lindane)	mg/L	0.000024	0.40	0.000024 U	0.000024 U
TCLP Pesticides	Heptachlor	mg/L	0.000024	0.01	0.000024 U	0.000024 U
TCLP Pesticides	Heptachlor Epoxide	mg/L	0.000024	0.01	0.000024 U	0.000024 U
TCLP Pesticides	Methoxychlor	mg/L	0.000077	10.00	0.000077 U	0.000077 U
TCLP Pesticides	Toxaphene	mg/L	0.0012	0.50	0.0012 U	0.0012 U
TCLP Volatile Organics	1,1-Dichloroethene	mg/L	0.013	0.70	0.013 U	0.013 U
TCLP Volatile Organics	1,2-Dichloroethane	mg/L	0.013	0.50	0.013 U	0.013 U
TCLP Volatile Organics	2-Butanone	mg/L	0.025	200	0.025 U	0.025 U
TCLP Volatile Organics	Benzene	mg/L	0.013	0.50	0.013 U	0.013 U
TCLP Volatile Organics	Carbon Tetrachloride	mg/L	0.013	0.50	0.013 U	0.013 U
TCLP Volatile Organics	Chlorobenzene	mg/L	0.013	100.00	0.013 U	0.013 U
TCLP Volatile Organics	Chloroform	mg/L	0.025	6.00	0.013 U	0.013 U
TCLP Volatile Organics	Tetrachloroethylene	mg/L	0.025	0.70	0.025 U	0.025 U
TCLP Volatile Organics	Trichloroethene	mg/L	0.013	0.50	0.013 U	0.013 U
TCLP Volatile Organics	Vinyl Chloride	mg/L	0.013	0.20	0.013 U	0.013 U
PCBs	Aroclor – 1221	µg/Kg	1.1	-	NA	29 U
PCBs	Aroclor – 1016	µg/Kg	1.1	-	NA	29 U
PCBs	Aroclor – 1232	µg/Kg	2.2	-	NA	29 U
PCBs	Aroclor – 1242	µg/Kg	1.1	-	NA	29 U
PCBs	Aroclor – 1248	µg/Kg	1.1	-	NA	29 U
PCBs	Aroclor – 1254	µg/Kg	1.1	-	NA	29 U
PCBs	Aroclor – 1260	µg/Kg	1.1	-	NA	29 U
Flashpoint	Flashpoint	°F	1.0	-	>180 °F	>180 °F
Reactivity	Cyanide, total	mg/Kg	0.010	-	0.03 U	0.038
Reactivity	Sulfide	mg/Kg	2.5	-	32 U	89
Corrosivity	Corrosivity	SU	0.100	-	7.22	8.20

Notes:
J – Estimated value
U – Undetected above laboratory reporting limit
mg/L – milligrams per liter
µg/Kg – mircograms per kilogram
SU – Standard units for pH
°F – degrees Fahrenheit

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

June 5, 2013

RE: RAVENNA ARMY AMMUNITION PLANT
PORTAGE/TRUMBULL COUNTIES
CC SITES IDW
OHIO EPA ID # 67000859155

CERTIFIED LETTER 70101060000000898534

Mr. Mark Patterson
Environmental Program Manager
Ravenna Army Ammunition Plant
Building 1037
8451 State Route 5
Ravenna, OH 44266-9297

Dear Mr. Patterson:

The Ohio Environmental Protection Agency (Ohio EPA), Northeast District Office (NEDO), Division of Environmental Response and Revitalization (DERR) has received and reviewed the document entitled: *"Investigation-Derived Waste Letter Report, 2011 Performance–Based Acquisition, Environmental Investigation and Remediation, 14 Compliance Restoration Sites, Ravenna Army Ammunition Plant, Ravenna, Ohio."* This letter report, dated May 22, 2013 and received at Ohio EPA on June 04, 2013, was prepared for the U.S. Army Corps of Engineers (USACE) – Louisville District by ECC under Contract Number W912QR-04-D-0039.

Based upon the presented results, the Ohio EPA is in agreement that the liquid Investigation Derived Wastes (IDW) should be disposed of at a permitted wastewater treatment facility and the soils at a permitted solid waste facility. As generator of the material, it is the responsibility to ensure that all wastes are disposed of in accordance with applicable state, federal, and local rules, laws and regulations; and that analytical testing is also conducted in accordance with the accepting facility's requirements.

If you have any questions concerning this correspondence, please do not hesitate to contact me at 330-963-1221.

Sincerely,

Eileen T. Mohr
Project Manager
Division of Environmental Response and Revitalization

EM:ds

pc: Katie Tait, OHARNG
Ann Wood, ARNGD
Cullen Grasty, USACE Louisville

ec: Justin Burke, Ohio EPA, DERR, CO
Nancy Zikmanis, Ohio EPA, DERR, NEDO
Todd Fisher, Ohio EPA, DERR, NEDO
Ed D'Amato, Ohio EPA, DERR, NEDO

E-MAILED 6-7-2013 GH

Scanned By: GH Date: 6-7-2013

RECEIVED 6-7-2013 GH

UNITED STATES POSTAL SERVICE

First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

• Sender: Please print your name, address, and ZIP+4 in this box •

Ohio EPA
Northeast District Office
2110 E. Aurora Road
Twinsburg, Ohio 44087

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

MR. MARK PATTERSON
ENVIRONMENTAL PROGRAM MANAGER
RVAAP BLDG 1037
8451 STATE ROUTE 5
RAVENNA, OH 44266-9297

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X Gail Harris ☒ Agent ☐ Addressee

B. Received by (*Printed Name*) Gail Harris
C. Date of Delivery 6-7-2013

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☒ No

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (*Extra Fee*) ☐ Yes

2. Article Number (*Transfer from service label*) 7010106000000898534 EM:ds 6 5 13

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

COPY

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
	OH5 210 020 736	1	330-677-0785	08153

GENERATOR

5. Generator's Name and Mailing Address
Ravenna Army Ammunition Plant
8451 State Route 5
Ravenna Ohio 44266
Generator's Phone: 330-358-2920

Generator's Site Address (if different than mailing address)
Same

6. Transporter 1 Company Name: Emerald Environmental Services, Inc
U.S. EPA ID Number: OHR 000 102 053

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
Veolia Technology
955 West Smith Road
Medina, Ohio 44256
Facility's Phone: 330-721-9773
U.S. EPA ID Number: OHD 077 771 895

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.
1.	Non DOT Regulated, Non Hazardous Material (SOIL CUTTINGS)	4	DM	1400	P
2.	Non DOT Regulated, Non Hazardous Material (RUBBLE, WATER) (DEON FLUID)	1	DM	55	G
3.					
4.					

13. Special Handling Instructions and Additional Information
9.1.) Approval # VEX 25094
9.2.) Approval # VEX 25095
Job Number: 13-0081EES

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.
Generator's/Offeror's Printed/Typed Name: Mark Patterson
Signature: Mark Patterson
Month 8 Day 15 Year 13

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Darrin Bowers
Signature: Darrin Bowers
Month 8 Day 15 Year 13
Transporter 2 Printed/Typed Name
Signature
Month Day Year

DESIGNATED FACILITY

17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
17b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:
17c. Signature of Alternate Facility (or Generator)
Month Day Year

18. Designated Facility Owner or Operator Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name: Tim Brien
Signature: Tim B
Month 08 Day 15 Year 13

169-BLC-O 5 11977 (Rev. 8/06)

This page intentionally left blank.

APPENDIX G

Laboratory Analytical Results, Laboratory Data, and Chain of Custody Forms (Note – To be provided on disc only)

This page intentionally left blank.

Chemistry Results
Ravenna Army Ammunition Plant, Quality Assurance Project Plan, Oct. 3, 2012
Ravenna Army Ammunition Plant

Locations:	68-2527-DU2-SS	68-2828-DU2-SS	68-FBDD-DU3-SS	68-FBDD-DU3-SS (FD)	68-FCP-DU1-SS
Field Sample ID:	068SS-0007M-0001-SO	068SS-0002M-0001-SO	068SS-0003M-0001-SO	068SS-0004M-0001-SO	068SS-0006M-0001-SO
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/06/2012	11/06/2012	11/06/2012	11/06/2012	11/06/2012
Mercury in Soil (Manual Cold-Vapor Techique)					
Mercury (MG/KG)	0.095 U	**0.13**	0.098 U	0.11 U	0.092 U

CHAIN OF CUSTODY FORMS
Field Samples

This page intentionally left blank.

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: Canton, Ohio
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: ECC	Client Project Manager: AL Easterday	Site Contact: Jeff Donavon	Lab Contact: Mark Lobb	COC No: 048527
Address: 33 Boston Post Road West Suite 420	Telephone: 508-229-2270	Telephone: 508-509-1784	Telephone:	1 of 4 COCs
City/State/Zip: Marlboro, MA 01752	Email:	Analysis Turnaround Time (in BUS days)	Analyses	For lab use only
Phone: 508-229-2270		TAT if different from below STD ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Walk-in client ☐ Lab pickup ☐ Lab sampling ☐
Project Name: Ravenna	Method of Shipment/Carrier: Lab courier			Job/SDG No:
Project Number:	Shipping/Tracking No:			
PO#				

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: Unpres	Other: Methanol	Filtered Sample (Y/N)	Composite=C / Grab=G	VOC/~~NaHSO4~~ TAL	SVOC	TAL Metals	PCB	Aldehyde	Explosives	Propellants	Sample Specific Notes / Special Instructions:
[redacted]																			
068SS-0001M-0001-SO		1240				X		X				X	X	X					
068SS-0002M-0001-SO		1210				X		X					X	X	X				
068SS-0003M-0001-SO		1200				X		X	X			X	X	X	X	X	X	X	
068SS-0003M-0002-SO MS/MSD		1200				X		X	X			X	X	X	X	X	X	X	MS/MSD
068SS-0004M-0001-SO		1200				X		X	X			X	X	X	X	X	X	X	
[redacted]																			

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	ECC	11-7-12 1630	[signature]	IAL-NC	11-7-12 - 1630
Relinquished by: [signature]	Company: IAL-NC	Date/Time: 11-7-12 - 1730	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: [signature]	Company: TA	Date/Time: 11/7/12 1730

Page 4861 of 4868

©2008, TestAmerica Laboratories, Inc. All rights reserved.
TestAmerica & Design ™ are trademarks of TestAmerica Laboratories, Inc.

Chain of Custody Record

TestAmerica Laboratory location: Canton, MA

Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: ECC	Client Project Manager: Al Easterday	Site Contact: Jeff Donovan	Lab Contact: Mark Lucb	COC No: 048538
Address: 33 Boston Post Road W Suite 320	Telephone: 508-229-2290	Telephone: 508-509-1784	Telephone:	2 of 4 COCs
City/State/Zip: Marlboro, MA 01752	Email:	Analysis Turnaround Time (in BUS days)	Analyses	For lab use only
Phone: 508-229-2290		TAT if different from below 5 (D)		Walk-in client: ☐ Lab pickup: ☐ Lab sampling: ☐
Project Name: Revenna	Method of Shipment/Carrier: Lab courier	☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Job/SDG No:
Project Number:	Shipping/Tracking No:			
PO#				

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: Unpres	Other Metals	Filtered Sample (Y/N)	Composite (C) / Grab (G)	VOC	SVOC	TAL metals	TPH-GRO	PCB	Sample Specific Notes / Special Instructions:
[redacted]																	
06855-0005M-0001-SO	6 Nov 2012	1350				X		X				X	X		X		
06855-0006M-0001-SO	"	1545				X		X				X	X		X		
06855-0007M-0001-SO	"	1615				X		X				X	X		X		
06855-0008M-0001-SO	"	1510				X		X				X	X		X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	ECC 1630	11-7-12 1630	RC Edwards	TAL-NC	11-7-12 1630
RC Edwards	TAL-NC	11-7-12 1730			
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
			Terry Burns	TA	11/7/12 1730

©2008, TestAmerica Laboratories, Inc. All rights reserved.
TestAmerica & Design ™ are trademarks of TestAmerica Laboratories, Inc.

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: ECC	Client Project Manager: AL EASTERDAY	Site Contact: JEFF DONOVAN	Lab Contact: MARK LOEB	COC No: 048641
Address: 33 BOSTON POST RD W. #420	Telephone:	Telephone: 508-509-1284	Telephone:	1 of 1 COCs
City/State/Zip: MARLBORO MA 01752	Email:	Analysis Turnaround Time (In BUSINESS days)	Analyses	For lab use only
Phone:		TAT if different from below STANDARD		Walk-in client ☐ Lab pickup ☐ Lab sampling ☐
Project Name: RAVENNA	Method of Shipment/Carrier: LAB PICK UP	☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Job/SDG No:
Project Number:	Shipping/Tracking No:			
PO #				

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other: DI	Containers & Preservatives: Other: DI	HNO3	HCl	NaOH	ZnAc/ NaOH	Unpres	Other: DI	Filtered Sample (Y / N)	Composite = C / Grab = G	SVOC	PCB	TAL METALS	VOC	PESTICIDES	EXPLOSIVES	PROPELLANTS	Sample Specific Notes / Special Instructions:
0685W-0013-0001-SW	11-8-12	1400		X					X				X				X	X	X					
0685W-0014-0001-SW		1325		X					X				X				X	X	X					
0685W-0015-0001-SW		1340		X					X				X				X	X	X					
0685W-0016-0001-SW		1325		X					X				X				X	X	X					
0685W-0016-0002-SW	↓	1325		X					X				X				X	X	X					MS/MSD
[redacted]																								

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Jeff Donovan	ECC	11-9-12-1410		TAL-NC	11-9-12-1410
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	TAL-NC	11-9-12-1700			
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
			Gerry Burns	TA	11/9/12 1700

Page 3005 of 3008

©2008, TestAmerica Laboratories, Inc. All rights reserved.
TestAmerica & Design ™ are trademarks of TestAmerica Laboratories, Inc.

[redacted]

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4142 (0408)

Client	Project Manager	Date	Chain of Custody Number
EW	A. Easterday	4/1/13	008878
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 3 of 5**
55 Boston Post Rd W. #420	(508) 229-2270		
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	**Analysis (Attach list if more space is needed)**
Marlborough / MA / 01752	J. Donovan	Mark Lowe.	
Project Name and Location (State)	**Carrier/Waybill Number**		
Kavanna - OH			
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	MeOH	Analysis: Metals Full List + Fe VOC	SVOC PCB	pH Alkalinity Chloride Sulfate	% Solids	Special Instructions/ Conditions of Receipt
[redacted]																		
0685B-0026-1001-TB	↓	0700		X											X			TRIP BLK

Page 3499 of 3505

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	4-1-13	1711	1. Received By	4-1-13	1711
2. Relinquished By	4-1-13	1824	2. Received By	4-2-13	0800
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: *WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy*

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4142 (0408)

Client	Project Manager	Date	Chain of Custody Number
ECC	A. Easterday	4/1/13	008876
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 4 of 5**
33 Boston Post Rd W. #420	(508) 229-2270		
City / State / Zip Code	**Site Contact**	**Lab Contact**	
Marlborough / MA / 01752	J. Donovan	Mark Laub	
Project Name and Location (State)	**Carrier/Waybill Number**		
Ravenna - OH	Lab pick up		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Analysis: Metals TAL	PCB	SVOC	Special Instructions/ Conditions of Receipt
0608B-0017M-0001-SO	3/29/13	1542				X	X						X	X	X	
0608B-0018M-0001-SO		1543											X	X	X	
0608B-0019M-0001-SO		1521											X	X	X	
0608B-0022M-0001-SO		1521											X	X	X	
0608B-0020M-0001-SO		1550											X	X	X	
0608B-0023M-0001-SO		1440											X	X	X	
0608B-0024M-0001-SO		1420											X	X	X	
0608B-0025M-0001-SO		1445											X	X	X	
0608B-0032-0001-SO		1530											X	X	X	Discrete

Page 3500 of 3505

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	4-1-13	1711	1. Received By	4-1-13	1711
2. Relinquished By	4-1-13	1824	2. Received By	4-2-13	0800
3. Relinquished By			3. Received By		

Comments
-0032- IS A DISCRETE SAMPLE

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4142 (0408)

Client	Project Manager	Date	Chain of Custody Number
ECC	A. Easterday	4/1/13	008872
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 5 of 5**
33 Boston Post Rd W #420	(508) 229-2270		
City / State / Zip Code	**Site Contact**	**Lab Contact**	
Marlborough / MA / 01752	J. Donovan	Mark Lobb	
Project Name and Location (State)	**Carrier/Waybill Number**		
Ravenna - DH	LAB pick up		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Analysis: Metals TAL	PCB	SVOC	Special Instructions/ Conditions of Receipt
06SB-0027M-0001-SO	3/29/13	1400				X	X						X	X	X	
06SB-0028M-0001-SO		1402											X	X	X	
06SB-0029M-0001-SO		1753											X	X	X	
06SB-0030M-0001-SO		1405											X	X	X	
06SB-0031M-0001-SO		1344											X	X	X	

Page 3501 of 3505

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other STANDARD

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	4-1-13	1711	1. Received By	4-1-13	1711
2. Relinquished By	4-1-13	1824	2. Received By	4-2-13	0800
3. Relinquished By			3. Received By		

Comments
MC 15m

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: ECC	Client Project Manager: A. Easterday	Site Contact: J. Donovan	Lab Contact: Mark Lolo	COC No: 049137
Address: 33 Boston Post Rd W #410	Telephone:	Telephone:	Telephone: 4-4-13	2 of 1 COCs
City/State/Zip: Marlboro MA 01752	Email:	Analysis Turnaround Time (in BUS days)	Analyses	For lab use only
Phone: (508) 229-2270		TAT if different from below: STANDARD ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Walk-in client ☐ Lab pickup ☐ Lab sampling ☐
Project Name: Kavanna-OH	Method of Shipment/Carrier: LAB Pick up			Job/SDG No:
Project Number:	Shipping/Tracking No:			
PO #				

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Unpres	Other: Merp	Filtered Sample (Y / N)	Composite C / Grab G	SVOCs	Metals TAL	PCB	VOCs	TPH/DRO	Pesticides	Herbicides	Pharmaceuticals			Sample Specific Notes / Special Instructions:
068SB-0060M-0001-SO	4/4/13	~~1410~~ 1410				X			X				X	X			X	X	X	X		X	X	X			Full Suite
068SB-0060M-0002-SO	↓	1410															X	X	X								MS/MSD
068SB-0061M-0001-SO	↓	1410															X	X	X								
[redacted]																											

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Return to Client ☐ Disposal By Lab ☐ Archive For ____

240-22852 Chain of Custody

Special Instructions/QC Requirements & Comments:

m = 15m

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	ECC	4-4-13 1633	RC Lab	TAL-NC	4-4-13 1633
Relinquished by: RC Lab	Company: TAL-NC	Date/Time: 4-4-13 1731	Received by: [signature]	Company: TA	Date/Time: 4-4-13 1731
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

©2008, TestAmerica Laboratories, Inc. All rights reserved.
TestAmerica & Design ™ are trademarks of TestAmerica Laboratories, Inc

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4142 (0408)

Client	Project Manager	Date	Chain of Custody Number
ECC		3-29-13	008864
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 2 of 6**
33 BOSTON POST ROAD WEST			
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
CHANDLER		MARK LOEB	
Project Name and Location (State)	**Carrier/Waybill Number**		
DAYTONA	LAB PICK UP		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Analysis (Attach list if more space is needed): SVOC	TAL METALS	PCB	PESTICIDE	VOC	EXPLOSIVES	PROPELLANTS	% SOLID	Special Instructions/ Conditions of Receipt
[redacted]																					
0735W-0057-0001-TB	3-29-13	0800		X						X							X				TRIP BLANK
[redacted]																					

Page 5343 of 5354

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other STANDARD

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	3-29-13	1630	1. Received By	3/29/13	1630
2. Relinquished By			2. Received By		
3. Relinquished By	3/29/13	1720	3. Received By	3.29.13	1730

Comments: ALL SAMPLES ON THIS COC ARE DISCARTE

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4142 (0408)

Client	Project Manager	Date	Chain of Custody Number
ECC	A. Easterday	3-29-13	008868
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page** 5 **of** 6
33 Boston Post Rd W. #420			
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
Marlborough / MA / 01752	J. Donovan	Mark Loeb	
Project Name and Location (State)	**Carrier/Waybill Number**		
Ravenna	LAB PICK UP		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	MeOH	Analysis: TAL METALS	PCB	SVOC	Perchlorate	VOC	Pesticide	Explosive	Propellants	% Solid	Special Instructions/ Conditions of Receipt
06SB-0044M-0001-SO	3/29/13	1024				X	X							X	X	X							
-0045M-		1023												X	X	X							
-0046M-		0937						X					X	X	X	X			X	X	X	X	FULL SUITE
-0047M-		1025												X	X	X							
-0048M-		1007												X	X	X							
06SB-0033M-0001-SO	3/29/13	0915												X	X	X							
-0034M-		0919												X	X	X							
-0035M-		0826												X	X	X							
-0038M-		0920												X	X	X							
-0036M-		0826												X	X	X							
-0039M-		0852												X	X	X							
-0040M-		0859												X	X	X							

Page 5346 of 5354

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other STANDARD

QC Requirements (Specify)

1. Relinquished By	Date	Time	1. Received By	Date	Time
	3-29-13	1630		3/29/13	1630
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time
	3/29/13	1730		3-29-13	1730

Comments

DISTRIBUTION: *WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy*

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4142 (0408)

Client	Project Manager	Date	Chain of Custody Number
ECC	Al Easterday	3-29-13	008866
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 6 of 6**
33 Boston Post Rd West #420			
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
Marlborough / MA / 01752	J. Donovan	Mark Locb	
Project Name and Location (State)	**Carrier/Waybill Number**		
Ravenna	CAB pick up		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	HCl	HNO3	HCl	NaOH	ZnAc/ NaOH	Other	Analysis: TAL METALS	SVOC	PCB	VOC	PESTICIDE	EXPLOSIVE	PHENOLICS	% SOLID	Special Instructions/ Conditions of Receipt
068SB-0041M-0001-SO	3/29/13	0912				X	X	X					X	X	X	X	X	X	X	X	X	FULL SUITE
068SB-0042M-0001-SO		0833																				
-0050M-		1157																				
-0051M-		1158																				
-0052M-		1200																				
-0053M-		1118																				
-0054M-		1118																				
-0056M-		1135																				
-0057M-		1126																				
-0059M-		1147																				

Page 5347 of 5354

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other STANDARD

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Jeff Dean	3-29-13	1630	1. Received By: B Carlell	3/29/13	1630
2. Relinquished By:			2. Received By:		
3. Relinquished By: B Carlell	3/29/13	1730	3. Received By:	3-29-13	1730

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

TestAmerica Canton Sample Receipt Form/Narrative Login # : 22660

[redacted]

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

[redacted]

0685B-0057M-0001-SO 3/29/13 11:20 Voc's + percent moisture not on COC

15. SAMPLE CONDITION

Sample(s)	were received after the recommended holding time had expired.
Sample(s)	were received in a broken container.
Sample(s)	were received with bubble >6 mm in diameter. (Notify PM)

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: ECC	Client Project Manager: AL EASTMAN	Site Contact: JEFF DONOVAN	Lab Contact: MARK LOFR	COC No: 048640
Address: 33 BOSTON POST RD W #420	Telephone:	Telephone: 508 509 1784	Telephone:	1 of 2 COCs
City/State/Zip: MARLBORO MA	Email:	Analysis Turnaround Time (In BUS days)	Analyses	For lab use only
Phone: 508-229 2220		TAT if different from below ☐ STANDARD 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Walk-in client ☐ Lab pickup ☐ Lab sampling ☐
Project Name:	Method of Shipment/Carrier: LAB COURIER			Job/SDG No:
Project Number:	Shipping/Tracking No:			
PO #				

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other: DI	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composite=C / Grab=G	SVOC	TAL METALS	PCB	EXPLOSIVES	PROPELLENTS	VOC					Sample Specific Notes / Special Instructions:
06850-0009-0001-SO	11-8-12	1235			X								X				X	X	X								
06850-0009-0002-SO		1235			X								X				X	X	X								MS/MSD
06850-0010-0001-SO		1235			X								X				X	X	X								
06850-0011-0001-SO		1242			X								X				X	X	X								
06850-0012-0001-SO		1235			X								X				X	X	X								

[redacted]

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Return to Client ☐ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	ECC	11-8-12 1638	RICK ROBINSON	TAL-NE	11-8-12 1635
RICK ROBINSON	TAL-NE	11-8-12 1735	[signature]	TA	11-8-12 1735
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
			[signature]	TAL	11/8/12 1735

Page 4023 of 4028

©2008, TestAmerica Laboratories, Inc. All rights reserved.
TestAmerica & Design ™ are trademarks of TestAmerica Laboratories, Inc.

CHAIN OF CUSTODY FORMS
Programmatic Quality Control

This page intentionally left blank.

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: Canton, OH
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: ECC	Client Project Manager: AL Easterday	Site Contact: Jeff Dunavan	Lab Contact: M. Lueb	COC No: 048638
Address: 33 Boston Post Roadwest Suite 420	Telephone: 508-229-2220	Telephone: 508-509 1784	Telephone:	4 of 4 COCs
City/State/Zip: Marlboro, MA	Email: AEasterday@ecc.net JTO	Analysis Turnaround Time (in BUS days)	Analyses	For lab use only
Phone: 508-229-2220		TAT if different from below _____ ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Walk-in client ☐ Lab pickup ☐ Lab sampling ☐ Job/SDG No:
Project Name: Ravenna	Method of Shipment/Carrier:			
Project Number:	Shipping/Tracking No:			

PO#			Matrix					Containers & Preservatives							Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	Analyses												Sample Specific Notes / Special Instructions:
Sample Identification	Sample Date	Sample Time	Air	Aqueous	Sediment	Solid	Other:	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Unpres	Other:			VOC	TPH-GRO											
07655-0027-0001-TB	9 NOV 2012	08W		X						X							XX												Trip Blank
									SM																				

Page 4864 of 4868

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	ECC	11-7-12 1630	[signature]	TALNC	11-7-12 1630
[signature]	TALNC	11-7-12 1730			
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
			[signature]	TA	11/7/12 1730

©2008, TestAmerica Laboratories, Inc. All rights reserved.
TestAmerica & Design ™ are trademarks of TestAmerica Laboratories, Inc.

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: ECC	Client Project Manager: BL EASTBURN	Site Contact: J DONOVAN	Lab Contact: ANNA LOEB	COC No: 048707
Address: 33 BOSTON POST RD. #420 MARLBORO	Telephone:	Telephone:	Telephone:	3 of 5 COCs
City/State/Zip: MARLBORO	Email:	Analysis Turnaround Time (in BUS days)	Analyses	For lab use only
Phone:		TAT if different from below: STANDARD		Walk-in client ☐ Lab pickup ☐ Lab sampling ☐
Project Name:	Method of Shipment/Carrier: UPS PICK UP	☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Job/SDG No:
Project Number:	Shipping/Tracking No:			
PO #				

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composite (C) / Grab (G)	EXPLOSIVES	PAH/PETROLEUM	PCB	VOC	TPH GRO	PETR	HYDRIDE	TAL METAL	SVOC	Sample Specific Notes / Special Instructions:
[redacted]																										
076-0067-0001-ER	↓	1300							X	X			X	X			X	X	X	X	X	X	X	X	X	EQUIP RINSATE
076-0068-0001-TB	↓	0700	X							X				X						X						TRIP BLANK

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:
SAMPLES TO HAVE UP FOR MISSING VOL, CALL AT 0-20 ON 11-8-12

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	ECC	11-16-12 1740	[signature]	TAL-NC	11-16-12 1740
[signature]	TAL-NC	11-16-12 1842			
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
			[signature]	TA	11/16/12 1842

©2008, TestAmerica Laboratories, Inc. All rights reserved.
TestAmerica & Design ™ are trademarks of TestAmerica Laboratories, Inc.

TAL 0018- I (04/10)

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: ECC	Client Project Manager: A. BASTRADA	Site Contact: J. DONOVAN	Lab Contact: M. LOEB	COC No: 050743
Address: 33 BOSTON POST RD	Telephone:	Telephone:	Telephone: REACTIVITY, CORROSIVITY, IGNITIBILITY	1 of 3 COCs
City/State/Zip: MARLBORO MA	Email:	Analysis Turnaround Time (in BUS days)	Analyses	For lab use only
Phone:		TAT if different from below ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Walk-in client: ☐ Lab pickup: ☐ Lab sampling: ☐ Job/SDG No:
Project Name:	Method of Shipment/Carrier: DEL. TO LAB			
Project Number:	Shipping/Tracking No:			
PO #				

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other: 01	Filtered Sample (Y/N)	Composite C / Grab G	VOC (MTBE)	GRO	DRO (TOTAL MEANS)	PEST / PCB	HERBICIDES	EXPLOSIVES	PRODUCTANTS	O/G SOLID	SVOC (PAH)	TCLP METALS (INC)	Sample Specific Notes / Special Instructions:
[redacted]																										
[redacted]																										
070SB-0055-0001-TB		0800	X						X				X			X										TRIP BLK
[redacted]																										
070-0057-0001-SOURCE WATER		1315	X					X	X			X				X	X	X	X	X	X	X		X		SOURCE WATER ECC
[redacted]																										
070-0060-0001-TB	↓	0800																								TRIP BLK

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:
ANY QUES ON TCLP ANALYSIS CALL JACKSON KIKER AT ECC

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	ECC	12-12-12 1702			12-12-12
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: [signature]	Company: TAL	Date/Time: 12/12/12 1702

©2008, TestAmerica Laboratories, Inc. All rights reserved.
TestAmerica & Design ™ are trademarks of TestAmerica Laboratories, Inc.

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: ECC	Client Project Manager: A. EASTERDAY	Site Contact: J. DONOVAN	Lab Contact: MARK LOEB	COC No: 048788
Address: 39 BOSTON POST RD WEST #420	Telephone:	Telephone: 508-509-1784	Telephone:	1 of 1 COCs
City/State/Zip: MARLBORO, MA 01752	Email:	Analysis Turnaround Time (in BUS days)	Analyses	For lab use only
Phone:		TAT if different from below _____ ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☒ ~~2 days~~ 5 DAY ☐ 1 day		Walk-in client ☐ Lab pickup ☐ Lab sampling ☐ Job/SDG No:
Project Name: RAVENNA	Method of Shipment/Carrier: LAB PICK UP			
Project Number:	Shipping/Tracking No:			

P O #			Matrix					Containers & Preservatives																			
Sample Identification	Sample Date	Sample Time	Air	Aqueous	Sediment	Solid	Other:	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composite (C) / Grab (G)	TAL METALS	EXPLOSIVES	PAH/LLANTS	HERBICIDE	PCB/PESTICIDES	SVOC	TPH/DRO	TPH/GRO	HEX CHROM	VOC	Sample Specific Notes / Special Instructions:
079-0007-0001- SOURCE WATER	3/14/13	1200		X					X	X			X				X	X	X	X	X	X	X	X	X	X	
079-0008-0001-TB TRIP BLANK	↓	0800		X						X																X	
079-0009-0001-TB TRIP BLANK		0800		X						X														X			

240-21987 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	ECC	3/14/13 1530	[signature]	TAL	3/14/13 1530
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by: [signature]	Company: TAL	Date/Time: 3/14/13 1620	Received in Laboratory by: [signature]	Company: TA/Canton	Date/Time: 3/14/13 1620

©2008, TestAmerica Laboratories, Inc. All rights reserved.
TestAmerica & Design ™ are trademarks of TestAmerica Laboratories, Inc

TAL 0018- 1 (04/10)

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: ECC	Client Project Manager:	Site Contact: J. Donahue	Lab Contact:	COC No: 049555
Address: 33 Boston Post Rd	Telephone:	Telephone:	Telephone: 4-3-13	3 of 3 COCs
City/State/Zip: Marlboro	Email:	Analysis Turnaround Time (in BUS days)	Analyses	For lab use only
Phone:		TAT if different from below _____ ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Walk-in client ☐ Lab pickup ☐ Lab sampling ☐
Project Name:	Method of Shipment/Carrier: LAB PICK UP			
Project Number:	Shipping/Tracking No:			Job/SDG No:

P O #			Matrix					Containers & Preservatives																			Sample Specific Notes / Special Instructions:
Sample Identification	Sample Date	Sample Time	Air	Aqueous	Sediment	Solid	Other:	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composite C/ Grab G	TAL MEM/	PCB	PEST/ CLP	SVOC	VOC	BYPASSIVE S	PAH/PELLET S	TPH/DRO			
079RW-0317-0001-AW	4/3/13	1500		X					X				X				X	X	X	X	X	X	X	X			RUSH TAT
079-0318-0001-TB	↓	0800		X						X											X						SHIP BOX

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	ECC	4-3-13-1500	[signature]	TALME	4-3-13-1500
[signature]	TALME	4-3-13-1702	[signature]	TA	4-4-13 800
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

©2008, TestAmerica Laboratories, Inc All rights reserved.
TestAmerica & Design ™ are trademarks of TestAmerica Laboratories, Inc

COC No. A 34421

158 Starlite Drive
Marietta, OH 45750

Microbac

CHAIN-OF-CUSTODY RECORD

Phone: 740-373-4071
Fax: 740-373-4835

Company Name: ECC

Project Contact: JACKSON KIRKE | Contact Phone #:

Turn Around Requirements: STANDARD | Location:

Project ID: MARIANNA

Sampler (print): FRED RICHEL/ROXANN WILLIAMS | Signature:

Program: ☐ CWA ☐ RCRA ☐ DOD ☐ AFCEE ☐ Other

Sample I.D. No.	Comp	Grab	Date	Time	Matrix*	NUMBER OF CONTAINERS	Hold	TAL METALS	SVOC	VOC	PCB	PESTICIDE	EXPLOSIVES	PROPELLANTS	% SOLID							TOTAL # (LAB USE)	ADDITIONAL REQUIREMENTS
[redacted]																							
0685B-0037M-000	1-6		3-29-13	0926				X	X		X												
0685B-0055M-000	1-50		↓	1118				X	X		X												
0685B-0021M-000	1-50		↓	1550	↓			X	X		X												
0685A-0058-000	1-2		4-1-13	0800	W					X													TRIP BLANK

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
[signature]	4-1-13	1800	FEDEX				

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:

*Water (W), Soil (S), Solid Waste (SD), Unknown (X)

Chemistry Results
Ravenna Army Ammunition Plant, Quality Assurance Project Plan, Oct. 3, 2012
Ravenna Army Ammunition Plant

Locations:	68-FTP-DU1-SS	68-RRDD-DU3-SS	68-SS3-DU1-SS	68-SS3-SD	68-SS3-SD (FD)
Field Sample ID:	068SS-0001M-0001-SO	068SS-0008M-0001-SO	068SS-0005M-0001-SO	068SD-0009-0001-SO	068SD-00010-0001-SO
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/06/2012	11/06/2012	11/06/2012	11/08/2012	11/08/2012
Mercury in Soil (Manual Cold-Vapor Techique)					
Mercury (MG/KG)	**0.13**	0.098 U	0.10 U	-	-

Locations:	68-SS3-SD2	68-SS3-SD3	68-SS3-SW	68-SS3-SW2	68-SS3-SW3
Field Sample ID:	068SD-00011-0001-SO	068SD-00012-0001-SO	068SW-0013-0001-SW	068SW-0015-0001-SW	068SW-0016-0001-SW
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/08/2012	11/08/2012	11/08/2012	11/08/2012	11/08/2012
Mercury in Soil (Manual Cold-Vapor Techique)					
Mercury (MG/KG)	-	-	-	-	-

Chemistry Results
Ravenna Army Ammunition Plant, Quality Assurance Project Plan, Oct. 3, 2012
Ravenna Army Ammunition Plant

Locations:	68-SS3-SW3 (FD)
Field Sample ID:	068SW-0014-0001-SW
Sample Begin Depth:	0.00
Sample End Depth:	0.00
Sample Date:	11/08/2012
Mercury in Soil (Manual Cold-Vapor Techique)	
Mercury (MG/KG)	-

Locations:	68-2527-DU2-SS	68-2828-DU2-SS	68-FBDD-DU3-SS	68-FBDD-DU3-SS (FD)	68-FCP-DU1-SS
Field Sample ID:	068SS-0007M-0001-SO	068SS-0002M-0001-SO	068SS-0003M-0001-SO	068SS-0004M-0001-SO	068SS-0006M-0001-SO
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/06/2012	11/06/2012	11/06/2012	11/06/2012	11/06/2012
Mercury in Soil (Manual Cold-Vapor Techique)					
Mercury (MG/KG)	-	-	-	-	-

Chemistry Results
Ravenna Army Ammunition Plant, Quality Assurance Project Plan, Oct. 3, 2012
Ravenna Army Ammunition Plant

Locations:	68-FTP-DU1-SS	68-RRDD-DU3-SS	68-SS3-DU1-SS	68-SS3-SD	68-SS3-SD (FD)
Field Sample ID:	068SS-0001M-0001-SO	068SS-0008M-0001-SO	068SS-0005M-0001-SO	068SD-0009-0001-SO	068SD-00010-0001-SO
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/06/2012	11/06/2012	11/06/2012	11/08/2012	11/08/2012
Mercury in Soil (Manual Cold-Vapor Techique)					
Mercury (MG/KG)	-	-	-	0.095 U	0.098 U

Locations:	68-SS3-SD2	68-SS3-SD3	68-SS3-SW	68-SS3-SW2	68-SS3-SW3
Field Sample ID:	068SD-00011-0001-SO	068SD-00012-0001-SO	068SW-0013-0001-SW	068SW-0015-0001-SW	068SW-0016-0001-SW
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/08/2012	11/08/2012	11/08/2012	11/08/2012	11/08/2012
Mercury in Soil (Manual Cold-Vapor Techique)					
Mercury (MG/KG)	0.098 U	0.098 U	-	-	-

Chemistry Results
Ravenna Army Ammunition Plant, Quality Assurance Project Plan, Oct. 3, 2012
Ravenna Army Ammunition Plant

Locations:	68-SS3-SW3 (FD)
Field Sample ID:	068SW-0014-0001-SW
Sample Begin Depth:	0.00
Sample End Depth:	0.00
Sample Date:	11/08/2012
Mercury in Soil (Manual Cold-Vapor Techique)	
Mercury (MG/KG)	-

Locations:	68-2527-DU2-SS	68-2828-DU2-SS	68-FBDD-DU3-SS	68-FBDD-DU3-SS (FD)	68-FCP-DU1-SS
Field Sample ID:	068SS-0007M-0001-SO	068SS-0002M-0001-SO	068SS-0003M-0001-SO	068SS-0004M-0001-SO	068SS-0006M-0001-SO
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/06/2012	11/06/2012	11/06/2012	11/06/2012	11/06/2012
Mercury in Water (Manual Cold-Vapor Techique)					
Mercury (UG/L)	-	-	-	-	-

Chemistry Results
Ravenna Army Ammunition Plant, Quality Assurance Project Plan, Oct. 3, 2012
Ravenna Army Ammunition Plant

Locations:	68-FTP-DU1-SS	68-RRDD-DU3-SS	68-SS3-DU1-SS	68-SS3-SD	68-SS3-SD (FD)
Field Sample ID:	068SS-0001M-0001-SO	068SS-0008M-0001-SO	068SS-0005M-0001-SO	068SD-0009-0001-SO	068SD-00010-0001-SO
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/06/2012	11/06/2012	11/06/2012	11/08/2012	11/08/2012
Mercury in Water (Manual Cold-Vapor Techique)					
Mercury (UG/L)	-	-	-	-	-

Locations:	68-SS3-SD2	68-SS3-SD3	68-SS3-SW	68-SS3-SW2	68-SS3-SW3
Field Sample ID:	068SD-00011-0001-SO	068SD-00012-0001-SO	068SW-0013-0001-SW	068SW-0015-0001-SW	068SW-0016-0001-SW
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/08/2012	11/08/2012	11/08/2012	11/08/2012	11/08/2012
Mercury in Water (Manual Cold-Vapor Techique)					
Mercury (UG/L)	-	-	0.20 U	0.20 U	0.20 U

Chemistry Results
Ravenna Army Ammunition Plant, Quality Assurance Project Plan, Oct. 3, 2012
Ravenna Army Ammunition Plant

Locations:	68-SS3-SW3 (FD)
Field Sample ID:	068SW-0014-0001-SW
Sample Begin Depth:	0.00
Sample End Depth:	0.00
Sample Date:	11/08/2012
Mercury in Water (Manual Cold-Vapor Techique)	
Mercury (UG/L)	0.20 U

Locations:	68-2527-DU2-SS	68-2828-DU2-SS	68-FBDD-DU3-SS	68-FBDD-DU3-SS (FD)	68-FCP-DU1-SS
Field Sample ID:	068SS-0007M-0001-SO	068SS-0002M-0001-SO	068SS-0003M-0001-SO	068SS-0004M-0001-SO	068SS-0006M-0001-SO
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/06/2012	11/06/2012	11/06/2012	11/06/2012	11/06/2012
Nitroaromatics and Nitramines by HPLC					
1,3,5-Trinitrobenzene (MG/KG)	-	-	0.25 U	0.25 U	-
1,3-Dinitrobenzene (MG/KG)	-	-	0.25 U	0.25 U	-
2,4,6-Trinitrotoluene (MG/KG)	-	-	0.25 U	0.25 U	-
2,4-Dinitrotoluene (MG/KG)	-	-	0.25 U	0.25 U	-
2,6-Dinitrotoluene (MG/KG)	-	-	0.25 U	0.25 U	-
2-Amino-4,6-dinitrotoluene (MG/KG)	-	-	0.25 U	0.25 U	-
2-Nitrotoluene (MG/KG)	-	-	0.25 U	0.25 U	-
3-Nitrotoluene (MG/KG)	-	-	0.25 U	0.25 U	-
4-Amino-2,6-Dinitrotoluene (MG/KG)	-	-	0.25 U	0.25 U	-
4-Nitrotoluene (MG/KG)	-	-	0.25 U	0.25 U	-
Hexahydro-1,3,5-Trinitro-1,3,5-Triazine (RDX) (MG/KG)	-	-	0.25 U	0.25 U	-
Nitrobenzene (MG/KG)	-	-	0.25 U	0.25 U	-
Nitroglycerin (MG/KG)	-	-	0.25 U	0.25 U	-
NITROGUANIDINE (MG/KG)	-	-	0.25 U	0.25 U	-
Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine (HMX) (MG/KG)	-	-	0.25 U	0.25 U	-
Pentaerythritol Tetranitrate (MG/KG)	-	-	0.25 U	0.25 U	-
Tetryl (MG/KG)	-	-	**0.031 J**	**0.039 J**	-

Locations:	68-FTP-DU1-SS	68-RRDD-DU3-SS	68-SS3-DU1-SS	68-SS3-SD	68-SS3-SD (FD)
Field Sample ID:	068SS-0001M-0001-SO	068SS-0008M-0001-SO	068SS-0005M-0001-SO	068SD-0009-0001-SO	068SD-00010-0001-SO
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/06/2012	11/06/2012	11/06/2012	11/08/2012	11/08/2012
Nitroaromatics and Nitramines by HPLC					
1,3,5-Trinitrobenzene (MG/KG)	-	-	-	-	-
1,3-Dinitrobenzene (MG/KG)	-	-	-	-	-
2,4,6-Trinitrotoluene (MG/KG)	-	-	-	-	-
2,4-Dinitrotoluene (MG/KG)	-	-	-	-	-
2,6-Dinitrotoluene (MG/KG)	-	-	-	-	-
2-Amino-4,6-dinitrotoluene (MG/KG)	-	-	-	-	-
2-Nitrotoluene (MG/KG)	-	-	-	-	-
3-Nitrotoluene (MG/KG)	-	-	-	-	-
4-Amino-2,6-Dinitrotoluene (MG/KG)	-	-	-	-	-
4-Nitrotoluene (MG/KG)	-	-	-	-	-
Hexahydro-1,3,5-Trinitro-1,3,5-Triazine (RDX) (MG/KG)	-	-	-	-	-
Nitrobenzene (MG/KG)	-	-	-	-	-
Nitroglycerin (MG/KG)	-	-	-	-	-
Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine (HMX) (MG/KG)	-	-	-	-	-
Pentaerythritol Tetranitrate (MG/KG)	-	-	-	-	-
Tetryl (MG/KG)	-	-	-	-	-

Locations:	68-SS3-SD2	68-SS3-SD3	68-SS3-SW	68-SS3-SW2	68-SS3-SW3
Field Sample ID:	068SD-00011-0001-SO	068SD-00012-0001-SO	068SW-0013-0001-SW	068SW-0015-0001-SW	068SW-0016-0001-SW
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/08/2012	11/08/2012	11/08/2012	11/08/2012	11/08/2012
Nitroaromatics and Nitramines by HPLC					
1,3,5-Trinitrobenzene (MG/KG)	-	-	-	-	-
1,3-Dinitrobenzene (MG/KG)	-	-	-	-	-
2,4,6-Trinitrotoluene (MG/KG)	-	-	-	-	-
2,4-Dinitrotoluene (MG/KG)	-	-	-	-	-
2,6-Dinitrotoluene (MG/KG)	-	-	-	-	-
2-Amino-4,6-dinitrotoluene (MG/KG)	-	-	-	-	-
2-Nitrotoluene (MG/KG)	-	-	-	-	-
3-Nitrotoluene (MG/KG)	-	-	-	-	-
4-Amino-2,6-Dinitrotoluene (MG/KG)	-	-	-	-	-
4-Nitrotoluene (MG/KG)	-	-	-	-	-
Hexahydro-1,3,5-Trinitro-1,3,5-Triazine (RDX) (MG/KG)	-	-	-	-	-
Nitrobenzene (MG/KG)	-	-	-	-	-
Nitroglycerin (MG/KG)	-	-	-	-	-
Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine (HMX) (MG/KG)	-	-	-	-	-
Pentaerythritol Tetranitrate (MG/KG)	-	-	-	-	-
Tetryl (MG/KG)	-	-	-	-	-

Locations:	68-SS3-SW3 (FD)
Field Sample ID:	068SW-0014-0001-SW
Sample Begin Depth:	0.00
Sample End Depth:	0.00
Sample Date:	11/08/2012
Nitroaromatics and Nitramines by HPLC	
1,3,5-Trinitrobenzene (MG/KG)	-
1,3-Dinitrobenzene (MG/KG)	-
2,4,6-Trinitrotoluene (MG/KG)	-
2,4-Dinitrotoluene (MG/KG)	-
2,6-Dinitrotoluene (MG/KG)	-
2-Amino-4,6-dinitrotoluene (MG/KG)	-
2-Nitrotoluene (MG/KG)	-
3-Nitrotoluene (MG/KG)	-
4-Amino-2,6-Dinitrotoluene (MG/KG)	-
4-Nitrotoluene (MG/KG)	-
Hexahydro-1,3,5-Trinitro-1,3,5-Triazine (RDX) (MG/KG)	-
Nitrobenzene (MG/KG)	-
Nitroglycerin (MG/KG)	-
Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine (HMX) (MG/KG)	-
Pentaerythritol Tetranitrate (MG/KG)	-
Tetryl (MG/KG)	-

Locations:	68-2527-DU2-SS	68-2828-DU2-SS	68-FBDD-DU3-SS	68-FBDD-DU3-SS (FD)	68-FCP-DU1-SS
Field Sample ID:	068SS-0007M-0001-SO	068SS-0002M-0001-SO	068SS-0003M-0001-SO	068SS-0004M-0001-SO	068SS-0006M-0001-SO
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/06/2012	11/06/2012	11/06/2012	11/06/2012	11/06/2012
Nitrogen, Nitrate-Nitrite (Colorimetric Automated, Cadmium Reduction)					
Nitrocellulose (MG/KG)	-	-	**0.88 J**	5.0 UJ	-

Chemistry Results
Ravenna Army Ammunition Plant, Quality Assurance Project Plan, Oct. 3, 2012
Ravenna Army Ammunition Plant

Locations:	68-FTP-DU1-SS	68-RRDD-DU3-SS	68-SS3-DU1-SS	68-SS3-SD	68-SS3-SD (FD)
Field Sample ID:	068SS-0001M-0001-SO	068SS-0008M-0001-SO	068SS-0005M-0001-SO	068SD-0009-0001-SO	068SD-00010-0001-SO
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/06/2012	11/06/2012	11/06/2012	11/08/2012	11/08/2012
Nitrogen, Nitrate-Nitrite (Colorimetric Automated, Cadmium Reduction)					
Nitrocellulose (MG/KG)	-	-	-	-	-

Chemistry Results
Ravenna Army Ammunition Plant, Quality Assurance Project Plan, Oct. 3, 2012
Ravenna Army Ammunition Plant

Locations:	68-SS3-SD2	68-SS3-SD3	68-SS3-SW	68-SS3-SW2	68-SS3-SW3
Field Sample ID:	068SD-00011-0001-SO	068SD-00012-0001-SO	068SW-0013-0001-SW	068SW-0015-0001-SW	068SW-0016-0001-SW
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/08/2012	11/08/2012	11/08/2012	11/08/2012	11/08/2012
Nitrogen, Nitrate-Nitrite (Colorimetric Automated, Cadmium Reduction)					
Nitrocellulose (MG/KG)	-	-	-	-	-

Chemistry Results
Ravenna Army Ammunition Plant, Quality Assurance Project Plan, Oct. 3, 2012
Ravenna Army Ammunition Plant

Locations:	68-SS3-SW3 (FD)
Field Sample ID:	068SW-0014-0001-SW
Sample Begin Depth:	0.00
Sample End Depth:	0.00
Sample Date:	11/08/2012
Nitrogen, Nitrate-Nitrite (Colorimetric Automated, Cadmium Reduction)	
Nitrocellulose (MG/KG)	-

Locations:	68-2527-DU2-SS	68-2828-DU2-SS	68-FBDD-DU3-SS	68-FBDD-DU3-SS (FD)	68-FCP-DU1-SS
Field Sample ID:	068SS-0007M-0001-SO	068SS-0002M-0001-SO	068SS-0003M-0001-SO	068SS-0004M-0001-SO	068SS-0006M-0001-SO
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/06/2012	11/06/2012	11/06/2012	11/06/2012	11/06/2012
Organochlorine Pesticides and PCBs by Capillary GC					
Aldrin (UG/KG)	-	-	40.0 U	40.0 U	-
alpha-BHC (alpha-Hexachlorocyclohexane) (UG/KG)	-	-	25.0 U	25.0 U	-
alpha-Chlordane (UG/KG)	-	-	30.0 U	30.0 U	-
alpha-Endosulfan (UG/KG)	-	-	17.0 U	17.0 U	-
beta-BHC (beta-Hexachlorocyclohexane) (UG/KG)	-	-	35.0 U	35.0 U	-
beta-Endosulfan (UG/KG)	-	-	25.0 U	25.0 U	-
delta-BHC (delta-Hexachlorocyclohexane) (UG/KG)	-	-	40.0 U	40.0 U	-
Dieldrin (UG/KG)	-	-	17.0 U	17.0 U	-
Endosulfan Sulfate (UG/KG)	-	-	30.0 U	30.0 U	-
Endrin (UG/KG)	-	-	17.0 U	17.0 U	-
Endrin Aldehyde (UG/KG)	-	-	30.0 U	30.0 U	-
Endrin Ketone (UG/KG)	-	-	20.0 U	20.0 U	-
gamma-BHC (Lindane) (UG/KG)	-	-	25.0 U	25.0 U	-
gamma-Chlordane (UG/KG)	-	-	17.0 U	17.0 U	-
Heptachlor (UG/KG)	-	-	35.0 U	35.0 U	-
Heptachlor Epoxide (UG/KG)	-	-	25.0 U	25.0 U	-
Methoxychlor (UG/KG)	-	-	50.0 U	50.0 U	-
p,p'-DDD (UG/KG)	-	-	20.0 U	20.0 U	-
p,p'-DDE (UG/KG)	-	-	17.0 U	17.0 U	-
p,p'-DDT (UG/KG)	-	-	20.0 U	20.0 U	-
Toxaphene (UG/KG)	-	-	670 U	670 U	-

Locations:	68-FTP-DU1-SS	68-RRDD-DU3-SS	68-SS3-DU1-SS	68-SS3-SD	68-SS3-SD (FD)
Field Sample ID:	068SS-0001M-0001-SO	068SS-0008M-0001-SO	068SS-0005M-0001-SO	068SD-0009-0001-SO	068SD-00010-0001-SO
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/06/2012	11/06/2012	11/06/2012	11/08/2012	11/08/2012
Organochlorine Pesticides and PCBs by Capillary GC					
Aldrin (UG/KG)	-	-	-	-	-
alpha-BHC (alpha-Hexachlorocyclohexane) (UG/KG)	-	-	-	-	-
alpha-Chlordane (UG/KG)	-	-	-	-	-
alpha-Endosulfan (UG/KG)	-	-	-	-	-
beta-BHC (beta-Hexachlorocyclohexane) (UG/KG)	-	-	-	-	-
beta-Endosulfan (UG/KG)	-	-	-	-	-
delta-BHC (delta-Hexachlorocyclohexane) (UG/KG)	-	-	-	-	-
Dieldrin (UG/KG)	-	-	-	-	-
Endosulfan Sulfate (UG/KG)	-	-	-	-	-
Endrin (UG/KG)	-	-	-	-	-
Endrin Aldehyde (UG/KG)	-	-	-	-	-
Endrin Ketone (UG/KG)	-	-	-	-	-
gamma-BHC (Lindane) (UG/KG)	-	-	-	-	-
gamma-Chlordane (UG/KG)	-	-	-	-	-
Heptachlor (UG/KG)	-	-	-	-	-
Heptachlor Epoxide (UG/KG)	-	-	-	-	-
Methoxychlor (UG/KG)	-	-	-	-	-
p,p'-DDD (UG/KG)	-	-	-	-	-
p,p'-DDE (UG/KG)	-	-	-	-	-
p,p'-DDT (UG/KG)	-	-	-	-	-
Toxaphene (UG/KG)	-	-	-	-	-

Locations:	68-SS3-SD2	68-SS3-SD3	68-SS3-SW	68-SS3-SW2	68-SS3-SW3
Field Sample ID:	068SD-00011-0001-SO	068SD-00012-0001-SO	068SW-0013-0001-SW	068SW-0015-0001-SW	068SW-0016-0001-SW
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/08/2012	11/08/2012	11/08/2012	11/08/2012	11/08/2012
Organochlorine Pesticides and PCBs by Capillary GC					
Aldrin (UG/KG)	-	-	-	-	-
alpha-BHC (alpha-Hexachlorocyclohexane) (UG/KG)	-	-	-	-	-
alpha-Chlordane (UG/KG)	-	-	-	-	-
alpha-Endosulfan (UG/KG)	-	-	-	-	-
beta-BHC (beta-Hexachlorocyclohexane) (UG/KG)	-	-	-	-	-
beta-Endosulfan (UG/KG)	-	-	-	-	-
delta-BHC (delta-Hexachlorocyclohexane) (UG/KG)	-	-	-	-	-
Dieldrin (UG/KG)	-	-	-	-	-
Endosulfan Sulfate (UG/KG)	-	-	-	-	-
Endrin (UG/KG)	-	-	-	-	-
Endrin Aldehyde (UG/KG)	-	-	-	-	-
Endrin Ketone (UG/KG)	-	-	-	-	-
gamma-BHC (Lindane) (UG/KG)	-	-	-	-	-
gamma-Chlordane (UG/KG)	-	-	-	-	-
Heptachlor (UG/KG)	-	-	-	-	-
Heptachlor Epoxide (UG/KG)	-	-	-	-	-
Methoxychlor (UG/KG)	-	-	-	-	-
p,p'-DDD (UG/KG)	-	-	-	-	-
p,p'-DDE (UG/KG)	-	-	-	-	-
p,p'-DDT (UG/KG)	-	-	-	-	-
Toxaphene (UG/KG)	-	-	-	-	-

Locations:	68-SS3-SW3 (FD)
Field Sample ID:	068SW-0014-0001-SW
Sample Begin Depth:	0.00
Sample End Depth:	0.00
Sample Date:	11/08/2012
Organochlorine Pesticides and PCBs by Capillary GC	
Aldrin (UG/KG)	-
alpha-BHC (alpha-Hexachlorocyclohexane) (UG/KG)	-
alpha-Chlordane (UG/KG)	-
alpha-Endosulfan (UG/KG)	-
beta-BHC (beta-Hexachlorocyclohexane) (UG/KG)	-
beta-Endosulfan (UG/KG)	-
delta-BHC (delta-Hexachlorocyclohexane) (UG/KG)	-
Dieldrin (UG/KG)	-
Endosulfan Sulfate (UG/KG)	-
Endrin (UG/KG)	-
Endrin Aldehyde (UG/KG)	-
Endrin Ketone (UG/KG)	-
gamma-BHC (Lindane) (UG/KG)	-
gamma-Chlordane (UG/KG)	-
Heptachlor (UG/KG)	-
Heptachlor Epoxide (UG/KG)	-
Methoxychlor (UG/KG)	-
p,p'-DDD (UG/KG)	-
p,p'-DDE (UG/KG)	-
p,p'-DDT (UG/KG)	-
Toxaphene (UG/KG)	-

Locations:	68-2527-DU2-SS	68-2828-DU2-SS	68-FBDD-DU3-SS	68-FBDD-DU3-SS (FD)	68-FCP-DU1-SS
Field Sample ID:	068SS-0007M-0001-SO	068SS-0002M-0001-SO	068SS-0003M-0001-SO	068SS-0004M-0001-SO	068SS-0006M-0001-SO
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/06/2012	11/06/2012	11/06/2012	11/06/2012	11/06/2012
Polychlorinated Biphenyls (PCB)					
PCB-1016 (Arochlor 1016) (UG/KG)	66.0 U	64.0 U	65.0 U	65.0 U	65.0 U
PCB-1221 (Arochlor 1221) (UG/KG)	51.0 U	50.0 U	50.0 U	50.0 U	50.0 U
PCB-1232 (Arochlor 1232) (UG/KG)	46.0 U	45.0 U	45.0 U	45.0 U	45.0 U
PCB-1242 (Arochlor 1242) (UG/KG)	41.0 U	40.0 U	40.0 U	40.0 U	40.0 U
PCB-1248 (Arochlor 1248) (UG/KG)	56.0 U	55.0 U	55.0 U	55.0 U	55.0 U
PCB-1254 (Arochlor 1254) (UG/KG)	56.0 U	55.0 U	55.0 U	55.0 U	55.0 U
PCB-1260 (Arochlor 1260) (UG/KG)	56.0 U	55.0 U	55.0 U	55.0 U	55.0 U

Locations:	68-FTP-DU1-SS	68-RRDD-DU3-SS	68-SS3-DU1-SS	68-SS3-SD	68-SS3-SD (FD)
Field Sample ID:	068SS-0001M-0001-SO	068SS-0008M-0001-SO	068SS-0005M-0001-SO	068SD-0009-0001-SO	068SD-00010-0001-SO
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/06/2012	11/06/2012	11/06/2012	11/08/2012	11/08/2012
Polychlorinated Biphenyls (PCB)					
PCB-1016 (Arochlor 1016) (UG/KG)	66.0 U	64.0 U	65.0 U	-	-
PCB-1221 (Arochlor 1221) (UG/KG)	51.0 U	50.0 U	50.0 U	-	-
PCB-1232 (Arochlor 1232) (UG/KG)	46.0 U	45.0 U	45.0 U	-	-
PCB-1242 (Arochlor 1242) (UG/KG)	41.0 U	40.0 U	40.0 U	-	-
PCB-1248 (Arochlor 1248) (UG/KG)	56.0 U	55.0 U	55.0 U	-	-
PCB-1254 (Arochlor 1254) (UG/KG)	56.0 U	55.0 U	55.0 U	-	-
PCB-1260 (Arochlor 1260) (UG/KG)	56.0 U	55.0 U	55.0 U	-	-

Locations:	68-SS3-SD2	68-SS3-SD3	68-SS3-SW	68-SS3-SW2	68-SS3-SW3
Field Sample ID:	068SD-00011-0001-SO	068SD-00012-0001-SO	068SW-0013-0001-SW	068SW-0015-0001-SW	068SW-0016-0001-SW
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/08/2012	11/08/2012	11/08/2012	11/08/2012	11/08/2012
Polychlorinated Biphenyls (PCB)					
PCB-1016 (Arochlor 1016) (UG/KG)	-	-	-	-	-
PCB-1221 (Arochlor 1221) (UG/KG)	-	-	-	-	-
PCB-1232 (Arochlor 1232) (UG/KG)	-	-	-	-	-
PCB-1242 (Arochlor 1242) (UG/KG)	-	-	-	-	-
PCB-1248 (Arochlor 1248) (UG/KG)	-	-	-	-	-
PCB-1254 (Arochlor 1254) (UG/KG)	-	-	-	-	-
PCB-1260 (Arochlor 1260) (UG/KG)	-	-	-	-	-

Chemistry Results
Ravenna Army Ammunition Plant, Quality Assurance Project Plan, Oct. 3, 2012
Ravenna Army Ammunition Plant

Locations:	68-SS3-SW3 (FD)
Field Sample ID:	068SW-0014-0001-SW
Sample Begin Depth:	0.00
Sample End Depth:	0.00
Sample Date:	11/08/2012
Polychlorinated Biphenyls (PCB)	
PCB-1016 (Arochlor 1016) (UG/KG)	-
PCB-1221 (Arochlor 1221) (UG/KG)	-
PCB-1232 (Arochlor 1232) (UG/KG)	-
PCB-1242 (Arochlor 1242) (UG/KG)	-
PCB-1248 (Arochlor 1248) (UG/KG)	-
PCB-1254 (Arochlor 1254) (UG/KG)	-
PCB-1260 (Arochlor 1260) (UG/KG)	-

Locations:	68-2527-DU2-SS	68-2828-DU2-SS	68-FBDD-DU3-SS	68-FBDD-DU3-SS (FD)	68-FCP-DU1-SS
Field Sample ID:	068SS-0007M-0001-SO	068SS-0002M-0001-SO	068SS-0003M-0001-SO	068SS-0004M-0001-SO	068SS-0006M-0001-SO
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/06/2012	11/06/2012	11/06/2012	11/06/2012	11/06/2012
Polychlorinated Biphenyls (PCB)					
PCB-1016 (Arochlor 1016) (UG/KG)	-	-	-	-	-
PCB-1221 (Arochlor 1221) (UG/KG)	-	-	-	-	-
PCB-1232 (Arochlor 1232) (UG/KG)	-	-	-	-	-
PCB-1242 (Arochlor 1242) (UG/KG)	-	-	-	-	-
PCB-1248 (Arochlor 1248) (UG/KG)	-	-	-	-	-
PCB-1254 (Arochlor 1254) (UG/KG)	-	-	-	-	-
PCB-1260 (Arochlor 1260) (UG/KG)	-	-	-	-	-

Locations:	68-FTP-DU1-SS	68-RRDD-DU3-SS	68-SS3-DU1-SS	68-SS3-SD	68-SS3-SD (FD)
Field Sample ID:	068SS-0001M-0001-SO	068SS-0008M-0001-SO	068SS-0005M-0001-SO	068SD-0009-0001-SO	068SD-00010-0001-SO
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/06/2012	11/06/2012	11/06/2012	11/08/2012	11/08/2012
Polychlorinated Biphenyls (PCB)					
PCB-1016 (Arochlor 1016) (UG/KG)	-	-	-	64.0 U	65.0 U
PCB-1221 (Arochlor 1221) (UG/KG)	-	-	-	49.0 U	50.0 U
PCB-1232 (Arochlor 1232) (UG/KG)	-	-	-	44.0 U	45.0 U
PCB-1242 (Arochlor 1242) (UG/KG)	-	-	-	39.0 U	40.0 U
PCB-1248 (Arochlor 1248) (UG/KG)	-	-	-	54.0 U	55.0 U
PCB-1254 (Arochlor 1254) (UG/KG)	-	-	-	54.0 U	55.0 U
PCB-1260 (Arochlor 1260) (UG/KG)	-	-	-	54.0 U	55.0 U

Locations:	68-SS3-SD2	68-SS3-SD3	68-SS3-SW	68-SS3-SW2	68-SS3-SW3
Field Sample ID:	068SD-00011-0001-SO	068SD-00012-0001-SO	068SW-0013-0001-SW	068SW-0015-0001-SW	068SW-0016-0001-SW
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/08/2012	11/08/2012	11/08/2012	11/08/2012	11/08/2012
Polychlorinated Biphenyls (PCB)					
PCB-1016 (Arochlor 1016) (UG/KG)	66.0 U	64.0 U	-	-	-
PCB-1221 (Arochlor 1221) (UG/KG)	51.0 U	49.0 U	-	-	-
PCB-1232 (Arochlor 1232) (UG/KG)	46.0 U	44.0 U	-	-	-
PCB-1242 (Arochlor 1242) (UG/KG)	41.0 U	39.0 U	-	-	-
PCB-1248 (Arochlor 1248) (UG/KG)	56.0 U	54.0 U	-	-	-
PCB-1254 (Arochlor 1254) (UG/KG)	56.0 U	54.0 U	-	-	-
PCB-1260 (Arochlor 1260) (UG/KG)	56.0 U	54.0 U	-	-	-

Chemistry Results
Ravenna Army Ammunition Plant, Quality Assurance Project Plan, Oct. 3, 2012
Ravenna Army Ammunition Plant

Locations:	68-SS3-SW3 (FD)
Field Sample ID:	068SW-0014-0001-SW
Sample Begin Depth:	0.00
Sample End Depth:	0.00
Sample Date:	11/08/2012
Polychlorinated Biphenyls (PCB)	
PCB-1016 (Arochlor 1016) (UG/KG)	-
PCB-1221 (Arochlor 1221) (UG/KG)	-
PCB-1232 (Arochlor 1232) (UG/KG)	-
PCB-1242 (Arochlor 1242) (UG/KG)	-
PCB-1248 (Arochlor 1248) (UG/KG)	-
PCB-1254 (Arochlor 1254) (UG/KG)	-
PCB-1260 (Arochlor 1260) (UG/KG)	-

Locations:	68-2527-DU2-SS	68-2828-DU2-SS	68-FBDD-DU3-SS	68-FBDD-DU3-SS (FD)	68-FCP-DU1-SS
Field Sample ID:	068SS-0007M-0001-SO	068SS-0002M-0001-SO	068SS-0003M-0001-SO	068SS-0004M-0001-SO	068SS-0006M-0001-SO
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/06/2012	11/06/2012	11/06/2012	11/06/2012	11/06/2012
Polychlorinated Biphenyls (PCB)					
PCB-1016 (Arochlor 1016) (UG/L)	-	-	-	-	-
PCB-1221 (Arochlor 1221) (UG/L)	-	-	-	-	-
PCB-1232 (Arochlor 1232) (UG/L)	-	-	-	-	-
PCB-1242 (Arochlor 1242) (UG/L)	-	-	-	-	-
PCB-1248 (Arochlor 1248) (UG/L)	-	-	-	-	-
PCB-1254 (Arochlor 1254) (UG/L)	-	-	-	-	-
PCB-1260 (Arochlor 1260) (UG/L)	-	-	-	-	-

Locations:	68-FTP-DU1-SS	68-RRDD-DU3-SS	68-SS3-DU1-SS	68-SS3-SD	68-SS3-SD (FD)
Field Sample ID:	068SS-0001M-0001-SO	068SS-0008M-0001-SO	068SS-0005M-0001-SO	068SD-0009-0001-SO	068SD-00010-0001-SO
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/06/2012	11/06/2012	11/06/2012	11/08/2012	11/08/2012
Polychlorinated Biphenyls (PCB)					
PCB-1016 (Arochlor 1016) (UG/L)	-	-	-	-	-
PCB-1221 (Arochlor 1221) (UG/L)	-	-	-	-	-
PCB-1232 (Arochlor 1232) (UG/L)	-	-	-	-	-
PCB-1242 (Arochlor 1242) (UG/L)	-	-	-	-	-
PCB-1248 (Arochlor 1248) (UG/L)	-	-	-	-	-
PCB-1254 (Arochlor 1254) (UG/L)	-	-	-	-	-
PCB-1260 (Arochlor 1260) (UG/L)	-	-	-	-	-

Locations:	68-SS3-SD2	68-SS3-SD3	68-SS3-SW	68-SS3-SW2	68-SS3-SW3
Field Sample ID:	068SD-00011-0001-SO	068SD-00012-0001-SO	068SW-0013-0001-SW	068SW-0015-0001-SW	068SW-0016-0001-SW
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/08/2012	11/08/2012	11/08/2012	11/08/2012	11/08/2012
Polychlorinated Biphenyls (PCB)					
PCB-1016 (Arochlor 1016) (UG/L)	-	-	0.48 U	0.48 U	0.48 U
PCB-1221 (Arochlor 1221) (UG/L)	-	-	0.48 U	0.48 U	0.48 U
PCB-1232 (Arochlor 1232) (UG/L)	-	-	0.48 U	0.48 U	0.48 U
PCB-1242 (Arochlor 1242) (UG/L)	-	-	0.48 U	0.48 U	0.48 U
PCB-1248 (Arochlor 1248) (UG/L)	-	-	0.48 U	0.48 U	0.48 U
PCB-1254 (Arochlor 1254) (UG/L)	-	-	0.48 U	0.48 U	0.48 U
PCB-1260 (Arochlor 1260) (UG/L)	-	-	0.48 U	0.48 U	0.48 U

Chemistry Results
Ravenna Army Ammunition Plant, Quality Assurance Project Plan, Oct. 3, 2012
Ravenna Army Ammunition Plant

Locations:	68-SS3-SW3 (FD)
Field Sample ID:	068SW-0014-0001-SW
Sample Begin Depth:	0.00
Sample End Depth:	0.00
Sample Date:	11/08/2012
Polychlorinated Biphenyls (PCB)	
PCB-1016 (Arochlor 1016) (UG/L)	0.48 U
PCB-1221 (Arochlor 1221) (UG/L)	0.48 U
PCB-1232 (Arochlor 1232) (UG/L)	0.48 U
PCB-1242 (Arochlor 1242) (UG/L)	0.48 U
PCB-1248 (Arochlor 1248) (UG/L)	0.48 U
PCB-1254 (Arochlor 1254) (UG/L)	0.48 U
PCB-1260 (Arochlor 1260) (UG/L)	0.48 U

Locations:	68-2527-DU2-SS	68-2828-DU2-SS	68-FBDD-DU3-SS	68-FBDD-DU3-SS (FD)	68-FCP-DU1-SS
Field Sample ID:	068SS-0007M-0001-SO	068SS-0002M-0001-SO	068SS-0003M-0001-SO	068SS-0004M-0001-SO	068SS-0006M-0001-SO
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/06/2012	11/06/2012	11/06/2012	11/06/2012	11/06/2012
Semivolatile Organic Compounds by Capillary GC/MS					
1,2,4-Trichlorobenzene (UG/KG)	50.0 U	49.0 U	50.0 U	250 U	49.0 U
1,2-Dichlorobenzene (UG/KG)	50.0 U	49.0 U	50.0 U	250 U	49.0 U
1,3-Dichlorobenzene (UG/KG)	50.0 U	49.0 U	50.0 U	250 U	49.0 U
1,4-Dichlorobenzene (UG/KG)	50.0 U	49.0 U	50.0 U	250 U	49.0 U
2,4,5-Trichlorophenol (UG/KG)	150 U	150 U	150 U	740 U	150 U
2,4,6-Trichlorophenol (UG/KG)	150 U	150 U	150 U	740 U	150 U
2,4-Dichlorophenol (UG/KG)	150 U	150 U	150 U	740 U	150 U
2,4-Dimethylphenol (UG/KG)	150 U	150 U	150 U	740 U	150 U
2,4-Dinitrophenol (UG/KG)	330 U	330 UJ	330 UJ	1600 UJ	330 U
2,4-Dinitrotoluene (UG/KG)	200 U	200 U	200 U	990 U	200 U
2,6-Dinitrotoluene (UG/KG)	200 U	200 U	200 U	990 U	200 U
2-Chloronaphthalene (UG/KG)	50.0 U	49.0 U	50.0 U	250 U	49.0 U
2-Chlorophenol (UG/KG)	50.0 U	49.0 U	50.0 U	250 U	49.0 U
2-Methylnaphthalene (UG/KG)	**9.8**	**37.0**	**30.0**	**23.0 J**	**11.0**
2-Methylphenol (o-Cresol) (UG/KG)	200 U	200 U	200 U	990 U	200 U
2-Nitroaniline (UG/KG)	200 U	200 U	200 U	990 U	200 U
2-Nitrophenol (UG/KG)	50.0 U	49.0 U	50.0 U	250 U	49.0 U
3,3'-Dichlorobenzidine (UG/KG)	99.0 U	99.0 U	100 R	500 U	99.0 U
3-Nitroaniline (UG/KG)	200 U	200 U	200 U	990 U	200 U
4,6-Dinitro-2-Methylphenol (UG/KG)	150 U	150 UJ	150 UJ	740 UJ	150 U
4-Bromophenyl phenyl ether (UG/KG)	50.0 U	49.0 U	50.0 U	250 U	49.0 U
4-Chloro-3-Methylphenol (UG/KG)	150 U	150 U	150 U	740 U	150 U
4-Chloroaniline (UG/KG)	150 U	150 U	150 R	740 U	150 U

Locations:	68-FTP-DU1-SS	68-RRDD-DU3-SS	68-SS3-DU1-SS	68-SS3-SD	68-SS3-SD (FD)
Field Sample ID:	068SS-0001M-0001-SO	068SS-0008M-0001-SO	068SS-0005M-0001-SO	068SD-0009-0001-SO	068SD-00010-0001-SO
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/06/2012	11/06/2012	11/06/2012	11/08/2012	11/08/2012
Semivolatile Organic Compounds by Capillary GC/MS					
1,2,4-Trichlorobenzene (UG/KG)	50.0 U	50.0 U	50.0 U	-	-
1,2-Dichlorobenzene (UG/KG)	50.0 U	50.0 U	50.0 U	-	-
1,3-Dichlorobenzene (UG/KG)	50.0 U	50.0 U	50.0 U	-	-
1,4-Dichlorobenzene (UG/KG)	50.0 U	**21.0 J**	50.0 U	-	-
2,4,5-Trichlorophenol (UG/KG)	150 U	150 U	150 U	-	-
2,4,6-Trichlorophenol (UG/KG)	150 U	150 U	150 U	-	-
2,4-Dichlorophenol (UG/KG)	150 U	150 U	150 U	-	-
2,4-Dimethylphenol (UG/KG)	150 U	150 U	150 U	-	-
2,4-Dinitrophenol (UG/KG)	330 UJ	330 UJ	330 U	-	-
2,4-Dinitrotoluene (UG/KG)	200 U	200 U	200 U	-	-
2,6-Dinitrotoluene (UG/KG)	200 U	200 U	200 U	-	-
2-Chloronaphthalene (UG/KG)	50.0 U	50.0 U	50.0 U	-	-
2-Chlorophenol (UG/KG)	50.0 U	50.0 U	50.0 U	-	-
2-Methylnaphthalene (UG/KG)	**18.0**	**81.0**	**13.0**	-	-
2-Methylphenol (o-Cresol) (UG/KG)	200 U	200 U	200 U	-	-
2-Nitroaniline (UG/KG)	200 U	200 U	200 U	-	-
2-Nitrophenol (UG/KG)	50.0 U	50.0 U	50.0 U	-	-
3,3'-Dichlorobenzidine (UG/KG)	100 U	100 U	100 U	-	-
3-Nitroaniline (UG/KG)	200 U	200 U	200 U	-	-
4,6-Dinitro-2-Methylphenol (UG/KG)	150 UJ	150 UJ	150 U	-	-
4-Bromophenyl phenyl ether (UG/KG)	50.0 U	50.0 U	50.0 U	-	-
4-Chloro-3-Methylphenol (UG/KG)	150 U	150 U	150 U	-	-
4-Chloroaniline (UG/KG)	150 U	150 U	150 U	-	-

Locations:	68-SS3-SD2	68-SS3-SD3	68-SS3-SW	68-SS3-SW2	68-SS3-SW3
Field Sample ID:	068SD-00011-0001-SO	068SD-00012-0001-SO	068SW-0013-0001-SW	068SW-0015-0001-SW	068SW-0016-0001-SW
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/08/2012	11/08/2012	11/08/2012	11/08/2012	11/08/2012
Semivolatile Organic Compounds by Capillary GC/MS					
1,2,4-Trichlorobenzene (UG/KG)	-	-	-	-	-
1,2-Dichlorobenzene (UG/KG)	-	-	-	-	-
1,3-Dichlorobenzene (UG/KG)	-	-	-	-	-
1,4-Dichlorobenzene (UG/KG)	-	-	-	-	-
2,4,5-Trichlorophenol (UG/KG)	-	-	-	-	-
2,4,6-Trichlorophenol (UG/KG)	-	-	-	-	-
2,4-Dichlorophenol (UG/KG)	-	-	-	-	-
2,4-Dimethylphenol (UG/KG)	-	-	-	-	-
2,4-Dinitrophenol (UG/KG)	-	-	-	-	-
2,4-Dinitrotoluene (UG/KG)	-	-	-	-	-
2,6-Dinitrotoluene (UG/KG)	-	-	-	-	-
2-Chloronaphthalene (UG/KG)	-	-	-	-	-
2-Chlorophenol (UG/KG)	-	-	-	-	-
2-Methylnaphthalene (UG/KG)	-	-	-	-	-
2-Methylphenol (o-Cresol) (UG/KG)	-	-	-	-	-
2-Nitroaniline (UG/KG)	-	-	-	-	-
2-Nitrophenol (UG/KG)	-	-	-	-	-
3,3'-Dichlorobenzidine (UG/KG)	-	-	-	-	-
3-Nitroaniline (UG/KG)	-	-	-	-	-
4,6-Dinitro-2-Methylphenol (UG/KG)	-	-	-	-	-
4-Bromophenyl phenyl ether (UG/KG)	-	-	-	-	-
4-Chloro-3-Methylphenol (UG/KG)	-	-	-	-	-
4-Chloroaniline (UG/KG)	-	-	-	-	-

Locations:	68-SS3-SW3 (FD)
Field Sample ID:	068SW-0014-0001-SW
Sample Begin Depth:	0.00
Sample End Depth:	0.00
Sample Date:	11/08/2012
Semivolatile Organic Compounds by Capillary GC/MS	
1,2,4-Trichlorobenzene (UG/KG)	-
1,2-Dichlorobenzene (UG/KG)	-
1,3-Dichlorobenzene (UG/KG)	-
1,4-Dichlorobenzene (UG/KG)	-
2,4,5-Trichlorophenol (UG/KG)	-
2,4,6-Trichlorophenol (UG/KG)	-
2,4-Dichlorophenol (UG/KG)	-
2,4-Dimethylphenol (UG/KG)	-
2,4-Dinitrophenol (UG/KG)	-
2,4-Dinitrotoluene (UG/KG)	-
2,6-Dinitrotoluene (UG/KG)	-
2-Chloronaphthalene (UG/KG)	-
2-Chlorophenol (UG/KG)	-
2-Methylnaphthalene (UG/KG)	-
2-Methylphenol (o-Cresol) (UG/KG)	-
2-Nitroaniline (UG/KG)	-
2-Nitrophenol (UG/KG)	-
3,3'-Dichlorobenzidine (UG/KG)	-
3-Nitroaniline (UG/KG)	-
4,6-Dinitro-2-Methylphenol (UG/KG)	-
4-Bromophenyl phenyl ether (UG/KG)	-
4-Chloro-3-Methylphenol (UG/KG)	-
4-Chloroaniline (UG/KG)	-

Locations:	68-2527-DU2-SS	68-2828-DU2-SS	68-FBDD-DU3-SS	68-FBDD-DU3-SS (FD)	68-FCP-DU1-SS
Field Sample ID:	068SS-0007M-0001-SO	068SS-0002M-0001-SO	068SS-0003M-0001-SO	068SS-0004M-0001-SO	068SS-0006M-0001-SO
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/06/2012	11/06/2012	11/06/2012	11/06/2012	11/06/2012
Semivolatile Organic Compounds by Capillary GC/MS					
4-Chlorophenyl Phenyl Ether (UG/KG)	50.0 U	49.0 U	50.0 U	250 U	49.0 U
4-Nitroaniline (UG/KG)	200 U	200 U	200 U	990 U	200 U
4-Nitrophenol (UG/KG)	330 U	330 U	330 U	1600 U	330 U
Acenaphthene (UG/KG)	**7.0**	**10.0**	**17.0**	33.0 U	6.6 U
Acenaphthylene (UG/KG)	6.6 U	**28.0**	**9.2**	33.0 U	**4.1 J**
Anthracene (UG/KG)	**18.0**	**41.0**	**48.0 J**	**28.0 J**	**7.0**
Benzo(a)anthracene (UG/KG)	**41.0**	**160**	**270**	**190**	**13.0**
Benzo(a)pyrene (UG/KG)	**30.0**	**160**	**330 J**	**250**	**12.0**
Benzo(b)fluoranthene (UG/KG)	**44.0**	**410**	**520**	**390**	**16.0**
Benzo(g,h,i)perylene (UG/KG)	**20.0**	**120 J**	**260 J**	**130 J**	**11.0**
Benzo(k)fluoranthene (UG/KG)	**19.0**	**170**	**180 J**	**100 J**	**11.0**
Benzoic acid (UG/KG)	650 R	650 R	660 R	3300 R	650 R
Benzyl alcohol (UG/KG)	330 U	330 U	**27 U**	1600 U	330 U
Benzyl butyl phthalate (UG/KG)	50.0 U	49.0 U	50.0 U	250 U	49.0 U
bis(2-Chloroethoxy) Methane (UG/KG)	99.0 U	99.0 U	100 U	500 U	99.0 U
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether) (UG/KG)	99.0 U	99.0 U	100 U	500 U	99.0 U
bis(2-Chloroisopropyl) Ether (UG/KG)	99.0 U	99.0 U	100 U	500 U	99.0 U
bis(2-Ethylhexyl) Phthalate (UG/KG)	**29.0 J**	61.0 U	50.0 U	250 U	**75.0**
Carbazole (UG/KG)	50.0 U	**29.0 J**	**44.0 J**	250 U	49.0 U
Chrysene (UG/KG)	**37.0**	**240**	**340**	**230**	**14.0**
Cresols, m & p (UG/KG)	400 U	390 U	400 U	2000 U	390 U
Dibenz(a,h)anthracene (UG/KG)	6.6 U	**37.0**	**57.0**	33.0 U	6.6 U
Dibenzofuran (UG/KG)	**7.9 J**	**19.0 J**	**15.0 J**	250 U	49.0 U

Locations:	68-FTP-DU1-SS	68-RRDD-DU3-SS	68-SS3-DU1-SS	68-SS3-SD	68-SS3-SD (FD)
Field Sample ID:	068SS-0001M-0001-SO	068SS-0008M-0001-SO	068SS-0005M-0001-SO	068SD-0009-0001-SO	068SD-00010-0001-SO
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/06/2012	11/06/2012	11/06/2012	11/08/2012	11/08/2012
Semivolatile Organic Compounds by Capillary GC/MS					
4-Chlorophenyl Phenyl Ether (UG/KG)	50.0 U	50.0 U	50.0 U	-	-
4-Nitroaniline (UG/KG)	200 U	200 U	200 U	-	-
4-Nitrophenol (UG/KG)	330 U	330 U	330 U	-	-
Acenaphthene (UG/KG)	**5.6 J**	**21.0**	**6.2 J**	-	-
Acenaphthylene (UG/KG)	**20.0**	**18.0**	**6.8**	-	-
Anthracene (UG/KG)	**39.0**	**67.0**	**9.0**	-	-
Benzo(a)anthracene (UG/KG)	**170**	**270**	**10.0**	-	-
Benzo(a)pyrene (UG/KG)	**150**	**300**	**10.0**	-	-
Benzo(b)fluoranthene (UG/KG)	**300**	**470**	**13.0**	-	-
Benzo(g,h,i)perylene (UG/KG)	**78.0 J**	**170**	**12.0**	-	-
Benzo(k)fluoranthene (UG/KG)	**79.0**	**180**	**10.0**	-	-
Benzoic acid (UG/KG)	660 R	660 R	660 R	-	-
Benzyl alcohol (UG/KG)	330 U	330 U	330 U	-	-
Benzyl butyl phthalate (UG/KG)	50.0 U	50.0 U	50.0 U	-	-
bis(2-Chloroethoxy) Methane (UG/KG)	100 U	100 U	100 U	-	-
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether) (UG/KG)	100 U	100 U	100 U	-	-
bis(2-Chloroisopropyl) Ether (UG/KG)	100 U	100 U	100 U	-	-
bis(2-Ethylhexyl) Phthalate (UG/KG)	50.0 U	**50.0**	**32.0 J**	-	-
Carbazole (UG/KG)	50.0 U	**46.0 J**	50.0 U	-	-
Chrysene (UG/KG)	**220**	**330**	**14.0**	-	-
Cresols, m & p (UG/KG)	400 U	400 U	400 U	-	-
Dibenz(a,h)anthracene (UG/KG)	**32.0**	**45.0**	6.7 U	-	-
Dibenzofuran (UG/KG)	**9.6 J**	**29.0 J**	**8.5 J**	-	-

Locations:	68-SS3-SD2	68-SS3-SD3	68-SS3-SW	68-SS3-SW2	68-SS3-SW3
Field Sample ID:	068SD-00011-0001-SO	068SD-00012-0001-SO	068SW-0013-0001-SW	068SW-0015-0001-SW	068SW-0016-0001-SW
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/08/2012	11/08/2012	11/08/2012	11/08/2012	11/08/2012
Semivolatile Organic Compounds by Capillary GC/MS					
4-Chlorophenyl Phenyl Ether (UG/KG)	-	-	-	-	-
4-Nitroaniline (UG/KG)	-	-	-	-	-
4-Nitrophenol (UG/KG)	-	-	-	-	-
Acenaphthene (UG/KG)	-	-	-	-	-
Acenaphthylene (UG/KG)	-	-	-	-	-
Anthracene (UG/KG)	-	-	-	-	-
Benzo(a)anthracene (UG/KG)	-	-	-	-	-
Benzo(a)pyrene (UG/KG)	-	-	-	-	-
Benzo(b)fluoranthene (UG/KG)	-	-	-	-	-
Benzo(g,h,i)perylene (UG/KG)	-	-	-	-	-
Benzo(k)fluoranthene (UG/KG)	-	-	-	-	-
Benzoic acid (UG/KG)	-	-	-	-	-
Benzyl alcohol (UG/KG)	-	-	-	-	-
Benzyl butyl phthalate (UG/KG)	-	-	-	-	-
bis(2-Chloroethoxy) Methane (UG/KG)	-	-	-	-	-
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether) (UG/KG)	-	-	-	-	-
bis(2-Chloroisopropyl) Ether (UG/KG)	-	-	-	-	-
bis(2-Ethylhexyl) Phthalate (UG/KG)	-	-	-	-	-
Carbazole (UG/KG)	-	-	-	-	-
Chrysene (UG/KG)	-	-	-	-	-
Cresols, m & p (UG/KG)	-	-	-	-	-
Dibenz(a,h)anthracene (UG/KG)	-	-	-	-	-
Dibenzofuran (UG/KG)	-	-	-	-	-

Locations:	68-SS3-SW3 (FD)
Field Sample ID:	068SW-0014-0001-SW
Sample Begin Depth:	0.00
Sample End Depth:	0.00
Sample Date:	11/08/2012
Semivolatile Organic Compounds by Capillary GC/MS	
4-Chlorophenyl Phenyl Ether (UG/KG)	-
4-Nitroaniline (UG/KG)	-
4-Nitrophenol (UG/KG)	-
Acenaphthene (UG/KG)	-
Acenaphthylene (UG/KG)	-
Anthracene (UG/KG)	-
Benzo(a)anthracene (UG/KG)	-
Benzo(a)pyrene (UG/KG)	-
Benzo(b)fluoranthene (UG/KG)	-
Benzo(g,h,i)perylene (UG/KG)	-
Benzo(k)fluoranthene (UG/KG)	-
Benzoic acid (UG/KG)	-
Benzyl alcohol (UG/KG)	-
Benzyl butyl phthalate (UG/KG)	-
bis(2-Chloroethoxy) Methane (UG/KG)	-
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether) (UG/KG)	-
bis(2-Chloroisopropyl) Ether (UG/KG)	-
bis(2-Ethylhexyl) Phthalate (UG/KG)	-
Carbazole (UG/KG)	-
Chrysene (UG/KG)	-
Cresols, m & p (UG/KG)	-
Dibenz(a,h)anthracene (UG/KG)	-
Dibenzofuran (UG/KG)	-

Locations:	68-2527-DU2-SS	68-2828-DU2-SS	68-FBDD-DU3-SS	68-FBDD-DU3-SS (FD)	68-FCP-DU1-SS
Field Sample ID:	068SS-0007M-0001-SO	068SS-0002M-0001-SO	068SS-0003M-0001-SO	068SS-0004M-0001-SO	068SS-0006M-0001-SO
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/06/2012	11/06/2012	11/06/2012	11/06/2012	11/06/2012
Semivolatile Organic Compounds by Capillary GC/MS					
Diethyl Phthalate (UG/KG)	50.0 U	**26.0 J**	**22.0 J**	250 U	49.0 U
Dimethyl Phthalate (UG/KG)	50.0 U	49.0 U	50.0 U	250 U	49.0 U
Di-n-Butyl Phthalate (UG/KG)	50.0 U	**40.0 J**	**19.0 J**	250 U	49.0 U
Di-n-Octylphthalate (UG/KG)	50.0 U	49.0 U	50.0 U	250 U	49.0 U
Fluoranthene (UG/KG)	**88.0**	**280**	**650 J**	**410**	**19.0**
Fluorene (UG/KG)	**9.0**	**12.0**	**16.0**	33.0 U	6.6 U
Hexachlorobenzene (UG/KG)	6.6 U	6.6 U	6.7 U	33.0 U	6.6 U
Hexachlorobutadiene (UG/KG)	50.0 U	49.0 U	50.0 U	250 U	49.0 U
Hexachlorocyclopentadiene (UG/KG)	330 U	330 U	330 U	1600 U	330 U
Hexachloroethane (UG/KG)	50.0 U	49.0 U	50.0 U	250 U	49.0 U
Indeno(1,2,3-c,d)pyrene (UG/KG)	**18.0**	**100**	**220**	**140**	**9.2**
Isophorone (UG/KG)	50.0 U	**22.0 J**	**16.0 J**	250 U	**13.0 J**
Naphthalene (UG/KG)	**9.7**	**26.0**	**24.0**	33.0 U	**10.0**
Nitrobenzene (UG/KG)	99.0 U	99.0 U	100 U	500 U	99.0 U
n-Nitrosodi-n-propylamine (UG/KG)	50.0 U	49.0 U	50.0 U	250 U	49.0 U
n-Nitrosodiphenylamine (UG/KG)	50.0 U	49.0 R	50.0 R	250 R	49.0 U
Pentachlorophenol (UG/KG)	150 U	150 U	150 U	740 U	150 U
Phenanthrene (UG/KG)	**78.0**	**110**	**250**	**150**	**18.0**
Phenol (UG/KG)	50.0 U	49.0 U	50.0 U	250 U	49.0 U
Pyrene (UG/KG)	**65.0**	**230**	**480**	**310**	**17.0**

Locations:	68-FTP-DU1-SS	68-RRDD-DU3-SS	68-SS3-DU1-SS	68-SS3-SD	68-SS3-SD (FD)
Field Sample ID:	068SS-0001M-0001-SO	068SS-0008M-0001-SO	068SS-0005M-0001-SO	068SD-0009-0001-SO	068SD-00010-0001-SO
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/06/2012	11/06/2012	11/06/2012	11/08/2012	11/08/2012
Semivolatile Organic Compounds by Capillary GC/MS					
Diethyl Phthalate (UG/KG)	**26.0 J**	50.0 U	**17.0 J**	-	-
Dimethyl Phthalate (UG/KG)	50.0 U	50.0 U	50.0 U	-	-
Di-n-Butyl Phthalate (UG/KG)	**31.0 J**	**15.0 J**	**20.0 J**	-	-
Di-n-Octylphthalate (UG/KG)	50.0 U	50.0 U	50.0 U	-	-
Fluoranthene (UG/KG)	**260**	**650**	**14.0**	-	-
Fluorene (UG/KG)	**7.9**	**27.0**	**8.2**	-	-
Hexachlorobenzene (UG/KG)	6.6 U	6.7 U	6.7 U	-	-
Hexachlorobutadiene (UG/KG)	50.0 U	50.0 U	50.0 U	-	-
Hexachlorocyclopentadiene (UG/KG)	330 U	330 U	330 U	-	-
Hexachloroethane (UG/KG)	50.0 U	50.0 U	50.0 U	-	-
Indeno(1,2,3-c,d)pyrene (UG/KG)	**76.0**	**160**	**9.8**	-	-
Isophorone (UG/KG)	**22.0 J**	**15.0 J**	50.0 U	-	-
Naphthalene (UG/KG)	**14.0**	**62.0**	**12.0**	-	-
Nitrobenzene (UG/KG)	100 U	100 U	100 U	-	-
n-Nitrosodi-n-propylamine (UG/KG)	50.0 U	50.0 U	50.0 U	-	-
n-Nitrosodiphenylamine (UG/KG)	50.0 R	50.0 U	50.0 U	-	-
Pentachlorophenol (UG/KG)	150 U	150 U	150 U	-	-
Phenanthrene (UG/KG)	**76.0**	**280**	**15.0**	-	-
Phenol (UG/KG)	50.0 U	50.0 U	50.0 U	-	-
Pyrene (UG/KG)	**200**	**500**	**13.0**	-	-

Locations:	68-SS3-SD2	68-SS3-SD3	68-SS3-SW	68-SS3-SW2	68-SS3-SW3
Field Sample ID:	068SD-00011-0001-SO	068SD-00012-0001-SO	068SW-0013-0001-SW	068SW-0015-0001-SW	068SW-0016-0001-SW
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/08/2012	11/08/2012	11/08/2012	11/08/2012	11/08/2012
Semivolatile Organic Compounds by Capillary GC/MS					
Diethyl Phthalate (UG/KG)	-	-	-	-	-
Dimethyl Phthalate (UG/KG)	-	-	-	-	-
Di-n-Butyl Phthalate (UG/KG)	-	-	-	-	-
Di-n-Octylphthalate (UG/KG)	-	-	-	-	-
Fluoranthene (UG/KG)	-	-	-	-	-
Fluorene (UG/KG)	-	-	-	-	-
Hexachlorobenzene (UG/KG)	-	-	-	-	-
Hexachlorobutadiene (UG/KG)	-	-	-	-	-
Hexachlorocyclopentadiene (UG/KG)	-	-	-	-	-
Hexachloroethane (UG/KG)	-	-	-	-	-
Indeno(1,2,3-c,d)pyrene (UG/KG)	-	-	-	-	-
Isophorone (UG/KG)	-	-	-	-	-
Naphthalene (UG/KG)	-	-	-	-	-
Nitrobenzene (UG/KG)	-	-	-	-	-
n-Nitrosodi-n-propylamine (UG/KG)	-	-	-	-	-
n-Nitrosodiphenylamine (UG/KG)	-	-	-	-	-
Pentachlorophenol (UG/KG)	-	-	-	-	-
Phenanthrene (UG/KG)	-	-	-	-	-
Phenol (UG/KG)	-	-	-	-	-
Pyrene (UG/KG)	-	-	-	-	-

Locations:	68-SS3-SW3 (FD)
Field Sample ID:	068SW-0014-0001-SW
Sample Begin Depth:	0.00
Sample End Depth:	0.00
Sample Date:	11/08/2012
Semivolatile Organic Compounds by Capillary GC/MS	
Diethyl Phthalate (UG/KG)	-
Dimethyl Phthalate (UG/KG)	-
Di-n-Butyl Phthalate (UG/KG)	-
Di-n-Octylphthalate (UG/KG)	-
Fluoranthene (UG/KG)	-
Fluorene (UG/KG)	-
Hexachlorobenzene (UG/KG)	-
Hexachlorobutadiene (UG/KG)	-
Hexachlorocyclopentadiene (UG/KG)	-
Hexachloroethane (UG/KG)	-
Indeno(1,2,3-c,d)pyrene (UG/KG)	-
Isophorone (UG/KG)	-
Naphthalene (UG/KG)	-
Nitrobenzene (UG/KG)	-
n-Nitrosodi-n-propylamine (UG/KG)	-
n-Nitrosodiphenylamine (UG/KG)	-
Pentachlorophenol (UG/KG)	-
Phenanthrene (UG/KG)	-
Phenol (UG/KG)	-
Pyrene (UG/KG)	-

Locations:	68-2527-DU2-SS	68-2828-DU2-SS	68-FBDD-DU3-SS	68-FBDD-DU3-SS (FD)	68-FCP-DU1-SS
Field Sample ID:	068SS-0007M-0001-SO	068SS-0002M-0001-SO	068SS-0003M-0001-SO	068SS-0004M-0001-SO	068SS-0006M-0001-SO
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/06/2012	11/06/2012	11/06/2012	11/06/2012	11/06/2012
Semivolatile Organic Compounds by Capillary GC/MS					
1,2,4-Trichlorobenzene (UG/KG)	-	-	-	-	-
1,2-Dichlorobenzene (UG/KG)	-	-	-	-	-
1,3-Dichlorobenzene (UG/KG)	-	-	-	-	-
1,4-Dichlorobenzene (UG/KG)	-	-	-	-	-
2,4,5-Trichlorophenol (UG/KG)	-	-	-	-	-
2,4,6-Trichlorophenol (UG/KG)	-	-	-	-	-
2,4-Dichlorophenol (UG/KG)	-	-	-	-	-
2,4-Dimethylphenol (UG/KG)	-	-	-	-	-
2,4-Dinitrophenol (UG/KG)	-	-	-	-	-
2,4-Dinitrotoluene (UG/KG)	-	-	-	-	-
2,6-Dinitrotoluene (UG/KG)	-	-	-	-	-
2-Chloronaphthalene (UG/KG)	-	-	-	-	-
2-Chlorophenol (UG/KG)	-	-	-	-	-
2-Methylnaphthalene (UG/KG)	-	-	-	-	-
2-Methylphenol (o-Cresol) (UG/KG)	-	-	-	-	-
2-Nitroaniline (UG/KG)	-	-	-	-	-
2-Nitrophenol (UG/KG)	-	-	-	-	-
3,3'-Dichlorobenzidine (UG/KG)	-	-	-	-	-
3-Nitroaniline (UG/KG)	-	-	-	-	-
4,6-Dinitro-2-Methylphenol (UG/KG)	-	-	-	-	-
4-Bromophenyl phenyl ether (UG/KG)	-	-	-	-	-
4-Chloro-3-Methylphenol (UG/KG)	-	-	-	-	-
4-Chloroaniline (UG/KG)	-	-	-	-	-

Locations:	68-FTP-DU1-SS	68-RRDD-DU3-SS	68-SS3-DU1-SS	68-SS3-SD	68-SS3-SD (FD)
Field Sample ID:	068SS-0001M-0001-SO	068SS-0008M-0001-SO	068SS-0005M-0001-SO	068SD-0009-0001-SO	068SD-00010-0001-SO
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/06/2012	11/06/2012	11/06/2012	11/08/2012	11/08/2012
Semivolatile Organic Compounds by Capillary GC/MS					
1,2,4-Trichlorobenzene (UG/KG)	-	-	-	49.0 U	50.0 U
1,2-Dichlorobenzene (UG/KG)	-	-	-	49.0 U	50.0 U
1,3-Dichlorobenzene (UG/KG)	-	-	-	49.0 U	50.0 U
1,4-Dichlorobenzene (UG/KG)	-	-	-	49.0 U	**20.0 J**
2,4,5-Trichlorophenol (UG/KG)	-	-	-	150 U	150 U
2,4,6-Trichlorophenol (UG/KG)	-	-	-	150 U	150 U
2,4-Dichlorophenol (UG/KG)	-	-	-	150 U	150 U
2,4-Dimethylphenol (UG/KG)	-	-	-	150 U	150 U
2,4-Dinitrophenol (UG/KG)	-	-	-	330 UJ	330 UJ
2,4-Dinitrotoluene (UG/KG)	-	-	-	200 U	200 U
2,6-Dinitrotoluene (UG/KG)	-	-	-	200 U	200 U
2-Chloronaphthalene (UG/KG)	-	-	-	49.0 U	50.0 U
2-Chlorophenol (UG/KG)	-	-	-	49.0 U	50.0 U
2-Methylnaphthalene (UG/KG)	-	-	-	**13.0**	**14.0**
2-Methylphenol (o-Cresol) (UG/KG)	-	-	-	200 U	200 U
2-Nitroaniline (UG/KG)	-	-	-	200 U	200 U
2-Nitrophenol (UG/KG)	-	-	-	49.0 U	50.0 U
3,3'-Dichlorobenzidine (UG/KG)	-	-	-	99.0 R	100 U
3-Nitroaniline (UG/KG)	-	-	-	200 R	200 U
4,6-Dinitro-2-Methylphenol (UG/KG)	-	-	-	150 U	150 U
4-Bromophenyl phenyl ether (UG/KG)	-	-	-	49.0 U	50.0 U
4-Chloro-3-Methylphenol (UG/KG)	-	-	-	150 U	150 U
4-Chloroaniline (UG/KG)	-	-	-	150 R	150 U

Locations:	68-SS3-SD2	68-SS3-SD3	68-SS3-SW	68-SS3-SW2	68-SS3-SW3
Field Sample ID:	068SD-00011-0001-SO	068SD-00012-0001-SO	068SW-0013-0001-SW	068SW-0015-0001-SW	068SW-0016-0001-SW
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/08/2012	11/08/2012	11/08/2012	11/08/2012	11/08/2012
Semivolatile Organic Compounds by Capillary GC/MS					
1,2,4-Trichlorobenzene (UG/KG)	51.0 U	50.0 U	-	-	-
1,2-Dichlorobenzene (UG/KG)	51.0 U	50.0 U	-	-	-
1,3-Dichlorobenzene (UG/KG)	51.0 U	50.0 U	-	-	-
1,4-Dichlorobenzene (UG/KG)	51.0 U	50.0 U	-	-	-
2,4,5-Trichlorophenol (UG/KG)	150 U	150 U	-	-	-
2,4,6-Trichlorophenol (UG/KG)	150 U	150 U	-	-	-
2,4-Dichlorophenol (UG/KG)	150 U	150 U	-	-	-
2,4-Dimethylphenol (UG/KG)	150 U	150 U	-	-	-
2,4-Dinitrophenol (UG/KG)	340 UJ	330 UJ	-	-	-
2,4-Dinitrotoluene (UG/KG)	200 U	200 U	-	-	-
2,6-Dinitrotoluene (UG/KG)	200 U	200 U	-	-	-
2-Chloronaphthalene (UG/KG)	51.0 U	50.0 U	-	-	-
2-Chlorophenol (UG/KG)	51.0 U	50.0 U	-	-	-
2-Methylnaphthalene (UG/KG)	**12.0**	**7.7**	-	-	-
2-Methylphenol (o-Cresol) (UG/KG)	200 U	200 U	-	-	-
2-Nitroaniline (UG/KG)	200 U	200 U	-	-	-
2-Nitrophenol (UG/KG)	51.0 U	50.0 U	-	-	-
3,3'-Dichlorobenzidine (UG/KG)	100 U	100 U	-	-	-
3-Nitroaniline (UG/KG)	200 U	200 U	-	-	-
4,6-Dinitro-2-Methylphenol (UG/KG)	150 U	150 U	-	-	-
4-Bromophenyl phenyl ether (UG/KG)	51.0 U	50.0 U	-	-	-
4-Chloro-3-Methylphenol (UG/KG)	150 U	150 U	-	-	-
4-Chloroaniline (UG/KG)	150 U	150 U	-	-	-

Locations:	68-SS3-SW3 (FD)
Field Sample ID:	068SW-0014-0001-SW
Sample Begin Depth:	0.00
Sample End Depth:	0.00
Sample Date:	11/08/2012
Semivolatile Organic Compounds by Capillary GC/MS	
1,2,4-Trichlorobenzene (UG/KG)	-
1,2-Dichlorobenzene (UG/KG)	-
1,3-Dichlorobenzene (UG/KG)	-
1,4-Dichlorobenzene (UG/KG)	-
2,4,5-Trichlorophenol (UG/KG)	-
2,4,6-Trichlorophenol (UG/KG)	-
2,4-Dichlorophenol (UG/KG)	-
2,4-Dimethylphenol (UG/KG)	-
2,4-Dinitrophenol (UG/KG)	-
2,4-Dinitrotoluene (UG/KG)	-
2,6-Dinitrotoluene (UG/KG)	-
2-Chloronaphthalene (UG/KG)	-
2-Chlorophenol (UG/KG)	-
2-Methylnaphthalene (UG/KG)	-
2-Methylphenol (o-Cresol) (UG/KG)	-
2-Nitroaniline (UG/KG)	-
2-Nitrophenol (UG/KG)	-
3,3'-Dichlorobenzidine (UG/KG)	-
3-Nitroaniline (UG/KG)	-
4,6-Dinitro-2-Methylphenol (UG/KG)	-
4-Bromophenyl phenyl ether (UG/KG)	-
4-Chloro-3-Methylphenol (UG/KG)	-
4-Chloroaniline (UG/KG)	-

Locations:	68-2527-DU2-SS	68-2828-DU2-SS	68-FBDD-DU3-SS	68-FBDD-DU3-SS (FD)	68-FCP-DU1-SS
Field Sample ID:	068SS-0007M-0001-SO	068SS-0002M-0001-SO	068SS-0003M-0001-SO	068SS-0004M-0001-SO	068SS-0006M-0001-SO
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/06/2012	11/06/2012	11/06/2012	11/06/2012	11/06/2012
Semivolatile Organic Compounds by Capillary GC/MS					
4-Chlorophenyl Phenyl Ether (UG/KG)	-	-	-	-	-
4-Nitroaniline (UG/KG)	-	-	-	-	-
4-Nitrophenol (UG/KG)	-	-	-	-	-
Acenaphthene (UG/KG)	-	-	-	-	-
Acenaphthylene (UG/KG)	-	-	-	-	-
Anthracene (UG/KG)	-	-	-	-	-
Benzo(a)anthracene (UG/KG)	-	-	-	-	-
Benzo(a)pyrene (UG/KG)	-	-	-	-	-
Benzo(b)fluoranthene (UG/KG)	-	-	-	-	-
Benzo(g,h,i)perylene (UG/KG)	-	-	-	-	-
Benzo(k)fluoranthene (UG/KG)	-	-	-	-	-
Benzoic acid (UG/KG)	-	-	-	-	-
Benzyl alcohol (UG/KG)	-	-	-	-	-
Benzyl butyl phthalate (UG/KG)	-	-	-	-	-
bis(2-Chloroethoxy) Methane (UG/KG)	-	-	-	-	-
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether) (UG/KG)	-	-	-	-	-
bis(2-Chloroisopropyl) Ether (UG/KG)	-	-	-	-	-
bis(2-Ethylhexyl) Phthalate (UG/KG)	-	-	-	-	-
Carbazole (UG/KG)	-	-	-	-	-
Chrysene (UG/KG)	-	-	-	-	-
Cresols, m & p (UG/KG)	-	-	-	-	-
Dibenz(a,h)anthracene (UG/KG)	-	-	-	-	-
Dibenzofuran (UG/KG)	-	-	-	-	-

Locations:	68-FTP-DU1-SS	68-RRDD-DU3-SS	68-SS3-DU1-SS	68-SS3-SD	68-SS3-SD (FD)
Field Sample ID:	068SS-0001M-0001-SO	068SS-0008M-0001-SO	068SS-0005M-0001-SO	068SD-0009-0001-SO	068SD-00010-0001-SO
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/06/2012	11/06/2012	11/06/2012	11/08/2012	11/08/2012
Semivolatile Organic Compounds by Capillary GC/MS					
4-Chlorophenyl Phenyl Ether (UG/KG)	-	-	-	49.0 U	50.0 U
4-Nitroaniline (UG/KG)	-	-	-	200 UJ	200 U
4-Nitrophenol (UG/KG)	-	-	-	330 U	330 U
Acenaphthene (UG/KG)	-	-	-	6.6 U	6.7 U
Acenaphthylene (UG/KG)	-	-	-	6.6 U	6.7 U
Anthracene (UG/KG)	-	-	-	**3.3 J**	**3.4 J**
Benzo(a)anthracene (UG/KG)	-	-	-	**16.0**	**18.0**
Benzo(a)pyrene (UG/KG)	-	-	-	**26.0**	**27.0**
Benzo(b)fluoranthene (UG/KG)	-	-	-	**46.0**	**51.0**
Benzo(g,h,i)perylene (UG/KG)	-	-	-	**16.0 J**	**16.0 J**
Benzo(k)fluoranthene (UG/KG)	-	-	-	**12.0**	**11.0**
Benzoic acid (UG/KG)	-	-	-	650 R	660 R
Benzyl alcohol (UG/KG)	-	-	-	330 U	330 U
Benzyl butyl phthalate (UG/KG)	-	-	-	49.0 U	50.0 U
bis(2-Chloroethoxy) Methane (UG/KG)	-	-	-	99.0 U	100 U
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether) (UG/KG)	-	-	-	99.0 U	100 U
bis(2-Chloroisopropyl) Ether (UG/KG)	-	-	-	99.0 U	100 U
bis(2-Ethylhexyl) Phthalate (UG/KG)	-	-	-	49.0 U	50.0 U
Carbazole (UG/KG)	-	-	-	49.0 U	50.0 U
Chrysene (UG/KG)	-	-	-	**28.0**	**36.0**
Cresols, m & p (UG/KG)	-	-	-	400 U	400 U
Dibenz(a,h)anthracene (UG/KG)	-	-	-	6.6 UJ	6.7 UJ
Dibenzofuran (UG/KG)	-	-	-	49.0 U	**4.7 J**

Locations:	68-SS3-SD2	68-SS3-SD3	68-SS3-SW	68-SS3-SW2	68-SS3-SW3
Field Sample ID:	068SD-00011-0001-SO	068SD-00012-0001-SO	068SW-0013-0001-SW	068SW-0015-0001-SW	068SW-0016-0001-SW
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/08/2012	11/08/2012	11/08/2012	11/08/2012	11/08/2012
Semivolatile Organic Compounds by Capillary GC/MS					
4-Chlorophenyl Phenyl Ether (UG/KG)	51.0 U	50.0 U	-	-	-
4-Nitroaniline (UG/KG)	200 U	200 U	-	-	-
4-Nitrophenol (UG/KG)	340 U	330 U	-	-	-
Acenaphthene (UG/KG)	6.8 U	6.7 U	-	-	-
Acenaphthylene (UG/KG)	6.8 U	6.7 U	-	-	-
Anthracene (UG/KG)	6.8 U	**4.9 J**	-	-	-
Benzo(a)anthracene (UG/KG)	**12.0**	**12.0**	-	-	-
Benzo(a)pyrene (UG/KG)	**22.0**	**20.0**	-	-	-
Benzo(b)fluoranthene (UG/KG)	**31.0**	**25.0**	-	-	-
Benzo(g,h,i)perylene (UG/KG)	6.8 UJ	**5.7 J**	-	-	-
Benzo(k)fluoranthene (UG/KG)	**8.0**	**6.4 J**	-	-	-
Benzoic acid (UG/KG)	670 R	660 R	-	-	-
Benzyl alcohol (UG/KG)	340 U	330 U	-	-	-
Benzyl butyl phthalate (UG/KG)	51.0 U	50.0 U	-	-	-
bis(2-Chloroethoxy) Methane (UG/KG)	100 U	100 U	-	-	-
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether) (UG/KG)	100 U	100 U	-	-	-
bis(2-Chloroisopropyl) Ether (UG/KG)	100 U	100 U	-	-	-
bis(2-Ethylhexyl) Phthalate (UG/KG)	51.0 U	50.0 U	-	-	-
Carbazole (UG/KG)	51.0 U	50.0 U	-	-	-
Chrysene (UG/KG)	**17.0**	**17.0**	-	-	-
Cresols, m & p (UG/KG)	410 U	400 U	-	-	-
Dibenz(a,h)anthracene (UG/KG)	6.8 UJ	6.7 UJ	-	-	-
Dibenzofuran (UG/KG)	51.0 U	50.0 U	-	-	-

Locations:	68-SS3-SW3 (FD)
Field Sample ID:	068SW-0014-0001-SW
Sample Begin Depth:	0.00
Sample End Depth:	0.00
Sample Date:	11/08/2012
Semivolatile Organic Compounds by Capillary GC/MS	
4-Chlorophenyl Phenyl Ether (UG/KG)	-
4-Nitroaniline (UG/KG)	-
4-Nitrophenol (UG/KG)	-
Acenaphthene (UG/KG)	-
Acenaphthylene (UG/KG)	-
Anthracene (UG/KG)	-
Benzo(a)anthracene (UG/KG)	-
Benzo(a)pyrene (UG/KG)	-
Benzo(b)fluoranthene (UG/KG)	-
Benzo(g,h,i)perylene (UG/KG)	-
Benzo(k)fluoranthene (UG/KG)	-
Benzoic acid (UG/KG)	-
Benzyl alcohol (UG/KG)	-
Benzyl butyl phthalate (UG/KG)	-
bis(2-Chloroethoxy) Methane (UG/KG)	-
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether) (UG/KG)	-
bis(2-Chloroisopropyl) Ether (UG/KG)	-
bis(2-Ethylhexyl) Phthalate (UG/KG)	-
Carbazole (UG/KG)	-
Chrysene (UG/KG)	-
Cresols, m & p (UG/KG)	-
Dibenz(a,h)anthracene (UG/KG)	-
Dibenzofuran (UG/KG)	-

Locations:	68-2527-DU2-SS	68-2828-DU2-SS	68-FBDD-DU3-SS	68-FBDD-DU3-SS (FD)	68-FCP-DU1-SS
Field Sample ID:	068SS-0007M-0001-SO	068SS-0002M-0001-SO	068SS-0003M-0001-SO	068SS-0004M-0001-SO	068SS-0006M-0001-SO
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/06/2012	11/06/2012	11/06/2012	11/06/2012	11/06/2012
Semivolatile Organic Compounds by Capillary GC/MS					
Diethyl Phthalate (UG/KG)	-	-	-	-	-
Dimethyl Phthalate (UG/KG)	-	-	-	-	-
Di-n-Butyl Phthalate (UG/KG)	-	-	-	-	-
Di-n-Octylphthalate (UG/KG)	-	-	-	-	-
Fluoranthene (UG/KG)	-	-	-	-	-
Fluorene (UG/KG)	-	-	-	-	-
Hexachlorobenzene (UG/KG)	-	-	-	-	-
Hexachlorobutadiene (UG/KG)	-	-	-	-	-
Hexachlorocyclopentadiene (UG/KG)	-	-	-	-	-
Hexachloroethane (UG/KG)	-	-	-	-	-
Indeno(1,2,3-c,d)pyrene (UG/KG)	-	-	-	-	-
Isophorone (UG/KG)	-	-	-	-	-
Naphthalene (UG/KG)	-	-	-	-	-
Nitrobenzene (UG/KG)	-	-	-	-	-
n-Nitrosodi-n-propylamine (UG/KG)	-	-	-	-	-
n-Nitrosodiphenylamine (UG/KG)	-	-	-	-	-
Pentachlorophenol (UG/KG)	-	-	-	-	-
Phenanthrene (UG/KG)	-	-	-	-	-
Phenol (UG/KG)	-	-	-	-	-
Pyrene (UG/KG)	-	-	-	-	-

Locations:	68-FTP-DU1-SS	68-RRDD-DU3-SS	68-SS3-DU1-SS	68-SS3-SD	68-SS3-SD (FD)
Field Sample ID:	068SS-0001M-0001-SO	068SS-0008M-0001-SO	068SS-0005M-0001-SO	068SD-0009-0001-SO	068SD-00010-0001-SO
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/06/2012	11/06/2012	11/06/2012	11/08/2012	11/08/2012
Semivolatile Organic Compounds by Capillary GC/MS					
Diethyl Phthalate (UG/KG)	-	-	-	49.0 U	50.0 U
Dimethyl Phthalate (UG/KG)	-	-	-	49.0 U	50.0 U
Di-n-Butyl Phthalate (UG/KG)	-	-	-	49.0 U	50.0 U
Di-n-Octylphthalate (UG/KG)	-	-	-	49.0 U	50.0 U
Fluoranthene (UG/KG)	-	-	-	**38.0**	**50.0**
Fluorene (UG/KG)	-	-	-	6.6 U	**3.8 J**
Hexachlorobenzene (UG/KG)	-	-	-	6.6 U	6.7 U
Hexachlorobutadiene (UG/KG)	-	-	-	49.0 U	50.0 U
Hexachlorocyclopentadiene (UG/KG)	-	-	-	330 U	330 U
Hexachloroethane (UG/KG)	-	-	-	49.0 U	50.0 U
Indeno(1,2,3-c,d)pyrene (UG/KG)	-	-	-	**17.0 J**	**20.0 J**
Isophorone (UG/KG)	-	-	-	49.0 U	**14.0 J**
Naphthalene (UG/KG)	-	-	-	**11.0**	**15.0**
Nitrobenzene (UG/KG)	-	-	-	99.0 U	100 U
n-Nitrosodi-n-propylamine (UG/KG)	-	-	-	49.0 U	50.0 U
n-Nitrosodiphenylamine (UG/KG)	-	-	-	49.0 U	50.0 U
Pentachlorophenol (UG/KG)	-	-	-	150 U	150 U
Phenanthrene (UG/KG)	-	-	-	**22.0**	**25.0**
Phenol (UG/KG)	-	-	-	49.0 U	50.0 U
Pyrene (UG/KG)	-	-	-	**28.0**	**35.0**

Locations:	68-SS3-SD2	68-SS3-SD3	68-SS3-SW	68-SS3-SW2	68-SS3-SW3
Field Sample ID:	068SD-00011-0001-SO	068SD-00012-0001-SO	068SW-0013-0001-SW	068SW-0015-0001-SW	068SW-0016-0001-SW
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/08/2012	11/08/2012	11/08/2012	11/08/2012	11/08/2012
Semivolatile Organic Compounds by Capillary GC/MS					
Diethyl Phthalate (UG/KG)	51.0 U	50.0 U	-	-	-
Dimethyl Phthalate (UG/KG)	51.0 U	50.0 U	-	-	-
Di-n-Butyl Phthalate (UG/KG)	51.0 U	50.0 U	-	-	-
Di-n-Octylphthalate (UG/KG)	51.0 U	50.0 U	-	-	-
Fluoranthene (UG/KG)	**30.0**	**35.0**	-	-	-
Fluorene (UG/KG)	6.8 U	**5.8 J**	-	-	-
Hexachlorobenzene (UG/KG)	6.8 U	6.7 U	-	-	-
Hexachlorobutadiene (UG/KG)	51.0 U	50.0 U	-	-	-
Hexachlorocyclopentadiene (UG/KG)	340 U	330 U	-	-	-
Hexachloroethane (UG/KG)	51.0 U	50.0 U	-	-	-
Indeno(1,2,3-c,d)pyrene (UG/KG)	6.8 UJ	**10.0 J**	-	-	-
Isophorone (UG/KG)	51.0 U	50.0 U	-	-	-
Naphthalene (UG/KG)	**12.0**	**8.4**	-	-	-
Nitrobenzene (UG/KG)	100 U	100 U	-	-	-
n-Nitrosodi-n-propylamine (UG/KG)	51.0 U	50.0 U	-	-	-
n-Nitrosodiphenylamine (UG/KG)	51.0 U	50.0 U	-	-	-
Pentachlorophenol (UG/KG)	150 U	150 U	-	-	-
Phenanthrene (UG/KG)	**18.0**	**29.0**	-	-	-
Phenol (UG/KG)	51.0 U	50.0 U	-	-	-
Pyrene (UG/KG)	**21.0**	**24.0**	-	-	-

Locations:	68-SS3-SW3 (FD)
Field Sample ID:	068SW-0014-0001-SW
Sample Begin Depth:	0.00
Sample End Depth:	0.00
Sample Date:	11/08/2012
Semivolatile Organic Compounds by Capillary GC/MS	
Diethyl Phthalate (UG/KG)	-
Dimethyl Phthalate (UG/KG)	-
Di-n-Butyl Phthalate (UG/KG)	-
Di-n-Octylphthalate (UG/KG)	-
Fluoranthene (UG/KG)	-
Fluorene (UG/KG)	-
Hexachlorobenzene (UG/KG)	-
Hexachlorobutadiene (UG/KG)	-
Hexachlorocyclopentadiene (UG/KG)	-
Hexachloroethane (UG/KG)	-
Indeno(1,2,3-c,d)pyrene (UG/KG)	-
Isophorone (UG/KG)	-
Naphthalene (UG/KG)	-
Nitrobenzene (UG/KG)	-
n-Nitrosodi-n-propylamine (UG/KG)	-
n-Nitrosodiphenylamine (UG/KG)	-
Pentachlorophenol (UG/KG)	-
Phenanthrene (UG/KG)	-
Phenol (UG/KG)	-
Pyrene (UG/KG)	-

Locations:	68-2527-DU2-SS	68-2828-DU2-SS	68-FBDD-DU3-SS	68-FBDD-DU3-SS (FD)	68-FCP-DU1-SS
Field Sample ID:	068SS-0007M-0001-SO	068SS-0002M-0001-SO	068SS-0003M-0001-SO	068SS-0004M-0001-SO	068SS-0006M-0001-SO
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/06/2012	11/06/2012	11/06/2012	11/06/2012	11/06/2012
Semivolatile Organic Compounds by Capillary GC/MS					
1,2,4-Trichlorobenzene (UG/L)	-	-	-	-	-
1,2-Dichlorobenzene (UG/L)	-	-	-	-	-
1,3-Dichlorobenzene (UG/L)	-	-	-	-	-
1,4-Dichlorobenzene (UG/L)	-	-	-	-	-
2,4,5-Trichlorophenol (UG/L)	-	-	-	-	-
2,4,6-Trichlorophenol (UG/L)	-	-	-	-	-
2,4-Dichlorophenol (UG/L)	-	-	-	-	-
2,4-Dimethylphenol (UG/L)	-	-	-	-	-
2,4-Dinitrophenol (UG/L)	-	-	-	-	-
2,4-Dinitrotoluene (UG/L)	-	-	-	-	-
2,6-Dinitrotoluene (UG/L)	-	-	-	-	-
2-Chloronaphthalene (UG/L)	-	-	-	-	-
2-Chlorophenol (UG/L)	-	-	-	-	-
2-Methylnaphthalene (UG/L)	-	-	-	-	-
2-Methylphenol (o-Cresol) (UG/L)	-	-	-	-	-
2-Nitroaniline (UG/L)	-	-	-	-	-
2-Nitrophenol (UG/L)	-	-	-	-	-
3,3'-Dichlorobenzidine (UG/L)	-	-	-	-	-
3-Nitroaniline (UG/L)	-	-	-	-	-
4,6-Dinitro-2-Methylphenol (UG/L)	-	-	-	-	-
4-Bromophenyl phenyl ether (UG/L)	-	-	-	-	-
4-Chloro-3-Methylphenol (UG/L)	-	-	-	-	-
4-Chloroaniline (UG/L)	-	-	-	-	-

Locations:	68-FTP-DU1-SS	68-RRDD-DU3-SS	68-SS3-DU1-SS	68-SS3-SD	68-SS3-SD (FD)
Field Sample ID:	068SS-0001M-0001-SO	068SS-0008M-0001-SO	068SS-0005M-0001-SO	068SD-0009-0001-SO	068SD-00010-0001-SO
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/06/2012	11/06/2012	11/06/2012	11/08/2012	11/08/2012
Semivolatile Organic Compounds by Capillary GC/MS					
1,2,4-Trichlorobenzene (UG/L)	-	-	-	-	-
1,2-Dichlorobenzene (UG/L)	-	-	-	-	-
1,3-Dichlorobenzene (UG/L)	-	-	-	-	-
1,4-Dichlorobenzene (UG/L)	-	-	-	-	-
2,4,5-Trichlorophenol (UG/L)	-	-	-	-	-
2,4,6-Trichlorophenol (UG/L)	-	-	-	-	-
2,4-Dichlorophenol (UG/L)	-	-	-	-	-
2,4-Dimethylphenol (UG/L)	-	-	-	-	-
2,4-Dinitrophenol (UG/L)	-	-	-	-	-
2,4-Dinitrotoluene (UG/L)	-	-	-	-	-
2,6-Dinitrotoluene (UG/L)	-	-	-	-	-
2-Chloronaphthalene (UG/L)	-	-	-	-	-
2-Chlorophenol (UG/L)	-	-	-	-	-
2-Methylnaphthalene (UG/L)	-	-	-	-	-
2-Methylphenol (o-Cresol) (UG/L)	-	-	-	-	-
2-Nitroaniline (UG/L)	-	-	-	-	-
2-Nitrophenol (UG/L)	-	-	-	-	-
3,3'-Dichlorobenzidine (UG/L)	-	-	-	-	-
3-Nitroaniline (UG/L)	-	-	-	-	-
4,6-Dinitro-2-Methylphenol (UG/L)	-	-	-	-	-
4-Bromophenyl phenyl ether (UG/L)	-	-	-	-	-
4-Chloro-3-Methylphenol (UG/L)	-	-	-	-	-
4-Chloroaniline (UG/L)	-	-	-	-	-

Locations:	68-SS3-SD2	68-SS3-SD3	68-SS3-SW	68-SS3-SW2	68-SS3-SW3
Field Sample ID:	068SD-00011-0001-SO	068SD-00012-0001-SO	068SW-0013-0001-SW	068SW-0015-0001-SW	068SW-0016-0001-SW
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/08/2012	11/08/2012	11/08/2012	11/08/2012	11/08/2012
Semivolatile Organic Compounds by Capillary GC/MS					
1,2,4-Trichlorobenzene (UG/L)	-	-	0.95 U	0.95 U	0.95 U
1,2-Dichlorobenzene (UG/L)	-	-	0.95 U	0.95 U	0.95 U
1,3-Dichlorobenzene (UG/L)	-	-	0.95 U	0.95 U	0.95 U
1,4-Dichlorobenzene (UG/L)	-	-	0.95 U	0.95 U	0.95 U
2,4,5-Trichlorophenol (UG/L)	-	-	4.8 U	4.8 U	4.8 U
2,4,6-Trichlorophenol (UG/L)	-	-	4.8 U	4.8 U	4.8 U
2,4-Dichlorophenol (UG/L)	-	-	1.9 U	1.9 U	1.9 U
2,4-Dimethylphenol (UG/L)	-	-	1.9 U	1.9 U	1.9 U
2,4-Dinitrophenol (UG/L)	-	-	4.8 U	4.8 U	4.8 U
2,4-Dinitrotoluene (UG/L)	-	-	4.8 U	4.8 U	4.8 U
2,6-Dinitrotoluene (UG/L)	-	-	4.8 U	4.8 U	4.8 U
2-Chloronaphthalene (UG/L)	-	-	0.95 U	0.95 U	0.95 U
2-Chlorophenol (UG/L)	-	-	0.95 U	0.95 U	0.95 U
2-Methylnaphthalene (UG/L)	-	-	0.19 U	0.19 U	0.19 U
2-Methylphenol (o-Cresol) (UG/L)	-	-	0.95 U	0.95 U	0.95 U
2-Nitroaniline (UG/L)	-	-	1.9 U	1.9 U	1.9 U
2-Nitrophenol (UG/L)	-	-	1.9 U	1.9 U	1.9 U
3,3'-Dichlorobenzidine (UG/L)	-	-	4.8 U	4.8 U	4.8 R
3-Nitroaniline (UG/L)	-	-	1.9 U	1.9 U	1.9 U
4,6-Dinitro-2-Methylphenol (UG/L)	-	-	4.8 U	4.8 U	4.8 U
4-Bromophenyl phenyl ether (UG/L)	-	-	1.9 U	1.9 U	1.9 U
4-Chloro-3-Methylphenol (UG/L)	-	-	1.9 U	1.9 U	1.9 U
4-Chloroaniline (UG/L)	-	-	1.9 U	1.9 U	1.9 U

Locations:	68-SS3-SW3 (FD)
Field Sample ID:	068SW-0014-0001-SW
Sample Begin Depth:	0.00
Sample End Depth:	0.00
Sample Date:	11/08/2012
Semivolatile Organic Compounds by Capillary GC/MS	
1,2,4-Trichlorobenzene (UG/L)	0.95 U
1,2-Dichlorobenzene (UG/L)	0.95 U
1,3-Dichlorobenzene (UG/L)	0.95 U
1,4-Dichlorobenzene (UG/L)	0.95 U
2,4,5-Trichlorophenol (UG/L)	4.8 U
2,4,6-Trichlorophenol (UG/L)	4.8 U
2,4-Dichlorophenol (UG/L)	1.9 U
2,4-Dimethylphenol (UG/L)	1.9 U
2,4-Dinitrophenol (UG/L)	4.8 U
2,4-Dinitrotoluene (UG/L)	4.8 U
2,6-Dinitrotoluene (UG/L)	4.8 U
2-Chloronaphthalene (UG/L)	0.95 U
2-Chlorophenol (UG/L)	0.95 U
2-Methylnaphthalene (UG/L)	0.19 U
2-Methylphenol (o-Cresol) (UG/L)	0.95 U
2-Nitroaniline (UG/L)	1.9 U
2-Nitrophenol (UG/L)	1.9 U
3,3'-Dichlorobenzidine (UG/L)	4.8 U
3-Nitroaniline (UG/L)	1.9 U
4,6-Dinitro-2-Methylphenol (UG/L)	4.8 U
4-Bromophenyl phenyl ether (UG/L)	1.9 U
4-Chloro-3-Methylphenol (UG/L)	1.9 U
4-Chloroaniline (UG/L)	1.9 U

Locations:	68-2527-DU2-SS	68-2828-DU2-SS	68-FBDD-DU3-SS	68-FBDD-DU3-SS (FD)	68-FCP-DU1-SS
Field Sample ID:	068SS-0007M-0001-SO	068SS-0002M-0001-SO	068SS-0003M-0001-SO	068SS-0004M-0001-SO	068SS-0006M-0001-SO
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/06/2012	11/06/2012	11/06/2012	11/06/2012	11/06/2012
Semivolatile Organic Compounds by Capillary GC/MS					
4-Chlorophenyl Phenyl Ether (UG/L)	-	-	-	-	-
4-Nitroaniline (UG/L)	-	-	-	-	-
4-Nitrophenol (UG/L)	-	-	-	-	-
Acenaphthene (UG/L)	-	-	-	-	-
Acenaphthylene (UG/L)	-	-	-	-	-
Anthracene (UG/L)	-	-	-	-	-
Benzo(a)anthracene (UG/L)	-	-	-	-	-
Benzo(a)pyrene (UG/L)	-	-	-	-	-
Benzo(b)fluoranthene (UG/L)	-	-	-	-	-
Benzo(g,h,i)perylene (UG/L)	-	-	-	-	-
Benzo(k)fluoranthene (UG/L)	-	-	-	-	-
Benzoic acid (UG/L)	-	-	-	-	-
Benzyl alcohol (UG/L)	-	-	-	-	-
Benzyl butyl phthalate (UG/L)	-	-	-	-	-
bis(2-Chloroethoxy) Methane (UG/L)	-	-	-	-	-
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether) (UG/L)	-	-	-	-	-
bis(2-Chloroisopropyl) Ether (UG/L)	-	-	-	-	-
bis(2-Ethylhexyl) Phthalate (UG/L)	-	-	-	-	-
Carbazole (UG/L)	-	-	-	-	-
Chrysene (UG/L)	-	-	-	-	-
Cresols, m & p (UG/L)	-	-	-	-	-
Dibenz(a,h)anthracene (UG/L)	-	-	-	-	-
Dibenzofuran (UG/L)	-	-	-	-	-

Locations:	68-FTP-DU1-SS	68-RRDD-DU3-SS	68-SS3-DU1-SS	68-SS3-SD	68-SS3-SD (FD)
Field Sample ID:	068SS-0001M-0001-SO	068SS-0008M-0001-SO	068SS-0005M-0001-SO	068SD-0009-0001-SO	068SD-00010-0001-SO
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/06/2012	11/06/2012	11/06/2012	11/08/2012	11/08/2012
Semivolatile Organic Compounds by Capillary GC/MS					
4-Chlorophenyl Phenyl Ether (UG/L)	-	-	-	-	-
4-Nitroaniline (UG/L)	-	-	-	-	-
4-Nitrophenol (UG/L)	-	-	-	-	-
Acenaphthene (UG/L)	-	-	-	-	-
Acenaphthylene (UG/L)	-	-	-	-	-
Anthracene (UG/L)	-	-	-	-	-
Benzo(a)anthracene (UG/L)	-	-	-	-	-
Benzo(a)pyrene (UG/L)	-	-	-	-	-
Benzo(b)fluoranthene (UG/L)	-	-	-	-	-
Benzo(g,h,i)perylene (UG/L)	-	-	-	-	-
Benzo(k)fluoranthene (UG/L)	-	-	-	-	-
Benzoic acid (UG/L)	-	-	-	-	-
Benzyl alcohol (UG/L)	-	-	-	-	-
Benzyl butyl phthalate (UG/L)	-	-	-	-	-
bis(2-Chloroethoxy) Methane (UG/L)	-	-	-	-	-
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether) (UG/L)	-	-	-	-	-
bis(2-Chloroisopropyl) Ether (UG/L)	-	-	-	-	-
bis(2-Ethylhexyl) Phthalate (UG/L)	-	-	-	-	-
Carbazole (UG/L)	-	-	-	-	-
Chrysene (UG/L)	-	-	-	-	-
Cresols, m & p (UG/L)	-	-	-	-	-
Dibenz(a,h)anthracene (UG/L)	-	-	-	-	-
Dibenzofuran (UG/L)	-	-	-	-	-

Locations:	68-SS3-SD2	68-SS3-SD3	68-SS3-SW	68-SS3-SW2	68-SS3-SW3
Field Sample ID:	068SD-00011-0001-SO	068SD-00012-0001-SO	068SW-0013-0001-SW	068SW-0015-0001-SW	068SW-0016-0001-SW
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/08/2012	11/08/2012	11/08/2012	11/08/2012	11/08/2012
Semivolatile Organic Compounds by Capillary GC/MS					
4-Chlorophenyl Phenyl Ether (UG/L)	-	-	1.9 U	1.9 U	1.9 U
4-Nitroaniline (UG/L)	-	-	1.9 U	1.9 U	1.9 U
4-Nitrophenol (UG/L)	-	-	4.8 U	4.8 U	4.8 U
Acenaphthene (UG/L)	-	-	0.19 U	0.19 U	0.19 U
Acenaphthylene (UG/L)	-	-	0.19 U	0.19 U	0.19 U
Anthracene (UG/L)	-	-	0.19 U	0.19 U	0.19 U
Benzo(a)anthracene (UG/L)	-	-	0.19 U	0.19 U	0.19 U
Benzo(a)pyrene (UG/L)	-	-	0.19 U	0.19 U	0.19 UJ
Benzo(b)fluoranthene (UG/L)	-	-	0.19 U	0.19 U	0.19 U
Benzo(g,h,i)perylene (UG/L)	-	-	0.19 U	0.19 U	0.19 U
Benzo(k)fluoranthene (UG/L)	-	-	0.19 U	0.19 U	0.19 U
Benzoic acid (UG/L)	-	-	24.0 U	24.0 U	24.0 U
Benzyl alcohol (UG/L)	-	-	4.8 U	4.8 U	4.8 U
Benzyl butyl phthalate (UG/L)	-	-	0.95 U	0.95 U	0.95 U
bis(2-Chloroethoxy) Methane (UG/L)	-	-	0.95 U	0.95 U	0.95 U
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether) (UG/L)	-	-	0.95 U	0.95 U	0.95 U
bis(2-Chloroisopropyl) Ether (UG/L)	-	-	0.95 U	0.95 U	0.95 U
bis(2-Ethylhexyl) Phthalate (UG/L)	-	-	**23.0**	**1.7 J**	1.9 U
Carbazole (UG/L)	-	-	0.95 U	0.95 U	0.95 U
Chrysene (UG/L)	-	-	0.19 U	0.19 U	0.19 U
Cresols, m & p (UG/L)	-	-	1.9 U	1.9 U	1.9 U
Dibenz(a,h)anthracene (UG/L)	-	-	0.19 U	0.19 U	0.19 U
Dibenzofuran (UG/L)	-	-	0.95 U	0.95 U	0.95 U

Locations:	68-SS3-SW3 (FD)
Field Sample ID:	068SW-0014-0001-SW
Sample Begin Depth:	0.00
Sample End Depth:	0.00
Sample Date:	11/08/2012
Semivolatile Organic Compounds by Capillary GC/MS	
4-Chlorophenyl Phenyl Ether (UG/L)	1.9 U
4-Nitroaniline (UG/L)	1.9 U
4-Nitrophenol (UG/L)	4.8 U
Acenaphthene (UG/L)	0.19 U
Acenaphthylene (UG/L)	0.19 U
Anthracene (UG/L)	0.19 U
Benzo(a)anthracene (UG/L)	0.19 U
Benzo(a)pyrene (UG/L)	0.19 U
Benzo(b)fluoranthene (UG/L)	0.19 U
Benzo(g,h,i)perylene (UG/L)	0.19 U
Benzo(k)fluoranthene (UG/L)	0.19 U
Benzoic acid (UG/L)	24.0 U
Benzyl alcohol (UG/L)	4.8 U
Benzyl butyl phthalate (UG/L)	0.95 U
bis(2-Chloroethoxy) Methane (UG/L)	0.95 U
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether) (UG/L)	0.95 U
bis(2-Chloroisopropyl) Ether (UG/L)	0.95 U
bis(2-Ethylhexyl) Phthalate (UG/L)	**2.8**
Carbazole (UG/L)	0.95 U
Chrysene (UG/L)	0.19 U
Cresols, m & p (UG/L)	1.9 U
Dibenz(a,h)anthracene (UG/L)	0.19 U
Dibenzofuran (UG/L)	0.95 U

Locations:	68-2527-DU2-SS	68-2828-DU2-SS	68-FBDD-DU3-SS	68-FBDD-DU3-SS (FD)	68-FCP-DU1-SS
Field Sample ID:	068SS-0007M-0001-SO	068SS-0002M-0001-SO	068SS-0003M-0001-SO	068SS-0004M-0001-SO	068SS-0006M-0001-SO
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/06/2012	11/06/2012	11/06/2012	11/06/2012	11/06/2012
Semivolatile Organic Compounds by Capillary GC/MS					
Diethyl Phthalate (UG/L)	-	-	-	-	-
Dimethyl Phthalate (UG/L)	-	-	-	-	-
Di-n-Butyl Phthalate (UG/L)	-	-	-	-	-
Di-n-Octylphthalate (UG/L)	-	-	-	-	-
Fluoranthene (UG/L)	-	-	-	-	-
Fluorene (UG/L)	-	-	-	-	-
Hexachlorobenzene (UG/L)	-	-	-	-	-
Hexachlorobutadiene (UG/L)	-	-	-	-	-
Hexachlorocyclopentadiene (UG/L)	-	-	-	-	-
Hexachloroethane (UG/L)	-	-	-	-	-
Indeno(1,2,3-c,d)pyrene (UG/L)	-	-	-	-	-
Isophorone (UG/L)	-	-	-	-	-
Naphthalene (UG/L)	-	-	-	-	-
Nitrobenzene (UG/L)	-	-	-	-	-
n-Nitrosodi-n-propylamine (UG/L)	-	-	-	-	-
n-Nitrosodiphenylamine (UG/L)	-	-	-	-	-
Pentachlorophenol (UG/L)	-	-	-	-	-
Phenanthrene (UG/L)	-	-	-	-	-
Phenol (UG/L)	-	-	-	-	-
Pyrene (UG/L)	-	-	-	-	-

Locations:	68-FTP-DU1-SS	68-RRDD-DU3-SS	68-SS3-DU1-SS	68-SS3-SD	68-SS3-SD (FD)
Field Sample ID:	068SS-0001M-0001-SO	068SS-0008M-0001-SO	068SS-0005M-0001-SO	068SD-0009-0001-SO	068SD-00010-0001-SO
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/06/2012	11/06/2012	11/06/2012	11/08/2012	11/08/2012
Semivolatile Organic Compounds by Capillary GC/MS					
Diethyl Phthalate (UG/L)	-	-	-	-	-
Dimethyl Phthalate (UG/L)	-	-	-	-	-
Di-n-Butyl Phthalate (UG/L)	-	-	-	-	-
Di-n-Octylphthalate (UG/L)	-	-	-	-	-
Fluoranthene (UG/L)	-	-	-	-	-
Fluorene (UG/L)	-	-	-	-	-
Hexachlorobenzene (UG/L)	-	-	-	-	-
Hexachlorobutadiene (UG/L)	-	-	-	-	-
Hexachlorocyclopentadiene (UG/L)	-	-	-	-	-
Hexachloroethane (UG/L)	-	-	-	-	-
Indeno(1,2,3-c,d)pyrene (UG/L)	-	-	-	-	-
Isophorone (UG/L)	-	-	-	-	-
Naphthalene (UG/L)	-	-	-	-	-
Nitrobenzene (UG/L)	-	-	-	-	-
n-Nitrosodi-n-propylamine (UG/L)	-	-	-	-	-
n-Nitrosodiphenylamine (UG/L)	-	-	-	-	-
Pentachlorophenol (UG/L)	-	-	-	-	-
Phenanthrene (UG/L)	-	-	-	-	-
Phenol (UG/L)	-	-	-	-	-
Pyrene (UG/L)	-	-	-	-	-

Locations:	68-SS3-SD2	68-SS3-SD3	68-SS3-SW	68-SS3-SW2	68-SS3-SW3
Field Sample ID:	068SD-00011-0001-SO	068SD-00012-0001-SO	068SW-0013-0001-SW	068SW-0015-0001-SW	068SW-0016-0001-SW
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/08/2012	11/08/2012	11/08/2012	11/08/2012	11/08/2012
Semivolatile Organic Compounds by Capillary GC/MS					
Diethyl Phthalate (UG/L)	-	-	0.95 U	0.95 U	0.95 U
Dimethyl Phthalate (UG/L)	-	-	0.95 U	0.95 U	0.95 U
Di-n-Butyl Phthalate (UG/L)	-	-	0.95 U	0.95 U	0.95 U
Di-n-Octylphthalate (UG/L)	-	-	0.95 U	0.95 U	0.95 U
Fluoranthene (UG/L)	-	-	0.19 U	0.19 U	0.19 U
Fluorene (UG/L)	-	-	0.19 U	0.19 U	0.19 U
Hexachlorobenzene (UG/L)	-	-	0.19 U	0.19 U	0.19 U
Hexachlorobutadiene (UG/L)	-	-	0.95 U	0.95 U	0.95 U
Hexachlorocyclopentadiene (UG/L)	-	-	9.5 U	9.5 U	9.5 U
Hexachloroethane (UG/L)	-	-	0.95 U	0.95 U	0.95 U
Indeno(1,2,3-c,d)pyrene (UG/L)	-	-	0.19 U	0.19 U	0.19 U
Isophorone (UG/L)	-	-	0.95 U	0.95 U	0.95 U
Naphthalene (UG/L)	-	-	0.19 U	0.19 U	0.19 U
Nitrobenzene (UG/L)	-	-	0.95 U	0.95 U	0.95 U
n-Nitrosodi-n-propylamine (UG/L)	-	-	0.95 U	0.95 U	0.95 U
n-Nitrosodiphenylamine (UG/L)	-	-	0.95 U	0.95 U	0.95 U
Pentachlorophenol (UG/L)	-	-	4.8 UJ	4.8 UJ	4.8 UJ
Phenanthrene (UG/L)	-	-	0.19 U	0.19 U	0.19 U
Phenol (UG/L)	-	-	0.95 U	0.95 U	0.95 U
Pyrene (UG/L)	-	-	0.19 U	0.19 U	0.19 U

Locations:	68-SS3-SW3 (FD)
Field Sample ID:	068SW-0014-0001-SW
Sample Begin Depth:	0.00
Sample End Depth:	0.00
Sample Date:	11/08/2012
Semivolatile Organic Compounds by Capillary GC/MS	
Diethyl Phthalate (UG/L)	0.95 U
Dimethyl Phthalate (UG/L)	0.95 U
Di-n-Butyl Phthalate (UG/L)	0.95 U
Di-n-Octylphthalate (UG/L)	0.95 U
Fluoranthene (UG/L)	0.19 U
Fluorene (UG/L)	0.19 U
Hexachlorobenzene (UG/L)	0.19 U
Hexachlorobutadiene (UG/L)	0.95 U
Hexachlorocyclopentadiene (UG/L)	9.5 U
Hexachloroethane (UG/L)	0.95 U
Indeno(1,2,3-c,d)pyrene (UG/L)	0.19 U
Isophorone (UG/L)	0.95 U
Naphthalene (UG/L)	0.19 U
Nitrobenzene (UG/L)	0.95 U
n-Nitrosodi-n-propylamine (UG/L)	0.95 U
n-Nitrosodiphenylamine (UG/L)	0.95 U
Pentachlorophenol (UG/L)	4.8 UJ
Phenanthrene (UG/L)	0.19 U
Phenol (UG/L)	0.95 U
Pyrene (UG/L)	0.19 U

Locations:	68-2527-DU2-SS	68-2828-DU2-SS	68-FBDD-DU3-SS	68-FBDD-DU3-SS (FD)	68-FCP-DU1-SS
Field Sample ID:	068SS-0007M-0001-SO	068SS-0002M-0001-SO	068SS-0003M-0001-SO	068SS-0004M-0001-SO	068SS-0006M-0001-SO
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/06/2012	11/06/2012	11/06/2012	11/06/2012	11/06/2012
Trace Metals by Inductively Coupled Plasma/Mass Spectrometry					
Aluminum (MG/KG)	**12000**	**11000**	**13000**	**16000**	**10000**
Antimony (MG/KG)	**0.095 J**	**0.12 J**	**0.85 UJ**	0.79 UJ	**0.11 J**
Arsenic (MG/KG)	**10.0**	**11.0**	**12.0**	**11.0**	**12.0**
Barium (MG/KG)	**79.0**	**84.0**	**95.0**	**83.0**	**73.0**
Beryllium (MG/KG)	**0.65**	**0.80**	**0.87**	**0.83**	**0.62**
Cadmium (MG/KG)	**0.13 J**	**0.19**	**0.12 J**	**0.10 J**	**0.24**
Calcium (MG/KG)	**4600**	**35000**	**3900**	**3900**	**6100**
Chromium (MG/KG)	**17.0**	**18.0**	**22.0**	**24.0**	**18.0**
Cobalt (MG/KG)	**9.4**	**7.4**	**13.0**	**11.0**	**9.7**
Copper (MG/KG)	**11.0**	**14.0**	**18.0**	**22.0**	**24.0**
Iron (MG/KG)	**22000**	**20000**	**31000**	**29000**	**21000**
Lead (MG/KG)	**14.0**	**17.0**	**18.0**	**16.0**	**15.0**
Magnesium (MG/KG)	**2500**	**4000**	**3700**	**4500**	**2500**
Manganese (MG/KG)	**1100 J**	**690 J**	**520**	**280 J**	**1300 J**
Nickel (MG/KG)	**16.0**	**24.0**	**28.0**	**33.0**	**22.0**
Potassium (MG/KG)	**790**	**850**	**1200**	**1600**	**750**
Selenium (MG/KG)	**0.58**	**0.64**	**0.57**	**0.56**	**0.59**
Silver (MG/KG)	**0.044 J**	**0.031 J**	**0.029 J**	**0.030 J**	**0.033 J**
Sodium (MG/KG)	**42.0 J**	**82.0 J**	**52.0 J**	**72.0 J**	**46.0 J**
Thallium (MG/KG)	**0.16**	**0.15 J**	**0.85 U**	**0.26 J**	**0.16 J**
Vanadium (MG/KG)	**22.0**	**16.0**	**21.0**	**24.0**	**18.0**
Zinc (MG/KG)	**53.0**	**74.0**	**63.0**	**74.0**	**110**

Locations:	68-FTP-DU1-SS	68-RRDD-DU3-SS	68-SS3-DU1-SS	68-SS3-SD	68-SS3-SD (FD)
Field Sample ID:	068SS-0001M-0001-SO	068SS-0008M-0001-SO	068SS-0005M-0001-SO	068SD-0009-0001-SO	068SD-00010-0001-SO
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/06/2012	11/06/2012	11/06/2012	11/08/2012	11/08/2012
Trace Metals by Inductively Coupled Plasma/Mass Spectrometry					
Aluminum (MG/KG)	**13000**	**13000**	**11000**	-	-
Antimony (MG/KG)	**0.22 J**	0.80 UJ	**0.088 J**	-	-
Arsenic (MG/KG)	**9.3**	**13.0**	**16.0**	-	-
Barium (MG/KG)	**95.0**	**89.0**	**81.0**	-	-
Beryllium (MG/KG)	**0.90**	**1.0**	**0.79**	-	-
Cadmium (MG/KG)	**0.28**	**0.29**	**0.18**	-	-
Calcium (MG/KG)	**29000**	**7300**	**22000**	-	-
Chromium (MG/KG)	**21.0**	**21.0**	**18.0**	-	-
Cobalt (MG/KG)	**7.8**	**9.9**	**7.5**	-	-
Copper (MG/KG)	**16.0**	**20.0**	**13.0**	-	-
Iron (MG/KG)	**23000**	**23000**	**23000**	-	-
Lead (MG/KG)	**21.0**	**28.0**	**12.0**	-	-
Magnesium (MG/KG)	**4700**	**3600**	**3100**	-	-
Manganese (MG/KG)	**820 J**	**640 J**	**990 J**	-	-
Nickel (MG/KG)	**22.0**	**22.0**	**18.0**	-	-
Potassium (MG/KG)	**1100**	**1200**	**760**	-	-
Selenium (MG/KG)	**0.60**	**0.90**	**0.53**	-	-
Silver (MG/KG)	**0.033 J**	**0.039 J**	**0.025 J**	-	-
Sodium (MG/KG)	**96.0**	**76.0 J**	**66.0 J**	-	-
Thallium (MG/KG)	**0.15 J**	0.80 U	**0.14 J**	-	-
Vanadium (MG/KG)	**19.0**	**20.0**	**18.0**	-	-
Zinc (MG/KG)	**90.0**	**120**	**210**	-	-

Locations:	68-SS3-SD2	68-SS3-SD3	68-SS3-SW	68-SS3-SW2	68-SS3-SW3
Field Sample ID:	068SD-00011-0001-SO	068SD-00012-0001-SO	068SW-0013-0001-SW	068SW-0015-0001-SW	068SW-0016-0001-SW
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/08/2012	11/08/2012	11/08/2012	11/08/2012	11/08/2012
Trace Metals by Inductively Coupled Plasma/Mass Spectrometry					
Aluminum (MG/KG)	-	-	-	-	-
Antimony (MG/KG)	-	-	-	-	-
Arsenic (MG/KG)	-	-	-	-	-
Barium (MG/KG)	-	-	-	-	-
Beryllium (MG/KG)	-	-	-	-	-
Cadmium (MG/KG)	-	-	-	-	-
Calcium (MG/KG)	-	-	-	-	-
Chromium (MG/KG)	-	-	-	-	-
Cobalt (MG/KG)	-	-	-	-	-
Copper (MG/KG)	-	-	-	-	-
Iron (MG/KG)	-	-	-	-	-
Lead (MG/KG)	-	-	-	-	-
Magnesium (MG/KG)	-	-	-	-	-
Manganese (MG/KG)	-	-	-	-	-
Nickel (MG/KG)	-	-	-	-	-
Potassium (MG/KG)	-	-	-	-	-
Selenium (MG/KG)	-	-	-	-	-
Silver (MG/KG)	-	-	-	-	-
Sodium (MG/KG)	-	-	-	-	-
Thallium (MG/KG)	-	-	-	-	-
Vanadium (MG/KG)	-	-	-	-	-
Zinc (MG/KG)	-	-	-	-	-

Locations:	68-SS3-SW3 (FD)
Field Sample ID:	068SW-0014-0001-SW
Sample Begin Depth:	0.00
Sample End Depth:	0.00
Sample Date:	11/08/2012
Trace Metals by Inductively Coupled Plasma/Mass Spectrometry	
Aluminum (MG/KG)	-
Antimony (MG/KG)	-
Arsenic (MG/KG)	-
Barium (MG/KG)	-
Beryllium (MG/KG)	-
Cadmium (MG/KG)	-
Calcium (MG/KG)	-
Chromium (MG/KG)	-
Cobalt (MG/KG)	-
Copper (MG/KG)	-
Iron (MG/KG)	-
Lead (MG/KG)	-
Magnesium (MG/KG)	-
Manganese (MG/KG)	-
Nickel (MG/KG)	-
Potassium (MG/KG)	-
Selenium (MG/KG)	-
Silver (MG/KG)	-
Sodium (MG/KG)	-
Thallium (MG/KG)	-
Vanadium (MG/KG)	-
Zinc (MG/KG)	-

Locations:	68-2527-DU2-SS	68-2828-DU2-SS	68-FBDD-DU3-SS	68-FBDD-DU3-SS (FD)	68-FCP-DU1-SS
Field Sample ID:	068SS-0007M-0001-SO	068SS-0002M-0001-SO	068SS-0003M-0001-SO	068SS-0004M-0001-SO	068SS-0006M-0001-SO
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/06/2012	11/06/2012	11/06/2012	11/06/2012	11/06/2012
Trace Metals by Inductively Coupled Plasma/Mass Spectrometry					
Aluminum (MG/KG)	-	-	-	-	-
Antimony (MG/KG)	-	-	-	-	-
Arsenic (MG/KG)	-	-	-	-	-
Barium (MG/KG)	-	-	-	-	-
Beryllium (MG/KG)	-	-	-	-	-
Cadmium (MG/KG)	-	-	-	-	-
Calcium (MG/KG)	-	-	-	-	-
Chromium (MG/KG)	-	-	-	-	-
Cobalt (MG/KG)	-	-	-	-	-
Copper (MG/KG)	-	-	-	-	-
Iron (MG/KG)	-	-	-	-	-
Lead (MG/KG)	-	-	-	-	-
Magnesium (MG/KG)	-	-	-	-	-
Manganese (MG/KG)	-	-	-	-	-
Nickel (MG/KG)	-	-	-	-	-
Potassium (MG/KG)	-	-	-	-	-
Selenium (MG/KG)	-	-	-	-	-
Silver (MG/KG)	-	-	-	-	-
Sodium (MG/KG)	-	-	-	-	-
Thallium (MG/KG)	-	-	-	-	-
Vanadium (MG/KG)	-	-	-	-	-
Zinc (MG/KG)	-	-	-	-	-

Locations:	68-FTP-DU1-SS	68-RRDD-DU3-SS	68-SS3-DU1-SS	68-SS3-SD	68-SS3-SD (FD)
Field Sample ID:	068SS-0001M-0001-SO	068SS-0008M-0001-SO	068SS-0005M-0001-SO	068SD-0009-0001-SO	068SD-00010-0001-SO
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/06/2012	11/06/2012	11/06/2012	11/08/2012	11/08/2012
Trace Metals by Inductively Coupled Plasma/Mass Spectrometry					
Aluminum (MG/KG)	-	-	-	**12000**	**13000**
Antimony (MG/KG)	-	-	-	**0.13 J**	**0.13 J**
Arsenic (MG/KG)	-	-	-	**16.0**	**16.0**
Barium (MG/KG)	-	-	-	**78.0**	**75.0**
Beryllium (MG/KG)	-	-	-	**0.76**	**0.74**
Cadmium (MG/KG)	-	-	-	**0.61**	**0.49**
Calcium (MG/KG)	-	-	-	**1500**	**1200**
Chromium (MG/KG)	-	-	-	**21.0**	**22.0**
Cobalt (MG/KG)	-	-	-	**12.0**	**12.0**
Copper (MG/KG)	-	-	-	**30.0**	**27.0**
Iron (MG/KG)	-	-	-	**26000**	**30000**
Lead (MG/KG)	-	-	-	**23.0**	**21.0**
Magnesium (MG/KG)	-	-	-	**2400**	**2400**
Manganese (MG/KG)	-	-	-	**1200 J**	**770 J**
Nickel (MG/KG)	-	-	-	**24.0**	**25.0**
Potassium (MG/KG)	-	-	-	**790**	**790**
Selenium (MG/KG)	-	-	-	**0.80**	**0.78**
Silver (MG/KG)	-	-	-	**0.056 J**	**0.050 J**
Sodium (MG/KG)	-	-	-	**47.0 J**	**43.0 J**
Thallium (MG/KG)	-	-	-	**0.22**	**0.23**
Vanadium (MG/KG)	-	-	-	**19.0**	**19.0**
Zinc (MG/KG)	-	-	-	**160**	**130**

Locations:	68-SS3-SD2	68-SS3-SD3	68-SS3-SW	68-SS3-SW2	68-SS3-SW3
Field Sample ID:	068SD-00011-0001-SO	068SD-00012-0001-SO	068SW-0013-0001-SW	068SW-0015-0001-SW	068SW-0016-0001-SW
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/08/2012	11/08/2012	11/08/2012	11/08/2012	11/08/2012
Trace Metals by Inductively Coupled Plasma/Mass Spectrometry					
Aluminum (MG/KG)	**8300**	**11000**	-	-	-
Antimony (MG/KG)	**0.11 J**	**0.099 J**	-	-	-
Arsenic (MG/KG)	**9.6**	**8.8**	-	-	-
Barium (MG/KG)	**76.0**	**57.0**	-	-	-
Beryllium (MG/KG)	**0.49**	**0.49**	-	-	-
Cadmium (MG/KG)	**0.26**	**0.089 J**	-	-	-
Calcium (MG/KG)	**1300**	**1100**	-	-	-
Chromium (MG/KG)	**12.0**	**20.0**	-	-	-
Cobalt (MG/KG)	**8.3**	**7.2**	-	-	-
Copper (MG/KG)	**12.0**	**13.0**	-	-	-
Iron (MG/KG)	**22000**	**21000**	-	-	-
Lead (MG/KG)	**20.0**	**18.0**	-	-	-
Magnesium (MG/KG)	**1600**	**2100**	-	-	-
Manganese (MG/KG)	**480 J**	**300 J**	-	-	-
Nickel (MG/KG)	**14.0**	**16.0**	-	-	-
Potassium (MG/KG)	**500**	**670**	-	-	-
Selenium (MG/KG)	**0.58**	**0.50**	-	-	-
Silver (MG/KG)	**0.044 J**	**0.033 J**	-	-	-
Sodium (MG/KG)	**38.0 J**	**53.0 J**	-	-	-
Thallium (MG/KG)	**0.17 J**	**0.17**	-	-	-
Vanadium (MG/KG)	**15.0**	**20.0**	-	-	-
Zinc (MG/KG)	**56.0**	**44.0**	-	-	-

Chemistry Results
Ravenna Army Ammunition Plant, Quality Assurance Project Plan, Oct. 3, 2012
Ravenna Army Ammunition Plant

Locations:	68-SS3-SW3 (FD)
Field Sample ID:	068SW-0014-0001-SW
Sample Begin Depth:	0.00
Sample End Depth:	0.00
Sample Date:	11/08/2012
Trace Metals by Inductively Coupled Plasma/Mass Spectrometry	
Aluminum (MG/KG)	-
Antimony (MG/KG)	-
Arsenic (MG/KG)	-
Barium (MG/KG)	-
Beryllium (MG/KG)	-
Cadmium (MG/KG)	-
Calcium (MG/KG)	-
Chromium (MG/KG)	-
Cobalt (MG/KG)	-
Copper (MG/KG)	-
Iron (MG/KG)	-
Lead (MG/KG)	-
Magnesium (MG/KG)	-
Manganese (MG/KG)	-
Nickel (MG/KG)	-
Potassium (MG/KG)	-
Selenium (MG/KG)	-
Silver (MG/KG)	-
Sodium (MG/KG)	-
Thallium (MG/KG)	-
Vanadium (MG/KG)	-
Zinc (MG/KG)	-

Locations:	68-2527-DU2-SS	68-2828-DU2-SS	68-FBDD-DU3-SS	68-FBDD-DU3-SS (FD)	68-FCP-DU1-SS
Field Sample ID:	068SS-0007M-0001-SO	068SS-0002M-0001-SO	068SS-0003M-0001-SO	068SS-0004M-0001-SO	068SS-0006M-0001-SO
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/06/2012	11/06/2012	11/06/2012	11/06/2012	11/06/2012
Trace Metals by Inductively Coupled Plasma/Mass Spectrometry					
Aluminum (UG/L)	-	-	-	-	-
Antimony (UG/L)	-	-	-	-	-
Arsenic (UG/L)	-	-	-	-	-
Barium (UG/L)	-	-	-	-	-
Beryllium (UG/L)	-	-	-	-	-
Cadmium (UG/L)	-	-	-	-	-
Calcium (UG/L)	-	-	-	-	-
Chromium (UG/L)	-	-	-	-	-
Cobalt (UG/L)	-	-	-	-	-
Copper (UG/L)	-	-	-	-	-
Iron (UG/L)	-	-	-	-	-
Lead (UG/L)	-	-	-	-	-
Magnesium (UG/L)	-	-	-	-	-
Manganese (UG/L)	-	-	-	-	-
Nickel (UG/L)	-	-	-	-	-
Potassium (UG/L)	-	-	-	-	-
Selenium (UG/L)	-	-	-	-	-
Silver (UG/L)	-	-	-	-	-
Sodium (UG/L)	-	-	-	-	-
Thallium (UG/L)	-	-	-	-	-
Vanadium (UG/L)	-	-	-	-	-
Zinc (UG/L)	-	-	-	-	-

Locations:	68-FTP-DU1-SS	68-RRDD-DU3-SS	68-SS3-DU1-SS	68-SS3-SD	68-SS3-SD (FD)
Field Sample ID:	068SS-0001M-0001-SO	068SS-0008M-0001-SO	068SS-0005M-0001-SO	068SD-0009-0001-SO	068SD-00010-0001-SO
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/06/2012	11/06/2012	11/06/2012	11/08/2012	11/08/2012
Trace Metals by Inductively Coupled Plasma/Mass Spectrometry					
Aluminum (UG/L)	-	-	-	-	-
Antimony (UG/L)	-	-	-	-	-
Arsenic (UG/L)	-	-	-	-	-
Barium (UG/L)	-	-	-	-	-
Beryllium (UG/L)	-	-	-	-	-
Cadmium (UG/L)	-	-	-	-	-
Calcium (UG/L)	-	-	-	-	-
Chromium (UG/L)	-	-	-	-	-
Cobalt (UG/L)	-	-	-	-	-
Copper (UG/L)	-	-	-	-	-
Iron (UG/L)	-	-	-	-	-
Lead (UG/L)	-	-	-	-	-
Magnesium (UG/L)	-	-	-	-	-
Manganese (UG/L)	-	-	-	-	-
Nickel (UG/L)	-	-	-	-	-
Potassium (UG/L)	-	-	-	-	-
Selenium (UG/L)	-	-	-	-	-
Silver (UG/L)	-	-	-	-	-
Sodium (UG/L)	-	-	-	-	-
Thallium (UG/L)	-	-	-	-	-
Vanadium (UG/L)	-	-	-	-	-
Zinc (UG/L)	-	-	-	-	-

Locations:	68-SS3-SD2	68-SS3-SD3	68-SS3-SW	68-SS3-SW2	68-SS3-SW3
Field Sample ID:	068SD-00011-0001-SO	068SD-00012-0001-SO	068SW-0013-0001-SW	068SW-0015-0001-SW	068SW-0016-0001-SW
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/08/2012	11/08/2012	11/08/2012	11/08/2012	11/08/2012
Trace Metals by Inductively Coupled Plasma/Mass Spectrometry					
Aluminum (UG/L)	-	-	**54.0 J**	**38.0 J**	**320**
Antimony (UG/L)	-	-	2.0 U	2.0 U	**1.0 J**
Arsenic (UG/L)	-	-	**0.64 J**	5.0 U	**0.78 J**
Barium (UG/L)	-	-	**30.0**	**27.0**	**34.0**
Beryllium (UG/L)	-	-	1.0 U	1.0 U	1.0 U
Cadmium (UG/L)	-	-	2.0 U	2.0 U	2.0 U
Calcium (UG/L)	-	-	**33000**	**32000**	**31000**
Chromium (UG/L)	-	-	2.0 U	2.0 U	2.0 U
Cobalt (UG/L)	-	-	1.0 U	1.0 U	1.0 U
Copper (UG/L)	-	-	4.0 U	4.0 U	**1.6 J**
Iron (UG/L)	-	-	**1400**	**620**	**1300**
Lead (UG/L)	-	-	1.0 U	1.0 U	1.0 U
Magnesium (UG/L)	-	-	**9400**	**8900**	**8300**
Manganese (UG/L)	-	-	**620**	**190**	**330 J**
Nickel (UG/L)	-	-	5.0 U	5.0 U	**0.90 J**
Potassium (UG/L)	-	-	**1700**	**1800**	**1900**
Selenium (UG/L)	-	-	5.0 U	5.0 U	5.0 U
Silver (UG/L)	-	-	1.0 U	1.0 U	1.0 U
Sodium (UG/L)	-	-	**4300**	**4200**	**3900**
Thallium (UG/L)	-	-	2.0 U	2.0 U	2.0 U
Vanadium (UG/L)	-	-	5.0 U	5.0 U	**0.72 J**
Zinc (UG/L)	-	-	40.0 U	40.0 U	40.0 U

Chemistry Results
Ravenna Army Ammunition Plant, Quality Assurance Project Plan, Oct. 3, 2012
Ravenna Army Ammunition Plant

Locations:	68-SS3-SW3 (FD)
Field Sample ID:	068SW-0014-0001-SW
Sample Begin Depth:	0.00
Sample End Depth:	0.00
Sample Date:	11/08/2012
Trace Metals by Inductively Coupled Plasma/Mass Spectrometry	
Aluminum (UG/L)	**250**
Antimony (UG/L)	2.0 U
Arsenic (UG/L)	**0.70 J**
Barium (UG/L)	**32.0**
Beryllium (UG/L)	1.0 U
Cadmium (UG/L)	2.0 U
Calcium (UG/L)	**33000**
Chromium (UG/L)	2.0 U
Cobalt (UG/L)	1.0 U
Copper (UG/L)	4.0 U
Iron (UG/L)	**1000**
Lead (UG/L)	1.0 U
Magnesium (UG/L)	**9000**
Manganese (UG/L)	**240 J**
Nickel (UG/L)	**0.74 J**
Potassium (UG/L)	**2000**
Selenium (UG/L)	5.0 U
Silver (UG/L)	1.0 U
Sodium (UG/L)	**4100**
Thallium (UG/L)	2.0 U
Vanadium (UG/L)	**0.55 J**
Zinc (UG/L)	40.0 U

Locations:	68-2527-DU2-SS	68-2828-DU2-SS	68-FBDD-DU3-SS	68-FBDD-DU3-SS (FD)	68-FCP-DU1-SS
Field Sample ID:	068SS-0007M-0001-SO	068SS-0002M-0001-SO	068SS-0003M-0001-SO	068SS-0004M-0001-SO	068SS-0006M-0001-SO
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/06/2012	11/06/2012	11/06/2012	11/06/2012	11/06/2012
Volatile Organic Compounds by Capillary GC/MS					
1,1,1-Trichloroethane (UG/KG)	-	-	4.0 U	3.7 U	-
1,1,2,2-Tetrachloroethane (UG/KG)	-	-	4.0 U	3.7 U	-
1,1,2-Trichloroethane (UG/KG)	-	-	4.0 U	3.7 U	-
1,1-Dichloroethane (UG/KG)	-	-	4.0 U	3.7 U	-
1,1-Dichloroethene (UG/KG)	-	-	4.0 U	3.7 U	-
1,2-Dibromoethane (EDB) (UG/KG)	-	-	4.0 U	3.7 U	-
1,2-Dichloroethane (UG/KG)	-	-	4.0 U	3.7 U	-
1,2-Dichloroethene (UG/KG)	-	-	8.0 U	7.3 U	-
1,2-Dichloropropane (UG/KG)	-	-	4.0 U	3.7 U	-
2-Butanone (MEK) (UG/KG)	-	-	16.0 U	15.0 U	-
2-Hexanone (UG/KG)	-	-	16.0 U	15.0 U	-
4-Methyl-2-pentanone (MIBK) (UG/KG)	-	-	16.0 U	15.0 U	-
Acetone (UG/KG)	-	-	16.0 U	15.0 U	-
Benzene (UG/KG)	-	-	4.0 U	3.7 U	-
Bromochloromethane (UG/KG)	-	-	4.0 U	3.7 U	-
Bromodichloromethane (UG/KG)	-	-	4.0 UJ	3.7 U	-
Bromoform (UG/KG)	-	-	4.0 U	3.7 U	-
Bromomethane (UG/KG)	-	-	4.0 U	3.7 U	-
Carbon Disulfide (UG/KG)	-	-	**0.69 J**	**0.66 J**	-
Carbon Tetrachloride (UG/KG)	-	-	4.0 U	3.7 U	-
Chlorobenzene (UG/KG)	-	-	4.0 UJ	3.7 U	-
Chloroethane (UG/KG)	-	-	4.0 U	3.7 U	-
Chloroform (UG/KG)	-	-	4.0 U	3.7 U	-

Locations:	68-FTP-DU1-SS	68-RRDD-DU3-SS	68-SS3-DU1-SS	68-SS3-SD	68-SS3-SD (FD)
Field Sample ID:	068SS-0001M-0001-SO	068SS-0008M-0001-SO	068SS-0005M-0001-SO	068SD-0009-0001-SO	068SD-00010-0001-SO
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/06/2012	11/06/2012	11/06/2012	11/08/2012	11/08/2012
Volatile Organic Compounds by Capillary GC/MS					
1,1,1-Trichloroethane (UG/KG)	-	-	-	-	-
1,1,2,2-Tetrachloroethane (UG/KG)	-	-	-	-	-
1,1,2-Trichloroethane (UG/KG)	-	-	-	-	-
1,1-Dichloroethane (UG/KG)	-	-	-	-	-
1,1-Dichloroethene (UG/KG)	-	-	-	-	-
1,2-Dibromoethane (EDB) (UG/KG)	-	-	-	-	-
1,2-Dichloroethane (UG/KG)	-	-	-	-	-
1,2-Dichloroethene (UG/KG)	-	-	-	-	-
1,2-Dichloropropane (UG/KG)	-	-	-	-	-
2-Butanone (MEK) (UG/KG)	-	-	-	-	-
2-Hexanone (UG/KG)	-	-	-	-	-
4-Methyl-2-pentanone (MIBK) (UG/KG)	-	-	-	-	-
Acetone (UG/KG)	-	-	-	-	-
Benzene (UG/KG)	-	-	-	-	-
Bromochloromethane (UG/KG)	-	-	-	-	-
Bromodichloromethane (UG/KG)	-	-	-	-	-
Bromoform (UG/KG)	-	-	-	-	-
Bromomethane (UG/KG)	-	-	-	-	-
Carbon Disulfide (UG/KG)	-	-	-	-	-
Carbon Tetrachloride (UG/KG)	-	-	-	-	-
Chlorobenzene (UG/KG)	-	-	-	-	-
Chloroethane (UG/KG)	-	-	-	-	-
Chloroform (UG/KG)	-	-	-	-	-

Locations:	68-SS3-SD2	68-SS3-SD3	68-SS3-SW	68-SS3-SW2	68-SS3-SW3
Field Sample ID:	068SD-00011-0001-SO	068SD-00012-0001-SO	068SW-0013-0001-SW	068SW-0015-0001-SW	068SW-0016-0001-SW
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/08/2012	11/08/2012	11/08/2012	11/08/2012	11/08/2012
Volatile Organic Compounds by Capillary GC/MS					
1,1,1-Trichloroethane (UG/KG)	-	-	-	-	-
1,1,2,2-Tetrachloroethane (UG/KG)	-	-	-	-	-
1,1,2-Trichloroethane (UG/KG)	-	-	-	-	-
1,1-Dichloroethane (UG/KG)	-	-	-	-	-
1,1-Dichloroethene (UG/KG)	-	-	-	-	-
1,2-Dibromoethane (EDB) (UG/KG)	-	-	-	-	-
1,2-Dichloroethane (UG/KG)	-	-	-	-	-
1,2-Dichloroethene (UG/KG)	-	-	-	-	-
1,2-Dichloropropane (UG/KG)	-	-	-	-	-
2-Butanone (MEK) (UG/KG)	-	-	-	-	-
2-Hexanone (UG/KG)	-	-	-	-	-
4-Methyl-2-pentanone (MIBK) (UG/KG)	-	-	-	-	-
Acetone (UG/KG)	-	-	-	-	-
Benzene (UG/KG)	-	-	-	-	-
Bromochloromethane (UG/KG)	-	-	-	-	-
Bromodichloromethane (UG/KG)	-	-	-	-	-
Bromoform (UG/KG)	-	-	-	-	-
Bromomethane (UG/KG)	-	-	-	-	-
Carbon Disulfide (UG/KG)	-	-	-	-	-
Carbon Tetrachloride (UG/KG)	-	-	-	-	-
Chlorobenzene (UG/KG)	-	-	-	-	-
Chloroethane (UG/KG)	-	-	-	-	-
Chloroform (UG/KG)	-	-	-	-	-

Locations:	68-SS3-SW3 (FD)
Field Sample ID:	068SW-0014-0001-SW
Sample Begin Depth:	0.00
Sample End Depth:	0.00
Sample Date:	11/08/2012
Volatile Organic Compounds by Capillary GC/MS	
1,1,1-Trichloroethane (UG/KG)	-
1,1,2,2-Tetrachloroethane (UG/KG)	-
1,1,2-Trichloroethane (UG/KG)	-
1,1-Dichloroethane (UG/KG)	-
1,1-Dichloroethene (UG/KG)	-
1,2-Dibromoethane (EDB) (UG/KG)	-
1,2-Dichloroethane (UG/KG)	-
1,2-Dichloroethene (UG/KG)	-
1,2-Dichloropropane (UG/KG)	-
2-Butanone (MEK) (UG/KG)	-
2-Hexanone (UG/KG)	-
4-Methyl-2-pentanone (MIBK) (UG/KG)	-
Acetone (UG/KG)	-
Benzene (UG/KG)	-
Bromochloromethane (UG/KG)	-
Bromodichloromethane (UG/KG)	-
Bromoform (UG/KG)	-
Bromomethane (UG/KG)	-
Carbon Disulfide (UG/KG)	-
Carbon Tetrachloride (UG/KG)	-
Chlorobenzene (UG/KG)	-
Chloroethane (UG/KG)	-
Chloroform (UG/KG)	-

Locations:	68-2527-DU2-SS	68-2828-DU2-SS	68-FBDD-DU3-SS	68-FBDD-DU3-SS (FD)	68-FCP-DU1-SS
Field Sample ID:	068SS-0007M-0001-SO	068SS-0002M-0001-SO	068SS-0003M-0001-SO	068SS-0004M-0001-SO	068SS-0006M-0001-SO
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/06/2012	11/06/2012	11/06/2012	11/06/2012	11/06/2012
Volatile Organic Compounds by Capillary GC/MS					
Chloromethane (UG/KG)	-	-	4.0 U	3.7 U	-
cis-1,3-Dichloropropene (UG/KG)	-	-	4.0 UJ	3.7 U	-
Dibromochloromethane (UG/KG)	-	-	4.0 U	3.7 U	-
Ethylbenzene (UG/KG)	-	-	4.0 UJ	3.7 U	-
Methylene Chloride (UG/KG)	-	-	4.0 U	3.7 U	-
Styrene (UG/KG)	-	-	4.0 UJ	**0.14 J**	-
Tetrachloroethene (PCE) (UG/KG)	-	-	4.0 UJ	3.7 U	-
Toluene (UG/KG)	-	-	4.0 UJ	3.7 U	-
trans-1,3-Dichloropropene (UG/KG)	-	-	4.0 U	3.7 U	-
Trichloroethene (TCE) (UG/KG)	-	-	4.0 U	3.7 U	-
Vinyl Chloride (UG/KG)	-	-	4.0 U	3.7 U	-
Xylenes, Total (UG/KG)	-	-	8.0 UJ	7.3 U	-

Locations:	68-FTP-DU1-SS	68-RRDD-DU3-SS	68-SS3-DU1-SS	68-SS3-SD	68-SS3-SD (FD)
Field Sample ID:	068SS-0001M-0001-SO	068SS-0008M-0001-SO	068SS-0005M-0001-SO	068SD-0009-0001-SO	068SD-00010-0001-SO
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/06/2012	11/06/2012	11/06/2012	11/08/2012	11/08/2012
Volatile Organic Compounds by Capillary GC/MS					
Chloromethane (UG/KG)	-	-	-	-	-
cis-1,3-Dichloropropene (UG/KG)	-	-	-	-	-
Dibromochloromethane (UG/KG)	-	-	-	-	-
Ethylbenzene (UG/KG)	-	-	-	-	-
Methylene Chloride (UG/KG)	-	-	-	-	-
Styrene (UG/KG)	-	-	-	-	-
Tetrachloroethene (PCE) (UG/KG)	-	-	-	-	-
Toluene (UG/KG)	-	-	-	-	-
trans-1,3-Dichloropropene (UG/KG)	-	-	-	-	-
Trichloroethene (TCE) (UG/KG)	-	-	-	-	-
Vinyl Chloride (UG/KG)	-	-	-	-	-
Xylenes, Total (UG/KG)	-	-	-	-	-

Locations:	68-SS3-SD2	68-SS3-SD3	68-SS3-SW	68-SS3-SW2	68-SS3-SW3
Field Sample ID:	068SD-00011-0001-SO	068SD-00012-0001-SO	068SW-0013-0001-SW	068SW-0015-0001-SW	068SW-0016-0001-SW
Sample Begin Depth:	0.00	0.00	0.00	0.00	0.00
Sample End Depth:	0.00	0.00	0.00	0.00	0.00
Sample Date:	11/08/2012	11/08/2012	11/08/2012	11/08/2012	11/08/2012
Volatile Organic Compounds by Capillary GC/MS					
Chloromethane (UG/KG)	-	-	-	-	-
cis-1,3-Dichloropropene (UG/KG)	-	-	-	-	-
Dibromochloromethane (UG/KG)	-	-	-	-	-
Ethylbenzene (UG/KG)	-	-	-	-	-
Methylene Chloride (UG/KG)	-	-	-	-	-
Styrene (UG/KG)	-	-	-	-	-
Tetrachloroethene (PCE) (UG/KG)	-	-	-	-	-
Toluene (UG/KG)	-	-	-	-	-
trans-1,3-Dichloropropene (UG/KG)	-	-	-	-	-
Trichloroethene (TCE) (UG/KG)	-	-	-	-	-
Vinyl Chloride (UG/KG)	-	-	-	-	-
Xylenes, Total (UG/KG)	-	-	-	-	-

Chemistry Results
Ravenna Army Ammunition Plant, Quality Assurance Project Plan, Oct. 3, 2012
Ravenna Army Ammunition Plant

Locations:	68-SS3-SW3 (FD)
Field Sample ID:	068SW-0014-0001-SW
Sample Begin Depth:	0.00
Sample End Depth:	0.00
Sample Date:	11/08/2012
Volatile Organic Compounds by Capillary GC/MS	
Chloromethane (UG/KG)	-
cis-1,3-Dichloropropene (UG/KG)	-
Dibromochloromethane (UG/KG)	-
Ethylbenzene (UG/KG)	-
Methylene Chloride (UG/KG)	-
Styrene (UG/KG)	-
Tetrachloroethene (PCE) (UG/KG)	-
Toluene (UG/KG)	-
trans-1,3-Dichloropropene (UG/KG)	-
Trichloroethene (TCE) (UG/KG)	-
Vinyl Chloride (UG/KG)	-
Xylenes, Total (UG/KG)	-

Detects are displayed in bold font

Data Qualifier Definitions

J - The analyte was positively identified, but the associated numerical value is estimated and represents the approximate concentration of the analyte in the sample.

U - The analyte was not detected above the reported sample quantitation limit.

UJ - The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate.

R - Sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. Presence or absence of the analyte cannot be verified.

Units

COPIES/L = copies per liter
MG/KG = milligrams per kilogram
MG/L = milligram per liter
PERCENT = percent
PPT = parts per thousand
UG/KG = microgram per kilogram
UG/L = microgram per liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68				
Location ID:		68-ESSE-DU1-SB5	68-ESSW-DU2-SB1	68-ESSW-DU2-SB1
Field Sample ID:		068SB-0041M-0001-SO	068SB-0046M-0001-SO	068SB-0060M-0001-SO
Lab Sample ID:		240-22648-53	240-22648-43	240-22852-1
Lab Name:		TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	4/4/2013
Field QC:				
Analysis Information:		1X	1X	1X
Nitrogen, Nitrate-Nitrite (Colorimetric Automated, Cadmium Reduction)	**Units**			
Nitrocellulose	MG/KG	**0.870 J**	4.90 U	**0.900 J**

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control

TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-SS3-DU1-SB	68-SS3-DU1-SB	68-ESSE-DU1-SB	68-ESSE-DU1-SB	68-ESSW-DU1-SB
Field Sample ID:		068SB-0050M-0001-SO	068SB-0051M-0001-SO	068SB-0033M-0001-SO	068SB-0034M-0001-SO	068SB-0017M-0001-SO
Lab Sample ID:		240-22648-55	240-22648-56	240-22648-46	240-22648-47	240-22663-31
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	3/29/2013	3/29/2013	3/29/2013
Field QC:						
Analysis Information:		1X	1X	1X	1X	1X
Trace Metals by Inductively Coupled Plasma/Mass Spectrometry	**Units**					
Aluminum	MG/KG	**9800**	**6500**	**12000**	**10000**	**11000**
Antimony	MG/KG	0.180 UJ	0.190 UJ	0.170 UJ	0.180 UJ	**0.0680 J**
Arsenic	MG/KG	**8.00**	**7.80**	**9.40**	**12.0**	**8.60**
Barium	MG/KG	**54.0**	**31.0**	**60.0**	**64.0**	**81.0**
Beryllium	MG/KG	**0.460**	**0.320**	**0.520**	**0.540**	**0.600 J**
Cadmium	MG/KG	**0.110**	**0.100**	**0.170**	**0.150**	**0.260**
Calcium	MG/KG	**4500 J**	**3300 J**	**2100 J**	**2300 J**	**30000**
Chromium	MG/KG	**12.0**	**8.50**	**15.0**	**15.0**	**15.0**
Cobalt	MG/KG	**8.40**	**5.90**	**9.90**	**11.0**	**9.90**
Copper	MG/KG	**14.0**	**14.0**	**17.0**	**21.0**	**19.0**
Iron	MG/KG	**20000**	**16000**	**24000**	**26000**	**22000**
Lead	MG/KG	**12.0**	**9.60**	**12.0**	**12.0**	**14.0**
Magnesium	MG/KG	**2800**	**2600**	**2700**	**3600**	**6200**
Manganese	MG/KG	**410**	**300**	**480**	**350**	**450**

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control
TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-ESSW-DU1-SB	68-ESSW-DU2-SB	68-ESSW-DU2-SB	68-ESSW-DU2-SB	68-ESSW-DU2-SB
Field Sample ID:		068SB-0018M-0001-SO	068SB-0027M-0001-SO	068SB-0028M-0001-SO	068SB-0044M-0001-SO	068SB-0045M-0001-SO
Lab Sample ID:		240-22663-32	240-22663-40	240-22663-41	240-22648-41	240-22648-42
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	3/29/2013	3/29/2013	3/29/2013
Field QC:						
Analysis Information:		1X	1X	1X	1X	1X
Trace Metals by Inductively Coupled Plasma/Mass Spectrometry	**Units**					
Aluminum	MG/KG	**9300**	**13000**	**7400**	**12000**	**11000**
Antimony	MG/KG	0.200 UJ	0.190 UJ	0.200 UJ	0.180 UJ	0.190 UJ
Arsenic	MG/KG	**12.0**	**9.70**	**16.0**	**9.90**	**13.0**
Barium	MG/KG	**50.0**	**81.0**	**40.0**	**61.0**	**56.0**
Beryllium	MG/KG	**0.440 J**	**0.640 J**	**0.380 J**	**0.540**	**0.540**
Cadmium	MG/KG	**0.170**	**0.210**	**0.170**	**0.120**	**0.140**
Calcium	MG/KG	**34000**	**26000**	**22000**	**1200 J**	**5500 J**
Chromium	MG/KG	**14.0**	**19.0**	**11.0**	**16.0**	**16.0**
Cobalt	MG/KG	**10.0**	**13.0**	**8.80**	**9.40**	**12.0**
Copper	MG/KG	**18.0**	**20.0**	**19.0**	**18.0**	**20.0**
Iron	MG/KG	**24000**	**26000**	**22000**	**25000**	**27000**
Lead	MG/KG	**11.0**	**12.0**	**12.0**	**12.0**	**13.0**
Magnesium	MG/KG	**7400**	**7900**	**5600**	**3000**	**4500**
Manganese	MG/KG	**380**	**410**	**360**	**280**	**380**

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control
TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-SS3-DU1-SB1	68-SS3-DU1-SB2	68-SS3-DU1-SB2	68-SS3-DU1-SB3	68-SS3-DU1-SB4
Field Sample ID:		068SB-0052M-0001-SO	068SB-0053M-0001-SO	068SB-0054M-0001-SO	068SB-0056M-0001-SO	068SB-0057M-0001-SO
Lab Sample ID:		240-22648-57	240-22648-58	240-22648-59	240-22648-60	240-22648-61
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	3/29/2013	3/29/2013	3/29/2013
Field QC:				Field Duplicate		
Analysis Information:		1X	1X	1X	1X	1X
Trace Metals by Inductively Coupled Plasma/Mass Spectrometry	**Units**					
Aluminum	MG/KG	**7500**	**8700**	**8400**	**7100**	**7300**
Antimony	MG/KG	0.180 UJ	**0.0460 J**	**0.0540 J**	**0.0590 J**	**0.0420 J**
Arsenic	MG/KG	**12.0**	**11.0**	**12.0**	**14.0**	**9.50**
Barium	MG/KG	**32.0**	**53.0**	**58.0**	**39.0**	**50.0**
Beryllium	MG/KG	**0.360**	**0.500**	**0.470**	**0.390**	**0.380**
Cadmium	MG/KG	**0.120**	**0.120**	**0.130**	**0.130**	**0.120**
Calcium	MG/KG	**760 J**	**3400 J**	**910 J**	**3100**	**5700**
Chromium	MG/KG	**9.50**	**12.0**	**12.0**	**11.0**	**11.0**
Cobalt	MG/KG	**6.90**	**8.60**	**9.10**	**9.10**	**7.50**
Copper	MG/KG	**14.0**	**16.0**	**18.0**	**19.0**	**17.0**
Iron	MG/KG	**18000**	**21000**	**21000**	**22000**	**19000**
Lead	MG/KG	**11.0**	**13.0**	**15.0**	**12.0**	**11.0**
Magnesium	MG/KG	**2100**	**2400**	**2300**	**3100**	**3200**
Manganese	MG/KG	**320**	**370**	**310**	**310**	**220**

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control
TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-SS3-DU1-SB5	68-ESSE-DU1-SB1	68-ESSE-DU1-SB1	68-ESSE-DU1-SB1	68-ESSE-DU1-SB2
Field Sample ID:		068SB-0059M-0001-SO	068SB-0035M-0001-SO	068SB-0036M-0001-SO	068SB-0042M-0001-SO	068SB-0038M-0001-SO
Lab Sample ID:		240-22648-62	240-22648-48	240-22648-50	240-22648-54	240-22648-49
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	3/29/2013	3/29/2013	3/29/2013
Field QC:				Field Duplicate		
Analysis Information:		1X	1X	1X	1X	1X
Trace Metals by Inductively Coupled Plasma/Mass Spectrometry	**Units**					
Aluminum	MG/KG	**8500**	**12000**	**11000**	**12000**	**10000**
Antimony	MG/KG	0.190 U	0.180 UJ	0.190 UJ	0.180 UJ	0.190 UJ
Arsenic	MG/KG	**12.0**	**11.0**	**9.40**	**7.90**	**11.0**
Barium	MG/KG	**50.0**	**64.0**	**63.0**	**55.0**	**43.0**
Beryllium	MG/KG	**0.460**	**0.560**	**0.550**	**0.660**	**0.460**
Cadmium	MG/KG	**0.130**	**0.140**	**0.160**	**0.150**	**0.100**
Calcium	MG/KG	**1500**	**2300 J**	**1900 J**	**8100 J**	**1600 J**
Chromium	MG/KG	**12.0**	**16.0**	**15.0**	**15.0**	**13.0**
Cobalt	MG/KG	**9.20**	**10.0**	**16.0**	**9.60**	**8.90**
Copper	MG/KG	**18.0**	**19.0**	**16.0**	**13.0**	**20.0**
Iron	MG/KG	**23000**	**26000**	**24000**	**23000**	**26000**
Lead	MG/KG	**13.0**	**13.0**	**15.0**	**12.0**	**13.0**
Magnesium	MG/KG	**2400**	**3300**	**2900**	**5200**	**2400**
Manganese	MG/KG	**540**	**360 J**	**620 J**	**370**	**300**

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control
TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-ESSE-DU1-SB4	68-ESSE-DU1-SB5	68-ESSE-DU2-SB3	68-ESSW-DU1-SB1	68-ESSW-DU1-SB1
Field Sample ID:		068SB-0040M-0001-SO	068SB-0041M-0001-SO	068SB-0039M-0001-SO	068SB-0019M-0001-SO	068SB-0022M-0001-SO
Lab Sample ID:		240-22648-52	240-22648-53	240-22648-51	240-22663-33	240-22663-34
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	3/29/2013	3/29/2013	3/29/2013
Field QC:						Field Duplicate
Analysis Information:		1X	1X	1X	1X	1X
Trace Metals by Inductively Coupled Plasma/Mass Spectrometry	**Units**					
Aluminum	MG/KG	**11000**	**12000**	**12000**	**11000**	**11000**
Antimony	MG/KG	0.190 UJ	0.180 UJ	0.190 UJ	0.200 UJ	0.190 UJ
Arsenic	MG/KG	**6.50**	**7.40**	**10.0**	**11.0**	**11.0**
Barium	MG/KG	**60.0**	**65.0**	**65.0**	**74.0**	**61.0**
Beryllium	MG/KG	**0.500**	**0.610**	**0.500**	**0.570 J**	**0.560 J**
Cadmium	MG/KG	**0.150**	**0.140**	**0.130**	**0.230**	**0.190**
Calcium	MG/KG	**1900 J**	**2200 J**	**2800 J**	**25000**	**26000**
Chromium	MG/KG	**14.0**	**15.0**	**16.0**	**18.0**	**17.0**
Cobalt	MG/KG	**8.70**	**9.60**	**9.50**	**12.0**	**13.0**
Copper	MG/KG	**14.0**	**15.0**	**18.0**	**20.0**	**19.0**
Iron	MG/KG	**21000**	**22000**	**25000**	**26000**	**25000**
Lead	MG/KG	**13.0**	**12.0**	**11.0**	**12.0**	**11.0**
Magnesium	MG/KG	**3100**	**3800**	**3700**	**7400**	**7400**
Manganese	MG/KG	**310**	**280**	**250**	**360**	**380**

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control
TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-ESSW-DU1-SB1	68-ESSW-DU1-SB2	68-ESSW-DU1-SB3	68-ESSW-DU1-SB4	68-ESSW-DU1-SB5
Field Sample ID:		068SB-0032-0001-SO	068SB-0020M-0001-SO	068SB-0023M-0001-SO	068SB-0024M-0001-SO	068SB-0025M-0001-SO
Lab Sample ID:		240-22663-39	240-22663-35	240-22663-36	240-22663-37	240-22663-38
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	3/29/2013	3/29/2013	3/29/2013
Field QC:						
Analysis Information:		1X	1X	1X	1X	1X
Trace Metals by Inductively Coupled Plasma/Mass Spectrometry	**Units**					
Aluminum	MG/KG	**8800**	**11000**	**11000**	**10000**	**8700**
Antimony	MG/KG	0.230 UJ	0.200 UJ	0.200 UJ	0.200 UJ	0.200 UJ
Arsenic	MG/KG	**16.0**	**11.0**	**9.00**	**14.0**	**13.0**
Barium	MG/KG	**34.0**	**70.0**	**71.0**	**63.0**	**51.0**
Beryllium	MG/KG	**0.410 J**	**0.530 J**	**0.590 J**	**0.580 J**	**0.420 J**
Cadmium	MG/KG	**0.140**	**0.190**	**0.270**	**0.210**	**0.280**
Calcium	MG/KG	**4300**	**30000**	**14000**	**16000**	**20000**
Chromium	MG/KG	**13.0**	**16.0**	**16.0**	**14.0**	**12.0**
Cobalt	MG/KG	**12.0**	**11.0**	**10.0**	**11.0**	**9.10**
Copper	MG/KG	**20.0**	**19.0**	**19.0**	**18.0**	**24.0**
Iron	MG/KG	**26000**	**24000**	**23000**	**24000**	**22000**
Lead	MG/KG	**12.0**	**11.0**	**14.0**	**15.0**	**16.0**
Magnesium	MG/KG	**5200**	**7800**	**4800**	**5500**	**5300**
Manganese	MG/KG	**620**	**410**	**520**	**510**	**420**

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control
TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-ESSW-DU2-SB1	68-ESSW-DU2-SB1	68-ESSW-DU2-SB1	68-ESSW-DU2-SB2	68-ESSW-DU2-SB3
Field Sample ID:		068SB-0046M-0001-SO	068SB-0060M-0001-SO	068SB-0061M-0001-SO	068SB-0047M-0001-SO	068SB-0030M-0001-SO
Lab Sample ID:		240-22648-43	240-22852-1	240-22852-2	240-22648-44	240-22663-43
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	4/4/2013	4/4/2013	3/29/2013	3/29/2013
Field QC:				Field Duplicate		
Analysis Information:		1X	1X	1X	1X	1X
Trace Metals by Inductively Coupled Plasma/Mass Spectrometry	**Units**					
Aluminum	MG/KG	**12000**	**12000**	**8900**	**12000**	**10000**
Antimony	MG/KG	0.190 UJ	0.200 UJ	**0.150 J**	0.180 UJ	0.190 UJ
Arsenic	MG/KG	**11.0**	**9.90 J**	**7.10 J**	**11.0**	**11.0**
Barium	MG/KG	**57.0**	**79.0**	**56.0**	**61.0**	**69.0**
Beryllium	MG/KG	**0.560**	**0.660**	**0.430**	**0.580**	**0.490 J**
Cadmium	MG/KG	**0.130**	**0.220**	**0.170**	**0.130**	**0.210**
Calcium	MG/KG	**930 J**	**28000**	**21000**	**4800 J**	**35000**
Chromium	MG/KG	**15.0**	**18.0**	**13.0**	**16.0**	**15.0**
Cobalt	MG/KG	**11.0**	**12.0**	**8.40**	**11.0**	**10.0**
Copper	MG/KG	**19.0**	**19.0 J**	**14.0 J**	**20.0**	**19.0**
Iron	MG/KG	**27000**	**26000**	**18000**	**26000**	**23000**
Lead	MG/KG	**13.0**	**12.0**	**8.40**	**12.0**	**11.0**
Magnesium	MG/KG	**3100**	**7500**	**5500**	**4300**	**7600**
Manganese	MG/KG	**300**	**420**	**280**	**300**	**400**

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control
TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68			
Location ID:		68-ESSW-DU2-SB4	68-ESSW-DU2-SB5
Field Sample ID:		068SB-0048M-0001-SO	068SB-0031M-0001-SO
Lab Sample ID:		240-22648-45	240-22663-44
Lab Name:		TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013
Field QC:			
Analysis Information:		1X	1X
Trace Metals by Inductively Coupled Plasma/Mass Spectrometry	**Units**		
Aluminum	MG/KG	**12000**	**8700**
Antimony	MG/KG	0.190 UJ	0.190 UJ
Arsenic	MG/KG	**12.0**	**9.20**
Barium	MG/KG	**63.0**	**54.0**
Beryllium	MG/KG	**0.590**	**0.460 J**
Cadmium	MG/KG	**0.150**	**0.180**
Calcium	MG/KG	**2400 J**	**30000**
Chromium	MG/KG	**16.0**	**14.0**
Cobalt	MG/KG	**11.0**	**8.80**
Copper	MG/KG	**21.0**	**16.0**
Iron	MG/KG	**27000**	**20000**
Lead	MG/KG	**13.0**	**9.50**
Magnesium	MG/KG	**3800**	**6600**
Manganese	MG/KG	**340**	**340**

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control
TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-SS3-DU1-SB	68-SS3-DU1-SB	68-ESSE-DU1-SB	68-ESSE-DU1-SB	68-ESSW-DU1-SB
Field Sample ID:		068SB-0050M-0001-SO	068SB-0051M-0001-SO	068SB-0033M-0001-SO	068SB-0034M-0001-SO	068SB-0017M-0001-SO
Lab Sample ID:		240-22648-55	240-22648-56	240-22648-46	240-22648-47	240-22663-31
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	3/29/2013	3/29/2013	3/29/2013
Field QC:						
Analysis Information:		1X	1X	1X	1X	1X
Nickel	MG/KG	**17.0**	**14.0**	**19.0**	**28.0**	**23.0**
Potassium	MG/KG	**920**	**870**	**960**	**1100**	**1400**
Selenium	MG/KG	0.460 U	0.470 U	**0.330 J**	**0.270 J**	**0.400 J**
Silver	MG/KG	**0.0230 J**	**0.0190 J**	**0.0280 J**	**0.0230 J**	**0.0360 J**
Sodium	MG/KG	**40.0**	**43.0**	**37.0**	**45.0**	**92.0**
Thallium	MG/KG	**0.130**	**0.0960**	**0.150**	**0.140**	**0.150**
Vanadium	MG/KG	**15.0**	**9.70**	**19.0**	**16.0**	**17.0**
Zinc	MG/KG	**36.0 J**	**32.0 J**	**61.0 J**	**56.0 J**	**54.0**

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control

TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-ESSW-DU1-SB	68-ESSW-DU2-SB	68-ESSW-DU2-SB	68-ESSW-DU2-SB	68-ESSW-DU2-SB
Field Sample ID:		068SB-0018M-0001-SO	068SB-0027M-0001-SO	068SB-0028M-0001-SO	068SB-0044M-0001-SO	068SB-0045M-0001-SO
Lab Sample ID:		240-22663-32	240-22663-40	240-22663-41	240-22648-41	240-22648-42
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	3/29/2013	3/29/2013	3/29/2013
Field QC:						
Analysis Information:		1X	1X	1X	1X	1X
Nickel	MG/KG	**25.0**	**31.0**	**24.0**	**22.0**	**28.0**
Potassium	MG/KG	**1400**	**1700**	**970**	**1000**	**1400**
Selenium	MG/KG	**0.220 J**	**0.350 J**	**0.320 J**	**0.310 J**	**0.260 J**
Silver	MG/KG	**0.0340 J**	**0.0360 J**	**0.0350 J**	**0.0220 J**	**0.0200 J**
Sodium	MG/KG	**88.0**	**98.0**	**64.0**	**36.0**	**57.0**
Thallium	MG/KG	**0.140**	**0.180**	**0.120**	**0.150**	**0.150**
Vanadium	MG/KG	**15.0**	**20.0**	**12.0**	**19.0**	**16.0**
Zinc	MG/KG	**46.0**	**51.0**	**47.0**	**48.0 J**	**59.0 J**

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control

TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-SS3-DU1-SB1	68-SS3-DU1-SB2	68-SS3-DU1-SB2	68-SS3-DU1-SB3	68-SS3-DU1-SB4
Field Sample ID:		068SB-0052M-0001-SO	068SB-0053M-0001-SO	068SB-0054M-0001-SO	068SB-0056M-0001-SO	068SB-0057M-0001-SO
Lab Sample ID:		240-22648-57	240-22648-58	240-22648-59	240-22648-60	240-22648-61
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	3/29/2013	3/29/2013	3/29/2013
Field QC:				Field Duplicate		
Analysis Information:		1X	1X	1X	1X	1X
Nickel	MG/KG	**15.0**	**18.0**	**20.0**	**23.0**	**19.0**
Potassium	MG/KG	**850**	**770**	**870**	**1000**	**780**
Selenium	MG/KG	0.450 U	**0.290 J**	**0.290 J**	**0.160 J**	**0.220 J**
Silver	MG/KG	**0.0140 J**	**0.0280 J**	**0.0280 J**	**0.0260 J**	**0.0350 J**
Sodium	MG/KG	**33.0**	**44.0**	**37.0**	**44.0**	**43.0**
Thallium	MG/KG	**0.110**	**0.120**	**0.130**	**0.110**	**0.110**
Vanadium	MG/KG	**11.0**	**15.0**	**14.0**	**12.0**	**13.0**
Zinc	MG/KG	**33.0 J**	**40.0**	**42.0**	**47.0**	**40.0**

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control

TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-SS3-DU1-SB5	68-ESSE-DU1-SB1	68-ESSE-DU1-SB1	68-ESSE-DU1-SB1	68-ESSE-DU1-SB2
Field Sample ID:		068SB-0059M-0001-SO	068SB-0035M-0001-SO	068SB-0036M-0001-SO	068SB-0042M-0001-SO	068SB-0038M-0001-SO
Lab Sample ID:		240-22648-62	240-22648-48	240-22648-50	240-22648-54	240-22648-49
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	3/29/2013	3/29/2013	3/29/2013
Field QC:				Field Duplicate		
Analysis Information:		1X	1X	1X	1X	1X
Nickel	MG/KG	**20.0**	**24.0**	**22.0**	**21.0**	**17.0**
Potassium	MG/KG	**930**	**1200**	**1100**	**1600**	**780**
Selenium	MG/KG	**0.280 J**	**0.290 J**	**0.350 J**	0.460 U	**0.310 J**
Silver	MG/KG	**0.0310 J**	**0.0310 J**	**0.0280 J**	**0.0310 J**	**0.0180 J**
Sodium	MG/KG	**35.0**	**41.0**	**38.0**	**75.0**	**31.0**
Thallium	MG/KG	**0.130**	**0.160**	**0.150**	**0.140**	**0.130**
Vanadium	MG/KG	**15.0**	**18.0**	**19.0**	**16.0**	**16.0**
Zinc	MG/KG	**49.0**	**53.0 J**	**55.0 J**	**40.0 J**	**54.0 J**

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control

TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-ESSE-DU1-SB4	68-ESSE-DU1-SB5	68-ESSE-DU2-SB3	68-ESSW-DU1-SB1	68-ESSW-DU1-SB1
Field Sample ID:		068SB-0040M-0001-SO	068SB-0041M-0001-SO	068SB-0039M-0001-SO	068SB-0019M-0001-SO	068SB-0022M-0001-SO
Lab Sample ID:		240-22648-52	240-22648-53	240-22648-51	240-22663-33	240-22663-34
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	3/29/2013	3/29/2013	3/29/2013
Field QC:						Field Duplicate
Analysis Information:		1X	1X	1X	1X	1X
Nickel	MG/KG	**19.0**	**22.0**	**25.0**	**29.0**	**29.0**
Potassium	MG/KG	**1200**	**1300**	**1300**	**1500**	**1400**
Selenium	MG/KG	0.480 U	0.450 U	**0.300 J**	**0.310 J**	**0.280 J**
Silver	MG/KG	**0.0280 J**	**0.0260 J**	**0.0260 J**	**0.0400 J**	**0.0370 J**
Sodium	MG/KG	**47.0**	**52.0**	**47.0**	**120**	**120**
Thallium	MG/KG	**0.150**	**0.160**	**0.160**	**0.160**	**0.160**
Vanadium	MG/KG	**16.0**	**17.0**	**19.0**	**18.0**	**18.0**
Zinc	MG/KG	**58.0 J**	**37.0 J**	**47.0 J**	**49.0**	**48.0**

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control

TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-ESSW-DU1-SB1	68-ESSW-DU1-SB2	68-ESSW-DU1-SB3	68-ESSW-DU1-SB4	68-ESSW-DU1-SB5
Field Sample ID:		068SB-0032-0001-SO	068SB-0020M-0001-SO	068SB-0023M-0001-SO	068SB-0024M-0001-SO	068SB-0025M-0001-SO
Lab Sample ID:		240-22663-39	240-22663-35	240-22663-36	240-22663-37	240-22663-38
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	3/29/2013	3/29/2013	3/29/2013
Field QC:						
Analysis Information:		1X	1X	1X	1X	1X
Nickel	MG/KG	**29.0**	**27.0**	**23.0**	**24.0**	**21.0**
Potassium	MG/KG	**1000**	**1500**	**1300**	**1200**	**1200**
Selenium	MG/KG	**0.250 J**	**0.280 J**	**0.350 J**	**0.330 J**	**0.300 J**
Silver	MG/KG	**0.0290 J**	**0.0340 J**	**0.0360 J**	**0.0400 J**	**0.0410 J**
Sodium	MG/KG	**64.0**	**130**	**71.0**	**76.0**	**78.0**
Thallium	MG/KG	**0.140**	**0.170**	**0.150**	**0.130**	**0.130**
Vanadium	MG/KG	**13.0**	**17.0**	**18.0**	**16.0**	**13.0**
Zinc	MG/KG	**50.0**	**47.0**	**53.0**	**56.0**	**77.0**

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control

TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-ESSW-DU2-SB1	68-ESSW-DU2-SB1	68-ESSW-DU2-SB1	68-ESSW-DU2-SB2	68-ESSW-DU2-SB3
Field Sample ID:		068SB-0046M-0001-SO	068SB-0060M-0001-SO	068SB-0061M-0001-SO	068SB-0047M-0001-SO	068SB-0030M-0001-SO
Lab Sample ID:		240-22648-43	240-22852-1	240-22852-2	240-22648-44	240-22663-43
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	4/4/2013	4/4/2013	3/29/2013	3/29/2013
Field QC:				Field Duplicate		
Analysis Information:		1X	1X	1X	1X	1X
Nickel	MG/KG	**23.0**	**29.0 J**	**21.0 J**	**26.0**	**26.0**
Potassium	MG/KG	**1200**	**1600**	**1400**	**1400**	**1400**
Selenium	MG/KG	**0.250 J**	**0.320 J**	**0.240 J**	**0.250 J**	**0.300 J**
Silver	MG/KG	**0.0160 J**	**0.0370 J**	**0.0270 J**	**0.0290 J**	**0.0410 J**
Sodium	MG/KG	**40.0**	**110**	**77.0**	**56.0**	**83.0**
Thallium	MG/KG	**0.160**	**0.170**	**0.130**	**0.150**	**0.150**
Vanadium	MG/KG	**18.0**	**19.0**	**15.0**	**18.0**	**16.0**
Zinc	MG/KG	**47.0 J**	**50.0 J**	**35.0 J**	**52.0 J**	**45.0**

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control

TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68			
Location ID:		68-ESSW-DU2-SB4	68-ESSW-DU2-SB5
Field Sample ID:		068SB-0048M-0001-SO	068SB-0031M-0001-SO
Lab Sample ID:		240-22648-45	240-22663-44
Lab Name:		TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013
Field QC:			
Analysis Information:		1X	1X
Nickel	MG/KG	**27.0**	**22.0**
Potassium	MG/KG	**1300**	**1300**
Selenium	MG/KG	**0.290 J**	**0.370 J**
Silver	MG/KG	**0.0230 J**	**0.0380 J**
Sodium	MG/KG	**46.0**	**85.0**
Thallium	MG/KG	**0.160**	**0.130**
Vanadium	MG/KG	**17.0**	**14.0**
Zinc	MG/KG	**56.0 J**	**40.0**

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control

TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-SS3-DU1-SB	68-SS3-DU1-SB	68-ESSE-DU1-SB	68-ESSE-DU1-SB	68-ESSW-DU1-SB
Field Sample ID:		068SB-0050M-0001-SO	068SB-0051M-0001-SO	068SB-0033M-0001-SO	068SB-0034M-0001-SO	068SB-0017M-0001-SO
Lab Sample ID:		240-22648-55	240-22648-56	240-22648-46	240-22648-47	240-22663-31
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	3/29/2013	3/29/2013	3/29/2013
Field QC:						
Analysis Information:		1X	1X	1X	1X	1X
Mercury in Soil (Manual Cold-Vapor Techique)	**Units**					
Mercury	MG/KG	**0.0190 J**	0.110 U	**0.0520 J**	**0.0150 J**	**0.0410 J**

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control
TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-ESSW-DU1-SB	68-ESSW-DU2-SB	68-ESSW-DU2-SB	68-ESSW-DU2-SB	68-ESSW-DU2-SB
Field Sample ID:		068SB-0018M-0001-SO	068SB-0027M-0001-SO	068SB-0028M-0001-SO	068SB-0044M-0001-SO	068SB-0045M-0001-SO
Lab Sample ID:		240-22663-32	240-22663-40	240-22663-41	240-22648-41	240-22648-42
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	3/29/2013	3/29/2013	3/29/2013
Field QC:						
Analysis Information:		1X	1X	1X	1X	1X
Mercury in Soil (Manual Cold-Vapor Techique)	**Units**					
Mercury	MG/KG	0.110 U	0.0980 U	0.0940 U	**0.0190 J**	0.0970 U

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control

TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-SS3-DU1-SB1	68-SS3-DU1-SB2	68-SS3-DU1-SB2	68-SS3-DU1-SB3	68-SS3-DU1-SB4
Field Sample ID:		068SB-0052M-0001-SO	068SB-0053M-0001-SO	068SB-0054M-0001-SO	068SB-0056M-0001-SO	068SB-0057M-0001-SO
Lab Sample ID:		240-22648-57	240-22648-58	240-22648-59	240-22648-60	240-22648-61
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	3/29/2013	3/29/2013	3/29/2013
Field QC:				Field Duplicate		
Analysis Information:		1X	1X	1X	1X	1X
Mercury in Soil (Manual Cold-Vapor Techique)	**Units**					
Mercury	MG/KG	0.0910 U	**0.0150 J**	**0.0140 J**	0.0950 U	0.0970 U

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control
TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-SS3-DU1-SB5	68-ESSE-DU1-SB1	68-ESSE-DU1-SB1	68-ESSE-DU1-SB1	68-ESSE-DU1-SB2
Field Sample ID:		068SB-0059M-0001-SO	068SB-0035M-0001-SO	068SB-0036M-0001-SO	068SB-0042M-0001-SO	068SB-0038M-0001-SO
Lab Sample ID:		240-22648-62	240-22648-48	240-22648-50	240-22648-54	240-22648-49
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	3/29/2013	3/29/2013	3/29/2013
Field QC:				Field Duplicate		
Analysis Information:		1X	1X	1X	1X	1X
Mercury in Soil (Manual Cold-Vapor Techique)	**Units**					
Mercury	MG/KG	0.110 U	**0.0150 J**	**0.0190 J**	0.110 U	**0.0200 J**

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control

TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-ESSE-DU1-SB4	68-ESSE-DU1-SB5	68-ESSE-DU2-SB3	68-ESSW-DU1-SB1	68-ESSW-DU1-SB1
Field Sample ID:		068SB-0040M-0001-SO	068SB-0041M-0001-SO	068SB-0039M-0001-SO	068SB-0019M-0001-SO	068SB-0022M-0001-SO
Lab Sample ID:		240-22648-52	240-22648-53	240-22648-51	240-22663-33	240-22663-34
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	3/29/2013	3/29/2013	3/29/2013
Field QC:						Field Duplicate
Analysis Information:		1X	1X	1X	1X	1X
Mercury in Soil (Manual Cold-Vapor Techique)	**Units**					
Mercury	MG/KG	**0.0180 J**	**0.210**	**0.0170 J**	**0.0210 J**	**0.0190 J**

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control

TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-ESSW-DU1-SB1	68-ESSW-DU1-SB2	68-ESSW-DU1-SB3	68-ESSW-DU1-SB4	68-ESSW-DU1-SB5
Field Sample ID:		068SB-0032-0001-SO	068SB-0020M-0001-SO	068SB-0023M-0001-SO	068SB-0024M-0001-SO	068SB-0025M-0001-SO
Lab Sample ID:		240-22663-39	240-22663-35	240-22663-36	240-22663-37	240-22663-38
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	3/29/2013	3/29/2013	3/29/2013
Field QC:						
Analysis Information:		1X	1X	1X	1X	1X
Mercury in Soil (Manual Cold-Vapor Techique)	**Units**					
Mercury	MG/KG	0.100 U	0.110 U	**0.0400 J**	**0.0250 J**	**0.0500 J**

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control
TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-ESSW-DU2-SB1	68-ESSW-DU2-SB1	68-ESSW-DU2-SB1	68-ESSW-DU2-SB2	68-ESSW-DU2-SB3
Field Sample ID:		068SB-0046M-0001-SO	068SB-0060M-0001-SO	068SB-0061M-0001-SO	068SB-0047M-0001-SO	068SB-0030M-0001-SO
Lab Sample ID:		240-22648-43	240-22852-1	240-22852-2	240-22648-44	240-22663-43
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	4/4/2013	4/4/2013	3/29/2013	3/29/2013
Field QC:				Field Duplicate		
Analysis Information:		1X	1X	1X	1X	1X
Mercury in Soil (Manual Cold-Vapor Techique)	**Units**					
Mercury	MG/KG	0.110 U	**0.0300 J**	0.0980 U	0.110 U	0.110 U

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control
TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68			
Location ID:		68-ESSW-DU2-SB4	68-ESSW-DU2-SB5
Field Sample ID:		068SB-0048M-0001-SO	068SB-0031M-0001-SO
Lab Sample ID:		240-22648-45	240-22663-44
Lab Name:		TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013
Field QC:			
Analysis Information:		1X	1X
Mercury in Soil (Manual Cold-Vapor Techique)	**Units**		
Mercury	MG/KG	0.100 U	0.0940 U

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control

TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68				
Location ID:		68-ESSE-DU1-SB5	68-ESSW-DU2-SB1	68-ESSW-DU2-SB1
Field Sample ID:		068SB-0041M-0001-SO	068SB-0046M-0001-SO	068SB-0060M-0001-SO
Lab Sample ID:		240-22648-53	240-22648-43	240-22852-1
Lab Name:		TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	4/4/2013
Field QC:				
Analysis Information:		1X	1X	1X
Organochlorine Pesticides and PCBs by Capillary GC	**Units**			
Aldrin	UG/KG	4.00 U	4.10 U	3.90 U
alpha-BHC (alpha-Hexachlorocyclohexane)	UG/KG	2.50 U	2.50 U	2.50 U
alpha-Chlordane	UG/KG	3.00 U	3.00 U	3.00 U
alpha-Endosulfan	UG/KG	1.70 U	1.70 U	1.70 U
beta-BHC (beta-Hexachlorocyclohexane)	UG/KG	3.50 U	3.50 U	3.50 U
beta-Endosulfan	UG/KG	2.50 U	2.50 U	2.50 U
delta-BHC (delta-Hexachlorocyclohexane)	UG/KG	4.00 U	4.10 U	3.90 U
Dieldrin	UG/KG	1.70 U	1.70 U	1.70 U
Endosulfan Sulfate	UG/KG	3.00 U	3.00 U	3.00 U
Endrin	UG/KG	1.70 U	1.70 U	1.70 U
Endrin Aldehyde	UG/KG	3.00 U	3.00 U	3.00 U
Endrin Ketone	UG/KG	2.00 U	2.00 U	2.00 U

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control
TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68				
Location ID:		68-ESSE-DU1-SB5	68-ESSW-DU2-SB1	68-ESSW-DU2-SB1
Field Sample ID:		068SB-0041M-0001-SO	068SB-0046M-0001-SO	068SB-0060M-0001-SO
Lab Sample ID:		240-22648-53	240-22648-43	240-22852-1
Lab Name:		TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	4/4/2013
Field QC:				
Analysis Information:		1X	1X	1X
gamma-BHC (Lindane)	UG/KG	2.50 U	2.50 U	2.50 U
gamma-Chlordane	UG/KG	1.70 U	1.70 U	1.70 U
Heptachlor	UG/KG	3.50 UJ	3.50 UJ	3.50 U
Heptachlor Epoxide	UG/KG	2.50 U	2.50 U	2.50 U
Methoxychlor	UG/KG	5.00 UJ	5.10 UJ	4.90 U
p,p'-DDD	UG/KG	2.00 U	2.00 U	2.00 U
p,p'-DDE	UG/KG	1.70 U	1.70 U	1.70 U
p,p'-DDT	UG/KG	2.00 U	2.00 U	2.00 U
Toxaphene	UG/KG	67.0 UJ	68.0 UJ	66.0 U

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control

TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-SS3-DU1-SB	68-SS3-DU1-SB	68-ESSE-DU1-SB	68-ESSE-DU1-SB	68-ESSW-DU1-SB
Field Sample ID:		068SB-0050M-0001-SO	068SB-0051M-0001-SO	068SB-0033M-0001-SO	068SB-0034M-0001-SO	068SB-0017M-0001-SO
Lab Sample ID:		240-22648-55	240-22648-56	240-22648-46	240-22648-47	240-22663-31
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	3/29/2013	3/29/2013	3/29/2013
Field QC:						
Analysis Information:		1X	1X	1X	1X	1X
Polychlorinated Biphenyls (PCB)	**Units**					
PCB-1016 (Arochlor 1016)	UG/KG	65.0 U	65.0 U	64.0 U	64.0 U	64.0 U
PCB-1221 (Arochlor 1221)	UG/KG	50.0 U	50.0 U	49.0 U	49.0 U	49.0 U
PCB-1232 (Arochlor 1232)	UG/KG	45.0 U	45.0 U	44.0 U	44.0 U	44.0 U
PCB-1242 (Arochlor 1242)	UG/KG	40.0 U	40.0 U	39.0 U	40.0 U	39.0 U
PCB-1248 (Arochlor 1248)	UG/KG	55.0 U	55.0 U	54.0 U	54.0 U	54.0 U
PCB-1254 (Arochlor 1254)	UG/KG	55.0 U	55.0 U	54.0 U	54.0 U	54.0 U
PCB-1260 (Arochlor 1260)	UG/KG	55.0 U	55.0 U	54.0 U	54.0 U	54.0 U

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control
TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-ESSW-DU1-SB	68-ESSW-DU2-SB	68-ESSW-DU2-SB	68-ESSW-DU2-SB	68-ESSW-DU2-SB
Field Sample ID:		068SB-0018M-0001-SO	068SB-0027M-0001-SO	068SB-0028M-0001-SO	068SB-0044M-0001-SO	068SB-0045M-0001-SO
Lab Sample ID:		240-22663-32	240-22663-40	240-22663-41	240-22648-41	240-22648-42
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	3/29/2013	3/29/2013	3/29/2013
Field QC:						
Analysis Information:		1X	1X	1X	1X	1X
Polychlorinated Biphenyls (PCB)	**Units**					
PCB-1016 (Arochlor 1016)	UG/KG	64.0 U	64.0 U	65.0 U	66.0 U	66.0 U
PCB-1221 (Arochlor 1221)	UG/KG	50.0 U	50.0 U	50.0 U	50.0 U	51.0 U
PCB-1232 (Arochlor 1232)	UG/KG	45.0 U	45.0 U	45.0 U	45.0 U	46.0 U
PCB-1242 (Arochlor 1242)	UG/KG	40.0 U	40.0 U	40.0 U	40.0 U	41.0 U
PCB-1248 (Arochlor 1248)	UG/KG	54.0 U	54.0 U	55.0 U	55.0 U	56.0 U
PCB-1254 (Arochlor 1254)	UG/KG	54.0 U	54.0 U	55.0 U	55.0 U	56.0 U
PCB-1260 (Arochlor 1260)	UG/KG	54.0 U	54.0 U	55.0 U	55.0 U	56.0 U

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control
TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-SS3-DU1-SB1	68-SS3-DU1-SB2	68-SS3-DU1-SB2	68-SS3-DU1-SB3	68-SS3-DU1-SB4
Field Sample ID:		068SB-0052M-0001-SO	068SB-0053M-0001-SO	068SB-0054M-0001-SO	068SB-0056M-0001-SO	068SB-0057M-0001-SO
Lab Sample ID:		240-22648-57	240-22648-58	240-22648-59	240-22648-60	240-22648-61
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	3/29/2013	3/29/2013	3/29/2013
Field QC:				Field Duplicate		
Analysis Information:		1X	1X	1X	1X	1X
Polychlorinated Biphenyls (PCB)	**Units**					
PCB-1016 (Arochlor 1016)	UG/KG	66.0 U	65.0 U	66.0 U	65.0 U	66.0 U
PCB-1221 (Arochlor 1221)	UG/KG	51.0 U	50.0 U	50.0 U	50.0 U	51.0 U
PCB-1232 (Arochlor 1232)	UG/KG	46.0 U	45.0 U	45.0 U	45.0 U	46.0 U
PCB-1242 (Arochlor 1242)	UG/KG	41.0 U	40.0 U	40.0 U	40.0 U	40.0 U
PCB-1248 (Arochlor 1248)	UG/KG	56.0 U	55.0 U	55.0 U	55.0 U	56.0 U
PCB-1254 (Arochlor 1254)	UG/KG	56.0 U	55.0 U	55.0 U	55.0 U	56.0 U
PCB-1260 (Arochlor 1260)	UG/KG	56.0 U	55.0 U	55.0 U	55.0 U	56.0 U

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control

TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-SS3-DU1-SB5	68-ESSE-DU1-SB1	68-ESSE-DU1-SB1	68-ESSE-DU1-SB1	68-ESSE-DU1-SB2
Field Sample ID:		068SB-0059M-0001-SO	068SB-0035M-0001-SO	068SB-0036M-0001-SO	068SB-0042M-0001-SO	068SB-0038M-0001-SO
Lab Sample ID:		240-22648-62	240-22648-48	240-22648-50	240-22648-54	240-22648-49
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	3/29/2013	3/29/2013	3/29/2013
Field QC:				Field Duplicate		
Analysis Information:		1X	1X	1X	1X	1X
Polychlorinated Biphenyls (PCB)	**Units**					
PCB-1016 (Arochlor 1016)	UG/KG	66.0 U	64.0 U	66.0 U	65.0 U	66.0 U
PCB-1221 (Arochlor 1221)	UG/KG	50.0 U	49.0 U	51.0 U	50.0 U	51.0 U
PCB-1232 (Arochlor 1232)	UG/KG	45.0 U	44.0 U	46.0 U	45.0 U	46.0 U
PCB-1242 (Arochlor 1242)	UG/KG	40.0 U	39.0 U	41.0 U	40.0 U	41.0 U
PCB-1248 (Arochlor 1248)	UG/KG	55.0 U	54.0 U	56.0 U	55.0 U	56.0 U
PCB-1254 (Arochlor 1254)	UG/KG	55.0 U	54.0 U	56.0 U	55.0 U	56.0 U
PCB-1260 (Arochlor 1260)	UG/KG	55.0 U	54.0 U	56.0 U	55.0 U	56.0 U

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control
TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-ESSE-DU1-SB4	68-ESSE-DU1-SB5	68-ESSE-DU2-SB3	68-ESSW-DU1-SB1	68-ESSW-DU1-SB1
Field Sample ID:		068SB-0040M-0001-SO	068SB-0041M-0001-SO	068SB-0039M-0001-SO	068SB-0019M-0001-SO	068SB-0022M-0001-SO
Lab Sample ID:		240-22648-52	240-22648-53	240-22648-51	240-22663-33	240-22663-34
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	3/29/2013	3/29/2013	3/29/2013
Field QC:						Field Duplicate
Analysis Information:		1X	1X	1X	1X	1X
Polychlorinated Biphenyls (PCB)	**Units**					
PCB-1016 (Arochlor 1016)	UG/KG	66.0 U	65.0 U	65.0 U	66.0 U	64.0 U
PCB-1221 (Arochlor 1221)	UG/KG	51.0 U	50.0 U	50.0 U	51.0 U	49.0 U
PCB-1232 (Arochlor 1232)	UG/KG	46.0 U	45.0 U	45.0 U	46.0 U	44.0 U
PCB-1242 (Arochlor 1242)	UG/KG	41.0 U	40.0 U	40.0 U	41.0 U	40.0 U
PCB-1248 (Arochlor 1248)	UG/KG	56.0 U	55.0 U	55.0 U	56.0 U	54.0 U
PCB-1254 (Arochlor 1254)	UG/KG	56.0 U	55.0 U	55.0 U	56.0 U	54.0 U
PCB-1260 (Arochlor 1260)	UG/KG	56.0 U	55.0 U	55.0 U	56.0 U	54.0 U

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control
TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-ESSW-DU1-SB1	68-ESSW-DU1-SB2	68-ESSW-DU1-SB3	68-ESSW-DU1-SB4	68-ESSW-DU1-SB5
Field Sample ID:		068SB-0032-0001-SO	068SB-0020M-0001-SO	068SB-0023M-0001-SO	068SB-0024M-0001-SO	068SB-0025M-0001-SO
Lab Sample ID:		240-22663-39	240-22663-35	240-22663-36	240-22663-37	240-22663-38
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	3/29/2013	3/29/2013	3/29/2013
Field QC:						
Analysis Information:		1X	1X	1X	1X	1X
Polychlorinated Biphenyls (PCB)	**Units**					
PCB-1016 (Arochlor 1016)	UG/KG	74.0 U	66.0 U	65.0 U	65.0 U	65.0 U
PCB-1221 (Arochlor 1221)	UG/KG	57.0 U	50.0 U	50.0 U	50.0 U	50.0 U
PCB-1232 (Arochlor 1232)	UG/KG	51.0 U	45.0 U	45.0 U	45.0 U	45.0 U
PCB-1242 (Arochlor 1242)	UG/KG	46.0 U	40.0 U	40.0 U	40.0 U	40.0 U
PCB-1248 (Arochlor 1248)	UG/KG	63.0 U	55.0 U	55.0 U	55.0 U	55.0 U
PCB-1254 (Arochlor 1254)	UG/KG	63.0 U	55.0 U	55.0 U	55.0 U	55.0 U
PCB-1260 (Arochlor 1260)	UG/KG	63.0 U	55.0 U	55.0 U	55.0 U	55.0 U

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control

TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-ESSW-DU2-SB1	68-ESSW-DU2-SB1	68-ESSW-DU2-SB1	68-ESSW-DU2-SB2	68-ESSW-DU2-SB3
Field Sample ID:		068SB-0046M-0001-SO	068SB-0060M-0001-SO	068SB-0061M-0001-SO	068SB-0047M-0001-SO	068SB-0030M-0001-SO
Lab Sample ID:		240-22648-43	240-22852-1	240-22852-2	240-22648-44	240-22663-43
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	4/4/2013	4/4/2013	3/29/2013	3/29/2013
Field QC:				Field Duplicate		
Analysis Information:		1X	1X	1X	1X	1X
Polychlorinated Biphenyls (PCB)	**Units**					
PCB-1016 (Arochlor 1016)	UG/KG	66.0 U	66.0 U	65.0 U	66.0 U	65.0 U
PCB-1221 (Arochlor 1221)	UG/KG	51.0 U	50.0 U	50.0 U	51.0 U	50.0 U
PCB-1232 (Arochlor 1232)	UG/KG	46.0 U	45.0 U	45.0 U	46.0 U	45.0 U
PCB-1242 (Arochlor 1242)	UG/KG	41.0 U	40.0 U	40.0 U	41.0 U	40.0 U
PCB-1248 (Arochlor 1248)	UG/KG	56.0 U	55.0 U	55.0 U	56.0 U	55.0 U
PCB-1254 (Arochlor 1254)	UG/KG	56.0 U	55.0 U	55.0 U	56.0 U	55.0 U
PCB-1260 (Arochlor 1260)	UG/KG	56.0 U	55.0 U	55.0 U	56.0 U	55.0 U

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control
TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68			
Location ID:		68-ESSW-DU2-SB4	68-ESSW-DU2-SB5
Field Sample ID:		068SB-0048M-0001-SO	068SB-0031M-0001-SO
Lab Sample ID:		240-22648-45	240-22663-44
Lab Name:		TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013
Field QC:			
Analysis Information:		1X	1X
Polychlorinated Biphenyls (PCB)	**Units**		
PCB-1016 (Arochlor 1016)	UG/KG	65.0 U	66.0 U
PCB-1221 (Arochlor 1221)	UG/KG	50.0 U	51.0 U
PCB-1232 (Arochlor 1232)	UG/KG	45.0 U	46.0 U
PCB-1242 (Arochlor 1242)	UG/KG	40.0 U	40.0 U
PCB-1248 (Arochlor 1248)	UG/KG	55.0 U	56.0 U
PCB-1254 (Arochlor 1254)	UG/KG	55.0 U	56.0 U
PCB-1260 (Arochlor 1260)	UG/KG	55.0 U	56.0 U

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control
TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-SS3-DU1-SB4	68-ESSE-DU1-SB5	68-ESSW-DU1-SB4	68-ESSW-DU2-SB1	68-ESSW-DU2-SB1
Field Sample ID:		068SB-0057M-0001-SO	068SB-0041M-0001-SO	068SB-0026-0001-TB	068SB-0046M-0001-SO	068SB-0060M-0001-SO
Lab Sample ID:		240-22660-30	240-22648-53	240-22663-30	240-22648-43	240-22852-1
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	4/1/2013	3/29/2013	4/4/2013
Field QC:						
Analysis Information:		1X	1X	1X	1X	1X
Volatile Organic Compounds by Capillary GC/MS	**Units**					
1,1,1-Trichloroethane	UG/KG	5.10 UJ	4.80 UJ	1.00 U	5.70 UJ	4.60 UJ
1,1,2,2-Tetrachloroethane	UG/KG	5.10 UJ	4.80 UJ	1.00 U	5.70 UJ	4.60 UJ
1,1,2-Trichloroethane	UG/KG	5.10 UJ	4.80 UJ	1.00 U	5.70 UJ	4.60 UJ
1,1-Dichloroethane	UG/KG	5.10 UJ	4.80 UJ	1.00 U	5.70 UJ	4.60 UJ
1,1-Dichloroethene	UG/KG	5.10 UJ	4.80 UJ	1.00 U	5.70 UJ	4.60 UJ
1,2-Dibromoethane (EDB)	UG/KG	5.10 UJ	4.80 UJ	1.00 U	5.70 UJ	4.60 UJ
1,2-Dichloroethane	UG/KG	5.10 UJ	4.80 UJ	1.00 U	5.70 UJ	4.60 UJ
1,2-Dichloroethene	UG/KG	10.0 UJ	9.50 UJ	2.00 U	11.0 UJ	9.20 UJ
1,2-Dichloropropane	UG/KG	5.10 UJ	4.80 UJ	1.00 U	5.70 UJ	4.60 UJ
2-Butanone (MEK)	UG/KG	21.0 UJ	19.0 UJ	10.0 U	23.0 UJ	18.0 UJ
2-Hexanone	UG/KG	21.0 UJ	19.0 UJ	10.0 U	23.0 UJ	18.0 UJ
4-Methyl-2-pentanone (MIBK)	UG/KG	21.0 UJ	19.0 UJ	10.0 U	23.0 UJ	18.0 UJ
Acetone	UG/KG	21.0 UJ	19.0 UJ	**6.20 J**	23.0 UJ	18.0 UJ
Benzene	UG/KG	5.10 UJ	4.80 UJ	1.00 U	5.70 UJ	4.60 UJ

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control
TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-SS3-DU1-SB4	68-ESSE-DU1-SB5	68-ESSW-DU1-SB4	68-ESSW-DU2-SB1	68-ESSW-DU2-SB1
Field Sample ID:		068SB-0057M-0001-SO	068SB-0041M-0001-SO	068SB-0026-0001-TB	068SB-0046M-0001-SO	068SB-0060M-0001-SO
Lab Sample ID:		240-22660-30	240-22648-53	240-22663-30	240-22648-43	240-22852-1
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	4/1/2013	3/29/2013	4/4/2013
Field QC:						
Analysis Information:		1X	1X	1X	1X	1X
Bromochloromethane	UG/KG	5.10 UJ	4.80 UJ	1.00 U	5.70 UJ	4.60 UJ
Bromodichloromethane	UG/KG	5.10 UJ	4.80 UJ	1.00 U	5.70 UJ	4.60 UJ
Bromoform	UG/KG	5.10 UJ	4.80 UJ	1.00 U	5.70 UJ	4.60 UJ
Bromomethane	UG/KG	5.10 UJ	4.80 UJ	1.00 U	5.70 UJ	4.60 UJ
Carbon Disulfide	UG/KG	5.10 UJ	**3.10 J**	1.00 U	5.70 UJ	4.60 UJ
Carbon Tetrachloride	UG/KG	5.10 UJ	4.80 UJ	1.00 U	5.70 UJ	4.60 UJ
Chlorobenzene	UG/KG	5.10 UJ	4.80 UJ	1.00 U	5.70 UJ	4.60 UJ
Chloroethane	UG/KG	5.10 UJ	4.80 UJ	1.00 U	5.70 UJ	4.60 UJ
Chloroform	UG/KG	5.10 UJ	4.80 UJ	1.00 U	5.70 UJ	4.60 UJ
Chloromethane	UG/KG	5.10 UJ	4.80 UJ	1.00 U	5.70 UJ	4.60 UJ
cis-1,3-Dichloropropene	UG/KG	5.10 UJ	4.80 UJ	1.00 U	5.70 UJ	4.60 UJ
Dibromochloromethane	UG/KG	5.10 UJ	4.80 UJ	1.00 U	5.70 UJ	4.60 UJ
Ethylbenzene	UG/KG	5.10 UJ	4.80 UJ	1.00 U	5.70 UJ	4.60 UJ
Methylene Chloride	UG/KG	5.10 UJ	4.80 UJ	**1.20**	5.70 UJ	4.60 UJ
Styrene	UG/KG	5.10 UJ	4.80 UJ	1.00 U	5.70 UJ	4.60 UJ

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control
TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-SS3-DU1-SB4	68-ESSE-DU1-SB5	68-ESSW-DU1-SB4	68-ESSW-DU2-SB1	68-ESSW-DU2-SB1
Field Sample ID:		068SB-0057M-0001-SO	068SB-0041M-0001-SO	068SB-0026-0001-TB	068SB-0046M-0001-SO	068SB-0060M-0001-SO
Lab Sample ID:		240-22660-30	240-22648-53	240-22663-30	240-22648-43	240-22852-1
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	4/1/2013	3/29/2013	4/4/2013
Field QC:						
Analysis Information:		1X	1X	1X	1X	1X
tert-Butyl Methyl Ether (MTBE)	UG/L			1.00 U		4.60 UJ
Tetrachloroethene (PCE)	UG/KG	5.10 UJ	4.80 UJ	1.00 U	5.70 UJ	4.60 UJ
Toluene	UG/KG	5.10 UJ	4.80 UJ	1.00 U	5.70 UJ	4.60 UJ
trans-1,3-Dichloropropene	UG/KG	5.10 UJ	4.80 UJ	1.00 U	5.70 UJ	4.60 UJ
Trichloroethene (TCE)	UG/KG	5.10 UJ	4.80 UJ	1.00 U	5.70 UJ	4.60 UJ
Vinyl Chloride	UG/KG	5.10 UJ	4.80 UJ	1.00 U	5.70 UJ	4.60 UJ
Xylenes, Total	UG/KG	10.0 UJ	9.50 UJ	2.00 U	11.0 UJ	9.20 UJ

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control
TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-SS3-DU1-SB	68-SS3-DU1-SB	68-ESSE-DU1-SB	68-ESSE-DU1-SB	68-ESSW-DU1-SB
Field Sample ID:		068SB-0050M-0001-SO	068SB-0051M-0001-SO	068SB-0033M-0001-SO	068SB-0034M-0001-SO	068SB-0017M-0001-SO
Lab Sample ID:		240-22648-55	240-22648-56	240-22648-46	240-22648-47	240-22663-31
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	3/29/2013	3/29/2013	3/29/2013
Field QC:						
Analysis Information:		1X	1X	1X	1X	5X
Semivolatile Organic Compounds by Capillary GC/MS	**Units**					
1,2,4-Trichlorobenzene	UG/KG	50.0 U	50.0 U	50.0 U	50.0 U	250 U
1,2-Dichlorobenzene	UG/KG	50.0 U	50.0 U	50.0 U	50.0 U	250 U
1,3-Dichlorobenzene	UG/KG	50.0 U	50.0 U	50.0 U	50.0 U	250 U
1,4-Dichlorobenzene	UG/KG	50.0 U	50.0 U	50.0 U	50.0 U	250 U
2,4,5-Trichlorophenol	UG/KG	150 U	150 U	150 U	150 U	750 U
2,4,6-Trichlorophenol	UG/KG	150 U	150 U	150 U	150 U	750 U
2,4-Dichlorophenol	UG/KG	150 U	150 U	150 U	150 U	750 U
2,4-Dimethylphenol	UG/KG	150 U	150 U	150 U	150 U	750 U
2,4-Dinitrophenol	UG/KG	330 UJ	330 UJ	330 UJ	330 UJ	1700 U
2,4-Dinitrotoluene	UG/KG	200 U	200 U	200 U	200 U	1000 U
2,6-Dinitrotoluene	UG/KG	200 U	200 U	200 U	200 U	1000 U
2-Chloronaphthalene	UG/KG	50.0 U	50.0 U	50.0 U	50.0 U	250 U
2-Chlorophenol	UG/KG	50.0 U	50.0 U	50.0 U	50.0 U	250 U
2-Methylnaphthalene	UG/KG	**5.70 J**	**6.50 J**	6.70 U	**11.0**	33.0 U

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control
TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-ESSW-DU1-SB	68-ESSW-DU2-SB	68-ESSW-DU2-SB	68-ESSW-DU2-SB	68-ESSW-DU2-SB
Field Sample ID:		068SB-0018M-0001-SO	068SB-0027M-0001-SO	068SB-0028M-0001-SO	068SB-0044M-0001-SO	068SB-0045M-0001-SO
Lab Sample ID:		240-22663-32	240-22663-40	240-22663-41	240-22648-41	240-22648-42
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	3/29/2013	3/29/2013	3/29/2013
Field QC:						
Analysis Information:		5X	1X	1X	1X	1X
Semivolatile Organic Compounds by Capillary GC/MS	**Units**					
1,2,4-Trichlorobenzene	UG/KG	250 U	50.0 U	50.0 U	51.0 U	50.0 U
1,2-Dichlorobenzene	UG/KG	250 U	50.0 U	50.0 U	51.0 U	50.0 U
1,3-Dichlorobenzene	UG/KG	250 U	50.0 U	50.0 U	51.0 U	50.0 U
1,4-Dichlorobenzene	UG/KG	250 U	50.0 U	50.0 U	51.0 U	50.0 U
2,4,5-Trichlorophenol	UG/KG	760 U	150 U	150 U	150 U	150 U
2,4,6-Trichlorophenol	UG/KG	760 U	150 U	150 U	150 U	150 U
2,4-Dichlorophenol	UG/KG	760 U	150 U	150 U	150 U	150 U
2,4-Dimethylphenol	UG/KG	760 U	150 U	150 U	150 U	150 U
2,4-Dinitrophenol	UG/KG	1700 U	330 U	330 U	340 U	330 U
2,4-Dinitrotoluene	UG/KG	1000 U	200 U	200 U	200 U	200 U
2,6-Dinitrotoluene	UG/KG	1000 U	200 U	200 U	200 U	200 U
2-Chloronaphthalene	UG/KG	250 U	50.0 U	50.0 U	51.0 U	50.0 U
2-Chlorophenol	UG/KG	250 U	50.0 U	50.0 U	51.0 U	50.0 U
2-Methylnaphthalene	UG/KG	34.0 U	**5.50 J**	**7.30**	**12.0**	**6.10 J**

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control

TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-SS3-DU1-SB1	68-SS3-DU1-SB2	68-SS3-DU1-SB2	68-SS3-DU1-SB3	68-SS3-DU1-SB4
Field Sample ID:		068SB-0052M-0001-SO	068SB-0053M-0001-SO	068SB-0054M-0001-SO	068SB-0056M-0001-SO	068SB-0057M-0001-SO
Lab Sample ID:		240-22648-57	240-22648-58	240-22648-59	240-22648-60	240-22648-61
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	3/29/2013	3/29/2013	3/29/2013
Field QC:				Field Duplicate		
Analysis Information:		1X	1X	1X	1X	1X
Semivolatile Organic Compounds by Capillary GC/MS	**Units**					
1,2,4-Trichlorobenzene	UG/KG	50.0 U	50.0 U	50.0 U	49.0 U	51.0 U
1,2-Dichlorobenzene	UG/KG	50.0 U	50.0 U	50.0 U	49.0 U	51.0 U
1,3-Dichlorobenzene	UG/KG	50.0 U	50.0 U	50.0 U	49.0 U	51.0 U
1,4-Dichlorobenzene	UG/KG	50.0 U	50.0 U	50.0 U	49.0 U	51.0 U
2,4,5-Trichlorophenol	UG/KG	150 U	150 U	150 U	150 U	150 U
2,4,6-Trichlorophenol	UG/KG	150 U	150 U	150 U	150 U	150 U
2,4-Dichlorophenol	UG/KG	150 U	150 U	150 U	150 U	150 U
2,4-Dimethylphenol	UG/KG	150 U	150 U	150 U	150 U	150 U
2,4-Dinitrophenol	UG/KG	330 UJ	330 UJ	330 UJ	330 UJ	330 UJ
2,4-Dinitrotoluene	UG/KG	200 U	200 U	200 U	200 U	200 U
2,6-Dinitrotoluene	UG/KG	200 U	200 U	200 U	200 U	200 U
2-Chloronaphthalene	UG/KG	50.0 U	50.0 U	50.0 U	49.0 U	51.0 U
2-Chlorophenol	UG/KG	50.0 U	50.0 U	50.0 U	49.0 U	51.0 U
2-Methylnaphthalene	UG/KG	**5.70 J**	**4.40 J**	**9.60**	**7.50**	**12.0**

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control
TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-SS3-DU1-SB5	68-ESSE-DU1-SB1	68-ESSE-DU1-SB1	68-ESSE-DU1-SB1	68-ESSE-DU1-SB2
Field Sample ID:		068SB-0059M-0001-SO	068SB-0035M-0001-SO	068SB-0036M-0001-SO	068SB-0042M-0001-SO	068SB-0038M-0001-SO
Lab Sample ID:		240-22648-62	240-22648-48	240-22648-50	240-22648-54	240-22648-49
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	3/29/2013	3/29/2013	3/29/2013
Field QC:				Field Duplicate		
Analysis Information:		1X	1X	1X	1X	1X
Semivolatile Organic Compounds by Capillary GC/MS	**Units**					
1,2,4-Trichlorobenzene	UG/KG	51.0 U	50.0 U	50.0 U	50.0 U	50.0 U
1,2-Dichlorobenzene	UG/KG	51.0 U	50.0 U	50.0 U	50.0 U	50.0 U
1,3-Dichlorobenzene	UG/KG	51.0 U	50.0 U	50.0 U	50.0 U	50.0 U
1,4-Dichlorobenzene	UG/KG	51.0 U	50.0 U	50.0 U	50.0 U	50.0 U
2,4,5-Trichlorophenol	UG/KG	150 U	150 U	150 U	150 U	150 U
2,4,6-Trichlorophenol	UG/KG	150 U	150 U	150 U	150 U	150 U
2,4-Dichlorophenol	UG/KG	150 U	150 U	150 U	150 U	150 U
2,4-Dimethylphenol	UG/KG	150 U	150 U	150 U	150 U	150 U
2,4-Dinitrophenol	UG/KG	330 UJ	330 UJ	330 UJ	330 UJ	330 UJ
2,4-Dinitrotoluene	UG/KG	200 U	200 U	200 U	200 U	200 U
2,6-Dinitrotoluene	UG/KG	200 U	200 U	200 U	200 U	200 U
2-Chloronaphthalene	UG/KG	51.0 U	50.0 U	50.0 U	50.0 U	50.0 U
2-Chlorophenol	UG/KG	51.0 U	50.0 U	50.0 U	50.0 U	50.0 U
2-Methylnaphthalene	UG/KG	**8.80**	**7.80**	**6.50 J**	**14.0**	**9.10**

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control
TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-ESSE-DU1-SB4	68-ESSE-DU1-SB5	68-ESSE-DU2-SB3	68-ESSW-DU1-SB1	68-ESSW-DU1-SB1
Field Sample ID:		068SB-0040M-0001-SO	068SB-0041M-0001-SO	068SB-0039M-0001-SO	068SB-0019M-0001-SO	068SB-0022M-0001-SO
Lab Sample ID:		240-22648-52	240-22648-53	240-22648-51	240-22663-33	240-22663-34
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	3/29/2013	3/29/2013	3/29/2013
Field QC:						Field Duplicate
Analysis Information:		1X	1X	1X	5X	5X
Semivolatile Organic Compounds by Capillary GC/MS	**Units**					
1,2,4-Trichlorobenzene	UG/KG	50.0 U	50.0 U	50.0 U	250 U	250 U
1,2-Dichlorobenzene	UG/KG	50.0 U	50.0 U	50.0 U	250 U	250 U
1,3-Dichlorobenzene	UG/KG	50.0 U	50.0 U	50.0 U	250 U	250 U
1,4-Dichlorobenzene	UG/KG	50.0 U	50.0 U	50.0 U	250 U	250 U
2,4,5-Trichlorophenol	UG/KG	150 U	150 U	150 U	740 U	760 U
2,4,6-Trichlorophenol	UG/KG	150 U	150 U	150 U	740 U	760 U
2,4-Dichlorophenol	UG/KG	150 U	150 U	150 U	740 U	760 U
2,4-Dimethylphenol	UG/KG	150 U	150 U	150 U	740 U	760 U
2,4-Dinitrophenol	UG/KG	330 UJ	330 UJ	330 UJ	1600 U	1700 U
2,4-Dinitrotoluene	UG/KG	200 U	200 U	200 U	990 U	1000 U
2,6-Dinitrotoluene	UG/KG	200 U	200 U	200 U	990 U	1000 U
2-Chloronaphthalene	UG/KG	50.0 U	50.0 U	50.0 U	250 U	250 U
2-Chlorophenol	UG/KG	50.0 U	50.0 U	50.0 U	250 U	250 U
2-Methylnaphthalene	UG/KG	**5.80 J**	**13.0**	**11.0**	33.0 U	34.0 U

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control

TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-ESSW-DU1-SB1	68-ESSW-DU1-SB2	68-ESSW-DU1-SB3	68-ESSW-DU1-SB4	68-ESSW-DU1-SB5
Field Sample ID:		068SB-0032-0001-SO	068SB-0020M-0001-SO	068SB-0023M-0001-SO	068SB-0024M-0001-SO	068SB-0025M-0001-SO
Lab Sample ID:		240-22663-39	240-22663-35	240-22663-36	240-22663-37	240-22663-38
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	3/29/2013	3/29/2013	3/29/2013
Field QC:						
Analysis Information:		1X	5X	5X	5X	5X
Semivolatile Organic Compounds by Capillary GC/MS	**Units**					
1,2,4-Trichlorobenzene	UG/KG	58.0 U	250 U	250 U	250 U	250 U
1,2-Dichlorobenzene	UG/KG	58.0 U	250 U	250 U	250 U	250 U
1,3-Dichlorobenzene	UG/KG	58.0 U	250 U	250 U	250 U	250 U
1,4-Dichlorobenzene	UG/KG	58.0 U	250 U	250 U	250 U	250 U
2,4,5-Trichlorophenol	UG/KG	170 U	750 U	750 U	750 U	750 U
2,4,6-Trichlorophenol	UG/KG	170 U	750 U	750 U	750 U	750 U
2,4-Dichlorophenol	UG/KG	170 U	750 U	750 U	750 U	750 U
2,4-Dimethylphenol	UG/KG	170 U	750 U	750 U	750 U	750 U
2,4-Dinitrophenol	UG/KG	380 U	1700 U	1600 U	1700 U	1700 U
2,4-Dinitrotoluene	UG/KG	230 U	1000 U	1000 U	1000 U	1000 U
2,6-Dinitrotoluene	UG/KG	230 U	1000 U	1000 U	1000 U	1000 U
2-Chloronaphthalene	UG/KG	58.0 U	250 U	250 U	250 U	250 U
2-Chlorophenol	UG/KG	58.0 U	250 U	250 U	250 U	250 U
2-Methylnaphthalene	UG/KG	7.70 U	33.0 U	33.0 U	33.0 U	34.0 U

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control

TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-ESSW-DU2-SB1	68-ESSW-DU2-SB1	68-ESSW-DU2-SB1	68-ESSW-DU2-SB2	68-ESSW-DU2-SB3
Field Sample ID:		068SB-0046M-0001-SO	068SB-0060M-0001-SO	068SB-0061M-0001-SO	068SB-0047M-0001-SO	068SB-0030M-0001-SO
Lab Sample ID:		240-22648-43	240-22852-1	240-22852-2	240-22648-44	240-22663-43
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	4/4/2013	4/4/2013	3/29/2013	3/29/2013
Field QC:				Field Duplicate		
Analysis Information:		1X	5X	4X	1X	1X
Semivolatile Organic Compounds by Capillary GC/MS	**Units**					
1,2,4-Trichlorobenzene	UG/KG	49.0 U	250 U	200 U	50.0 U	50.0 U
1,2-Dichlorobenzene	UG/KG	49.0 U	250 U	200 U	50.0 U	50.0 U
1,3-Dichlorobenzene	UG/KG	49.0 U	250 U	200 U	50.0 U	50.0 U
1,4-Dichlorobenzene	UG/KG	**20.0 J**	250 U	200 U	50.0 U	50.0 U
2,4,5-Trichlorophenol	UG/KG	150 U	750 U	600 U	150 U	150 U
2,4,6-Trichlorophenol	UG/KG	150 U	750 U	600 U	150 U	150 U
2,4-Dichlorophenol	UG/KG	150 U	750 U	600 U	150 U	150 U
2,4-Dimethylphenol	UG/KG	150 U	750 U	600 U	150 U	150 U
2,4-Dinitrophenol	UG/KG	330 U	1600 J	1300 J	330 UJ	330 U
2,4-Dinitrotoluene	UG/KG	200 U	1000 U	800 U	200 U	200 U
2,6-Dinitrotoluene	UG/KG	200 U	1000 U	800 U	200 U	200 U
2-Chloronaphthalene	UG/KG	49.0 U	250 U	200 U	50.0 U	50.0 U
2-Chlorophenol	UG/KG	49.0 U	250 U	200 U	50.0 U	50.0 U
2-Methylnaphthalene	UG/KG	**12.0**	33.0 U	27.0 U	**7.20**	**4.10 J**

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control
TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68			
Location ID:		68-ESSW-DU2-SB4	68-ESSW-DU2-SB5
Field Sample ID:		068SB-0048M-0001-SO	068SB-0031M-0001-SO
Lab Sample ID:		240-22648-45	240-22663-44
Lab Name:		TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013
Field QC:			
Analysis Information:		1X	5X
Semivolatile Organic Compounds by Capillary GC/MS	**Units**		
1,2,4-Trichlorobenzene	UG/KG	50.0 U	250 U
1,2-Dichlorobenzene	UG/KG	50.0 U	250 U
1,3-Dichlorobenzene	UG/KG	50.0 U	250 U
1,4-Dichlorobenzene	UG/KG	50.0 U	250 U
2,4,5-Trichlorophenol	UG/KG	150 U	740 U
2,4,6-Trichlorophenol	UG/KG	150 U	740 U
2,4-Dichlorophenol	UG/KG	150 U	740 U
2,4-Dimethylphenol	UG/KG	150 U	740 UJ
2,4-Dinitrophenol	UG/KG	330 U	1600 U
2,4-Dinitrotoluene	UG/KG	200 U	990 U
2,6-Dinitrotoluene	UG/KG	200 U	990 U
2-Chloronaphthalene	UG/KG	50.0 U	250 U
2-Chlorophenol	UG/KG	50.0 U	250 U
2-Methylnaphthalene	UG/KG	**6.40 J**	33.0 U

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control
TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-SS3-DU1-SB	68-SS3-DU1-SB	68-ESSE-DU1-SB	68-ESSE-DU1-SB	68-ESSW-DU1-SB
Field Sample ID:		068SB-0050M-0001-SO	068SB-0051M-0001-SO	068SB-0033M-0001-SO	068SB-0034M-0001-SO	068SB-0017M-0001-SO
Lab Sample ID:		240-22648-55	240-22648-56	240-22648-46	240-22648-47	240-22663-31
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	3/29/2013	3/29/2013	3/29/2013
Field QC:						
Analysis Information:		1X	1X	1X	1X	5X
2-Methylphenol (o-Cresol)	UG/KG	200 U	200 U	200 U	200 U	1000 U
2-Nitroaniline	UG/KG	200 U	200 U	200 U	200 U	1000 U
2-Nitrophenol	UG/KG	50.0 U	50.0 U	50.0 U	50.0 U	250 U
3,3'-Dichlorobenzidine	UG/KG	100 U	100 U	100 U	99.0 U	500 U
3-Nitroaniline	UG/KG	200 U	200 U	200 U	200 U	1000 U
4,6-Dinitro-2-Methylphenol	UG/KG	150 U	150 U	150 U	150 U	750 U
4-Bromophenyl phenyl ether	UG/KG	50.0 U	50.0 U	50.0 U	50.0 U	250 U
4-Chloro-3-Methylphenol	UG/KG	150 U	150 U	150 U	150 U	750 U
4-Chloroaniline	UG/KG	150 U	150 U	150 U	150 U	750 U
4-Chlorophenyl Phenyl Ether	UG/KG	50.0 U	50.0 U	50.0 U	50.0 U	250 U
4-Nitroaniline	UG/KG	200 U	200 U	200 U	200 U	1000 U
4-Nitrophenol	UG/KG	330 U	330 U	330 U	330 U	1700 U
Acenaphthene	UG/KG	6.70 U	6.70 U	6.70 U	6.60 U	33.0 U
Acenaphthylene	UG/KG	6.70 U	6.70 U	6.70 U	6.60 U	33.0 U
Anthracene	UG/KG	6.70 U	6.70 U	6.70 U	6.60 U	**20.0 J**

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control
TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-ESSW-DU1-SB	68-ESSW-DU2-SB	68-ESSW-DU2-SB	68-ESSW-DU2-SB	68-ESSW-DU2-SB
Field Sample ID:		068SB-0018M-0001-SO	068SB-0027M-0001-SO	068SB-0028M-0001-SO	068SB-0044M-0001-SO	068SB-0045M-0001-SO
Lab Sample ID:		240-22663-32	240-22663-40	240-22663-41	240-22648-41	240-22648-42
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	3/29/2013	3/29/2013	3/29/2013
Field QC:						
Analysis Information:		5X	1X	1X	1X	1X
2-Methylphenol (o-Cresol)	UG/KG	1000 U	200 U	200 U	200 U	200 U
2-Nitroaniline	UG/KG	1000 U	200 U	200 U	200 U	200 U
2-Nitrophenol	UG/KG	250 U	50.0 U	50.0 U	51.0 U	50.0 U
3,3'-Dichlorobenzidine	UG/KG	500 U	100 U	100 U	100 U	100 U
3-Nitroaniline	UG/KG	1000 U	200 U	200 U	200 U	200 U
4,6-Dinitro-2-Methylphenol	UG/KG	760 U	150 U	150 U	150 U	150 U
4-Bromophenyl phenyl ether	UG/KG	250 U	50.0 U	50.0 U	51.0 U	50.0 U
4-Chloro-3-Methylphenol	UG/KG	760 U	150 U	150 U	150 U	150 U
4-Chloroaniline	UG/KG	760 U	150 U	150 U	150 U	150 U
4-Chlorophenyl Phenyl Ether	UG/KG	250 U	50.0 U	50.0 U	51.0 U	50.0 U
4-Nitroaniline	UG/KG	1000 U	200 U	200 U	200 U	200 U
4-Nitrophenol	UG/KG	1700 U	330 U	330 U	340 U	330 U
Acenaphthene	UG/KG	34.0 U	6.70 U	6.70 U	6.80 U	6.70 U
Acenaphthylene	UG/KG	34.0 U	6.70 U	6.70 U	6.80 U	6.70 U
Anthracene	UG/KG	34.0 U	6.70 U	6.70 U	6.80 U	6.70 U

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control
TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-SS3-DU1-SB1	68-SS3-DU1-SB2	68-SS3-DU1-SB2	68-SS3-DU1-SB3	68-SS3-DU1-SB4
Field Sample ID:		068SB-0052M-0001-SO	068SB-0053M-0001-SO	068SB-0054M-0001-SO	068SB-0056M-0001-SO	068SB-0057M-0001-SO
Lab Sample ID:		240-22648-57	240-22648-58	240-22648-59	240-22648-60	240-22648-61
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	3/29/2013	3/29/2013	3/29/2013
Field QC:				Field Duplicate		
Analysis Information:		1X	1X	1X	1X	1X
2-Methylphenol (o-Cresol)	UG/KG	200 U	200 U	200 U	200 U	200 U
2-Nitroaniline	UG/KG	200 U	200 U	200 U	200 U	200 U
2-Nitrophenol	UG/KG	50.0 U	50.0 U	50.0 U	49.0 U	51.0 U
3,3'-Dichlorobenzidine	UG/KG	100 U	100 U	100 U	99.0 U	100 U
3-Nitroaniline	UG/KG	200 U	200 U	200 U	200 U	200 U
4,6-Dinitro-2-Methylphenol	UG/KG	150 U	150 U	150 U	150 U	150 U
4-Bromophenyl phenyl ether	UG/KG	50.0 U	50.0 U	50.0 U	49.0 U	51.0 U
4-Chloro-3-Methylphenol	UG/KG	150 U	150 U	150 U	150 U	150 U
4-Chloroaniline	UG/KG	150 U	150 U	150 U	150 U	150 U
4-Chlorophenyl Phenyl Ether	UG/KG	50.0 U	50.0 U	50.0 U	49.0 U	51.0 U
4-Nitroaniline	UG/KG	200 U	200 U	200 U	200 U	200 U
4-Nitrophenol	UG/KG	330 U	330 U	330 U	330 U	330 U
Acenaphthene	UG/KG	6.60 U	6.60 U	6.60 U	6.60 U	6.80 U
Acenaphthylene	UG/KG	6.60 U	6.60 U	6.60 U	6.60 U	6.80 U
Anthracene	UG/KG	6.60 U	6.60 U	6.60 U	6.60 U	6.80 U

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control
TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-SS3-DU1-SB5	68-ESSE-DU1-SB1	68-ESSE-DU1-SB1	68-ESSE-DU1-SB1	68-ESSE-DU1-SB2
Field Sample ID:		068SB-0059M-0001-SO	068SB-0035M-0001-SO	068SB-0036M-0001-SO	068SB-0042M-0001-SO	068SB-0038M-0001-SO
Lab Sample ID:		240-22648-62	240-22648-48	240-22648-50	240-22648-54	240-22648-49
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	3/29/2013	3/29/2013	3/29/2013
Field QC:				Field Duplicate		
Analysis Information:		1X	1X	1X	1X	1X
2-Methylphenol (o-Cresol)	UG/KG	200 U	200 U	200 U	200 U	200 U
2-Nitroaniline	UG/KG	200 U	200 U	200 U	200 U	200 U
2-Nitrophenol	UG/KG	51.0 U	50.0 U	50.0 U	50.0 U	50.0 U
3,3'-Dichlorobenzidine	UG/KG	100 U	99.0 U	100 U	100 U	99.0 U
3-Nitroaniline	UG/KG	200 U	200 U	200 U	200 U	200 U
4,6-Dinitro-2-Methylphenol	UG/KG	150 U	150 U	150 U	150 U	150 U
4-Bromophenyl phenyl ether	UG/KG	51.0 U	50.0 U	50.0 U	50.0 U	50.0 U
4-Chloro-3-Methylphenol	UG/KG	150 U	150 U	150 U	150 U	150 U
4-Chloroaniline	UG/KG	150 U	150 U	150 U	150 U	150 U
4-Chlorophenyl Phenyl Ether	UG/KG	51.0 U	50.0 U	50.0 U	50.0 U	50.0 U
4-Nitroaniline	UG/KG	200 U	200 U	200 U	200 U	200 U
4-Nitrophenol	UG/KG	330 U	330 U	330 U	330 U	330 U
Acenaphthene	UG/KG	6.70 U	6.60 U	6.70 U	6.70 U	6.60 U
Acenaphthylene	UG/KG	6.70 U	6.60 U	6.70 U	6.70 U	6.60 U
Anthracene	UG/KG	6.70 U	6.60 U	6.70 U	6.70 U	6.60 U

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control

TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-ESSE-DU1-SB4	68-ESSE-DU1-SB5	68-ESSE-DU2-SB3	68-ESSW-DU1-SB1	68-ESSW-DU1-SB1
Field Sample ID:		068SB-0040M-0001-SO	068SB-0041M-0001-SO	068SB-0039M-0001-SO	068SB-0019M-0001-SO	068SB-0022M-0001-SO
Lab Sample ID:		240-22648-52	240-22648-53	240-22648-51	240-22663-33	240-22663-34
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	3/29/2013	3/29/2013	3/29/2013
Field QC:						Field Duplicate
Analysis Information:		1X	1X	1X	5X	5X
2-Methylphenol (o-Cresol)	UG/KG	200 U	200 U	200 U	990 U	1000 U
2-Nitroaniline	UG/KG	200 U	200 U	200 U	990 U	1000 U
2-Nitrophenol	UG/KG	50.0 U	50.0 U	50.0 U	250 U	250 U
3,3'-Dichlorobenzidine	UG/KG	100 U	100 U	99.0 U	490 U	510 U
3-Nitroaniline	UG/KG	200 U	200 U	200 U	990 U	1000 U
4,6-Dinitro-2-Methylphenol	UG/KG	150 U	150 U	150 U	740 U	760 U
4-Bromophenyl phenyl ether	UG/KG	50.0 U	50.0 U	50.0 U	250 U	250 U
4-Chloro-3-Methylphenol	UG/KG	150 U	150 U	150 U	740 U	760 U
4-Chloroaniline	UG/KG	150 U	150 U	150 U	740 U	760 U
4-Chlorophenyl Phenyl Ether	UG/KG	50.0 U	50.0 U	50.0 U	250 U	250 U
4-Nitroaniline	UG/KG	200 U	200 U	200 U	990 U	1000 U
4-Nitrophenol	UG/KG	330 U	330 U	330 U	1600 U	1700 U
Acenaphthene	UG/KG	6.70 U	6.70 U	6.60 U	33.0 U	34.0 U
Acenaphthylene	UG/KG	6.70 U	6.70 U	6.60 U	33.0 U	34.0 U
Anthracene	UG/KG	6.70 U	6.70 U	6.60 U	33.0 U	34.0 U

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control

TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-ESSW-DU1-SB1	68-ESSW-DU1-SB2	68-ESSW-DU1-SB3	68-ESSW-DU1-SB4	68-ESSW-DU1-SB5
Field Sample ID:		068SB-0032-0001-SO	068SB-0020M-0001-SO	068SB-0023M-0001-SO	068SB-0024M-0001-SO	068SB-0025M-0001-SO
Lab Sample ID:		240-22663-39	240-22663-35	240-22663-36	240-22663-37	240-22663-38
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	3/29/2013	3/29/2013	3/29/2013
Field QC:						
Analysis Information:		1X	5X	5X	5X	5X
2-Methylphenol (o-Cresol)	UG/KG	230 U	1000 U	1000 U	1000 U	1000 U
2-Nitroaniline	UG/KG	230 U	1000 U	1000 U	1000 U	1000 U
2-Nitrophenol	UG/KG	58.0 U	250 U	250 U	250 U	250 U
3,3'-Dichlorobenzidine	UG/KG	120 U	500 U	500 U	500 U	500 U
3-Nitroaniline	UG/KG	230 U	1000 U	1000 U	1000 U	1000 U
4,6-Dinitro-2-Methylphenol	UG/KG	170 U	750 U	750 U	750 U	750 U
4-Bromophenyl phenyl ether	UG/KG	58.0 U	250 U	250 U	250 U	250 U
4-Chloro-3-Methylphenol	UG/KG	170 U	750 U	750 U	750 U	750 U
4-Chloroaniline	UG/KG	170 U	750 U	750 U	750 U	750 U
4-Chlorophenyl Phenyl Ether	UG/KG	58.0 U	250 U	250 U	250 U	250 U
4-Nitroaniline	UG/KG	230 U	1000 U	1000 U	1000 U	1000 U
4-Nitrophenol	UG/KG	380 U	1700 U	1600 U	1700 U	1700 U
Acenaphthene	UG/KG	7.70 U	33.0 U	33.0 U	33.0 U	34.0 U
Acenaphthylene	UG/KG	7.70 U	33.0 U	**19.0 J**	**22.0 J**	34.0 U
Anthracene	UG/KG	7.70 U	33.0 U	33.0 U	**28.0 J**	**52.0**

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control
TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-ESSW-DU2-SB1	68-ESSW-DU2-SB1	68-ESSW-DU2-SB1	68-ESSW-DU2-SB2	68-ESSW-DU2-SB3
Field Sample ID:		068SB-0046M-0001-SO	068SB-0060M-0001-SO	068SB-0061M-0001-SO	068SB-0047M-0001-SO	068SB-0030M-0001-SO
Lab Sample ID:		240-22648-43	240-22852-1	240-22852-2	240-22648-44	240-22663-43
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	4/4/2013	4/4/2013	3/29/2013	3/29/2013
Field QC:				Field Duplicate		
Analysis Information:		1X	5X	4X	1X	1X
2-Methylphenol (o-Cresol)	UG/KG	200 U	1000 U	800 U	200 U	200 U
2-Nitroaniline	UG/KG	200 U	1000 U	800 U	200 U	200 U
2-Nitrophenol	UG/KG	49.0 U	250 U	200 U	50.0 U	50.0 U
3,3'-Dichlorobenzidine	UG/KG	99.0 U	500 U	400 U	99.0 U	100 U
3-Nitroaniline	UG/KG	200 U	1000 U	800 U	200 U	200 U
4,6-Dinitro-2-Methylphenol	UG/KG	150 U	750 U	600 U	150 U	150 U
4-Bromophenyl phenyl ether	UG/KG	49.0 U	250 U	200 U	50.0 U	50.0 U
4-Chloro-3-Methylphenol	UG/KG	150 U	750 U	600 U	150 U	150 U
4-Chloroaniline	UG/KG	150 U	750 U	600 U	150 U	150 U
4-Chlorophenyl Phenyl Ether	UG/KG	49.0 U	250 U	200 U	50.0 U	50.0 U
4-Nitroaniline	UG/KG	200 U	1000 U	800 U	200 U	200 U
4-Nitrophenol	UG/KG	330 U	1600 U	1300 U	330 U	330 U
Acenaphthene	UG/KG	6.60 U	33.0 U	27.0 U	6.60 U	6.70 U
Acenaphthylene	UG/KG	6.60 U	33.0 U	27.0 U	6.60 U	6.70 U
Anthracene	UG/KG	6.60 U	33.0 U	27.0 U	6.60 U	6.70 U

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control
TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68			
Location ID:		68-ESSW-DU2-SB4	68-ESSW-DU2-SB5
Field Sample ID:		068SB-0048M-0001-SO	068SB-0031M-0001-SO
Lab Sample ID:		240-22648-45	240-22663-44
Lab Name:		TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013
Field QC:			
Analysis Information:		1X	5X
2-Methylphenol (o-Cresol)	UG/KG	200 U	990 R
2-Nitroaniline	UG/KG	200 U	990 U
2-Nitrophenol	UG/KG	50.0 U	250 U
3,3'-Dichlorobenzidine	UG/KG	100 U	490 U
3-Nitroaniline	UG/KG	200 U	990 U
4,6-Dinitro-2-Methylphenol	UG/KG	150 U	740 J
4-Bromophenyl phenyl ether	UG/KG	50.0 U	250 U
4-Chloro-3-Methylphenol	UG/KG	150 U	740 UJ
4-Chloroaniline	UG/KG	150 U	740 U
4-Chlorophenyl Phenyl Ether	UG/KG	50.0 U	250 U
4-Nitroaniline	UG/KG	200 U	990 U
4-Nitrophenol	UG/KG	330 U	1600 R
Acenaphthene	UG/KG	6.70 U	33.0 U
Acenaphthylene	UG/KG	6.70 U	33.0 U
Anthracene	UG/KG	6.70 U	33.0 U

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control
TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-SS3-DU1-SB	68-SS3-DU1-SB	68-ESSE-DU1-SB	68-ESSE-DU1-SB	68-ESSW-DU1-SB
Field Sample ID:		068SB-0050M-0001-SO	068SB-0051M-0001-SO	068SB-0033M-0001-SO	068SB-0034M-0001-SO	068SB-0017M-0001-SO
Lab Sample ID:		240-22648-55	240-22648-56	240-22648-46	240-22648-47	240-22663-31
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	3/29/2013	3/29/2013	3/29/2013
Field QC:						
Analysis Information:		1X	1X	1X	1X	5X
Benzo(a)anthracene	UG/KG	6.70 U	6.70 U	6.70 U	6.60 U	**65.0**
Benzo(a)pyrene	UG/KG	6.70 U	6.70 U	6.70 U	6.60 U	**44.0**
Benzo(b)fluoranthene	UG/KG	6.70 U	6.70 U	6.70 U	6.60 U	**110**
Benzo(g,h,i)perylene	UG/KG	6.70 U	6.70 U	6.70 U	6.60 U	**54.0**
Benzo(k)fluoranthene	UG/KG	6.70 U	6.70 U	6.70 U	6.60 U	**33.0**
Benzoic acid	UG/KG	660 U	660 U	670 U	650 U	3300 R
Benzyl alcohol	UG/KG	330 UJ	330 UJ	330 UJ	330 UJ	1700 U
Benzyl butyl phthalate	UG/KG	70.0 U	70.0 U	71.0 U	69.0 U	350 U
bis(2-Chloroethoxy) Methane	UG/KG	100 U	100 U	100 U	99.0 U	500 U
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	UG/KG	100 U	100 U	100 U	99.0 U	500 U
bis(2-Chloroisopropyl) Ether	UG/KG	100 U	100 U	100 U	99.0 U	500 U
bis(2-Ethylhexyl) Phthalate	UG/KG	110 U	84.0 U	140 U	110 U	**140 J**
Carbazole	UG/KG	50.0 U	50.0 U	50.0 U	50.0 U	250 U
Chrysene	UG/KG	6.70 U	6.70 U	6.70 U	6.60 U	**78.0**
Cresols, m & p	UG/KG	400 U	400 U	400 U	400 U	2000 U

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control
TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-ESSW-DU1-SB	68-ESSW-DU2-SB	68-ESSW-DU2-SB	68-ESSW-DU2-SB	68-ESSW-DU2-SB
Field Sample ID:		068SB-0018M-0001-SO	068SB-0027M-0001-SO	068SB-0028M-0001-SO	068SB-0044M-0001-SO	068SB-0045M-0001-SO
Lab Sample ID:		240-22663-32	240-22663-40	240-22663-41	240-22648-41	240-22648-42
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	3/29/2013	3/29/2013	3/29/2013
Field QC:						
Analysis Information:		5X	1X	1X	1X	1X
Benzo(a)anthracene	UG/KG	34.0 U	6.70 U	**5.50 J**	6.80 U	6.70 U
Benzo(a)pyrene	UG/KG	34.0 U	6.70 U	**4.30 J**	6.80 U	6.70 U
Benzo(b)fluoranthene	UG/KG	**21.0 J**	6.70 U	**14.0**	6.80 U	6.70 U
Benzo(g,h,i)perylene	UG/KG	34.0 U	6.70 U	6.70 U	6.80 U	6.70 U
Benzo(k)fluoranthene	UG/KG	34.0 U	6.70 U	**6.80**	6.80 U	6.70 U
Benzoic acid	UG/KG	3300 R	660 R	660 R	670 R	660 R
Benzyl alcohol	UG/KG	1700 U	330 U	330 U	340 UJ	330 UJ
Benzyl butyl phthalate	UG/KG	350 U	70.0 U	70.0 U	71.0 U	70.0 U
bis(2-Chloroethoxy) Methane	UG/KG	500 U	100 U	100 U	100 U	100 U
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	UG/KG	500 U	100 U	100 U	100 U	100 U
bis(2-Chloroisopropyl) Ether	UG/KG	500 U	100 U	100 U	100 U	100 U
bis(2-Ethylhexyl) Phthalate	UG/KG	350 U	**97.0**	**110**	**120**	**96.0**
Carbazole	UG/KG	250 U	50.0 U	50.0 U	51.0 U	50.0 U
Chrysene	UG/KG	34.0 U	6.70 U	**11.0**	6.80 U	6.70 U
Cresols, m & p	UG/KG	2000 U	400 U	400 U	410 U	400 U

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control
TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-SS3-DU1-SB1	68-SS3-DU1-SB2	68-SS3-DU1-SB2	68-SS3-DU1-SB3	68-SS3-DU1-SB4
Field Sample ID:		068SB-0052M-0001-SO	068SB-0053M-0001-SO	068SB-0054M-0001-SO	068SB-0056M-0001-SO	068SB-0057M-0001-SO
Lab Sample ID:		240-22648-57	240-22648-58	240-22648-59	240-22648-60	240-22648-61
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	3/29/2013	3/29/2013	3/29/2013
Field QC:				Field Duplicate		
Analysis Information:		1X	1X	1X	1X	1X
Benzo(a)anthracene	UG/KG	6.60 U	6.60 U	6.60 U	6.60 U	6.80 U
Benzo(a)pyrene	UG/KG	6.60 U	6.60 U	6.60 U	6.60 U	6.80 U
Benzo(b)fluoranthene	UG/KG	6.60 U	6.60 U	6.60 U	6.60 U	6.80 U
Benzo(g,h,i)perylene	UG/KG	6.60 U	6.60 U	6.60 U	6.60 U	6.80 U
Benzo(k)fluoranthene	UG/KG	6.60 U	6.60 U	6.60 U	6.60 U	6.80 U
Benzoic acid	UG/KG	660 U	660 U	660 U	650 U	670 R
Benzyl alcohol	UG/KG	330 UJ	330 UJ	330 UJ	330 UJ	330 UJ
Benzyl butyl phthalate	UG/KG	70.0 U	70.0 U	70.0 U	69.0 U	71.0 U
bis(2-Chloroethoxy) Methane	UG/KG	100 U	100 U	100 U	99.0 U	100 U
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	UG/KG	100 U	100 U	100 U	99.0 U	100 U
bis(2-Chloroisopropyl) Ether	UG/KG	100 U	100 U	100 U	99.0 U	100 U
bis(2-Ethylhexyl) Phthalate	UG/KG	91.0 U	74.0 U	70.0 U	90.0 U	80.0 U
Carbazole	UG/KG	50.0 U	50.0 U	50.0 U	49.0 U	51.0 U
Chrysene	UG/KG	6.60 U	6.60 U	6.60 U	6.60 U	6.80 U
Cresols, m & p	UG/KG	400 U	400 U	400 U	400 U	400 U

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control
TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-SS3-DU1-SB5	68-ESSE-DU1-SB1	68-ESSE-DU1-SB1	68-ESSE-DU1-SB1	68-ESSE-DU1-SB2
Field Sample ID:		068SB-0059M-0001-SO	068SB-0035M-0001-SO	068SB-0036M-0001-SO	068SB-0042M-0001-SO	068SB-0038M-0001-SO
Lab Sample ID:		240-22648-62	240-22648-48	240-22648-50	240-22648-54	240-22648-49
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	3/29/2013	3/29/2013	3/29/2013
Field QC:				Field Duplicate		
Analysis Information:		1X	1X	1X	1X	1X
Benzo(a)anthracene	UG/KG	6.70 U	6.60 U	6.70 U	6.70 U	6.60 U
Benzo(a)pyrene	UG/KG	6.70 U	6.60 U	6.70 U	6.70 U	6.60 U
Benzo(b)fluoranthene	UG/KG	6.70 U	6.60 U	6.70 U	**5.10 J**	6.60 U
Benzo(g,h,i)perylene	UG/KG	6.70 U	6.60 U	6.70 U	6.70 U	6.60 U
Benzo(k)fluoranthene	UG/KG	6.70 U	6.60 U	6.70 U	6.70 U	6.60 U
Benzoic acid	UG/KG	670 U	650 U	660 U	670 U	650 U
Benzyl alcohol	UG/KG	330 UJ	330 UJ	330 UJ	330 UJ	330 UJ
Benzyl butyl phthalate	UG/KG	71.0 U	69.0 U	70.0 U	71.0 U	69.0 U
bis(2-Chloroethoxy) Methane	UG/KG	100 U	99.0 U	100 U	100 U	99.0 U
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	UG/KG	100 U	99.0 U	100 U	100 U	99.0 U
bis(2-Chloroisopropyl) Ether	UG/KG	100 U	99.0 U	100 U	100 U	99.0 U
bis(2-Ethylhexyl) Phthalate	UG/KG	120 U	73.0 U	70.0 U	120 U	120 U
Carbazole	UG/KG	51.0 U	50.0 U	50.0 U	50.0 U	50.0 U
Chrysene	UG/KG	6.70 U	6.60 U	6.70 U	6.70 U	6.60 U
Cresols, m & p	UG/KG	400 U	400 U	400 U	400 U	400 U

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control
TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-ESSE-DU1-SB4	68-ESSE-DU1-SB5	68-ESSE-DU2-SB3	68-ESSW-DU1-SB1	68-ESSW-DU1-SB1
Field Sample ID:		068SB-0040M-0001-SO	068SB-0041M-0001-SO	068SB-0039M-0001-SO	068SB-0019M-0001-SO	068SB-0022M-0001-SO
Lab Sample ID:		240-22648-52	240-22648-53	240-22648-51	240-22663-33	240-22663-34
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	3/29/2013	3/29/2013	3/29/2013
Field QC:						Field Duplicate
Analysis Information:		1X	1X	1X	5X	5X
Benzo(a)anthracene	UG/KG	6.70 U	6.70 U	6.60 U	33.0 U	34.0 U
Benzo(a)pyrene	UG/KG	**39.0**	6.70 U	6.60 U	33.0 U	34.0 U
Benzo(b)fluoranthene	UG/KG	6.70 U	6.70 U	6.60 U	33.0 U	34.0 U
Benzo(g,h,i)perylene	UG/KG	6.70 U	6.70 U	6.60 U	33.0 U	34.0 U
Benzo(k)fluoranthene	UG/KG	6.70 U	6.70 U	6.60 U	33.0 U	34.0 U
Benzoic acid	UG/KG	670 U	660 U	650 U	3300 R	3400 R
Benzyl alcohol	UG/KG	330 UJ	330 UJ	330 UJ	1600 U	1700 U
Benzyl butyl phthalate	UG/KG	71.0 U	70.0 U	69.0 U	340 U	360 U
bis(2-Chloroethoxy) Methane	UG/KG	100 U	100 U	99.0 U	490 U	510 U
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	UG/KG	100 U	100 U	99.0 U	490 U	510 U
bis(2-Chloroisopropyl) Ether	UG/KG	100 U	100 U	99.0 U	490 U	510 U
bis(2-Ethylhexyl) Phthalate	UG/KG	71.0 U	70.0 U	69.0 U	340 U	360 U
Carbazole	UG/KG	50.0 U	50.0 U	50.0 U	250 U	250 U
Chrysene	UG/KG	6.70 U	6.70 U	6.60 U	33.0 U	34.0 U
Cresols, m & p	UG/KG	400 U	400 U	400 U	2000 U	2000 U

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control

TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-ESSW-DU1-SB1	68-ESSW-DU1-SB2	68-ESSW-DU1-SB3	68-ESSW-DU1-SB4	68-ESSW-DU1-SB5
Field Sample ID:		068SB-0032-0001-SO	068SB-0020M-0001-SO	068SB-0023M-0001-SO	068SB-0024M-0001-SO	068SB-0025M-0001-SO
Lab Sample ID:		240-22663-39	240-22663-35	240-22663-36	240-22663-37	240-22663-38
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	3/29/2013	3/29/2013	3/29/2013
Field QC:						
Analysis Information:		1X	5X	5X	5X	5X
Benzo(a)anthracene	UG/KG	7.70 U	33.0 U	**80.0**	**110**	**120**
Benzo(a)pyrene	UG/KG	7.70 U	33.0 U	**70.0**	**94.0**	**83.0**
Benzo(b)fluoranthene	UG/KG	7.70 U	33.0 U	**140**	**200**	**140**
Benzo(g,h,i)perylene	UG/KG	7.70 U	33.0 U	**71.0**	**89.0**	**58.0**
Benzo(k)fluoranthene	UG/KG	7.70 U	33.0 U	**49.0**	**56.0**	**46.0**
Benzoic acid	UG/KG	770 R	3300 R	3300 R	3300 R	3300 R
Benzyl alcohol	UG/KG	380 U	1700 U	1600 U	1700 U	1700 U
Benzyl butyl phthalate	UG/KG	81.0 U	350 U	350 U	350 U	350 U
bis(2-Chloroethoxy) Methane	UG/KG	120 U	500 U	500 U	500 U	500 U
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	UG/KG	120 U	500 U	500 U	500 U	500 U
bis(2-Chloroisopropyl) Ether	UG/KG	120 U	500 U	500 U	500 U	500 U
bis(2-Ethylhexyl) Phthalate	UG/KG	**35.0 J**	**110 J**	350 U	**120 J**	350 U
Carbazole	UG/KG	58.0 U	250 U	250 U	250 U	250 U
Chrysene	UG/KG	7.70 U	33.0 U	**110**	**150**	**130**
Cresols, m & p	UG/KG	460 U	2000 U	2000 U	2000 U	2000 U

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control
TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-ESSW-DU2-SB1	68-ESSW-DU2-SB1	68-ESSW-DU2-SB1	68-ESSW-DU2-SB2	68-ESSW-DU2-SB3
Field Sample ID:		068SB-0046M-0001-SO	068SB-0060M-0001-SO	068SB-0061M-0001-SO	068SB-0047M-0001-SO	068SB-0030M-0001-SO
Lab Sample ID:		240-22648-43	240-22852-1	240-22852-2	240-22648-44	240-22663-43
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	4/4/2013	4/4/2013	3/29/2013	3/29/2013
Field QC:				Field Duplicate		
Analysis Information:		1X	5X	4X	1X	1X
Benzo(a)anthracene	UG/KG	6.60 U	33.0 U	27.0 U	6.60 U	**8.40**
Benzo(a)pyrene	UG/KG	6.60 U	33.0 U	27.0 U	6.60 U	**7.90**
Benzo(b)fluoranthene	UG/KG	6.60 U	33.0 U	27.0 U	6.60 U	**20.0**
Benzo(g,h,i)perylene	UG/KG	6.60 U	33.0 U	27.0 U	6.60 U	**12.0**
Benzo(k)fluoranthene	UG/KG	6.60 U	33.0 U	27.0 U	6.60 U	**9.90**
Benzoic acid	UG/KG	650 R	3300 U	2600 U	660 U	670 R
Benzyl alcohol	UG/KG	330 UJ	1600 U	**88.0 J**	330 UJ	330 U
Benzyl butyl phthalate	UG/KG	69.0 U	350 U	280 U	70.0 U	71.0 U
bis(2-Chloroethoxy) Methane	UG/KG	99.0 U	500 U	400 U	99.0 U	100 U
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	UG/KG	99.0 U	500 U	400 U	99.0 U	100 U
bis(2-Chloroisopropyl) Ether	UG/KG	99.0 U	500 U	400 U	99.0 U	100 U
bis(2-Ethylhexyl) Phthalate	UG/KG	**110**	350 U	280 U	70.0 U	**53.0 J**
Carbazole	UG/KG	49.0 U	250 U	200 U	50.0 U	50.0 U
Chrysene	UG/KG	6.60 U	33.0 U	27.0 U	6.60 U	**17.0**
Cresols, m & p	UG/KG	400 U	2000 U	1600 U	400 U	400 U

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control

TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68			
Location ID:		68-ESSW-DU2-SB4	68-ESSW-DU2-SB5
Field Sample ID:		068SB-0048M-0001-SO	068SB-0031M-0001-SO
Lab Sample ID:		240-22648-45	240-22663-44
Lab Name:		TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013
Field QC:			
Analysis Information:		1X	5X
Benzo(a)anthracene	UG/KG	6.70 U	33.0 U
Benzo(a)pyrene	UG/KG	6.70 U	33.0 U
Benzo(b)fluoranthene	UG/KG	6.70 U	**21.0 J**
Benzo(g,h,i)perylene	UG/KG	6.70 U	33.0 U
Benzo(k)fluoranthene	UG/KG	6.70 U	33.0 U
Benzoic acid	UG/KG	670 U	3300 R
Benzyl alcohol	UG/KG	330 UJ	1600 U
Benzyl butyl phthalate	UG/KG	71.0 U	350 U
bis(2-Chloroethoxy) Methane	UG/KG	100 U	490 U
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	UG/KG	100 U	490 U
bis(2-Chloroisopropyl) Ether	UG/KG	100 U	490 U
bis(2-Ethylhexyl) Phthalate	UG/KG	**33.0 J**	350 U
Carbazole	UG/KG	50.0 U	250 U
Chrysene	UG/KG	6.70 U	33.0 U
Cresols, m & p	UG/KG	400 U	2000 U

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control

TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-SS3-DU1-SB	68-SS3-DU1-SB	68-ESSE-DU1-SB	68-ESSE-DU1-SB	68-ESSW-DU1-SB
Field Sample ID:		068SB-0050M-0001-SO	068SB-0051M-0001-SO	068SB-0033M-0001-SO	068SB-0034M-0001-SO	068SB-0017M-0001-SO
Lab Sample ID:		240-22648-55	240-22648-56	240-22648-46	240-22648-47	240-22663-31
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	3/29/2013	3/29/2013	3/29/2013
Field QC:						
Analysis Information:		1X	1X	1X	1X	5X
Dibenz(a,h)anthracene	UG/KG	6.70 U	6.70 U	6.70 U	6.60 U	33.0 U
Dibenzofuran	UG/KG	50.0 U	50.0 U	50.0 U	50.0 U	250 U
Diethyl Phthalate	UG/KG	70.0 U	70.0 U	71.0 U	69.0 U	350 U
Dimethyl Phthalate	UG/KG	70.0 U	70.0 U	71.0 U	69.0 U	350 U
Di-n-Butyl Phthalate	UG/KG	70.0 U	70.0 U	71.0 U	69.0 U	350 U
Di-n-Octylphthalate	UG/KG	70.0 U	70.0 U	71.0 U	69.0 U	350 U
Fluoranthene	UG/KG	6.70 U	6.70 U	**5.40 J**	6.60 U	**140**
Fluorene	UG/KG	6.70 U	6.70 U	6.70 U	6.60 U	33.0 U
Hexachlorobenzene	UG/KG	6.70 U	6.70 U	6.70 U	6.60 U	33.0 U
Hexachlorobutadiene	UG/KG	50.0 U	50.0 U	50.0 U	50.0 U	250 U
Hexachlorocyclopentadiene	UG/KG	330 U	330 U	330 U	330 U	1700 U
Hexachloroethane	UG/KG	50.0 U	50.0 U	50.0 U	50.0 U	250 U
Indeno(1,2,3-c,d)pyrene	UG/KG	6.70 U	6.70 U	6.70 U	6.60 U	**51.0**
Isophorone	UG/KG	50.0 U	50.0 U	50.0 U	50.0 U	250 U
Naphthalene	UG/KG	**7.70**	**9.20**	**4.90 J**	**13.0**	33.0 U

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control

TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-ESSW-DU1-SB	68-ESSW-DU2-SB	68-ESSW-DU2-SB	68-ESSW-DU2-SB	68-ESSW-DU2-SB
Field Sample ID:		068SB-0018M-0001-SO	068SB-0027M-0001-SO	068SB-0028M-0001-SO	068SB-0044M-0001-SO	068SB-0045M-0001-SO
Lab Sample ID:		240-22663-32	240-22663-40	240-22663-41	240-22648-41	240-22648-42
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	3/29/2013	3/29/2013	3/29/2013
Field QC:						
Analysis Information:		5X	1X	1X	1X	1X
Dibenz(a,h)anthracene	UG/KG	34.0 U	6.70 U	6.70 U	6.80 U	6.70 U
Dibenzofuran	UG/KG	250 U	50.0 U	50.0 U	51.0 U	50.0 U
Diethyl Phthalate	UG/KG	350 U	70.0 U	70.0 U	71.0 U	70.0 U
Dimethyl Phthalate	UG/KG	350 U	70.0 U	70.0 U	71.0 U	70.0 U
Di-n-Butyl Phthalate	UG/KG	350 U	70.0 U	70.0 U	71.0 U	70.0 U
Di-n-Octylphthalate	UG/KG	350 U	70.0 U	70.0 U	71.0 U	70.0 U
Fluoranthene	UG/KG	**21.0 J**	6.70 U	**17.0**	6.80 U	6.70 U
Fluorene	UG/KG	34.0 U	6.70 U	6.70 U	6.80 U	6.70 U
Hexachlorobenzene	UG/KG	34.0 U	6.70 U	6.70 U	6.80 U	6.70 U
Hexachlorobutadiene	UG/KG	250 U	50.0 U	50.0 U	51.0 U	50.0 U
Hexachlorocyclopentadiene	UG/KG	1700 U	330 U	330 U	340 U	330 U
Hexachloroethane	UG/KG	250 U	50.0 U	50.0 U	51.0 UJ	50.0 UJ
Indeno(1,2,3-c,d)pyrene	UG/KG	34.0 U	6.70 U	6.70 U	6.80 U	6.70 U
Isophorone	UG/KG	250 U	50.0 U	50.0 U	51.0 U	50.0 U
Naphthalene	UG/KG	34.0 U	**7.30**	**8.00**	**14.0**	**7.70**

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control

TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-SS3-DU1-SB1	68-SS3-DU1-SB2	68-SS3-DU1-SB2	68-SS3-DU1-SB3	68-SS3-DU1-SB4
Field Sample ID:		068SB-0052M-0001-SO	068SB-0053M-0001-SO	068SB-0054M-0001-SO	068SB-0056M-0001-SO	068SB-0057M-0001-SO
Lab Sample ID:		240-22648-57	240-22648-58	240-22648-59	240-22648-60	240-22648-61
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	3/29/2013	3/29/2013	3/29/2013
Field QC:				Field Duplicate		
Analysis Information:		1X	1X	1X	1X	1X
Dibenz(a,h)anthracene	UG/KG	6.60 U	6.60 U	6.60 U	6.60 U	6.80 U
Dibenzofuran	UG/KG	**17.0 J**	50.0 U	50.0 U	49.0 U	**17.0 J**
Diethyl Phthalate	UG/KG	70.0 U	70.0 U	70.0 U	69.0 U	71.0 U
Dimethyl Phthalate	UG/KG	70.0 U	70.0 U	70.0 U	69.0 U	71.0 U
Di-n-Butyl Phthalate	UG/KG	70.0 U	70.0 U	70.0 U	69.0 U	71.0 U
Di-n-Octylphthalate	UG/KG	70.0 U	70.0 U	70.0 U	69.0 U	71.0 U
Fluoranthene	UG/KG	6.60 U	6.60 U	6.60 U	6.60 U	6.80 U
Fluorene	UG/KG	**13.0**	6.60 U	6.60 U	6.60 U	**13.0**
Hexachlorobenzene	UG/KG	6.60 U	6.60 U	6.60 U	6.60 U	6.80 U
Hexachlorobutadiene	UG/KG	50.0 U	50.0 U	50.0 U	49.0 U	51.0 U
Hexachlorocyclopentadiene	UG/KG	330 U	330 U	330 U	330 U	330 U
Hexachloroethane	UG/KG	50.0 U	50.0 U	50.0 U	49.0 U	51.0 U
Indeno(1,2,3-c,d)pyrene	UG/KG	6.60 U	6.60 U	6.60 U	6.60 U	6.80 U
Isophorone	UG/KG	50.0 U	50.0 U	50.0 U	49.0 U	51.0 U
Naphthalene	UG/KG	**7.30**	6.60 U	6.60 U	**8.70**	**12.0**

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control

TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-SS3-DU1-SB5	68-ESSE-DU1-SB1	68-ESSE-DU1-SB1	68-ESSE-DU1-SB1	68-ESSE-DU1-SB2
Field Sample ID:		068SB-0059M-0001-SO	068SB-0035M-0001-SO	068SB-0036M-0001-SO	068SB-0042M-0001-SO	068SB-0038M-0001-SO
Lab Sample ID:		240-22648-62	240-22648-48	240-22648-50	240-22648-54	240-22648-49
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	3/29/2013	3/29/2013	3/29/2013
Field QC:				Field Duplicate		
Analysis Information:		1X	1X	1X	1X	1X
Dibenz(a,h)anthracene	UG/KG	6.70 U	6.60 U	6.70 U	6.70 U	6.60 U
Dibenzofuran	UG/KG	51.0 U	50.0 U	50.0 U	50.0 U	50.0 U
Diethyl Phthalate	UG/KG	71.0 U	69.0 U	70.0 U	71.0 U	69.0 U
Dimethyl Phthalate	UG/KG	71.0 U	69.0 U	70.0 U	71.0 U	69.0 U
Di-n-Butyl Phthalate	UG/KG	71.0 U	69.0 U	70.0 U	71.0 U	69.0 U
Di-n-Octylphthalate	UG/KG	71.0 U	69.0 U	70.0 U	71.0 U	69.0 U
Fluoranthene	UG/KG	6.70 U	6.60 U	6.70 U	6.70 U	6.60 U
Fluorene	UG/KG	6.70 U	6.60 U	6.70 U	6.70 U	6.60 U
Hexachlorobenzene	UG/KG	6.70 U	6.60 U	6.70 U	6.70 U	6.60 U
Hexachlorobutadiene	UG/KG	51.0 U	50.0 U	50.0 U	50.0 U	50.0 U
Hexachlorocyclopentadiene	UG/KG	330 U	330 U	330 U	330 U	330 U
Hexachloroethane	UG/KG	51.0 U	50.0 U	50.0 U	50.0 U	50.0 U
Indeno(1,2,3-c,d)pyrene	UG/KG	6.70 U	6.60 U	6.70 U	6.70 U	6.60 U
Isophorone	UG/KG	51.0 U	50.0 U	50.0 U	50.0 U	50.0 U
Naphthalene	UG/KG	**12.0**	**10.0**	**8.30**	**14.0**	**10.0**

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control

TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-ESSE-DU1-SB4	68-ESSE-DU1-SB5	68-ESSE-DU2-SB3	68-ESSW-DU1-SB1	68-ESSW-DU1-SB1
Field Sample ID:		068SB-0040M-0001-SO	068SB-0041M-0001-SO	068SB-0039M-0001-SO	068SB-0019M-0001-SO	068SB-0022M-0001-SO
Lab Sample ID:		240-22648-52	240-22648-53	240-22648-51	240-22663-33	240-22663-34
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	3/29/2013	3/29/2013	3/29/2013
Field QC:						Field Duplicate
Analysis Information:		1X	1X	1X	5X	5X
Dibenz(a,h)anthracene	UG/KG	6.70 U	6.70 U	6.60 U	33.0 U	34.0 U
Dibenzofuran	UG/KG	50.0 U	50.0 U	50.0 U	250 U	250 U
Diethyl Phthalate	UG/KG	71.0 U	70.0 U	69.0 U	340 U	360 U
Dimethyl Phthalate	UG/KG	71.0 U	70.0 U	69.0 U	340 U	360 U
Di-n-Butyl Phthalate	UG/KG	71.0 U	70.0 U	**22.0 J**	340 U	360 U
Di-n-Octylphthalate	UG/KG	71.0 U	70.0 U	69.0 U	340 U	360 U
Fluoranthene	UG/KG	**3.50 J**	6.70 U	6.60 U	33.0 U	34.0 U
Fluorene	UG/KG	6.70 U	6.70 U	6.60 U	33.0 U	34.0 U
Hexachlorobenzene	UG/KG	6.70 U	6.70 U	6.60 U	33.0 U	34.0 U
Hexachlorobutadiene	UG/KG	50.0 U	50.0 U	50.0 U	250 U	250 U
Hexachlorocyclopentadiene	UG/KG	330 U	330 U	330 U	1600 U	1700 U
Hexachloroethane	UG/KG	50.0 U	50.0 U	50.0 U	250 U	250 U
Indeno(1,2,3-c,d)pyrene	UG/KG	6.70 U	6.70 U	6.60 U	33.0 U	34.0 U
Isophorone	UG/KG	50.0 U	50.0 U	50.0 U	250 U	250 U
Naphthalene	UG/KG	**7.10**	**14.0**	**13.0**	33.0 U	34.0 U

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control

TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-ESSW-DU1-SB1	68-ESSW-DU1-SB2	68-ESSW-DU1-SB3	68-ESSW-DU1-SB4	68-ESSW-DU1-SB5
Field Sample ID:		068SB-0032-0001-SO	068SB-0020M-0001-SO	068SB-0023M-0001-SO	068SB-0024M-0001-SO	068SB-0025M-0001-SO
Lab Sample ID:		240-22663-39	240-22663-35	240-22663-36	240-22663-37	240-22663-38
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	3/29/2013	3/29/2013	3/29/2013
Field QC:						
Analysis Information:		1X	5X	5X	5X	5X
Dibenz(a,h)anthracene	UG/KG	7.70 U	33.0 U	33.0 U	33.0 U	34.0 U
Dibenzofuran	UG/KG	58.0 U	250 U	250 U	250 U	250 U
Diethyl Phthalate	UG/KG	81.0 U	350 U	350 U	350 U	350 U
Dimethyl Phthalate	UG/KG	81.0 U	350 U	350 U	350 U	350 U
Di-n-Butyl Phthalate	UG/KG	81.0 U	350 U	350 U	350 U	350 U
Di-n-Octylphthalate	UG/KG	81.0 U	350 U	350 U	350 U	350 U
Fluoranthene	UG/KG	7.70 U	**23.0 J**	**140**	**180**	**270**
Fluorene	UG/KG	7.70 U	33.0 U	33.0 U	33.0 U	34.0 U
Hexachlorobenzene	UG/KG	7.70 U	33.0 U	33.0 U	33.0 U	34.0 U
Hexachlorobutadiene	UG/KG	58.0 U	250 U	250 U	250 U	250 U
Hexachlorocyclopentadiene	UG/KG	380 U	1700 U	1600 U	1700 U	1700 U
Hexachloroethane	UG/KG	58.0 U	250 U	250 U	250 U	250 U
Indeno(1,2,3-c,d)pyrene	UG/KG	7.70 U	33.0 U	**61.0**	**72.0**	**50.0**
Isophorone	UG/KG	58.0 U	250 U	250 U	250 U	250 U
Naphthalene	UG/KG	7.70 U	33.0 U	33.0 U	33.0 U	34.0 U

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control
TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-ESSW-DU2-SB1	68-ESSW-DU2-SB1	68-ESSW-DU2-SB1	68-ESSW-DU2-SB2	68-ESSW-DU2-SB3
Field Sample ID:		068SB-0046M-0001-SO	068SB-0060M-0001-SO	068SB-0061M-0001-SO	068SB-0047M-0001-SO	068SB-0030M-0001-SO
Lab Sample ID:		240-22648-43	240-22852-1	240-22852-2	240-22648-44	240-22663-43
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	4/4/2013	4/4/2013	3/29/2013	3/29/2013
Field QC:				Field Duplicate		
Analysis Information:		1X	5X	4X	1X	1X
Dibenz(a,h)anthracene	UG/KG	6.60 U	33.0 U	27.0 U	6.60 U	6.70 U
Dibenzofuran	UG/KG	49.0 U	250 U	200 U	50.0 U	50.0 U
Diethyl Phthalate	UG/KG	69.0 U	350 U	280 U	70.0 U	71.0 U
Dimethyl Phthalate	UG/KG	69.0 U	350 U	280 U	70.0 U	71.0 U
Di-n-Butyl Phthalate	UG/KG	69.0 U	**130 J**	**100 J**	70.0 U	71.0 U
Di-n-Octylphthalate	UG/KG	69.0 U	350 U	280 U	70.0 U	71.0 U
Fluoranthene	UG/KG	6.60 U	**18.0 J**	27.0 U	6.60 U	**14.0**
Fluorene	UG/KG	6.60 U	33.0 U	27.0 U	6.60 U	6.70 U
Hexachlorobenzene	UG/KG	6.60 U	33.0 U	27.0 U	6.60 U	6.70 U
Hexachlorobutadiene	UG/KG	49.0 U	250 U	200 U	50.0 U	50.0 U
Hexachlorocyclopentadiene	UG/KG	330 U	1600 U	1300 U	330 U	330 U
Hexachloroethane	UG/KG	49.0 UJ	250 U	200 U	50.0 U	50.0 U
Indeno(1,2,3-c,d)pyrene	UG/KG	6.60 U	33.0 U	27.0 U	6.60 U	**8.40**
Isophorone	UG/KG	49.0 U	250 U	200 U	50.0 U	50.0 U
Naphthalene	UG/KG	**17.0**	33.0 U	27.0 U	**9.00**	**6.10 J**

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control

TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68			
Location ID:		68-ESSW-DU2-SB4	68-ESSW-DU2-SB5
Field Sample ID:		068SB-0048M-0001-SO	068SB-0031M-0001-SO
Lab Sample ID:		240-22648-45	240-22663-44
Lab Name:		TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013
Field QC:			
Analysis Information:		1X	5X
Dibenz(a,h)anthracene	UG/KG	6.70 U	33.0 U
Dibenzofuran	UG/KG	50.0 U	250 U
Diethyl Phthalate	UG/KG	71.0 U	350 U
Dimethyl Phthalate	UG/KG	71.0 U	350 UJ
Di-n-Butyl Phthalate	UG/KG	71.0 U	350 U
Di-n-Octylphthalate	UG/KG	71.0 U	350 U
Fluoranthene	UG/KG	6.70 U	**28.0 J**
Fluorene	UG/KG	6.70 U	33.0 U
Hexachlorobenzene	UG/KG	6.70 U	33.0 U
Hexachlorobutadiene	UG/KG	50.0 U	250 U
Hexachlorocyclopentadiene	UG/KG	330 U	1600 U
Hexachloroethane	UG/KG	50.0 UJ	250 U
Indeno(1,2,3-c,d)pyrene	UG/KG	6.70 U	33.0 U
Isophorone	UG/KG	50.0 U	250 U
Naphthalene	UG/KG	**10.0**	33.0 U

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control
TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-SS3-DU1-SB	68-SS3-DU1-SB	68-ESSE-DU1-SB	68-ESSE-DU1-SB	68-ESSW-DU1-SB
Field Sample ID:		068SB-0050M-0001-SO	068SB-0051M-0001-SO	068SB-0033M-0001-SO	068SB-0034M-0001-SO	068SB-0017M-0001-SO
Lab Sample ID:		240-22648-55	240-22648-56	240-22648-46	240-22648-47	240-22663-31
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	3/29/2013	3/29/2013	3/29/2013
Field QC:						
Analysis Information:		1X	1X	1X	1X	5X
Nitrobenzene	UG/KG	100 U	100 U	100 U	99.0 U	500 U
n-Nitrosodi-n-propylamine	UG/KG	50.0 U	50.0 U	50.0 U	50.0 U	250 U
n-Nitrosodiphenylamine	UG/KG	50.0 U	50.0 U	50.0 U	50.0 U	250 U
Pentachlorophenol	UG/KG	150 U	150 U	150 U	150 U	750 U
Phenanthrene	UG/KG	**7.00**	**8.30**	**6.70**	**4.60 J**	**48.0**
Phenol	UG/KG	50.0 U	50.0 U	50.0 U	50.0 U	250 U
Pyrene	UG/KG	**3.40 J**	6.70 U	**5.10 J**	6.60 U	**130**

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control
TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-ESSW-DU1-SB	68-ESSW-DU2-SB	68-ESSW-DU2-SB	68-ESSW-DU2-SB	68-ESSW-DU2-SB
Field Sample ID:		068SB-0018M-0001-SO	068SB-0027M-0001-SO	068SB-0028M-0001-SO	068SB-0044M-0001-SO	068SB-0045M-0001-SO
Lab Sample ID:		240-22663-32	240-22663-40	240-22663-41	240-22648-41	240-22648-42
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	3/29/2013	3/29/2013	3/29/2013
Field QC:						
Analysis Information:		5X	1X	1X	1X	1X
Nitrobenzene	UG/KG	500 U	100 U	100 U	100 U	100 U
n-Nitrosodi-n-propylamine	UG/KG	250 U	50.0 U	50.0 U	51.0 U	50.0 U
n-Nitrosodiphenylamine	UG/KG	250 U	50.0 U	50.0 U	51.0 U	50.0 U
Pentachlorophenol	UG/KG	760 U	150 U	150 U	150 U	150 U
Phenanthrene	UG/KG	34.0 U	6.70 U	**9.60**	**5.00 J**	6.70 U
Phenol	UG/KG	250 U	50.0 U	50.0 U	51.0 U	50.0 U
Pyrene	UG/KG	34.0 U	6.70 U	**15.0**	6.80 U	6.70 U

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control
TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-SS3-DU1-SB1	68-SS3-DU1-SB2	68-SS3-DU1-SB2	68-SS3-DU1-SB3	68-SS3-DU1-SB4
Field Sample ID:		068SB-0052M-0001-SO	068SB-0053M-0001-SO	068SB-0054M-0001-SO	068SB-0056M-0001-SO	068SB-0057M-0001-SO
Lab Sample ID:		240-22648-57	240-22648-58	240-22648-59	240-22648-60	240-22648-61
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	3/29/2013	3/29/2013	3/29/2013
Field QC:				Field Duplicate		
Analysis Information:		1X	1X	1X	1X	1X
Nitrobenzene	UG/KG	100 U	100 U	100 U	99.0 U	100 U
n-Nitrosodi-n-propylamine	UG/KG	50.0 U	50.0 U	50.0 U	49.0 U	51.0 U
n-Nitrosodiphenylamine	UG/KG	50.0 U	50.0 U	50.0 U	49.0 U	51.0 U
Pentachlorophenol	UG/KG	150 U	150 U	150 U	150 U	150 U
Phenanthrene	UG/KG	**13.0**	6.60 U	**5.40 J**	6.60 U	**15.0**
Phenol	UG/KG	50.0 U	50.0 U	50.0 U	49.0 U	51.0 U
Pyrene	UG/KG	6.60 U	6.60 U	6.60 U	6.60 U	6.80 U

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control

TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-SS3-DU1-SB5	68-ESSE-DU1-SB1	68-ESSE-DU1-SB1	68-ESSE-DU1-SB1	68-ESSE-DU1-SB2
Field Sample ID:		068SB-0059M-0001-SO	068SB-0035M-0001-SO	068SB-0036M-0001-SO	068SB-0042M-0001-SO	068SB-0038M-0001-SO
Lab Sample ID:		240-22648-62	240-22648-48	240-22648-50	240-22648-54	240-22648-49
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	3/29/2013	3/29/2013	3/29/2013
Field QC:				Field Duplicate		
Analysis Information:		1X	1X	1X	1X	1X
Nitrobenzene	UG/KG	100 U	99.0 U	100 U	100 U	99.0 U
n-Nitrosodi-n-propylamine	UG/KG	51.0 U	50.0 U	50.0 U	50.0 U	50.0 U
n-Nitrosodiphenylamine	UG/KG	51.0 U	50.0 U	50.0 U	50.0 U	50.0 U
Pentachlorophenol	UG/KG	150 U	150 U	150 U	150 U	150 U
Phenanthrene	UG/KG	6.70 U	**4.60 J**	6.70 U	6.70 U	6.60 U
Phenol	UG/KG	51.0 U	50.0 U	50.0 U	50.0 U	50.0 U
Pyrene	UG/KG	6.70 U	6.60 U	6.70 U	6.70 U	6.60 U

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control
TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-ESSE-DU1-SB4	68-ESSE-DU1-SB5	68-ESSE-DU2-SB3	68-ESSW-DU1-SB1	68-ESSW-DU1-SB1
Field Sample ID:		068SB-0040M-0001-SO	068SB-0041M-0001-SO	068SB-0039M-0001-SO	068SB-0019M-0001-SO	068SB-0022M-0001-SO
Lab Sample ID:		240-22648-52	240-22648-53	240-22648-51	240-22663-33	240-22663-34
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	3/29/2013	3/29/2013	3/29/2013
Field QC:						Field Duplicate
Analysis Information:		1X	1X	1X	5X	5X
Nitrobenzene	UG/KG	100 U	100 U	99.0 U	490 U	510 U
n-Nitrosodi-n-propylamine	UG/KG	50.0 U	50.0 U	50.0 U	250 U	250 U
n-Nitrosodiphenylamine	UG/KG	50.0 U	50.0 U	50.0 U	250 U	250 U
Pentachlorophenol	UG/KG	150 U	150 U	150 U	740 U	760 U
Phenanthrene	UG/KG	**6.10 J**	**10.0**	6.60 U	33.0 U	34.0 U
Phenol	UG/KG	50.0 U	50.0 U	50.0 U	250 U	250 U
Pyrene	UG/KG	6.70 U	6.70 U	6.60 U	33.0 U	34.0 U

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control

TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-ESSW-DU1-SB1	68-ESSW-DU1-SB2	68-ESSW-DU1-SB3	68-ESSW-DU1-SB4	68-ESSW-DU1-SB5
Field Sample ID:		068SB-0032-0001-SO	068SB-0020M-0001-SO	068SB-0023M-0001-SO	068SB-0024M-0001-SO	068SB-0025M-0001-SO
Lab Sample ID:		240-22663-39	240-22663-35	240-22663-36	240-22663-37	240-22663-38
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	3/29/2013	3/29/2013	3/29/2013
Field QC:						
Analysis Information:		1X	5X	5X	5X	5X
Nitrobenzene	UG/KG	120 U	500 U	500 U	500 U	500 U
n-Nitrosodi-n-propylamine	UG/KG	58.0 U	250 U	250 U	250 U	250 U
n-Nitrosodiphenylamine	UG/KG	58.0 U	250 U	250 U	250 U	250 U
Pentachlorophenol	UG/KG	170 U	750 U	750 U	750 U	750 U
Phenanthrene	UG/KG	7.70 U	33.0 U	**55.0**	**94.0**	**180**
Phenol	UG/KG	58.0 U	250 U	250 U	250 U	250 U
Pyrene	UG/KG	7.70 U	33.0 U	**120**	**170**	**220**

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control
TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68						
Location ID:		68-ESSW-DU2-SB1	68-ESSW-DU2-SB1	68-ESSW-DU2-SB1	68-ESSW-DU2-SB2	68-ESSW-DU2-SB3
Field Sample ID:		068SB-0046M-0001-SO	068SB-0060M-0001-SO	068SB-0061M-0001-SO	068SB-0047M-0001-SO	068SB-0030M-0001-SO
Lab Sample ID:		240-22648-43	240-22852-1	240-22852-2	240-22648-44	240-22663-43
Lab Name:		TAM0	TAM0	TAM0	TAM0	TAM0
Sample Date:		3/29/2013	4/4/2013	4/4/2013	3/29/2013	3/29/2013
Field QC:				Field Duplicate		
Analysis Information:		1X	5X	4X	1X	1X
Nitrobenzene	UG/KG	99.0 U	500 U	400 U	99.0 U	100 U
n-Nitrosodi-n-propylamine	UG/KG	49.0 U	250 U	200 U	50.0 U	50.0 U
n-Nitrosodiphenylamine	UG/KG	49.0 U	250 U	200 U	50.0 U	50.0 U
Pentachlorophenol	UG/KG	150 U	750 U	600 U	150 U	150 U
Phenanthrene	UG/KG	6.60 U	33.0 U	27.0 U	**4.30 J**	**5.60 J**
Phenol	UG/KG	49.0 U	250 U	200 U	50.0 U	50.0 U
Pyrene	UG/KG	6.60 U	33.0 U	27.0 U	6.60 U	**11.0**

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control
TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68			
Location ID:		68-ESSW-DU2-SB4	68-ESSW-DU2-SB5
Field Sample ID:		068SB-0048M-0001-SO	068SB-0031M-0001-SO
Lab Sample ID:		240-22648-45	240-22663-44
Lab Name:		TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013
Field QC:			
Analysis Information:		1X	5X
Nitrobenzene	UG/KG	100 U	490 U
n-Nitrosodi-n-propylamine	UG/KG	50.0 U	250 U
n-Nitrosodiphenylamine	UG/KG	50.0 U	250 U
Pentachlorophenol	UG/KG	150 U	740 U
Phenanthrene	UG/KG	6.70 U	33.0 U
Phenol	UG/KG	50.0 U	250 U
Pyrene	UG/KG	6.70 U	**17.0 J**

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control
TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68				
Location ID:		68-ESSE-DU1-SB5	68-ESSW-DU2-SB1	68-ESSW-DU2-SB1
Field Sample ID:		068SB-0041M-0001-SO	068SB-0046M-0001-SO	068SB-0060M-0001-SO
Lab Sample ID:		240-22648-53	240-22648-43	240-22852-1
Lab Name:		TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	4/4/2013
Field QC:				
Analysis Information:		1X	1X	1X
Nitroaromatics and Nitramines by HPLC	**Units**			
1,3,5-Trinitrobenzene	MG/KG	0.250 U	0.250 U	0.250 U
1,3-Dinitrobenzene	MG/KG	0.250 U	0.250 U	0.250 U
2,4,6-Trinitrotoluene	MG/KG	0.250 U	0.250 U	0.250 U
2,4-Dinitrotoluene	MG/KG	0.250 U	0.250 U	0.250 U
2,6-Dinitrotoluene	MG/KG	0.250 U	0.250 U	0.250 U
2-Amino-4,6-dinitrotoluene	MG/KG	0.250 U	0.250 U	0.250 U
2-Nitrotoluene	MG/KG	0.250 U	0.250 U	0.250 U
3-Nitrotoluene	MG/KG	0.250 U	0.250 U	0.250 U
4-Amino-2,6-Dinitrotoluene	MG/KG	0.250 U	0.250 U	0.250 U
4-Nitrotoluene	MG/KG	0.250 U	0.250 U	0.250 U
Hexahydro-1,3,5-Trinitro-1,3,5-Triazine (RDX)	MG/KG	0.250 U	0.250 U	0.250 U
Nitrobenzene	MG/KG	0.250 U	0.250 U	0.250 U
Nitroglycerin	MG/KG	0.500 U	0.500 U	0.500 U

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control

TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

Chemistry Results
Ravenna Army Ammunition Plant
RVAAP, QAPP Oct. 2012
Spring 2013 RI/SI Sampling Event Sampling Event

Site Name: Site 68				
Location ID:		68-ESSE-DU1-SB5	68-ESSW-DU2-SB1	68-ESSW-DU2-SB1
Field Sample ID:		068SB-0041M-0001-SO	068SB-0046M-0001-SO	068SB-0060M-0001-SO
Lab Sample ID:		240-22648-53	240-22648-43	240-22852-1
Lab Name:		TAM0	TAM0	TAM0
Sample Date:		3/29/2013	3/29/2013	4/4/2013
Field QC:				
Analysis Information:		1X	1X	1X
NITROGUANIDINE	MG/KG	0.250 U	0.250 U	0.240 U
Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine (HMX)	MG/KG	0.250 U	0.250 U	0.250 U
Pentaerythritol Tetranitrate	MG/KG	0.500 U	0.500 U	0.500 U
Tetryl	MG/KG	0.250 U	0.250 U	0.250 U

Notes:

J = Detected, Estimated
UJ = Compound was not detected and reporting limit is estimated
U = Compound was Not Detected
ID = Identification
QC = Quality Control

TAM0 = TestAmerica, Inc., North Canton, OH
MG/KG = Milligrams per Kilogram
UG/KG = Micrograms per Kilogram
UG/L = Micrograms per Liter

APPENDIX H

Data Validation Report
(Note – To be provided on disc only)

This page intentionally left blank.

U.S. Army Corps of Engineers
Louisville District

Ravenna Army Ammunition Plant
Ravenna, Ohio
Remedial Investigation
Compliance Restoration Sites:
RVAAP-68 Electric Substations, RVAAP-69 Building 1048 Fire Station RVAAP-73 Coal Storage Area, RVAAP-74 Building 1034 Motor Pool Hydraulic Lift, RVAAP-76 Depot Area, RVAAP-78 Quarry Pond Surface Dump, RVAAP-79 DLA Ore Storage Site-Main Ore Storage Yard

Final Data Validation Report
Sample Delivery Groups:
Multiple

2014

Prepared for:
U.S. Army Corps of Engineers
Louisville District
Contract No. W912QR-08-D-0012
Delivery Order 001

Prepared by:

North Wind Services
352 Corporate Center Court
Stockbridge, Georgia 30218

MEC^X
12269 East Vassar Drive
Aurora, Colorado 80014

CONTRACTOR STATEMENT OF INDEPENDANT TECHNICAL REVIEW

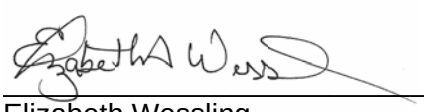
MEC^X, LP (MEC^X) has completed the Data Validation Report for Multiple Sample Delivery Groups from the Ravenna Army Ammunition Plant Remedial Investigation Compliance Restoration Sites.

Notice is hereby given that an independent technical review has been conducted to determine the usability and bias of the analytical data.

Significant concerns and the resolution are as follows:

None

As noted above, all concerns resulting from this independent technical review have been considered.



Elizabeth Wessling
Senior Environmental Chemist
MEC^X Independent Technical Review Team Leader



Patti Meeks, Ph.D.
Senior Environmental Chemist
MEC^X Independent Technical Review Team Member

EXECUTIVE SUMMARY

The overall objective for the project data described in this document is to define the nature and extent of contamination for the completion of Remedial Investigations (RI) at each Compliance Restoration (CR) site.

Data described in this report are comprised of samples collected from seven CR sites at the Ravenna Army Ammunition Plant (RVAAP) by Environmental Chemical Corporation (ECC) from November 2012 to August 2013. The number and matrix of the samples, as described in numerous ECC Site Inspection Reports, are as shown below:

Analysis	Soil			Sediment		Surface Water	
	MI	Discrete	Duplicate	Discrete	Duplicate	Discrete	Duplicate
Metals	350	1	31	13	3	17	4
SVOCs	212	34	24	13	3	13	3
Explosives	46	1	8	3	1	3	1
Propellants[1]	84	1	11	3	1	3	1
Volatiles	120	1	16	2	0	2	0
BTEX	1	0	0	0	0	0	0
Pesticides	20	1	6	1	0	1	0
PCBs	108	1	13	8	2	7	2
TPH	2	34	2	0	0	0	0
Hexavalent Chromium	1	0	0	0	0	0	0

1 –nitroguanidine and nitrocellulose
MI – multi-incremental
PAH – polynuclear aromatic hydrocarbons
BTEX – benzene, toluene, ethylbenzene, xylenes
TPH – total petroleum hydrocarbons

This report details the data validation of 10% of the primary sample data, analysis of field duplicate results, and the determination of data usability of the validated samples. Validation results, field duplicate comparisons and data usability are presented by site, in Sections 4 through 10.

The primary samples were analyzed for one or more of the following parameters by TestAmerica Laboratories, North Canton (TA-North Canton) located in North Canton, Ohio.

- United States Environmental Protection Agency (USEPA) SW-846 Method 8260B for volatile organic compounds (VOCs)
- USEPA SW-846 Method 8270C for semivolatile compounds (SVOCs) or polynuclear aromatic hydrocarbons (PAHs)
- USEPA SW-846 Method 8015B for total petroleum hydrocarbons (TPH) - gasoline range organics (GRO) and diesel range organics (DRO)
- USEPA SW-846 Method 8081 for pesticides
- USEPA SW-846 Method 8082 for polychlorinated biphenyls (PCBs)
- USEPA SW-846 Method 8151 for herbicides

- USEPA SW-846 Method 6020 for metals
- USEPA SW-846 Method 7470A/7471A for mercury
- USEPA SW-846 Method 7196A for hexavalent chromium

TA-North Canton subcontracted the following analyses to TA-West Sacramento:

- USEPA SW-846 Method 8330B for explosive compounds
- USEPA SW-846 8330 Modified for nitroguanidine
- Laboratory Standard Operating Procedure (SOP) WS-WC-0050 for nitrocellulose

The quality assurance (QA) split samples were submitted to Microbac Laboratories (Microbac) in Marietta, Ohio and were analyzed for one or more of the aforementioned parameters. These data are discussed in a separate report (*Ravenna Army Ammunition Plant Compliance restoration Sites Chemical Quality Assurance Report*).

Specific concerns regarding the data are noted below:

- Limit of Detection (LOD) exceedances – a few LODs and detection limits (DLs) exceeded the project criteria. These exceedances are detailed in the individual Area of Concenr (AOC) sections.

- Matrix interference was present in the primary column explosive analyses of the validated surface water sample. Target compounds were not detected on the primary column in most of the samples; therefore, no confirmation analyses were performed. The final data user should be aware that the interferent mass may have masked some target compound peaks.

- Due to instrument limitations, the mercury raw data did not list the sample absorbances; therefore, the reviewer was not able to calculate the sample results from the raw data. Additionally, the ICPMS raw data did not list absorbances for the ICV, CCV, ICSAB, and MRL samples, and the %R was listed instead of the sample concentrations.

Some data were rejected due to quality control outliers. Rejected data, presented in the table below, are not usable. Results with LODs that exceed project criteria may be usable for their intended purposes; however, it is dependent on the final data user to make this determination on a case-by-case basis. All remaining results are usable for their intended purposes as qualified by MEC^{X}.

Site	Sample	SDG	Analyte	Reason
68	068SS-0003M-0001-SO	240-17317-1	n-Nitrosodiphenylamine	Calibration
	068SD-0009-0001-SO	240-17422-1	3,3'-Dichlorobenzidine	MS/MSD
			hexachlorocyclopentadiene	Calibration
69	069SB-0013M-0001-SO	240-17602-1	n-Nitrosodiphenylamine	Calibration
	069SS-0001M-0001-SO	240-17525-1	Benzoic Acid	MS/MSD
	069SS-0001M-0001-SO	240-17525-1	3,3'-Dichlorobenzidine	MS/MSD
	069SS-0001M-0001-SO	240-17525-1	n-Nitrosodiphenylamine	Calibration

Site	Sample	SDG	Analyte	Reason
73	073SB-0038M-0001-SO	240-22663-2	Benzoic Acid	LCS
	073SS-0002M-0001-SO	240-17442-1	Antimony	MS/MSD
74	074SB-0010-0001-SO	240-22804-1	Benzoic Acid	LCS
76	076SB-0102M-0001-SO	240-18544-1	n-Nitrosodiphenylamine	Calibration
	076SB-0114M-0001-SO	240-18544-1	n-Nitrosodiphenylamine	Calibration
	076SD-0009-0001-SO	240-17317-1	Antimony	MS/MSD
			3,3'-Dichlorobenzidine	MS/MSD
			3-Nitroaniline	MS/MSD
			4-Nitroaniline	MS/MSD
	076SS-0020M-0001-SO	240-17422-1	3,3'-Dichlorobenzidine	MS/MSD
			3-Nitroaniline	MS/MSD
79	079SB-0234M-0001-SO	240-22381-1	Antimony	MS/MSD
	079SB-0236M-0001-SO	240-22381-1	Antimony	MS/MSD

TABLE OF CONTENTS

1 INTRODUCTION 8
1.1 PROJECT OVERVIEW 8
1.2 PREVIOUS ACTIVITIES AND DATA 9
2 DESCRIPTION OF WORK PERFORMED 11
2.1 DATA VALIDATION PROCESS 11
2.2 DATA VALIDATION QUALIFIERS 12
2.3 DATA VALIDATION FLAGGING CODES 12
3 DATA ACQUISITION ACTIVITIES 14
3.1 SAMPLE COLLECTION 14
3.2 SAMPLE ANALYSIS 14
3.3 DATA COMPLETENESS 14
3.4 SAMPLE PRESERVATION AND HOLDING TIME REQUIREMENTS 14
3.5 DETECTION LIMIT REQUIREMENTS 15
4 ELECTRIC SUBSTATIONS, RVAAP-68 16
4.1 CURRENT INVESTIGATION 16
4.1.1 Sample Collection 17
4.1.2 Data Completeness 17
4.1.3 Preservation and Holding Time Requirements 17
4.1.4 Detection Limit Requirements 17
4.2 RVAAP-68 DATA QUALITY EVALUATION 17
4.2.1 Explosives 17
4.2.2 Propellants 20
4.2.3 Polychlorinated Biphenyls (PCBs) 21
4.2.4 Semivolatile Organic Compounds (SVOCs) 23
4.2.5 Volatile Organic Compounds (VOCs) 27
4.2.6 Metals 29
4.3 DATA USABILITY 33
4.4 PRIMARY AND FIELD DUPLICATE COMPARISON SUMMARY 34
4.5 SPECIFIC DATA CONCERNS 35
5 BUILDING 1048 FIRE STATION, RVAAP-69 36
5.1 CURRENT INVESTIGATION 36
5.1.1 Sample Collection 36
5.1.2 Data Completeness 37
5.1.3 Preservation and Holding Time Requirements 37
5.1.4 Detection Limit Requirements 37
5.2 RVAAP-69 DATA QUALITY EVALUATION 37
5.2.1 Explosives 37
5.2.2 Propellants 39
5.2.3 Polychlorinated Biphenyls (PCBs) 41
5.2.4 Semivolatile Organic Compounds (SVOCs) 42
5.2.5 Volatile Organic Compounds (VOCs) 45
5.2.6 Metals 47
5.3 DATA USABILITY 50
5.4 PRIMARY AND FIELD DUPLICATE COMPARISON SUMMARY 51
5.5 SPECIFIC DATA CONCERNS 51

6 COAL STORAGE AREA, RVAAP-73 53
6.1 CURRENT INVESTIGATION 53
6.1.1 Sample Collection 54
6.1.2 Data Completeness 54
6.1.3 Preservation and Holding Time Requirements 55
6.1.4 Detection Limit Requirements 55
6.2 RVAAP-73 DATA QUALITY EVALUATION 55
6.2.1 Explosives 55
6.2.2 Propellants 57
6.2.3 Polychlorinated Biphenyls (PCBs) 59
6.2.4 Pesticides 61
6.2.5 Semivolatile Organic Compounds (SVOCs) 62
6.2.6 Volatile Organic Compounds (VOCs) 65
6.2.7 Metals 67
6.3 DATA USABILITY 72
6.4 PRIMARY AND FIELD DUPLICATE COMPARISON SUMMARY 73
6.5 SPECIFIC DATA CONCERNS 73

7 BUILDING 1034 MOTOR POOL HYDRAULIC LIFT, RVAAP-74 74
7.1 CURRENT INVESTIGATION 74
7.1.1 Sample Collection 75
7.1.2 Data Completeness 75
7.1.3 Preservation and Holding Time Requirements 75
7.1.4 Detection Limit Requirements 75
7.2 RVAAP-74 DATA QUALITY EVALUATION 75
7.2.1 Explosives 75
7.2.2 Propellants 77
7.2.3 Polychlorinated Biphenyls (PCBs) 78
7.2.4 Total Petroleum Hydrocarbons (TPH) 80
7.2.5 Semivolatile Organic Compounds (SVOCs) 81
7.2.6 Volatile Organic Compounds (VOCs) 83
7.2.7 Metals 85
7.3 DATA USABILITY 87
7.4 PRIMARY AND FIELD DUPLICATE COMPARISON SUMMARY 88
7.5 SPECIFIC DATA CONCERNS 88

8 DEPOT AREA, RVAAP-76 90
8.1 CURRENT INVESTIGATION 90
8.1.1 Sample Collection 91
8.1.2 Data Completeness 92
8.1.3 Preservation and Holding Time Requirements 92
8.1.4 Detection Limit Requirements 92
8.2 RVAAP-76 DATA QUALITY EVALUATION 92
8.2.1 Explosives 92
8.2.2 Propellants 94
8.2.3 Polychlorinated Biphenyls (PCBs) 96
8.2.4 Pesticides 98
8.2.5 Semivolatile Organic Compounds (SVOCs) 100
8.2.6 Volatile Organic Compounds (VOCs) 103
8.2.7 Metals 105
8.3 DATA USABILITY 110
8.4 PRIMARY AND FIELD DUPLICATE COMPARISON SUMMARY 110

8.5 SPECIFIC DATA CONCERNS 111

9 QUARRY POND SURFACE DUMP, RVAAP-78 112
9.1 CURRENT INVESTIGATION 112
9.1.1 Sample Collection 113
9.1.2 Data Completeness 113
9.1.3 Preservation and Holding Time Requirements 113
9.1.4 Detection Limit Requirements 113
9.2 RVAAP-78 DATA QUALITY EVALUATION 113
9.2.1 Explosives 113
9.2.2 Propellants 115
9.2.3 Polychlorinated Biphenyls (PCBs) 116
9.2.4 Pesticides 118
9.2.5 Semivolatile Organic Compounds (SVOCs) 120
9.2.6 Volatile Organic Compounds (VOCs) 122
9.2.7 Metals 124
9.3 DATA USABILITY 126
9.4 PRIMARY AND FIELD DUPLICATE COMPARISON SUMMARY 127
9.5 SPECIFIC DATA CONCERNS 127

10 DEFENSE LOGISTICS AGENCY ORE STORAGE SITE – MAIN STORAGE YARD, RVAAP-79 129
10.1 CURRENT INVESTIGATION 129
10.1.1 Sample Collection 130
10.1.2 Data Completeness 131
10.1.3 Preservation and Holding Time Requirements 131
10.1.4 Detection Limit Requirements 131
10.2 RVAAP-79 DATA QUALITY EVALUATION 131
10.2.1 Explosives 131
10.2.2 Propellants 134
10.2.3 Polychlorinated Biphenyls (PCBs) 135
10.2.4 Pesticides 137
10.2.5 Semivolatile Organic Compounds (SVOCs) 138
10.2.6 Volatile Organic Compounds (VOCs) 140
10.2.7 Metals 141
10.3 DATA USABILITY 146
10.4 PRIMARY AND FIELD DUPLICATE COMPARISON SUMMARY 147
10.5 SPECIFIC DATA CONCERNS 147

11 CONCLUSIONS 148
11.1 DATA QUALIFICATION SUMMARY 148
11.2 PRIMARY AND FIELD DUPLICATE SUMMARY 148
11.3 DATA USABILITY 148

12 RECOMMENDATIONS 149

13 REFERENCES 150

TABLES

Table 1. RI Sites sample counts....8
Table 2. Qualification code reference table....13
Table 3. Holding times....14
Table 4. Total sample count for RVAAP-68....16
Table 5. RVAAP-68 validated samples and methods....16
Table 6. RVAAP-68 field duplicate samples....17
Table 7. Analytical completeness for RVAAP-68 validated primary data....34
Table 8. RVAAP-68 primary/field duplicate sample comparison summary....35
Table 9. Total sample count for RVAAP-69....36
Table 10. RVAAP-69 validated samples and methods....36
Table 11. RVAAP-69 field duplicate samples....36
Table 12. Analytical completeness for RVAAP-69 validated primary data....51
Table 13. RVAAP-69 primary/field duplicate sample comparison summary....51
Table 14. Total sample count for RVAAP-73....53
Table 15. RVAAP-73 validated samples and methods....54
Table 16. RVAAP-73 field duplicate samples....54
Table 17. Analytical completeness for RVAAP-73 validated primary data....72
Table 18. RVAAP-73 primary/field duplicate sample comparison summary....73
Table 19. Total sample count for RVAAP-74....74
Table 20. RVAAP-74 validated samples and methods....74
Table 21. RVAAP-74 field duplicate samples....74
Table 22. Analytical completeness for RVAAP-74 validated primary data....88
Table 23. RVAAP-74 primary/field duplicate sample comparison summary....88
Table 24. Total sample count for RVAAP-76....91
Table 25. RVAAP-76 validated samples and methods....91
Table 26. RVAAP-76 field duplicate samples....91
Table 27. Analytical completeness for RVAAP-76 validated primary data....110
Table 28. RVAAP-76 primary/field duplicate sample comparison summary....111
Table 29. Total sample count for RVAAP-78....112
Table 30. RVAAP-78 validated samples and methods....112
Table 31. RVAAP-78 field duplicate samples....112
Table 32. Analytical completeness for RVAAP-78 validated primary data....127
Table 33. RVAAP-78 primary/field duplicate sample comparison summary....127
Table 34. Total sample count for RVAAP-79....129
Table 35. RVAAP-79 validated samples and methods....130
Table 36. RVAAP-79 field duplicate samples....130
Table 37. Analytical completeness for RVAAP-79 validated primary data....146
Table 38. RVAAP-79 primary/field duplicate sample comparison summary....147

APPENDICES

Appendix A Qualified Sample Forms Is

Appendix B Sample Qualification Summary

Appendix C Primary/Field Duplicate Sample Comparisons

Appendix D Validator Checklists

ACRONYMS AND ABBREVIATIONS

ADR	Automated Data Review
AST	Aboveground Storage Tank
°C	Degrees Celsius
CCB	Continuing Calibration Blank
CCC	Calibration Check Compounds
CCV	Continuing Calibration Verification
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CR	Compliance Restoration
CT	CT Laboratories
%D	Percent Difference
DL	Detection Limit
DoD	Department of Defense
EDD	Electronic Data Deliverable
FWQAPP	Facility-Wide Quality Assurance Project Plan
GC/MS	Gas Chromatography/Mass Spectrometry
HHR	Historical Records Review
HTRW	Hazardous, Toxic, Radioactive Waste
ICSA	Interference Check Sample A
ICSAB	Interference Check Sample AB
ICV	Initial Calibration Verification
ICP	Inductively Coupled Plasma
LCG	Louisville Chemistry Guidance
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection
LOQ	Limit of Quantitation
MEC	Munitions and Explosives of Concern
MEC^X	MEC^X, GP
Microbac	Microbac Laboratories
MCL	Maximum Contaminant Level
MRL	Method Reporting Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PAH	Polynuclear Aromatic Hydrocarbon
PCB	Polychlorinated Biphenyl
QA	Quality Assurance
QAPP	Quality Assurance Project Plan
QC	Quality Control
QSM	Quality Systems Manual
RI	Remedial Investigation
RPD	Relative Percent Difference
RRF	Relative Response Factor
RSD	Relative Standard Deviation
RVAAP	Ravenna Army Ammunition Plant
SAIC	Science Applications International Corporation
SAP	Sampling and Analysis Plan
SDG	Sample Delivery Group
SPCC	System Performance Check Compound

SVOC	Semivolatile Organic Compounds
TA	TestAmerica Laboratories
USACE	United State Army Corps of Engineers
USEPA	United State Environmental Protection Agency

1 INTRODUCTION

1.1 Project Overview

The overall objective for the project data described in this document is to define the nature and extent of contamination for the completion of Remedial Investigations (RI) at each Compliance Restoration (CR) site. Project details can be found in the project documents, including *Final Site Inspection and Remedial Investigation Work Plan at Compliance Restoration Sites* (ECC, 2012).

Data described in this report are comprised of samples collected from seven CR sites at the Ravenna Army Ammunition Plant (RVAAP) by Environmental Chemical Corporation (ECC) from November 2012 to August 2013. The number and matrix of the samples, as described in numerous ECC Site Inspection Reports, are as shown below.

Table 1. RI Sites sample counts

Analysis	Soil			Sediment		Surface Water	
	MI	Discrete	Duplicate	Discrete	Duplicate	Discrete	Duplicate
Metals	350	1	31	13	3	17	4
SVOCs	212	34	24	13	3	13	3
Explosives	46	1	8	3	1	3	1
Propellants[1]	84	1	11	3	1	3	1
Volatiles	120	1	16	2	0	2	0
BTEX	1	0	0	0	0	0	0
Pesticides	20	1	6	1	0	1	0
PCBs	108	1	13	8	2	7	2
TPH	2	34	2	0	0	0	0
Hexavalent Chromium	1	0	0	0	0	0	0

1 – nitroguanidine and nitrocellulose
MI – multi-incremental
BTEX – benzene, toluene, ethylbenzene, xylenes
SVOC – semivolatile organic compounds
TPH – total petroleum hydrocarbons

The primary samples were analyzed for one or more of the following parameters by TestAmerica Laboratories, North Canton (TA-North Canton) located in North Canton, Ohio.

- United States Environmental Protection Agency (USEPA) SW-846 Method 8260B for volatile organic compounds (VOCs)
- USEPA SW-846 Method 8270C for semivolatile compounds (SVOCs)
- USEPA SW-846 Method 8015B for total petroleum hydrocarbons (TPH) - gasoline range organics (GRO) and diesel range organics (DRO)
- USEPA SW-846 Method 8081 for pesticides
- USEPA SW-846 Method 8082 for polychlorinated biphenyls (PCBs)
- USEPA SW-846 Method 6020 for metals
- USEPA SW-846 Method 7470A/7471A for mercury

- USEPA SW-846 Method 7196A for hexavalent chromium

TA-North Canton subcontracted the following analyses to TA-West Sacramento:

- USEPA SW-846 Method 8330B for explosive compounds
- USEPA SW-846 8330 Modified for nitroguanidine
- Laboratory Standard Operating Procedure (SOP) WS-WC-0050 for nitrocellulose

The quality assurance (QA) split samples were submitted to Microbac Laboratories (Microbac) in Marietta, Ohio and were analyzed for one or more of the aforementioned parameters. These data are discussed in a separate report (*Ravenna Army Ammunition Plant Compliance restoration Sites Chemical Quality Assurance Report*).

This report details the data validation of approximately 10% of the primary sample data, analysis of field duplicate results, and the determination of data usability of the validated samples. Validation results, field duplicate comparisons and data usability are presented by site, in Sections 4 through 10.

1.2 Previous Activities and Data

The following summary was adapted from the Facility-Wide Sampling and Analysis Plan for Environmental Investigations at the Ravenna Army Ammunition Plant, Ravenna, Ohio (FWQAPP) prepared by Science Applications International Corporation (SAIC), March 2001. AOC-specific information is presented in Sections 4 through 21.

Located in northeastern Ohio on approximately 21,000 acres, RVAAP was established in 1940 to load, store, and demilitarize conventional artillery ammunition, bombs, mines, fuses and boosters, primers and percussion elements. Originally RVAAP operated as two separate units, the Portage Ordnance Depot and the Ravenna Ordnance Plant. During World War II, a contractor operated the Ravenna Ordnance Depot and the government operated the Portage Ordnance Depot. Ordnance production and storage for World War II continued until August 1945, at which time the facility was renamed the Ravenna Arsenal, and the government assumed control of all operations. Then, from 1951 to 1999, the entire facility was operated by contractors. Ordnance production at the facility was phased out and sent to Plum Brook Ordnance Works in Sandusky, Ohio and Keystone Ordnance Works in Meadville, Pennsylvania. All production at the facility had ceased by 1957 and the plant was placed on standby. In 1961, the plant was operational for seven months, processing and performing explosive melt-out of bombs. After deactivation late in 1961, the facility was renamed RVAAP. From mid-1968 until 1971, the plant was reactivated to load, assemble, and pack munitions on three load lines and two component lines. Operations ceased at Load Lines 1, 2, 3, and 4 in 1971; however, the Lines were reactivated to perform demilitarization operations for several months in 1973 and 1974. In 1992, RVAAP was again placed on inactive status. Salvage and demolition operations started in 1998 and administrative control of the facility was transferred to the Ohio Army National Guard in 1999.

Since 1978, approximately 20 environmental condition investigations have been performed at RVAAP. Only a portion of these investigations are discussed below.

2 DESCRIPTION OF WORK PERFORMED

This section describes the data verification and data validation procedures used during the evaluation of the site samples reported in 35 sample delivery groups (SDGs) from TA-North Canton.

2.1 Data Validation Process

Level IV validation was performed on approximately 10% of the total number of primary samples collected. Primary samples with associated QA and field duplicate samples were prioritized for Level IV validation; however, not all samples validated at Level IV had associated QA or field duplicate samples.

Data validators assessed results based on the FWQAPP, Department of Defense Quality Systems Manual for Environmental Laboratories Version 4.2 (DoD QSM), Louisville DoD Quality Systems Manual Supplement, Version 1 (LS), the specific EPA methods, the National Functional Guidelines for Superfund Organic Methods Data Review (2008), and the National Functional Guidelines for Inorganic Superfund Data Review (2010). The following were reviewed for Level IV validation:

- Sample management (collection techniques, sample containers, preservation, handling, transport, chain-of-custody, holding times),
- Calibration results (initial, continuing, and method reporting limit),
- Method and calibration blank sample results,
- Laboratory control sample (LCS) or LCS/LCS duplicate (LCS/LCSD) recoveries and/or precision,
- Surrogate recoveries (if applicable),
- Metals interference check sample results
- Matrix spike/matrix spike duplicate (MS/MSD) recoveries and precision,
- Laboratory duplicate precision
- Post digestion spike accuracy,
- Serial dilution precision,
- Field QA/QC sample results (equipment rinsate, field blank, trip blank)
- Gas Chromatography/Mass Spectrometry (GC/MS) or inductively coupled plasma (ICP) MS tuning,
- Internal standards performance,
- Sample results verification,
- Target compound identification,
- Raw data.

Blanks – method, calibration, trip, field and equipment – were assessed using the National Functional Guidelines 5× and 10× rules. Target compound detections less than or equal to 5× a blank detections and common laboratory contaminant compound detections less than or equal to 10× a detections detect were qualified as nondetected. Nondetected results were reported at

the limit of detection if the original detections was less than or equal to the limit of detection or reported at the level of contamination if the original detect was greater than the limit of detection.

2.2 Data Validation Qualifiers

Data qualifiers, as defined below, were applied following the FWQAPP and the DoD QSM:

U Nondetected at the limit of detection
The analyte was analyzed for but not definitively detected.

J Estimated
The identification of the analyte is acceptable but the quality assurance criteria indicate that the quantitative values may be outside the normal expected range of precision. Additionally used to identify detects reported below the limit of quantitation (LOQ).

N Identity Presumptive and Tentative
There is presumptive evidence that the analyte is present but it has not been confirmed. There is an indication that the reported analyte is present; however, all quality control requirements necessary for confirmation were not met.

R Rejected
Data are considered to be rejected and shall not be used for environmental decisions.

2.3 Data Validation Flagging Codes

The qualification codes in the following table may have been used to flag the data described in this document: Sample qualifications are summarized in Appendix B. All qualifications and associated qualification codes have been entered into the electronic data deliverables (EDD) received from the laboratories and may be reviewed Appendices A and B of this report.

Table 2. Qualification code reference table

Qualifier	Organics	Inorganics
H	Holding times were exceeded.	Holding times were exceeded.
S	Surrogate recovery was outside QC limits.	The sequence or number of standards used for the calibration was incorrect.
C	Calibration %RSD or %D was noncompliant. MRL was outside control limits or missing.	Correlation coefficient was noncompliant. MRL was outside control limits or missing.
R	Calibration RRF was noncompliant.	%R for calibration is not within control limits.
B	Presumed contamination as indicated by the preparation (method) blank results.	Presumed contamination as indicated by the preparation (method) or calibration blank results.
L	Laboratory Control Sample/Control Sample Duplicate %R was not within control limits.	Laboratory Control Sample %R was not within control limits.
Q	MS/MSD recovery was poor or RPD high.	MS recovery was poor.
E	Not applicable	Duplicates showed poor agreement.
I	Internal standard performance was unsatisfactory.	ICP or ICPMS ICS results were unsatisfactory.
A	Not applicable.	ICP Serial Dilution %D were not within control limits.
M	Tuning (BFB or DFTPP) was noncompliant.	ICPMS tuning was noncompliant
T	Presumed contamination as indicated by the trip blank results.	Not applicable.
+	False positive – reported compound was not present.	False positive – reported compound was not present.
-	False negative – compound was present but not reported.	False negative – compound was present but not reported.
F	Presumed contamination as indicated by the FB or ER results.	Presumed contamination as indicated by the FB or ER results.
$	Reported result or other information was incorrect.	Reported result or other information was incorrect.
?	TIC identity or reported retention time has been changed.	Not applicable.
D	The analysis with this flag should not be used because another more technically sound analysis is available.	The analysis with this flag should not be used because another more technically sound analysis is available.
P	Instrument performance for pesticides was poor.	Post Digestion Spike recovery was not within control limits.
*II, *III	A deficiency was found that has been described in the "Sample Management," section (*II) or the "Method Analyses" section (*III).	A deficiency was found that has been described in the "Sample Management," section (*II) or the "Method Analyses" section (*III).

3 DATA ACQUISITION ACTIVITIES

3.1 Sample Collection

Samples were collected from November 2012 to August 2013. The samples were submitted under chain-of-custody to the primary laboratory, TA-North Canton.

Site specific observations are noted in Sections 4 through 10. Unless noted in Sections 4 through 10, the chains-of-custody associated with the samples validated at Level IV were appropriately signed by both field and/or laboratory personnel with all samples and analyses accounted for, cooler custody seals intact, and within the temperature limits of 4±2°C. All documentation regarding sample handling as presented in the case narratives, chains-of-custody, correspondence, and sample condition upon receipt forms was evaluated. Unless noted in Sections 4 through 10, no additional requests were made to the primary contractor or the laboratories.

3.2 Sample Analysis

The primary laboratories, or their subcontractors, analyzed the samples shown in Table 1 for the methods described in Section 1.1.

3.3 Data Completeness

As noted in sections 4 through 10, portions of some metals data were incomplete. The laboratory was requested to provide the missing deliverables, and unless noted in Sections 4 through 10, these missing data were provided.

3.4 Sample Preservation and Holding Time Requirements

All method preservation requirements were met. The extraction and analytical holding times for the soil analyses validated in this document are listed in the table below.

Table 3. Holding times

Method	Analysis	Holding Time	
		Extraction	Analysis
6010C/6020	Metals	N/A	180 days
7471A	Mercury	N/A	28 days
8260B/8260C	VOCs	N/A	14 days
8270C	SVOCs	14 days	40 days
8015B/8015C	TPH-GRO	N/A	14 days
8015B/8015C	TPH-DRO	14 days	40 days
8081/8081B	Pesticides	14 days	40 days
8082/8082A	PCBs	14 days	40 days
8330B	Explosives	14 days	40 days
8330	Nitroguanidine	14 days	40 days
9056M/WS-WC-0050	Nitrocellulose	N/A	28 days
7196A	Hexavalent chromium	30 days	24 hours

Qualifications applied for missed holding times are discussed by Site in Sections 4 through 10.

3.5 Detection Limit Requirements

Limits of detection (LODs) and detection limits (DLs) for nondetected analytes were compared against the most stringent criteria listed in Tables 5-8, 5-9, and 5-10 of the *Final Facility-Wide Human Health Cleanup Goals for the Ravenna Army Ammunition Plant* (2010), the USEPA Regional Screening Levels (RSLs), or the Maximum Contaminant Levels (MCLs) for surface waters.

Some LODs and DLs exceeded the cleanup goals (CUGs) or project criteria. These exceedances are reported by site in Sections 4 through 10. Results with DLs exceeding project criteria may be usable for their intended purposes; however, it is dependent on the final data user to make this determination on a case-by-case basis.

4 ELECTRIC SUBSTATIONS, RVAAP-68

4.1 Current Investigation

ECC completed an RI at the Electric Substations (RVAAP-68). The work was in accordance with the *Site Inspection and Remedial Investigation Work Plan* (ECC 2012) and the *Facility-Wide Sampling and Analysis Plan* (FWSAP) (SAIC 2011). RVAAP-68 consists of three inactive properties – East Substation, West Substation, and Substation Number 3. No equipment remains at these properties. An historical records review (HRR) indicated that contaminants from unreported spills, or leaks from electrical equipment or lead acid batteries may have affected the site.

The data validated in this report are part of the intrusive RI at RVAAP-68 conducted to assess the potential presence of contamination. The sample counts, samples selected for data validation, and the field duplicates are presented in the tables below.

Table 4. Total sample count for RVAAP-68

Matrix	Primary Samples	Field Duplicates	Split Samples	Primary Sample Counts						
				Explosives	Propellants	Pesticides	PCBs	SVOCs	VOCs	Metals
Soil	38	4	3	4	4	4	38	38	5	38
Sediment	3	1	0	--	--	--	3	3	--	3
Water	3	1	0	--	--	--	3	3	--	3

Table 5. RVAAP-68 validated samples and methods

Sample ID	SDG	Matrix	Collected	Explosives	Propellants	PCBs	SVOCs	VOCs	Metals
068SS-0003M-0001-SO	240-17317-1	Soil	11/6/2012	x	x	x	x	x	x
068SD-0009-0001-SO	240-17422-1	Sediment	11/8/2012	--	--	x	x	--	x
068SW-0016-0001-SW	240-17477-1	Water	11/8/2012	--	--	x	x	--	x
068SB-0053M-0001-SO	240-22648-1	Soil	3/29/2013	--	--	x	x	--	x

Table 6. RVAAP-68 field duplicate samples

Duplicate Sample ID	Parent Sample
068SS-0004M-0001-SO	068SS-0003M-0001-SO
068SD-0010-0001-SO	068SD-0009-0001-SO
068SW-0014-0001-SW	068SW-0013-0001-SW
068SB-0022M-0001-SO	068SB-0019M-0001-SO
068SB-0036M-0001-SO	068SB-0035M-0001-SO
068SB-0054M-0001-SO	068SB-0053M-0001-SO

4.1.1 Sample Collection

The chains-of-custody were appropriately signed and dated by field and laboratory personnel. According to the laboratory Sample Receipt Forms, custody seals were not utilized; however, in reviewing the relinquish and receipt times, it appeared the samples were transferred to the laboratory by courier. A correction made to the chain-of-custody in SDG 240-17422 was made by obliterating the original entry. The correction was not initialed or dated. No other sample collection issues were noted.

4.1.2 Data Completeness

Data completeness for the project described in this report was found to be generally acceptable as no deliverables were missing from the SDGs reviewed.

4.1.3 Preservation and Holding Time Requirements

The samples were received within the temperature limits of 4 ±2^{o}C control limit. All remaining method preservation requirements were met. All holding times, as listed in Table 3, were met.

4.1.4 Detection Limit Requirements

LODs and DLs for nondetected analytes were compared against the most stringent CUGs listed in Tables 5-8, 5-9, and 5-10 of *Final Facility-Wide Human Health Cleanup Goals for the Ravenna Army Ammunition Plant* (2010) or the RSLs if no CUG was listed. Three surface water SVOCs (benzo(b)fluoranthene, indeno (1,2,3-cd)pyrene, benzo(a)anthracene) had LODs and DLs that exceeded the CUGs. Results with DLs exceeding project criteria may be usable for their intended purposes; however, it is dependent on the final data user to make this determination on a case-by-case basis.

4.2 RVAAP-68 Data Quality Evaluation

This section summarizes the data quality of validated samples for each analytical method evaluated.

4.2.1 Explosives

A total of 4 primary soil samples and 2 field duplicate sample were analyzed by TA-West Sacramento for explosives by USEPA SW-846 Method 8330B. A single primary soil sample was validated at Level IV.

- MDL studies were not evaluated as part of this project.

- Calibration:

  - The primary column initial calibration average percent relative standard deviations (%RSDs) for RDX and 2-nitrotoluene exceeded the control limit at 20% and 16%, respectively; therefore, the nondetected results for these compounds were qualified as estimated, "UJ," in 068SS-0003M-0001-SO. The qualified results were coded with a "C" qualification code. The remaining initial calibration average %RSDs were within the control limits listed in DoD QSM Table F-3 of ≤15%, or the linear regression r^2 values were ≥0.990.

  - The second source initial calibration verification (ICV) standard recoveries were within the control limit listed in DoD QSM Table F-3 of ±20%.

  - The continuing calibration verification (CCV) standard %Ds were within the control limits listed in DoD QSM Table F-3 of ±20%.

  - Although not required by the DoD QSM, an MRL standard of 3× the DL is required by the FWQAPP. Low-level MRL standards were analyzed in association with the validated samples and the results were within the reasonable control limits of 70-130%.

- Blanks: Tetryl was detected in the method blank analyzed on the confirmation column. The tetryl peak was the second of a pair of small incompletely resolved peaks and was very similar to the peak identified in sample 068SS-00003M-0001-SO. Due to this similarity, tetryl reported in the sample was qualified as nondetected, "U," at the LOD. The qualified result was coded with a "B" qualification code. The method blanks associated with the validated sample had no other target compound detects above the control limit listed in DoD QSM Table F-3 of one-half the limit of quantitation (LOQ).

- Laboratory Control Samples: Recoveries were within the control limits listed in DoD QSM Tables G-2 and G-13 and within the reasonable laboratory control limits for nitroglycerin (76-116%) and PETN (76-116%).

- Surrogate Recovery: As no surrogate control limit was listed in the DoD QSM, surrogate recoveries were assessed against the reasonable laboratory-established control limits of 78-118%. The confirmation column surrogate recovery exceeded the control limit at 258%; however, as there were not retained detects, no qualification was necessary. The primary column recovery was within the control limits.

- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on sample 068SS-0003M-0001-SO. Recoveries were within the control limits listed in DoD QSM Tables G-2 and G-13 and within the reasonable laboratory control limits for nitroglycerin (76-116%) and PETN (76-116%). The RPDs were within the control limit listed in DoD QSM Table F-3 of ≤20%.

- Compound Identification: Compound identification was verified for the sample validated at Level IV. Review of sample chromatograms and retention times indicated no problems with target compound identification.

- Compound Quantification and Reported Detection Limits: Compound quantification was verified for the sample and a portion of the LCS and MS/MSD results. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.

  Confirmation analyses were performed.

  Target compounds 2,4-dinitrotoluene, 2,6-dinitrotoluene, and nitrobenzene were reported by both Method 8330B and 8270C in samples 068SS-0003M-0001-SO. As there were no detects for these compounds; the reviewer chose to report the results with the lowest LODs. The 8330B results for all three analytes were rejected, "R," as duplicate data and coded with a "D" qualification code.

- System Performance: Review of the raw data indicated no problems with system performance.

- Manual Integrations: Some manual integrations were performed for the initial calibrations and some QC samples. All manual integrations were performed in order to report incompletely resolved peaks or to account for baseline anomalies and were deemed acceptable by the reviewer.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

  - Field Blanks and Equipment Rinsates: Sample 070-0057-0001-Source Water was the field blank and 076-0067-0001-ER was the equipment rinsate associated with the validated sample. There were no detects in the field QC samples.

  - Field Duplicates: One field duplicate sample was collected and analyzed for explosive compounds. The RPD criterion in FWQAPP Table 3-1 of ≤50% was only applied when results for common detects were ≥5× the LOQ. In cases where results were <5× the LOQ, the reasonable control limit of ± the LOQ was applied. All results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

4.2.2 Propellants

A total of 4 primary soil samples and 1 field duplicate were analyzed by TA-West Sacramento for nitroguanidine by USEPA SW-846 Method 8330 and for nitrocellulose by laboratory SOP WS-WC-0050. A single primary soil sample was validated at Level IV.

- MDL studies were not evaluated as part of this project.
- Calibration:
    - The nitroguanidine initial calibration average percent %RSD was within the control limit listed in DoD QSM Table F-2 of ≤20%. Nitrocellulose linear regression r values were within the control limit listed in the DoD QSM Table F-11 of ≥0.995.
    - The nitroguanidine second source ICV recovery was within the control limits listed in DoD QSM Table F-2 of 85-115%. The nitrocellulose ICV recovery was reported to be 192% in the ICV associated with the validated sample; however, the ICV appeared to have been spiked at the usual 1 ppm level and was recovered within the control limits listed in DoD QSM Table F-11 of 90-110%.
    - The nitroguanidine CCV recoveries were within the control limits listed in DoD QSM Table F-2 of 85-115%. The nitrocellulose CCV recovery was within the control limits listed in DoD QSM Table F-11 of 90-110%.
    - Although not required by the DoD QSM, an MRL standard of 3× the DL is required by the FWQAPP. The MRL recoveries associated with the sample were within the reasonable control limits of 70-130%.
- Blanks: The method blanks had no target compound detects above the control limits listed in DoD QSM Tables F-2 and F-11 of one-half the LOQ.
- Laboratory Control Samples: No nitroguanidine or nitrocellulose LCS control limits are listed in the DoD QSM; therefore, the laboratory control limits were used to assess the results. All nitroguanidine recoveries were within the control limits of 72-121%. The nitrocellulose recoveries were within the laboratory-established control limits of 34-115%.
- Surrogate Recovery: A surrogate was not required for the analysis of nitroguanidine or nitrocellulose.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on sample 068SS-0003M-0001-SO for both propellants. The recoveries were within the laboratory-established control limits of 72-121% for nitroguanidine. Both nitrocellulose recoveries were below the control limits of 34-115%, at 32% each; therefore, nitrocellulose detected in 068SS-0003M-0001-SO was qualified as estimated, “J,” and coded with a “Q” qualification code. Both RPDs were ≤20%.

- Compound Identification: Compound identification was verified for the sample validated at Level IV. Review of the sample chromatograms and retention times indicated no problems with target compound identification.

- Compound Quantification and Reported Detection Limits: Compound quantification was verified for those samples validated at Level IV. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.

  Nitroguanidine was not detected in the validated sample; therefore, confirmation analysis was not required.

- System Performance: Review of the raw data indicated no problems with system performance.

- Manual Integrations: Some manual integrations were performed for nitroguanidine. The manual integrations were performed to correct baseline integration. The manual integrations were deemed acceptable by the reviewer.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

  - Field Blanks and Equipment Rinsates: Sample 070-0057-0001-Source Water was the field blank and 076-0067-0001-ER was the equipment rinsate associated with the validated sample in RVAAP-68. There were no detects in the field QC samples.

  - Field Duplicates: One field duplicate sample was collected and analyzed for propellants. The RPD criterion in FWQAPP Table 3-1 of ≤50% was only applied when results for common detects were ≥5× the LOQ. In cases where results were <5× the LOQ, the reasonable control limit of ± the LOQ was applied. All results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

4.2.3 Polychlorinated Biphenyls (PCBs)

A total of 38 primary soil samples, 4 soil field duplicates samples, 3 primary sediment samples, 1 sediment field duplicate sample, 3 primary surface water samples, and 1 surface water field duplicate sample were analyzed by TA-North Canton for PCBs by USEPA SW-846 Method 8082. A total of 2 primary soil samples, one primary sediment sample, and one primary surface water sample were validated at Level IV.

- MDL studies were not evaluated as part of this project.

- Calibration: Calibration criteria were met, with the exception noted below.

- Initial calibration average %RSDs were within the control limit listed in the DoD QSM Table F-2 of ≤20%, or the correlation coefficients were ≤0.990.

- The second source ICV recoveries were within the control limit listed in the DoD QSM Table F-2 of ±20% for all applicable Aroclors, with the exception of Aroclor 1221 in the ICV associated with sample 068SB-0053M-0001-SO. One of three peaks for Aroclor 1221 on the CLP-1 column was missed by the data system due to coelution, and was not manually integrated. The CLP-2 column ICV for Aroclor 1221 was acceptable. The nondetected result for Aroclor 1221 in sample 068SB-0053M-0001-SO was qualified as estimated, "UJ," and coded with a "C" qualification code.

- The CCV standard recoveries affecting sample results were within the control limit listed in the DoD QSM Table F-2 of ±20%. A few individual Aroclor peak %Ds exceeded the control limit; however, as they were associated with high recoveries, the nondetected sample results were not qualified.

- MRL standard recoveries affecting sample results were within the reasonable control limit of ±30%. A few recoveries were nominally above the control limit; however, as there were no detects in the site samples, no qualifications were applied.

- Blanks: The method blanks associated with the validated samples had no target compound detects above the control limit listed in the DoD QSM Table F-2 of one-half the LOQ for target compounds.

- Laboratory Control Samples: Recoveries for Aroclor 1016 and Aroclor 1260 were within the control limits listed in DoD QSM Tables G-16 and G-17.

- Surrogate Recovery: Recoveries were within the control limits listed in DoD QSM Table G-3 of 60-125% for soil and 40-135% for water.

- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on samples 068SS-0003M-0001-SO, 068SD-0009-0001-SO, and 068SW-0016-0001-SW. Recoveries for Aroclor 1016 and Aroclor 1260 were within the control limits listed in DoD QSM Table G-17. The RPDs were within the control limit listed in DoD QSM Table F-2 of ≤30%.

- Compound Identification: Compound identification was verified for the validated samples. Review of the sample chromatograms, standards, and retention times indicated no problems with target compound identification. The samples were analyzed on two analytical columns; however, the samples had no Aroclor detects.

- Compound Quantification and Reported Detection Limits: Compound quantification was verified for the validated samples. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.

- System Performance: Review of the raw data indicated no problems with system performance.

- Manual Integrations: Some routine manual integrations were performed for the calibration and QC data associated with the sample data, primarily due to poor baseline integration or incorrectly split peaks. All manual integrations reviewed were deemed appropriate by the reviewer.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

    - Field Blanks and Equipment Rinsates: Sample 070-0057-0001-Source Water was the field blank and 076-0067-0001-ER was the equipment rinsate associated with validated sample 068SS-0003M-0001-SO in RVAAP-68. There were no detects above the DL in the field QC samples.

    - Field Duplicates: Four soil, one sediment, and one surface water field duplicate samples were collected and analyzed for PCBs. The RPD criteria in FWQAPP Table 3-1 of ≤50% for soils and ≤30% for waters were only applied when results for common detects were ≥5× the LOQ. In cases where results were <5× the LOQ, the reasonable control limit of ± the LOQ was applied. The results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

4.2.4 Semivolatile Organic Compounds (SVOCs)

A total of 38 primary soil samples, 4 soil field duplicates samples, 3 primary sediment samples, 1 sediment field duplicate sample, 3 primary surface water samples, and two surface water field duplicate samples were analyzed by TA-North Canton for SVOCs by USEPA Method 8270C. A total of 2 primary soil samples, one primary sediment sample, and one primary surface water sample were validated at Level IV.

- MDL studies were not evaluated as part of this project.

- GC/MS Tuning: The DFTPP tunes met the method abundance criteria. The samples were analyzed within 12 hours of the DFTPP injection time.

- Calibration: Calibration criteria listed in the DoD QSM Table F-4 were met, with exceptions affecting sample results noted in the tables below.

    - Initial calibration average RRFs and ICV and CCV RRFs were within method control limits of ≥0.050. All initial calibration %RSDs were within the control limits of ≤30% for calibration check compounds (CCCs) and ≤15% for remaining compounds, or linear regression r^2 values ≥0.990.

- All second source ICV standard recoveries affecting sample data were within the control limit of ±20%.

- Continuing calibration %Ds affecting sample results were within the control limit of ≤20%.

- Although not required by the DoD QSM, an MRL standard of 3× the DL is required by the FWQAPP. MRL standard recoveries were within the reasonable control limit of ±30%, with exceptions noted in the table below. Results detected at concentrations more than 10× the LOQ were not qualified as it was the reviewer's professional opinion the CCVs were more indicative of instrument performance relative to the sample. The nondetected result for n-nitrosodiphenylamine and hexachlorocyclopentadiene were rejected, "R," in the affected samples and the remaining results listed in the table below were qualified as estimated, "UJ," for nondetects and, "J," for detects. All qualified results were coded with a "C" qualification code.

Samples qualified for MRL %R outliers		
Analyte	**%R**	**Qualified Samples**
2,4-dinitrophenol	50%	068SS-0003M-0001-SO
hexachloroethane	69%	
dibenz(a,h)anthracene	240%	
n-nitrosodiphenylamine	**0%**	
4,6-dinitro-2-methylphenol	59%	
benzo(g,h,i)perylene	58%	068SD-0009-0001-SO
dibenz(a,h)anthracene	65%	
2,4-dinitrophenol	68%	
Indeno(1,2,3-cd)pyrene	66%	
hexachlorocyclopentadiene	**0%**	
2,4-dinitrophenol	61%	068SB-0053-0001-SO

- Blanks: Bis(2-ethylhexyl)phthalate was detected in several soil method blanks at 20.5, 22.4, and 22.1 µg/Kg; therefore, bis(2-ethylhexyl)phthalate detected in 068SS-0003M-0001-SO, 068SB-0053M-0001-SO, and 068SD-0009-0001-SO was qualified as nondetected, "U," at the levels of contamination. The qualified results were coded with a "B" qualification code. The remaining method blanks associated with the validated samples had no target compound detects above the control limits listed in DoD QSM Table F-4 of one-half the LOQ for target compounds, and no common laboratory contaminants detected above the LOQ.

- Laboratory Control Samples: All LCS recoveries were within the control limits listed in DoD QSM Tables G-2 (poor performers), G-6 (water), and G-7 (soil). The reviewer noted hexachlorocyclopentadiene was not spiked in the LCS. Additionally, the LCS associate with sample 068SD-0009-0001-SO reported no recovery of benzoic acid. Upon review of the raw data, the reviewer determined that benzoic acid was spiked below the LOD but was acceptably recovered.

- Surrogate Recovery: All surrogate recoveries were within the control limits listed in the DoD QSM Tables G-2 (poor performers) or G-3.

- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on validated samples 068SS-0003M-0001-SO, 068SD-0009-0001-SO and 068SW-0016-0001-SW. Except as noted below, the recoveries were within the control limits listed in DoD QSM Tables G-2 (poor performers), G-6 (water) and G-7 (soil). The reviewer noted hexachlorocyclopentadiene was not spiked in the MS/MSD. Except as noted below, the RPDs were within the control limit of ≤30% listed in DoD QSM Table F-4.

  The MS/MSD of 068SD-0009-0001-SO and 068SS-0003M-0001-SO reported no recovery of benzoic acid. Upon review of the raw data, the reviewer determined that benzoic acid was spiked below the LOD but was acceptably recovered in both the MS and MSD of 068SD-0009-0001-SD and the MS of 068SS-0003M-0001-SO.

  Results were not qualified for recovery outliers unless both recoveries were outside the control limits. Nondetected results associated with compounds exhibiting no recovery were rejected, "R." The remaining results listed in the table below, all nondetects, were qualified as estimated, "UJ." All qualified results were coded with a "Q" qualification code.

MS/MSD recovery and RPD outliers				
Parent Sample	**Analyte**	**MS/MSD %R**	**RPD**	**Control Limits**
068SS-0003M-0001-SO	benzoic acid	acceptable, 0%	200%	0-110%
	3,3'-dichlorobenzidine	4%, 6%	acceptable	10-130%
068SD-0009-0001-SO	4-chloroaniline	9%, acceptable%	74%	10-95%
	3,3'-dichlorobenzidine	0%, 0%	acceptable	10-130%
	3-nitroaniline	9%, 17%	64%	25-110%
	4-nitroaniline	21%, 23%	acceptable	35-115%
068SW-0016-0001-SW	1,4-dichlorobenzene	acceptable	33%	N/A
	1,3-dichlorobenzene	acceptable	33%	N/A
	1,2-dichlorobenzene	acceptable	34%	N/A
	dibenz(a,h)anthracene	acceptable	86%	N/A
	bis(2-chloroethyl)ether	acceptable	35%	N/A
	benzo(g,h,i)perylene	acceptable	31%	N/A
	di-n-octyl phthalate	acceptable	38%	N/A
	hexachlorobutadiene	acceptable	31%	N/A
	indeno(1,2,3-cd)pyrene	acceptable	34%	N/A
	1,2,4-trichlorobenzene	acceptable	31%	N/A
	hexachloroethane	acceptable	31%	N/A
	bis(2-chloroisopropyl)ether	acceptable	35%	N/A

- Internal Standards Performance: The internal standard area counts and retention times were within the DoD QSM Table F-4 control limits established by the midpoint initial calibration standard: ±30 seconds for retention times and -50% / +100% for internal standard areas.

- Compound Identification: Compound identification was verified for the samples validated at Level IV. Review of the sample chromatograms, retention times, and spectra indicated no problems with target compound identification.

- Compound Quantification and Reported Detection Limits: Compound quantification was verified for the samples validated at Level IV. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J," by the laboratory. Reported nondetects are valid to the LOD.

- System Performance: Review of the raw data indicated no problems with system performance.

- Manual Integrations: Some routine manual integrations were performed for the samples, calibration, and QC data associated with the sample data, primarily to split incompletely resolved peaks, identify missed peaks, or resolve poor baseline integration. All manual integrations reviewed were deemed appropriate by the reviewer.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

    - Field Blanks and Equipment Rinsates: Sample 070-0057-0001-Source Water was the field blank and 076-0067-0001-ER was the equipment rinsate associated with the sample 068SS-0003M-0001-SO. There were no detects in the field QC samples.

    - Field Duplicate Samples: Four soil field duplicate samples, one sediment field duplicate sample, and two surface water field duplicate samples were collected and analyzed for SVOCs. The RPD criterion in FWQAPP Table 3-1 of ≤50% was only applied when results for common detects were ≥5× the LOQ. In cases where results were <5× the LOQ, the reasonable control limit of ± the LOQ was applied. Except as noted below, the results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

SVOC field duplicate outliers			
Field Duplicate Pair	**Analyte**	**RPD**	**W/In LOQ**
068SD-0009-0001-SO/ 068SD-0010-0001-SO	Chrysene	N/A	No
	Pyrene	N/A	No
068SS-0003M-0001-SO/ 068SS-0004M-0001-SO	Benzo(g,h,i)perylene	N/A	No
	Benzo(k)fluoranthene	N/A	No
	Dibenz(a,h)anthracene	N/A	No
	Indeno(1,2,3-cd)pyrene	N/A	No
	Phenanthrene	N/A	No
068SW-0013-0001-SW/ 068SW-0014-0001-SW	Bis(2-ethylhexyl)phthalate	N/A	No

4.2.5 Volatile Organic Compounds (VOCs)

A total of 5 primary soil samples and 1 field duplicate sample were analyzed by TA-North Canton for volatile compounds by USEPA Method 8260B. A single soil sample was validated at Level IV.

- MDL studies were not evaluated as part of this project.
- GC/MS Tuning: The BFB tunes met the method abundance criteria. The samples were analyzed within 12 hours of the BFB injection time.
- Calibration: Calibration criteria listed in DoD QSM Table F-4 were met.
    - Initial calibration average RRFs and ICV and CCV RRFs were within the control limits of ≥0.30 for chlorobenzene and 1,1,2,2-tetrachloroethane, and ≥0.10 for chloromethane, bromoform, and 1,1-dichloroethane.
    - All initial calibration %RSDs were within the method control limits of ≤30% for the CCCs and ≤15% for remaining compounds, or linear regression r^2 values ≥0.990.
    - All second source initial calibration verification standard recoveries were within the control limit of ±20%.
    - Continuing calibration %Ds affecting validated sample data were within the control limit of ≤20%
    - Although not required by the DoD QSM, an MRL standard of 3× the DL is required by the FWQAPP. MRL standard recoveries affecting sample data were within the reasonable control limit of ±30%. Several recoveries were marginally above the control limits; however, none of the compounds with high recoveries were detected in the associated sample.
- Blanks: The method blank associated with the validated sample had no target compound detects above the control limits listed in DoD QSM Table F-4 of one-half the LOQ, and no common laboratory contaminants detected above the LOQ. The method blank had detects below the LOQ for acetone at 6.33(J) µg/Kg, 2-hexanone at 0.802(J) µg/Kg, and methylene chloride at 1.54(J) µg/Kg; however, none of the method blank contaminants were detected in the validated sample.
- Laboratory Control Samples: LCS recoveries were within the control limits listed in DoD QSM Table G-4.
- Surrogate Recovery: Surrogate recoveries were within the control limits listed in DoD QSM Table G-3.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on validated sample 068SS-0003M-0001-SO. Qualifications were assigned only for outliers present in

both the MS and MSD. The following were recovered below the control limits of 75-125%: chlorobenzene at 57% and 67%, ethylbenzene at 53% and 66%, styrene at 54% and 66%, and total xylenes at 52% and 64%. Parent sample results for the compounds with recovery outliers, all nondetects, were qualified as estimated, "UJ," and coded with a "Q" qualification code. Remaining recoveries were within the control limits listed in DoD QSM Table G-4, and all RPDs were within the control limit listed in DoD QSM Table F-4, of ≤30%.

- Internal Standards Performance: The internal standard area counts and retention times were within DoD QSM Table F-4 control limits established by the midpoint initial calibration standard: -50% / +100% for internal standard areas and ±30 seconds for retention times.

- Compound Identification: Compound identification was verified for the validated sample. Review of the sample chromatogram, retention times, and spectra indicated no problems with target compound identification.

- Compound Quantification and Reported Detection Limits: Compound quantification was verified for the validated sample. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J," by the laboratory. Reported nondetects are valid to the LOD.

- System Performance: Review of the raw data indicated no problems with system performance.

- Manual integrations: Manual integrations were not performed for the validated sample or for associated calibration and QC samples.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

    - Trip Blanks: The trip blank associated with the validated sample in this SDG had no reportable.

    - Field Blanks and Equipment Rinsates: Sample 070-0057-0001-Source Water was the field blank and 076-0067-0001-ER was the equipment rinsate associated with validated sample 068SS-0003M-0001-SO in RVAAP-68. The field blank had detects below the LOQ for acetone at 2.1(J) µg/L and 2-butanone at 1.2(J) µg/L, and detects above the LOQ for the following compounds: bromodichloromethane at 3.6 µg/L, chloroform at 5.3 µg/L, dibromochloromethane at 1.3 µg/L, and toluene at 1.5 µg/L. The equipment rinsate had a detect for chloroform below the LOQ at 0.61(J) µg/L. None of the field QC contaminants were detected in the validated sample. There were no other detects above the DL in the field QC samples.

    - Field Duplicate Samples: One field duplicate sample was collected and analyzed for VOCs. The RPD criterion in FWQAPP Table 3-1 of ≤50% was only applied when

results for common detects were ≥5× the LOQ. In cases where results were <5× the LOQ, the reasonable control limit of ± the LOQ was applied. All results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

4.2.6 Metals

A total of 38 primary soil samples, 4 soil field duplicates samples, 3 primary sediment samples, 1 sediment field duplicate sample, 3 primary surface water samples, and 1 surface water field duplicate sample were analyzed by TA-North Canton for metals by USEPA Methods 6020 and 7470A/7471A. A total of 2 primary soil samples, one primary sediment sample, and one primary surface water sample were validated at Level IV.

- MDL studies were not evaluated as part of this project.
- Calibration: Except as noted below, calibration criteria were met.
  - As per DoD QSM Table F-8, the mass calibrations were ≤0.1 amu of the true values and the resolutions were <0.9 amu at full width at 10% peak height. Except as noted below, the %RSDs were within the control limit listed in the DoD QSM Table F-8 of ≤5%. The detected results listed in the table below were qualified as estimated, "J," nondetected as "UJ." All results were coded with an "M" qualification code.

Samples qualified for tune %RSD outliers		
Analyte	**%RSD**	**Qualified Samples**
^{78}Selenium	20.427%	068SS-0003M-0001-SO
	11.586%	068SD-0009-0001-SO
	8.029%	068SW-0016-0001-SW
^{137}Barium ratio	5.3446%	
^{137}Barium	91.287%	068SB-0053M-0001-SO
^{138}Barium	19.999%	

  - Initial calibration: The mercury linear regression correlation coefficients were within the control limit listed in the DoD QSM Table F-7 of ≥0.995. The ICPMS analytes used a single point calibration.
  - The ICPMS ICV and CCV recoveries were within the control limits listed in DoD QSM Table F-8 of 90-110%. The mercury ICV and CCV recoveries were within the control limits listed in DoD QSM Table F-7 of 90-110% and 80-120%, respectively.
  - Except as noted below, CRI/MRL recoveries affecting sample results were within the control limits listed in DoD QSM Tables F-7 and F-8 of 80-120%. If the sample result was more than 10× the LOQ, it was the reviewer's professional opinion that the CCVs were more indicative of instrument performance.

    Results listed in the table below were qualified as estimated, "J," for detects and, "UJ," for nondetects. All qualified results were coded with a "C" qualification code. When no

other qualifications with conflicting bias were assigned, the results were qualified as estimated with a potential positive bias, "J+."

Samples qualified for CRI recovery outliers		
Analyte	**Recovery**	**Qualified Samples**
Thallium	121%	068SD-0009-0001-SO
Iron	121%	068SW-0016-0001-SW
Mercury	72%	

- Blanks: Except as noted below, method blanks had no applicable detects above the control limits listed in DoD QSM Tables F-7 and F-8 of one-half the LOQ or greater than one-tenth the amount measured in any sample and CCBs had no applicable detects above the control limit of >LOD. Results in the table below, all detects, were qualified as nondetected, "U," at the level of contamination if detected above the LOD or at the LOD if detected below. The qualified results were assigned a "B" qualification code.

Samples qualified for method blank detects				
Analyte	**Detect (µg/L or mg/kg)**	**LOQ(µg/L or mg/kg)**	**Sample Detect (µg/L or mg/kg)**	**Qualified Samples**
Mercury	0.0276	0.095	0.079	068SD-0009-0001-SO
	0.0245	0.098	0.046	068SS-0003M-0001-SO
Thallium	0.348	2.0	0.43	068SW-0016-0001-SW
Zinc	10.4	40	12	

- Interference Check Samples: ICPMS ICSA and ICSAB recoveries were within the control limits listed in DoD QSM Table F-8 of 80-120%. As most interferents were present in the samples at concentration less than 50% of the ICSA, the samples were not assessed for possible matrix interference.

- Laboratory Control Samples: All recoveries were within the control limits listed in DoD QSM Table G-19 of 80-120%.

- Laboratory Duplicates: Laboratory duplicate analyses were performed on 076SS-0020M-0001-SO, 073SS-0003M-0001-SO, 068SD-0009-0001-SO, 076SW-0013-0001-SW, 068SW-0016-0001-SW, 068SS-0003M-0001-SO, 076SD-0009-0001-SO, 073SD-0045-0001-SO, 079SB-0061M-0001,0002-SO, 079SB-0070M-0001-SO and 079SB-0072M-0001-SO. The RPD control limits listed in DoD QSM Tables F-7 and F-8 was ≤20%. The results were only assessed for common detects ≥5× the LOQ. In cases where results were <5× the LOQ, the reasonable control limit of ± the LOQ was applied. Except as noted below, the results were within the control limits.

  Results listed in the table below were qualified as estimated, "J," and coded with an "E" qualification code. As per the *National Functional Guidelines*, all samples in an SDG were qualified; however, the parent samples were qualified only for their own outliers.

Samples qualified for laboratory duplicate RPD outliers			
Parent Sample	**Analyte**	**RPD**	**Qualified samples**
068SD-0009-0001-SO	Manganese	29%	068SD-0009-0001-SO
068SS-0003M-0001-SO		33%	068SS-0003M-0001-SO
073SD-0045-0001-SO	Aluminum	24%	068SB-0053M-0001-SO
	Arsenic	32%	
	Barium	29%	
	Calcium	26%	
	Chromium	25%	
	Cobalt	28%	
	Copper	27%	
	Iron	28%	
	Magnesium	25%	
	Manganese	43%	
	Sodium	22%	
	Nickel	27%	
	Lead	25%	
	Vanadium	26%	
	Zinc	27%	
	Potassium	25%	
079SB-0061M-0001-SO	Calcium	24%	
079SB-0070M-0001-SO	Calcium	21%	

- Matrix Spike/Matrix Spike Duplicate: Matrix spike analyses were performed on 076SS-0020M-0001-SO, 073SS-0003M-0001-SO, 068SD-0009-0001-SO, 076SW-0013-0001-SW, 068SW-0016-0001-SW, 068SS-0003M-0001-SO, 076SD-0009-0001-SO, 073SD-0045-0001-SO, 079SB-0061M-0001-SO, 079SB-0070M-0001-SO, and 079SB-0072M-0001-SO. The results were not assessed when the native sample concentration exceeded the spiked amount by 4× or more. Except as noted in the table below, the recoveries were within the control limits listed in DoD QSM Table G-19 of 80-120%.

  Results listed in the table below, all detects, were qualified as estimated, "J." In the absence of qualifications with conflicting bias, the results were qualified as estimated with a potential low bias, "J-," or estimated with a potential high bias, "J+." All qualified results were coded with a "Q" qualification code. As per the *National Functional Guidelines*, all samples in an SDG were qualified; however, the parent samples were qualified only for their own outliers.

Samples qualified for matrix spike recovery outliers			
Parent Sample	**Analyte**	**%R**	**Qualified samples**
068SD-0009-0001-SO	Antimony	23%	068SD-0009-0001-SO
	Arsenic	59%	
	Calcium	73%	
	Lead	73%	
	Selenium	71%	
068SS-0003M-0001-SO	Antimony	25%	068SS-0003M-0001-SO
073SD-0045-0001-SO	Antimony	41%	068SB-0053M-0001-SO
	Arsenic	66%	
079SB-0061M-0001-SO	Antimony	27%	
	Calcium	73%	
	Selenium	60%	
079SB-0070M-0001-SO	Antimony	30%	
	Calcium	140%	
	Selenium	71%	
079SB-0072M-0001-SO	Antimony	30%	
	Arsenic	62%	
	Calcium	49%	
	Selenium	66%	
	Zinc	68%	

All post digestion spike recoveries were within the control limits listed in DoD QSM Table F-8 of 75-125%.

- Serial Dilution: Serial dilution analyses were performed on 076SS-0020M-0001-SO, 076SW-0013-0001-SW, 073SD-0045-0001-SO, 079SB-0061M-0001-SO, 079SB-0070M-0001-SO and 079SB-0072M-0001-SO for the ICPMS analytes. Three zinc %Ds associated with sample 068SB-0053M-0001-SO exceeded the control limit at 11%, 11% and 12%; therefore, the zinc detect in the sample was qualified as estimated, "J," and coded with an "A" qualification code. All remaining %Ds were within the control limits listed in DoD QSM Table F-7 and F-8 of ≤10%. The serial dilution control limit is only applicable when the original sample concentration is minimally ≥50× the LOQ.

- Internal Standards: As per the DOD QSM Table F-8, the ICPMS sample internal standards intensities were within 30-120% of those in the ICV. ^{89}Yttrium was not spiked in sample 068SB-0053M-0001-SO, only for the QC runs.

- Sample Result Verification: For Level IV validation, calculations were verified and the sample results reported on the sample result summary were verified against the raw data. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.

  Due to instrument limitations, the mercury raw data did not list the sample absorbances; therefore, the reviewer was not able to calculate the sample results from the raw data.

Additionally, the ICPMS raw data did not list absorbances for the ICV, CCV, ICSAB, and MRL samples, and the %R was listed instead of the sample concentrations.

A 20× dilution was performed on manganese for sample 068SD-0009-0001-SO; and 5× dilutions were performed for antimony, barium, iron, lead, manganese and thallium from sample 068SS-0003M-0001-SO.

- Manual Integrations: No manual integrations were noted in the mercury analyses.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - Field Blanks and Equipment Rinsates: Sample 070-0057-0001-Source Water was identified as the field blank and sample 076-0067-0001-ER was the equipment rinsate associated with sample 068SS-0003M-0001-SO. Sodium was detected at 1600 µg/L in 070-0057-0001-Source Water; therefore, sodium detected in 068SS-0003M-0001-SO was qualified as nondetected, "U," at the level of contamination. The qualified result was coded with an "F" qualification code. There were other detects in the field QC samples, but none at sufficient concentration to qualify the associated sample.
  - Field Duplicate Samples: Six field duplicate samples were collected and analyzed for metals. The RPD criterion in FWQAPP Table 3-1 of ≤50% was only applied when results for common detects were ≥5× the LOQ. In cases where results were <5× the LOQ, the reasonable control limit of ± the LOQ was applied. Except as noted below, all results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

Metals field duplicate outliers			
Field Duplicate Pair	**Analyte**	**RPD**	**W/In LOQ**
068SB-0035M-0001-SO/ 068SB-0054M-0001-SO	Manganese	53%	N/A
	Calcium	116%	N/A
068SW-0016-0001-SW/ 068SW-0014-0001-SW	Aluminum	N/A	No
	Manganese	32%	N/A
068SS-0003M-0001-SO/ 068SS-0004M-0001-SO	Antimony	N/A	No
	Thallium	N/A	No

4.3 Data Usability

According to the Draft Site Inspection Report prepared by ECC, the field completeness was 100%.

Two data points were rejected for poor MS/MSD recoveries or calibration outliers. In instances where a data point had multiple results, the reviewer chose the most technically sound result to report and rejected the remaining data points. These rejected data points do not affect data quality or usability and are not included in the table below. Data with LODs or DLs that

exceeded the established criteria and data estimated for quality control outliers or for detects between the DL and the LOQ were included in the table below for informational purposes only.

Table 7. Analytical completeness for RVAAP-68 validated primary data

			Number of Results					Percent Complete
Analysis	**Samples Analyzed**	**Analytes per Sample**	**Total**	**Rejected**	**LODs/DLs Exceeding Criteria**	**Estimated for QC Outliers**	**Estimated for Detects <LOQ**	
Explosives	1	16	14	0	0/0	3	0	100%
Nitroguanidine	1	1	1	0	0/0	0	0	100%
Nitrocellulose	1	1	1	0	0/0	1	1	100%
PCBs	4	7	28	0	0/0	1	0	100%
SVOCs	4	66	264	2	3/3	30	5	99.2%
VOCs	1	35	35	0	0/0	4	0	100%
Metals	4	23	92	0	0/0	37	10	100%
		Totals	**435**	**2**	**3/3**	**76**	**16**	**99.5%**

The analytical completeness goal for the project established in the FWQAPP was 90% for each method. The completeness goal was met for all analyses.

4.4 Primary and Field Duplicate Comparison Summary

Primary and field duplicate sample comparisons were considered to be in good agreement as only 2.0% of the field duplicate pair results were above the FWQAPP control limit of 50% for soils, 50% for waters, or +/- the LOQ for results below the 5× the LOQ.

Five outliers were for PAH compounds in pair 068SS-0003M-0001-SO/068SS-0004M-0001-SO with all compounds were detected at lower concentrations in the duplicate sample. All comparison results are presented in Appendix C. A summary of the field duplicate results is presented in the table below. Please note that rejected results were not assessed and the rejected analytes do not appear in the “Total Analytes” field.

Table 8. RVAAP-68 primary/field duplicate sample comparison summary

Method	Primary/Field Duplicate Pairs	Number of Analytes	Total Analytes	Number of results within control limits	Number of results above control limit
Explosives	1	16	13	13	0
Nitroguanidine	1	1	1	1	0
Nitrocellulose	1	1	1	1	0
PCBs	6	7	42	42	0
SVOCs	7	66	461	453	8
VOCs	1	35	35	35	0
Metals	6	23	138	132	6
Pesticides	1	21	21	21	0

4.5 Specific Data Concerns

Specific concerns regarding the data are noted below:

- A few LOQs and DLs exceeded the project criteria. These exceedances are detailed in Section 4.2.4.

- Due to instrument limitations, the mercury raw data did not list the sample absorbances; therefore, the reviewer was not able to calculate the sample results from the raw data. Additionally, the ICPMS raw data did not list absorbances for the ICV, CCV, ICSAB, and MRL samples, and the %R was listed instead of the sample concentrations.

In order to avoid repetition of the issues noted above, the following actions should be taken:

- MEC^X recommends the laboratory be requested to alter the IPCMS and mercury instrument set up in order to report mercury and ICPMS raw absorbances and ICPMS ICV, CCV, ICSAB, and MRL concentrations.

5 BUILDING 1048 FIRE STATION, RVAAP-69

5.1 Current Investigation

ECC completed an RI at the Former Building 1048 Fire Station (RVAAP-69). The work was performed in accordance with the *Site Inspection and Remedial Investigation Work Plan* (ECC 2012) and the *Facility-Wide Sampling and Analysis Plan* (SAIC 2011).

A metal shed, designated Building T-4510, was located adjacent to the Building 1048 Fire Station and was used to store carbon tetrachloride and possibly other chemicals. The HHR (SAIC, 2011) recommended further investigation of the area behind Buildings 1048 and T-4510. The data validated in this report are part of the intrusive RI at RVAAP-69 conducted to assess the potential presence of contamination. The sample counts, samples selected for data validation, and the field duplicates are presented in the tables below.

Table 9. Total sample count for RVAAP-69

Matrix	Primary Samples	Field Duplicates	Split Samples	Primary Sample Count						
				Explosives	Propellants	Pesticide	PCBs	SVOCs	VOCs	Metals
Soil	26	1	0	1	1	1	1	26	26	26

Table 10. RVAAP-69 validated samples and methods

Sample ID	SDG	Matrix	Collected	Explosives	Propellants	PCBs	SVOCs	VOCs	Metals
069SS-0001M-0001-SO	240-17525-2	soil	11/11/2012	x	x	x	x	x	x
069SB-0013M-0001-SO	240-17602-1	soil	11/12/2012	--	--	--	x	x	x

Table 11. RVAAP-69 field duplicate samples

Duplicate Sample ID	Parent Sample
069SS-0002M-0001-SO	069SS-0001M-0001-SO

5.1.1 Sample Collection

The chains-of-custody were appropriately signed and dated by field and laboratory personnel. According to the laboratory Sample Receipt Forms, custody seals were not utilized; however, in reviewing the relinquish and receipt times, it appeared the samples were transferred to the laboratory by courier. The following sample collection issues were noted.

- Some corrections made to the chains-of-custody were properly made but were not dated.

- Some corrections were made by overwriting or obliterating the original entry. These corrections were not initialed or dated.

5.1.2 Data Completeness

Data completeness for the project described in this report was found to be generally acceptable as no deliverables were missing from the SDGs reviewed.

5.1.3 Preservation and Holding Time Requirements

A portion of the samples were received at temperatures nominally below the 4±2^{o}C control limit; however, as the samples were not noted to be frozen or damaged, no qualifications were required. All remaining method preservation requirements were met. Holding times, as listed in Table 3, were met.

5.1.4 Detection Limit Requirements

LODs and DLs for nondetected analytes were compared against the most stringent CUGs listed in Tables 5-8, 5-9, and 5-10 of *Final Facility-Wide Human Health Cleanup Goals for the Ravenna Army Ammunition Plant* (2010) or the RSLs if no CUG was listed. Two SVOCs (dibenz(a,h)anthracene and n-nitroso-di-n-propylamine) had LODs and DLs that exceeded the CUGs. Results with DLs exceeding project criteria may be usable for their intended purposes; however, it is dependent on the final data user to make this determination on a case-by-case basis.

5.2 RVAAP-69 Data Quality Evaluation

This section summarizes the data quality of validated samples for each analytical method evaluated.

5.2.1 Explosives

A single primary soil sample and 1 soil field duplicate sample were analyzed by TA-West Sacramento for explosives by USEPA SW-846 Method 8330B. The primary soil sample was validated at Level IV.

- MDL studies were not evaluated as part of this project.
- Calibration:
    - The primary column initial calibration average percent relative standard deviations (%RSDs) for RDX and 2-nitrotoluene exceeded the control limit at 20% and 16%, respectively; therefore, the nondetected results for these compounds were qualified as estimated, “UJ,” in 069SS-0001M-0001-SO. The qualified results were coded with a “C” qualification code. The remaining initial calibration average %RSDs were within the control limits listed in DoD QSM Table F-3 of ≤15%, or the linear regression r^2 values were ≥0.990.

- The second source ICV standard recoveries were within the control limit listed in DoD QSM Table F-3 of ±20%.
- The CCV %Ds were within the control limits listed in DoD QSM Table F-3 of ±20%.
- Although not required by the DoD QSM, an MRL standard of 3× the DL is required by the FWQAPP. Low-level MRL standards were analyzed in association with the validated samples and the recoveries affecting sample results were within the reasonable control limits of 70-130%.

- Blanks: The method blanks associated with the validated samples had no target compound detects above the control limit listed in DoD QSM Table F-3 of one-half the LOQ.

- Laboratory Control Samples: Recoveries were within the control limits listed in DoD QSM Tables G-2 and G-13 and within the reasonable laboratory control limits for nitroglycerin (76-116%) and PETN (76-116%).

- Surrogate Recovery: As no surrogate control limit was listed in the DoD QSM, surrogate recoveries were assessed against the reasonable laboratory-established control limits of 78-118%. The confirmation column recovery was above the control limit at 121%; however, as there were no confirmed compounds, no qualifications were required. The primary column recovery was within the control limits.

- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on sample 069SS-0001M-0001-SO. Recoveries were within the control limits listed in DoD QSM Tables G-2 and G-13 and within the reasonable laboratory control limits for nitroglycerin (76-116%) and PETN (76-116%). The RPDs were within the control limit listed in DoD QSM Table F-3 of ≤20%.

- Compound Identification: Compound identification was verified for those samples validated at Level IV. Review of sample chromatograms and retention times indicated no problems with target compound identification.

- Compound Quantification and Reported Detection Limits: As no target compounds were reported in the samples validated at Level IV, compound quantification was verified for a portion of the LCS and MS/MSD results. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.

  Confirmation analyses were performed; however, no compounds were confirmed.

  Target compounds 2,4-dinitrotoluene, 2,6-dinitrotoluene, and nitrobenzene were reported by both Method 8330B and 8270C in samples 069SS-0001M-0001-SO. As there were no detects for these compounds; the reviewer chose to report the results with the lowest LODs. The 8330B result for nitrobenzene was rejected, "R," as duplicate data and coded with a "D" qualification code. The results for 2,4-dinitrotoluene and 2,6-dinitrotolene were retained.

- System Performance: Review of the raw data indicated no problems with system performance.

- Manual Integrations: Some manual integrations were performed. All manual integrations were performed in order to report incompletely resolved peaks, to complete the integrations, or to account for baseline anomalies. All manual integrations were deemed acceptable by the reviewer.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

    - Field Blanks and Equipment Rinsates: Sample 070-0057-0001-Source Water was the field blank and 076-0067-0001-ER was the equipment rinsate associated with the validated sample in RVAAP-68. There were no detects in the field QC samples.

    - Field Duplicates: One field duplicate sample was collected and analyzed for explosive compounds. The RPD criterion in FWQAPP Table 3-1 of ≤50% was only applied when results for common detects were ≥5× the LOQ. In cases where results were <5× the LOQ, the reasonable control limit of ± the LOQ was applied. All results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

5.2.2 Propellants

A single primary soil sample and 1 soil field duplicate sample were analyzed by TA-West Sacramento for nitroguanidine by USEPA SW-846 Method 8330 and for nitrocellulose by laboratory SOP WS-WC-0050. The primary soil sample was validated at Level IV.

- MDL studies were not evaluated as part of this project.

- Calibration:

    - The nitroguanidine initial calibration average percent %RSD was within the control limit listed in DoD QSM Table F-2 of ≤20%. The nitrocellulose linear regression correlation coefficient was within the control limit listed in the DoD QSM Table F-11 of ≥0.995.

    - The nitroguanidine second source ICV recovery was within the control limits listed in DoD QSM Table F-2 of 85-115%. The nitrocellulose ICV recovery was reported to be 187% in the ICV associated with the validated sample; however, the ICV appeared to have been spiked at the usual 1 ppm level and was recovered within the control limits listed in DoD QSM Table F-11 of 90-110%.

    - The nitroguanidine CCV recoveries were within the control limits listed in DoD QSM Table F-2 of 85-115%. The nitrocellulose CCV recoveries were within the control limits listed in DoD QSM Table F-11 of 90-110%.

  - Although not required by the DoD QSM, an MRL standard of 3× the DL is required by the FWQAPP. MRL recoveries associated with the sample were within the reasonable control limits of 70-130%.

- Blanks: The method blanks had no target compound detects above the control limits listed in DoD QSM Tables F-2 and F-11 of one-half the LOQ.

- Laboratory Control Samples: No nitroguanidine or nitrocellulose LCS control limits are listed in the DoD QSM; therefore, the laboratory control limits were used to assess the results. All nitroguanidine recoveries were within the control limits of 72-121% for soils. The nitrocellulose recoveries were within the laboratory-established control limits of 34-115% for soils.

- Surrogate Recovery: A surrogate was not required for the analysis of nitroguanidine or nitrocellulose.

- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on sample 069SS-0001M-0001-SO for both propellants. The recoveries were within the laboratory-established control limits of 72-121% for nitroguanidine and 34-115% for nitrocellulose. Both RPDs were ≤20%.

- Compound Identification: Compound identification was verified for the sample validated at Level IV. Review of the sample chromatograms and retention times indicated no problems with target compound identification.

- Compound Quantification and Reported Detection Limits: Compound quantification was verified for those samples validated at Level IV. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.

  Nitroguanidine was reported on the primary column for sample 069SS-0001M-0001-SO, but was not detected on the confirmation column.

- System Performance: Review of the raw data indicated no problems with system performance.

- Manual Integrations: No manual integrations were reported for nitroguanidine.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

  - Field Blanks and Equipment Rinsates: Sample 070-0057-0001-Source Water was the field blank and 076-0067-0001-ER was the equipment rinsate associated with the validated sample in RVAAP-68. There were no detects in the field QC samples.

- Field Duplicates: One field duplicate sample was collected and analyzed for propellants. The RPD criterion in FWQAPP Table 3-1 of ≤50% was only applied when results for common detects were ≥5× the LOQ. In cases where results were <5× the LOQ, the reasonable control limit of ± the LOQ was applied. Nitroguanidine was detected in the duplicate sample 069SS-0002M-0001-SO above the LOQ but was not detected in the parent sample, 069SS-0001M-0001-SO. The nitrocellulose results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

5.2.3 Polychlorinated Biphenyls (PCBs)

A single primary soil sample and 1 field duplicate sample were analyzed by TA-North Canton for PCBs by USEPA SW-846 Method 8082. The primary soil sample was validated at Level IV.

- MDL studies were not evaluated as part of this project.
- Calibration: Calibration criteria were met.
  - Initial calibration average %RSDs were within the control limit listed in the DoD QSM Table F-2 of ≤20%.
  - The second source ICV recoveries were within the control limit listed in the DoD QSM Table F-2 of ±20% for all applicable Aroclors.
  - The CCV standard recoveries were within the control limit listed in the DoD QSM Table F-2 of ±20%.
  - MRL standard recoveries were within the reasonable control limit of ±30%.
- Blanks: The method blank associated with the validated sample had no target compound detects above the control limit listed in the DoD QSM Table F-2 of one-half the LOQ for target compounds.
- Laboratory Control Samples: LCS recoveries for Aroclor 1016 and Aroclor 1260 were within the control limits listed in DoD QSM Table G-17.
- Surrogate Recovery: Recoveries were within the control limits listed in DoD QSM Table G-3 of 60-125%.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on the validated sample, 069SS-0001M-0001-SO. Recoveries for Aroclor 1016 and Aroclor 1260 were within the control limits listed in DoD QSM Table G-17. The RPDs were within the control limit listed in DoD QSM Table F-2 of ≤30%.
- Compound Identification: Compound identification was verified for the validated sample. Review of the sample chromatogram, standards, and retention times indicated no problems

with target compound identification. The sample was analyzed on two analytical columns; however, the sample had no Aroclor detects.

- Compound Quantification and Reported Detection Limits: Compound quantification was verified for the validated sample. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.

- System Performance: Review of the raw data indicated no problems with system performance.

- Manual Integrations: Some routine manual integrations were performed for the calibration and QC data associated with the sample data, primarily to resolve poor baseline integration or correct previously incorrectly split peaks. All manual integrations reviewed were deemed appropriate by the reviewer.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

    - Field Blanks and Equipment Rinsates: Sample 070-0057-0001-Source Water was the field blank and 076-0067-0001-ER was the equipment rinsate associated with validated sample 069SS-0001M-0001-SO in RVAAP-69. There were no detects above the DL in the field QC samples.

    - Field Duplicates: One field duplicate sample was collected from RVAAP-69 for PCBs. The RPD criteria in FWQAPP Table 3-1 of ≤50% for soils and ≤30% for waters were only applied when results for common detects were ≥5× the LOQ. In cases where results were <5× the LOQ, the reasonable control limit of ± the LOQ was applied. The results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

5.2.4 Semivolatile Organic Compounds (SVOCs)

A total of 26 primary soil samples and 1 field duplicate sample were analyzed by TA-North Canton for SVOCs by USEPA Method 8270C. A total of 2 primary soil samples were validated at Level IV.

- MDL studies were not evaluated as part of this project.

- GC/MS Tuning: The DFTPP tunes met the method abundance criteria. The samples were analyzed within 12 hours of the DFTPP injection time.

- Calibration: Calibration criteria listed in the DoD QSM Table F-4 were met, with exceptions affecting sample results noted below.

- Initial calibration average RRFs and ICV and CCV RRFs were within method control limits of ≥0.050. All initial calibration %RSDs were within the control limits of ≤30% for CCCs and ≤15% for remaining compounds, or linear regression r^2 values ≥0.990.

- The recovery for 3,3'dichlorobenizine was 79% in the ICV associated with sample 069SB-0013M-0001-SO; therefore, the nondetected result for this compound in sample 069SB-0013M-0001-SO was qualified as estimated, "UJ," and coded with a "C" qualification code. The remaining second source ICV standard recoveries affecting sample data were within the control limit of ±20%.

- Continuing calibration %Ds affecting sample results were within the control limit of ≤20%.

- MRL standard recoveries were within the reasonable control limit of ±30%, with the noted exception. Target compound n-nitrosodiphenylamine was not recovered in an MRL associated with samples 069SS-0001M-0001-SO and 069SB-0013M-0001-SO; therefore, the nondetected results for this compound in both samples were rejected, "R," and coded with a "C" qualification code.

- Blanks: Bis(2-ethylhexyl)phthalate was detected in the method blank associated with sample 069SB-0013M-0001-SO; therefore, the detect for this compound in sample 069SB-0013M-0001-SO was qualified as nondetected, "U," at the level of contamination. The qualified result was coded with a "B" qualification code. The method blanks associated with the validated samples had no other target compound detects above the control limits listed in DoD QSM Table B-3 of one-half the LOQ for target compounds, and no common laboratory contaminants detected above the LOQ.

- Laboratory Control Samples: All LCS recoveries were within the control limits listed in DoD QSM Tables G-2 (poor performers) and G-7. The reviewer noted hexachlorocyclopentadiene was not spiked in the LCS. Additionally, the LCS associated with sample 069SS-0001M-0001-SO reported no recovery of benzoic acid. Upon review of the raw data, the reviewer determined that benzoic acid was spiked below the LOD but was acceptably recovered.

- Surrogate Recovery: All surrogate recoveries were within the control limits listed in the DoD QSM Tables G-2 (poor performers) or G-3.

- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on sample 069SS-0001M-0001-SO. Except as noted below, the recoveries were within the control limits listed in DoD QSM Tables G-2 (poor performers) and G-7 (soil). Except as noted below, the RPDs were within the control limit of ≤30% listed in DoD QSM Table F-4.

  Results were not qualified for recovery outliers unless both recoveries were outside the control limits. Nondetected results associated with compounds exhibiting no recovery were rejected, "R." The remaining results listed in the table below, all nondetects, were qualified as estimated, "UJ." All qualified results were coded with a "Q" qualification code.

MS/MSD recovery and RPD outliers				
Parent Sample	**Analyte**	**MS/MSD %R**	**RPD**	**Control Limits**
069SS-0001M-0001-SO	benzoic acid	0%, 0%	N/A	0-110%
	3,3'-dichlorobenzidine	0%, 0%	N/A	10-130%
	4,6-dinitro-2-methylnaphthalene	acceptable, 0%	200%	30-135%
	4-nitrophenol	acceptable, 0%	200%	15-140%

- Internal Standards Performance: The internal standard area counts and retention times were within the DoD QSM F-4 control limits established by the midpoint initial calibration standard: ±30 seconds for retention times and -50% / +100% for internal standard areas.

- Compound Identification: Compound identification was verified for the samples validated at Level IV. Review of the sample chromatograms, retention times, and spectra indicated no problems with target compound identification.

- Target compounds 2,4-dinitrotoluene, 2,6-dinitrotoluene, and nitrobenzene were reported by both Method 8330B and 8270C in samples 069SS-0001M-0001-SO. As there were no detects for these compounds; the reviewer chose to report the results with the lowest LODs. The 8270C results for 2,4-dinitrotoluene and 2,6-dinitrotolene was rejected, "R," as duplicate data and coded with a "D" qualification code. The result for nitrobenzene was retained.

- Compound Quantification and Reported Detection Limits: Compound quantification was verified for the samples validated at Level IV. All of the samples had a two-milliliter final extract volume, resulting in an effective 2× dilution. Due to the matrix, sample 069SS-0001M-0001-SO was analyzed at a 5× dilution. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J," by the laboratory. Reported nondetects are valid to the LOD.

- System Performance: Review of the raw data indicated no problems with system performance.

- Manual Integrations: Some routine manual integrations were performed for the samples, calibration, and QC data associated with the sample data, primarily to split the benzo(b)fluoranthene and benzo(k)fluoranthene peaks and to account for baseline anomalies. All manual integrations reviewed at Level IV were deemed appropriate by the reviewer.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

- Field Blanks and Equipment Rinsates: Sample 070-0057-0001-Source Water was the field blank and 076-0067-0001-ER was the equipment rinsate associated with the sample 069SS-0001M-0001-SO. There were no detects in the field QC samples.

- Field Duplicate Samples: One soil field duplicate sample was collected and analyzed for SVOCs. The RPD criterion in FWQAPP Table 3-1 of ≤50% for soil samples was only applied when results for common detects were ≥5× the LOQ. In cases where results were <5× the LOQ, the reasonable control limit of ± the LOQ was applied. Except as noted below, all results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

SVOC field duplicate outliers			
Field Duplicate Pair	Analyte	RPD	W/In LOQ
069SS-0001M-0001-SO/ 069SS-0002M-0001-SO	Benzo(a)anthracene	N/A	No
	Benzo(b)fluoranthene	N/A	No
	Chrysene	N/A	No
	Fluoranthene	N/A	No
	Pyrene	N/A	No

5.2.5 Volatile Organic Compounds (VOCs)

A total of 26 primary soil samples and 1 field duplicate sample were analyzed by TA-North Canton for volatile compounds by USEPA Method 8260B. A total of 2 primary soil samples were validated at Level IV.

- MDL studies were not evaluated as part of this project.

- GC/MS Tuning: The BFB tunes met the method abundance criteria. The samples were analyzed within 12 hours of the BFB injection time.

- Calibration: Calibration criteria listed in DoD QSM Table F-4 were met with the exception noted below.

  - Initial calibration average RRFs and ICV and CCV RRFs were within the control limits of ≥0.30 for chlorobenzene and 1,1,2,2-tetrachloroethane, and ≥0.10 for chloromethane, bromoform, and 1,1-dichloroethane.

  - All initial calibration %RSDs were within the method control limits of ≤30% for the CCCs and ≤15% for remaining compounds, or linear regression r^2 values ≥0.990.

  - All second source ICV standard recoveries were within the control limit of ±20%.

  - Continuing calibration %Ds affecting validated sample data were within the control limit of ≤20%, with the exception of the %D of -30.2% for carbon disulfide in the CCV associated with both samples. The nondetected results for carbon disulfide were qualified as estimated, “UJ,” and coded with a “C” qualification code.

- Although not required by the DoD QSM, an MRL standard of 3× the DL is required by the FWQAPP. MRL standard recoveries affecting sample data were within the reasonable control limit of ±30%. Several recoveries were marginally above the control limits; however, none of the compounds with high recoveries were detected in the associated samples.

- Blanks: The method blank associated with the validated samples had no target compound detects above the control limits listed in DoD QSM Table F-4 of one-half the LOQ, and no common laboratory contaminants detected above the LOQ. The method blank had detects below the LOQ for acetone at 6.33(J) µg/Kg, 2-hexanone at 0.802(J) µg/Kg, and methylene chloride at 1.54(J) µg/Kg; however, none of the method blank contaminants were detected in the validated samples.

- Laboratory Control Samples: LCS recoveries were within the control limits listed in DoD QSM Table G-4.

- Surrogate Recovery: Surrogate recoveries for the validated samples were within the control limits listed in DoD QSM Table G-3.

- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were not performed on a validated sample. Evaluation of method accuracy was based on the LCS results.

- Internal Standards Performance: Internal standard area counts and retention times were within DoD QSM Table F-4 control limits established by the midpoint initial calibration standard, of -50% / +100% for internal standard areas and ±30 seconds for retention times.

- Compound Identification: Compound identification was verified for the validated sample. Review of the sample chromatogram, retention times, and spectra indicated no problems with target compound identification.

- Compound Quantification and Reported Detection Limits: Compound quantification was verified for the validated sample. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J," by the laboratory. Reported nondetects are valid to the LOD.

- System Performance: Review of the raw data indicated no problems with system performance.

- Manual integrations: Manual integrations were not performed for the validated samples or for associated calibration and QC samples.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

- Trip Blanks: The trip blank associated with the validated samples in this SDG had no reportable detects above the DL.

- Field Blanks and Equipment Rinsates: Sample 070-0057-0001-Source Water was the field blank and 076-0067-0001-ER was the equipment rinsate associated with validated sample 069SS-0001M-0001-SO in RVAAP-69. The field blank had detects below the LOQ for acetone at 2.1(J) µg/L and 2-butanone at 1.2(J) µg/L, and detects above the LOQ for the following compounds: bromodichloromethane at 3.6 µg/L, chloroform at 5.3 µg/L, dibromochloromethane at 1.3 µg/L, and toluene at 1.5 µg/L. None of the field QC contaminants were detected in the validated samples.

- Field Duplicate Samples: One field duplicate sample was collected and analyzed for VOCs. The RPD criterion in FWQAPP Table 3-1 of ≤50% was only applied when results for common detects were ≥5× the LOQ. In cases where results were <5× the LOQ, the reasonable control limit of ± the LOQ was applied. All results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

5.2.6 Metals

A total of 26 primary soil samples and 1 field duplicate sample were analyzed by TA-North Canton for various metals by USEPA Methods 6020 and 7471A. A total of 2 primary soil samples were validated at Level IV.

- MDL studies were not evaluated as part of this project.

- Calibration: Except as noted below, calibration criteria were met.

  - As per DoD QSM Table F-8, the mass calibrations were ≤0.1 amu of the true values and the resolutions were <0.9 amu at full width at 10% peak height. A ^{137}barium RSD associated with samples 069SS-0001M-0001-SO and 069SB-0013M-0001-SO exceeded the control limit at 15.469%; therefore, barium detected in both site samples was qualified as estimated, "J." Both results were coded with an "M" qualification code. The remaining %RSDs were within the control limit listed in the DoD QSM Table F-8 of ≤5%.

  - Initial calibration: The mercury linear regression correlation coefficients were within the control limit listed in the DoD QSM Table F-7 of ≥0.995. The ICPMS analytes used a single point calibration.

  - The ICPMS ICV and CCV recoveries were within the control limits listed in DoD QSM Table F-8 of 90-110%. The mercury ICV and CCV recoveries were within the control limits listed in DoD QSM Table F-7 of 90-110% and 80-120%, respectively.

  - CRI/MRL recoveries affecting sample results were within the control limits listed in DoD QSM Tables F-7 and F-8 of 80-120%.

- Blanks: Method blanks had no applicable detects above the control limits listed in DoD QSM Tables F-7 and F-8 of one-half the LOQ or greater than one-tenth the amount measured in any sample and CCBs had no applicable detects above the control limit of >LOD.

- Interference Check Samples: ICPMS ICSA and ICSAB recoveries were within the control limits listed in DoD QSM Table F-8 of 80-120%. Except as noted below, there were no analytes affecting sample results detected in the ICSA above the control limit listed in DoD QSM Table F-8 of >LOD.

  When the interferents were present in the samples at similar concentration to the ICSA, the samples were further reviewed for possible matrix interference, based on detects for unspiked compounds in the ICSA. If the unspiked compounds were present in the samples at concentrations within 10× of the ICSA detect, the results were qualified. Results listed in the table below, all detects, were qualified as estimated, "J," and coded with an "I" qualification code. When no other qualifications with conflicting bias were assigned, the results were qualified as estimated with a potential positive bias, "J+."

Samples qualified for ICSA detects			
SDG	**Analyte**	**Detect (µg/L)**	**Qualified samples**
240-17525-2	Antimony	0.259	069SS-0001M-0001-SO
	Silver	0.095	
240-17602-2	Antimony	0.259	069SB-0013M-0001-SO
	Cadmium	0.249	
	Silver	0.095	

- Laboratory Control Samples: All recoveries were within the control limits listed in DoD QSM Table G-19 of 80-120%.

- Laboratory Duplicates: Laboratory duplicate analyses were performed on 069SS-0001M-0001-S0, 077SS-0001M-0001-SO and 069SB-0015M-0001-SO for all analytes. The RPD control limit listed in DoD QSM Tables F-7 and F-8 was ≤20%. The RPD control limit was only applied for common detects ≥5× the LOQ. In cases where results were <5× the LOQ, the reasonable control limit of ± the LOQ was applied. With two exceptions, the results were within the control limits.

  Two calcium RPDs associated with sample 069SS-0001M-0001-SO were outside the control limit at 21% each; therefore, calcium detected in the sample was qualified as estimated, "J," and coded with an "E" qualification code. As per the *National Functional Guidelines*, all samples in an SDG were qualified; however, the parent samples were qualified only for their own outliers.

- Matrix Spike/Matrix Spike Duplicate: Matrix spike analyses were performed on 069SS-0001M-0001-S0, 077SS-0001M-0001-SO and 069SB-0015M-0001-SO for all analytes. The results were not assessed when the native sample concentration exceeded the spiked

amount by a factor of four or more. Except as noted in the table below, the recoveries were within the control limits listed in DoD QSM Table G-19 of 80-120%.

Results listed in the table below, all detects, were qualified as estimated, "J." In the absence of qualifications with conflicting bias, the results were qualified as estimated with a potential low bias, "J-," or estimated with a potential high bias, "J+." All results were coded with a "Q" qualification code. As per the *National Functional Guidelines*, all samples in an SDG were qualified; however, the parent samples were qualified only for their own outliers.

Samples qualified for matrix spike recovery outliers			
Parent Sample	**Analyte**	**%R**	**Qualified samples**
069SS-0001M-0001-S0	Antimony	22%	069SS-0001M-0001-S0
	Arsenic	72%	
	Cadmium	79%	
	Copper	75%	
	Selenium	64%	
069SB-0015M-0001-SO	Antimony	21**%**	069SB-0013M-0001-SO
	Calcium	69%	
	Selenium	71%	

All post digestion spike recoveries were within the control limits listed in DoD QSM Table F-8 of 75-125%.

- Serial Dilution: Serial dilution analyses were performed on 069SS-0001M-0001-S0, 077SS-0001M-0001-SO, and 069SB-0015M-0001-SO for the ICPMS analytes. Two calcium %Ds associated with sample 069SS-0001M-0001-S0 exceeded the control limit at 11% and 12%; therefore, the calcium detect in the sample was qualified as estimated, "J," and coded with an "A" qualification code. All remaining %Ds were within the control limits listed in DoD QSM Table F-7 and F-8 of ≤10%. The serial dilution control limit is only applicable when the original sample concentration is minimally ≥50× the LOQ.

- Internal Standards: As per the DOD QSM Table F-8, the ICPMS sample internal standards intensities were within 30-120% of those in the ICV. ^{89}Yttrium was not spiked in the site samples, only in QC runs.

- Sample Result Verification: For Level IV validation, calculations were verified and the sample results reported on the sample result summary were verified against the raw data. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.

  Due to instrument limitations, the mercury raw data did not list the sample absorbances; therefore, the reviewer was not able to calculate the sample results from the raw data. Additionally, the ICPMS raw data did not list absorbances for the ICV, CCV, ICSAB, and MRL samples, and the %R was listed instead of the sample concentrations.

- Manual Integrations: No manual integrations were noted in the mercury analyses.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

  - Field Blanks and Equipment Rinsates: Sample 070-0057-0001-Source Water was identified as the field blank and sample 076-0067-0001-ER was the equipment rinsate associated with sample 069SS-0001M-0001-S0. Sodium was detected at 1600 µg/L in 070-0057-0001-Source Water and thallium was detected at 0.75 µg/L in 076-0067-0001-ER; therefore, sodium and thallium detected in 069SS-0001M-0001-S0 were qualified as nondetected, "U," at the levels of contamination. The qualified results were coded with an "F" qualification code. There were other detects in the field QC samples, but none at sufficient concentration to qualify the associated sample.

  - Field Duplicate Samples: One field duplicate sample was collected and analyzed for metals. The RPD criterion in FWQAPP Table 3-1 of ≤50% for soil samples was only applied when results for common detects were ≥5× the LOQ. In cases where results were <5× the LOQ, the reasonable control limit of ± the LOQ was applied. All results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

5.3 Data Usability

According to the Draft Site Inspection Report prepared by ECC, the field completeness was 100%.

Four data points were rejected for calibration outliers or poor MS/MSD recoveries. In instances where a data point had multiple results, the reviewer chose the most technically sound result to report and rejected the remaining data points. These data points, rejected to choose the most technically sound data, do not affect data quality or usability and are not included in the table below. Data with LODs/DLs that exceeded the established criteria and data estimated for quality control outliers or for detects between the LOQ and the DL were included in the table below for informational purposes only.

Table 12. Analytical completeness for RVAAP-69 validated primary data

			Number of Results					
Analysis	**Samples Analyzed**	**Analytes per Sample**	**Total**	**Rejected**	**LODs/DLs Exceeding Criteria**	**Estimated for QC Outliers**	**Estimated for Detects <LOQ**	**Percent Complete**
Explosives	1	16	15	0	0/0	2	0	100%
Nitroguanidine	1	1	1	0	0/0	0	0	100%
Nitrocellulose	1	1	1	0	0/0	0	0	100%
PCBs	1	7	7	0	0/0	0	1	100%
SVOCs	2	66	130	4	2/2	4	6	96.9%
VOCs	2	36	72	0	0/0	2	1	100%
Metals	2	23	46	0	0/0	16	5	100%
		Totals	**272**	**4**	**2/2**	**24**	**13**	**98.5%**

The analytical completeness goal for the project established in the FWQAPP was 90% for each method. The completeness goal was met for all analyses.

5.4 Primary and Field Duplicate Comparison Summary

Primary and field duplicate sample comparisons were considered to be in good agreement as only 4.2% of the field duplicate pair results were above the FWQAPP control limit of 50% for soils or +/- the LOQ for results below 5× the LOQ.

Five of the six outliers were PAH compounds, all of which were detected at higher concentration in the field duplicate samples. The total analyte count in the table below does not include rejected results. All comparison results are presented in Appendix C.

Table 13. RVAAP-69 primary/field duplicate sample comparison summary

Method*	**Primary/Field Duplicate Pairs**	**Number of Analytes**	**Total Analytes**	**Number of results within control limits**	**Number of results above control limit**
Explosives	1	16	15	15	0
Nitroguanidine	1	1	1	0	1
Nitrocellulose	1	1	1	1	0
PCBs	1	7	7	7	0
SVOCs	1	66	61	61	5
VOCs	1	36	36	36	0
Metals	1	23	23	23	0

5.5 Specific Data Concerns

Specific concerns regarding the data are noted below:

- A few LODs and some DLs exceeded the project criteria. These exceedances are detailed in Section 5.2.4.

- Due to instrument limitations, the mercury raw data did not list the sample absorbances; therefore, the reviewer was not able to calculate the sample results from the raw data. Additionally, the ICPMS raw data did not list absorbances for the ICV, CCV, ICSAB, and MRL samples, and the %R was listed instead of the sample concentrations.

In order to avoid repetition of the issues noted above, the following actions should be taken:

- MEC^X recommends the laboratory be requested to alter the IPCMS and mercury instrument set up in order to report mercury and ICPMS raw absorbances and ICPMS ICV, CCV, ICSAB, and MRL concentrations.

6 COAL STORAGE AREA, RVAAP-73

6.1 Current Investigation

ECC completed an RI at the Facility-Wide Coal Storage (RVAAP-73). The work was performed in accordance with the *Site Inspection and Remedial Investigation Work Plan* (ECC 2012) and the *Facility-Wide Sampling and Analysis Plan* (SAIC 2011).

Coal was used at RVAAP in steam generation to supply power houses, production facilities, and in heating systems. The material was received in bulk, primarily by rail, and was typically stored and staged in uncovered piles on the ground. From there, it was distributed throughout the facility by truck. Point-of-use coal storage locations included covered bins and uncovered storage piles on the ground. No documentation of accidental large-volume spills or releases associated with the coal storage areas was found.

RVAAP-73 is comprised of four separate coal storage areas.

- Building U-16 Boiler House was used to store coal for boiler supply and steam generation.
- North Line Road Coal Tipple was used as a bulk coal receiving, storage and distribution area.
- Sand Creek Coal Tipple was used as a bulk coal receiving, storage and distribution area.
- East Classification Yard Roundhouse was used to store coal for boiler supply and steam generation.

The data validated in this report are part of the intrusive RI at RVAAP-73 conducted to assess the potential presence of contamination. The total sample counts, samples selected for data validation, and the field duplicates are presented in the tables below.

Table 14. Total sample count for RVAAP-73

Matrix	Primary Samples	Field Duplicates	Split Samples	Primary Sample Counts						
				Explosives	Propellants	PCBs	Pesticides	SVOCs	VOCs	Metals
Soil	36	5	3	4	4	4	4	36	4	36
Sediment	7	1*	3	1	1	1	1	7	1	7
Surface Water	7	1*	3	1	1	1	1	7	1	7

*Analyzed for SVOCs and metals only

Table 15. RVAAP-73 validated samples and methods

Sample ID	SDG	Matrix	Collected	Explosives	Propellants	PCBs	Pesticides	SVOCs	VOCs	Metals
073SS-0002M-0001-SO	240-17422-1	Soil	11/8/2012	x	x	x	x	x	x	x
073SB-0009M-0001-SO	240-18441-1	Soil	12/4/2012	--	--	--	--	x	--	x
073SB-0016M-0001-SO	240-22648-1	Soil	3/28/2013	--	--	--	--	x	--	x
073SB-0038M-0001-SO	240-22663-1/2	Soil	4/1/2013	--	--	--	--	x	--	x
073SD-0047-0001-SD	240-22648-1	sediment	3/28/2013	--	--	--	--	x	--	--

Table 16. RVAAP-73 field duplicate samples

Duplicate Sample ID	Parent Sample
073SS-0003M-0001-SO	073SS-0002M-0001-SO
073SB-0010M-0001-SO	073SB-0009M-0001-SO
073SB-0017M-0001-SO	073SB-0016M-0001-SO
073SB-0028M-0001-SO	073SM-0027M-0001-SO
073SB-0039M-0001-SO	073SB-0038M-0001-SO
073SD-0048-0001-SD	073SD-0047-0001-SD
073SW-0059-0001-SW	073SW-0058-0001-SW

6.1.1 Sample Collection

The chains-of-custody were appropriately signed and dated by field and laboratory personnel. Custody seals were intact. Cooler custody seals were not utilized. It was determined by reviewing the relinquished and receipt times that the samples were transferred to the laboratory by courier. With exceptions noted below, no sample collection issues were identified.

- Some corrections made to the chains-of-custody were properly made but were not dated.
- Some corrections were made by overwriting or obliterating the original entry. These corrections were not initialed or dated.
- SVOC analysis was not requested on the chain-of-custody for sample 073SB-0038M-0001-SO. According to the case narrative, the analysis was requested after the samples were received.

6.1.2 Data Completeness

The data completeness for the project described in this report was found to be generally acceptable for all analyses except metals, as no deliverables were missing from the SDGs reviewed. The metals data was missing the following:

- No ICPMS raw data was provided for SDG 240-22663-1.
- The ICPMS tune was missing from the analytical sequence dated 11/23/2012 in SDG 240-17422-1.

- The matrix spike, post digestion spike, laboratory duplicate and serial dilution results were not listed on the summary forms in SDG 240-18441-1 for parent sample 073SB-0007M-0001-SO.

These materials were requested from and provided by the laboratory.

6.1.3 Preservation and Holding Time Requirements

A portion of the samples were received at temperatures nominally below the 4±2^{o}C control limit; however, as the samples were not noted to be frozen or damaged, no qualifications were required. All remaining method preservation requirements were met.

The SVOC fraction for sample 073SB-0038M-0001-SO was extracted 11 days beyond the 14 day holding time; therefore, the results for this sample were qualified as estimated, "UJ," and coded with an "H" qualification code. The remaining holding times, as listed in Table 3, were met.

6.1.4 Detection Limit Requirements

LODs and DLs for nondetected analytes were compared against the most stringent CUGs listed in Tables 5-8, 5-9, and 5-10 of *Final Facility-Wide Human Health Cleanup Goals for the Ravenna Army Ammunition Plant* (2010) or the RSLs if no CUG was listed. Three SVOCs (benzo(a)pyrene, dibenz(a,h)anthracene, n-nitroso-di-n-propylamine) had LODs and DLs that exceeded the CUGs. Results with DLs exceeding project criteria may be usable for their intended purposes; however, it is dependent on the final data user to make this determination on a case-by-case basis.

6.2 RVAAP-73 Data Quality Evaluation

This section summarizes the data quality of validated samples for each analytical method evaluated.

6.2.1 Explosives

A total of 4 primary soil samples, 1 soil field duplicate sample, 1 primary sediment sample, and 1 primary surface water sample were analyzed by TA-West Sacramento for explosives by USEPA SW-846 Method 8330B. A single primary soil sample was validated at Level IV.

- MDL studies were not evaluated as part of this project.
- Calibration:
    - The primary column initial calibration average %RSDs for RDX and 2-nitrotoluene exceeded the control limit at 20% and 16%, respectively; therefore, the nondetected results for these compounds were qualified as estimated, "UJ," in 073SS-0002M-0001-SO. The qualified results were coded with a "C" qualification code. The remaining initial

calibration average %RSDs were within the control limits listed in DoD QSM Table F-3 of ≤15%, or the linear regression r^2 values were ≥0.990.

- The second source initial calibration verification standard recoveries were within the control limit listed in DoD QSM Table F-3 of ±20%.
- The CCV standard %Ds were within the control limits listed in DoD QSM Table F-3 of ±20%.
- Although not required by the DoD QSM, an MRL standard of 3× the DL is required by the FWQAPP. Low-level MRL standards were analyzed in association with the validated samples and the results affecting the sample were within the reasonable control limits of 70-130%.

- Blanks: Tetryl was detected in the method blank analyzed on the confirmation column. The tetryl peak was the second of a pair of small, incompletely resolved peaks and was very similar to the peak identified in sample 073SS-0002M-0001-SO. Due to this similarity, tetryl reported in the sample was qualified as nondetected, "U," at the LOD. The qualified result was coded with a "B" qualification code. The method blank associated with the validated sample had no other target compound detects above the control limit listed in DoD QSM Table F-3 of one-half the LOQ.

- Laboratory Control Samples: Recoveries were within the control limits listed in DoD QSM Tables G-2 and G-13 and within the reasonable laboratory control limits for nitroglycerin (76-116%) and PETN (76-116%).

- Surrogate Recovery: As no surrogate control limit was listed in the DoD QSM, surrogate recoveries were assessed against the reasonable laboratory-established control limits of 78-118%. The surrogate recovery on the secondary column exceeded the control limit at 121%; however, as there were no confirmed detects, no qualifications were required. The remaining recoveries were within the control limits.

- Matrix Spike/Matrix Spike Duplicate: No MS/MSD analyses were performed on the validated sample. Method accuracy was evaluated based on LCS results.

- Compound Identification: Compound identification was verified for the sample validated at Level IV. Review of the sample chromatogram and retention times indicated no problems with target compound identification.

  Although not affecting the nondetected sample results, the primary column MRL recoveries for the later eluting compounds were recovered above the control limit. Review of the chromatogram indicated poorer peak shape for these compounds.

- Compound Quantification and Reported Detection Limits: As no target compounds were detected in the samples validated at Level IV, compound quantification was verified for a portion of the LCS results. The LOQs were supported by the low point of the initial

calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.

Confirmation analyses were performed; however, no compounds were confirmed.

Target compounds 2,4-dinitrotoluene, 2,6-dinitrotoluene, and nitrobenzene were reported by both Method 8330B and 8270C in sample 073SS-0002M-0001-SO. As there were no detects for these compounds; the reviewer chose to report the results with the lowest LODs. The 8330B result for nitrobenzene was rejected, "R," as duplicate data and coded with a "D" qualification code. The 8330B results for 2,4-dinitrotoluene and 2,6-dinitrotoluene were retained.

- System Performance: Review of the raw data indicated no problems with system performance.

- Manual Integrations: Some manual integrations were performed for the initial calibrations and low-level CCVs. All manual integrations were performed in order to report incompletely resolved peaks or to account for baseline anomalies and were deemed acceptable by the reviewer.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

  - Field Blanks and Equipment Rinsates: Sample 070-0057-0001-Source Water was identified as the field blank and sample 076-0067-0001-ER was identified as the equipment rinsate sample associated with the validated sample. There were no detects in the field QC samples.

  - Field Duplicates: One field duplicate sample was collected and analyzed for explosive compounds. The RPD criterion in FWQAPP Table 3-1 of ≤50% was only applied when results for common detects were ≥5× the LOQ. In cases where results were <5× the LOQ, the reasonable control limit of ± the LOQ was applied. All results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

6.2.2 Propellants

A total of 4 primary soil samples, 1 soil field duplicate sample, 1 primary sediment sample, and 1 primary surface water sample were analyzed by TA-West Sacramento for nitroguanidine by USEPA SW-846 Method 8330 and for nitrocellulose by laboratory SOP WS-WC-0050. A single primary soil sample was validated at Level IV.

- MDL studies were not evaluated as part of this project.

- Calibration:

- The nitroguanidine initial calibration average percent %RSD was within the control limit listed in DoD QSM Table F-2 of ≤20%. The nitrocellulose linear regression correlation coefficient was within the control limit listed in the DoD QSM Table F-11 of ≥0.995.

- The nitroguanidine second source ICV recovery was within the control limits listed in DoD QSM Table F-2 of 85-115%. The nitrocellulose ICV recovery was reported to be 187% in the ICV associated with 073SS-0002M-0001-SO; however, the ICV appeared to have been spiked at the usual 1 ppm level and was recovered within the control limits listed in DoD QSM Table F-11 of 90-110%.

- The nitroguanidine CCV recoveries were within the control limits listed in DoD QSM Table F-2 of 85-115%. The nitrocellulose CCV recoveries were within the control limits listed in DoD QSM Table F-11 of 90-110%.

- Although not required by the DoD QSM, an MRL standard of 3× the DL is required by the FWQAPP. MRL recoveries affecting sample results were within the reasonable control limits of 70-130%.

- Blanks: The method blanks had no target compound detects above the control limits listed in DoD QSM Tables F-2 and F-11 of one-half the LOQ.

- Laboratory Control Samples: No nitroguanidine or nitrocellulose LCS control limits are listed in the DoD QSM; therefore, the laboratory control limits were used to assess the results. The nitroguanidine recovery was within the control limits of 72-121% and the nitrocellulose recovery was within the laboratory-established control limits of 34-115%.

- Surrogate Recovery: A surrogate was not required for the analysis of nitroguanidine or nitrocellulose.

- Matrix Spike/Matrix Spike Duplicate: No MS/MSD analyses were performed on the validated sample. Method accuracy was evaluated based on LCS results.

- Compound Identification: Compound identification was verified for the sample validated at Level IV. Review of the sample chromatograms and retention times indicated no problems with target compound identification.

- Compound Quantification and Reported Detection Limits: Compound quantification was verified for those samples validated at Level IV. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.

  Nitroguanidine was not detected in the validated sample; therefore, confirmation analysis was not required.

- System Performance: Review of the raw data indicated no problems with system performance.

- Manual Integrations: Some manual integrations were performed for nitroguanidine. The manual integrations were performed primarily to correct incomplete integration. The manual integrations were deemed acceptable by the reviewer.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

    - Field Blanks and Equipment Rinsates: Sample 070-0057-0001-Source Water was identified as the field blank and sample 076-0067-0001-ER was identified as the equipment rinsate sample associated with the validated sample. There were no detects in the field QC samples.

    - Field Duplicates One field duplicate sample was collected and analyzed for propellants. The RPD criterion in FWQAPP Table 3-1 of ≤50% was only applied when results for common detects were ≥5× the LOQ. In cases where results were <5× the LOQ, the reasonable control limit of ± the LOQ was applied. All results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

6.2.3 Polychlorinated Biphenyls (PCBs)

A total of 4 primary soil samples, 1 soil field duplicate sample, 1 primary sediment sample, and 1 primary surface water sample were analyzed by TA-North Canton for PCBs by USEPA SW-846 Method 8082. A single primary soil sample was validated at Level IV.

- MDL studies were not evaluated as part of this project.

- Calibration: Calibration criteria were met.

    - Initial calibration average %RSDs were within the control limit listed in the DoD QSM Table F-2 of ≤20%.

    - The second source ICV recoveries were within the control limit listed in the DoD QSM Table F-2 of ±20% for all applicable Aroclors.

    - The CCV standard recoveries were within the control limit listed in the DoD QSM Table F-2 of ±20%.

    - MRL recoveries affecting sample results were within the reasonable control limit of ±30%. Two recoveries were nominally above the control limit; however, as there were no detects in the site sample, no qualifications were applied.

- Blanks: The method blank associated with the validated sample had no target compound detects above the control limit listed in the DoD QSM Table F-2 of one-half the LOQ for target compounds.

- Laboratory Control Samples: LCS recoveries for Aroclor 1016 and Aroclor 1260 were within the control limits listed in DoD QSM Table G-17.

- Surrogate Recovery: Recoveries were within the control limits listed in DoD QSM Table G-3 of 60-125%.

- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were not performed on the validated sample. Evaluation of method accuracy was based on the LCS results.

- Compound Identification: Compound identification was verified for the validated sample. Review of the sample chromatogram, standards, and retention times indicated no problems with target compound identification. The sample was analyzed on two analytical columns; however, the sample had no Aroclor detects.

- Compound Quantification and Reported Detection Limits: Compound quantification was verified for the validated sample. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.

- System Performance: Review of the raw data indicated no problems with system performance.

- Manual Integrations: Some routine manual integrations were performed for the calibration and QC data associated with the sample data, primarily due to poor baseline integration or incorrectly split peaks. All manual integrations reviewed were deemed appropriate by the reviewer.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

    - Field Blanks and Equipment Rinsates: Sample 070-0057-0001-Source Water was the field blank and 076-0067-0001-ER was the equipment rinsate associated with validated sample 073SS-0002M-0001-SO in RVAAP-73. There were no detects in the field QC samples.

    - Field Duplicates: One field duplicate sample was collected from RVAAP-73 for PCBs. The RPD criteria in FWQAPP Table 3-1 of ≤50% for soils and ≤30% for waters were only applied when results for common detects were ≥5× the LOQ. In cases where results were <5× the LOQ, the reasonable control limit of ± the LOQ was applied. The

results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

6.2.4 Pesticides

A total of 4 primary soil samples, 1 soil field duplicate sample, 1 primary sediment sample, and 1 primary surface water sample were analyzed by TA-North Canton for pesticides by USEPA SW-846 Method 8081. A single primary soil sample was validated at Level IV.

- MDL studies were not evaluated as part of this project.
- Calibration: Calibration criteria listed in the DoD QSM Table F-2 were met.
    - Initial calibration average %RSDs were within the control limit of ≤20%.
    - The performance evaluation mixture (PEM) %breakdown results were within the DoD QSM Table F-2 control limit of ≤15%.
    - Both columns had individual toxaphene ICV peaks with %Ds exceeding the control limit. Column CLP-1 had two outliers at -20.9% and 53.7%, and column CLP-2 had two outliers at -34.0% and 88.2%. The nondetected result for toxaphene in sample 073SS-0002M-0001-SO was qualified as estimated, "UJ," and coded with a "C" qualification code. The remaining second source ICV recoveries were within the control limit of ±20%.
    - The CCV standard recoveries affecting sample data were within the control limit of ±20%.
    - Although not required by the DoD QSM, an MRL standard of 3× the DL is required by the FWQAPP. MRL standard recoveries affecting sample data were within the reasonable control limit of ±30%. Several recoveries were nominally above the control limit; however, none of the outliers were detected in the validated sample.
- Blanks: The method blank associated with the validated sample had no target compound detects above the control limit listed in the DoD QSM Table F-2 of one-half the LOQ.
- Laboratory Control Samples: Recoveries were within the control limits listed in DoD QSM Table G-15. Toxaphene was not spiked in the LCS sample.
- Surrogate Recovery: Recoveries were within the control limits listed in DoD QSM Table G-3 of 60-125%.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were not performed on the validated sample. Evaluation of method accuracy was based on the LCS results.

- Compound Identification: Compound identification was verified for the validated sample. Review of the sample chromatograms, standards, and retention times indicated no problems with target compound identification.

- Compound Quantification and Reported Detection Limits: Compound quantification was verified for the validated sample. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.

- System Performance: Review of the raw data indicated no problems with system performance.

- Manual Integrations: Some routine manual integrations were performed for the calibration and QC data, primarily due to poor baseline integration or to re-integrate incorrectly split peaks. All manual integrations reviewed were deemed appropriate by the reviewer.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

    - Field Blanks and Equipment Rinsates: Sample 070-0057-0001-Source Water was the field blank and 076-0067-0001-ER was the equipment rinsate associated with validated sample 073SS-0002M-0001-SO in RVAAP-73. There were no detects in the field QC samples.

    - Field Duplicate Samples: One field duplicate sample was collected from RVAAP-73 for PCBs. The RPD criteria in FWQAPP Table 3-1 of ≤50% for soils and ≤30% for waters were only applied when results for common detects were ≥5× the LOQ. In cases where results were <5× the LOQ, the reasonable control limit of ± the LOQ was applied. The results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate result.

6.2.5 Semivolatile Organic Compounds (SVOCs)

A total of 36 primary soil samples, 5 soil field duplicate samples, 7 primary sediment samples, 1 sediment field duplicate sample, 7 primary surface water samples, and 1 surface water field duplicate sample were analyzed by TA-North Canton for SVOCs by USEPA Method 8270C. A total of 5 primary soil samples were validated at Level IV.

- MDL studies were not evaluated as part of this project.

- GC/MS Tuning: The DFTPP tunes met the method abundance criteria. The samples were analyzed within 12 hours of the DFTPP injection time.

- Calibration: Calibration criteria listed in the DoD QSM Table F-4 were met, with exceptions affecting sample results noted in the tables below.

  - Initial calibration average RRFs and ICV and CCV RRFs were within method control limits of ≥0.050. All initial calibration %RSDs were within the control limits of ≤30% for calibration check compounds (CCCs) and ≤15% for remaining compounds, or linear regression r^2 values ≥0.990.

  - All second source ICV standard recoveries affecting sample data were within the control limit of ±20%, with the exception of the recovery of 78.9% for 3,3'-dichlorobenzidine in the ICV associated with samples 073SS-0002M-0001-SO, and 073SB-0009M-0001-SO. The nondetected results were qualified as estimated, "UJ," in the samples. The qualified results were coded with a "C" qualification code.

  - Continuing calibration %Ds affecting sample data were within the control limit of ≤20%.

  - Although not required by the DoD QSM, an MRL standard of 3× the DL is required by the FWQAPP. MRL standard recoveries were within the reasonable control limit of ±30%, with exceptions noted in the table below. The results listed in the table below were qualified as estimated, "UJ," for nondetects and, "J," for detects. The qualified results were coded with a "C" qualification code.

Samples qualified for MRL %R outliers		
Analyte	**%R**	**Qualified Samples**
hexachloroethane	44%	073SB-0016M-0001-SO, 073SD-0047-0001-SD
benzo(g,h,i)perylene	58%	073SS-0002M-0001-SD
dibenz(a,h)anthracene	65%	
2,4-dinitrophenol	68%	
Indeno(1,2,3-cd)pyrene	66%	
4,6-Dinitro-2-methylphenol	58%	073SB-0038M-0001-SO
2,4-dinitrophenol	39%	

- Blanks: Bis(2-ethylhexyl)phthalate and di-n-butyl phthalate were detected in one soil method blank at 28.2 and 15.5 µg/Kg, respectively. Bis(2-ethylhexyl)phthalate detected in 073SB-0016M-0001-SO and 073SD-0047-0001-SD and di-n-butyl phthalate detected in 073SB-0016M-0001-SO were qualified as nondetected, "U," at the LOD, if detected below the LOD or at the level of contamination if detected above. The qualified results were coded with a "B" qualification code. The method blanks associated with the validated samples had no other target compound detects above the control limits listed in DoD QSM Table F-4 of one-half the LOQ for target compounds, and no common laboratory contaminants detected above the LOQ.

- Laboratory Control Samples: Benzoic acid was not detected in the LCSs associated with sample 073SB-0038M-0001-SO; therefore, the nondetected result for benzoic acid in this sample was rejected, "R." The qualified result was coded with an "L" qualification code. All

remaining LCS recoveries affecting sample data were within the control limits listed in DoD QSM Tables G-2 (poor performers) and G-7. The reviewer noted hexachlorocyclopentadiene was not spiked in the LCS. Additionally, the LCS associate with sample 073SB-0009M-0001-SO reported no recovery of benzoic acid. Upon review of the raw data, the reviewer determined that benzoic acid was spiked below the LOD but was acceptably recovered.

- Surrogate Recovery: All applicable surrogate recoveries were within the control limits listed in the DoD QSM Tables G-2 (poor performers) or G-3.

- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were not performed on a validated sample. Method accuracy was evaluated based on LCS results.

- Internal Standards Performance: The internal standard area counts and retention times were within the DoD QSM Table F-4 control limits established by the midpoint initial calibration standard: ±30 seconds for retention times and -50% / +100% for internal standard areas.

- Compound Identification: Compound identification was verified for the samples validated at Level IV. Review of the sample chromatograms, retention times, and spectra indicated no problems with target compound identification.

- Compound Quantification and Reported Detection Limits: Compound quantification was verified for the samples validated at Level IV. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J," by the laboratory. Reported nondetects are valid to the LOD. The samples had a 2-ml final extract volume, resulting in an effective 2× dilution. Due to their matrices, sample 073SS-0002M-0001-SO was analyzed at a 4× dilution, sample 073SB-0009M-0001-SO was analyzed at a 5× dilution, and sample 073SB-0038M-0001-SO was analyzed at a 10× dilution.

  Target compounds 2,4-dinitrotoluene, 2,6-dinitrotoluene, and nitrobenzene were reported by both Method 8330B and 8270C in sample 073SS-0002M-0001-SO. As there were no detects for these compounds; the reviewer chose to report the results with the lowest LODs. The 8270C results for 2,4-dinitrotoluene and 2,6-dinitrotoluene were rejected, "R," as duplicate data and coded with a "D" qualification code. The 8270C result for nitrobenzene was retained.

- System Performance: Review of the raw data indicated no problems with system performance.

- Manual Integrations: Some routine manual integrations were performed for the samples, and for calibration and QC data associated with the sample data, primarily to correct the integration of improperly split peaks, or to correct poor baseline integration. All manual integrations reviewed were deemed appropriate by the reviewer.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

  - Field Blanks and Equipment Rinsates: Sample 070-0057-0001-Source Water was identified as the field blank and sample 076-0067-0001-ER was identified as the equipment rinsate sample associated with sample 073SS-0002M-0001-SO. There were no detects in the field QC samples. The remaining validated samples had no associated field QC samples.

  - Field Duplicate Samples: Seven field duplicate samples were collected and analyzed for SVOCs. The RPD criterion in FWQAPP Table 3-1 of ≤50% was only applied when results for common detects were ≥5× the LOQ. In cases where results were <5× the LOQ, the reasonable control limit of ± the LOQ was applied. Except as noted below, the results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

SVOC field duplicate outliers			
Field Duplicate Pair	**Analyte**	**RPD**	**W/In LOQ**
073SB-0016M-0001-SO/ 073SB-0017M-0001-SO	Anthracene	N/A	No
073SD-0047-0001-SD/ 073SD-0048-0001-SD	Bis(2-ethylhexyl)phthalate	N/A	No
073SB-0027M-0001-SO/ 073SB-0028M-0001-SO	Benzo(b)fluoranthene	N/A	No
073SS-0002M-0001-SO/ 073SS-0003M-0001-SO	2-Methylnaphthalene	N/A	No

6.2.6 Volatile Organic Compounds (VOCs)

A total of 4 primary soil samples, 1 soil field duplicate sample, 1 primary sediment sample, and 1 primary surface water sample were analyzed by TA-North Canton for volatile compounds by USEPA Method 8260B. A single primary soil sample was validated at Level IV.

- MDL studies were not evaluated as part of this project.

- GC/MS Tuning: The BFB tunes met the method abundance criteria. The samples were analyzed within 12 hours of the BFB injection time.

- Calibration: Calibration criteria listed in DoD QSM Table F-4 were met.

  - Initial calibration average RRFs and ICV and CCV RRFs were within the control limits of ≥0.30 for chlorobenzene and 1,1,2,2-tetrachloroethane, and ≥0.10 for chloromethane, bromoform, and 1,1-dichloroethane.

  - All initial calibration %RSDs were within the method control limits of ≤30% for the CCCs and ≤15% for remaining compounds, or linear regression r^2 values ≥0.990.

- All second source ICV standard recoveries were within the control limit of ±20%.
- Continuing calibration %Ds affecting validated sample data were within the control limit of ≤20%
- Although not required by the DoD QSM, an MRL standard of 3× the DL is required by the FWQAPP. MRL standard recoveries affecting sample data were within the reasonable control limit of ±30%. Several recoveries were marginally above the control limits; however, none of the compounds with high recoveries were detected in the associated sample.

- Blanks: The method blank associated with the validated sample had no target compound detects above the control limits listed in DoD QSM Table F-4 of one-half the LOQ, and no common laboratory contaminants detected above the LOQ. The method blank had detects below the LOQ for acetone at 6.33(J) µg/Kg, 2-hexanone at 0.802(J) µg/Kg, and methylene chloride at 1.54(J) µg/Kg; however, none of the method blank contaminants were detected in the validated sample.

- Laboratory Control Samples: LCS recoveries were within the control limits listed in DoD QSM Table G-4.

- Surrogate Recovery: Surrogate recoveries were within the control limits listed in DoD QSM Table G-3.

- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were not performed on the validated sample. Evaluation of method accuracy was based on the LCS results.

- Internal Standards Performance: Internal standard 1,4-dichlorobenzene-d4 was recovered below the control limits at 33% in sample 073SS-0002M-0001-SO. The nondetected result for associated target compound 1,1,2,2-tetrachloroethane was qualified as estimated, "UJ," and coded with an "I" qualification code. The remaining internal standard area counts and retention times were within DoD QSM Table F-4 control limits established by the midpoint initial calibration standard: -50% / +100% for internal standard areas and ±30 seconds for retention times.

- Compound Identification: Compound identification was verified for the validated sample. Review of the sample chromatogram, retention times, and spectra indicated no problems with target compound identification.

- Compound Quantification and Reported Detection Limits: Compound quantification was verified for the validated sample. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J," by the laboratory. Reported nondetects are valid to the LOD.

- System Performance: Review of the raw data indicated no problems with system performance.

- Manual integrations: Manual integrations were not performed for the validated sample or for associated calibration and QC samples.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

    - Trip Blanks: The trip blank associated with the validated sample in this SDG had no reportable detects above the DL.

    - Field Blanks and Equipment Rinsates: Sample 070-0057-0001-Source Water was the field blank and 076-0067-0001-ER was the equipment rinsate associated with validated sample 073SS-0002M-0001-SO in RVAAP-73. The field blank had detects below the LOQ for acetone at 2.1(J) µg/L and 2-butanone at 1.2(J) µg/L, and detects above the LOQ for the following compounds: bromodichloromethane at 3.6 µg/L, chloroform at 5.3 µg/L, dibromochloromethane at 1.3 µg/L, and toluene at 1.5 µg/L. The equipment rinsate had a detect for chloroform below the LOQ at 0.61(J) µg/L. The result for toluene in sample 073SS-0002M-0001-SO was qualified as nondetected, "U," at the LOD, and coded with an "F" qualification code. None of the other field QC contaminants were detected in the validated sample.

    - Field Duplicate Samples: One field duplicate sample was collected and analyzed for VOCs. The RPD criterion in FWQAPP Table 3-1 of ≤50% was only applied when results for common detects were ≥5× the LOQ. In cases where results were <5× the LOQ, the reasonable control limit of ± the LOQ was applied. All results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

6.2.7 Metals

A total of 36 primary soil samples, 5 soil field duplicate samples, 7 primary sediment samples, 1 sediment field duplicate sample, 7 primary surface water samples, and 1 surface water field duplicate sample were analyzed by TA-North Canton for various metals by USEPA Methods 6020 and 7471. A total of 4 primary soil samples were validated at Level IV.

- MDL studies were not evaluated as part of this project.

- Calibration: Except as noted below, calibration criteria were met.

    - As per DoD QSM Table F-8, the mass calibrations were ≤0.1 atomic mass units (amu) of the true values and the resolutions were <0.9 amu at full width at 10% peak height. The selenium %RSD associated with sample 073SS-0002M-0001-SO was 11.6%; therefore, selenium detected in the sample was qualified as estimated, "J," and coded with an "M" qualification code. The %RSDs were within the control limit listed in the DoD QSM Table F-8 of ≤5%.

- Initial calibration: The mercury linear regression correlation coefficients were within the control limit listed in the DoD QSM Table F-7 of ≥0.995. The ICPMS analytes used a single point calibration.

- The ICPMS ICV and CCV recoveries were within the control limits listed in DoD QSM Table F-8 of 90-110%. The mercury ICV and CCV recoveries were within the control limits listed in DoD QSM Table F-7 of 90-110% and 80-120%, respectively.

- CRI/MRL recoveries affecting sample results were within the control limits listed in DoD QSM Tables F-7 and F-8 of 80-120%.

- Blanks: Except as noted below, the method blanks had no applicable detects above the control limits listed in DoD QSM Tables F-7 and F-8 of one-half the LOQ or greater than one-tenth the amount measured in any sample and CCBs had no applicable detects above the control limit of greater than the LOD.

  Results listed in the table below were qualified as nondetected, "U," at the LOD if detected below the LOD or at the level of contamination if detected above the LOD. The qualified results were coded with a "B" qualification code.

Samples qualified for blank detects			
Analyte	**Method blank (mg/Kg)**	**CCB (µg/L)**	**Qualified samples**
Antimony	N/A	0.342	073SS-0002M-0001-SO
Thallium	N/A	0.448	
Mercury	0.0276	N/A	

- Interference Check Samples: ICPMS ICSA and ICSAB recoveries were within the control limits listed in DoD QSM Table F-8 of 80-120%. Except as noted below, there were no analytes affecting sample results detected in the ICSA above the control limit listed in DoD QSM Table F-8 of >LOD.

  When most interferents were present in the samples at similar concentration to the ICSA, the samples were further reviewed for possible matrix interference, based on detects for unspiked compounds in the ICSA. If the unspiked compounds were present in the samples at concentrations within 10× the ICSA detect, the results were qualified. Results listed in the table below, all detects, were qualified as estimated, "J," and coded with an "I" qualification code. When no other qualifications with conflicting bias were assigned, the results were qualified as estimated with a potential positive bias, "J+."

Samples qualified for ICSA detects		
Analyte	**Detect (µg/L)**	**Qualified samples**
Cadmium	0.315	073SB-0009M-0001-SO
Cadmium	0.490	073SB-0016M-0001-SO
Thallium	0.177	

- Laboratory Control Samples: The recoveries were within the control limits listed in DoD QSM Table G-19 of 80-120%.

- Laboratory Duplicates: Laboratory duplicate analyses were performed on 076SS-0020M-0001-SO, 076SS-0003M-0001-SO, 072SB-0026M-0001-SO, 079SB-0072M-0001-SO, 079SB-0070M-0001-SO, 079SB-0061M-0001-SO, 079SB-0015M-0001-SO, 073SB-0040M-0001-SO, and 079SB-0024M-0001-SO for mercury and the ICPMS analytes. The results were only assessed for common detects ≥5× the LOQ. In cases where results were <5× the LOQ, the reasonable control limit of ± the LOQ was applied. Except as noted in the table below, the RPDs were within the control limits listed in DoD QSM Tables F-7 and F-8 of ≤20%.

  The RPD for calcium in parent sample 079SD-0061M-0001-SO was 24%; therefore, calcium detected in associated sample 073SB-0016M-0001-SO was qualified as estimated, "J," and coded with an "E" qualification code. As per the *National Functional Guidelines*, all samples in the associated SDG were qualified.

- Matrix Spike/Matrix Spike Duplicate: Matrix spike analyses were performed on 076SS-0020M-0001-SO, 076SS-0003M-0001-SO, 072SB-0026M-0001-SO, 073SB-0007M-0001-SO, 079SB-0072M-0001-SO, 079SB-0070M-0001-SO, 079SB-0061M-0001-SO, 079SB-0015M-0001-SO, 073SB-0040M-0001-SO, and 079SB-0024M-0001-SO for mercury and the ICPMS analytes. The results were not assessed when the native sample concentration exceeded the spiked amount by 4× or more. Except as noted in the table below, the recoveries were within the control limits listed in DoD QSM Table G-19 of 80-120%.

  The *National Functional Guidelines* calls for the estimation of nondetected data associated with matrix spike recoveries less than 30% and acceptable post digestion spike recoveries. However, it was the reviewer's professional judgment that the poor antimony recoveries observed for this and other CR sites were a systemic problem associated with the sample digestion. Therefore, the nondetected antimony results associated with recoveries below 30% were rejected, "R."

  Detected results listed in the table below were qualified as estimated, "J." In the absence of qualifications with conflicting bias, the results were qualified as estimated with a potential low bias, "J-," or estimated with a potential high bias, "J+." All qualified results were coded with a "Q" qualification code. As per the *National Functional Guidelines*, all samples in the associated SDG were qualified.

Samples qualified for matrix spike recovery outliers			
Parent Sample	**Analyte**	**%R**	**Qualified samples**
076SS-0020M-0001-SO	Arsenic	70%	073SS-0002M-0001-SO
	Antimony	**25%**	
	Selenium	71%	
073SS-0003M-0001-SO	**Antimony**	**25%**	

Samples qualified for matrix spike recovery outliers			
Parent Sample	**Analyte**	**%R**	**Qualified samples**
	Selenium	72%	
072SB-0026M-0001-SO	Arsenic	69%	073SB-0009M-0001-SO
	Calcium	74%	
	Copper	75%	
	Antimony	20%	
	Thallium	75%	
	Selenium	73%	
073SB-0007M-0001-SO	Chromium	125%	
	Antimony	21%	
	Vanadium	137%	
	Potassium	150%	
079SB-0072M-0001-SO	Arsenic	62%	073SB-0016M-0001-SO
	Beryllium	78%	
	Calcium	49%	
	Copper	77%	
	Antimony	30%	
	Zinc	68%	
	Selenium	66%	
079SB-0070M-0001-SO	Arsenic	78%	
	Beryllium	79%	
	Antimony	30%	
	Zinc	75%	
	Selenium	71%	
079SB-0061M-0001-SO	Antimony	27%	
	Selenium	60%	
	Calcium	73%	
079SB-0015M-0001-SO	Antimony	25%	073SB-0038M-0001-SO
	Zinc	74%	
	Selenium	70%	
073SB-0040M-0001-SO	Arsenic	63%	
	Antimony	46%	
	Zinc	68%	
	Selenium	75%	
079SB-0024M-0001-SO	Antimony	21%	
	Zinc	71%	
	Selenium	70%	

Post digestion spike analyses were performed on 073SB-0007M-0001-SO, 076SS-0020M-0001-SO, 079SB-0072M-0001-SO, 079SB-0070M-0001-SO, 079SB-0061M-0001-SO, 079SB-0015M-0001-SO, 073SB-0040M-0001-SO, and 079SB-0024M-0001-SO for the ICPMS analytes. The recovery for zinc in the post digestion spike of sample 073SB-0007M-0001-SO was below the control limit at 72%; therefore, zinc detected in sample 073SB-0009M-0001-SO was qualified as estimated with a potential low bias, “J-,” and was

coded with a "P" qualification code. The remaining recoveries were within the control limits listed in DoD QSM Table F-8 of 75-125%.

- Serial Dilution: Serial dilution analyses were performed on 073SB-0007M-0001-SO, 076SS-0020M-0001-SO, 073SB-0007M-0001-SO, 079SB-0072M-0001-SO, 079SB-0070M-0001-SO, 079SB-0061M-0001-SO, and 079SB-0015M-0001-SO, 073SB-0040M-0001-SO, and 079SB-0024M-0001-SO for the ICPMS analytes. Except as noted below, the %Ds were within the control limits listed in DoD QSM Table F-7 and F-8 of ≤10%. The serial dilution control limit is only applicable when the original sample concentration is nominally ≥50× the LOQ.

  Results listed in the table below, all detects, were qualified as estimated, "J," and coded with an "A" qualification code. As per the *National Functional Guidelines*, all samples in the associated SDG were qualified.

Samples qualified for serial dilution %D outliers			
Parent Sample	**Analyte**	**%R**	**Qualified samples**
079SB-0061M-0001-SO	Beryllium	18%	073SS-0016M-0001-SO
	Zinc	11%	
079SB-0072M-0001-SO	Zinc	12%	
079SB-0070M-0001-SO	Beryllium	20%	

- Internal Standards: As per the DoD QSM Table F-8, the ICPMS sample internal standards intensities were within 30-120% of those in the ICV. Yttrium (^{89}Y) was spiked into the QC samples but not the site samples.

- Sample Result Verification: For Level IV validation, calculations were verified and the sample results reported on the sample result summary were verified against the raw data. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.

  Due to instrument limitations, the mercury raw data did not list the sample absorbances; therefore, the reviewer was not able to calculate the sample results from the raw data. Additionally, the ICPMS raw data did not list absorbances for the ICV, CCV, ICSAB, and MRL samples, and the %R was listed instead of the sample concentrations.

- Manual Integrations: No manual integrations were noted in the mercury analyses.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

  - Field Blanks and Equipment Rinsates: No field blank or equipment rinsate samples were associated with the validated samples for RVAAP-73.

- Field Duplicate Samples: Seven field duplicate samples were collected and analyzed for metals. The RPD criterion in FWQAPP Table 3-1 of ≤50% was only applied when results for common detects were ≥5× the LOQ. In cases where results were <5× the LOQ, the reasonable control limit of ± the LOQ was applied. Except as noted below, all results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

Metals field duplicate outliers			
Field Duplicate Pair	**Analyte**	**RPD**	**W/In LOQ**
073SB-0016M-0001-SO/ 073SB-0017M-0001-SO	Calcium	93%	N/A
073SD-0047-0001-SD/ 073SD-0048-0001-SD	Lead	N/A	No
073SB-0009M-0001-SO/ 073SB-0010M-0001-SO	Beryllium	N/A	No

6.3 Data Usability

According to the Draft Site Inspection Report prepared by ECC, the field completeness was 100%.

Two data points were rejected for poor LCS and MS/MSD recoveries. In instances where a data point had multiple results, the reviewer chose the most technically sound result to report and rejected the remaining data points. These data points, rejected to choose the most technically sound data, do not affect data quality or usability and are not included in the table below. Data with LODs that exceeded the established criteria and data estimated for quality control outliers or for detects between the LOQ and the DL were included in the table below for informational purposes only.

Table 17. Analytical completeness for RVAAP-73 validated primary data

			Number of Results					Percent Complete
Analysis	**Samples Analyzed**	**Analytes per Sample**	**Total**	**Rejected**	**LODs/DLs Exceeding Criteria**	**Estimated for QC Outliers**	**Estimated for Detects <LOQ**	
Explosives	1	16	15	0	0/0	3	0	100%
Nitroguanidine	1	1	1	0	0/0	0	0	100%
Nitrocellulose	1	1	1	0	0/0	0	0	100%
PCBs	1	7	7	0	0/0	0	0	100%
Pesticides	1	21	21	0	0/0	1	0	100%
SVOCs	5	66	326	1	3/3	80	14	99.7%
VOCs	1	36	36	0	0/0	2	0	100%
Metals	4	23	92	1	0/0	28	12	98.9%
		Totals	**499**	**2**	**3/3**	**114**	**26**	**99.6%**

The analytical completeness goal for the project established in the FWQAPP was 90% for each method. The completeness goal was met for all analyses.

6.4 Primary and Field Duplicate Comparison Summary

Primary and field duplicate sample comparisons were considered to be in good agreement as only 0.1% of the field duplicate pair results were above the FWQAPP control limit of 50% for soils or +/- the LOQ for results below the LOQ. Rejected results are not listed in the table below.

Most of the outliers were metals and PAH compounds and the discrepancies occurred in four of the six field duplicate pairs. No pattern to the discrepancies was noted. All comparison results are presented in Appendix C.

Table 18. RVAAP-73 primary/field duplicate sample comparison summary

Method	Primary/Field Duplicate Pairs	Number of Analytes	Total Analytes	Number of results within control limits	Number of results above control limit
Explosives	1	16	15	15	0
PCBs	1	7	7	7	0
Pesticides	1	21	21	21	0
SVOCs	7	66	464	460	4
VOCs	1	36	36	36	0
Metals	7	23	160	157	3
Nitroguanidine	1	1	1	1	0
Nitrocellulose	1	1	1	1	0

6.5 Specific Data Concerns

Specific concerns regarding the data are noted below:

- A few LODs and some DLs exceeded the project criteria. These exceedances are detailed in Section 6.2.5.
- Due to instrument limitations, the mercury raw data did not list the sample absorbances; therefore, the reviewer was not able to calculate the sample results from the raw data. Additionally, the ICPMS raw data did not list absorbances for the ICV, CCV, ICSAB, and MRL samples, and the %R was listed instead of the sample concentrations.

In order to avoid repetition of the issues noted above, the following actions should be taken:

- MEC^X recommends the laboratory be requested to alter the IPC-MS and mercury instrument set up in order to report mercury and ICPMS raw absorbances and ICPMS ICV, CCV, ICSAB, and MRL concentrations.

7 BUILDING 1034 MOTOR POOL HYDRAULIC LIFT, RVAAP-74

7.1 Current Investigation

ECC completed an RI at Building 1034 Motor Pool Hydraulic Lift (RVAAP-74). The work was performed in accordance with the *Site Inspection and Remedial Investigation Work Plan* (ECC 2012) and the *Facility-Wide Sampling and Analysis Plan* (SAIC 2011).

Building 1034 was used for automotive repair and maintenance. Additionally, Building 1034 was used to store batteries and it contained a car wash area and an oil/water separator. The building drawings indicate it was part of the original facility construction and depict a below-grade hydraulic lift. According to multiple interviewees, maintenance workers needed to add hydraulic oil to the lift system annually. After it was discovered that the lift system was leaking and the leak could be located, the lift was taken out of service, but not removed. Since the year the lift was removed from service was not determined, it is unknown how long the lift was in operation. Currently, Building 1034 is not in use.

The data validated in this report are part of the intrusive RI at RVAAP-74 conducted to assess the potential presence of contamination. The total sample counts, samples selected for data validation, and the field duplicates are presented in the tables below.

Table 19. Total sample count for RVAAP-74

Matrix	Primary Samples	Field Duplicates	Split Samples	Primary Sample Counts							
				Explosives	Propellants	PCBs	Pesticides	SVOCs	TPH-DRO	VOCs	Metals
Soil	34	1	2	1	1	1	1	34	34	1	1

Table 20. RVAAP-74 validated samples and methods

Sample ID	SDG	Matrix	Collected	Explosives	Propellants	PCBs	SVOCs	TPH-DRO	VOCs	Metals
074SB-0001-0001-SO	240-22756-1	soil	4/2/2013	--	--	--	--	x	--	--
074SB-0002-0001-SO	240-22756-1	soil	4/2/2013	--	--	--	x	x	--	--
074SB-0010-0001-SO	240-22804-1	soil	4/3/2013	x	x	x	x	x	x	x
074SB-0027-0001-SO	240-22804-1	soil	4/3/2014	--	--	--	x	x	--	--

Table 21. RVAAP-74 field duplicate samples

Duplicate Sample ID	Parent Sample
074SB-0003-0001-SO	074SB-0002-0001-SO

7.1.1 Sample Collection

According to the laboratory Sample Receipt Forms, custody seals were not utilized; however, in reviewing the relinquish and receipt times, it appeared the samples were transferred to the laboratory by courier. No sample collection issues, other than the items listed below, were noted.

- DRO analysis was not requested on the chain-of-custody for sample 074SB-0010-0001-SO. The analysis was performed although no documentation indicating the analysis was requested was provided in the data package.
- A correction was made to the COC using multiple lines to cross out the incorrect entry. The correction was not initialed or dated.

7.1.2 Data Completeness

Data completeness for the project described in this report was found to be generally acceptable as no deliverables were missing from the SDGs reviewed.

7.1.3 Preservation and Holding Time Requirements

The samples were received within the temperature limits of 4 ±2^{o}C and all remaining method preservation requirements were met. The SVOC fraction of sample 074SB-0010-0001-SO was extracted 8 days beyond the 14 day holding time; therefore, the results for this sample were qualified as estimated, "UJ," for nondetects and, "J," for detects. The qualified results were coded with an "H" qualification code. The remaining holding times, as listed in Table 3, were met.

7.1.4 Detection Limit Requirements

LODs and DLs for nondetected analytes were compared against the most stringent CUGs listed in Tables 5-8, 5-9, and 5-10 of *Final Facility-Wide Human Health Cleanup Goals for the Ravenna Army Ammunition Plant* (2010) or the RSLs if no CUG was listed. No results exceeded project criteria.

7.2 RVAAP-74 Data Quality Evaluation

This section summarizes the data quality of validated samples for each analytical method evaluated.

7.2.1 Explosives

A single primary soil sample was analyzed by TA-West Sacramento for explosives by USEPA SW-846 Method 8330B. The primary soil sample was validated at Level IV.

- MDL studies were not evaluated as part of this project.

- Calibration:

- The initial calibration average %RSDs were within the control limits listed in DoD QSM Table F-3 of ≤15%, or the linear regression r^2 values were ≥0.990.
- The second source ICV recoveries were within the control limit listed in DoD QSM Table F-3 of ±20%.
- The CCV standard %Ds were within the control limits listed in DoD QSM Table F-3 of ±20%.
- Although not required by the DoD QSM, an MRL standard of 3× the DL is required by the FWQAPP. Low-level MRL standards were analyzed in association with the validated samples and the results were within the reasonable control limits of 70-130%.

- Blanks: The method blank associated with the validated sample had no target compound detects above the control limit listed in DoD QSM Table F-3 of one-half the LOQ.

- Laboratory Control Samples: Recoveries were within the control limits listed in DoD QSM Tables G-2 and G-13 and within the reasonable laboratory control limits for nitroglycerin (76-116%) and PETN (76-116%).

- Surrogate Recovery: As no surrogate control limit was listed in the DoD QSM, surrogate recoveries were assessed against the reasonable laboratory-established control limits of 78-118%. Recoveries were within the control limits.

- Matrix Spike/Matrix Spike Duplicate: No MS/MSD analyses were performed on sample the validated sample. Method accuracy was evaluated based on the LCS results.

- Compound Identification: Compound identification was verified for the sample validated at Level IV. Review of sample chromatograms and retention times indicated no problems with target compound identification. Confirmation analyses were performed for the primary column detects for 1,3,5-trinitrobenzene. The detect was not confirmed but was reported as detected in the EDD. The reviewer changed the EDD result for this compound to a nondetect at the LOD.

- Compound Quantification and Reported Detection Limits: Compound quantification was verified for the primary column sample detect and a portion of the LCS results. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.

  Target compounds 2,4-dinitrotoluene, 2,6-dinitrotoluene, and nitrobenzene were reported by both Method 8330B and 8270C in sample 074SD-0010-0001-SO. As there were no detects for these compounds; the reviewer chose to report the results with the lowest LODs. The 8330B results for all three compounds were rejected, "R," as duplicate data and coded with a "D" qualification code.

- System Performance: Review of the raw data indicated no problems with system performance.

- Manual Integrations: Some manual integrations were performed. All manual integrations were performed in order to account for baseline anomalies and were deemed acceptable by the reviewer.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

    - Field Blanks and Equipment Rinsates: No field blank or equipment rinsate samples were associated with the validated sample.

    - Field Duplicates: No field duplicate samples were collected for explosive compounds at RVAAP-74.

7.2.2 Propellants

A single primary soil sample was analyzed by TA-West Sacramento for nitroguanidine by USEPA SW-846 Method 8330 and for nitrocellulose by laboratory SOP WS-WC-0050. The primary soil sample was validated at Level IV.

- MDL studies were not evaluated as part of this project.

- Calibration:

    - The nitroguanidine initial calibration average percent %RSD was within the control limit listed in DoD QSM Table F-2 of ≤20%. Nitrocellulose linear regression correlation coefficient was within the control limit listed in the DoD QSM Table F-11 of ≥0.995.

    - The nitroguanidine second source ICV recovery was within the control limits listed in DoD QSM Table F-2 of 85-115%. The nitrocellulose ICV recovery was within the control limit listed in DoD QSM Table F-11 of 90-110%.

    - The nitroguanidine CCV recoveries were within the control limits listed in DoD QSM Table F-2 of 85-115%. The nitrocellulose CCV recoveries were within the control limits listed in DoD QSM Table F-11 of 90-110%.

    - Although not required by the DoD QSM, an MRL standard of 3× the DL is required by the FWQAPP. MRL recoveries associated with the sample were within the reasonable control limits of 70-130%.

- Blanks: The method blanks had no target compound detects above the control limits listed in DoD QSM Tables F-2 and F-11 of one-half the LOQ.

- Laboratory Control Samples: No nitroguanidine or nitrocellulose LCS control limits are listed in the DoD QSM; therefore, the laboratory control limits were used to assess the results. The nitroguanidine recovery was within the control limits of 72-121%. The nitrocellulose recovery was within the laboratory-established control limits of 34-115%.

- Surrogate Recovery: A surrogate was not required for the analysis of nitroguanidine or nitrocellulose.

- Matrix Spike/Matrix Spike Duplicate: No MS/MSD analyses were performed on the validated sample. Method accuracy was evaluated based on the LCS results

- Compound Identification: Compound identification was verified for the sample validated at Level IV. Review of the sample chromatograms and retention times indicated no problems with target compound identification.

- Compound Quantification and Reported Detection Limits: Compound quantification was verified for those samples validated at Level IV. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.

  Nitroguanidine was not detected in the validated sample; therefore, confirmation analysis was not required.

- System Performance: Review of the raw data indicated no problems with system performance.

- Manual Integrations: One manual integration was performed for an MRL in order to complete the nitroguanidine peak integration. The manual integration was deemed acceptable by the reviewer.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

  - Field Blanks and Equipment Rinsates: No field blank or equipment rinsate samples were associated with the validated sample.

  - Field Duplicates: No field duplicate samples were collected for explosive compounds at RVAAP-74.

7.2.3 Polychlorinated Biphenyls (PCBs)

A single primary soil sample was analyzed by TA-North Canton for PCBs by USEPA SW-846 Method 8082. The primary soil sample was validated at Level IV.

- MDL studies were not evaluated as part of this project.

- Calibration: Calibration criteria were met with the exception noted below.
    - Initial calibration average %RSDs were within the control limit listed in the DoD QSM Table F-2 of ≤20%.
    - The second source ICV recoveries were within the control limit listed in the DoD QSM Table F-2 of ±20% for all applicable Aroclors.
    - The CCV standard recoveries were within the control limit listed in the DoD QSM Table F-2 of ±20%.
    - MRL recoveries affecting sample results were within the reasonable control limit of ±30%. Two recoveries were nominally above the control limit; however, as there were no detects in the site sample, no qualifications were applied.
- Blanks: The method blank associated with the validated sample had no target compound detects above the control limit listed in the DoD QSM Table F-2 of one-half the LOQ for target compounds.
- Laboratory Control Samples: LCS recoveries for Aroclor 1016 and Aroclor 1260 were within the control limits listed in DoD QSM Table G-17.
- Surrogate Recovery: Recoveries were within the control limits listed in DoD QSM Table G-3 of 60-125%.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were not performed on the validated sample. Evaluation of method accuracy was based on the LCS results.
- Compound Identification: Compound identification was verified for the validated sample. Review of the sample chromatogram, standards, and retention times indicated no problems with target compound identification. The sample was analyzed on two analytical columns; however, the sample had no Aroclor detects.
- Compound Quantification and Reported Detection Limits: Compound quantification was verified for the validated sample. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.
- System Performance: Review of the raw data indicated no problems with system performance.
- Manual Integrations: Some routine manual integrations were performed for the calibration and QC data associated with the sample data, primarily to resolve poor baseline integration or correctly split previously incorrectly split peaks. All manual integrations reviewed were deemed appropriate by the reviewer.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

    - Field Blanks and Equipment Rinsates: No field blank or equipment rinsate samples were associated with the validated sample in RVAAP-74.

    - Field Duplicates: No field duplicate samples were collected from RVAAP-74 for PCBs.

7.2.4 Total Petroleum Hydrocarbons (TPH)

A total of 34 primary soil samples and 1 field duplicate sample were analyzed by TA-North Canton for DRO by USEPA SW-846 Method 8015B. A total of 4 primary soil samples were validated at Level IV.

- MDL studies were not evaluated as part of this project.

- Calibration: Calibration criteria listed in the DoD QSM Table F-2 were met.

    - Initial calibration average %RSDs were within the control limit of ≤20% or linear regression r^2 values ≥0.990.

    - The second source ICV recoveries were within the control limit of ±20%.

    - The CCV standard recoveries were within the control limit of ±20%.

    - Although not required by the DoD QSM, an MRL standard of 3× the DL is required by the FWQAPP. MRL standard recoveries affecting sample data were within the reasonable control limit of ±30%.

- Blanks: The method blanks associated with the validated samples had no target compound detects above the control limit listed in the DoD QSM Table F-2 of one-half the LOQ.

- Laboratory Control Samples: As no QSM limits are prescribed, recoveries were within the laboratory-established control limits of 47-138% for DRO.

- Surrogate Recovery: As no QSM limits are prescribed, recoveries were within the laboratory-established control limits of 10-110% for DRO surrogate n-nonane.

- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on samples 074SB-0001-0001-SO and 074SB-0010-0001-SO. As no QSM limits are prescribed, the laboratory-established soil control limits of 10-199% for DRO were applied, and RPDs were evaluated using the control limit listed in the DoD QSM Table F-2 of ≤30%. Recoveries were within the laboratory-established control limits of 10-199%, and the RPD was within the control limit of ≤30%.

- Compound Identification: Compound identification was verified for the validated samples. Review of the sample chromatograms, standards, and retention times indicated no problems with target compound identification. The laboratory analyzed for DRO hydrocarbon ranges C10-C20 and C20-C34.

- Compound Quantification and Reported Detection Limits: Compound quantification was verified for the validated samples. The samples required no dilution. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.

- System Performance: Review of the raw data indicated no problems with system performance.

- Manual Integrations: Manual integrations were not performed for the validated samples or associated calibration and QC.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

    - Field Blanks and Equipment Rinsates: No field blank or equipment rinsate samples were associated with the validated samples for RVAAP-74.

    - Field Duplicate Samples: One field duplicate sample was collected and analyzed for DRO. The RPD criterion in FWQAPP Table 3-1 of ≤50% was only applied when results for common detects were ≥5× the LOQ. In cases where results were <5× the LOQ, the reasonable control limit of ± the LOQ was applied. All results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

7.2.5 Semivolatile Organic Compounds (SVOCs)

A total of 34 primary soil samples and 1 field duplicate sample were analyzed by TA-North Canton for SVOCs by USEPA Method 8270C. A total of 3 primary soil samples were validated at Level IV.

- MDL studies were not evaluated as part of this project.

- GC/MS Tuning: The DFTPP tunes met the method abundance criteria. The samples were analyzed within 12 hours of the DFTPP injection time.

- Calibration: Calibration criteria listed in the DoD QSM Table F-4 were met, with exceptions affecting sample results noted below.

- Initial calibration average RRFs and ICV and CCV RRFs were within method control limits of ≥0.050 for SPCCs. All initial calibration %RSDs were within the control limits of ≤30% for CCCs and ≤15% for remaining compounds, or linear regression r^2 values ≥0.990.

- All second source ICV standard recoveries affecting sample data were within the control limit of ±20%.

- Continuing calibration %Ds affecting sample data were within the control limit of ≤20%.

- Although not required by the DoD QSM, an MRL standard of 3× the DL is required by the FWQAPP. MRL standard recoveries were within the reasonable control limit of ±30%, with exceptions noted in the table below. Results listed in the table below were qualified as estimated, "J," for detects, and "UJ," for nondetects in the affected sample. The qualified results were coded with a "C" qualification code.

Samples qualified for MRL %R outliers		
Analyte	**%R**	**Qualified Samples**
2,4-dinitrophenol	40%	074SB-0002-0001-S0
4,6-dinitro-2-methylphenol	57%	
2,4-dinitrophenol	49%	074SB-0010-0001-SO

- Blanks: One method blank had a detect for bis(2-ethlyhexyl)phthalate at 19.9 µg/Kg and another had a detect for di-n-butyl phthalate at 24.5 µg/Kg; therefore, bis(2-ethylhexyl)phthalate detected in 074SB-0002-0001-SO was qualified as nondetected, "U," at the LOD and di-n-butyl phthalate detected in 074SB-0027-0001-SO was qualified as nondetected, "U," at the level of contamination. The qualified results were coded with a "B" qualification code. The method blanks associated with the validated samples had no other target compound detects above the control limits listed in DoD QSM Table F-4 of one-half the LOQ for target compounds, and no other common laboratory contaminants detected above the LOQ.

- Laboratory Control Samples: Benzoic acid was reported as not detected in the LCS associated with sample 074SB-0010-0001-SO; therefore, the nondetected result for benzoic acid in sample 074SB-0010-0001-SO was rejected, "R," and coded with an "L" qualification code. Additionally, the LCSs associated with the validated samples 074SB-0002-0001-SO and 074SB-0027-0001-SO also reported benzoic acid as nondetected. Upon review of the raw data, the reviewer determined that benzoic acid was spiked below the LOD but was acceptably recovered in both LCSs. All remaining LCS recoveries were within the control limits listed in DoD QSM Tables G-2 (poor performers) and G-7. The reviewer noted hexachlorocyclopentadiene was not spiked in the LCS.

- Surrogate Recovery: All surrogate recoveries were within the control limits listed in the DoD QSM Tables G-2 (poor performers) or G-3.

- Matrix Spike/Matrix Spike Duplicate: No MS/MSD analyses were performed on a validated sample. Method accuracy was evaluated based on LCS results**.**

- Internal Standards Performance: The internal standard area counts and retention times were within the DoD QSM Table F-4 control limits established by the midpoint initial calibration standard: ±30 seconds for retention times and -50% / +100% for internal standard areas.

- Compound Identification: Compound identification was verified for the samples validated at Level IV. Review of the sample chromatograms, retention times, and spectra indicated no problems with target compound identification.

- Compound Quantification and Reported Detection Limits: Compound quantification was verified for the samples validated at Level IV. The samples had a 2-ml final extract volume, resulting in an effective 2× dilution. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J," by the laboratory. Reported nondetects are valid to the LOD.

- System Performance: Review of the raw data indicated no problems with system performance.

- Manual Integrations: Some routine manual integrations were performed for calibration and QC data associated with the sample data, primarily to integrate peaks missed or peaks incorrectly chosen by the data system and to correct poor baseline integration. All manual integrations reviewed were deemed appropriate by the reviewer.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

    - Field Blanks and Equipment Rinsates: No field blank or equipment rinsate samples were associated with the validated samples for RVAAP-74.

    - Field Duplicate Samples: One field duplicate sample was collected and analyzed for SVOCs. The RPD criterion in FWQAPP Table 3-1 of ≤50% was only applied when results for common detects were ≥5× the LOQ. In cases where results were <5× the LOQ, the reasonable control limit of ± the LOQ was applied. All results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

7.2.6 Volatile Organic Compounds (VOCs)

A single primary soil sample was analyzed by TA-North Canton for volatile compounds by USEPA Method 8260B. The primary soil sample was validated at Level IV.

- MDL studies were not evaluated as part of this project.

- GC/MS Tuning: The BFB tunes met the method abundance criteria. The samples were analyzed within 12 hours of the BFB injection time.

- Calibration: Calibration criteria listed in DoD QSM Table F-4 were met.

  - Initial calibration average RRFs and ICV and CCV RRFs were within the control limits of ≥0.30 for chlorobenzene and 1,1,2,2-tetrachloroethane, and ≥0.10 for chloromethane, bromoform, and 1,1-dichloroethane.

  - All initial calibration %RSDs were within the method control limits of ≤30% for the CCCs and ≤15% for remaining compounds, or linear regression r^2 values ≥0.990.

  - All second source initial calibration verification standard recoveries were within the control limit of ±20%.

  - Continuing calibration %Ds affecting validated sample data were within the control limit of ≤20%

  - Although not required by the DoD QSM, an MRL standard of 3× the DL is required by the FWQAPP. MRL standard recoveries affecting sample data were within the reasonable control limit of ±30%.

- Blanks: The method blank associated with the validated sample had no target compound detects above the control limits listed in DoD QSM Table F-4 of one-half the LOQ, and no common laboratory contaminants detected above the LOQ. Acetone detected below the LOQ in the method blank was not detected in the associated sample.

- Laboratory Control Samples: LCS recoveries were within the control limits listed in DoD QSM Table G-4.

- Surrogate Recovery: BFB and toluene-d8 were recovered below the control limits at 35% (limits 85-120%) and 54% (85-115%), respectively in the analysis of sample 074SB-0010-0001-SO for target compounds 2-butanone (methyl ethyl ketone), 2-hexanone, and 4-methyl-2-pentanone (methyl isobutyl ketone). The affected results, all nondetects, were qualified as estimated, "UJ," and coded with an "S" qualification code. The remaining analytes in sample 074SB-0010-001-SO were reported from a separate analysis which had acceptable surrogate recoveries. Remaining surrogate recoveries affecting sample data were within the control limits listed in DoD QSM Table G-3.

- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were not performed on the validated sample. Evaluation of method accuracy was based on the LCS results.

- Internal Standards Performance: The internal standard area counts and retention times were within DoD QSM Table F-4 control limits established by the midpoint initial calibration standard: -50% / +100% for internal standard areas and ±30 seconds for retention times.

- Compound Identification: Compound identification was verified for the validated sample. Review of the sample chromatogram, retention times, and spectra indicated no problems with target compound identification.

- Compound Quantification and Reported Detection Limits: Compound quantification was verified for the validated sample. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J," by the laboratory. Reported nondetects are valid to the LOD.

- System Performance: Review of the raw data indicated no problems with system performance.

- Manual integrations: Manual integrations were not performed for the validated sample or for associated calibration and QC samples.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

    - Trip Blanks: The trip blank associated with the validated sample in this SDG had a detect below the LOQ for methylene chloride; however, methylene chloride was not detected in the associated sample. The trip blank had no other reportable detects above the DL.

    - Field Blanks and Equipment Rinsates: No field blank or equipment rinsate samples were associated with the validated sample for RVAAP-74.

    - Field Duplicate Samples: No field duplicate samples were collected for VOCs.

7.2.7 Metals

A single primary soil sample was analyzed by TA-North Canton for various metals by USEPA Methods 6020 and 7471. The primary soil sample was validated at Level IV.

- MDL studies were not evaluated as part of this project.

- Calibration: Except as noted below, calibration criteria were met with the exception noted below.

    - As per DoD QSM Table F-8, the mass calibrations were ≤0.1 atomic mass units (amu) of the true values and the resolutions were <0.9 amu at full width at 10% peak height. The %RSDs were within the control limit listed in the DoD QSM Table F-8 of ≤5%.

- Initial calibration: The mercury linear regression correlation coefficient was within the control limit listed in the DoD QSM Table F-7 of ≥0.995. The remaining analytes used a single point calibration.

- The ICPMS ICV and CCV recoveries were within the control limits listed in DoD QSM Table F-8 of 90-110%. The mercury ICV and CCV recoveries were within the control limits listed in DoD QSM Table F-7 of 90-110% and 80-120%, respectively.

- Mercury was recovered at 65% in the closing MRL; therefore, nondetected mercury in sample 074SB-0010-0001-SO was qualified as estimated, "UJ," and was coded with a "C" qualification code. The remaining CRI/MRL recoveries affecting sample results were within the control limits listed in DoD QSM Tables F-7 and F-8 of 80-120%.

- Blanks: The method blanks had no applicable detects above the control limits listed in DoD QSM Tables F-7 and F-8 of one-half the LOQ or greater than one-tenth the amount measured in any sample and the CCBs had no applicable detects above the control limit of >LOD.

- Interference Check Samples: ICPMS ICSA and ICSAB recoveries were within the control limits listed in DoD QSM Table F-8 of 80-120%. There were several analytes detected in the ICSA, but not at sufficient concentration to warrant qualification of the site sample.

  When most interferents were present in the samples at similar concentration to the ICSA, the samples were further reviewed for possible matrix interference, based on detects for unspiked compounds in the ICSA. If the unspiked compounds were present in the samples at concentrations within 10× of the ICSA detect, the results were qualified. Results listed in the table below, all detects, were qualified as estimated, "J," and coded with an "I" qualification code. As no other qualifications with conflicting bias were assigned, the results were qualified as estimated with a potential positive bias, "J+."

Samples qualified for ICSA detects		
Analyte	**Detect (µg/L)**	**Qualified samples**
Cadmium	0.271	074SB-0010-0001-SO
Silver	0.195	
Selenium	0.553	

- Laboratory Control Samples: The recoveries were within the control limits listed in DoD QSM Table G-19 of 80-120%.

- Laboratory Duplicates: No laboratory duplicate analysis was performed for a sample of the same matrix as the validated sample.

- Matrix Spike/Matrix Spike Duplicate: No matrix spike or MS/MSD analyses were performed for a sample of the same matrix as the validated sample. Method accuracy was evaluated based on the LCS results.

- Serial Dilution: No serial dilution analysis was performed on a sample of the same matrix as the validated sample.

- Internal Standards: As per the DoD QSM Table F-8, the ICPMS sample internal standards intensities were within 30-120% of those in the ICV.

- Sample Result Verification: For Level IV validation, calculations were verified and the sample results reported on the sample result summary were verified against the raw data. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.

  Due to instrument limitations, the mercury raw data did not list the sample absorbances; therefore, the reviewer was not able to calculate the sample results from the raw data. Additionally, the ICPMS raw data did not list absorbances for the ICV, CCV, ICSAB, and MRL samples, and the %R was listed instead of the sample concentrations.

- Manual Integrations: No manual integrations were noted in the mercury analyses.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

  - Field Blanks and Equipment Rinsates: No field blank or equipment rinsate samples were associated with the validated samples for RVAAP-74.

  - Field Duplicate Samples: No field duplicate samples were collected for metals.

7.3 Data Usability

According to the Draft Site Inspection Report prepared by ECC, the field completeness was 100%.

One SVOC data point was rejected for a poor LCS recovery. In instances where a data point had multiple results, the reviewer chose the most technically sound result to report and rejected the remaining data points. These data points, rejected to choose the most technically sound data, do not affect data quality or usability and are not included in the table below. Data with detects between the LOQ and the DL were included in the table below for informational purposes only.

Table 22. Analytical completeness for RVAAP-74 validated primary data

			Number of Results					
Analysis	**Samples Analyzed**	**Analytes per Sample**	**Total**	**Rejected**	**LODs/DLs Exceeding Criteria**	**Estimated for QC Outliers**	**Estimated for Detects <LOQ**	**Percent Complete**
Explosives	1	16	13	0	0/0	0	1	100%
Nitroguanidine	1	1	1	0	0/0	0	0	100%
Nitrocellulose	1	1	1	0	0/0	0	0	100%
PCBs	1	7	7	0	0/0	0	0	100%
TPH	4	2	8	0	0/0	0	0	100%
SVOCs	3	66	198	1	0/0	70	1	99.4%
VOCs	1	35	35	0	0/0	3	0	100%
Metals	1	23	23	0	0/0	4	2	100%
		Totals	**286**	**1**	**0/0**	**77**	**4**	**99.7%**

The analytical completeness goal for the project established in the FWQAPP was 90% for each method. The completeness goal was met for all analyses.

7.4 Primary and Field Duplicate Comparison Summary

Primary and field duplicate sample comparisons were considered to be in good agreement as all results were within the FWQAPP control limit of 50% for soils or +/- the LOQ for results below the LOQ. Rejected results are not listed in the table below. All comparison results are presented in Appendix C.

Table 23. RVAAP-74 primary/field duplicate sample comparison summary

Method	**Primary/Field Duplicate Pairs**	**Number of Analytes**	**Total Analytes**	**Number of results within control limits**	**Number of results above control limit**
SVOCs	1	66	66	66	0
TPH	1	2	2	2	0

7.5 Specific Data Concerns

Specific concerns regarding the data are noted below:

- Due to instrument limitations, the mercury raw data did not list the sample absorbances; therefore, the reviewer was not able to calculate the sample results from the raw data. Additionally, the ICPMS raw data did not list absorbances for the ICV, CCV, ICSAB, and MRL samples, and the %R was listed instead of the sample concentrations.

In order to avoid repetition of the issues noted above, the following actions should be taken:

- MEC^X recommends the laboratory be requested to alter the IPCMS and mercury instrument set up in order to report mercury and ICPMS raw absorbances and ICPMS ICV, CCV, ICSAB, and MRL concentrations.

8 DEPOT AREA, RVAAP-76

8.1 Current Investigation

ECC completed an RI at the Depot Area (RVAAP-76). RVAAP-76 was constructed as part of the original RVAAP facility. The work was performed in accordance with the *Site Inspection and Remedial Investigation Work Plan* (ECC 2012) and the *Facility-Wide Sampling and Analysis Plan* (SAIC 2011).

Prior to the purchase of the property in 1940, the site consisted of Bolton Farm. The Depot Administration Area Telephone Building is the last remaining building from Bolton Farm and the namesake of the site. The HRR (SAIC, 2011) identified historic uses and potential environmental concerns at this site with respect to possible HTRW and/or MEC issues.

The following areas at RVAAP-76 were identified as candidates for further investigation:

- Building U-4 Material Handling Equipment Repair Shop – Samples were collected to investigate potential contamination from former activities including rail car/heavy equipment repair and petroleum product storage.
- Building U-5 Equipment Repair Building and nearby drainage ditch – Samples were collected to investigate potential contamination from former activities including locomotive repair.
- Building U-10 - Demilitarization Operations (formerly Box Repair Shop) – samples were collected to investigate potential contamination from former demilitarization operations.
- Building U-20 Incinerator – Samples were collected to investigate potential contamination from former activities, including incinerator operations.
- Building A-2 Motor Repair Building – Samples were collected to investigate potential contamination from a former motor repair facility.
- Building A-3 Service Garage/Tool Crib – Samples were collected to investigate potential contamination from a former service garage.
- Building EE-102, Bolton Barn – Samples were collected to investigate potential contamination from former tank maintenance activities.
- Paint Can Area (near Bolton Barn) – Samples were collected to investigation potential contamination associated with twelve buried paint cans identified during an underground storage tank removal project in 1991 and documented by a spill report.

The data validated in this report are part of the intrusive RI at RVAAP-76 conducted to assess and characterize the nature and extent of contamination, conduct an evaluation of the results in a pathway analysis, and present remedial alternatives for cleanup. The total sample counts, samples selected for data validation, and the field duplicates are presented in the tables below.

Table 24. Total sample count for RVAAP-76

Matrix	Primary Samples	Field Duplicates	Split Samples	Primary Sample Counts								
				Explosives	Propellants	PCBs	Pesticides	SVOCs	TPHs	VOCs/BTEX	Metals	Hexavalent Chromium
Soil	78	11	0	28	43	34	8	78	2	58	78	1
Sediment	4	1	0	4	4	4	--	4	--	--	4	--
Surface Water	2	1	0	2	2	2	--	--	--	--	--	--

Table 25. RVAAP-76 validated samples and methods

Sample ID	SDG	Matrix	Collected	Explosives	Propellants	PCBs	Pesticides	SVOCs	VOCs	Metals
076SD-0009-0001-SO	240-17317-1	sediment	11/6/2012	--	--	--	--	x	--	x
076SS-0020M-0001-SO	240-17422-1	soil	11/7/2012	x	x	x	x	x	x	x
076SB-0094-0001-SO	240-18544-1	soil	12/6/2012	--	--	--	--	x	x	x
076SB-0096-0001-SO	240-18544-1	soil	12/6/2012	--	--	--	--	x	--	x
076SB-0102M-0001-SO	240-18544-1	soil	12/6/2012	x	x	x	--	x	x	x
076SB-0114M-0001-SO	240-18544-1	soil	12/6/2012	x	--	--	--	x	x	x

Table 26. RVAAP-76 field duplicate samples

Duplicate Sample ID	Parent Sample
076SD-0010-0001-SO	076SD-0009-0001-SO
076SW-0014-0001-SW	076SW-0013-0001-SW
076SS-0021M-0001-SO	076SS-0020M-0001-SO
076SB-0093M-0001-SO	076SB-0092M-0001-SO
076SB-0095-0001-SO	076SB-0094-00010SO
076SB-0097-000SO	076SB-0096-0001-SO
076SB-0103M-0001-SO	076SB-0102M-0001-SO
076SB-0105M-0001-SO	076SB-0104M-0001-SO
076SB-0107M-0001-SO	076SB-0106M-0001-SO
076SB-0111M-0001-SO	076SB-0110M-0001-SO
076SB-0113M-0001-SO	076SB-0112M-0001-SO
076SB-0115M-0001-SO	076SB-0114M-0001-SO

8.1.1 Sample Collection

According to the laboratory Sample Receipt Forms, custody seals were not utilized; however, in reviewing the relinquished and receipt times, it appeared the samples were transferred to the laboratory by courier. Other than the items listed below, no sample collection issues were noted.

- Some properly made corrections to the chains-of-custody were initialed but not dated, and some were neither initialed nor dated.

- A few corrections were made by overwriting the original entries. Those were neither initialed nor dated.

8.1.2 Data Completeness

Data completeness for the project described in this report was found to be generally acceptable as no deliverables were missing from the SDGs reviewed.

8.1.3 Preservation and Holding Time Requirements

A portion of the samples were received at temperatures nominally below the 4 ±2^{o}C control limit; however, as the samples were not noted to be frozen or damaged, no qualifications were required. Holding times, as listed in Table 3, were met.

8.1.4 Detection Limit Requirements

LODs and DLs for nondetected analytes were compared against the most stringent CUGs listed in Tables 5-8, 5-9, and 5-10 of *Final Facility-Wide Human Health Cleanup Goals for the Ravenna Army Ammunition Plant* (2010) or the RSLs if no CUG was listed. Two thallium resultski had LODs and DLs that exceeded the CUGs. Results with DLs exceeding project criteria may be usable for their intended purposes; however, it is dependent on the final data user to make this determination on a case-by-case basis.

8.2 RVAAP-76 Data Quality Evaluation

This section summarizes the data quality of validated samples for each analytical method evaluated.

8.2.1 Explosives

A total of 28 primary soil samples and 4 soil field duplicate samples, 4 primary sediment samples and one sediment field duplicate sample, and 2 primary surface water samples and 1 field duplicate sample were analyzed by TA-West Sacramento for explosives by USEPA SW-846 Method 8330B. A total of 3 primary soil samples were validated at Level IV.

- MDL studies were not evaluated as part of this project.

- Calibration:

    - The primary column initial calibration average %RSDs for RDX and 2-nitrotoluene exceeded the control limit at 20% and 16%, respectively; therefore, the nondetected results for these compounds were qualified as estimated, “UJ,” in 076SB-0102M-0001-SO, 076SB-0114M-0001-SO, and 076SS-0020M-0001-SO. The qualified results were coded with a “C” qualification code. The remaining initial calibration average %RSDs

were within the control limits listed in DoD QSM Table F-3 of ≤15%, or the linear regression r^2 values were ≥0.990.

- The second source initial calibration verification standard recoveries were within the control limit listed in DoD QSM Table F-3 of ±20%.

- Some CCV %Ds exceeded the control limit; however, as they were associated with high recoveries and the target compounds were not detected in the site samples, no qualifications were applied. All other CCV %Ds were within the control limits listed in DoD QSM Table F-3 of ±20%.

- Although not required by the DoD QSM, an MRL standard at 3× the DL is required by the FWQAPP. Low-level MRL standards were analyzed in association with the validated samples and the results were within the reasonable control limits of 70-130%.

- Blanks: The method blank associated with the validated samples had no target compound detects above the control limit listed in DoD QSM Table F-3 of one-half the LOQ.

  Tetryl was detected on the confirmation column in the method blank in SDG 240-17422-1 at 0.0189 mg/Kg. This method blank was associated with sample 076SS-0020M-0001-SO in which tetryl was confirmed at 0.012 mg/Kg. As tetryl was not detected in the method blank on the primary column, the detect for tetryl in sample 076SS-0020M-0001-SO was not qualified.

- Laboratory Control Samples: Recoveries were within the control limits listed in DoD QSM Tables G-2 and G-13 and within the reasonable laboratory control limits for nitroglycerin (76-116%) and PETN (76-116%).

- Surrogate Recovery: As no surrogate control limit was listed in the DoD QSM, surrogate recoveries were assessed against the reasonable laboratory-established control limits of 78-118%. Recoveries were within the control limits.

- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on sample 076SS-0020M-0001-SO. The recoveries were within the control limits listed in DoD QSM Tables G-2 and G-13 and within the reasonable laboratory control limits for nitroglycerin (76-116%) and PETN (76-116%). The RPDs were within the control limit listed in DoD QSM Table F-3 of ≤20%.

- Compound Identification: Compound identification was verified for those samples validated at Level IV. Review of sample chromatograms and retention times indicated no problems with target compound identification.

  Confirmation analyses were performed. The intercolumn RPD for tetryl in sample 076SS-0020M-0001-SO was 109%; therefore, this detect was qualified as tentatively identified, "N," and coded with an "*III" qualification code.

- Compound Quantification and Reported Detection Limits: As no target compounds were detected in the samples validated at Level IV, compound quantification was verified for a portion of the LCS results. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.

  Confirmation analyses were performed. The intercolumn RPD for tetryl in sample 076SS-0020M-0001-SO exceeded the control limit listed in DoD QSM Table F-3 of ≤40%, at 109%; therefore, this detect was qualified as estimated, "J," and coded with an "*III" qualification code.

  Target compounds 2,4-dinitrotoluene, 2,6-dinitrotoluene, and nitrobenzene were reported by both Method 8330B and 8270C in sample 076SS-0020M-0001-SO, 076SB-0102M-0001-SO, 076SB-0114M-0001-SO. As there were no detects for these compounds; the reviewer chose to report the results with the lowest LODs; therefore, the 8330B results for these three compounds were rejected, "R," as duplicate data and coded with a "D" qualification code.

- System Performance: Review of the raw data indicated no problems with system performance.

- Manual Integrations: Some manual integrations were performed for the initial calibrations and low-level CCVs. All manual integrations were performed in order to report incompletely resolved peaks or to account for baseline anomalies and were deemed acceptable by the reviewer.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

  - Field Blanks and Equipment Rinsates: There was 1 field blank and 2 equipment rinsate samples collected in association with the samples in this field effort. There were no detects in these samples.

  - Field Duplicates: Four soil, one sediment and one surface water field duplicate samples were collected and analyzed for explosive compounds. The RPD criteria in FWQAPP Table 3-1 of ≤50% for soils and ≤30% for waters were only applied when results for common detects were ≥5× the LOQ. In cases where results were <5× the LOQ, the reasonable control limit of ± the LOQ was applied. All results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

8.2.2 Propellants

A total of 43 primary soil samples and 4 soil field duplicate samples, 4 primary sediment samples and one sediment field duplicate sample, and 2 primary surface water samples and 1

field duplicate sample were analyzed by TA-West Sacramento for nitroguanidine by USEPA SW-846 Method 8330 and for nitrocellulose by laboratory SOP WS-WC-0050. A total of 2 primary soil samples were validated at Level IV.

- MDL studies were not evaluated as part of this project.
- Calibration:
    - The nitroguanidine initial calibration average percent %RSD was within the control limit listed in DoD QSM Table F-2 of ≤20%. Nitrocellulose linear regression r values were within the control limit listed in the DoD QSM Table F-11 of ≥0.995.
    - The nitroguanidine second source ICV recovery was within the control limits listed in DoD QSM Table F-2 of 85-115%. The nitrocellulose ICV recovery was reported to be 187% in the ICV associated with 076SS-0020M-0001-SO; however, the ICV appeared to have been spiked at the usual 1 ppm level and was recovered at 102%, within the control limits listed in DoD QSM Table F-11 of 90-110%. The nitrocellulose ICV recovery associated with SDG 240-18544-1 was within the control limits.
    - The nitroguanidine CCV recoveries were within the control limits listed in DoD QSM Table F-2 of 85-115%. The nitrocellulose CCV recoveries were within the control limits listed in DoD QSM Table F-11 of 90-110%.
    - Although not required by the DoD QSM, an MRL standard at 3× the DL is required by the FWQAPP. MRL recoveries associated with the samples were within the reasonable control limits of 70-130%.
- Blanks: Nitrocellulose was detected in the method blank associated with 076SB-0102M-0001-SO, but not at sufficient concentration to qualify the sample. The method blanks had no other target compound detects above the control limits listed in DoD QSM Tables F-2 and F-11 of one-half the LOQ.
- Laboratory Control Samples: No nitroguanidine or nitrocellulose LCS control limits are listed in the DoD QSM; therefore, the laboratory control limits were used to assess the results. All nitroguanidine recoveries were within the control limits of 72-121% for soils. The nitrocellulose recoveries were within the laboratory-established control limits of 34-115% for soils.
- Surrogate Recovery: A surrogate was not required for the analysis of nitroguanidine or nitrocellulose.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on sample 076SS-0020M-0001-SO for both propellants. The recoveries were within the laboratory-established control limits of 72-121% for nitroguanidine and 34-115% for nitrocellulose. Both RPDs were ≤20%.

- Compound Identification: Compound identification was verified for the sample validated at Level IV. Review of the sample chromatograms and retention times indicated no problems with target compound identification.

  The sample chromatogram for 076SS-0020M-0001-SO had several large early eluting peaks and one large peak eluting very near the nitroguanidine retention time. The reviewer checked the MS/MSD for the sample and noted the nitroguanidine spike was completely resolved from this interferent peak.

- Compound Quantification and Reported Detection Limits: Compound quantification was verified for those samples validated at Level IV. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.

  Nitroguanidine was not detected in the validated samples; therefore, confirmation analyses were not required.

- System Performance: Review of the raw data indicated no problems with system performance.

- Manual Integrations: Some manual integrations were performed for nitroguanidine. The manual integrations were performed to correct baseline integration. The manual integrations were deemed acceptable by the reviewer.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

  - Field Blanks and Equipment Rinsates: There was 1 field blank and 2 equipment rinsate samples collected in association with the samples in this field effort. There were no detects in the field blank or equipment rinsate samples.

  - Field Duplicates: Four soil, one sediment, and one surface water field duplicate sample were collected and analyzed for propellants. The RPD criteria in FWQAPP Table 3-1 of ≤50% for soils and ≤30% for waters were only applied when results for common detects were ≥5× the LOQ. In cases where results were <5× the LOQ, the reasonable control limit of ± the LOQ was applied. All results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

8.2.3 Polychlorinated Biphenyls (PCBs)

A total of 34 primary soil samples and 5 soil field duplicate samples, 4 primary sediment samples, and 2 primary surface water samples and 1 field duplicate sample were analyzed by TA-North Canton for PCBs by USEPA SW-846 Method 8082. A total of 2 primary soil samples were validated at Level IV.

- MDL studies were not evaluated as part of this project.
- Calibration: Calibration criteria were met.
    - Initial calibration average %RSDs were within the control limit listed in the DoD QSM Table F-2 of ≤20%, or the correlation coefficients were ≤0.990.
    - The second source ICV recoveries were within the control limit listed in the DoD QSM Table F-2 of ±20% for all applicable Aroclors.
    - The CCV standard recoveries affecting sample results were within the control limit listed in the DoD QSM Table F-2 of ±20%. A few individual Aroclor peak %Ds exceeded the control limit; however, as they were associated with high recoveries, the nondetected sample results were not qualified.
    - MRL standard recoveries affecting sample results were within the reasonable control limit of ±30%. A few recoveries were nominally above the control limit; however, as there were no detects in the site samples, no qualifications were applied.
- Blanks: The method blank associated with the validated sample had no target compound detects above the control limit listed in the DoD QSM Table F-2, of one-half the LOQ for target compounds.
- Laboratory Control Samples: Recoveries for Aroclor 1016 and Aroclor 1260 were within the control limits listed in DoD QSM Table G-17.
- Surrogate Recovery: Recoveries were within the control limits listed in DoD QSM Table G-3 of 60-125%.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on 076SS-0020M-0001-SO. Recoveries for Aroclor 1016 and Aroclor 1260 were within the control limits listed in DoD QSM Table G-17. The RPDs were within the control limit listed in DoD QSM Table F-2 of ≤30%.
- Compound Identification: Compound identification was verified for the validated samples. Review of the sample chromatograms, standards, and retention times indicated no problems with target compound identification.
- Compound Quantification and Reported Detection Limits: Compound quantification was verified for the validated samples. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.
- System Performance: Review of the raw data indicated no problems with system performance.

- Manual Integrations: Some routine manual integrations were performed for the calibration and QC data associated with the sample data, primarily due poor baseline integration. All manual integrations reviewed were deemed appropriate by the reviewer.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

    - Field Blanks and Equipment Rinsates: There was 1 field blank and 1 equipment rinsate sample collected in association with sample 076SS-0020M-0001-SO. There were no detects in the field QC samples.

    - Field Duplicates: Five soil and one surface water field duplicate samples were collected and analyzed for PCBs. The RPD criteria in FWQAPP Table 3-1 of ≤50% for soils and ≤30% for waters were only applied when results for common detects were ≥5× the LOQ. In cases where results were <5× the LOQ, the reasonable control limit of ± the LOQ was applied. The results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

8.2.4 Pesticides

A total of 8 primary soil samples and one field duplicate were analyzed by TA-North Canton for pesticides by USEPA SW-846 Method 8081. A single primary soil sample was validated at Level IV.

- MDL studies were not evaluated as part of this project.

- Calibration: Calibration criteria listed in the DoD QSM Table F-2 were met with the exceptions noted below.

    - Initial calibration average %RSDs were within the control limit of ≤20%.

    - The performance evaluation mixture (PEM) %breakdown results were within the DoD QSM Table F-2 control limit of ≤15%.

    - The column used to report the sample results had a toxaphene peak %D of -34.0%. As the %D was associated with a low recovery, nondetected toxaphene in 076SS-0020M-0001-SO was qualified as estimated, “UJ.” The qualified result was coded with a “C” qualification code. The remaining second source ICV recoveries were within the control limit of ±20%.

    - The CCV standard recoveries were within the control limit of ±20%. A few compounds had %Ds that exceeded the control limit; however, as they were associated with high recoveries, the nondetected sample results were not qualified.

  - MRL standard recoveries were within the reasonable control limit of ±30%. A few recoveries were nominally above the control limit; however, as there were no detects in the site samples, no qualifications were applied.

- Blanks: The method blank associated with the validated sample had no target compound detects above the control limit listed in the DoD QSM Table F-2, of one-half the LOQ.

- Laboratory Control Samples: Recoveries were within the control limits listed in DoD QSM Table G-15. Toxaphene was not spiked in the LCS sample.

- Surrogate Recovery: Recoveries were within the control limits listed in DoD QSM Table G-3 of 60-125%.

- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on the sample, 076SS-0020M-0001-SO. The recoveries were within the control limits listed in DoD QSM Table G-15. The RPDs were within the control limit listed in DoD QSM Table F-2 of ≤30%. Toxaphene was not spiked in the MS/MSD samples.

- Compound Identification: Compound identification was verified for the validated sample. Review of the sample chromatograms, standards, and retention times indicated no problems with target compound identification.

- Compound Quantification and Reported Detection Limits: Compound quantification was verified for the validated sample. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.

- System Performance: Review of the raw data indicated no problems with system performance.

- Manual Integrations: Some routine manual integrations were performed for the calibration and QC data, primarily to resolve poor baseline integration. All manual integrations reviewed were deemed appropriate by the reviewer.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

  - Field Blanks and Equipment Rinsates: There was 1 field blank and 1 equipment rinsate sample collected in association with the pesticide sample. There were no detects in the field QC samples.

  - Field Duplicate Samples: One soil field duplicate sample was collected and analyzed for pesticides. The RPD criterion in FWQAPP Table 3-1 of ≤50% was only applied when results for common detects were ≥5× the LOQ. In cases where results were <5× the

LOQ, the reasonable control limit of ± the LOQ was applied. All results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

8.2.5 Semivolatile Organic Compounds (SVOCs)

A total of 78 primary soil samples and 11 soil field duplicate samples, 4 primary sediment samples and 1 field duplicate sample were analyzed by TA-North Canton for SVOCs by USEPA Method 8270C. A total of 5 primary soil samples and one sediment sample were validated at Level IV.

- MDL studies were not evaluated as part of this project.
- GC/MS Tuning: The DFTPP tunes met the method abundance criteria. The samples were analyzed within 12 hours of the DFTPP injection time.
- Calibration: Calibration criteria listed in the DoD QSM Table F-4 were met, with exceptions affecting sample results noted below.
    - Initial calibration average RRFs and ICV and CCV RRFs were within method control limits of ≥0.050. All initial calibration %RSDs were within the control limits of ≤30% for CCCs and ≤15% for remaining compounds, or linear regression r^2 values ≥0.990.
    - All second source ICV standard recoveries affecting retained sample data were within the control limit of ±20%, with the exception of the recovery of 79.5% for 4-bromophenyl phenyl ether in the ICV associated with sample 076SD-0009-0001-SO. The nondetected result for 4-bromophenyl phenyl ether was qualified as estimated, "UJ," in the affected sample and coded with a "C" qualification code.
    - Continuing calibration %Ds affecting retained sample data were within the control limit of ≤20%.
    - MRL standard recoveries were within the reasonable control limit of ±30%, with exceptions affecting sample data noted in the table below. The nondetected results for n-nitrosodiphenylamine were rejected, "R," in the affected samples and the remaining results listed in the table below, all nondetects, were qualified as estimated, "UJ." All qualified results were coded with a "C" qualification code.

Samples qualified for MRL %R outliers		
Analyte	**%R**	**Qualified Samples**
2,4-dinitrophenol	53%	076SD-0009-0001-SO
benzoic acid	63%	
hexachloroethane	58%	
pentachlorophenol	61%	
n-nitrosodiphenylamine	**0%**	076SD-0102M-0001-SO 076SD-0114M-0001-SO

- Blanks: The method blank associated with validated sample 076SS-0020M-0001-SO had detects below the LOQ for bis(2-ethylhexyl)phthalate at 19.8(J) µg/Kg and diethyl phthalate at 27.7(J) µg/Kg. Results for both phthalates in the associated sample were qualified as nondetected, "U," at the level of contamination. The method blanks associated 076SB-0094-001-SO, 076SB-0096-001-SO, 076SB-0102M-0001-SO, and 076SB-0114M-0001-SO had detects below the LOQ for bis(2-ethylhexyl)phthalate at 30.9(J) µg/Kg and 21.2(J) µg/Kg. Results for bis(2-ethylhexyl)phthalate were qualified as nondetected, "U," at the LOD in the affected samples. All qualified results were coded with a "B" qualification code. The method blanks had no other target compound detects above the control limits listed in DoD QSM Table F-4 of one-half the LOQ for target compounds, and no common laboratory contaminants detected above the LOQ.

- Laboratory Control Samples: All LCS recoveries were within the control limits listed in DoD QSM Tables G-2 (poor performers) and G-7. The reviewer noted hexachlorocyclopentadiene was not spiked in the LCS.

- Surrogate Recovery: All surrogate recoveries were within the control limits listed in the DoD QSM Tables G-2 (poor performers) or G-3.

- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on validated samples 076SD-0009-0001-SO and 076SS-0020M-0001-SO. As the spiking level was below the DL for benzoic acid, it was reported as "NC" (not calculated); however, the reviewer-calculated recoveries and RPDs from the MS/MSD concentrations in the raw data were within the control limits. Qualifications were not assigned if recoveries were not out of control limits in both the MS and MSD. Bolded results listed in the table below were rejected, "R," for recoveries of 0%. Remaining results were qualified as estimated, "J," for detects, or "UJ," for nondetects in the parent sample. All qualified results were coded with a "Q" qualification code. All RPDs were within the control limit of ≤30% listed in DoD QSM Table F-4.

Samples Qualified for MS/MSD Recovery Outliers			
Analyte	**% Recoveries**	**Limits**	**Qualified Parent Sample**
3,3'-dichlorobenzidine	**0% / 0%**	10-130%	076SD-0009-0001-SO
3-nitroaniline	**0% / 0%**	25-110%	
4-chloroaniline	3% / 3%	10-95%	
4-nitroaniline	**0% / 0%**	35-115%	
benzo(g,h,i)perylene	32% / 35%	40-125%	
hexachloroethane	19% / 21%	35-110%	
3,3'-dichlorobenzidine	**0% / 0%**	10-130%	076SS-0020M-0001-SO
3-nitroaniline	**8% / 12%**	25-110%	
4-chloroaniline	5% / 7%	10-95%	
4-nitroaniline	19% / 23%	35-115%	

- Internal Standards Performance: The internal standard retention times and area counts were within the DoD QSM Table F-4 control limits established by the midpoint initial

calibration standard: ±30 seconds for retention times and -50% / +100% for internal standard areas.

- Compound Identification: Compound identification was verified for the samples validated at Level IV. Review of the sample chromatograms, retention times, and spectra indicated no problems with target compound identification.

- Compound Quantification and Reported Detection Limits: Compound quantification was verified for the samples validated at Level IV. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J," by the laboratory. Reported nondetects are valid to the LOD. The samples had a 2-ml final extract volume, resulting in an effective 2× dilution. No further dilutions were required.

- System Performance: Review of the raw data indicated no problems with system performance.

- Manual Integrations: Some routine manual integrations were performed for the samples, and for calibration and QC data associated with the sample data, primarily to correct for peaks missed or incorrectly chosen by the data system, or to correct for poor baseline integration. All manual integrations reviewed were deemed appropriate by the reviewer.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

    - Field Blanks and Equipment Rinsates: There was 1 field blank and 1 equipment rinsate associated with validated sample 076SS-0020M-0001-SO. The field blank and equipment rinsate had no target compound detects. The validated subsurface soil samples had no associated field QC samples.

    - Field Duplicate Samples: Eleven soil and one sediment field duplicate samples were collected and analyzed for SVOCs. The RPD criteria in FWQAPP Table 3-1 of ≤50% for soils and ≤30% for waters were only applied when results for common detects were ≥5× the LOQ. In cases where results were <5× the LOQ, the reasonable control limit of ± the LOQ was applied. Except as noted below, the results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

SVOC field duplicate outliers				
Primary Sample	**Field Duplicate**	**Analyte**	**RPD**	**W/In LOQ**
076SB-0110M-0001-SO	076SB-0111M-0001-SO	Pyrene	86	N/A
		Anthracene	N/A	No
		Benzo(a)anthracene	N/A	No
		Chrysene	N/A	No
		Fluoranthene	N/A	No
		Phenanthrene	N/A	No
076SB-0112M-0001-SO	076SB-0113M-0001-SO	Fluoranthene	N/A	No
		Phenanthrene	N/A	No
		Pyrene	N/A	No
		Benzo(a)anthracene	N/A	No
		Benzo()pyrene	N/A	No
		Benzo(g,h,i)perylene	N/A	No
		Benzo(k)fluoranthene	N/A	No
		Chrysene	N/A	No
076SD-0009-0001-SO	076SD-0010-0001-SO	2-Methynaphthalene	N/A	No
		Benzo(g,h,i)perylene	N/A	No
		Benzo(k)fluoranthene	N/A	No
		Naphthalene	N/A	No
076SS-0020M-0001-SO	076SS-0021-0001-SO	Chrysene	N/A	No
		Fluoranthene	N/A	No

8.2.6 Volatile Organic Compounds (VOCs)

A total of 58 primary soil samples and 10 field duplicate samples were analyzed by TA-North Canton for volatile compounds by USEPA Method 8260B. A total of 4 primary soil samples were validated at Level IV.

- MDL studies were not evaluated as part of this project.
- GC/MS Tuning: The BFB tunes met the method abundance criteria. The samples were analyzed within 12 hours of the BFB injection time.
- Calibration: Calibration criteria listed in DoD QSM Table F-4 were met, with exceptions noted below.
    - Initial calibration average RRFs and ICV and CCV RRFs were within the control limits of ≥0.30 for chlorobenzene and 1,1,2,2-tetrachloroethane, and ≥0.10 for chloromethane, bromoform, and 1,1-dichloroethane.
    - All initial calibration %RSDs were within the method control limits of ≤30% for the CCCs and ≤15% for remaining compounds, or linear regression r^2 values ≥0.990.
    - All second source initial calibration verification standard recoveries were within the control limit of ±20%.
    - Continuing calibration %Ds affecting validated sample data were within the method control limit of ≤20%.

- MRL standard recoveries affecting sample data were within the reasonable control limit of ±30%, with exceptions listed in the table below. The sample results, all nondetects, were qualified as estimated, "UJ," and coded with a "C" qualification code.

Samples qualified for MRL recovery outliers		
Analyte	**% Recovery**	**Qualified Sample(s)**
2-hexanone	63%	076SB-0094M-0001-SO
methyl isobutyl ketone	69%	076SB-0102M-0001-SO

- Blanks: The method blanks associated with the validated samples had no target compound detects above the control limits listed in DoD QSM Table F-4 of one-half the LOQ, and no common laboratory contaminants detected above the LOQ. Acetone was detected below the LOQ at 6.4(J) µg/Kg in the method blank associated with sample 076SS-0020M-0001-SO; therefore, the result for acetone (26 µg/Kg) in the sample was qualified as nondetected, "U," at the level of contamination, since the result was above the LOD of 7.3 µg/Kg. The qualified result was coded with a "B" qualification code.

  The method blanks associated with the remaining samples had detects below the LOQ for 2-hexanone, acetone, and methylene chloride; however, the associated samples had no detects for the method blank contaminants, and required no qualification.

- Laboratory Control Samples: LCS recoveries were within the control limits listed in DoD QSM Table G-4.

- Surrogate Recovery: Surrogate recoveries affecting sample data were within the control limits listed in DoD QSM Table G-3, with the exception of BFB recovered below the control limits of 85-120% at 81% in sample 076SB-0094M-0001-SO. The sample was reanalyzed, with similar results, indicating a matrix effect on the surrogate. Results were qualified as estimated, "J," for detects, and "UJ," for nondetects. The qualified results were coded with an "S" qualification code.

- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on sample 076SS-0020M-0001-SO. The MSD had recoveries marginally below the control limits of 75-125% for chlorobenzene (69%), ethylbenzene (71%), styrene (67%), and total xylenes (69%); however, qualifications were not assigned if recoveries were not out of control limits in both the MS and MSD. The remaining recoveries were within the control limits listed in DoD QSM Table G-5. All RPDs were within the control limit listed in DoD QSM Table F-4.

- Internal Standards Performance: The internal standard area counts and retention times were within DoD QSM Table F-4 control limits established by the midpoint initial calibration standard: ±30 seconds for retention times and -50% / +100% for internal standard areas.

- Compound Identification: Compound identification was verified for the validated samples. Review of the sample chromatograms, retention times, and spectra indicated no problems with target compound identification.

- Compound Quantification and Reported Detection Limits: Compound quantification was verified for the samples validated at Level IV. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J," by the laboratory. Reported nondetects are valid to the LOD.

- System Performance: Review of the raw data indicated no problems with system performance.

- Manual integrations: Manual integrations were not performed for the validated samples or for associated calibration and QC samples.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

    - Trip Blanks: The trip blanks associated with the validated samples in this SDG had no reportable detects affecting sample results.

    - Field Blanks and Equipment Rinsates: There was 1 field blank and 1 equipment rinsate associated with validated sample 076SS-0020M-0001-SO. The field blank had detects below the LOQ for acetone, bromodichloromethane, toluene, dibromochloromethane, 2-butanone, and chloroform, and the equipment rinsate also had a detect below the LOQ for chloroform; however, none of the field QC contaminants were present or reportable in the validated site sample. The validated subsurface soil sample had no associated field QC samples.

    - Field Duplicate Samples: Ten field duplicate samples were collected and analyzed for VOCs. The RPD criterion in FWQAPP Table 3-1 of ≤50% was only applied when results for common detects were ≥5× the LOQ. In cases where results were <5× the LOQ, the reasonable control limit of ± the LOQ was applied. Except as noted below, the results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

VOCs field duplicate outliers				
Primary Sample	**Field Duplicate**	**Analyte**	**RPD**	**W/In LOQ**
076SS-0020M-0001-SO	076SS-0020M-0001-SO	Acetone	N/A	No

8.2.7 Metals

A total of 78 primary soil samples and 11 soil field duplicate samples, 4 primary sediment samples and 1 field duplicate sample were analyzed by TA-North Canton for various metals by USEPA Methods 6020 and 7470A/7471A. A total of 5 primary soil samples and one sediment sample were validated at Level IV.

- MDL studies were not evaluated as part of this project.

- Calibration: Except as noted below, calibration criteria were met.

  - As per DoD QSM Table F-8, the mass calibrations were ≤0.1 amu of the true values and the resolutions were <0.9 amu at full width at 10% peak height. Except as noted below, the %RSDs were within the control limit listed in the DoD QSM Table F-8 of ≤5%. The detected results listed in the table below were qualified as estimated, "J," and were coded with an "M" qualification code.

Samples qualified for tune %RSD outliers		
Analyte	**%RSD**	**Qualified Samples**
^{78}Selenium	20.43%	076SD-0009-0001-SO
	11.59%	076SS-0020M-0001-SO
^{137}Barium	19.32%	076SB-0094-0001-SO, 076SB-0096-0001-SO, 076SB-0102M-0001-SO
	19.30%	076SB-0114M-0001-SO
^{138}Barium	7.81%	076SB-0094-0001-SO, 076SB-0096-0001-SO, 076SB-0102M-0001-SO
	6.88%	076SB-0114M-0001-SO

  - Initial calibration: Linear regression correlation coefficients were within the control limit listed in the DoD QSM Tables F-7 and F-8 of ≥0.995.

  - The ICPMS ICV and CCV recoveries were within the control limits listed in DoD QSM Table F-8 of 90-110%. The mercury ICV and CCV recoveries were within the control limits listed in DoD QSM Table F-7 of 90-110% and 80-120%, respectively.

  - CRI/MRL recoveries affecting sample results were within the control limits listed in DoD QSM Tables F-7 and F-8 of 80-120%, with one exception. A thallium recovery was above the control limit at 121%; therefore, thallium detected in 076SS-0020M-0001-SO was qualified as estimated with potential positive bias, "J+," and coded with a "C" qualification code.

- Blanks: Except as noted below, method blanks had no applicable detects above the control limits listed in DoD QSM Tables F-7 and F-8 of one-half the LOQ or greater than one-tenth the amount measured in any sample. CCBs had no detects, affecting sample results, above the control limit listed in DoD QSM Tables F-7 and F-8 of greater than the LOD.

  Mercury was detected in two method blanks at 0.027 and 0.0276 mg/kg; therefore, as mercury detected in 076SD-0009-0001-SO and 76SS-0020M-0001-SO was qualified as nondetected, "U," at the levels of contamination. The qualified results were coded with a "B" qualification code.

- Interference Check Samples: ICPMS ICSA and ICSAB recoveries were within the control limits listed in DoD QSM Table F-8 of 80-120%. There were no analytes affecting sample results detected in the ICSA above the control limit listed in DoD QSM Table F-8 of >LOD.

- Laboratory Control Samples: The recoveries were within the control limits listed in DoD QSM Table G-19 of 80-120%.

- Laboratory Duplicates: Laboratory duplicate analyses were performed on 068SS-0003M-0001-SO, 076SD-0009-0001-SO, 076SS-0020M-0001-SO, 073SS-0003M-0001-SO, 068SD-0009-0001-SO, 076SW-0013-0001-SW, 072SB-0063-0001-SO, 076SB-0090M-0001-SO, 076SB-0091M-0001-SO and 076SB-0100M-0001-SO for all analytes. There was also a duplicate performed on 075TR-0002-0001-SO for mercury. Except as listed below, RPDs were within the control limits listed in DoD QSM Tables F-7 and F-8 of ≤20%. RPDs were only assessed for common detects ≥5× the LOQ. In cases where results were <5× the LOQ, the reasonable control limit of ± the LOQ was applied. Results listed below were qualified as estimated, "J," for detects and, "UJ," for nondetects. The qualified results were coded with an "E" qualification code.

Samples qualified for laboratory duplicate outliers			
Parent sample	**Analyte**	**RPD**	**Qualified samples**
076SD-0009-0001-SO	Chromium	23%	076SD-0009-0001-SO
072SB-0063-0001-SO	Manganese	36%	076SB-0094-0001-SO, 076SB-0096-0001-SO, 076SB-0102M-0001-SO, 076SB-0114M-0001-SO
076SB-0090M-0001-SO	Lead	24%	

- Matrix Spike/Matrix Spike Duplicate: Matrix spike analyses were performed on 068SS-0003M-0001-SO, 076SD-0009-0001-SO, 076SS-0020M-0001-SO, 073SS-0003M-0001-SO, 068SD-0009-0001-SO, 076SW-0013-0001-SW, 072SB-0063-0001-SO, 076SB-0090M-0001-SO, 076SB-0091M-0001-SO and 076SB-0100M-0001-SO for all analytes. There was also a matrix spike performed on 075TR-0002-0001-SO for mercury. Except as noted below, recoveries were within the control limits listed in DoD QSM Table G-19 of 80-120%. Matrix spike control limits were not applied when the native sample concentration exceeded the spiked amount by a factor of four or more.

  The *National Functional Guidelines* calls for the estimation of nondetected data associated with matrix spike recoveries less than 30% and acceptable post digestion spike recoveries. However, it was the reviewer's professional judgment that the poor antimony recoveries observed for this and other CR Sites was a systemic problem associated with the sample digestion. Therefore, nondetected antimony in 076SD-0009-0001-SO, which was associated with recoveries below 30%, was rejected, "R."

  The remaining results listed in the table below, all detects, were qualified as estimated, "J," and coded with a "Q" qualification code. When no other qualifications with conflicting bias were assigned to a result, detected results with low recoveries were assigned a negative

bias, "J-," and detected results with high recoveries were assigned a positive bias, "J+." As per the *National Functional Guidelines*, all samples in the SDG were qualified.

Samples qualified for matrix spike recovery outliers			
Parent Sample	**Analyte**	**%R**	**Sample qualified**
076SD-0009-0001-SO	antimony	30%	076SD-0009-0001-SO
	calcium	143%	
	nickel	71%	
	potassium	128%	
	vanadium	122%	
076SS-0020M-0001-SO	antimony	25%	076SS-0020M-0001-SO
	arsenic	70%	
	selenium	71%	
072SB-0063-0001-SO	silver	39%	076SB-0094-0001-SO, 076SB-0096-0001-SO, 076SB-0102M-0001-SO, 076SB-0114M-0001-SO
	arsenic	0%	
	calcium	193%	
	cadmium	60%	
	chromium	79%	
	cobalt	52%	
	copper	16%	
	nickel	39%	
	antimony	28%	
	potassium	70%	
	selenium	25%	
076SB-0090M-0001-SO	arsenic	78%	
	antimony	25%	
	selenium	71%	
076SB-0091M-0001-SO	antimony	26%	
	selenium	71%	
076SB-0100M-0001-SO	beryllium	79%	
	antimony	19%	
	potassium	74%	
	selenium	72%	

All post digestion spike recoveries were within the control limits listed in DoD QSM Table F-8 of 75-125%.

- Serial Dilution: Serial dilution analyses were performed on 076SS-0020M-0001-SO, 076SW-0013-0001-SW, 072SB-0063-0001-SO, 076SB-0090M-0001-SO, 076SB-0091M-0001-SO and 076SB-0100M-0001-SO. A %D for zinc associated with samples 076SB-0094-0001-SO, 076SB-0096-0001-SO, 076SB-0102M-0001-SO and 076SB-0114M-0001-SO exceeded the control limit at 11%; therefore, the zinc detected in the samples was qualified as estimated, "J," and coded with an "A" qualification code. All remaining serial dilution %Ds were within the control limits listed in DoD QSM Table F-8 of ≤10%. The serial dilution control limit is only applicable when the original sample concentration is minimally ≥50× the LOQ.

- Internal Standards: All ICPMS sample internal standards intensities were within 30-120% of those in the ICV, as per the DoD QSM Table F-8. Yttrium (^{89}Y) was spiked into the QC samples but not samples 076SB-0094-0001-SO, 076SB-0096-0001-SO, 076SB-0102M-0001-SO and 076SB-0114M-0001-SO.

- Sample Result Verification: For Level IV validation, calculations were verified and the sample result reported on the sample result summary was verified against the raw data. Antimony, barium, lead and thallium were reported from 5× dilutions in sample 076SD-0009-0001-SO. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.

  Due to instrument limitations, the mercury raw data did not list the sample absorbances; therefore, the reviewer was not able to calculate the sample results from the raw data. Additionally, the ICPMS raw data did not list absorbances for the ICV, CCV, ICSAB, and MRL samples, and the %R was listed instead of the sample concentrations.

- Manual Integrations: No manual integrations were noted in the mercury analyses.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

  - Field Blanks and Equipment Rinsates: There was 1 field blank and 1 equipment rinsate associated with validated sample 076SS-0020M-0001-SO. Except as noted below, there were no detects affecting sample results found in the field QC samples. Analytes listed in the table below were qualified as nondetected, "U," at the level of contamination if detected above the LOD or at the LOD if detected below. The qualified results were coded with an "F" qualification code.

Samples qualified for field QC detects			
Parent sample	**Analyte**	**Detect (µg/L)**	**Qualified sample**
070-0057-0001-Source Water	Sodium	1600	076SS-0020M-0001-SO
076-0067-0001-ER	Thallium	0.75	

  - Field Duplicate Samples: Eleven soil, one sediment, and one surface water field duplicate samples were collected and analyzed for metals. The RPD criteria in FWQAPP Table 3-1 of ≤50% for soils and ≤30% for waters were only applied when results for common detects were ≥5× the LOQ. In cases where results were <5× the LOQ, the reasonable control limit of ± the LOQ was applied. Except as noted below, the results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

Metals field duplicate outliers				
Primary Sample	**Field Duplicate**	**Analyte**	**RPD**	**W/In LOQ**
076SD-0009-0001-SO	076SD-0010-0001-SO	Chromium	55	N/A

8.3 Data Usability

According to the Draft Site Inspection Report prepared by ECC, the field completeness was 100%.

Ten data points were rejected for poor calibration standard recoveries or poor MS/MSD recoveries. In instances where a data point had multiple results, the reviewer chose the most technically sound result to report and rejected the remaining data points. Those data points, rejected in order to choose the most technically sound result, do not affect data quality or usability and are not included in the table below. Data with LODs that exceeded the established criteria and data estimated for quality control outliers or for detects between the DL and the LOQ were included in the table below for informational purposes only.

Table 27. Analytical completeness for RVAAP-76 validated primary data

			Number of Results					
Analysis	**Samples Analyzed**	**Analytes per Sample**	**Total**	**Rejected**	**LODs/DLs Exceeding Criteria**	**Estimated for QC Outliers**	**Estimated for Detects <LOQ**	**Percent Complete**
Explosives*	3	16	39	0	0/0	5	1	100%
Nitroguanidine	1	1	1	0	0/0	0	0	100%
Nitrocellulose	1	1	1	0	0/0	0	0	100%
PCBs	2	7	14	0	0/0	0	0	100%
Pesticides	1	21	21	0	0/0	1	0	100%
VOCs	4	47	141	0	0/0	38	3	100%
SVOCs	6	66	396	9	0/0	13	12	97.7%
Metals	6	23	138	1	2/0	78	25	99.3%
		Totals	**751**	**10**	**2/0**	**135**	**41**	**98.7%**

*Total analyte count affected by data rejected as duplicate.

The analytical completeness goal for the project established in the FWQAPP was 90% for each method. The completeness goal was met for all analyses.

8.4 Primary and Field Duplicate Comparison Summary

Primary and field duplicate sample comparisons were considered to be in good agreement as only 1.5% of the field duplicate pair results were above the FWQAPP control limits of ≤50% for soils, ≤30% for waters, or +/- the LOQ for results below 5× the LOQ. Rejected results are not listed in the table below.

Most of the outliers were SVOCs. All comparison results are presented in Appendix C.

Table 28. RVAAP-76 primary/field duplicate sample comparison summary

Method	Primary/Field Duplicate Pairs	Number of Analytes	Total Analytes	Number of results within control limits	Number of results above control limit
Explosives	6	16	90	90	0
Nitroguanidine	6	1	6	6	0
Nitrocellulose	6	1	6	6	0
PCBs	6	7	42	42	0
Pesticides	1	21	21	21	0
VOCs	10	34	337	336	1
SVOCs	11	66	717	322	20
Metals	11	23	253	252	1

8.5 Specific Data Concerns

Specific concerns regarding the data are noted below:

- Due to instrument limitations, the mercury raw data did not list the sample absorbances; therefore, the reviewer was not able to calculate the sample results from the raw data. Additionally, the ICPMS raw data did not list absorbances for the ICV, CCV, ICSAB, and MRL samples, and the %R was listed instead of the sample concentrations.

In order to avoid repetition of the issues noted above, the following actions should be taken:

- MEC^X recommends the laboratory be requested to alter the IPCMS and mercury instrument set up in order to report mercury and ICPMS raw absorbances and ICPMS ICV, CCV, ICSAB, and MRL concentrations.

.

9 QUARRY POND SURFACE DUMP, RVAAP-78

9.1 Current Investigation

ECC completed an RI at the Quarry Pond Surface Dump (RVAAP-78). The work was performed in accordance with the *Site Inspection and Remedial Investigation Work Plan* (ECC 2012) and the *Facility-Wide Sampling and Analysis Plan* (SAIC 2011).

RVAAP-78 consists of three debris piles located at the bases of steep rocky slopes. Debris Pile A is approximately 425 feet in length varying in surface width from 18 to 68 feet and consists of construction debris, scrap metal, cultural debris, and asbestos-containing materials. Debris Pile B is smaller, at approximately 296 feet in length and 24 feet wide. A rusted 55-gallon drum and an apparent burn area (approximately 20 feet by 20 feet) are located within Debris Pile B. Debris Pile C is approximately 120 feet by 45 feet. This pile is suspected to contain asbestos-containing material, construction debris, scrap metal, and unidentified materials. A second rusted 55-gallon drum was located within this area.

The data validated in this report are part of the intrusive RI at RVAAP-78 conducted to assess the potential presence of contamination. The total sample counts, samples selected for data validation, and the field duplicates are presented in the tables below.

Table 29. Total sample count for RVAAP-78

Matrix	Primary Samples	Field Duplicates	Split Samples	Primary Sample Counts						
				Explosives	Propellants	PCBs	Pesticides	SVOCs	VOCs	Metals
Soil	34	3	3	5	29	29	5	29	25	29

Table 30. RVAAP-78 validated samples and methods

Sample ID	SDG	Matrix	Collected	Explosives	Propellants	PCBs	Pesticides	SVOCs	VOCs	Metals
078SB-0008M-0001-SO	240-22559-1	Soil	3/26/2013	--	--	x	--	x	x	x
078SB-0016M-0001-SO	240-22559-1	Soil	3/26/2013	x	x	x	x	x	x	x

Table 31. RVAAP-78 field duplicate samples

Duplicate Sample ID	Parent Sample
078SB-0009M-0001-SO	078SB-0056M-0001-SO
078SB-0018M-0001-SO	078SB-0017M-0001-SO
078SB-0026M-0001-SO	078SB-0025M-0001-SO

9.1.1 Sample Collection

Corrections were made to the chains-of-custody by obliterating the original entry. The corrections were not initialed or dated. The chains-of-custody were appropriately signed and dated by field and laboratory personnel. According to the laboratory Sample Receipt Form, custody seals were not utilized; however, in reviewing the relinquished and receipt times, it appeared the samples were transferred to the laboratory by courier. No other sample collection issues were noted.

9.1.2 Data Completeness

Data completeness for the project described in this report was found to be generally acceptable as no deliverables were missing from the SDGs reviewed.

9.1.3 Preservation and Holding Time Requirements

A portion of the samples were received at temperatures nominally below the 4 ±2^{o}C control limit; however, as the samples were not noted to be frozen or damaged, no qualifications were required. All remaining method preservation requirements were met. Holding times, as listed in Table 3, were met.

9.1.4 Detection Limit Requirements

LODs and DLs for nondetected analytes were compared against the most stringent CUGs listed in Tables 5-8, 5-9, and 5-10 of *Final Facility-Wide Human Health Cleanup Goals for the Ravenna Army Ammunition Plant* (2010) or the RSLs if no CUG was listed. No results exceeded the project criteria.

9.2 RVAAP-78 Data Quality Evaluation

This section summarizes the data quality of validated samples for each analytical method evaluated.

9.2.1 Explosives

A total of 5 primary soil samples were analyzed by TA-West Sacramento for explosives by USEPA SW-846 Methods 8330 and 8330B. A single primary soil sample was validated at Level IV.

- MDL studies were not evaluated as part of this project.
- Calibration:
    - The initial calibration average %RSDs were within the control limits listed in DoD QSM Table F-3 of ≤15%, or the linear regression r^2 values were ≥0.990.
    - The second source ICV standard recoveries were within the control limit listed in DoD QSM Table F-3 of ±20%.

  - The CCV standard %Ds were within the control limits listed in DoD QSM Table F-3 of ±20%.

  - Although not required by the DoD QSM, an MRL standard of 3× the DL is required by the FWQAPP. Low-level MRL standards were analyzed in association with the validated sample and the results were within the reasonable control limits of 70-130%.

- Blanks: The method blank associated with the validated sample had no target compound detects above the control limit listed in DoD QSM Table F-3 of one-half the LOQ.

- Laboratory Control Samples: Recoveries were within the control limits listed in DoD QSM Tables G-2 and G-13 and within the reasonable laboratory control limits for nitroglycerin (76-116%) and PETN (76-116%).

- Surrogate Recovery: As no surrogate control limit was listed in the DoD QSM, surrogate recoveries were assessed against the reasonable laboratory-established control limits of 78-118%. Recoveries were within the control limits.

- Matrix Spike/Matrix Spike Duplicate: No MS/MSD analyses were performed on the validated sample. Method accuracy was evaluated based on LCS results.

- Compound Identification: Compound identification was verified for the sample validated at Level IV. Review of sample chromatograms and retention times indicated no problems with target compound identification.

- Compound Quantification and Reported Detection Limits: As no target compounds were detected in the sample validated at Level IV, compound quantification was verified for a portion of the LCS results. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.

  As no target compounds were detected on the primary column, a confirmation analysis was not performed.

  Target compounds 2,4-dinitrotoluene, 2,6-dinitrotoluene, and nitrobenzene were reported by both Method 8330B and 8270C in sample 078SB-0016M-0001-SO. As there were no detects for these compounds, the reviewer chose to report the results with the lowest LODs. The 8330B results for all three compounds were rejected, "R," as duplicate data and coded with a "D" qualification code.

- System Performance: Review of the raw data indicated no problems with system performance.

- Manual Integrations: Some manual integrations were performed. All manual integrations were performed in order to report incompletely resolved peaks or to account for baseline anomalies and were deemed acceptable by the reviewer.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

    - Field Blanks and Equipment Rinsates: There were no field QC samples associated with the validated sample.

    - Field Duplicates: No field duplicate samples were collected for explosive compounds.

9.2.2 Propellants

A total of 29 primary soil samples and 2 field duplicate sample were analyzed by TA-West Sacramento for nitroguanidine by USEPA SW-846 Method 8330 and for nitrocellulose by laboratory SOP WS-WC-0050. A single primary soil sample was validated at Level IV.

- MDL studies were not evaluated as part of this project.

- Calibration:

    - The nitroguanidine initial calibration average percent %RSD was within the control limit listed in DoD QSM Table F-2 of ≤20%. The nitrocellulose linear regression correlation coefficient was within the control limit listed in the DoD QSM Table F-11 of ≥0.995.

    - The nitroguanidine second source ICV recovery was within the control limits listed in DoD QSM Table F-2 of 85-115%. The nitrocellulose ICV recovery was within the control limits listed in DoD QSM Table F-11 of 90-110%.

    - The nitroguanidine CCV recoveries were within the control limits listed in DoD QSM Table F-2 of 85-115%. The nitrocellulose CCV recoveries were within the control limits listed in DoD QSM Table F-11 of 90-110%.

    - Although not required by the DoD QSM, an MRL standard of 3× the DL is required by the FWQAPP. MRL recoveries associated with the sample were within the reasonable control limits of 70-130%.

- Blanks: The method blanks had no target compound detects above the control limits listed in DoD QSM Tables F-2 and F-11 of one-half the LOQ.

- Laboratory Control Samples: No nitroguanidine or nitrocellulose LCS control limits are listed in the DoD QSM; therefore, the laboratory control limits were used to assess the results. The nitroguanidine recovery was within the control limits of 72-121% and the nitrocellulose recovery was within the laboratory-established control limits of 34-115%.

- Surrogate Recovery: A surrogate was not required for the analysis of nitroguanidine or nitrocellulose.

- Matrix Spike/Matrix Spike Duplicate: No MS/MSD analyses were performed on the validated sample. Method accuracy was evaluated based on LCS results.

- Compound Identification: Compound identification was verified for the sample validated at Level IV. Review of the sample chromatograms and retention times indicated no problems with target compound identification.

- Compound Quantification and Reported Detection Limits: Compound quantification was verified for the sample validated at Level IV. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.

  Nitroguanidine was not detected in the validated sample; therefore, confirmation analysis was not required.

- System Performance: Review of the raw data indicated no problems with system performance.

- Manual Integrations: Some manual integrations were performed for nitroguanidine. The manual integrations were performed to correct baseline integration. The manual integrations were deemed acceptable by the reviewer.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

  - Field Blanks and Equipment Rinsates: There were no field QC samples associated with the validated sample.

  - Field Duplicates: Two field duplicate samples were collected and analyzed for nitroguanidine and nitrocellulose. The RPD criterion in FWQAPP Table 3-1 of ≤50% for soil samples and Table 3-2 of ≤30% for aqueous samples was only applied when results for common detects were ≥5× the LOQ. In cases where results were <5× the LOQ, the reasonable control limit of ± the LOQ was applied. All results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

9.2.3 Polychlorinated Biphenyls (PCBs)

A total of 29 primary soil samples and 2 field duplicate samples were analyzed by TA-North Canton for PCBs by USEPA SW-846 Method 8082. A total of 2 primary soil samples were validated at Level IV.

- MDL studies were not evaluated as part of this project.

- Calibration: Calibration criteria were met, with the exception noted below.

- Initial calibration average %RSDs were within the control limit listed in the DoD QSM Table F-2 of ≤20%, or the correlation coefficients were ≤0.990.

- The second source ICV recoveries were within the control limit listed in the DoD QSM Table F-2 of ±20% for all applicable Aroclors, with the exception of Aroclor 1221 in the ICV associated with sample 078SB-0008M-0001-SO. One of three peaks for Aroclor 1221 on the CLP-1 column was missed by the data system due to coelution, and was not manually integrated. The CLP-2 column ICV for Aroclor 1221 was acceptable. The nondetected result for Aroclor 1221 in sample 078SB-0008M-0001-SO was qualified as estimated, "UJ," and coded with a "C" qualification code.

- The CCV standard recoveries affecting sample results were within the control limit listed in the DoD QSM Table F-2 of ±20%. A few individual Aroclor peak %Ds exceeded the control limit; however, as they were associated with high recoveries, the nondetected sample results were not qualified.

- MRL standard recoveries affecting sample results were within the reasonable control limit of ±30%. A few recoveries were nominally above the control limit; however, as there were no detects in the site samples, no qualifications were applied.

- Blanks: The method blank associated with the validated samples had no target compound detects above the control limit listed in the DoD QSM Table F-2, of one-half the LOQ for target compounds.

- Laboratory Control Samples: Recoveries for Aroclor 1016 and Aroclor 1260 were within the control limits listed in DoD QSM Table G-17.

- Surrogate Recovery: Recoveries were within the control limits listed in DoD QSM Table G-3 of 60-125%.

- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were not performed on a validated sample. Evaluation of method accuracy was based on the LCS results.

- Compound Identification: Compound identification was verified for the validated samples. Review of the sample chromatograms, standards, and retention times indicated no problems with target compound identification. The samples were analyzed on two analytical columns; however, the samples had no Aroclor detects.

- Compound Quantification and Reported Detection Limits: Compound quantification was verified for the validated samples. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.

- System Performance: Review of the raw data indicated no problems with system performance.

- Manual Integrations: Some routine manual integrations were performed for the calibration and QC data associated with the sample data, primarily to correct poor baseline integration or to correctly split previously incorrectly split peaks. All manual integrations reviewed were deemed appropriate by the reviewer.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

    - Field Blanks and Equipment Rinsates: No field blank or equipment rinsate samples were associated with the validated samples for RVAAP-78.

    - Field Duplicates: Two soil field duplicate samples were collected and analyzed for PCBs. The RPD criteria in FWQAPP Table 3-1 of ≤50% for soils and ≤30% for waters were only applied when results for common detects were ≥5× the LOQ. In cases where results were <5× the LOQ, the reasonable control limit of ± the LOQ was applied. The results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

9.2.4 Pesticides

A total of 5 primary soil samples were analyzed by TA-North Canton for pesticides by USEPA SW-846 Method 8081. A single primary soil sample was validated at Level IV.

- MDL studies were not evaluated as part of this project.

- Calibration: Calibration criteria listed in the DoD QSM Table F-2 were met with the exceptions noted below.

    - Initial calibration average %RSDs were within the control limit of ≤20%.

    - The PEM %breakdown results were within the DoD QSM Table F-2 control limit of ≤15%.

    - Both columns had individual toxaphene peaks with %Ds exceeding the control limit. Column CLP-1 had two outliers at -26.2% and 40.5%, and column CLP-2 had three outliers at -33.9%, -38.1, and 60.1%. The nondetected result for toxaphene in sample 078SB-0016M-0001-SO was qualified as estimated, “UJ,” and coded with a “C” qualification code. The remaining second source ICV recoveries were within the control limit of ±20%.

    - The CCV standard recoveries affecting sample data were within the control limit of ±20%.

    - Although not required by the DoD QSM, an MRL standard of 3× the DL is required by the FWQAPP. MRL standard recoveries affecting sample data were within the

reasonable control limit of ±30%, with the exception of the recovery of 68% for 4,4'-DDD in the opening MRL. The nondetected result for 4,4'-DDD in sample 078SB-0016M-0001-SO was qualified as estimated, "UJ," and coded with a "C" qualification code. Several other recoveries were nominally above the control limit; however, none of the high recovery outliers were detected in the validated sample.

- Blanks: The method blank associated with the validated sample had no target compound detects above the control limit listed in the DoD QSM Table F-2, of one-half the LOQ.

- Laboratory Control Samples: Recoveries were within the control limits listed in DoD QSM Table G-15. Toxaphene was not spiked in the LCS sample.

- Surrogate Recovery: Recoveries were within the control limits listed in DoD QSM Table G-3 of 60-125%.

- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were not performed on the validated sample. Evaluation of method accuracy was based on the LCS results.

- Compound Identification: Compound identification was verified for the validated sample. Review of the sample chromatograms, standards, and retention times indicated no problems with target compound identification.

- Compound Quantification and Reported Detection Limits: Compound quantification was verified for the validated sample. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.

- System Performance: Review of the raw data indicated no problems with system performance.

- Manual Integrations: Some routine manual integrations were performed for the calibration and QC data, primarily to correct poor baseline integration or to re-integrate incorrectly split peaks. All manual integrations reviewed were deemed appropriate by the reviewer.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

    - Field Blanks and Equipment Rinsates: No field blank or equipment rinsate samples were associated with the validated sample for RVAAP-78.

    - Field Duplicate Samples: No field duplicate samples were collected from RVAAP-78 for pesticide compounds.

9.2.5 Semivolatile Organic Compounds (SVOCs)

A total of 29 primary soil samples and 2 field duplicate sample were analyzed by TA-North Canton for SVOCs by USEPA Method 8270C. A total of 2 primary soil samples were validated at Level IV.

- MDL studies were not evaluated as part of this project.
- GC/MS Tuning: The DFTPP tunes met the method abundance criteria. The samples were analyzed within 12 hours of the DFTPP injection time.
- Calibration: Calibration criteria listed in the DoD QSM Table F-4 were met, with exceptions affecting sample results noted below.
    - Initial calibration average RRFs and ICV and CCV RRFs were within method control limits of ≥0.050. All initial calibration %RSDs were within the control limits of ≤30% for CCCs and ≤15% for remaining compounds, or linear regression r^2 values ≥0.990.
    - All second source ICV standard recoveries affecting retained sample data were within the control limit of ±20%.
    - Continuing calibration %Ds affecting retained sample data were within the control limit of ≤20%.
    - MRL standard recoveries were within the reasonable control limit of ±30%, with exceptions affecting sample data noted in the table below. The results listed in the table below were qualified as estimated, "UJ," for nondetects and, "J," for detects. All qualified results were coded with a "C" qualification code.

Samples qualified for MRL %R outliers		
Analyte	**%R**	**Qualified Samples**
2,4-dinitrophenol	15%	078SB-0008M-0001-SO 078SB-0016M-0001-SO
4,6-dinitro-2-methylphenol	13%	
Hexachloroethane	63%	
Benzo(g,h,i)perylene	62%	

- Blanks: The method blanks had no target compound detects above the control limits listed in DoD QSM Table F-4 of one-half the LOQ for target compounds, and no common laboratory contaminants detected above the LOQ.
- Laboratory Control Samples: All LCS recoveries were within the control limits listed in DoD QSM Tables G-2 (poor performers) and G-7. The reviewer noted hexachlorocyclopentadiene was not spiked in the LCS. Additionally, the LCS reported no recovery of benzoic acid. Upon review of the raw data, the reviewer determined that benzoic acid was spiked below the LOD but was acceptably recovered.

- Surrogate Recovery: All surrogate recoveries were within the control limits listed in the DoD QSM Tables G-2 (poor performers) or G-3.

- Matrix Spike/Matrix Spike Duplicate: No MS/MSD analyses were performed on a validated sample. Method accuracy was evaluated based on LCS results.

- Internal Standards Performance: The internal standard retention times and area counts were within the DoD QSM Table F-4 control limits established by the midpoint initial calibration standard: ±30 seconds for retention times and -50% / +100% for internal standard areas.

- Compound Identification: Compound identification was verified for the samples validated at Level IV. Review of the sample chromatograms, retention times, and spectra indicated no problems with target compound identification.

- Compound Quantification and Reported Detection Limits: Compound quantification was verified for the samples validated at Level IV. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J," by the laboratory. Reported nondetects are valid to the LOD. The samples had a 2-ml final extract volume, resulting in an effective 2× dilution. No further dilutions were required.

- System Performance: Review of the raw data indicated no problems with system performance.

- Manual Integrations: Some routine manual integrations were performed for the samples, and for calibration and QC data associated with the sample data, primarily due to peaks missed or incorrectly chosen by the data system, or poor baseline integration. All manual integrations reviewed were deemed appropriate by the reviewer.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

    - Field Blanks and Equipment Rinsates: There were no field blank or equipment rinsate samples associated with the RVAAP-78 samples.

    - Field Duplicate Samples: Two field duplicate samples were collected and analyzed for SVOCs. The RPD criterion in FWQAPP Table 3-1 of ≤50% for soil samples was only applied when results for common detects were ≥5× the LOQ. In cases where results were <5× the LOQ, the reasonable control limit of ± the LOQ was applied. All results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

9.2.6 Volatile Organic Compounds (VOCs)

A total of 25 primary soil samples and 3 field duplicate samples were analyzed by TA-North Canton for volatile compounds by USEPA Method 8260B. A total of 2 primary soil samples were validated at Level IV.

- MDL studies were not evaluated as part of this project.
- GC/MS Tuning: The BFB tunes met the method abundance criteria. The samples were analyzed within 12 hours of the BFB injection time.
- Calibration: Calibration criteria listed in DoD QSM Table F-4 were met.
    - Initial calibration average RRFs and ICV and CCV RRFs were within the control limits of ≥0.30 for chlorobenzene and 1,1,2,2-tetrachloroethane, and ≥0.10 for chloromethane, bromoform, and 1,1-dichloroethane.
    - All initial calibration %RSDs were within the method control limits of ≤30% for the CCCs and ≤15% for remaining compounds, or linear regression r^2 values ≥0.990.
    - All second source ICV standard recoveries were within the control limit of ±20%.
    - Continuing calibration %Ds affecting validated sample data were within the control limit of ≤20%
    - Although not required by the DoD QSM, an MRL standard of 3× the DL is required by the FWQAPP. MRL standard recoveries affecting sample data were within the reasonable control limit of ±30%. Several recoveries were marginally above the control limits; however, none of the compounds with high recoveries were detected in the associated samples.
- Blanks: The method blanks associated with the validated samples had no target compound detects above the control limits listed in DoD QSM Table F-4 of one-half the LOQ, and no common laboratory contaminants detected above the LOQ. Methylene chloride was detected below the LOQ in both method blanks at concentrations of 3.14(J) µg/Kg and 4.25(J) µg/Kg. Sample results for methylene chloride were qualified as nondetects, “U,” at the level of contamination. The qualified results were coded with a “B” qualification code.
- Laboratory Control Samples: LCS recoveries were within the control limits listed in DoD QSM Table G-4.
- Surrogate Recovery: BFB was recovered below the control limits of 85-120% at 84% the analysis of sample 078SB-0008M-0001-SO. The detected result for toluene was qualified as estimated, “J,” and the remaining nondetected results were qualified as estimated, “UJ.” The qualified results were coded with an “S” qualification code. Remaining surrogate recoveries affecting sample data were within the control limits listed in DoD QSM Table G-3.

- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were not performed on a validated sample. Evaluation of method accuracy was based on the LCS results.

- Internal Standards Performance: The internal standard area counts and retention times were within DoD QSM Table F-4 control limits established by the midpoint initial calibration standard: -50% / +100% for internal standard areas and ±30 seconds for retention times.

- Compound Identification: Compound identification was verified for the validated samples. Review of the sample chromatogram, retention times, and spectra indicated no problems with target compound identification.

- Compound Quantification and Reported Detection Limits: Compound quantification was verified for the validated samples. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J," by the laboratory. Reported nondetects are valid to the LOD.

- System Performance: Review of the raw data indicated no problems with system performance.

- Manual integrations: Manual integrations were not performed for the validated samples or for associated calibration and QC samples.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

    - Trip Blanks: The trip blanks associated with the validated samples in this SDG had detects below the LOQ for acetone and methylene chloride; however, neither compound was detected in the associated samples. The trip blanks had no other reportable detects above the DL.

    - Field Blanks and Equipment Rinsates: No field blank or equipment rinsate samples were associated with the validated samples for RVAAP-78.

    - Field Duplicate Samples: One field duplicate sample was collected and analyzed for VOCs. The RPD criterion in FWQAPP Table 3-1 of ≤50% was only applied when results for common detects were ≥5× the LOQ. In cases where results were <5× the LOQ, the reasonable control limit of ± the LOQ was applied. All results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

9.2.7 Metals

A total of 29 primary soil samples and 2 field duplicate samples were analyzed by TA-North Canton for various metals by USEPA Methods 6020 and 7471A. A total of 2 primary soil samples were validated at Level IV.

- MDL studies were not evaluated as part of this project.
- Calibration: Calibration criteria were met.
    - As per DoD QSM Table F-8, the mass calibrations were ≤0.1 atomic mass units (amu) of the true values and the resolutions were <0.9 amu at full width at 10% peak height. The %RSDs were within the control limit listed in the DoD QSM Table F-8 of ≤5%.
    - Initial calibration: Linear regression correlation coefficients were within the control limit listed in the DoD QSM Tables F-7 and F-8 of ≥0.995.
    - The ICPMS ICV and CCV recoveries were within the control limits listed in DoD QSM Table F-8 of 90-110%. The mercury ICV and CCV recoveries were within the control limits listed in DoD QSM Table F-7 of 90-110% and 80-120%, respectively.
    - CRI/MRL recoveries affecting sample results were within the control limits listed in DoD QSM Tables F-7 and F-8 of 80-120%.
- Blanks: Method blanks had no applicable detects above the control limits listed in DoD QSM Tables F-7 and F-8 of one-half the LOQ or greater than one-tenth the amount measured in any sample. CCBs had no detects affecting sample results above the control limit listed in DoD QSM Tables F-7 and F-8 of greater than the LOD.
- Interference Check Samples: ICPMS ICSA and ICSAB recoveries were within the control limits listed in DoD QSM Table F-8 of 80-120%. There were some analytes detected in the ICSA above the control limit listed in DoD QSM Table F-8 of >LOD; however, as most interferents were present in the sample at concentrations less than 50% of that in the ICSA, the samples were not assessed for matrix interference.
- Laboratory Control Samples: The recoveries were within the control limits listed in DoD QSM Table G-19 of 80-120%. All 6020 RPDs were within the control limit listed in DoD QSM Table F-8 of ≤20%.
- Laboratory Duplicates: Laboratory duplicate analyses were performed on 078SB-0006M-0001-SO and 078SB-0015M-0001-SO for all analytes and on 078SB-0031M-0001-SO for mercury. The RPD control limit listed in DoD QSM Tables F-7 and F-8 was ≤20%. The control limit was only applied to results ≥5× the LOQ. A control limit of ±LOQ was used for results below 5× the LOQ. All results were within the control limits.

- Matrix Spike/Matrix Spike Duplicate: Matrix spike analyses were performed on samples 078SB-0006M-0001-SO and 078SB-0015M-0001-SO for all analytes and on 078SB-0031M-0001-SO for mercury. Except as noted below, recoveries were within the control limits listed in DoD QSM Table G-19 of 80-120%. Matrix spike control limits were not applied when the native sample concentration exceeded the spiked amount by 4× or more.

  The results listed in the table below were qualified as estimated, "J," for detects and, "UJ," for nondetects. The qualified results were coded with a "Q" qualification code. When no other qualifications with conflicting bias were assigned to a result, detected results with low recoveries were assigned a negative bias, "J-," and detected results with high recoveries were assigned a positive bias, "J+."

Samples qualified for matrix spike recovery outliers			
Parent Sample	**Analyte**	**%R**	**Qualified Samples**
078-0006M-0001-SO	Arsenic	72%	078SB-0008M-0010-SO, 078SB-0016M-0001-SO
	Manganese	122%	
	Antimony	68%	
	Selenium	35%	
078SB-0015M-0001-SO	Arsenic	67%	078SB-0008M-0010-SO, 078SB-0016M-0001-SO
	Antimony	69%	
	Selenium	51%	

  Post digestion spike analyses were performed on 078SB-0006M-0001-SO and 078SB-0015M-0001-SO for the ICPMS analytes. All recoveries were within the control limits listed in DoD QSM Table F-8 of 75-125%.

- Serial Dilution: Serial dilution analyses were performed on samples 078SB-0006M-0001-SO and 078SB-0015M-0001-SO. The %Ds were within the control limit listed in DoD QSM Table F-8 of ≤10%. The serial dilution control limit is only applicable when the original sample concentration is minimally ≥50× the LOQ.

- Internal Standards: All ICPMS sample internal standards intensities were within 30-120% of those in the ICV, as per the DOD QSM Table F-8. Yttrium (^{89}Y) was spiked into the QC samples but not the site samples.

- Sample Result Verification: For Level IV validation, calculations were verified and the sample results reported on the sample result summary were verified against the raw data. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.

  Due to instrument limitations, the mercury raw data did not list the sample absorbances; therefore, the reviewer was not able to calculate the sample results from the raw data. Additionally, the ICPMS raw data did not list absorbances for the ICV, CCV, ICSAB, and MRL samples, and the %R was listed instead of the sample concentrations.

- Manual Integrations: No manual integrations were noted in the mercury analyses.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

  - Field Blanks and Equipment Rinsates: There were no field blank or equipment rinsate samples associated with the validated samples at RVAAP-78.

  - Field Duplicate Samples: A total of two field duplicate samples were collected and analyzed for metals. The RPD criterion in FWQAPP Table 3-1 of ≤50% was only applied when results for common detects were ≥5× the LOQ. In cases where results were <5× the LOQ, the reasonable control limit of ± the LOQ was applied. Except as noted below, the results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

Metals field duplicate outliers			
Primary/Field Duplicate Sample	**Analyte**	**RPD**	**W/In LOQ**
078SB-0025M-0001-SO/ 078SB-0026M-0001-SO	Aluminum	59%	N/A
	Arsenic	63%	N/A
	Beryllium	69%	N/A
	Calcium	57%	N/A
	Chromium	58%	N/A
	Cobalt	72%	N/A
	Copper	91%	N/A
	Magnesium	59%	N/A
	Vanadium	51%	N/A

9.3 Data Usability

According to the Draft Site Inspection Report prepared by ECC, one VOC sample was not collected due to refusal. Due to this, the field completeness was nominally less than 100%.

No data points were rejected. In instances where a data point had multiple results, the reviewer chose the most technically sound result to report and rejected the remaining data points. Those data points, rejected in order to choose the most technically sound result, do not affect data quality or usability and are not included in the table below. Data with detects between the DL and the LOQ were included in the table below for informational purposes only.

Table 32. Analytical completeness for RVAAP-78 validated primary data

			Number of Results					
Analysis	**Samples Analyzed**	**Analytes per Sample**	**Total**	**Rejected**	**LODs/DLs Exceeding Criteria**	**Estimated for QC Outliers**	**Estimated for Detects <LOQ**	**Percent Complete**
Explosives	1	16	13	0	0/0	0	0	100%
Nitroguanidine	1	1	1	0	0/0	0	0	100%
Nitrocellulose	1	1	1	0	0/0	0	0	100%
PCBs	2	7	14	0	0/0	1	0	100%
Pesticides	1	21	21	0	0/0	2	1	100%
VOCs	2	35	70	0	0/0	36	1	100%
SVOCs	2	66	132	0	0/0	8	3	100%
Metals	2	23	46	0	0/0	8	8	100%
		Totals	**298**	**0**	**0/0**	**55**	**13**	**100%**

The analytical completeness goal for the project established in the FWQAPP was 90% for each method. The completeness goal was met for all analyses.

9.4 Primary and Field Duplicate Comparison Summary

Primary and field duplicate sample comparisons were considered to be in good agreement as only 3.1% of the field duplicate pair results were above the FWQAPP control limits of ≤50% for soils, ≤30% for waters, or +/- the LOQ for results below 5× the LOQ. Rejected results are not listed in the table below.

All field duplicate comparison results are presented in Appendix C. All outliers were metals in field duplicate pair 078SB-0025M-0001-SO/078SB-0026M-0001-SO and all results were higher in the duplicate. All comparison results are presented in Appendix C.

Table 33. RVAAP-78 primary/field duplicate sample comparison summary

Method	**Primary/Field Duplicate Pairs**	**Number of Analytes**	**Total Analytes**	**Number of results within control limits**	**Number of results above control limit**
Metals	2	23	46	35	9
Nitroguanidine	2	1	2	2	0
Nitrocellulose	2	1	2	2	0
PCBs	2	7	14	14	0
SVOCs	2	66	132	132	0
VOCs	3	35	105	105	0

9.5 Specific Data Concerns

Specific concerns regarding the data are noted below:

- Due to instrument limitations, the mercury raw data did not list the sample absorbances; therefore, the reviewer was not able to calculate the sample results from the raw data. Additionally, the ICPMS raw data did not list absorbances for the ICV, CCV, ICSAB, and MRL samples, and the %R was listed instead of the sample concentrations.

In order to avoid repetition of the issues noted above, the following actions should be taken:

- MEC^X recommends the laboratory be requested to alter the IPCMS and mercury instrument set up in order to report mercury and ICPMS raw absorbances and ICPMS ICV, CCV, ICSAB, and MRL concentrations.

.

10 DEFENSE LOGISTICS AGENCY ORE STORAGE SITE – MAIN STORAGE YARD, RVAAP-79

10.1 Current Investigation

ECC completed an RI at the Defense Logistics Agency Main Ore Storage Yard (RVAAP-79). The work was performed in accordance with the *Site Inspection and Remedial Investigation Work Plan* (ECC 2012) and the *Facility-Wide Sampling and Analysis Plan* (SAIC 2011).

RVAAP-79 includes the Main Ore Storage Yard and three sub-areas – area west of the railroad, concrete pad storage, and the east transportation yard. These areas are mostly devoid of vegetation. Historical operations conducted at the facility included handling and storage of strategic and critical materials, including various types of ore, for the General Services Administration. The Defense Logistics Agency, Defense National Stockpile Center leased space at the facility for the storage of the ore materials (chemical chrome ore, ferrochrome ore, and metallurgical manganese ore), which were located on the ground. The ores were stockpiled at various locations within RVAAP-79 and were transported to and from these areas via rail.

The data validated in this report are part of the intrusive RI at RVAAP-79 conducted to assess the potential presence of contamination. The sample counts, samples selected for data validation, and the field duplicates are presented in the tables below.

Table 34. Total sample count for RVAAP-79

Matrix	Primary Samples	Field Duplicates	Split Samples	Primary Sample Counts						
				Explosives	Propellants	PCBs	Pesticides	SVOCs	VOCs	Metals
Soil	136	6	11	2	2	2	2	2	2	136
Sediment	4	1*	1	1	1	1	1	1	1	4
Surface Water	4	1*	1	1	1	1	1	1	1	4

*Analyzed for metals only

Table 35. RVAAP-79 validated samples and methods

Sample ID	SDG	Matrix	Collected	Explosives	Propellants	PCBs	Pesticides	SVOCs	VOCs	Metals
079SB-0217M-0001-SO	240-22381-1	soil	3/21/2013	--	--	--	--	--	--	x
079SB-0234M-0001-SO	240-22381-1	soil	3/21/2013	--	--	--	--	--	--	x
079SB-0236M-0001-SO	240-22381-1	soil	3/21/2013	--	--	--	--	--	--	x
079SB-0245M-0001-SO	240-22281-1	soil	3/20/2013	--	--	--	--	--	--	x
079SB-0247M-0001-SO	240-22281-1	soil	3/20/2013	--	--	--	--	--	--	x
079SB-0252M-0001-SO	240-22281-1	soil	3/20/2013	--	--	--	--	--	--	x
079SB-0267M-0001-SO	240-22281-1	soil	3/20/2013	--	--	--	--	--	--	x
079SB-0269M-0001-SO	240-22281-1	soil	3/20/2013	--	--	--	--	--	--	x
079SB-0272M-0001-SO	240-22281-1	soil	3/20/2013	--	--	--	--	--	--	x
079SD-0305-0001-SD	240-22274-1	sediment	3/19/2013	--	--	--	--	--	--	x
079SW-0311-0001-SW	240-22662-1	water	4/1/2013	x	x	x	x	x	x	x

Table 36. RVAAP-79 field duplicate samples

Duplicate Sample ID	Parent Sample
079SB-0319M-0001-SO	079SB-0217M-0001-SO
079SB-0150M-0001-SO	079SB-0234M-0001-SO
079SB-0165M-0001-SO	079SB-0236M-0001-SO
079SB-0325M-0001-SO	079SB-0247M-0001-SO
079SB-0322M-0001-SO	079SB-0267M-0001-SO
079SB-0323M-0001-SO	079SB-0269M-0001-SO
079SD-0306-0001-SD	079SD-0305-0001-SD
079SW-0312-0001-SW	079SW-0311-0001-SW

10.1.1 Sample Collection

The chains-of-custody were appropriately signed and dated by field and laboratory personnel. According to the laboratory Sample Receipt Forms, custody seals were not utilized; however, in reviewing relinquish and receipt times, it appeared the samples were transferred to the laboratory by courier. Other than the items listed below, no sample collection issues were noted.

- Some corrections made to the chains-of-custody were properly made, but were not dated.
- Some corrections were made by overwriting or obliterating the original entry. These corrections were not initialed or dated.

10.1.2 Data Completeness

The data completeness for the project described in this report was found to be generally acceptable for all analyses except metals, as no deliverables were missing from the SDGs reviewed. The metals data was missing the following:

- The ICPMS raw data sequence containing the validated sample was missing in SDG 240-22662-1.

This material was requested from the laboratory and was subsequently provided.

10.1.3 Preservation and Holding Time Requirements

A portion of the samples were received at temperatures below the 4 ±2^{o}C control limit; however, as the samples were not noted to be frozen or damaged, no qualifications were required. All remaining method preservation requirements were met. All holding times, as listed in Table 3, were met.

10.1.4 Detection Limit Requirements

LODs and DLs for nondetected analytes were compared against the most stringent CUGs listed in Tables 5-8, 5-9, and 5-10 of *Final Facility-Wide Human Health Cleanup Goals for the Ravenna Army Ammunition Plant* (2010) or the RSLs if no CUG was listed. No results exceeded project criteria.

10.2 RVAAP-79 Data Quality Evaluation

This section summarizes the data quality of validated samples for each analytical method evaluated.

10.2.1 Explosives

A total of 2 primary soil samples, 1 primary sediment sample, and 1 primary surface water sample were analyzed by TA-West Sacramento for explosives by USEPA SW-846 Methods 8330 and 8330B. The primary surface water sample was validated at Level IV.

- MDL studies were not evaluated as part of this project.
- Calibration:
    - The initial calibration average %RSDs were within the control limits listed in DoD QSM Table F-3 of ≤15%, or the linear regression r^2 values were ≥0.990.
    - The second source initial calibration verification standard recoveries were within the control limit listed in DoD QSM Table F-3 of ±20%.
    - The CCV %Ds were within the control limits listed in DoD QSM Table F-3 of ±20%.

- Although not required by the DoD QSM, an MRL standard of 3× the DL is required by the FWQAPP. Low-level MRL standards were analyzed in association with the validated sample and the results affecting sample results were within the reasonable control limits of 70-130%.

- Blanks: The method blank associated with the validated sample had no target compound detects above the control limit listed in DoD QSM Table F-3 of one-half the LOQ.

- Laboratory Control Samples: Recoveries were within the control limits listed in DoD QSM Tables G-12 and G-13 and within the reasonable laboratory control limits for nitroglycerin (76-116%) and PETN (76-116%).

- Surrogate Recovery: As no surrogate control limit was listed in the DoD QSM, surrogate recoveries were assessed against the reasonable laboratory-established control limits of 78-118%. Recoveries were within the control limits.

- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on sample 079SW-0311-0001-SW. Recoveries were within the control limits listed in DoD QSM Tables G-12 and G-13 and within the reasonable laboratory control limits for nitroglycerin (76-116%) and PETN (76-116%). The RPD were within the control limit listed in DoD QSM Table F-3 of ≤20%.

- Compound Identification: Compound identification was verified for the validated sample. Review of sample chromatograms and retention times indicated no problems with target compound identification.

- Compound Quantification and Reported Detection Limits: As no target compounds were detected in the sample validated at Level IV, compound quantification was verified for a portion of the LCS and MS/MSD results. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD. As there were no reported detects on the primary column, no confirmation analysis was performed.

  The reviewer noted a solvent mass on the primary column that eluted over the retention time period encompassing most analytes. The following procedure was adopted in order to assess the potential effect of the interference.

  - As no confirmation analysis was performed, the reviewer compared the height of the mass on the primary column to the primary column initial calibration standards, at the retention times of the affected target compounds.

  - The nondetected target compound results were raised to the level of the calibration standard with the most closely matching response. The LOD was raised to the same concentration.

- As the raised results exceeded the LOQs, the LOQs and LODs were raised to the same concentration.

  The affected results, shown in the table below, were coded with a "$" qualification code.

Samples affected by matrix interference				
Sample	**Mass Height**		**Raised Concentration (µg/L)**	**Analytes**
	Standard Level	**Concentration (ng/ml)**		
079SW-0311-0001-SW	4	50	1.1	HMX
	5	100	2.2	RDX
	5	100	2.2	1,3,5-trinitrobenzene
	4	50	1.1	1,3-dinitrobenzene
	5	100	2.2	nitrobenzene
	4	50	1.1	tetryl
	4	50	1.1	2,4,6-trinitrotoluene
	4	50	1.1	4-amino-2,6-dinitrotoluene
	4	50	1.1	2-amino-4,6-dinitrotoluene
	6	200	4.4	nitroglycerin

  Target compounds 2,4-dinitrotoluene, 2,6-dinitrotoluene, and nitrobenzene were reported by both Method 8330B and 8270C in sample 079SW-0001-0001-SW. As there were no detects for these compounds; the reviewer chose to report the results with the lowest LODs. The 8330B results for nitrobenzene were rejected, "R," as duplicate data and coded with a "D" qualification code. The 8330B results for 2,4-dinitrotoluene and 2,6-dinitrotoluene were retained.

- System Performance: Review of the raw data indicated no problems with system performance.

- Manual Integrations: A manual integration was performed to adjust the baseline for the sample surrogate. The manual integration was deemed acceptable by the reviewer.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

  - Field Blanks and Equipment Rinsates: There was no field blank or equipment rinsate samples associated with the validated sample.

  - Field Duplicates: There were no explosive field duplicate samples collected for RVAAP-79.

10.2.2 Propellants

A total of 2 primary soil samples, 1 primary sediment sample, and 1 primary surface water sample were analyzed by TA-West Sacramento for nitroguanidine by USEPA SW-846 Method 8330 and for nitrocellulose by laboratory SOP WS-WC-0050. The primary surface water sample was validated at Level IV.

- MDL studies were not evaluated as part of this project.
- Calibration:
    - The nitroguanidine initial calibration average percent %RSD was within the control limit listed in DoD QSM Table F-2 of ≤20%. Nitrocellulose linear regression correlation coefficient was within the control limit listed in the DoD QSM Table F-11 of ≥0.995.
    - The nitroguanidine second source ICV recovery was within the control limits listed in DoD QSM Table F-2 of 85-115%. The nitrocellulose ICV recovery was within the control limits listed in DoD QSM Table F-11 of 90-110%.
    - The nitroguanidine CCV recoveries were within the control limits listed in DoD QSM Table F-2 of 85-115%. The nitrocellulose CCV recoveries were within the control limits listed in DoD QSM Table F-11 of 90-110%.
    - Although not required by the DoD QSM, an MRL standard of 3× the DL is required by the FWQAPP. MRL recoveries associated with the sample were within the reasonable control limits of 70-130%.
- Blanks: The method blanks had no target compound detects above the control limits listed in DoD QSM Tables F-2 and F-11 of one-half the LOQ.
- Laboratory Control Samples: No nitroguanidine or nitrocellulose LCS control limits are listed in the DoD QSM; therefore, the laboratory control limits were used to assess the results. The nitroguanidine recovery was within the control limits of 73-117% for soils. The nitrocellulose recovery was within the laboratory-established control limits of 26-144%.
- Surrogate Recovery: A surrogate was not required for the analysis of nitroguanidine or nitrocellulose.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on sample 079SW-0311-0001-SW for nitroguanidine. The recoveries were within the laboratory-established control limits of 72-121%. The RPD was within the control limit listed in DoD QSM Table F-2 of ≤20%.
- Compound Identification: Compound identification was verified for the sample validated at Level IV. Review of the sample chromatograms and retention times indicated no problems with target compound identification.

- Compound Quantification and Reported Detection Limits: Compound quantification was verified for the sample validated at Level IV. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.

  Nitroguanidine was not detected in the validated sample; therefore, confirmation analysis was not required.

- System Performance: Review of the raw data indicated no problems with system performance.

- Manual Integrations: A manual integration was performed for nitroguanidine in an MRL. The manual integration was performed to complete the peak integration. The manual integration was deemed acceptable by the reviewer.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

  - Field Blanks and Equipment Rinsates: There was no field blank or equipment rinsate samples associated with the validated sample.

  - Field Duplicates: There were no explosive field duplicate samples collected for RVAAP-79.

10.2.3 Polychlorinated Biphenyls (PCBs)

A total of 2 primary soil samples, 1 primary sediment sample, and 1 primary surface water sample were analyzed by TA-North Canton for PCBs by USEPA SW-846 Method 8082. The primary surface water sample was validated at Level IV.

- MDL studies were not evaluated as part of this project.

- Calibration: Calibration criteria were met with the exception noted below.

  - Initial calibration average %RSDs were within the control limit listed in the DoD QSM Table F-2 of ≤20%.

  - The second source ICV recoveries were within the control limit listed in the DoD QSM Table F-2 of ±20% for all applicable Aroclors, with the exception of Aroclor 1221 in the ICV associated with sample 079W-0311-0001-SW. One of three peaks for Aroclor 1221 on the CLP-1 column was missed by the data system due to coelution, and was not manually integrated. The CLP-2 column ICV for Aroclor 1221 was acceptable. The nondetected result for Aroclor 1221 in sample 079W-0311-0001-SW was qualified as estimated, "UJ," and coded with a "C" qualification code.

  - The CCV standard recoveries were within the control limit listed in the DoD QSM Table F-2 of ±20%.

  - MRL standard recoveries were within the reasonable control limit of ±30%.

- Blanks: The method blank associated with the validated sample had no target compound detects above the control limit listed in the DoD QSM Table F-2 of one-half the LOQ for target compounds.

- Laboratory Control Samples: LCS recoveries for Aroclor 1016 and Aroclor 1260 were within the control limits listed in DoD QSM Table G-16.

- Surrogate Recovery: Recoveries were within the control limits listed in DoD QSM Table G-3 of 40-135%.

- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were not performed on the validated sample. Evaluation of method accuracy was based on the LCS results.

- Compound Identification: Compound identification was verified for the validated sample. Review of the sample chromatogram, standards, and retention times indicated no problems with target compound identification. The sample was analyzed on two analytical columns; however, the sample had no Aroclor detects.

- Compound Quantification and Reported Detection Limits: Compound quantification was verified for the validated sample. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.

- System Performance: Review of the raw data indicated no problems with system performance.

- Manual Integrations: Some routine manual integrations were performed for the calibration and QC data associated with the sample data, primarily due to poor baseline integration or incorrectly split peaks. All manual integrations reviewed were deemed appropriate by the reviewer.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

  - Field Blanks and Equipment Rinsates: No field blank or equipment rinsate samples were associated with the validated sample for RVAAP-79.

  - Field Duplicates: No field duplicate samples were collected from RVAAP-79.

10.2.4 Pesticides

A total of 2 primary soil samples, 1 primary sediment sample, and 1 primary surface water sample were analyzed by TA-North Canton for pesticides by USEPA SW-846 Method 8081. The primary surface water sample was validated at Level IV.

- MDL studies were not evaluated as part of this project.
- Calibration: Calibration criteria listed in the DoD QSM Table F-2 were met, with the exception noted below.
    - Initial calibration average %RSDs were within the control limit of ≤20%.
    - The PEM %breakdown results were within the DoD QSM Table F-2 control limit of ≤15%.
    - The secondary column had individual toxaphene peaks with %Ds exceeding the control limit which affected the sample data. Column CLP-2 had four outliers at -32.8%, -36.4%, -33.3%, and 72.2%. The nondetected result for toxaphene in sample 079W-0311-0001-SW was qualified as estimated, "UJ," and coded with a "C" qualification code. The remaining second source ICV recoveries were within the control limit of ±20%.
    - The CCV standard recoveries affecting sample data were within the control limit of ±20%.
    - Although not required by the DoD QSM, an MRL standard of 3× the DL is required by the FWQAPP. MRL standard recoveries affecting sample data were within the reasonable control limit of ±30%.
- Blanks: The method blank associated with the validated sample had no target compound detects above the control limit listed in the DoD QSM Table F-2, of one-half the LOQ.
- Laboratory Control Samples: Recoveries were within the control limits listed in DoD QSM Table G-14. Toxaphene was not spiked in the LCS sample.
- Surrogate Recovery: Recoveries were within the control limits listed in DoD QSM Table G-3 of 25-140%.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were not performed on the validated sample. Evaluation of method accuracy was based on the LCS results.
- Compound Identification: Compound identification was verified for the validated sample. Review of the sample chromatograms, standards, and retention times indicated no problems with target compound identification.
- Compound Quantification and Reported Detection Limits: Compound quantification was verified for the validated sample. The LOQs were supported by the low point of the initial

calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.

- System Performance: Review of the raw data indicated no problems with system performance.

- Manual Integrations: Some routine manual integrations were performed for the calibration and QC data, primarily due to poor baseline integration or to re-integrate incorrectly split peaks. All manual integrations reviewed were deemed appropriate by the reviewer.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

    - Field Blanks and Equipment Rinsates: No field blank or equipment rinsate samples were associated with the validated sample for RVAAP-79.

    - Field Duplicate Samples: No field duplicate samples were collected for pesticides. The

10.2.5 Semivolatile Organic Compounds (SVOCs)

A total of 2 primary soil samples, 1 primary sediment sample, and 1 primary surface water sample were analyzed by TA-North Canton for SVOCs by USEPA Method 8270C. The primary surface water sample was validated at Level IV.

- MDL studies were not evaluated as part of this project.

- GC/MS Tuning: The DFTPP tunes met the method abundance criteria. The sample was analyzed within 12 hours of the DFTPP injection time.

- Calibration: Calibration criteria listed in the DoD QSM Table F-4 were met.

    - Initial calibration average RRFs and ICV and CCV RRFs were within method control limits of ≥0.050. All initial calibration %RSDs were within the control limits of ≤30% for CCCs and ≤15% for remaining compounds, or linear regression r^2 values ≥0.990.

    - All second source ICV standard recoveries affecting sample data were within the control limit of ±20%.

    - Continuing calibration %Ds affecting sample data were within the control limit of ≤20%.

    - Although not required by the DoD QSM, an MRL standard of 3× the DL is required by the FWQAPP. MRL standard recoveries were within the reasonable control limit of 70-130%.

- Blanks: The method blank associated with the validated sample had numerous target compound detects below the LOQ; however, there were no detects in the validated sample.

- Laboratory Control Samples: Benzoic acid was reported as not detected in the LCS; however, the recovery calculated from the raw data was acceptable. All LCS recoveries were within the control limits listed in DoD QSM Tables G-2 (poor performers) and G-6. The reviewer noted hexachlorocyclopentadiene was not spiked in the LCS.

- Surrogate Recovery: All surrogate recoveries were within the control limits listed in the DoD QSM Tables G-2 (poor performers) or G-3.

- Matrix Spike/Matrix Spike Duplicate: No MS/MSD analyses were performed on the validated sample. Method accuracy was evaluated based on LCS results.

- Internal Standards Performance: The internal standard area counts and retention times were within the DoD QSM Table F-4 control limits established by the midpoint initial calibration standard: ±30 seconds for retention times and -50% / +100% for internal standard areas.

- Compound Identification: Compound identification was verified for the sample validated at Level IV. Review of the sample chromatograms, retention times, and spectra indicated no problems with target compound identification.

- Compound Quantification and Reported Detection Limits: Compound quantification was verified for the sample validated at Level IV. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J," by the laboratory. Reported nondetects are valid to the LOD. The sample had a 2-ml final extract volume, resulting in an effective 2× dilution.

  Target compounds 2,4-dinitrotoluene, 2,6-dinitrotoluene, and nitrobenzene were reported by both Method 8330B and 8270C in sample 079SW-0311-0001-SW. As there were no detects for these compounds; the reviewer chose to report the results with the lowest LODs. The 8270C results for 2,4-dinitrotoluene and 2,6-dinitrotoluene were rejected, "R," as duplicate data and coded with a "D" qualification code. The 8270C results for nitrobenzene were retained.

- System Performance: Review of the raw data indicated no problems with system performance.

- Manual Integrations: Some routine manual integrations were performed for the sample, and for calibration and QC data associated with the sample data, primarily to correct for peaks missed or incorrectly chosen by the data system, or to correct poor baseline integration. All manual integrations reviewed were deemed appropriate by the reviewer.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data.

Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

- Field Blanks and Equipment Rinsates: No field blank or equipment rinsate samples were associated with the validated sample for RVAAP-79.

- Field Duplicate Samples: There were no SVOC field duplicate samples collected for RVAAP-79.

10.2.6 Volatile Organic Compounds (VOCs)

A total of 2 primary soil samples, 1 primary sediment sample, and 1 primary surface water sample were analyzed by TA-North Canton for volatile compounds by USEPA Method 8260B. The primary surface water sample was validated at Level IV.

- MDL studies were not evaluated as part of this project.

- GC/MS Tuning: The BFB tunes met the method abundance criteria. The samples were analyzed within 12 hours of the BFB injection time.

- Calibration: Calibration criteria listed in DoD QSM Table F-4 were met. Other calibration outliers are noted below.

  - Initial calibration average RRFs and ICV and CCV RRFs were within the control limits of ≥0.30 for chlorobenzene and 1,1,2,2-tetrachloroethane, and ≥0.10 for chloromethane, bromoform, and 1,1-dichloroethane.

  - All initial calibration %RSDs were within the method control limits of ≤30% for the CCCs and ≤15% for remaining compounds, or linear regression r^2 values ≥0.990.

  - All second source initial calibration verification standard recoveries were within the control limit of ±20%.

  - Continuing calibration %Ds affecting validated sample data were within the method control limit of ≤20%.

  - Although not required by the DoD QSM, a standard of 3× the DL is required by the FWQAPP. MRL standard recoveries affecting sample data were within the reasonable control limit of ±30%, with the exception of a recovery of 68% for acetone in the MRL bracketing the sample. The detect for acetone in sample 079W-0311-0001-SW was qualified as estimated, “J,” and coded with a “C” qualification code.

- Blanks: The method blank associated with the validated sample had no target compound detects above the control limits listed in DoD QSM Table F-4 of one-half the LOQ, and no common laboratory contaminants detected above the LOQ

- Laboratory Control Samples: LCS/LCSD recoveries were within the control limits listed in DoD QSM Table G-4, and RPDs were within the QSM Table F-4 control limit of ≤30%.

- Surrogate Recovery: Surrogate recoveries were within the control limits listed in DoD QSM Table G-3.

- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were not performed on the validated sample. Evaluation of method accuracy was based on the LCS results.

- Internal Standards Performance: The internal standard area counts and retention times were within DoD QSM Table F-4 control limits established by the midpoint initial calibration standard: -50% / +100% for internal standard areas and ±30 seconds for retention times.

- Compound Identification: Compound identification was verified for the validated sample. Review of the sample chromatograms, retention times, and spectra indicated no problems with target compound identification.

- Compound Quantification and Reported Detection Limits: Compound quantification was verified for the sample validated at Level IV. The LOQs were supported by the low point of the initial calibration and the laboratory DLs. Any result reported between the DL and the LOQ was qualified as estimated, "J," by the laboratory. Reported nondetects are valid to the LOD.

- System Performance: Review of the raw data indicated no problems with system performance.

- Manual integrations: Manual integrations were not performed for the validated sample or for associated calibration and QC samples.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

    - Trip Blanks: The validated sample in this SDG had no associated trip blank, as the trip blank listed on the COC was not received by the laboratory.

    - Field Blanks and Equipment Rinsates: No field blank or equipment rinsate samples were associated with the validated sample for RVAAP-79.

    - Field Duplicate Samples: No field duplicate samples were collected for VOCs.

10.2.7 Metals

A total of 136 primary soil samples, 6 soil field duplicate samples, 4 primary sediment samples, 1 sediment field duplicate samples, 4 primary surface water samples, and 1 surface water field duplicate sample were analyzed by TA-North Canton for metals by USEPA Methods 6020 and

7470A/7471A. A total of 9 primary soil samples, 1 primary sediment sample, and 1 primary surface water sample were validated at Level IV.

- MDL studies were not evaluated as part of this project.

- Calibration: Except as noted below, calibration criteria were met.

  - As per DoD QSM Table F-8, the mass calibrations were ≤0.1 atomic mass units (amu) of the true values and the resolutions were <0.9 amu at full width at 10% peak height. Except as noted below, the %RSDs were within the control limit listed in the DoD QSM Table F-8 of ≤5%. The detected results listed in the table below were qualified as estimated, "J," and were coded with an "M" qualification code.

Samples qualified for tune %RSD outliers		
Analyte	**%RSD**	**Qualified Samples**
^{138}Barium	6.52	079SD-0305-0001-SD

  - Initial calibration: Linear regression correlation coefficients were within the control limit listed in the DoD QSM Tables F-7 and F-8 of ≥0.995.

  - The ICPMS ICV and CCV recoveries were within the control limits listed in DoD QSM Table F-8 of 90-110%. The mercury ICV and CCV recoveries were within the control limits listed in DoD QSM Table F-7 of 90-110% and 80-120%, respectively.

  - CRI/MRL recoveries affecting sample results were within the control limits listed in DoD QSM Tables F-7 and F-8 of 80-120%.

- Blanks: Method blanks had no applicable detects above the control limits listed in DoD QSM Tables F-7 and F-8 of one-half the LOQ or greater than one-tenth the amount measured in any sample. CCBs had no detects above the control limit listed in DoD QSM Tables F-7 and F-8 of greater than the LOD.

  There were detects and negative results in the method blanks and CCBs affecting sample results. Results listed in the table below associated with negative results were qualified as estimated, "UJ," for nondetects and "J," for detects. In the absence of qualifications with conflicting bias, detects were qualified as estimated with a potential negative bias, "J-." The remaining results listed in the table below were qualified as nondetected, "U," at the LOD if detected below the LOD or at the level of contamination if detected above. All qualified results were coded with a "B" qualification code.

Sample qualified for blank results			
Analyte	Method blank (mg/Kg)	CCB (µg/L)	Qualified samples
Sodium	4.67	N/A	079SB-0252M-0001-SO
Selenium	-0.11	-1.8	079SB-0245M-0001-SO, 079SB-0247M-0001-SO, 079SB-0252M-0001-SO, 079SB-0267M-0001-SO, 079SB-0269M-0001-SO, 079SB-0272M-0001-SO
Selenium	-0.28	N/A	079SB-0305-0001-SD
Lead	N/A	0232	079SW-0311-0001-SW

- Interference Check Samples: ICPMS ICSA and ICSAB recoveries were within the control limits listed in DoD QSM Table F-8 of 80-120%. There were analytes affecting sample results detected in the ICSA above the control limit listed in DoD QSM Table F-8 of >LOD; however, as most of the interferents were present in the samples at concentrations less that 50% that of the ICSA, the samples were not assessed for matrix interference.

- Laboratory Control Samples: The recoveries were within the control limits listed in DoD QSM Tables G-18 and G-19 of 80-120%.

- Laboratory Duplicates: Laboratory duplicate analyses were performed on samples 079SB-0267M-0001-SO, 079SB-0298M-0001-SO, 079SB0215M-0001-SO, 079SB-0244M-0001-SO, 079SD-0305-0001-SD, 079SB-0264M-0001-SO, 079SD-0305-0001-SD, 079SB-0264M-0001-SO, and 079SW-0311-0001-SW for mercury. Laboratory duplicate analyses were also performed on samples 079SB-0324M-0001-SO, 079SB-0271M-0001-SO, 079SB-0220M-0001-SO, 079SB-0171M-0001-SO, 079SD-0305-0001-SD, and 079SW-0311-0001-SW for the ICPMS analytes. The RPDs control limits listed in DoD QSM Tables F-7 and F-8 was ≤20%. The control limit was only applied for detects ≥5× the LOQ. A control limit of ± the LOQ was applied to detects at concentrations below 5× the LOQ. Except as noted below, the results were within the control limits.

  Results listed in the table below, all detects, were qualified as estimated, "J," and coded with an "E" qualification code.

Samples qualified for laboratory duplicate outliers			
Parent Sample	Analyte	RPD	Qualified Samples
079SB-0220M-0001-SO	Barium	123%	079SB-0217M-0001-SO, 079SB-0234M-0001-SO, 079SB-0236M-0001-SO
	Manganese	142%	
	Sodium	70%	
	Lead	66%	
	Thallium	>±LOQ	
079SD-0305-0001-SD	Calcium	82%	079SD-0305-0001-SD

- Matrix Spike/Matrix Spike Duplicate: Matrix spike analyses were performed on samples 079SB-0267M-0001-SO 079SB-0298M-0001-SO, 079SB-0218M-0001-SO, 079SB-0244M-0001-SO for mercury. Matrix spike analyses were also performed on 079SD-0305-0001-SD and 079SW-0311-0001-SW for the ICPMS analytes. MS/MSD analyses

were performed on samples 079SB-0324M-0001-SO, 079SB-0271M-0001-SO, 079SB-0151M-0001-SO, 079SB-0220M-0001-SO, and 079SB-0171M-0001-SO for the ICPMS analytes. Except as noted below, recoveries were within the control limits listed in DoD QSM Tables G-18 and G-19 of 80-120%. The control limits were not applied when the native sample concentration exceeded the spiked amount by 4× or more. RPDs were within the control limits listed in DoD QSM Tables F-8 and F-9 of ≤20%.

The *National Functional Guidelines* calls for the estimation of nondetected data associated with matrix spike recoveries less than 30% and acceptable post digestion spike recoveries. However, it was the reviewer's professional judgment that the poor antimony recoveries observed for this and other CR Sites was a systemic problem associated with the sample digestion. Therefore, the nondetected antimony results associated with recoveries below 30% were rejected, "R."

The remaining results listed in the table below were qualified as estimated, "J," for detects and, "UJ," for nondetects. When no other qualifications with conflicting bias were assigned to a result, detected results with low recoveries were assigned a negative bias, "J-." The qualified results were coded with a "Q" qualification code.

Samples qualified for MS/MSD recovery outliers			
Parent Sample	**Analyte**	**%Rs**	**Qualified Samples**
079SB-0342M-0001-SO	Arsenic	73%, acceptable	079SB-0245M-0001-SO, 079SB-0247M-0001-SO, 079SB-0252M-0001-SO, 079SB-0267M-0001-SO, 079SB-0269M-0001-SO, 079SB-0272M-0001-SO
	Antimony	39%, 36%	
	Zinc	77%, acceptable	
	Selenium	61%, 63%	
079SB-0271M-0001-SO	Arsenic	68%, 76%	
	Antimony	52%, 56%	
	Selenium	77%, acceptable	
079SB-0151M-0001-SO	Nickel	79%, acceptable	079SB-00217M-0001-SO, 079SB-0234M-0001-SO, 079SB-0236M-0001-SO
	Antimony	28%, 33%	
	Zinc	77%, acceptable	
	Selenium	57%, 64%	
079SB-0220M-0001-SO	Barium	79%, 79%	
	Nickel	77%, acceptable	
	Antimony	26%, 26%	
	Selenium	64%, 64%	
	Arsenic	acceptable, 77%	
	Copper	acceptable, 79%	
079SB-0171M-0001-SO	Antimony	23%, 24%	
	Selenium	70%, 69%	
079SD-0305-0001-SD	Antimony	49%, N/A	079SD-0305-0001-SO

Post digestion spike analyses were performed on samples 079SB-0324M-0001-SO, 079SB-0271M-0001-SO, 079SB-0171M-0001-SO, 079SB-0220M-0001-SO, 079SB-0151M-0001-SO, 079SB-0305-0001-SO and 079SW-0311-0001-SW for the ICPMS

analytes. All recoveries were within the control limits listed in DoD QSM Table F-8 of 75-125%.

- Serial Dilution: Serial dilution analyses were performed on 079SB-0324M-0001-SO, 079SB-0271M-0001-SO, 079SB-0171M-0001-SO, 079SB-0220M-0001-SO, 079SB-0151M-0001-SO, 079SD-0305-0001-SO, and 079SW-0311-0001-SW. Except as noted below, serial dilution %Ds were within the control limits listed in DoD QSM Table F-8 of ≤10%. The serial dilution control limit is only applicable when the original sample concentration is minimally ≥50× the LOQ.

  Results listed in the table below were qualified as estimated, "J," and were coded with an "A" qualification code.

Samples qualified for serial dilution %D outliers			
Parent Sample	**Analyte**	**%Ds**	**Qualified Samples**
079SB-0342M-0001-SO	Zinc	12%	079SB-0245M-0001-SO, 079SB-0247M-0001-SO, 079SB-0252M-0001-SO, 079SB-0267M-0001-SO, 079SB-0269M-0001-SO, 079SB-0272M-0001-SO
079SB-0271M-0001-SO	Arsenic	12%	
	Zinc	16%	
079SB-0171M-0001-SO	Zinc	12%	079SB-00217M-0001-SO, 079SB-0234M-0001-SO, 079SB-0236M-0001-SO

- Internal Standards: All ICPMS sample internal standards intensities were within 30-120% of those in the ICV, as per the DOD QSM Table F-8. Yttrium (^{89}Y) was spiked into the QC samples but not the site samples.

- Sample Result Verification: For Level IV validation, calculations were verified and the sample results reported on the sample result summary were verified against the raw data. In order to report the analyte within the linear range of the calibration, manganese in samples 079SB-0269M-0001-SO and 079SB-0236M-0001-SO was reported from a 5× dilution. Any result reported between the DL and the LOQ was qualified as estimated, "J." Reported nondetects are valid to the LOD.

  Due to instrument limitations, the mercury raw data did not list the sample absorbances; therefore, the reviewer was not able to calculate the sample results from the raw data. Additionally, the ICPMS raw data did not list absorbances for the ICV, CCV, ICSAB, and MRL samples, and the %R was listed instead of the sample concentrations.

- Manual Integrations: No manual integrations were noted in the mercury analyses.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

- Field Blanks and Equipment Rinsates: There were no field blanks or equipment rinsates associated with the validated site samples.

- Field Duplicate Samples: A total of eight field duplicate samples were collected and analyzed for metals. The RPD criterion in FWQAPP Table 3-1 of ≤50% was only applied when results for common detects were ≥5× the LOQ. In cases where results were <5× the LOQ, the reasonable control limit of ± the LOQ was applied. All results were within the control limits. See Appendix C for a complete comparison of all primary and field duplicate results.

10.3 Data Usability

According to the Draft Site Inspection Report prepared by ECC, the field completeness was 100%.

Two metals data points were rejected for poor MS/MSD recoveries. In instances where a data point had multiple results, the reviewer chose the most technically sound result to report and rejected the remaining data points. Data points rejected to choose the most technically sound data do not affect data quality or usability and are not included in the table below. Data detects between the DL and the LOQ were included in the table below for informational purposes only.

Table 37. Analytical completeness for RVAAP-79 validated primary data

			Number of Results					
Analysis	**Samples Analyzed**	**Analytes per Sample**	**Total**	**Rejected**	**LODs/DLs Exceeding Criteria**	**Estimated for QC Outliers**	**Estimated for Detects <LOQ**	**Percent Complete**
Explosives	1	16	15	0	0/0	0	0	100%
Nitroguanidine	1	1	1	0	0/0	0	0	100%
Nitrocellulose	1	1	1	0	0/0	0	0	100%
PCBs	1	7	7	0	0/0	1	0	100%
Pesticides	1	21	21	0	0/0	1	0	100%
SVOCs	1	66	64	0	0/0	0	0	100%
VOCs	1	35	35	0	0/0	1	1	100%
Metals	11	23	253	2	0/0	61	36	99.2%
		Totals	**397**	**2**	**0/0**	**64**	**37**	**99.5%**

The analytical completeness goal for the project established in the FWQAPP was 90% for each method. The completeness goal was met for all analyses.

10.4 Primary and Field Duplicate Comparison Summary

Primary and field duplicate sample comparisons were considered to be in good agreement as all results were within the FWQAPP control limit of 50% for soils or +/- the LOQ for results below the LOQ. Rejected results are not included in the table below. All results (182) were within the control limits.

All field duplicate comparison results are presented in Appendix C.

Table 38. RVAAP-79 primary/field duplicate sample comparison summary

Method	Primary/Field Duplicate Pairs	Number of Analytes	Total Analytes	Number of results within control limits	Number of results above control limit
Metals	8	23	182	182	0

10.5 Specific Data Concerns

Specific concerns regarding the data are noted below:

- Due to instrument limitations, the mercury raw data did not list the sample absorbances; therefore, the reviewer was not able to calculate the sample results from the raw data. Additionally, the ICPMS raw data did not list absorbances for the ICV, CCV, ICSAB, and MRL samples, and the %R was listed instead of the sample concentrations.

In order to avoid repetition of the issues noted above, the following actions should be taken:

- MEC^X recommends the laboratory be requested to alter the IPCMS and mercury instrument set up in order to report mercury and ICPMS raw absorbances and ICPMS ICV, CCV, ICSAB, and MRL concentrations.

11 CONCLUSIONS

11.1 Data Qualification Summary

A summary of the qualifications applied to the data can be found in Appendix B as can a summary of all rejected results.

11.2 Primary and Field Duplicate Summary

Site-specific comparison summaries can be found in Sections 4 through 10. A summary of the results can be found in Appendix C.

11.3 Data Usability

Site-specific data usability summaries can be found in Sections 4 through 10.

12 RECOMMENDATIONS

Specific concerns regarding the data are noted below:

- A few LODs and DLs exceeded the project criteria. These exceedances are detailed in in the AOC-specific sections.

- Matrix interference was present in the primary column explosive analyses of the validated the surface water sample. Target compounds were not detected on the primary column in most of the samples; therefore, no confirmation analyses were performed. The final data user should be aware that the mass may have masked some target compound peaks.

- Due to instrument limitations, the mercury raw data did not list the sample absorbances; therefore, the reviewer was not able to calculate the sample results from the raw data. Additionally, the ICPMS raw data did not list absorbances for the ICV, CCV, ICSAB, and MRL samples, and the %R was listed instead of the sample concentrations.

In order to avoid repetition of the issues noted above, the following actions should be taken:

- When significant matrix interference is noted in primary column, MEC^X suggests the laboratory be requested to perform confirmation analyses even when there are no primary column detects to confirm, as the matrix interference may suppress identification on the primary column. MEC^X recommends all surface water samples be validated at Level IV in order to assess if they were affected by matrix interference.

- MEC^X recommends the laboratory be requested to alter the IPCMS and mercury instrument set up in order to report mercury and ICPMS raw absorbances and ICPMS ICV, CCV, ICSAB, and MRL concentrations.

13 REFERENCES

Contract Laboratory Program National Functional Guidelines for Superfund Organic Data Review. United States Environmental Protection Agency Contract Laboratory Program (CLP). June 2008.

Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review. United States Environmental Protection Agency. January 2010.

Department of Defense Quality Systems Manual for Environmental Laboratories, Version 4.2. DoD Data Quality Workgroup. October 2010.

Facility-Wide Sampling and Analysis Plan for Environmental Investigations at the Ravenna Army Ammunition Plant, Ravenna, Ohio. SAIC. March 2001.

Louisville DOD Quality Systems Manual Supplement, Version 1. Environmental Branch, Engineering Division, U.S. Army Corps of Engineers, Louisville District. March 2007.

Remedial Investigation CC RVAAP-68 Electric Substations (East, West, No. 3). Environmental Chemical Corporation. 2014.

Remedial Investigation CC RVAAP-69 Building 1048 Fire Station. Environmental Chemical Corporation. 2014.

Remedial Investigation CC RVAAP-73 Facility-Wide Coal Storage Sites. Environmental Chemical Corporation. 2014.

Remedial Investigation CC RVAAP-74 Building 1034 Motor Pool Hydraulic Lift. Environmental Chemical Corporation. 2014.

Remedial Investigation CC RVAAP-78 Quarry Pond Surface Dump. Environmental Chemical Corporation. 2014.

Remedial Investigation CC RVAAP-79 DLA Ore Storage Sites – Main Storage Area. Environmental Chemical Corporation. 2014.

Remedial Investigation CC RVAAP-79 DLA Ore Storage Sites – Remaining Ore Sites. Environmental Chemical Corporation. 2014.

PBA 2008 Supplemental Investigation Sampling and Analysis Plan, Addendum No.1. SAIC Engineering of Ohio, Inc. December 2009.

Quality Assurance Project Plan for Environmental Investigations at the Ravenna Army Ammunition Plant. SAIC. March 2001.

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Revision 6. United States Environmental Protection Agency. February 2007.

APPENDIX A

Qualified Sample Result Forms

Qualification Code Reference Table

Qualifier	Organics	Inorganics
H	Holding times were exceeded.	Holding times were exceeded.
S	Surrogate recovery was outside QC limits.	The sequence or number of standards used for the calibration was incorrect.
C	Calibration %RSD or %D was noncompliant.	Correlation coefficient was noncompliant.
R	Calibration RRF was noncompliant.	%R for calibration is not within control limits.
B	Presumed contamination as indicated by the preparation (method) blank results.	Presumed contamination as indicated by the preparation (method) or calibration blank results.
L	Laboratory Control Sample/Control Sample Duplicate %R was not within control limits.	Laboratory Control Sample %R was not within control limits.
Q	MS/MSD recovery was poor or RPD high.	MS recovery was poor.
E	Not applicable	Duplicates showed poor agreement.
I	Internal standard performance was unsatisfactory.	ICP or ICPMS ICS results were unsatisfactory.
A	Not applicable	ICP Serial Dilution %D were not within control limits.
M	Tuning (BFB or DFTPP) was noncompliant.	ICPMS tuning was noncompliant
T	Presumed contamination as indicated by the trip blank results.	Not applicable
+	False positive – reported compound was not present.	False positive – reported compound was not present.
-	False negative – compound was present but not reported.	False negative – compound was present but not reported.
F	Presumed contamination as indicated by the FB or ER results.	Presumed contamination as indicated by the FB or ER results.
$	Reported result or other information was incorrect.	Reported result or other information was incorrect.
?	TIC identity or reported retention time has been changed.	Not applicable.
D	The analysis with this flag should not be used because another more technically sound analysis is available.	The analysis with this flag should not be used because another more technically sound analysis is available.
P	Instrument performance for pesticides was poor.	Post Digestion Spike recovery was not within control limits.
*II, *III	A deficiency was found that has been described in the "Sample Management," section (*II) or the "Method Analyses" section (*III).	A deficiency was found that has been described in the "Sample Management," section (*II) or the "Method Analyses" section (*III).

Validated Sample Result Forms for Sampling : Ravenna Army Ammunition Plant Ravenna, Ohio
Remediation Investigation Compliance Restoration Site: RVAAP-68 Electric Substations

Sample Delivery Group: 240-17317-1

Analysis Method E353.2

Sample Name 068SS-0003M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-17317-7 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
NITROCELLULOSE	9004-70-0	0.88	4.8	MG/KG	J	J	Q

Sample Delivery Group: 240-17317-1

Analysis Method SW6020

Sample Name 068SS-0003M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-17317-7 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
ALUMINUM	7429-90-5	13000	8.5	MG/KG	J		
ANTIMONY	7440-36-0	2.16	0.85	MG/KG	D J	J-	Q
ARSENIC	7440-38-2	12	0.43	MG/KG			
BARIUM	7440-39-3	90.5	2.1	MG/KG	D 4		
BERYLLIUM	7440-41-7	0.87	0.085	MG/KG			
CADMIUM	7440-43-9	0.12	0.17	MG/KG	J	J	
CALCIUM	7440-70-2	3900	170	MG/KG	J		
CHROMIUM	7440-47-3	22	0.43	MG/KG			
COBALT	7440-48-4	13	0.085	MG/KG			
COPPER	7440-50-8	18	0.34	MG/KG			
IRON	7439-89-6	29800	210	MG/KG	D 4		
LEAD	7439-92-1	26.3	1.3	MG/KG	D		
MAGNESIUM	7439-95-4	3700	85	MG/KG			
MANGANESE	7439-96-5	386	2.1	MG/KG	D 4	J	E
NICKEL	7440-02-0	28	0.43	MG/KG			
POTASSIUM	7440-09-7	1200	85	MG/KG	J		
SELENIUM	7782-49-2	0.57	0.43	MG/KG		J	M
SILVER	7440-22-4	0.029	0.085	MG/KG	J	J	
SODIUM	7440-23-5	52	85	MG/KG	J	U	F
THALLIUM	7440-28-0	7.97	0.85	MG/KG	D		
VANADIUM	7440-62-2	21	0.43	MG/KG			
ZINC	7440-66-6	63	3.4	MG/KG			

Analysis Method SW7471A

Sample Name 068SS-0003M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-17317-7 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
MERCURY	7439-97-6	0.046	0.098	MG/KG	J	U	B

Sample Delivery Group: 240-17317-1

Analysis Method SW8082

Sample Name 068SS-0003M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-17317-7 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
PCB-1016	12674-11-2	25	65	UG/KG	U	U	
PCB-1221	11104-28-2	25	50	UG/KG	U	U	
PCB-1232	11141-16-5	25	45	UG/KG	U	U	
PCB-1242	53469-21-9	25	40	UG/KG	U	U	
PCB-1248	12672-29-6	25	55	UG/KG	U	U	
PCB-1254	11097-69-1	25	55	UG/KG	U	U	
PCB-1260	11096-82-5	25	55	UG/KG	U	U	

Sample Delivery Group: 240-17317-1

Analysis Method SW8260B

Sample Name 068SS-0003M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-17317-7 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
1,1,1-TRICHLOROETHANE	71-55-6	0.8	4	UG/KG	U	U	
1,1,2,2-TETRACHLOROETHANE	79-34-5	0.4	4	UG/KG	U	U	
1,1,2-TRICHLOROETHANE	79-00-5	0.4	4	UG/KG	U	U	
1,1-DICHLOROETHANE	75-34-3	0.4	4	UG/KG	U	U	
1,1-DICHLOROETHENE	75-35-4	0.8	4	UG/KG	U	U	
1,2-DIBROMOETHANE	106-93-4	0.8	4	UG/KG	U	U	
1,2-DICHLOROETHANE	107-06-2	0.4	4	UG/KG	U	U	
1,2-DICHLOROPROPANE	78-87-5	0.8	4	UG/KG	U	U	
2-HEXANONE	591-78-6	0.8	16	UG/KG	U	U	
ACETONE	67-64-1	5	16	UG/KG	U	U	
BENZENE	71-43-2	0.4	4	UG/KG	U	U	
BROMOCHLOROMETHANE	74-97-5	0.8	4	UG/KG	U	U	
BROMODICHLOROMETHANE	75-27-4	0.4	4	UG/KG	U J	U	
BROMOFORM	75-25-2	0.4	4	UG/KG	U	U	
BROMOMETHANE	74-83-9	0.8	4	UG/KG	U	U	
CARBON DISULFIDE	75-15-0	0.69	4	UG/KG	J	J	
CARBON TETRACHLORIDE	56-23-5	0.4	4	UG/KG	U	U	
CHLOROBENZENE	108-90-7	0.4	4	UG/KG	U J	UJ	Q
CHLOROETHANE	75-00-3	0.8	4	UG/KG	U	U	
CHLOROFORM	67-66-3	0.4	4	UG/KG	U	U	
CHLOROMETHANE	74-87-3	0.4	4	UG/KG	U	U	
CIS-1,3-DICHLOROPROPENE	10061-01-5	0.4	4	UG/KG	U J	U	
DIBROMOCHLOROMETHANE	124-48-1	0.8	4	UG/KG	U	U	
ETHYLBENZENE	100-41-4	0.4	4	UG/KG	U J	UJ	Q
METHYL ETHYL KETONE	78-93-3	1.6	16	UG/KG	U	U	
METHYL ISOBUTYL KETONE	108-10-1	0.8	16	UG/KG	U	U	
METHYLENE CHLORIDE	75-09-2	0.8	4	UG/KG	U	U	
STYRENE	100-42-5	0.4	4	UG/KG	U J	UJ	Q

Sample Delivery Group: 240-17317-1

TETRACHLOROETHYLENE	127-18-4	0.8	4	UG/KG	U J	U	
TOLUENE	108-88-3	0.4	4	UG/KG	U J	U	
TOTAL 1,2-DICHLOROETHENE	540-59-0	0.8	8	UG/KG	U	U	
TRANS-1,3-DICHLOROPROPENE	10061-02-6	0.8	4	UG/KG	U	U	
TRICHLOROETHYLENE	79-01-6	0.4	4	UG/KG	U	U	
VINYL CHLORIDE	75-01-4	0.4	4	UG/KG	U	U	
XYLENES, TOTAL		1.2	8	UG/KG	U J	UJ	Q

Sample Delivery Group: 240-17317-1

Analysis Method SW8270C

Sample Name 068SS-0003M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-17317-7 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
1,2,4-TRICHLOROBENZENE	120-82-1	27	50	UG/KG	U	U	
1,2-DICHLOROBENZENE	95-50-1	27	50	UG/KG	U	U	
1,3-DICHLOROBENZENE	541-73-1	27	50	UG/KG	U	U	
1,4-DICHLOROBENZENE	106-46-7	27	50	UG/KG	U	U	
2,4,5-TRICHLOROPHENOL	95-95-4	27	150	UG/KG	U	U	
2,4,6-TRICHLOROPHENOL	88-06-2	80	150	UG/KG	U	U	
2,4-DICHLOROPHENOL	120-83-2	27	150	UG/KG	U	U	
2,4-DIMETHYLPHENOL	105-67-9	80	150	UG/KG	U	U	
2,4-DINITROPHENOL	51-28-5	80	330	UG/KG	U	UJ	C
2,4-DINITROTOLUENE	121-14-2	27	200	UG/KG	U	U	
2,6-DINITROTOLUENE	606-20-2	27	200	UG/KG	U	U	
2-CHLORONAPHTHALENE	91-58-7	3.3	50	UG/KG	U	U	
2-CHLOROPHENOL	95-57-8	27	50	UG/KG	U	U	
2-METHYLNAPHTHALENE	91-57-6	30	6.7	UG/KG			
2-METHYLPHENOL (O-CRESOL)	95-48-7	80	200	UG/KG	U	U	
2-NITROANILINE	88-74-4	27	200	UG/KG	U	U	
2-NITROPHENOL	88-75-5	27	50	UG/KG	U	U	
3,3'-DICHLOROBENZIDINE	91-94-1	80	100	UG/KG	U J	UJ	Q
3-NITROANILINE	99-09-2	80	200	UG/KG	U	U	
4,6-DINITRO-2-METHYLPHENOL	534-52-1	80	150	UG/KG	U	UJ	C
4-BROMOPHENYL PHENYL ETHE	101-55-3	27	50	UG/KG	U	U	
4-CHLORO-3-METHYLPHENOL	59-50-7	27	150	UG/KG	U	U	
4-CHLOROANILINE	106-47-8	27	150	UG/KG	U J	U	
4-CHLOROPHENYL PHENYL ETH	7005-72-3	27	50	UG/KG	U	U	
4-NITROANILINE	100-01-6	27	200	UG/KG	U	U	
4-NITROPHENOL	100-02-7	80	330	UG/KG	U	U	
ACENAPHTHENE	83-32-9	17	6.7	UG/KG			
ACENAPHTHYLENE	208-96-8	9.2	6.7	UG/KG			

Sample Delivery Group: 240-17317-1

ANTHRACENE	120-12-7	48	6.7	UG/KG			
BENZO(A)ANTHRACENE	56-55-3	270	6.7	UG/KG			
BENZO(A)PYRENE	50-32-8	330	6.7	UG/KG	J		
BENZO(B)FLUORANTHENE	205-99-2	520	6.7	UG/KG			
BENZO(G,H,I)PERYLENE	191-24-2	260	6.7	UG/KG	J		
BENZO(K)FLUORANTHENE	207-08-9	180	6.7	UG/KG	M		
BENZOIC ACID	65-85-0	330	660	UG/KG	U	UJ	Q
BENZYL ALCOHOL	100-51-6	448	330	UG/KG			
BENZYL BUTYL PHTHALATE	85-68-7	27	50	UG/KG	U	U	
BIS(2-CHLOROETHOXY) METHA	111-91-1	27	100	UG/KG	U	U	
BIS(2-CHLOROETHYL) ETHER	111-44-4	3.3	100	UG/KG	U	U	
BIS(2-CHLOROISOPROPYL) ETHE	108-60-1	27	100	UG/KG	U	U	
BIS(2-ETHYLHEXYL) PHTHALAT	117-81-7	34	50	UG/KG	J	U	B
CARBAZOLE	86-74-8	44	50	UG/KG	J	J	
CHRYSENE	218-01-9	340	6.7	UG/KG			
CRESOLS, M & P		80	400	UG/KG	U	U	
DIBENZ(A,H)ANTHRACENE	53-70-3	57	6.7	UG/KG		J	C
DIBENZOFURAN	132-64-9	15	50	UG/KG			
DIETHYL PHTHALATE	84-66-2	22	50	UG/KG	J	J	
DIMETHYL PHTHALATE	131-11-3	27	50	UG/KG	U	U	
DI-N-BUTYL PHTHALATE	84-74-2	19	50	UG/KG	J	J	
DI-N-OCTYLPHTHALATE	117-84-0	27	50	UG/KG	U	U	
FLUORANTHENE	206-44-0	650	6.7	UG/KG	J		
FLUORENE	86-73-7	16	6.7	UG/KG			
HEXACHLOROBENZENE	118-74-1	3.3	6.7	UG/KG	U	U	
HEXACHLOROBUTADIENE	87-68-3	27	50	UG/KG	U	U	
HEXACHLOROCYCLOPENTADIE	77-47-4	27	330	UG/KG	U	U	
HEXACHLOROETHANE	67-72-1	27	50	UG/KG	U	UJ	C
INDENO(1,2,3-C,D)PYRENE	193-39-5	220	6.7	UG/KG			
ISOPHORONE	78-59-1	16	50	UG/KG			
NAPHTHALENE	91-20-3	24	6.7	UG/KG			
NITROBENZENE	98-95-3	3.3	100	UG/KG	U	U	
N-NITROSODI-N-PROPYLAMINE	621-64-7	27	50	UG/KG	U	U	

Sample Delivery Group: 240-17317-1

N-NITROSODIPHENYLAMINE	86-30-6	27	50	UG/KG	U	R	C
PENTACHLOROPHENOL	87-86-5	80	150	UG/KG	U	U	
PHENANTHRENE	85-01-8	250	6.7	UG/KG			
PHENOL	108-95-2	27	50	UG/KG	U	U	
PYRENE	129-00-0	480	6.7	UG/KG			

Analysis Method SW8330B

Sample Name 068SS-0003M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-17317-7 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
1,3,5-TRINITROBENZENE	99-35-4	0.05	0.25	MG/KG	U	U	
1,3-DINITROBENZENE	99-65-0	0.05	0.25	MG/KG	U	U	
2,4,6-TRINITROTOLUENE	118-96-7	0.05	0.25	MG/KG	U	U	
2,4-DINITROTOLUENE	121-14-2	0.05	0.25	MG/KG	U	R	D
2,6-DINITROTOLUENE	606-20-2	0.05	0.25	MG/KG	U	R	D
2-AMINO-4,6-DINITROTOLUENE	35572-78-2	0.05	0.25	MG/KG	U	U	
2-NITROTOLUENE	88-72-2	0.05	0.25	MG/KG	U	UJ	C
3-NITROTOLUENE	99-08-1	0.05	0.25	MG/KG	U	U	
4-AMINO-2,6-DINITROTOLUENE	19406-51-0	0.05	0.25	MG/KG	U	U	
4-NITROTOLUENE	99-99-0	0.05	0.25	MG/KG	U	U	
HMX	2691-41-0	0.05	0.25	MG/KG	U	U	
NITROBENZENE	98-95-3	0.05	0.25	MG/KG	U	R	D
NITROGLYCERIN	55-63-0	0.25	0.5	MG/KG	U	U	
NITROGUANIDINE	556-88-7	0.04	0.025	MG/KG	U	U	
PETN	78-11-5	0.25	0.5	MG/KG	U	U	
RDX	121-82-4	0.05	0.25	MG/KG	U	UJ	C
TETRYL	479-45-8	0.05	0.25	MG/KG	J	U	B

Sample Delivery Group: 240-17422-1

Analysis Method SW6020

Sample Name 068SD-0009-0001-SO **AnalysisType:** N

Lab Sample Name: 240-17422-9 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
ALUMINUM	7429-90-5	12000	9.6	MG/KG	J		
ANTIMONY	7440-36-0	0.13	0.19	MG/KG	J	J-	Q
ARSENIC	7440-38-2	16	0.48	MG/KG		J-	Q
BARIUM	7440-39-3	78	0.48	MG/KG			
BERYLLIUM	7440-41-7	0.76	0.096	MG/KG			
CADMIUM	7440-43-9	0.61	0.19	MG/KG			
CALCIUM	7440-70-2	1500	190	MG/KG		J-	Q
CHROMIUM	7440-47-3	21	0.48	MG/KG			
COBALT	7440-48-4	12	0.096	MG/KG			
COPPER	7440-50-8	30	0.38	MG/KG			
IRON	7439-89-6	26000	48	MG/KG	J		
LEAD	7439-92-1	23	0.29	MG/KG		J-	Q
MAGNESIUM	7439-95-4	2400	96	MG/KG			
MANGANESE	7439-96-5	1200	9.6	MG/KG	D J	J	E
NICKEL	7440-02-0	24	0.48	MG/KG			
POTASSIUM	7440-09-7	790	96	MG/KG			
SELENIUM	7782-49-2	0.8	0.48	MG/KG		J-	M, Q
SILVER	7440-22-4	0.056	0.096	MG/KG	J	J	
SODIUM	7440-23-5	47	96	MG/KG	J	J	
THALLIUM	7440-28-0	0.22	0.19	MG/KG		J+	C
VANADIUM	7440-62-2	19	0.48	MG/KG			
ZINC	7440-66-6	160	3.8	MG/KG			

Analysis Method SW7471A

Sample Name 068SD-0009-0001-SO **AnalysisType:** N

Lab Sample Name: 240-17422-9 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
MERCURY	7439-97-6	0.031	0.095	MG/KG	J	U	B

Sample Delivery Group: 240-17422-1

Analysis Method SW8082

Sample Name 068SD-0009-0001-SO **AnalysisType:** N

Lab Sample Name: 240-17422-9 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
PCB-1016	12674-11-2	24	64	UG/KG	U	U	
PCB-1221	11104-28-2	24	49	UG/KG	U	U	
PCB-1232	11141-16-5	24	44	UG/KG	U	U	
PCB-1242	53469-21-9	24	39	UG/KG	U	U	
PCB-1248	12672-29-6	24	54	UG/KG	U	U	
PCB-1254	11097-69-1	24	54	UG/KG	U	U	
PCB-1260	11096-82-5	24	54	UG/KG	U	U	

Sample Delivery Group: 240-17422-1

Analysis Method SW8270C

Sample Name 068SD-0009-0001-SO **AnalysisType:** N

Lab Sample Name: 240-17422-9 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
1,2,4-TRICHLOROBENZENE	120-82-1	27	49	UG/KG	U	U	
1,2-DICHLOROBENZENE	95-50-1	27	49	UG/KG	U	U	
1,3-DICHLOROBENZENE	541-73-1	27	49	UG/KG	U	U	
1,4-DICHLOROBENZENE	106-46-7	27	49	UG/KG	U	U	
2,4,5-TRICHLOROPHENOL	95-95-4	27	150	UG/KG	U	U	
2,4,6-TRICHLOROPHENOL	88-06-2	79	150	UG/KG	U	U	
2,4-DICHLOROPHENOL	120-83-2	27	150	UG/KG	U	U	
2,4-DIMETHYLPHENOL	105-67-9	79	150	UG/KG	U	U	
2,4-DINITROPHENOL	51-28-5	79	330	UG/KG	U	UJ	C
2,4-DINITROTOLUENE	121-14-2	27	200	UG/KG	U	U	
2,6-DINITROTOLUENE	606-20-2	27	200	UG/KG	U	U	
2-CHLORONAPHTHALENE	91-58-7	3.3	49	UG/KG	U	U	
2-CHLOROPHENOL	95-57-8	27	49	UG/KG	U	U	
2-METHYLNAPHTHALENE	91-57-6	13	6.6	UG/KG			
2-METHYLPHENOL (O-CRESOL)	95-48-7	79	200	UG/KG	U	U	
2-NITROANILINE	88-74-4	27	200	UG/KG	U	U	
2-NITROPHENOL	88-75-5	27	49	UG/KG	U	U	
3,3'-DICHLOROBENZIDINE	91-94-1	79	99	UG/KG	U J	R	Q
3-NITROANILINE	99-09-2	79	200	UG/KG	U J	UJ	Q
4,6-DINITRO-2-METHYLPHENOL	534-52-1	79	150	UG/KG	U	U	
4-BROMOPHENYL PHENYL ETHE	101-55-3	27	49	UG/KG	U	U	
4-CHLORO-3-METHYLPHENOL	59-50-7	27	150	UG/KG	U	U	
4-CHLOROANILINE	106-47-8	27	150	UG/KG	U J	UJ	Q
4-CHLOROPHENYL PHENYL ETH	7005-72-3	27	49	UG/KG	U	U	
4-NITROANILINE	100-01-6	27	200	UG/KG	U J	UJ	Q
4-NITROPHENOL	100-02-7	79	330	UG/KG	U	U	
ACENAPHTHENE	83-32-9	3.3	6.6	UG/KG	U	U	
ACENAPHTHYLENE	208-96-8	3.3	6.6	UG/KG	U	U	

Sample Delivery Group: 240-17422-1

ANTHRACENE	120-12-7	3.3	6.6	UG/KG	J	J	
BENZO(A)ANTHRACENE	56-55-3	16	6.6	UG/KG			
BENZO(A)PYRENE	50-32-8	26	6.6	UG/KG			
BENZO(B)FLUORANTHENE	205-99-2	46	6.6	UG/KG			
BENZO(G,H,I)PERYLENE	191-24-2	16	6.6	UG/KG		J	C
BENZO(K)FLUORANTHENE	207-08-9	12	6.6	UG/KG	M		
BENZOIC ACID	65-85-0	330	650	UG/KG	U	U	
BENZYL ALCOHOL	100-51-6	27	330	UG/KG	U	U	
BENZYL BUTYL PHTHALATE	85-68-7	27	49	UG/KG	U	U	
BIS(2-CHLOROETHOXY) METHA	111-91-1	27	99	UG/KG	U	U	
BIS(2-CHLOROETHYL) ETHER	111-44-4	3.3	99	UG/KG	U	U	
BIS(2-CHLOROISOPROPYL) ETHE	108-60-1	27	99	UG/KG	U	U	
BIS(2-ETHYLHEXYL) PHTHALAT	117-81-7	38	49	UG/KG	J	U	B
CARBAZOLE	86-74-8	27	49	UG/KG	U	U	
CHRYSENE	218-01-9	28	6.6	UG/KG			
CRESOLS, M & P		79	400	UG/KG	U	U	
DIBENZ(A,H)ANTHRACENE	53-70-3	3.3	6.6	UG/KG	U	UJ	C
DIBENZOFURAN	132-64-9	3.3	49	UG/KG	U	U	
DIETHYL PHTHALATE	84-66-2	27	49	UG/KG	U	U	
DIMETHYL PHTHALATE	131-11-3	27	49	UG/KG	U	U	
DI-N-BUTYL PHTHALATE	84-74-2	27	49	UG/KG	U	U	
DI-N-OCTYLPHTHALATE	117-84-0	27	49	UG/KG	U	U	
FLUORANTHENE	206-44-0	38	6.6	UG/KG			
FLUORENE	86-73-7	3.3	6.6	UG/KG	U	U	
HEXACHLOROBENZENE	118-74-1	3.3	6.6	UG/KG	U	U	
HEXACHLOROBUTADIENE	87-68-3	27	49	UG/KG	U	U	
HEXACHLOROCYCLOPENTADIE	77-47-4	27	330	UG/KG	U	R	C
HEXACHLOROETHANE	67-72-1	27	49	UG/KG	U J	U	
INDENO(1,2,3-C,D)PYRENE	193-39-5	17	6.6	UG/KG		J	C
ISOPHORONE	78-59-1	27	49	UG/KG	U	U	
NAPHTHALENE	91-20-3	11	6.7	UG/KG			
NITROBENZENE	98-95-3	3.3	99	UG/KG	U	U	
N-NITROSODI-N-PROPYLAMINE	621-64-7	27	49	UG/KG	U	U	

Sample Delivery Group: 240-17422-1

N-NITROSODIPHENYLAMINE	86-30-6	27	49	UG/KG	U	U
PENTACHLOROPHENOL	87-86-5	79	150	UG/KG	U	U
PHENANTHRENE	85-01-8	22	6.6	UG/KG		
PHENOL	108-95-2	27	49	UG/KG	U	U
PYRENE	129-00-0	28	6.6	UG/KG		

Sample Delivery Group: 240-17477-1

Analysis Method SW6020

Sample Name 068SW-0016-0001-SW **AnalysisType:** N

Lab Sample Name: 240-17477-4 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
ALUMINUM	7429-90-5	320	60	UG/L			
ANTIMONY	7440-36-0	1	2	UG/L	J	J	
ARSENIC	7440-38-2	0.78	5	UG/L	J	J	
BARIUM	7440-39-3	34	5	UG/L		J	M
BERYLLIUM	7440-41-7	0.5	1	UG/L	U	U	
CADMIUM	7440-43-9	0.4	2	UG/L	U	U	
CALCIUM	7440-70-2	31000	2000	UG/L			
CHROMIUM	7440-47-3	1.5	2	UG/L	U	U	
COBALT	7440-48-4	0.31	1	UG/L	J	J	
COPPER	7440-50-8	1.6	4	UG/L	J	J	
IRON	7439-89-6	1300	150	UG/L		J+	C
LEAD	7439-92-1	0.59	1	UG/L	J	J	
MAGNESIUM	7439-95-4	8300	1000	UG/L			
MANGANESE	7439-96-5	330	5	UG/L			
NICKEL	7440-02-0	0.9	5	UG/L	J	J	
POTASSIUM	7440-09-7	1900	1000	UG/L			
SELENIUM	7782-49-2	0.5	5	UG/L	U	UJ	M
SILVER	7440-22-4	0.93	1	UG/L	J	J	
SODIUM	7440-23-5	3900	1000	UG/L			
THALLIUM	7440-28-0	1	2	UG/L	J	U	B
VANADIUM	7440-62-2	0.72	5	UG/L	J	J	
ZINC	7440-66-6	20	40	UG/L	J	U	B

Analysis Method SW7470A

Sample Name 068SW-0016-0001-SW **AnalysisType:** N

Lab Sample Name: 240-17477-4 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
MERCURY	7439-97-6	0.2	0.2	UG/L	U	UJ	C

Sample Delivery Group: 240-17477-1

Analysis Method SW8082

Sample Name 068SW-0016-0001-SW **AnalysisType:** N

Lab Sample Name: 240-17477-4 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
PCB-1016	12674-11-2	0.19	0.48	UG/L	U	U	
PCB-1221	11104-28-2	0.19	0.48	UG/L	U	U	
PCB-1232	11141-16-5	0.19	0.48	UG/L	U	U	
PCB-1242	53469-21-9	0.38	0.48	UG/L	U	U	
PCB-1248	12672-29-6	0.19	0.48	UG/L	U	U	
PCB-1254	11097-69-1	0.19	0.48	UG/L	U	U	
PCB-1260	11096-82-5	0.19	0.48	UG/L	U	U	

Sample Delivery Group: 240-17477-1

Analysis Method SW8270C

Sample Name 068SW-0016-0001-SW **AnalysisType:** N

Lab Sample Name: 240-17477-4 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
1,2,4-TRICHLOROBENZENE	120-82-1	0.76	0.95	UG/L	U J	UJ	Q
1,2-DICHLOROBENZENE	95-50-1	0.76	0.95	UG/L	U J	UJ	Q
1,3-DICHLOROBENZENE	541-73-1	0.76	0.95	UG/L	U J	UJ	Q
1,4-DICHLOROBENZENE	106-46-7	0.76	0.95	UG/L	U J	UJ	Q
2,4,5-TRICHLOROPHENOL	95-95-4	0.76	4.8	UG/L	U	U	
2,4,6-TRICHLOROPHENOL	88-06-2	0.76	4.8	UG/L	U	U	
2,4-DICHLOROPHENOL	120-83-2	0.76	1.9	UG/L	U	U	
2,4-DIMETHYLPHENOL	105-67-9	0.76	1.9	UG/L	U	U	
2,4-DINITROPHENOL	51-28-5	2.3	4.8	UG/L	U	U	
2,4-DINITROTOLUENE	121-14-2	0.76	4.8	UG/L	U	U	
2,6-DINITROTOLUENE	606-20-2	0.76	4.8	UG/L	U	U	
2-CHLORONAPHTHALENE	91-58-7	0.095	0.95	UG/L	U	U	
2-CHLOROPHENOL	95-57-8	0.76	0.95	UG/L	U	U	
2-METHYLNAPHTHALENE	91-57-6	0.095	0.19	UG/L	U	U	
2-METHYLPHENOL (O-CRESOL)	95-48-7	0.76	0.95	UG/L	U	U	
2-NITROANILINE	88-74-4	0.76	1.9	UG/L	U	U	
2-NITROPHENOL	88-75-5	0.76	1.9	UG/L	U	U	
3,3'-DICHLOROBENZIDINE	91-94-1	0.76	4.8	UG/L	U J	U	
3-NITROANILINE	99-09-2	0.76	1.9	UG/L	U	U	
4,6-DINITRO-2-METHYLPHENOL	534-52-1	2.3	4.8	UG/L	U	U	
4-BROMOPHENYL PHENYL ETHE	101-55-3	0.76	1.9	UG/L	U	U	
4-CHLORO-3-METHYLPHENOL	59-50-7	0.76	1.9	UG/L	U	U	
4-CHLOROANILINE	106-47-8	0.76	1.9	UG/L	U	U	
4-CHLOROPHENYL PHENYL ETH	7005-72-3	0.76	1.9	UG/L	U	U	
4-NITROANILINE	100-01-6	0.76	1.9	UG/L	U	U	
4-NITROPHENOL	100-02-7	2.3	4.8	UG/L	U	U	
ACENAPHTHENE	83-32-9	0.095	0.19	UG/L	U	U	
ACENAPHTHYLENE	208-96-8	0.095	0.19	UG/L	U	U	

Sample Delivery Group: 240-17477-1

ANTHRACENE	120-12-7	0.095	0.19	UG/L	U	U	
BENZO(A)ANTHRACENE	56-55-3	0.095	0.19	UG/L	U	U	
BENZO(A)PYRENE	50-32-8	0.095	0.19	UG/L	U J	U	
BENZO(B)FLUORANTHENE	205-99-2	0.095	0.19	UG/L	U	U	
BENZO(G,H,I)PERYLENE	191-24-2	0.095	0.19	UG/L	U J	UJ	Q
BENZO(K)FLUORANTHENE	207-08-9	0.095	0.19	UG/L	U	U	
BENZOIC ACID	65-85-0	9.5	24	UG/L	U	U	
BENZYL ALCOHOL	100-51-6	0.76	4.8	UG/L	U	U	
BENZYL BUTYL PHTHALATE	85-68-7	0.76	0.95	UG/L	U	U	
BIS(2-CHLOROETHOXY) METHA	111-91-1	0.76	0.95	UG/L	U	U	
BIS(2-CHLOROETHYL) ETHER	111-44-4	0.095	0.95	UG/L	U J	UJ	Q
BIS(2-CHLOROISOPROPYL) ETHE	108-60-1	0.76	0.95	UG/L	U J	UJ	Q
BIS(2-ETHYLHEXYL) PHTHALAT	117-81-7	0.76	1.9	UG/L	U J	U	
CARBAZOLE	86-74-8	0.76	0.95	UG/L	U	U	
CHRYSENE	218-01-9	0.095	0.19	UG/L	U	U	
CRESOLS, M & P		0.76	1.9	UG/L	U	U	
DIBENZ(A,H)ANTHRACENE	53-70-3	0.095	0.19	UG/L	U J	UJ	Q
DIBENZOFURAN	132-64-9	0.095	0.95	UG/L	U	U	
DIETHYL PHTHALATE	84-66-2	0.76	0.95	UG/L	U	U	
DIMETHYL PHTHALATE	131-11-3	0.76	0.95	UG/L	U	U	
DI-N-BUTYL PHTHALATE	84-74-2	0.76	0.95	UG/L	U	U	
DI-N-OCTYLPHTHALATE	117-84-0	0.76	0.95	UG/L	U J	UJ	Q
FLUORANTHENE	206-44-0	0.095	0.19	UG/L	U	U	
FLUORENE	86-73-7	0.095	0.19	UG/L	U	U	
HEXACHLOROBENZENE	118-74-1	0.095	0.19	UG/L	U	U	
HEXACHLOROBUTADIENE	87-68-3	0.76	0.95	UG/L	U J	UJ	Q
HEXACHLOROCYCLOPENTADIE	77-47-4	0.76	9.5	UG/L	U	U	
HEXACHLOROETHANE	67-72-1	0.76	0.95	UG/L	U J	UJ	Q
INDENO(1,2,3-C,D)PYRENE	193-39-5	0.095	0.19	UG/L	U J	UJ	Q
ISOPHORONE	78-59-1	0.76	0.95	UG/L	U	U	
NAPHTHALENE	91-20-3	0.095	0.19	UG/L	U	U	
NITROBENZENE	98-95-3	0.095	0.95	UG/L	U	U	
N-NITROSODI-N-PROPYLAMINE	621-64-7	0.76	0.95	UG/L	U	U	

Sample Delivery Group: 240-17477-1

N-NITROSODIPHENYLAMINE	86-30-6	0.76	0.95	UG/L	U	U
PENTACHLOROPHENOL	87-86-5	2.3	4.8	UG/L	U	U
PHENANTHRENE	85-01-8	0.095	0.19	UG/L	U	U
PHENOL	108-95-2	0.76	0.95	UG/L	U	U
PYRENE	129-00-0	0.095	0.19	UG/L	U	U

Sample Delivery Group: 240-22648-1

Analysis Method SW6020

Sample Name 068SB-0053M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-22648-58 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
ALUMINUM	7429-90-5	8700	2.7	MG/KG		J	E
ANTIMONY	7440-36-0	0.046	0.18	MG/KG	J	J-	Q
ARSENIC	7440-38-2	11	0.091	MG/KG	Q	J-	E, Q
BARIUM	7440-39-3	53	0.91	MG/KG	Q	J	M, E
BERYLLIUM	7440-41-7	0.5	0.091	MG/KG	Q		
CADMIUM	7440-43-9	0.12	0.091	MG/KG	Q		
CALCIUM	7440-70-2	3400	9.1	MG/KG		J	E, Q
CHROMIUM	7440-47-3	12	0.18	MG/KG		J	E
COBALT	7440-48-4	8.6	0.045	MG/KG	Q	J	E
COPPER	7440-50-8	16	0.18	MG/KG	Q	J	E
IRON	7439-89-6	21000	4.5	MG/KG		J	E
LEAD	7439-92-1	13	0.091	MG/KG	Q	J	E
MAGNESIUM	7439-95-4	2400	9.1	MG/KG		J	E
MANGANESE	7439-96-5	370	0.45	MG/KG	Q	J	E
NICKEL	7440-02-0	18	0.091	MG/KG		J	E
POTASSIUM	7440-09-7	770	9.1	MG/KG		J	E
SELENIUM	7782-49-2	0.29	0.45	MG/KG	J	J-	Q
SILVER	7440-22-4	0.028	0.091	MG/KG	J Q	J	
SODIUM	7440-23-5	44	9.1	MG/KG		J	E
THALLIUM	7440-28-0	0.12	0.091	MG/KG	Q		
VANADIUM	7440-62-2	15	0.091	MG/KG		J	E
ZINC	7440-66-6	40	0.45	MG/KG	Q	J-	E, Q, A

Analysis Method SW7471A

Sample Name 068SB-0053M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-22648-58 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
MERCURY	7439-97-6	0.015	0.1	MG/KG	J	J	

Sample Delivery Group: 240-22648-1

Analysis Method SW8082

Sample Name 068SB-0053M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-22648-58 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
PCB-1016	12674-11-2	25	65	UG/KG	U	U	
PCB-1221	11104-28-2	25	50	UG/KG	U	UJ	C
PCB-1232	11141-16-5	25	45	UG/KG	U	U	
PCB-1242	53469-21-9	25	40	UG/KG	U	U	
PCB-1248	12672-29-6	25	55	UG/KG	U	U	
PCB-1254	11097-69-1	25	55	UG/KG	U	U	
PCB-1260	11096-82-5	25	55	UG/KG	U	U	

Sample Delivery Group: 240-22648-1

Analysis Method SW8270C

Sample Name 068SB-0053M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-22648-58 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
1,2,4-TRICHLOROBENZENE	120-82-1	27	50	UG/KG	U	U	
1,2-DICHLOROBENZENE	95-50-1	27	50	UG/KG	U	U	
1,3-DICHLOROBENZENE	541-73-1	27	50	UG/KG	U	U	
1,4-DICHLOROBENZENE	106-46-7	27	50	UG/KG	U	U	
2,4,5-TRICHLOROPHENOL	95-95-4	27	150	UG/KG	U	U	
2,4,6-TRICHLOROPHENOL	88-06-2	80	150	UG/KG	U	U	
2,4-DICHLOROPHENOL	120-83-2	27	150	UG/KG	U	U	
2,4-DIMETHYLPHENOL	105-67-9	80	150	UG/KG	U	U	
2,4-DINITROPHENOL	51-28-5	80	330	UG/KG	U	UJ	C
2,4-DINITROTOLUENE	121-14-2	27	200	UG/KG	U	U	
2,6-DINITROTOLUENE	606-20-2	27	200	UG/KG	U	U	
2-CHLORONAPHTHALENE	91-58-7	3.3	50	UG/KG	U	U	
2-CHLOROPHENOL	95-57-8	27	50	UG/KG	U	U	
2-METHYLNAPHTHALENE	91-57-6	4.4	6.6	UG/KG	J	J	
2-METHYLPHENOL (O-CRESOL)	95-48-7	80	200	UG/KG	U	U	
2-NITROANILINE	88-74-4	27	200	UG/KG	U	U	
2-NITROPHENOL	88-75-5	27	50	UG/KG	U	U	
3,3'-DICHLOROBENZIDINE	91-94-1	80	100	UG/KG	U	U	
3-NITROANILINE	99-09-2	80	200	UG/KG	U	U	
4,6-DINITRO-2-METHYLPHENOL	534-52-1	80	150	UG/KG	U	U	
4-BROMOPHENYL PHENYL ETHE	101-55-3	27	50	UG/KG	U	U	
4-CHLORO-3-METHYLPHENOL	59-50-7	27	150	UG/KG	U	U	
4-CHLOROANILINE	106-47-8	27	150	UG/KG	U	U	
4-CHLOROPHENYL PHENYL ETH	7005-72-3	27	50	UG/KG	U	U	
4-NITROANILINE	100-01-6	27	200	UG/KG	U	U	
4-NITROPHENOL	100-02-7	80	330	UG/KG	U	U	
ACENAPHTHENE	83-32-9	3.3	6.6	UG/KG	U	U	
ACENAPHTHYLENE	208-96-8	3.3	6.6	UG/KG	U	U	

Sample Delivery Group: 240-22648-1

ANTHRACENE	120-12-7	3.3	6.6	UG/KG	U	U	
BENZO(A)ANTHRACENE	56-55-3	3.3	6.6	UG/KG	U	U	
BENZO(A)PYRENE	50-32-8	3.3	6.6	UG/KG	U	U	
BENZO(B)FLUORANTHENE	205-99-2	3.3	6.6	UG/KG	U	U	
BENZO(G,H,I)PERYLENE	191-24-2	3.3	6.6	UG/KG	U	U	
BENZO(K)FLUORANTHENE	207-08-9	3.3	6.6	UG/KG	U	U	
BENZOIC ACID	65-85-0	330	660	UG/KG	U	U	
BENZYL ALCOHOL	100-51-6	27	330	UG/KG	U	U	
BENZYL BUTYL PHTHALATE	85-68-7	27	70	UG/KG	U	U	
BIS(2-CHLOROETHOXY) METHA	111-91-1	27	100	UG/KG	U	U	
BIS(2-CHLOROETHYL) ETHER	111-44-4	3.3	100	UG/KG	U	U	
BIS(2-CHLOROISOPROPYL) ETHE	108-60-1	27	100	UG/KG	U	U	
BIS(2-ETHYLHEXYL) PHTHALAT	117-81-7	74	74	UG/KG		U	B
CARBAZOLE	86-74-8	27	50	UG/KG	U	U	
CHRYSENE	218-01-9	3.3	6.6	UG/KG	U	U	
CRESOLS, M & P		80	400	UG/KG	U	U	
DIBENZ(A,H)ANTHRACENE	53-70-3	3.3	6.6	UG/KG	U	U	
DIBENZOFURAN	132-64-9	3.3	50	UG/KG	U	U	
DIETHYL PHTHALATE	84-66-2	27	70	UG/KG	U	U	
DIMETHYL PHTHALATE	131-11-3	27	70	UG/KG	U	U	
DI-N-BUTYL PHTHALATE	84-74-2	27	70	UG/KG	U	U	
DI-N-OCTYLPHTHALATE	117-84-0	27	70	UG/KG	U	U	
FLUORANTHENE	206-44-0	3.3	6.6	UG/KG	U	U	
FLUORENE	86-73-7	3.3	6.6	UG/KG	U	U	
HEXACHLOROBENZENE	118-74-1	3.3	6.6	UG/KG	U	U	
HEXACHLOROBUTADIENE	87-68-3	27	50	UG/KG	U	U	
HEXACHLOROCYCLOPENTADIE	77-47-4	27	330	UG/KG	U	U	
HEXACHLOROETHANE	67-72-1	27	50	UG/KG	U	U	
INDENO(1,2,3-C,D)PYRENE	193-39-5	3.3	6.6	UG/KG	U	U	
ISOPHORONE	78-59-1	27	50	UG/KG	U	U	
NAPHTHALENE	91-20-3	3.3	6.6	UG/KG	U	U	
NITROBENZENE	98-95-3	3.3	100	UG/KG	U	U	
N-NITROSODI-N-PROPYLAMINE	621-64-7	27	50	UG/KG	U	U	

Sample Delivery Group: 240-22648-1

N-NITROSODIPHENYLAMINE	86-30-6	27	50	UG/KG	U	U
PENTACHLOROPHENOL	87-86-5	80	150	UG/KG	U	U
PHENANTHRENE	85-01-8	3.3	6.6	UG/KG	U	U
PHENOL	108-95-2	27	50	UG/KG	U	U
PYRENE	129-00-0	3.3	6.6	UG/KG	U	U

Validated Sample Result Forms for Sampling : Ravenna Army Ammunition Plant Ravenna, Ohio
Remediation Investigation Compliance Restoration Site: RVAAP-69 Building 1048 Fire Station

Sample Delivery Group: 240-17477-1

Analysis Method E353.2

Sample Name 069SS-0001M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-17525-1 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
NITROCELLULOSE	9004-70-0	17	47	MG/KG	U	U	

Analysis Method SW7471A

Sample Name 069SS-0001M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-17525-1 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
MERCURY	7439-97-6	0.206	0.11	MG/KG			

Analysis Method SW8082

Sample Name 069SS-0001M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-17525-1 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
PCB-1016	12674-11-2	24	64	UG/KG	U	U	
PCB-1221	11104-28-2	24	49	UG/KG	U	U	
PCB-1232	11141-16-5	24	44	UG/KG	U	U	
PCB-1242	53469-21-9	24	40	UG/KG	U	U	
PCB-1248	12672-29-6	24	54	UG/KG	U	U	
PCB-1254	11097-69-1	24	54	UG/KG	U	U	
PCB-1260	11096-82-5	41	54	UG/KG	J	J	

Sample Delivery Group: 240-17477-1

Analysis Method SW8260B

Sample Name 069SS-0001M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-17525-1 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
1,1,1-TRICHLOROETHANE	71-55-6	0.97	4.9	UG/KG	U	U	
1,1,2,2-TETRACHLOROETHANE	79-34-5	0.51	5.1	UG/KG	U	U	
1,1,2-TRICHLOROETHANE	79-00-5	0.51	5.1	UG/KG	U	U	
1,1-DICHLOROETHANE	75-34-3	0.51	5.1	UG/KG	U	U	
1,1-DICHLOROETHENE	75-35-4	1	5.1	UG/KG	U	U	
1,2-DIBROMOETHANE	106-93-4	1	5.1	UG/KG	U	U	
1,2-DICHLOROETHANE	107-06-2	0.51	5.1	UG/KG	U	U	
1,2-DICHLOROPROPANE	78-87-5	1	5.1	UG/KG	U	U	
2-HEXANONE	591-78-6	1	20	UG/KG	U	U	
ACETONE	67-64-1	6.1	19	UG/KG	U	U	
BENZENE	71-43-2	0.51	5.1	UG/KG	U	U	
BROMOCHLOROMETHANE	74-97-5	1	5.1	UG/KG	U	U	
BROMODICHLOROMETHANE	75-27-4	0.51	5.1	UG/KG	U	U	
BROMOFORM	75-25-2	0.51	5.1	UG/KG	U	U	
BROMOMETHANE	74-83-9	1	5.1	UG/KG	U	U	
CARBON DISULFIDE	75-15-0	0.51	5.1	UG/KG	U	UJ	C
CARBON TETRACHLORIDE	56-23-5	0.49	4.9	UG/KG	U	U	
CHLOROBENZENE	108-90-7	0.51	5.1	UG/KG	U J	U	
CHLOROETHANE	75-00-3	1	5.1	UG/KG	U	U	
CHLOROFORM	67-66-3	0.51	5.1	UG/KG	U	U	
CHLOROMETHANE	74-87-3	0.51	5.1	UG/KG	U	U	
CIS-1,3-DICHLOROPROPENE	10061-01-5	0.51	5.1	UG/KG	U	U	
DIBROMOCHLOROMETHANE	124-48-1	1	5.1	UG/KG	U	U	
ETHYLBENZENE	100-41-4	0.51	5.1	UG/KG	U	U	
METHYL ETHYL KETONE	78-93-3	2	20	UG/KG	U	U	
METHYL ISOBUTYL KETONE	108-10-1	1	20	UG/KG	U	U	
METHYLENE CHLORIDE	75-09-2	1	5.1	UG/KG	U	U	
STYRENE	100-42-5	0.51	5.1	UG/KG	U	U	

Sample Delivery Group: 240-17477-1

TERT-BUTYL METHYL ETHER	1634-04-4	0.51	5.1	UG/KG	U	U
TETRACHLOROETHYLENE	127-18-4	1	5.1	UG/KG	U	U
TOLUENE	108-88-3	0.51	5.1	UG/KG	U	U
TOTAL 1,2-DICHLOROETHENE	540-59-0	1	10	UG/KG	U	U
TRANS-1,3-DICHLOROPROPENE	10061-02-6	1	5.1	UG/KG	U	U
TRICHLOROETHYLENE	79-01-6	0.51	5.1	UG/KG	U	U
VINYL CHLORIDE	75-01-4	0.51	5.1	UG/KG	U	U
XYLENES, TOTAL		1.5	10	UG/KG	U	U

Sample Delivery Group: 240-17477-1

Analysis Method SW8270C

Sample Name 069SS-0001M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-17525-1 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
1,2,4-TRICHLOROBENZENE	120-82-1	140	250	UG/KG	U	U	
1,2-DICHLOROBENZENE	95-50-1	140	250	UG/KG	U	U	
1,3-DICHLOROBENZENE	541-73-1	140	250	UG/KG	U	U	
1,4-DICHLOROBENZENE	106-46-7	140	250	UG/KG	U	U	
2,4,5-TRICHLOROPHENOL	95-95-4	140	750	UG/KG	U	U	
2,4,6-TRICHLOROPHENOL	88-06-2	400	750	UG/KG	U	U	
2,4-DICHLOROPHENOL	120-83-2	140	750	UG/KG	U	U	
2,4-DIMETHYLPHENOL	105-67-9	400	750	UG/KG	U	U	
2,4-DINITROPHENOL	51-28-5	400	1700	UG/KG	U	J	
2,4-DINITROTOLUENE	121-14-2	140	1000	UG/KG	U	R	D
2,6-DINITROTOLUENE	606-20-2	140	1000	UG/KG	U	R	D
2-CHLORONAPHTHALENE	91-58-7	17	250	UG/KG	U	U	
2-CHLOROPHENOL	95-57-8	140	250	UG/KG	U	U	
2-METHYLNAPHTHALENE	91-57-6	20	34	UG/KG	J D	J	
2-METHYLPHENOL (O-CRESOL)	95-48-7	400	1000	UG/KG	U	U	
2-NITROANILINE	88-74-4	140	1000	UG/KG	U	U	
2-NITROPHENOL	88-75-5	140	250	UG/KG	U	U	
3,3'-DICHLOROBENZIDINE	91-94-1	400	500	UG/KG	U	R	Q
3-NITROANILINE	99-09-2	400	1000	UG/KG	U	U	
4,6-DINITRO-2-METHYLPHENOL	534-52-1	400	750	UG/KG	U	UJ	Q
4-BROMOPHENYL PHENYL ETHE	101-55-3	140	250	UG/KG	U	U	
4-CHLORO-3-METHYLPHENOL	59-50-7	140	750	UG/KG	U	U	
4-CHLOROANILINE	106-47-8	140	750	UG/KG	U	U	
4-CHLOROPHENYL PHENYL ETH	7005-72-3	140	250	UG/KG	U	U	
4-NITROANILINE	100-01-6	140	1000	UG/KG	U	U	
4-NITROPHENOL	100-02-7	400	1700	UG/KG	U	UJ	Q
ACENAPHTHENE	83-32-9	17	34	UG/KG	U	U	
ACENAPHTHYLENE	208-96-8	17	34	UG/KG	U	U	

Sample Delivery Group: 240-17477-1

ANTHRACENE	120-12-7	17	34	UG/KG	U	U	
BENZO(A)ANTHRACENE	56-55-3	54	34	UG/KG	D		
BENZO(A)PYRENE	50-32-8	93	34	UG/KG	D		
BENZO(B)FLUORANTHENE	205-99-2	90	34	UG/KG	D		
BENZO(G,H,I)PERYLENE	191-24-2	52	34	UG/KG	D		
BENZO(K)FLUORANTHENE	207-08-9	28	34	UG/KG	J D M	J	
BENZOIC ACID	65-85-0	1700	3300	UG/KG	U	R	Q
BENZYL ALCOHOL	100-51-6	140	1700	UG/KG	U	U	
BENZYL BUTYL PHTHALATE	85-68-7	140	250	UG/KG	U	U	
BIS(2-CHLOROETHOXY) METHA	111-91-1	140	500	UG/KG	U	U	
BIS(2-CHLOROETHYL) ETHER	111-44-4	17	500	UG/KG	U	U	
BIS(2-CHLOROISOPROPYL) ETHE	108-60-1	140	500	UG/KG	U	U	
BIS(2-ETHYLHEXYL) PHTHALAT	117-81-7	140	250	UG/KG	U	U	
CARBAZOLE	86-74-8	140	250	UG/KG	U	U	
CHRYSENE	218-01-9	72	34	UG/KG	D		
CRESOLS, M & P		400	2000	UG/KG	U	U	
DIBENZ(A,H)ANTHRACENE	53-70-3	17	34	UG/KG	U	U	
DIBENZOFURAN	132-64-9	17	250	UG/KG	U	U	
DIETHYL PHTHALATE	84-66-2	140	250	UG/KG	U	U	
DIMETHYL PHTHALATE	131-11-3	140	250	UG/KG	U	U	
DI-N-BUTYL PHTHALATE	84-74-2	140	250	UG/KG	U	U	
DI-N-OCTYLPHTHALATE	117-84-0	140	250	UG/KG	U	U	
FLUORANTHENE	206-44-0	120	34	UG/KG	D		
FLUORENE	86-73-7	17	34	UG/KG	U	U	
HEXACHLOROBENZENE	118-74-1	17	34	UG/KG	U	U	
HEXACHLOROBUTADIENE	87-68-3	140	250	UG/KG	U	U	
HEXACHLOROCYCLOPENTADIE	77-47-4	140	1700	UG/KG	U	U	
HEXACHLOROETHANE	67-72-1	140	250	UG/KG	U	U	
INDENO(1,2,3-C,D)PYRENE	193-39-5	69	34	UG/KG	D M		
ISOPHORONE	78-59-1	140	250	UG/KG	U	U	
NAPHTHALENE	91-20-3	18	34	UG/KG	J D	J	
NITROBENZENE	98-95-3	17	500	UG/KG	U	U	
N-NITROSODI-N-PROPYLAMINE	621-64-7	140	250	UG/KG	U	U	

Sample Delivery Group: 240-17477-1

N-NITROSODIPHENYLAMINE	86-30-6	140	250	UG/KG	U	R	C
PENTACHLOROPHENOL	87-86-5	400	750	UG/KG	U	U	
PHENANTHRENE	85-01-8	53	34	UG/KG	D		
PHENOL	108-95-2	140	250	UG/KG	U	U	
PYRENE	129-00-0	86	34	UG/KG	D		

Analysis Method SW8330B

Sample Name 069SS-0001M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-17525-1 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
1,3,5-TRINITROBENZENE	99-35-4	0.05	0.25	MG/KG	U	U	
1,3-DINITROBENZENE	99-65-0	0.05	0.25	MG/KG	U	U	
2,4,6-TRINITROTOLUENE	118-96-7	0.05	0.25	MG/KG	U	U	
2,4-DINITROTOLUENE	121-14-2	0.05	0.25	MG/KG	U	U	
2,6-DINITROTOLUENE	606-20-2	0.05	0.25	MG/KG	U	U	
2-AMINO-4,6-DINITROTOLUENE	35572-78-2	0.05	0.25	MG/KG	U	U	
2-NITROTOLUENE	88-72-2	0.05	0.25	MG/KG	U	UJ	C
3-NITROTOLUENE	99-08-1	0.05	0.25	MG/KG	U	U	
4-AMINO-2,6-DINITROTOLUENE	19406-51-0	0.05	0.25	MG/KG	U	U	
4-NITROTOLUENE	99-99-0	0.05	0.25	MG/KG	U	U	
HMX	2691-41-0	0.05	0.25	MG/KG	U	U	
NITROBENZENE	98-95-3	0.05	0.25	MG/KG	U	R	D
NITROGLYCERIN	55-63-0	0.25	0.5	MG/KG	U	U	
NITROGUANIDINE	556-88-7	0.039	0.24	MG/KG	U	U	
PETN	78-11-5	0.25	0.5	MG/KG	U	U	
RDX	121-82-4	0.05	0.25	MG/KG	U	UJ	C
TETRYL	479-45-8	0.05	0.25	MG/KG	U	U	

Sample Delivery Group: 240-17525-2

Analysis Method SW6020

Sample Name 069SS-0001M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-17525-1 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
ALUMINUM	7429-90-5	14000	2.7	MG/KG	J	J	
ANTIMONY	7440-36-0	0.14	0.18	MG/KG	J	J	I, Q
ARSENIC	7440-38-2	10.0	0.089	MG/KG		J-	Q
BARIUM	7440-39-3	76.0	0.89	MG/KG	Q	J	M
BERYLLIUM	7440-41-7	0.82	0.089	MG/KG			
CADMIUM	7440-43-9	0.29	0.089	MG/KG		J-	Q
CALCIUM	7440-70-2	5300	8.9	MG/KG		J	A, E
CHROMIUM	7440-47-3	24.0	0.18	MG/KG			
COBALT	7440-48-4	11.0	0.045	MG/KG	Q		
COPPER	7440-50-8	19.0	0.18	MG/KG	Q	J-	Q
IRON	7439-89-6	24000	4.5	MG/KG			
LEAD	7439-92-1	19.0	0.089	MG/KG			
MAGNESIUM	7439-95-4	3900	8.9	MG/KG			
MANGANESE	7439-96-5	430.0	0.45	MG/KG	Q J	J	
NICKEL	7440-02-0	27.0	0.089	MG/KG	Q		
POTASSIUM	7440-09-7	1500	8.9	MG/KG			
SELENIUM	7782-49-2	0.78	0.45	MG/KG		J-	Q
SILVER	7440-22-4	0.034	0.089	MG/KG	J	J+	I
SODIUM	7440-23-5	53.0	8.9	MG/KG		U	F
THALLIUM	7440-28-0	0.23	0.089	MG/KG		U	F
VANADIUM	7440-62-2	21.0	0.089	MG/KG			
ZINC	7440-66-6	79.0	0.45	MG/KG	Q		

Sample Delivery Group: 240-17602-1

Analysis Method SW7471A

Sample Name 069SB-0013M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-17602-9 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
MERCURY	7439-97-6	0.021	0.11	MG/KG	J	J	

Sample Delivery Group: 240-17602-1

Analysis Method SW8260B

Sample Name 069SB-0013M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-17602-9 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
1,1,1-TRICHLOROETHANE	71-55-6	0.99	4.9	UG/KG	U	U	
1,1,2,2-TETRACHLOROETHANE	79-34-5	0.51	5.1	UG/KG	U	U	
1,1,2-TRICHLOROETHANE	79-00-5	0.51	5.1	UG/KG	U	U	
1,1-DICHLOROETHANE	75-34-3	0.51	5.1	UG/KG	U	U	
1,1-DICHLOROETHENE	75-35-4	1.0	5.1	UG/KG	U	U	
1,2-DIBROMOETHANE	106-93-4	1.0	5.1	UG/KG	U	U	
1,2-DICHLOROETHANE	107-06-2	0.51	5.1	UG/KG	U	U	
1,2-DICHLOROPROPANE	78-87-5	1.0	5.1	UG/KG	U	U	
2-HEXANONE	591-78-6	1.0	20	UG/KG	U	U	
ACETONE	67-64-1	6.2	20	UG/KG	U	U	
BENZENE	71-43-2	0.51	5.1	UG/KG	U	U	
BROMOCHLOROMETHANE	74-97-5	1.0	5.1	UG/KG	U	U	
BROMODICHLOROMETHANE	75-27-4	0.51	5.1	UG/KG	U	U	
BROMOFORM	75-25-2	0.51	5.1	UG/KG	U	U	
BROMOMETHANE	74-83-9	1.0	5.1	UG/KG	U	U	
CARBON DISULFIDE	75-15-0	0.51	5.1	UG/KG	U	UJ	C
CARBON TETRACHLORIDE	56-23-5	2.7	4.9	UG/KG	J	J	
CHLOROBENZENE	108-90-7	0.51	5.1	UG/KG	U	U	
CHLOROETHANE	75-00-3	1.0	5.1	UG/KG	U	U	
CHLOROFORM	67-66-3	0.51	5.1	UG/KG	U	U	
CHLOROMETHANE	74-87-3	0.51	5.1	UG/KG	U	U	
CIS-1,3-DICHLOROPROPENE	10061-01-5	0.51	5.1	UG/KG	U	U	
DIBROMOCHLOROMETHANE	124-48-1	1.0	5.1	UG/KG	U	U	
ETHYLBENZENE	100-41-4	0.51	5.1	UG/KG	U	U	
METHYL ETHYL KETONE	78-93-3	2.0	20	UG/KG	U	U	
METHYL ISOBUTYL KETONE	108-10-1	1.0	20	UG/KG	U	U	
METHYLENE CHLORIDE	75-09-2	1.0	5.1	UG/KG	U	U	
STYRENE	100-42-5	0.51	5.1	UG/KG	U	U	

Sample Delivery Group: 240-17602-1

TERT-BUTYL METHYL ETHER	1634-04-4	0.51	5.1	UG/KG	U	U
TETRACHLOROETHYLENE	127-18-4	1.0	5.1	UG/KG	U	U
TOLUENE	108-88-3	0.51	5.1	UG/KG	U	U
TOTAL 1,2-DICHLOROETHENE	540-59-0	1.0	10	UG/KG	U	U
TRANS-1,3-DICHLOROPROPENE	10061-02-6	1.0	5.1	UG/KG	U	U
TRICHLOROETHYLENE	79-01-6	0.51	5.1	UG/KG	U	U
VINYL CHLORIDE	75-01-4	0.51	5.1	UG/KG	U	U
XYLENES, TOTAL		1.5	10	UG/KG	U	U

Sample Delivery Group: 240-17602-1

Analysis Method SW8270D

Sample Name 069SB-0013M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-17602-9 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
1,2,4-TRICHLOROBENZENE	120-82-1	27	49	UG/KG	U	U	
1,2-DICHLOROBENZENE	95-50-1	20.0	49	UG/KG	J	J	
1,3-DICHLOROBENZENE	541-73-1	27	49	UG/KG	U	U	
1,4-DICHLOROBENZENE	106-46-7	27	49	UG/KG	U	U	
2,2'-OXYBIS(1-CHLORO)PROPAN	108-60-1	27	98	UG/KG	U	U	
2,4,5-TRICHLOROPHENOL	95-95-4	27	150	UG/KG	U	U	
2,4,6-TRICHLOROPHENOL	88-06-2	79	150	UG/KG	U	U	
2,4-DICHLOROPHENOL	120-83-2	27	150	UG/KG	U	U	
2,4-DIMETHYLPHENOL	105-67-9	79	150	UG/KG	U	U	
2,4-DINITROPHENOL	51-28-5	79	320	UG/KG	U	U	
2,4-DINITROTOLUENE	121-14-2	27	200	UG/KG	U	U	
2,6-DINITROTOLUENE	606-20-2	27	200	UG/KG	U	U	
2-CHLORONAPHTHALENE	91-58-7	3.2	49	UG/KG	U	U	
2-CHLOROPHENOL	95-57-8	27	49	UG/KG	U	U	
2-METHYLNAPHTHALENE	91-57-6	5.8	6.6	UG/KG	J	J	
2-METHYLPHENOL (O-CRESOL)	95-48-7	79	200	UG/KG	U	U	
2-NITROANILINE	88-74-4	27	200	UG/KG	U	U	
2-NITROPHENOL	88-75-5	27	49	UG/KG	U	U	
3,3'-DICHLOROBENZIDINE	91-94-1	79	98	UG/KG	U	UJ	C
3-NITROANILINE	99-09-2	79	200	UG/KG	U	U	
4,6-DINITRO-2-METHYLPHENOL	534-52-1	79	150	UG/KG	U	U	
4-BROMOPHENYL PHENYL ETHE	101-55-3	27	49	UG/KG	U	U	
4-CHLORO-3-METHYLPHENOL	59-50-7	27	150	UG/KG	U	U	
4-CHLOROANILINE	106-47-8	27	150	UG/KG	U	U	
4-CHLOROPHENYL PHENYL ETH	7005-72-3	27	49	UG/KG	U	U	
4-NITROANILINE	100-01-6	27	200	UG/KG	U	U	
4-NITROPHENOL	100-02-7	79	320	UG/KG	U	U	
ACENAPHTHENE	83-32-9	3.2	6.6	UG/KG	U	U	

Sample Delivery Group: 240-17602-1

ACENAPHTHYLENE	208-96-8	3.2	6.6	UG/KG	U	U	
ANTHRACENE	120-12-7	3.2	6.6	UG/KG	U	U	
BENZO(A)ANTHRACENE	56-55-3	3.2	6.6	UG/KG	U	U	
BENZO(A)PYRENE	50-32-8	3.2	6.6	UG/KG	U	U	
BENZO(B)FLUORANTHENE	205-99-2	3.2	6.6	UG/KG	U	U	
BENZO(G,H,I)PERYLENE	191-24-2	3.2	6.6	UG/KG	U	U	
BENZO(K)FLUORANTHENE	207-08-9	3.2	6.6	UG/KG	U	U	
BENZOIC ACID	65-85-0	330	650	UG/KG	U	U	
BENZYL ALCOHOL	100-51-6	27	320	UG/KG	U	U	
BENZYL BUTYL PHTHALATE	85-68-7	27	49	UG/KG	U	U	
BIS(2-CHLOROETHOXY) METHA	111-91-1	27	98	UG/KG	U	U	
BIS(2-CHLOROETHYL) ETHER	111-44-4	3.2	98	UG/KG	U	U	
BIS(2-ETHYLHEXYL) PHTHALAT	117-81-7	130.0	49	UG/KG		U	B
CARBAZOLE	86-74-8	27	49	UG/KG	U	U	
CHRYSENE	218-01-9	3.2	6.6	UG/KG	U	U	
CRESOLS, M & P		79	390	UG/KG	U	U	
DIBENZ(A,H)ANTHRACENE	53-70-3	3.2	6.6	UG/KG	U	U	
DIBENZOFURAN	132-64-9	3.2	49	UG/KG	U	U	
DIETHYL PHTHALATE	84-66-2	27	49	UG/KG	U	U	
DIMETHYL PHTHALATE	131-11-3	27	49	UG/KG	U	U	
DI-N-BUTYL PHTHALATE	84-74-2	27	49	UG/KG	U	U	
DI-N-OCTYLPHTHALATE	117-84-0	27	49	UG/KG	U	U	
FLUORANTHENE	206-44-0	3.2	6.6	UG/KG	U	U	
FLUORENE	86-73-7	3.2	6.6	UG/KG	U	U	
HEXACHLOROBENZENE	118-74-1	3.2	6.6	UG/KG	U	U	
HEXACHLOROBUTADIENE	87-68-3	27	49	UG/KG	U	U	
HEXACHLOROCYCLOPENTADIE	77-47-4	27	320	UG/KG	U	U	
HEXACHLOROETHANE	67-72-1	27	49	UG/KG	U	U	
INDENO(1,2,3-C,D)PYRENE	193-39-5	3.2	6.6	UG/KG	U	U	
ISOPHORONE	78-59-1	27	49	UG/KG	U	U	
NAPHTHALENE	91-20-3	7.1	6.6	UG/KG			
NITROBENZENE	98-95-3	3.2	98	UG/KG	U	U	
N-NITROSODI-N-PROPYLAMINE	621-64-7	27	49	UG/KG	U	U	

Sample Delivery Group: 240-17602-1

N-NITROSODIPHENYLAMINE	86-30-6	27	49	UG/KG	U	R	C
PENTACHLOROPHENOL	87-86-5	79	150	UG/KG	U	U	
PHENANTHRENE	85-01-8	3.7	6.6	UG/KG	J	J	
PHENOL	108-95-2	27	49	UG/KG	U	U	
PYRENE	129-00-0	3.2	6.6	UG/KG	U	U	

Sample Delivery Group: 240-17602-2

Analysis Method SW6020

Sample Name 069SB-0013M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-17602-9 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
ALUMINUM	7429-90-5	9700	2.7	MG/KG			
ANTIMONY	7440-36-0	0.052	0.18	MG/KG	J	J	I, Q
ARSENIC	7440-38-2	13.0	0.091	MG/KG			
BARIUM	7440-39-3	39.0	0.91	MG/KG	Q	J	M
BERYLLIUM	7440-41-7	0.5	0.091	MG/KG			
CADMIUM	7440-43-9	0.17	0.091	MG/KG		J+	I
CALCIUM	7440-70-2	10000	9.1	MG/KG		J-	Q
CHROMIUM	7440-47-3	16.0	0.18	MG/KG			
COBALT	7440-48-4	10.0	0.045	MG/KG	Q		
COPPER	7440-50-8	18.0	0.18	MG/KG	Q		
IRON	7439-89-6	26000	4.5	MG/KG			
LEAD	7439-92-1	10.0	0.091	MG/KG			
MAGNESIUM	7439-95-4	4800	9.1	MG/KG			
MANGANESE	7439-96-5	320.0	0.45	MG/KG	Q		
NICKEL	7440-02-0	25.0	0.091	MG/KG	Q		
POTASSIUM	7440-09-7	1500	9.1	MG/KG			
SELENIUM	7782-49-2	0.47	0.45	MG/KG		J-	Q
SILVER	7440-22-4	0.028	0.091	MG/KG	J	J+	I
SODIUM	7440-23-5	77.0	9.1	MG/KG			
THALLIUM	7440-28-0	0.13	0.091	MG/KG			
VANADIUM	7440-62-2	15.0	0.091	MG/KG			
ZINC	7440-66-6	54.0	0.45	MG/KG	Q		

Validated Sample Result Forms for Sampling : Ravenna Army Ammunition Plant Ravenna, Ohio
Remediation Investigation Compliance Restoration Site: RVAAP-73 Coal Storage Area

Sample Delivery Group: 240-17422-1

Analysis Method E353.2

Sample Name 073SS-0002M-0001-SO **AnalysisType:** FD

Lab Sample Name: 240-17422-5 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
NITROCELLULOSE	9004-70-0	17	47	MG/KG	U	U	

Sample Delivery Group: 240-17422-1

Analysis Method SW6020

Sample Name 073SS-0002M-0001-SO **AnalysisType:** FD

Lab Sample Name: 240-17422-5 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
ALUMINUM	7429-90-5	6900	8.4	MG/KG			
ANTIMONY	7440-36-0	0.13	0.17	MG/KG	J	R	B, Q
ARSENIC	7440-38-2	9.4	0.42	MG/KG		J-	Q
BARIUM	7440-39-3	48	0.42	MG/KG			
BERYLLIUM	7440-41-7	0.49	0.084	MG/KG			
CADMIUM	7440-43-9	0.22	0.17	MG/KG			
CALCIUM	7440-70-2	4400	170	MG/KG			
CHROMIUM	7440-47-3	19	0.42	MG/KG			
COBALT	7440-48-4	6.8	0.084	MG/KG			
COPPER	7440-50-8	13	0.34	MG/KG			
IRON	7439-89-6	17000	42	MG/KG			
LEAD	7439-92-1	14	0.25	MG/KG			
MAGNESIUM	7439-95-4	2300	84	MG/KG			
MANGANESE	7439-96-5	380	0.42	MG/KG			
NICKEL	7440-02-0	22	0.42	MG/KG			
POTASSIUM	7440-09-7	950	84	MG/KG			
SELENIUM	7782-49-2	0.47	0.42	MG/KG		J-	M, Q
SILVER	7440-22-4	0.38	0.084	MG/KG			
SODIUM	7440-23-5	42	84	MG/KG	J	J	
THALLIUM	7440-28-0	0.13	0.17	MG/KG	J	U	B
VANADIUM	7440-62-2	11	0.42	MG/KG			
ZINC	7440-66-6	64	3.4	MG/KG			

Analysis Method SW7471A

Sample Name 073SS-0002M-0001-SO **AnalysisType:** FD

Lab Sample Name: 240-17422-5 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
MERCURY	7439-97-6	0.051	0.095	MG/KG	J	U	B

Sample Delivery Group: 240-17422-1

Analysis Method SW8081

Sample Name 073SS-0002M-0001-SO **AnalysisType:** FD

Lab Sample Name: 240-17422-5 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
ALDRIN	309-00-2	27	81	UG/KG	U	U	
ALPHA BHC	319-84-6	27	51	UG/KG	U	U	
ALPHA ENDOSULFAN	959-98-8	14	35	UG/KG	U	U	
ALPHA-CHLORDANE	5103-71-9	27	61	UG/KG	U	U	
BETA BHC	319-85-7	27	71	UG/KG	U	U	
BETA ENDOSULFAN	33213-65-9	27	51	UG/KG	U	U	
DELTA BHC	319-86-8	27	81	UG/KG	U	U	
DIELDRIN	60-57-1	14	35	UG/KG	U	U	
ENDOSULFAN SULFATE	1031-07-8	27	61	UG/KG	U	U	
ENDRIN	72-20-8	14	35	UG/KG	U	U	
ENDRIN ALDEHYDE	7421-93-4	27	61	UG/KG	U	U	
ENDRIN KETONE	53494-70-5	14	41	UG/KG	U	U	
GAMMA BHC (LINDANE)	58-89-9	27	51	UG/KG	U	U	
GAMMA-CHLORDANE	5566-34-7	14	35	UG/KG	U	U	
HEPTACHLOR	76-44-8	27	71	UG/KG	U	U	
HEPTACHLOR EPOXIDE	1024-57-3	27	51	UG/KG	U	U	
METHOXYCHLOR	72-43-5	67	100	UG/KG	U	U	
P,P'-DDD	72-54-8	14	41	UG/KG	U	U	
P,P'-DDE	72-55-9	14	35	UG/KG	U M	U	
P,P'-DDT	50-29-3	14	41	UG/KG	U	U	
TOXAPHENE	8001-35-2	410	1400	UG/KG	U	UJ	C

Sample Delivery Group: 240-17422-1

Analysis Method SW8082

Sample Name 073SS-0002M-0001-SO **AnalysisType:** FD

Lab Sample Name: 240-17422-5 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
PCB-1016	12674-11-2	25	66	UG/KG	U	U	
PCB-1221	11104-28-2	25	51	UG/KG	U	U	
PCB-1232	11141-16-5	25	46	UG/KG	U	U	
PCB-1242	53469-21-9	25	41	UG/KG	U	U	
PCB-1248	12672-29-6	25	56	UG/KG	U	U	
PCB-1254	11097-69-1	25	56	UG/KG	U	U	
PCB-1260	11096-82-5	25	56	UG/KG	U	U	

Sample Delivery Group: 240-17422-1

Analysis Method SW8260B

Sample Name 073SS-0002M-0001-SO **AnalysisType:** FD

Lab Sample Name: 240-17422-5 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
1,1,1-TRICHLOROETHANE	71-55-6	1.3	6.7	UG/KG	U	U	
1,1,2,2-TETRACHLOROETHANE	79-34-5	0.67	6.7	UG/KG	U	UJ	I
1,1,2-TRICHLOROETHANE	79-00-5	0.67	6.7	UG/KG	U	U	
1,1-DICHLOROETHANE	75-34-3	0.67	6.7	UG/KG	U	U	
1,1-DICHLOROETHENE	75-35-4	1.3	6.7	UG/KG	U	U	
1,2-DIBROMOETHANE	106-93-4	1.3	6.7	UG/KG	U	U	
1,2-DICHLOROETHANE	107-06-2	0.67	6.7	UG/KG	U	U	
1,2-DICHLOROPROPANE	78-87-5	1.3	6.7	UG/KG	U	U	
2-HEXANONE	591-78-6	1.3	27	UG/KG	U	U	
ACETONE	67-64-1	8.4	27	UG/KG	U	U	
BENZENE	71-43-2	0.67	6.7	UG/KG	U	U	
BROMOCHLOROMETHANE	74-97-5	1.3	6.7	UG/KG	U	U	
BROMODICHLOROMETHANE	75-27-4	0.67	6.7	UG/KG	U	U	
BROMOFORM	75-25-2	0.67	6.7	UG/KG	U	U	
BROMOMETHANE	74-83-9	1.3	6.7	UG/KG	U	U	
CARBON DISULFIDE	75-15-0	0.67	6.7	UG/KG	U	U	
CARBON TETRACHLORIDE	56-23-5	0.67	6.7	UG/KG	U	U	
CHLOROBENZENE	108-90-7	0.67	6.7	UG/KG	U	U	
CHLOROETHANE	75-00-3	1.3	6.7	UG/KG	U	U	
CHLOROFORM	67-66-3	0.67	6.7	UG/KG	U	U	
CHLOROMETHANE	74-87-3	0.67	6.7	UG/KG	U	U	
CIS-1,3-DICHLOROPROPENE	10061-01-5	0.67	6.7	UG/KG	U	U	
DIBROMOCHLOROMETHANE	124-48-1	1.3	6.7	UG/KG	U	U	
ETHYLBENZENE	100-41-4	0.67	6.7	UG/KG	U	U	
METHYL ETHYL KETONE	78-93-3	2.7	27	UG/KG	U	U	
METHYL ISOBUTYL KETONE	108-10-1	1.3	27	UG/KG	U	U	
METHYLENE CHLORIDE	75-09-2	1.3	6.7	UG/KG	U	U	
STYRENE	100-42-5	0.67	6.7	UG/KG	U	U	

Sample Delivery Group: 240-17422-1

TERT-BUTYL METHYL ETHER	1634-04-4	0.67	6.7	UG/KG	U	U	
TETRACHLOROETHYLENE	127-18-4	1.3	6.7	UG/KG	U	U	
TOLUENE	108-88-3	0.67	6.7	UG/KG	J	U	F
TOTAL 1,2-DICHLOROETHENE	540-59-0	1.3	13	UG/KG	U	U	
TRANS-1,3-DICHLOROPROPENE	10061-02-6	1.3	6.7	UG/KG	U	U	
TRICHLOROETHYLENE	79-01-6	0.67	6.7	UG/KG	U	U	
VINYL CHLORIDE	75-01-4	0.67	6.7	UG/KG	U	U	
XYLENES, TOTAL		2	13	UG/KG	U	U	

Sample Delivery Group: 240-17422-1

Analysis Method SW8270C

Sample Name 073SS-0002M-0001-SO **AnalysisType:** FD

Lab Sample Name: 240-17422-5 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
1,2,4-TRICHLOROBENZENE	120-82-1	110	200	UG/KG	U	U	
1,2-DICHLOROBENZENE	95-50-1	110	200	UG/KG	U	U	
1,3-DICHLOROBENZENE	541-73-1	110	200	UG/KG	U	U	
1,4-DICHLOROBENZENE	106-46-7	110	200	UG/KG	U	U	
2,4,5-TRICHLOROPHENOL	95-95-4	110	610	UG/KG	U	U	
2,4,6-TRICHLOROPHENOL	88-06-2	320	610	UG/KG	U	U	
2,4-DICHLOROPHENOL	120-83-2	110	610	UG/KG	U	U	
2,4-DIMETHYLPHENOL	105-67-9	320	610	UG/KG	U	U	
2,4-DINITROPHENOL	51-28-5	320	1300	UG/KG	U	UJ	C
2,4-DINITROTOLUENE	121-14-2	110	810	UG/KG	U	R	D
2,6-DINITROTOLUENE	606-20-2	110	810	UG/KG	U	R	D
2-CHLORONAPHTHALENE	91-58-7	13	200	UG/KG	U	U	
2-CHLOROPHENOL	95-57-8	110	200	UG/KG	U	U	
2-METHYLNAPHTHALENE	91-57-6	90	27	UG/KG			
2-METHYLPHENOL (O-CRESOL)	95-48-7	320	810	UG/KG	U	U	
2-NITROANILINE	88-74-4	110	810	UG/KG	U	U	
2-NITROPHENOL	88-75-5	110	200	UG/KG	U	U	
3,3'-DICHLOROBENZIDINE	91-94-1	320	400	UG/KG	U	UJ	C
3-NITROANILINE	99-09-2	320	810	UG/KG	U	U	
4,6-DINITRO-2-METHYLPHENOL	534-52-1	320	610	UG/KG	U	U	
4-BROMOPHENYL PHENYL ETHE	101-55-3	110	200	UG/KG	U	U	
4-CHLORO-3-METHYLPHENOL	59-50-7	110	610	UG/KG	U	U	
4-CHLOROANILINE	106-47-8	110	610	UG/KG	U	U	
4-CHLOROPHENYL PHENYL ETH	7005-72-3	110	200	UG/KG	U	U	
4-NITROANILINE	100-01-6	110	810	UG/KG	U	U	
4-NITROPHENOL	100-02-7	320	1300	UG/KG	U	U	
ACENAPHTHENE	83-32-9	13	27	UG/KG	U	U	
ACENAPHTHYLENE	208-96-8	13	27	UG/KG	U	U	

Sample Delivery Group: 240-17422-1

ANTHRACENE	120-12-7	13	27	UG/KG	U	U	
BENZO(A)ANTHRACENE	56-55-3	52	27	UG/KG			
BENZO(A)PYRENE	50-32-8	87	27	UG/KG			
BENZO(B)FLUORANTHENE	205-99-2	120	27	UG/KG			
BENZO(G,H,I)PERYLENE	191-24-2	29	27	UG/KG		J	C
BENZO(K)FLUORANTHENE	207-08-9	26	27	UG/KG	J M	J	
BENZOIC ACID	65-85-0	1300	2700	UG/KG	U	U	
BENZYL ALCOHOL	100-51-6	110	1300	UG/KG	U	U	
BENZYL BUTYL PHTHALATE	85-68-7	110	200	UG/KG	U	U	
BIS(2-CHLOROETHOXY) METHA	111-91-1	110	400	UG/KG	U	U	
BIS(2-CHLOROETHYL) ETHER	111-44-4	13	400	UG/KG	U	U	
BIS(2-CHLOROISOPROPYL) ETHE	108-60-1	110	400	UG/KG	U	U	
BIS(2-ETHYLHEXYL) PHTHALAT	117-81-7	110	200	UG/KG	U	U	
CARBAZOLE	86-74-8	110	200	UG/KG	U	U	
CHRYSENE	218-01-9	80	27	UG/KG			
CRESOLS, M & P		320	1600	UG/KG	U	U	
DIBENZ(A,H)ANTHRACENE	53-70-3	13	27	UG/KG	U	UJ	C
DIBENZOFURAN	132-64-9	23	200	UG/KG	J	J	
DIETHYL PHTHALATE	84-66-2	110	200	UG/KG	U	U	
DIMETHYL PHTHALATE	131-11-3	110	200	UG/KG	U	U	
DI-N-BUTYL PHTHALATE	84-74-2	110	200	UG/KG	U	U	
DI-N-OCTYLPHTHALATE	117-84-0	110	200	UG/KG	U	U	
FLUORANTHENE	206-44-0	99	27	UG/KG			
FLUORENE	86-73-7	13	27	UG/KG	U	U	
HEXACHLOROBENZENE	118-74-1	13	27	UG/KG	U	U	
HEXACHLOROBUTADIENE	87-68-3	110	200	UG/KG	U	U	
HEXACHLOROCYCLOPENTADIE	77-47-4	110	1300	UG/KG	U	U	
HEXACHLOROETHANE	67-72-1	110	200	UG/KG	U	U	
INDENO(1,2,3-C,D)PYRENE	193-39-5	54	27	UG/KG		J	C
ISOPHORONE	78-59-1	110	200	UG/KG	U	U	
NAPHTHALENE	91-20-3	63	27	UG/KG			
NITROBENZENE	98-95-3	13	400	UG/KG	U	U	
N-NITROSODI-N-PROPYLAMINE	621-64-7	110	200	UG/KG	U	U	

Sample Delivery Group: 240-17422-1

N-NITROSODIPHENYLAMINE	86-30-6	110	200	UG/KG	U	U	
PENTACHLOROPHENOL	87-86-5	320	610	UG/KG	U	U	
PHENANTHRENE	85-01-8	61	27	UG/KG			
PHENOL	108-95-2	110	200	UG/KG	U	U	
PYRENE	129-00-0	78	27	UG/KG			

Analysis Method SW8330B

Sample Name 073SS-0002M-0001-SO **AnalysisType:** FD

Lab Sample Name: 240-17422-5 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
1,3,5-TRINITROBENZENE	99-35-4	0.049	0.25	MG/KG	U	U	
1,3-DINITROBENZENE	99-65-0	0.049	0.25	MG/KG	U	U	
2,4,6-TRINITROTOLUENE	118-96-7	0.049	0.25	MG/KG	U	U	
2,4-DINITROTOLUENE	121-14-2	0.049	0.25	MG/KG	U	U	
2,6-DINITROTOLUENE	606-20-2	0.049	0.25	MG/KG	U	U	
2-AMINO-4,6-DINITROTOLUENE	35572-78-2	0.049	0.25	MG/KG	U	U	
2-NITROTOLUENE	88-72-2	0.049	0.25	MG/KG	U	UJ	C
3-NITROTOLUENE	99-08-1	0.049	0.25	MG/KG	U	U	
4-AMINO-2,6-DINITROTOLUENE	19406-51-0	0.049	0.25	MG/KG	U	U	
4-NITROTOLUENE	99-99-0	0.049	0.25	MG/KG	U	U	
HMX	2691-41-0	0.049	0.25	MG/KG	U	U	
NITROBENZENE	98-95-3	0.049	0.25	MG/KG	U	R	D
NITROGLYCERIN	55-63-0	0.25	0.49	MG/KG	U	U	
NITROGUANIDINE		0.039	0.25	MG/KG		U	
PETN	78-11-5	0.25	0.49	MG/KG	U	U	
RDX	121-82-4	0.049	0.25	MG/KG	U	UJ	C
TETRYL	479-45-8	0.049	0.25	MG/KG	J	U	B

Sample Delivery Group: 240-18441-1

Analysis Method SW6020

Sample Name 073SB-0009M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-18441-23 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
ALUMINUM	7429-90-5	7500.0	2.9	MG/KG			
ANTIMONY	7440-36-0	0.065	0.19	MG/KG	J	J-	Q
ARSENIC	7440-38-2	7.8	0.095	MG/KG		J-	Q
BARIUM	7440-39-3	44.0	0.95	MG/KG	Q		
BERYLLIUM	7440-41-7	0.43	0.095	MG/KG			
CADMIUM	7440-43-9	0.18	0.095	MG/KG	Q	J+	I
CALCIUM	7440-70-2	6500.0	9.5	MG/KG		J-	Q
CHROMIUM	7440-47-3	14.0	0.19	MG/KG		J+	Q
COBALT	7440-48-4	7.7	0.048	MG/KG	Q		
COPPER	7440-50-8	14.0	0.19	MG/KG	Q	J-	Q
IRON	7439-89-6	18000.0	4.8	MG/KG			
LEAD	7439-92-1	10.0	0.095	MG/KG			
MAGNESIUM	7439-95-4	2900.0	9.5	MG/KG			
MANGANESE	7439-96-5	280.0	0.48	MG/KG	Q		
NICKEL	7440-02-0	19.0	0.095	MG/KG	Q		
POTASSIUM	7440-09-7	1100.0	9.5	MG/KG		J+	Q
SELENIUM	7782-49-2	0.71	0.48	MG/KG		J-	Q
SILVER	7440-22-4	0.024	0.095	MG/KG	J	J	
SODIUM	7440-23-5	78.0	9.5	MG/KG			
THALLIUM	7440-28-0	0.13	0.095	MG/KG		J-	Q
VANADIUM	7440-62-2	13.0	0.095	MG/KG		J+	Q
ZINC	7440-66-6	45.0	0.48	MG/KG	Q	J-	P

Analysis Method SW7471A

Sample Name 073SB-0009M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-18441-23 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
MERCURY	7439-97-6	0.026	0.092	MG/KG	J	J	

Sample Delivery Group: 240-18441-1

Analysis Method SW8270D

Sample Name 073SB-0009M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-18441-23 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
1,2,4-TRICHLOROBENZENE	120-82-1	130	250	UG/KG	U	U	
1,2-DICHLOROBENZENE	95-50-1	130	250	UG/KG	U	U	
1,3-DICHLOROBENZENE	541-73-1	130	250	UG/KG	U	U	
1,4-DICHLOROBENZENE	106-46-7	130	250	UG/KG	U	U	
2,2'-DICHLORODIISOPROPYL ET	39638-32-9	16	490	UG/KG	U	U	
2,4,5-TRICHLOROPHENOL	95-95-4	130	740	UG/KG	U	U	
2,4,6-TRICHLOROPHENOL	88-06-2	390	740	UG/KG	U	U	
2,4-DICHLOROPHENOL	120-83-2	130	740	UG/KG	U	U	
2,4-DIMETHYLPHENOL	105-67-9	390	740	UG/KG	U	U	
2,4-DINITROPHENOL	51-28-5	390	1600	UG/KG	U	U	
2,4-DINITROTOLUENE	121-14-2	130	990	UG/KG	U	U	
2,6-DINITROTOLUENE	606-20-2	130	990	UG/KG	U	U	
2-CHLORONAPHTHALENE	91-58-7	16	250	UG/KG	U	U	
2-CHLOROPHENOL	95-57-8	130	250	UG/KG	U	U	
2-METHYLNAPHTHALENE	91-57-6	23.0	33	UG/KG	J D	J	
2-METHYLPHENOL (O-CRESOL)	95-48-7	390	990	UG/KG	U	U	
2-NITROANILINE	88-74-4	130	990	UG/KG	U	U	
2-NITROPHENOL	88-75-5	130	250	UG/KG	U	U	
3,3'-DICHLOROBENZIDINE	91-94-1	390	490	UG/KG	U	UJ	C
3-NITROANILINE	99-09-2	390	990	UG/KG	U	U	
4,6-DINITRO-2-METHYLPHENOL	534-52-1	390	740	UG/KG	U	U	
4-BROMOPHENYL PHENYL ETHE	101-55-3	130	250	UG/KG	U	U	
4-CHLORO-3-METHYLPHENOL	59-50-7	130	740	UG/KG	U	U	
4-CHLOROANILINE	106-47-8	130	740	UG/KG	U	U	
4-CHLOROPHENYL PHENYL ETH	7005-72-3	130	250	UG/KG	U	U	
4-NITROANILINE	100-01-6	130	990	UG/KG	U	U	
4-NITROPHENOL	100-02-7	390	1600	UG/KG	U	U	
ACENAPHTHENE	83-32-9	16	33	UG/KG	U	U	

ACENAPHTHYLENE	208-96-8	16	33	UG/KG	U	U
ANTHRACENE	120-12-7	16	33	UG/KG	U	U
BENZO(A)ANTHRACENE	56-55-3	16	33	UG/KG	U	U
BENZO(A)PYRENE	50-32-8	16	33	UG/KG	U	U
BENZO(B)FLUORANTHENE	205-99-2	16	33	UG/KG	U	U
BENZO(G,H,I)PERYLENE	191-24-2	16	33	UG/KG	U	U
BENZO(K)FLUORANTHENE	207-08-9	16	33	UG/KG	U	U
BENZOIC ACID	65-85-0	1600	3300	UG/KG	U	U
BENZYL ALCOHOL	100-51-6	130	1600	UG/KG	U	U
BENZYL BUTYL PHTHALATE	85-68-7	130	250	UG/KG	U	U
BIS(2-CHLOROETHOXY) METHA	111-91-1	130	490	UG/KG	U	U
BIS(2-CHLOROISOPROPYL) ETHE	108-60-1	130	490	UG/KG	U	U
BIS(2-ETHYLHEXYL) PHTHALAT	117-81-7	130	250	UG/KG	U	U
CARBAZOLE	86-74-8	130	250	UG/KG	U	U
CHRYSENE	218-01-9	16	33	UG/KG	U	U
CRESOLS, M & P		390	2000	UG/KG	U	U
DIBENZ(A,H)ANTHRACENE	53-70-3	16	33	UG/KG	U	U
DIBENZOFURAN	132-64-9	16	250	UG/KG	U	U
DIETHYL PHTHALATE	84-66-2	130	250	UG/KG	U	U
DIMETHYL PHTHALATE	131-11-3	130	250	UG/KG	U	U
DI-N-BUTYL PHTHALATE	84-74-2	130	250	UG/KG	U	U
DI-N-OCTYLPHTHALATE	117-84-0	130	250	UG/KG	U	U
FLUORANTHENE	206-44-0	16	33	UG/KG	U	U
FLUORENE	86-73-7	16	33	UG/KG	U	U
HEXACHLOROBENZENE	118-74-1	16	33	UG/KG	U	U
HEXACHLOROBUTADIENE	87-68-3	130	250	UG/KG	U	U
HEXACHLOROCYCLOPENTADIE	77-47-4	130	1600	UG/KG	U	U
HEXACHLOROETHANE	67-72-1	130	250	UG/KG	U	U
INDENO(1,2,3-C,D)PYRENE	193-39-5	16	33	UG/KG	U	U
ISOPHORONE	78-59-1	130	250	UG/KG	U	U
NAPHTHALENE	91-20-3	16	33	UG/KG	U	U
NITROBENZENE	98-95-3	16	490	UG/KG	U	U
N-NITROSODI-N-PROPYLAMINE	621-64-7	130	250	UG/KG	U	U

Sample Delivery Group: 240-18441-1

N-NITROSODIPHENYLAMINE	86-30-6	130	250	UG/KG	U	U
PENTACHLOROPHENOL	87-86-5	390	740	UG/KG	U	U
PHENANTHRENE	85-01-8	27.0	33	UG/KG	J D	J
PHENOL	108-95-2	130	250	UG/KG	U	U
PYRENE	129-00-0	17.0	33	UG/KG	J D	J

Sample Delivery Group: 240-22648-1

Analysis Method SW6020

Sample Name 073SB-0016M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-22648-1 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
ALUMINUM	7429-90-5	5500	3	MG/KG			
ANTIMONY	7440-36-0	0.047	0.2	MG/KG	J	J-	Q
ARSENIC	7440-38-2	7.3	0.1	MG/KG	Q	J-	Q
BARIUM	7440-39-3	50	1	MG/KG	Q		
BERYLLIUM	7440-41-7	0.38	0.1	MG/KG	Q	J-	Q, A
CADMIUM	7440-43-9	0.2	0.1	MG/KG	Q	J+	I
CALCIUM	7440-70-2	5500	10	MG/KG		J-	Q, E
CHROMIUM	7440-47-3	9.6	0.2	MG/KG			
COBALT	7440-48-4	6.6	0.05	MG/KG	Q		
COPPER	7440-50-8	12	0.2	MG/KG	Q	J-	Q
IRON	7439-89-6	14000	5	MG/KG			
LEAD	7439-92-1	11	0.1	MG/KG	Q		
MAGNESIUM	7439-95-4	1800	10	MG/KG			
MANGANESE	7439-96-5	360	0.5	MG/KG	Q		
NICKEL	7440-02-0	15	0.1	MG/KG			
POTASSIUM	7440-09-7	560	10	MG/KG			
SELENIUM	7782-49-2	0.25	0.5	MG/KG	J	J-	Q
SILVER	7440-22-4	0.24	0.1	MG/KG	Q		
SODIUM	7440-23-5	32	10	MG/KG			
THALLIUM	7440-28-0	0.091	0.1	MG/KG	J Q	J+	I
VANADIUM	7440-62-2	9.8	0.1	MG/KG			
ZINC	7440-66-6	43	0.5	MG/KG	Q	J-	Q, A

Analysis Method SW7471A

Sample Name 073SB-0016M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-22648-1 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
MERCURY	7439-97-6	0.03	0.11	MG/KG	J	J	

Sample Delivery Group: 240-22648-1

Analysis Method SW8270C

Sample Name 073SB-0016M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-22648-1 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
1,2,4-TRICHLOROBENZENE	120-82-1	27	50	UG/KG	U	U	
1,2-DICHLOROBENZENE	95-50-1	27	50	UG/KG	U	U	
1,3-DICHLOROBENZENE	541-73-1	27	50	UG/KG	U	U	
1,4-DICHLOROBENZENE	106-46-7	28	50	UG/KG	J	J	
2,4,5-TRICHLOROPHENOL	95-95-4	27	150	UG/KG	U	U	
2,4,6-TRICHLOROPHENOL	88-06-2	80	150	UG/KG	U	U	
2,4-DICHLOROPHENOL	120-83-2	27	150	UG/KG	U	U	
2,4-DIMETHYLPHENOL	105-67-9	80	150	UG/KG	U	U	
2,4-DINITROPHENOL	51-28-5	80	330	UG/KG	U	U	
2,4-DINITROTOLUENE	121-14-2	27	200	UG/KG	U	U	
2,6-DINITROTOLUENE	606-20-2	27	200	UG/KG	U	U	
2-CHLORONAPHTHALENE	91-58-7	3.3	50	UG/KG	U	U	
2-CHLOROPHENOL	95-57-8	27	50	UG/KG	U	U	
2-METHYLNAPHTHALENE	91-57-6	60	6.6	UG/KG			
2-METHYLPHENOL (O-CRESOL)	95-48-7	80	200	UG/KG	U	U	
2-NITROANILINE	88-74-4	27	200	UG/KG	U	U	
2-NITROPHENOL	88-75-5	27	50	UG/KG	U	U	
3,3'-DICHLOROBENZIDINE	91-94-1	80	100	UG/KG	U	U	
3-NITROANILINE	99-09-2	80	200	UG/KG	U	U	
4,6-DINITRO-2-METHYLPHENOL	534-52-1	80	150	UG/KG	U	U	
4-BROMOPHENYL PHENYL ETHE	101-55-3	27	50	UG/KG	U	U	
4-CHLORO-3-METHYLPHENOL	59-50-7	27	150	UG/KG	U	U	
4-CHLOROANILINE	106-47-8	27	150	UG/KG	U	U	
4-CHLOROPHENYL PHENYL ETH	7005-72-3	27	50	UG/KG	U	U	
4-NITROANILINE	100-01-6	27	200	UG/KG	U	U	
4-NITROPHENOL	100-02-7	80	330	UG/KG	U	U	
ACENAPHTHENE	83-32-9	3.3	6.6	UG/KG	U	U	
ACENAPHTHYLENE	208-96-8	9.4	6.6	UG/KG			

ANTHRACENE	120-12-7	16	6.6	UG/KG			
BENZO(A)ANTHRACENE	56-55-3	77	6.6	UG/KG			
BENZO(A)PYRENE	50-32-8	62	6.6	UG/KG			
BENZO(B)FLUORANTHENE	205-99-2	110	6.6	UG/KG			
BENZO(G,H,I)PERYLENE	191-24-2	38	6.6	UG/KG			
BENZO(K)FLUORANTHENE	207-08-9	27	6.6	UG/KG	M		
BENZOIC ACID	65-85-0	330	660	UG/KG	U	U	
BENZYL ALCOHOL	100-51-6	27	330	UG/KG	U	U	
BENZYL BUTYL PHTHALATE	85-68-7	27	50	UG/KG	U	U	
BIS(2-CHLOROETHOXY) METHA	111-91-1	27	100	UG/KG	U	U	
BIS(2-CHLOROETHYL) ETHER	111-44-4	3.3	100	UG/KG	U	U	
BIS(2-CHLOROISOPROPYL) ETHE	108-60-1	27	100	UG/KG	U	U	
BIS(2-ETHYLHEXYL) PHTHALAT	117-81-7	89	50	UG/KG	B	U	B
CARBAZOLE	86-74-8	27	50	UG/KG	U	U	
CHRYSENE	218-01-9	77	6.6	UG/KG			
CRESOLS, M & P		80	400	UG/KG	U	U	
DIBENZ(A,H)ANTHRACENE	53-70-3	3.3	6.6	UG/KG	U	U	
DIBENZOFURAN	132-64-9	14	50	UG/KG	J	J	
DIETHYL PHTHALATE	84-66-2	27	50	UG/KG	U	U	
DIMETHYL PHTHALATE	131-11-3	27	50	UG/KG	U	U	
DI-N-BUTYL PHTHALATE	84-74-2	27	50	UG/KG	J	U	B
DI-N-OCTYLPHTHALATE	117-84-0	27	50	UG/KG	U	U	
FLUORANTHENE	206-44-0	130	6.6	UG/KG			
FLUORENE	86-73-7	5.9	6.6	UG/KG	J	J	
HEXACHLOROBENZENE	118-74-1	3.3	6.6	UG/KG	U	U	
HEXACHLOROBUTADIENE	87-68-3	27	50	UG/KG	U	U	
HEXACHLOROCYCLOPENTADIE	77-47-4	27	330	UG/KG	U	U	
HEXACHLOROETHANE	67-72-1	27	50	UG/KG	U	UJ	C
INDENO(1,2,3-C,D)PYRENE	193-39-5	33	6.6	UG/KG			
ISOPHORONE	78-59-1	18	50	UG/KG	J	J	
NAPHTHALENE	91-20-3	51	6.6	UG/KG			
NITROBENZENE	98-95-3	3.3	100	UG/KG	U	U	
N-NITROSODI-N-PROPYLAMINE	621-64-7	27	50	UG/KG	U	U	

N-NITROSODIPHENYLAMINE	86-30-6	27	50	UG/KG	U	U
PENTACHLOROPHENOL	87-86-5	80	150	UG/KG	U	U
PHENANTHRENE	85-01-8	62	6.6	UG/KG		
PHENOL	108-95-2	27	50	UG/KG	U	U
PYRENE	129-00-0	100	6.6	UG/KG		

Sample Name 073SD-0047-0001-SD **AnalysisType:** N

Lab Sample Name: 240-22648-11 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
1,2,4-TRICHLOROBENZENE	120-82-1	41	75	UG/KG	U	U	
1,2-DICHLOROBENZENE	95-50-1	41	75	UG/KG	U	U	
1,3-DICHLOROBENZENE	541-73-1	41	75	UG/KG	U	U	
1,4-DICHLOROBENZENE	106-46-7	41	75	UG/KG	U	U	
2,4,5-TRICHLOROPHENOL	95-95-4	41	230	UG/KG	U	U	
2,4,6-TRICHLOROPHENOL	88-06-2	120	230	UG/KG	U	U	
2,4-DICHLOROPHENOL	120-83-2	41	230	UG/KG	U	U	
2,4-DIMETHYLPHENOL	105-67-9	120	230	UG/KG	U	U	
2,4-DINITROPHENOL	51-28-5	120	500	UG/KG	U	U	
2,4-DINITROTOLUENE	121-14-2	41	300	UG/KG	U	U	
2,6-DINITROTOLUENE	606-20-2	41	300	UG/KG	U	U	
2-CHLORONAPHTHALENE	91-58-7	5	75	UG/KG	U	U	
2-CHLOROPHENOL	95-57-8	41	75	UG/KG	U	U	
2-METHYLNAPHTHALENE	91-57-6	5	10	UG/KG	U	U	
2-METHYLPHENOL (O-CRESOL)	95-48-7	120	300	UG/KG	U	U	
2-NITROANILINE	88-74-4	41	300	UG/KG	U	U	
2-NITROPHENOL	88-75-5	41	75	UG/KG	U	U	
3,3'-DICHLOROBENZIDINE	91-94-1	120	150	UG/KG	U	U	
3-NITROANILINE	99-09-2	120	300	UG/KG	U	U	
4,6-DINITRO-2-METHYLPHENOL	534-52-1	120	230	UG/KG	U	U	
4-BROMOPHENYL PHENYL ETHE	101-55-3	41	75	UG/KG	U	U	
4-CHLORO-3-METHYLPHENOL	59-50-7	41	230	UG/KG	U	U	
4-CHLOROANILINE	106-47-8	41	230	UG/KG	U	U	
4-CHLOROPHENYL PHENYL ETH	7005-72-3	41	75	UG/KG	U	U	

4-NITROANILINE	100-01-6	41	300	UG/KG	U	U	
4-NITROPHENOL	100-02-7	120	500	UG/KG	U	U	
ACENAPHTHENE	83-32-9	5	10	UG/KG	U	U	
ACENAPHTHYLENE	208-96-8	5	10	UG/KG	U	U	
ANTHRACENE	120-12-7	5	10	UG/KG	U	U	
BENZO(A)ANTHRACENE	56-55-3	7.6	10	UG/KG	J	J	
BENZO(A)PYRENE	50-32-8	5	10	UG/KG	U	U	
BENZO(B)FLUORANTHENE	205-99-2	8.2	10	UG/KG	J	J	
BENZO(G,H,I)PERYLENE	191-24-2	5	10	UG/KG	U	U	
BENZO(K)FLUORANTHENE	207-08-9	5	10	UG/KG	U	U	
BENZOIC ACID	65-85-0	500	990	UG/KG	U	U	
BENZYL ALCOHOL	100-51-6	59	500	UG/KG	J	J	
BENZYL BUTYL PHTHALATE	85-68-7	41	75	UG/KG	U	U	
BIS(2-CHLOROETHOXY) METHA	111-91-1	41	150	UG/KG	U	U	
BIS(2-CHLOROETHYL) ETHER	111-44-4	5	150	UG/KG	U	U	
BIS(2-CHLOROISOPROPYL) ETHE	108-60-1	41	150	UG/KG	U	U	
BIS(2-ETHYLHEXYL) PHTHALAT	117-81-7	160	75	UG/KG	B	U	B
CARBAZOLE	86-74-8	41	75	UG/KG	U	U	
CHRYSENE	218-01-9	5.4	10	UG/KG	J	J	
CRESOLS, M & P		120	600	UG/KG	U	U	
DIBENZ(A,H)ANTHRACENE	53-70-3	5	10	UG/KG	U	U	
DIBENZOFURAN	132-64-9	5	75	UG/KG	U	U	
DIETHYL PHTHALATE	84-66-2	41	75	UG/KG	U	U	
DIMETHYL PHTHALATE	131-11-3	41	75	UG/KG	U	U	
DI-N-BUTYL PHTHALATE	84-74-2	41	75	UG/KG	U	U	
DI-N-OCTYLPHTHALATE	117-84-0	41	75	UG/KG	U	U	
FLUORANTHENE	206-44-0	11	10	UG/KG			
FLUORENE	86-73-7	5	10	UG/KG	U	U	
HEXACHLOROBENZENE	118-74-1	5	10	UG/KG	U	U	
HEXACHLOROBUTADIENE	87-68-3	41	75	UG/KG	U	U	
HEXACHLOROCYCLOPENTADIE	77-47-4	41	500	UG/KG	U	U	
HEXACHLOROETHANE	67-72-1	41	75	UG/KG	U	UJ	C
INDENO(1,2,3-C,D)PYRENE	193-39-5	5	10	UG/KG	U	U	

Sample Delivery Group: 240-22648-1

ISOPHORONE	78-59-1	41	75	UG/KG	U	**U**
NAPHTHALENE	91-20-3	5	10	UG/KG	U	**U**
NITROBENZENE	98-95-3	5	150	UG/KG	U	**U**
N-NITROSODI-N-PROPYLAMINE	621-64-7	41	75	UG/KG	U	**U**
N-NITROSODIPHENYLAMINE	86-30-6	41	75	UG/KG	U	**U**
PENTACHLOROPHENOL	87-86-5	120	230	UG/KG	U	**U**
PHENANTHRENE	85-01-8	5	10	UG/KG	U	**U**
PHENOL	108-95-2	41	75	UG/KG	U	**U**
PYRENE	129-00-0	8.3	10	UG/KG	J	**J**

Sample Delivery Group: 240-22663-1

Analysis Method SW6020

Sample Name 073SB-0038M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-22663-14 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
ALUMINUM	7429-90-5	6800	2.8	MG/KG			
ANTIMONY	7440-36-0	0.067	0.19	MG/KG	J	J-	Q
ARSENIC	7440-38-2	19	0.093	MG/KG		J-	Q
BARIUM	7440-39-3	32	0.93	MG/KG	Q		
BERYLLIUM	7440-41-7	0.35	0.093	MG/KG	Q		
CADMIUM	7440-43-9	0.19	0.093	MG/KG	Q		
CALCIUM	7440-70-2	640	9.3	MG/KG			
CHROMIUM	7440-47-3	10	0.19	MG/KG			
COBALT	7440-48-4	8.7	0.046	MG/KG	Q		
COPPER	7440-50-8	20	0.19	MG/KG	Q		
IRON	7439-89-6	22000	4.6	MG/KG			
LEAD	7439-92-1	17	0.093	MG/KG	Q		
MAGNESIUM	7439-95-4	2100	9.3	MG/KG			
MANGANESE	7439-96-5	460	0.46	MG/KG	Q		
NICKEL	7440-02-0	21	0.093	MG/KG			
POTASSIUM	7440-09-7	1000	9.3	MG/KG			
SELENIUM	7782-49-2	0.28	0.46	MG/KG	J	J-	Q
SILVER	7440-22-4	0.022	0.093	MG/KG	J	J	
SODIUM	7440-23-5	40	9.3	MG/KG			
THALLIUM	7440-28-0	0.15	0.093	MG/KG			
VANADIUM	7440-62-2	11	0.093	MG/KG			
ZINC	7440-66-6	64	0.46	MG/KG	Q	J-	Q

Analysis Method SW7471A

Sample Name 073SB-0038M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-22663-14 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
MERCURY	7439-97-6	0.018	0.11	MG/KG	J	J	

Sample Delivery Group: 240-22663-2

Analysis Method SW8270C

Sample Name 073SB-0038M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-22663-14 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
1,2,4-TRICHLOROBENZENE	120-82-1	270	500	UG/KG	U H	UJ	H
1,2-DICHLOROBENZENE	95-50-1	270	500	UG/KG	U H	UJ	H
1,3-DICHLOROBENZENE	541-73-1	270	500	UG/KG	U H	UJ	H
1,4-DICHLOROBENZENE	106-46-7	270	500	UG/KG	U H	UJ	H
2,4,5-TRICHLOROPHENOL	95-95-4	270	1500	UG/KG	U H	UJ	H
2,4,6-TRICHLOROPHENOL	88-06-2	810	1500	UG/KG	U H	UJ	H
2,4-DICHLOROPHENOL	120-83-2	270	1500	UG/KG	U H	UJ	H
2,4-DIMETHYLPHENOL	105-67-9	810	1500	UG/KG	U H	UJ	H
2,4-DINITROPHENOL	51-28-5	810	3300	UG/KG	U H	UJ	H, C
2,4-DINITROTOLUENE	121-14-2	270	2000	UG/KG	U H	UJ	H
2,6-DINITROTOLUENE	606-20-2	270	2000	UG/KG	U H	UJ	H
2-CHLORONAPHTHALENE	91-58-7	33	500	UG/KG	U H	UJ	H
2-CHLOROPHENOL	95-57-8	270	500	UG/KG	U H	UJ	H
2-METHYLNAPHTHALENE	91-57-6	33	67	UG/KG	U H	UJ	H
2-METHYLPHENOL (O-CRESOL)	95-48-7	810	2000	UG/KG	U H	UJ	H
2-NITROANILINE	88-74-4	270	2000	UG/KG	U H	UJ	H
2-NITROPHENOL	88-75-5	270	500	UG/KG	U H	UJ	H
3,3'-DICHLOROBENZIDINE	91-94-1	810	1000	UG/KG	U H	UJ	H
3-NITROANILINE	99-09-2	810	2000	UG/KG	U H	UJ	H
4,6-DINITRO-2-METHYLPHENOL	534-52-1	810	1500	UG/KG	U H	UJ	H, C
4-BROMOPHENYL PHENYL ETHE	101-55-3	270	500	UG/KG	U H	UJ	H
4-CHLORO-3-METHYLPHENOL	59-50-7	270	1500	UG/KG	U H	UJ	H
4-CHLOROANILINE	106-47-8	270	1500	UG/KG	U H	UJ	H
4-CHLOROPHENYL PHENYL ETH	7005-72-3	270	500	UG/KG	U H	UJ	H
4-NITROANILINE	100-01-6	270	2000	UG/KG	U H	UJ	H
4-NITROPHENOL	100-02-7	810	3300	UG/KG	U H	UJ	H
ACENAPHTHENE	83-32-9	33	67	UG/KG	U H	UJ	H
ACENAPHTHYLENE	208-96-8	33	67	UG/KG	U H	UJ	H

Sample Delivery Group: 240-22663-2

ANTHRACENE	120-12-7	33	67	UG/KG	U H	UJ	H
BENZO(A)ANTHRACENE	56-55-3	33	67	UG/KG	U H	UJ	H
BENZO(A)PYRENE	50-32-8	33	67	UG/KG	U H	UJ	H
BENZO(B)FLUORANTHENE	205-99-2	33	67	UG/KG	U H	UJ	H
BENZO(G,H,I)PERYLENE	191-24-2	33	67	UG/KG	U H	UJ	H
BENZO(K)FLUORANTHENE	207-08-9	33	67	UG/KG	U H	UJ	H
BENZOIC ACID	65-85-0	3400	6700	UG/KG	U H	R	L
BENZYL ALCOHOL	100-51-6	270	3300	UG/KG	U H	UJ	H
BENZYL BUTYL PHTHALATE	85-68-7	270	710	UG/KG	U H	UJ	H
BIS(2-CHLOROETHOXY) METHA	111-91-1	270	1000	UG/KG	U H	UJ	H
BIS(2-CHLOROETHYL) ETHER	111-44-4	33	1000	UG/KG	U H	UJ	H
BIS(2-CHLOROISOPROPYL) ETHE	108-60-1	270	1000	UG/KG	U H	UJ	H
BIS(2-ETHYLHEXYL) PHTHALAT	117-81-7	270	710	UG/KG	U H	UJ	H
CARBAZOLE	86-74-8	270	500	UG/KG	U H	UJ	H
CHRYSENE	218-01-9	33	67	UG/KG	U H	UJ	H
CRESOLS, M & P		810	4000	UG/KG	U H	UJ	H
DIBENZ(A,H)ANTHRACENE	53-70-3	33	67	UG/KG	U H	UJ	H
DIBENZOFURAN	132-64-9	33	500	UG/KG	U H	UJ	H
DIETHYL PHTHALATE	84-66-2	270	710	UG/KG	U H	UJ	H
DIMETHYL PHTHALATE	131-11-3	270	710	UG/KG	U H	UJ	H
DI-N-BUTYL PHTHALATE	84-74-2	270	710	UG/KG	U H Q	UJ	H
DI-N-OCTYLPHTHALATE	117-84-0	270	710	UG/KG	U H	UJ	H
FLUORANTHENE	206-44-0	33	67	UG/KG	U H Q	UJ	H
FLUORENE	86-73-7	33	67	UG/KG	U H	UJ	H
HEXACHLOROBENZENE	118-74-1	33	67	UG/KG	U H	UJ	H
HEXACHLOROBUTADIENE	87-68-3	270	500	UG/KG	U H	UJ	H
HEXACHLOROCYCLOPENTADIE	77-47-4	270	3300	UG/KG	U H	UJ	H
HEXACHLOROETHANE	67-72-1	270	500	UG/KG	U H	UJ	H
INDENO(1,2,3-C,D)PYRENE	193-39-5	33	67	UG/KG	U H	UJ	H
ISOPHORONE	78-59-1	270	500	UG/KG	U H	UJ	H
NAPHTHALENE	91-20-3	33	67	UG/KG	U H	UJ	H
NITROBENZENE	98-95-3	33	1000	UG/KG	U H	UJ	H
N-NITROSODI-N-PROPYLAMINE	621-64-7	270	500	UG/KG	U H	UJ	H

Sample Delivery Group: 240-22663-2

N-NITROSODIPHENYLAMINE	86-30-6	270	500	UG/KG	U H	UJ	H
PENTACHLOROPHENOL	87-86-5	810	1500	UG/KG	U H	UJ	H
PHENANTHRENE	85-01-8	33	67	UG/KG	U H	UJ	H
PHENOL	108-95-2	270	500	UG/KG	U H	UJ	H
PYRENE	129-00-0	33	67	UG/KG	U H	UJ	H

Validated Sample Result Forms for Sampling : Ravenna Army Ammunition Plant Ravenna, Ohio
Remediation Investigation Compliance Restoration Site: RVAAP-74 Building 1034 Motor Pool Hydraulic Lift

Sample Delivery Group: 240-22756-1

Analysis Method M8015D

Sample Name 074SB-0001-0001-SO **AnalysisType:** N

Lab Sample Name: 240-22756-1 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
C20-C34		11	19	MG/KG	U	U	

Sample Name 074SB-0002-0001-SO **AnalysisType:** N

Lab Sample Name: 240-22756-2 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
C20-C34		11	19	MG/KG	U	U	

Sample Delivery Group: 240-22756-1

Analysis Method SW8270C

Sample Name 074SB-0002-0001-SO **AnalysisType:** N

Lab Sample Name: 240-22756-2 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
1,2,4-TRICHLOROBENZENE	120-82-1	32	59	UG/KG	U	U	
1,2-DICHLOROBENZENE	95-50-1	32	59	UG/KG	U	U	
1,3-DICHLOROBENZENE	541-73-1	32	59	UG/KG	U	U	
1,4-DICHLOROBENZENE	106-46-7	32	59	UG/KG	U	U	
2,4,5-TRICHLOROPHENOL	95-95-4	32	180	UG/KG	U	U	
2,4,6-TRICHLOROPHENOL	88-06-2	94	180	UG/KG	U	U	
2,4-DICHLOROPHENOL	120-83-2	32	180	UG/KG	U	U	
2,4-DIMETHYLPHENOL	105-67-9	94	180	UG/KG	U	U	
2,4-DINITROPHENOL	51-28-5	94	390	UG/KG	U	UJ	C
2,4-DINITROTOLUENE	121-14-2	32	230	UG/KG	U	U	
2,6-DINITROTOLUENE	606-20-2	32	230	UG/KG	U	U	
2-CHLORONAPHTHALENE	91-58-7	3.9	59	UG/KG	U	U	
2-CHLOROPHENOL	95-57-8	32	59	UG/KG	U	U	
2-METHYLNAPHTHALENE	91-57-6	3.9	7.8	UG/KG	U	U	
2-METHYLPHENOL (O-CRESOL)	95-48-7	94	230	UG/KG	U	U	
2-NITROANILINE	88-74-4	32	230	UG/KG	U	U	
2-NITROPHENOL	88-75-5	32	59	UG/KG	U	U	
3,3'-DICHLOROBENZIDINE	91-94-1	94	120	UG/KG	U	U	
3-NITROANILINE	99-09-2	94	230	UG/KG	U	U	
4,6-DINITRO-2-METHYLPHENOL	534-52-1	94	180	UG/KG	U	UJ	C
4-BROMOPHENYL PHENYL ETHE	101-55-3	32	59	UG/KG	U	U	
4-CHLORO-3-METHYLPHENOL	59-50-7	32	180	UG/KG	U	U	
4-CHLOROANILINE	106-47-8	32	180	UG/KG	U	U	
4-CHLOROPHENYL PHENYL ETH	7005-72-3	32	59	UG/KG	U	U	
4-NITROANILINE	100-01-6	32	230	UG/KG	U	U	
4-NITROPHENOL	100-02-7	94	390	UG/KG	U	U	
ACENAPHTHENE	83-32-9	3.9	7.8	UG/KG	U	U	
ACENAPHTHYLENE	208-96-8	3.9	7.8	UG/KG	U	U	

Sample Delivery Group: 240-22756-1

ANTHRACENE	120-12-7	3.9	7.8	UG/KG	U	U	
BENZO(A)ANTHRACENE	56-55-3	3.9	7.8	UG/KG	U	U	
BENZO(A)PYRENE	50-32-8	3.9	7.8	UG/KG	U	U	
BENZO(B)FLUORANTHENE	205-99-2	3.9	7.8	UG/KG	U	U	
BENZO(G,H,I)PERYLENE	191-24-2	3.9	7.8	UG/KG	U	U	
BENZO(K)FLUORANTHENE	207-08-9	3.9	7.8	UG/KG	U	U	
BENZOIC ACID	65-85-0	390	770	UG/KG	U	U	
BENZYL ALCOHOL	100-51-6	32	390	UG/KG	U	U	
BENZYL BUTYL PHTHALATE	85-68-7	32	82	UG/KG	U	U	
BIS(2-CHLOROETHOXY) METHA	111-91-1	32	120	UG/KG	U	U	
BIS(2-CHLOROETHYL) ETHER	111-44-4	3.9	120	UG/KG	U	U	
BIS(2-CHLOROISOPROPYL) ETHE	108-60-1	32	120	UG/KG	U	U	
BIS(2-ETHYLHEXYL) PHTHALAT	117-81-7	32	82	UG/KG	J	U	B
CARBAZOLE	86-74-8	32	59	UG/KG	U	U	
CHRYSENE	218-01-9	3.9	7.8	UG/KG	U	U	
CRESOLS, M & P		94	470	UG/KG	U	U	
DIBENZ(A,H)ANTHRACENE	53-70-3	3.9	7.8	UG/KG	U	U	
DIBENZOFURAN	132-64-9	3.9	59	UG/KG	U	U	
DIETHYL PHTHALATE	84-66-2	32	82	UG/KG	U	U	
DIMETHYL PHTHALATE	131-11-3	32	82	UG/KG	U	U	
DI-N-BUTYL PHTHALATE	84-74-2	32	82	UG/KG	U	U	
DI-N-OCTYLPHTHALATE	117-84-0	32	82	UG/KG	U	U	
FLUORANTHENE	206-44-0	3.9	7.8	UG/KG	U	U	
FLUORENE	86-73-7	3.9	7.8	UG/KG	U	U	
HEXACHLOROBENZENE	118-74-1	3.9	7.8	UG/KG	U	U	
HEXACHLOROBUTADIENE	87-68-3	32	59	UG/KG	U	U	
HEXACHLOROCYCLOPENTADIE	77-47-4	32	390	UG/KG	U	U	
HEXACHLOROETHANE	67-72-1	32	59	UG/KG	U	U	
INDENO(1,2,3-C,D)PYRENE	193-39-5	3.9	7.8	UG/KG	U	U	
ISOPHORONE	78-59-1	32	59	UG/KG	U	U	
NAPHTHALENE	91-20-3	3.9	7.8	UG/KG	U	U	
NITROBENZENE	98-95-3	3.9	120	UG/KG	U	U	
N-NITROSODI-N-PROPYLAMINE	621-64-7	32	59	UG/KG	U	U	

Sample Delivery Group: 240-22756-1

N-NITROSODIPHENYLAMINE	86-30-6	32	59	UG/KG	U	U
PENTACHLOROPHENOL	87-86-5	94	180	UG/KG	U	U
PHENANTHRENE	85-01-8	3.9	7.8	UG/KG	U	U
PHENOL	108-95-2	32	59	UG/KG	U	U
PYRENE	129-00-0	3.9	7.8	UG/KG	U	U

Sample Delivery Group: 240-22804-1

Analysis Method E353.2

Sample Name 074SB-0010-0001-SO **AnalysisType:** N

Lab Sample Name: 240-22804-4 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
NITROCELLULOSE	9004-70-0	2.1	5.9	MG/KG	U	U	

Analysis Method M8015D

Sample Name 074SB-0010-0001-SO **AnalysisType:** N

Lab Sample Name: 240-22804-4 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
C20-C34		11	20	MG/KG	U	U	

Sample Name 074SB-0027-0001-SO **AnalysisType:** N

Lab Sample Name: 240-22804-10 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
C20-C34		11	20	MG/KG	U	U	

Sample Delivery Group: 240-22804-1

Analysis Method SW6020

Sample Name 074SB-0010-0001-SO **AnalysisType:** N

Lab Sample Name: 240-22804-4 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
ALUMINUM	7429-90-5	12000	3.5	MG/KG			
ANTIMONY	7440-36-0	0.12	0.24	MG/KG	U	U	
ARSENIC	7440-38-2	8.2	0.12	MG/KG			
BARIUM	7440-39-3	67	1.2	MG/KG	Q		
BERYLLIUM	7440-41-7	0.6	0.12	MG/KG	Q		
CADMIUM	7440-43-9	0.2	0.12	MG/KG		J+	I
CALCIUM	7440-70-2	32000	12	MG/KG			
CHROMIUM	7440-47-3	19	0.24	MG/KG			
COBALT	7440-48-4	12	0.059	MG/KG	Q		
COPPER	7440-50-8	18	0.24	MG/KG	Q		
IRON	7439-89-6	24000	5.9	MG/KG			
LEAD	7439-92-1	11	0.12	MG/KG	Q		
MAGNESIUM	7439-95-4	8000	12	MG/KG			
MANGANESE	7439-96-5	350	0.59	MG/KG	Q		
NICKEL	7440-02-0	28	0.12	MG/KG			
POTASSIUM	7440-09-7	2200	12	MG/KG			
SELENIUM	7782-49-2	0.26	0.59	MG/KG	J	J+	I
SILVER	7440-22-4	0.037	0.12	MG/KG	J	J+	I
SODIUM	7440-23-5	120	12	MG/KG			
THALLIUM	7440-28-0	0.19	0.12	MG/KG			
VANADIUM	7440-62-2	20	0.12	MG/KG			
ZINC	7440-66-6	52	0.59	MG/KG	Q		

Analysis Method SW7471A

Sample Name 074SB-0010-0001-SO **AnalysisType:** N

Lab Sample Name: 240-22804-4 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
MERCURY	7439-97-6	0.039	0.12	MG/KG	U	UJ	C

Sample Delivery Group: 240-22804-1

Analysis Method SW8082

Sample Name 074SB-0010-0001-SO **AnalysisType:** N

Lab Sample Name: 240-22804-4 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
PCB-1016	12674-11-2	29	77	UG/KG	U	U	
PCB-1221	11104-28-2	29	59	UG/KG	U	U	
PCB-1232	11141-16-5	29	53	UG/KG	U	U	
PCB-1242	53469-21-9	29	47	UG/KG	U	U	
PCB-1248	12672-29-6	29	65	UG/KG	U	U	
PCB-1254	11097-69-1	29	65	UG/KG	U	U	
PCB-1260	11096-82-5	29	65	UG/KG	U	U	

Sample Delivery Group: 240-22804-1

Analysis Method SW8260B

Sample Name 074SB-0010-0001-SO **AnalysisType:** N

Lab Sample Name: 240-22804-4 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
1,1,1-TRICHLOROETHANE	71-55-6	0.91	4.5	UG/KG	U	U	
1,1,2,2-TETRACHLOROETHANE	79-34-5	0.45	4.5	UG/KG	U	U	
1,1,2-TRICHLOROETHANE	79-00-5	0.45	4.5	UG/KG	U	U	
1,1-DICHLOROETHANE	75-34-3	0.45	4.5	UG/KG	U	U	
1,1-DICHLOROETHENE	75-35-4	0.91	4.5	UG/KG	U	U	
1,2-DIBROMOETHANE	106-93-4	0.91	4.5	UG/KG	U	U	
1,2-DICHLOROETHANE	107-06-2	0.45	4.5	UG/KG	U	U	
1,2-DICHLOROPROPANE	78-87-5	0.91	4.5	UG/KG	U	U	
2-HEXANONE	591-78-6	0.93	19	UG/KG	U	UJ	S
ACETONE	67-64-1	5.7	18	UG/KG	U	U	
BENZENE	71-43-2	0.45	4.5	UG/KG	U	U	
BROMOCHLOROMETHANE	74-97-5	0.91	4.5	UG/KG	U	U	
BROMODICHLOROMETHANE	75-27-4	0.45	4.5	UG/KG	U	U	
BROMOFORM	75-25-2	0.45	4.5	UG/KG	U	U	
BROMOMETHANE	74-83-9	0.91	4.5	UG/KG	U	U	
CARBON DISULFIDE	75-15-0	0.45	4.5	UG/KG	U	U	
CARBON TETRACHLORIDE	56-23-5	0.45	4.5	UG/KG	U	U	
CHLOROBENZENE	108-90-7	0.45	4.5	UG/KG	U	U	
CHLOROETHANE	75-00-3	0.91	4.5	UG/KG	U	U	
CHLOROFORM	67-66-3	0.45	4.5	UG/KG	U	U	
CHLOROMETHANE	74-87-3	0.45	4.5	UG/KG	U	U	
CIS-1,3-DICHLOROPROPENE	10061-01-5	0.45	4.5	UG/KG	U	U	
DIBROMOCHLOROMETHANE	124-48-1	0.91	4.5	UG/KG	U	U	
ETHYLBENZENE	100-41-4	0.45	4.5	UG/KG	U	U	
METHYL ETHYL KETONE	78-93-3	1.9	19	UG/KG	U	UJ	S
METHYL ISOBUTYL KETONE	108-10-1	0.93	19	UG/KG	U	UJ	S
METHYLENE CHLORIDE	75-09-2	0.91	4.5	UG/KG	U	U	
STYRENE	100-42-5	0.45	4.5	UG/KG	U	U	

Sample Delivery Group: 240-22804-1

TETRACHLOROETHYLENE	127-18-4	0.91	4.5	UG/KG	U	U
TOLUENE	108-88-3	0.45	4.5	UG/KG	U	U
TOTAL 1,2-DICHLOROETHENE	540-59-0	0.91	9.1	UG/KG	U	U
TRANS-1,3-DICHLOROPROPENE	10061-02-6	0.91	4.5	UG/KG	U	U
TRICHLOROETHYLENE	79-01-6	0.45	4.5	UG/KG	U	U
VINYL CHLORIDE	75-01-4	0.45	4.5	UG/KG	U	U
XYLENES, TOTAL		1.4	9.1	UG/KG	U	U

Sample Delivery Group: 240-22804-1

Analysis Method SW8270C

Sample Name 074SB-0010-0001-SO **AnalysisType:** N

Lab Sample Name: 240-22804-4 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
1,2,4-TRICHLOROBENZENE	120-82-1	32	58	UG/KG	U H	UJ	H
1,2-DICHLOROBENZENE	95-50-1	32	58	UG/KG	U H	UJ	H
1,3-DICHLOROBENZENE	541-73-1	32	58	UG/KG	U H	UJ	H
1,4-DICHLOROBENZENE	106-46-7	32	58	UG/KG	U H	UJ	H
2,4,5-TRICHLOROPHENOL	95-95-4	32	180	UG/KG	U H	UJ	H
2,4,6-TRICHLOROPHENOL	88-06-2	93	180	UG/KG	U H	UJ	H
2,4-DICHLOROPHENOL	120-83-2	32	180	UG/KG	U H	UJ	H
2,4-DIMETHYLPHENOL	105-67-9	93	180	UG/KG	U H	UJ	H
2,4-DINITROPHENOL	51-28-5	93	390	UG/KG	U H	UJ	H, C
2,4-DINITROTOLUENE	121-14-2	32	230	UG/KG	U H	UJ	H
2,6-DINITROTOLUENE	606-20-2	32	230	UG/KG	U H	UJ	H
2-CHLORONAPHTHALENE	91-58-7	3.9	58	UG/KG	U H	UJ	H
2-CHLOROPHENOL	95-57-8	32	58	UG/KG	U H	UJ	H
2-METHYLNAPHTHALENE	91-57-6	3.9	7.8	UG/KG	U H	UJ	H
2-METHYLPHENOL (O-CRESOL)	95-48-7	93	230	UG/KG	U H	UJ	H
2-NITROANILINE	88-74-4	32	230	UG/KG	U H	UJ	H
2-NITROPHENOL	88-75-5	32	58	UG/KG	U H	UJ	H
3,3'-DICHLOROBENZIDINE	91-94-1	93	120	UG/KG	U H	UJ	H
3-NITROANILINE	99-09-2	93	230	UG/KG	U H	UJ	H
4,6-DINITRO-2-METHYLPHENOL	534-52-1	93	180	UG/KG	U H	UJ	H
4-BROMOPHENYL PHENYL ETHE	101-55-3	32	58	UG/KG	U H	UJ	H
4-CHLORO-3-METHYLPHENOL	59-50-7	32	180	UG/KG	U H	UJ	H
4-CHLOROANILINE	106-47-8	32	180	UG/KG	U H	UJ	H
4-CHLOROPHENYL PHENYL ETH	7005-72-3	32	58	UG/KG	U H	UJ	H
4-NITROANILINE	100-01-6	32	230	UG/KG	U H	UJ	H
4-NITROPHENOL	100-02-7	93	390	UG/KG	U H	UJ	H
ACENAPHTHENE	83-32-9	3.9	7.8	UG/KG	U H	UJ	H
ACENAPHTHYLENE	208-96-8	3.9	7.8	UG/KG	U H	UJ	H

Sample Delivery Group: 240-22804-1

ANTHRACENE	120-12-7	3.9	7.8	UG/KG	U H	UJ	H
BENZO(A)ANTHRACENE	56-55-3	3.9	7.8	UG/KG	U H	UJ	H
BENZO(A)PYRENE	50-32-8	3.9	7.8	UG/KG	U H	UJ	H
BENZO(B)FLUORANTHENE	205-99-2	3.9	7.8	UG/KG	U H	UJ	H
BENZO(G,H,I)PERYLENE	191-24-2	3.9	7.8	UG/KG	U H	UJ	H
BENZO(K)FLUORANTHENE	207-08-9	3.9	7.8	UG/KG	U H	UJ	H
BENZOIC ACID	65-85-0	390	770	UG/KG	U H	R	L
BENZYL ALCOHOL	100-51-6	32	390	UG/KG	U H	UJ	H
BENZYL BUTYL PHTHALATE	85-68-7	32	82	UG/KG	U H	UJ	H
BIS(2-CHLOROETHOXY) METHA	111-91-1	32	120	UG/KG	U H	UJ	H
BIS(2-CHLOROETHYL) ETHER	111-44-4	3.9	120	UG/KG	U H	UJ	H
BIS(2-CHLOROISOPROPYL) ETHE	108-60-1	32	120	UG/KG	U H	UJ	H
BIS(2-ETHYLHEXYL) PHTHALAT	117-81-7	120	82	UG/KG	H	J	H
CARBAZOLE	86-74-8	32	58	UG/KG	U H	UJ	H
CHRYSENE	218-01-9	3.9	7.8	UG/KG	U H	UJ	H
CRESOLS, M & P		93	470	UG/KG	U H	UJ	H
DIBENZ(A,H)ANTHRACENE	53-70-3	3.9	7.8	UG/KG	U H	UJ	H
DIBENZOFURAN	132-64-9	3.9	58	UG/KG	U H	UJ	H
DIETHYL PHTHALATE	84-66-2	32	82	UG/KG	U H	UJ	H
DIMETHYL PHTHALATE	131-11-3	32	82	UG/KG	U H	UJ	H
DI-N-BUTYL PHTHALATE	84-74-2	32	82	UG/KG	U H	UJ	H
DI-N-OCTYLPHTHALATE	117-84-0	32	82	UG/KG	U H	UJ	H
FLUORANTHENE	206-44-0	3.9	7.8	UG/KG	U H	UJ	H
FLUORENE	86-73-7	3.9	7.8	UG/KG	U H	UJ	H
HEXACHLOROBENZENE	118-74-1	3.9	7.8	UG/KG	U H	UJ	H
HEXACHLOROBUTADIENE	87-68-3	32	58	UG/KG	U H	UJ	H
HEXACHLOROCYCLOPENTADIE	77-47-4	32	390	UG/KG	U H	UJ	H
HEXACHLOROETHANE	67-72-1	32	58	UG/KG	U H	UJ	H
INDENO(1,2,3-C,D)PYRENE	193-39-5	3.9	7.8	UG/KG	U H	UJ	H
ISOPHORONE	78-59-1	32	58	UG/KG	U H	UJ	H
NAPHTHALENE	91-20-3	3.9	7.8	UG/KG	U H	UJ	H
NITROBENZENE	98-95-3	3.9	120	UG/KG	U H	UJ	H
N-NITROSODI-N-PROPYLAMINE	621-64-7	32	58	UG/KG	U H	UJ	H

Sample Delivery Group: 240-22804-1

N-NITROSODIPHENYLAMINE	86-30-6	32	58	UG/KG	U H	UJ	H
PENTACHLOROPHENOL	87-86-5	93	180	UG/KG	U H	UJ	H
PHENANTHRENE	85-01-8	3.9	7.8	UG/KG	U H	UJ	H
PHENOL	108-95-2	32	58	UG/KG	U H	UJ	H
PYRENE	129-00-0	3.9	7.8	UG/KG	U H	UJ	H

Sample Name 074SB-0027-0001-SO **AnalysisType:** N

Lab Sample Name: 240-22804-10 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
1,2,4-TRICHLOROBENZENE	120-82-1	32	59	UG/KG	U	U	
1,2-DICHLOROBENZENE	95-50-1	32	59	UG/KG	U	U	
1,3-DICHLOROBENZENE	541-73-1	32	59	UG/KG	U	U	
1,4-DICHLOROBENZENE	106-46-7	32	59	UG/KG	U	U	
2,4,5-TRICHLOROPHENOL	95-95-4	32	180	UG/KG	U	U	
2,4,6-TRICHLOROPHENOL	88-06-2	94	180	UG/KG	U	U	
2,4-DICHLOROPHENOL	120-83-2	32	180	UG/KG	U	U	
2,4-DIMETHYLPHENOL	105-67-9	94	180	UG/KG	U	U	
2,4-DINITROPHENOL	51-28-5	94	390	UG/KG	U	U	
2,4-DINITROTOLUENE	121-14-2	32	240	UG/KG	U	U	
2,6-DINITROTOLUENE	606-20-2	32	240	UG/KG	U	U	
2-CHLORONAPHTHALENE	91-58-7	3.9	59	UG/KG	U	U	
2-CHLOROPHENOL	95-57-8	32	59	UG/KG	U	U	
2-METHYLNAPHTHALENE	91-57-6	3.9	7.8	UG/KG	U	U	
2-METHYLPHENOL (O-CRESOL)	95-48-7	94	240	UG/KG	U	U	
2-NITROANILINE	88-74-4	32	240	UG/KG	U	U	
2-NITROPHENOL	88-75-5	32	59	UG/KG	U	U	
3,3'-DICHLOROBENZIDINE	91-94-1	94	120	UG/KG	U	U	
3-NITROANILINE	99-09-2	94	240	UG/KG	U	U	
4,6-DINITRO-2-METHYLPHENOL	534-52-1	94	180	UG/KG	U	U	
4-BROMOPHENYL PHENYL ETHE	101-55-3	32	59	UG/KG	U	U	
4-CHLORO-3-METHYLPHENOL	59-50-7	32	180	UG/KG	U	U	
4-CHLOROANILINE	106-47-8	32	180	UG/KG	U	U	
4-CHLOROPHENYL PHENYL ETH	7005-72-3	32	59	UG/KG	U	U	

Sample Delivery Group: 240-22804-1

4-NITROANILINE	100-01-6	32	240	UG/KG	U	U	
4-NITROPHENOL	100-02-7	94	390	UG/KG	U	U	
ACENAPHTHENE	83-32-9	3.9	7.8	UG/KG	U	U	
ACENAPHTHYLENE	208-96-8	3.9	7.8	UG/KG	U	U	
ANTHRACENE	120-12-7	3.9	7.8	UG/KG	U	U	
BENZO(A)ANTHRACENE	56-55-3	3.9	7.8	UG/KG	U	U	
BENZO(A)PYRENE	50-32-8	3.9	7.8	UG/KG	U	U	
BENZO(B)FLUORANTHENE	205-99-2	3.9	7.8	UG/KG	U	U	
BENZO(G,H,I)PERYLENE	191-24-2	3.9	7.8	UG/KG	U	U	
BENZO(K)FLUORANTHENE	207-08-9	3.9	7.8	UG/KG	U	U	
BENZOIC ACID	65-85-0	390	780	UG/KG	U	U	
BENZYL ALCOHOL	100-51-6	32	390	UG/KG	U	U	
BENZYL BUTYL PHTHALATE	85-68-7	32	82	UG/KG	U	U	
BIS(2-CHLOROETHOXY) METHA	111-91-1	32	120	UG/KG	U	U	
BIS(2-CHLOROETHYL) ETHER	111-44-4	3.9	120	UG/KG	U	U	
BIS(2-CHLOROISOPROPYL) ETHE	108-60-1	32	120	UG/KG	U	U	
BIS(2-ETHYLHEXYL) PHTHALAT	117-81-7	26	82	UG/KG	J	J	
CARBAZOLE	86-74-8	32	59	UG/KG	U	U	
CHRYSENE	218-01-9	3.9	7.8	UG/KG	U	U	
CRESOLS, M & P		94	470	UG/KG	U	U	
DIBENZ(A,H)ANTHRACENE	53-70-3	3.9	7.8	UG/KG	U	U	
DIBENZOFURAN	132-64-9	3.9	59	UG/KG	U	U	
DIETHYL PHTHALATE	84-66-2	32	82	UG/KG	U	U	
DIMETHYL PHTHALATE	131-11-3	32	82	UG/KG	U	U	
DI-N-BUTYL PHTHALATE	84-74-2	33	82	UG/KG	J	U	B
DI-N-OCTYLPHTHALATE	117-84-0	32	82	UG/KG	U	U	
FLUORANTHENE	206-44-0	3.9	7.8	UG/KG	U	U	
FLUORENE	86-73-7	3.9	7.8	UG/KG	U	U	
HEXACHLOROBENZENE	118-74-1	3.9	7.8	UG/KG	U	U	
HEXACHLOROBUTADIENE	87-68-3	32	59	UG/KG	U	U	
HEXACHLOROCYCLOPENTADIE	77-47-4	32	390	UG/KG	U	U	
HEXACHLOROETHANE	67-72-1	32	59	UG/KG	U	U	
INDENO(1,2,3-C,D)PYRENE	193-39-5	3.9	7.8	UG/KG	U	U	

Sample Delivery Group: 240-22804-1

ISOPHORONE	78-59-1	32	59	UG/KG	U	U
NAPHTHALENE	91-20-3	3.9	7.8	UG/KG	U	U
NITROBENZENE	98-95-3	3.9	120	UG/KG	U	U
N-NITROSODI-N-PROPYLAMINE	621-64-7	32	59	UG/KG	U	U
N-NITROSODIPHENYLAMINE	86-30-6	32	59	UG/KG	U	U
PENTACHLOROPHENOL	87-86-5	94	180	UG/KG	U	U
PHENANTHRENE	85-01-8	3.9	7.8	UG/KG	U	U
PHENOL	108-95-2	32	59	UG/KG	U	U
PYRENE	129-00-0	3.9	7.8	UG/KG	U	U

Analysis Method SW8330B

Sample Name 074SB-0010-0001-SO **AnalysisType:** N

Lab Sample Name: 240-22804-4 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
1,3,5-TRINITROBENZENE	99-35-4	0.05	0.25	MG/KG	U	U	
1,3-DINITROBENZENE	99-65-0	0.05	0.25	MG/KG	U	U	
2,4,6-TRINITROTOLUENE	118-96-7	0.05	0.25	MG/KG	U	U	
2,4-DINITROTOLUENE	121-14-2	0.05	0.25	MG/KG	U	R	D
2,6-DINITROTOLUENE	606-20-2	0.05	0.25	MG/KG	U	R	D
2-AMINO-4,6-DINITROTOLUENE	35572-78-2	0.05	0.25	MG/KG	U	U	
2-NITROTOLUENE	88-72-2	0.05	0.25	MG/KG	U	U	
3-NITROTOLUENE	99-08-1	0.05	0.25	MG/KG	U	U	
4-AMINO-2,6-DINITROTOLUENE	19406-51-0	0.05	0.25	MG/KG	U	U	
4-NITROTOLUENE	99-99-0	0.05	0.25	MG/KG	U	U	
HMX	2691-41-0	0.05	0.25	MG/KG	U	U	
NITROBENZENE	98-95-3	0.05	0.25	MG/KG	U	R	D
NITROGLYCERIN	55-63-0	0.25	0.5	MG/KG	U	U	
NITROGUANIDINE	556-88-7	0.038	0.24	MG/KG	U	U	
PETN	78-11-5	0.25	0.5	MG/KG	U	U	
RDX	121-82-4	0.05	0.25	MG/KG	U	U	
TETRYL	479-45-8	0.05	0.25	MG/KG	U	U	

Validated Sample Result Forms for Sampling : Ravenna Army Ammunition Plant Ravenna, Ohio
Remediation Investigation Compliance Restoration Site: RVAAP-76 Depot Area

Sample Delivery Group: 240-17317-1

Analysis Method SW6020

Sample Name 076SD-0009-0001-SO **AnalysisType:** N

Lab Sample Name: 240-17317-19 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
ALUMINUM	7429-90-5	7500.0	9.6	MG/KG	J	J	
ANTIMONY	7440-36-0	0.72	0.96	MG/KG	U J	R	Q
ARSENIC	7440-38-2	9.5	0.48	MG/KG			
BARIUM	7440-39-3	57.0	2.4	MG/KG	D		
BERYLLIUM	7440-41-7	0.45	0.096	MG/KG			
CADMIUM	7440-43-9	0.16	0.19	MG/KG	J	J	
CALCIUM	7440-70-2	1800.0	190	MG/KG	J	J+	Q
CHROMIUM	7440-47-3	44.0	0.48	MG/KG		J	E
COBALT	7440-48-4	7.3	0.096	MG/KG			
COPPER	7440-50-8	15.0	0.38	MG/KG			
IRON	7439-89-6	19000.0	48	MG/KG	J	J	
LEAD	7439-92-1	19.0	1.4	MG/KG	D		
MAGNESIUM	7439-95-4	1800.0	96	MG/KG			
MANGANESE	7439-96-5	310.0	0.48	MG/KG			
NICKEL	7440-02-0	30.0	0.48	MG/KG		J	Q
POTASSIUM	7440-09-7	590.0	96	MG/KG		J+	Q
SELENIUM	7782-49-2	0.52	0.48	MG/KG		J	M
SILVER	7440-22-4	0.029	0.096	MG/KG	J	J	
SODIUM	7440-23-5	49.0	96	MG/KG	J	J	
THALLIUM	7440-28-0	0.72	0.96	MG/KG	U	U	
VANADIUM	7440-62-2	14.0	0.48	MG/KG		J+	Q
ZINC	7440-66-6	49.0	3.8	MG/KG			

Sample Delivery Group: 240-17317-1

Analysis Method SW7471A

Sample Name 076SD-0009-0001-SO **AnalysisType:** N

Lab Sample Name: 240-17317-19 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
MERCURY	7439-97-6	0.053	0.095	MG/KG	J	U	B

Sample Delivery Group: 240-17317-1

Analysis Method SW8270D

Sample Name 076SD-0009-0001-SO **AnalysisType:** N

Lab Sample Name: 240-17317-19 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
1,2,4-TRICHLOROBENZENE	120-82-1	27	51	UG/KG	U	U	
1,2-DICHLOROBENZENE	95-50-1	27	51	UG/KG	U	U	
1,3-DICHLOROBENZENE	541-73-1	27	51	UG/KG	U	U	
1,4-DICHLOROBENZENE	106-46-7	27	51	UG/KG	U	U	
2,2'-OXYBIS(1-CHLORO)PROPAN	108-60-1	27	100	UG/KG	U	U	
2,4,5-TRICHLOROPHENOL	95-95-4	27	150	UG/KG	U	U	
2,4,6-TRICHLOROPHENOL	88-06-2	81	150	UG/KG	U	U	
2,4-DICHLOROPHENOL	120-83-2	27	150	UG/KG	U	U	
2,4-DIMETHYLPHENOL	105-67-9	81	150	UG/KG	U	U	
2,4-DINITROPHENOL	51-28-5	81	330	UG/KG	U	UJ	C
2,4-DINITROTOLUENE	121-14-2	27	200	UG/KG	U	U	
2,6-DINITROTOLUENE	606-20-2	27	200	UG/KG	U	U	
2-CHLORONAPHTHALENE	91-58-7	3.3	51	UG/KG	U	U	
2-CHLOROPHENOL	95-57-8	27	51	UG/KG	U	U	
2-METHYLNAPHTHALENE	91-57-6	30.0	6.8	UG/KG			
2-METHYLPHENOL (O-CRESOL)	95-48-7	81	200	UG/KG	U	U	
2-NITROANILINE	88-74-4	27	200	UG/KG	U	U	
2-NITROPHENOL	88-75-5	27	51	UG/KG	U	U	
3,3'-DICHLOROBENZIDINE	91-94-1	81	100	UG/KG	U J	R	Q
3-NITROANILINE	99-09-2	81	200	UG/KG	U J	R	Q
4,6-DINITRO-2-METHYLPHENOL	534-52-1	81	150	UG/KG	U	U	
4-BROMOPHENYL PHENYL ETHE	101-55-3	27	51	UG/KG	U	UJ	C
4-CHLORO-3-METHYLPHENOL	59-50-7	27	150	UG/KG	U	U	
4-CHLOROANILINE	106-47-8	27	150	UG/KG	U J	UJ	Q
4-CHLOROPHENYL PHENYL ETH	7005-72-3	27	51	UG/KG	U	U	
4-NITROANILINE	100-01-6	27	200	UG/KG	U J	R	Q
4-NITROPHENOL	100-02-7	81	330	UG/KG	U	U	
ACENAPHTHENE	83-32-9	7.1	6.8	UG/KG			

Sample Delivery Group: 240-17317-1

ACENAPHTHYLENE	208-96-8	13.0	6.8	UG/KG			
ANTHRACENE	120-12-7	16.0	6.8	UG/KG			
BENZO(A)ANTHRACENE	56-55-3	71.0	6.8	UG/KG			
BENZO(A)PYRENE	50-32-8	69.0	6.8	UG/KG			
BENZO(B)FLUORANTHENE	205-99-2	110.0	6.8	UG/KG			
BENZO(G,H,I)PERYLENE	191-24-2	39.0	6.8	UG/KG	J	J	Q
BENZO(K)FLUORANTHENE	207-08-9	38.0	6.8	UG/KG			
BENZOIC ACID	65-85-0	340	670	UG/KG	U	UJ	C
BENZYL ALCOHOL	100-51-6	27	330	UG/KG	U	U	
BENZYL BUTYL PHTHALATE	85-68-7	27	51	UG/KG	U	U	
BIS(2-CHLOROETHOXY) METHA	111-91-1	27	100	UG/KG	U	U	
BIS(2-CHLOROETHYL) ETHER	111-44-4	3.3	100	UG/KG	U	U	
BIS(2-ETHYLHEXYL) PHTHALAT	117-81-7	89.0	51	UG/KG			
CARBAZOLE	86-74-8	27	51	UG/KG	U	U	
CHRYSENE	218-01-9	73.0	6.8	UG/KG			
CRESOLS, M & P		81	410	UG/KG	U	U	
DIBENZ(A,H)ANTHRACENE	53-70-3	3.3	6.8	UG/KG	U	U	
DIBENZOFURAN	132-64-9	14.0	51	UG/KG	J	J	
DIETHYL PHTHALATE	84-66-2	23.0	51	UG/KG	J	J	
DIMETHYL PHTHALATE	131-11-3	27	51	UG/KG	U	U	
DI-N-BUTYL PHTHALATE	84-74-2	27	51	UG/KG	U	U	
DI-N-OCTYLPHTHALATE	117-84-0	27	51	UG/KG	U	U	
FLUORANTHENE	206-44-0	120.0	6.8	UG/KG			
FLUORENE	86-73-7	12.0	6.8	UG/KG			
HEXACHLOROBENZENE	118-74-1	3.3	6.8	UG/KG	U	U	
HEXACHLOROBUTADIENE	87-68-3	27	51	UG/KG	U	U	
HEXACHLOROCYCLOPENTADIE	77-47-4	27	330	UG/KG	U	U	
HEXACHLOROETHANE	67-72-1	27	51	UG/KG	U J	UJ	C, Q
INDENO(1,2,3-C,D)PYRENE	193-39-5	33.0	6.8	UG/KG	M J		
ISOPHORONE	78-59-1	18.0	51	UG/KG	J	J	
NAPHTHALENE	91-20-3	22.0	6.8	UG/KG			
NITROBENZENE	98-95-3	3.3	100	UG/KG	U	U	
N-NITROSODI-N-PROPYLAMINE	621-64-7	27	51	UG/KG	U	U	

Sample Delivery Group: 240-17317-1

N-NITROSODIPHENYLAMINE	86-30-6	27	51	UG/KG	U	U	
PENTACHLOROPHENOL	87-86-5	81	150	UG/KG	U	UJ	C
PHENANTHRENE	85-01-8	68.0	6.8	UG/KG			
PHENOL	108-95-2	27	51	UG/KG	U	U	
PYRENE	129-00-0	100.0	6.8	UG/KG			

Sample Delivery Group: 240-17422-1

Analysis Method E353.2

Sample Name 076SS-0020M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-17422-2 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
NITROCELLULOSE	9004-70-0	18	50	MG/KG	U	U	

Analysis Method SW6020

Sample Name 076SS-0020M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-17422-2 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
ALUMINUM	7429-90-5	11000.0	9.3	MG/KG			
ANTIMONY	7440-36-0	0.17	0.19	MG/KG	J	J-	Q
ARSENIC	7440-38-2	11.0	0.46	MG/KG		J-	Q
BARIUM	7440-39-3	100.0	0.46	MG/KG			
BERYLLIUM	7440-41-7	0.62	0.093	MG/KG			
CADMIUM	7440-43-9	0.2	0.19	MG/KG			
CALCIUM	7440-70-2	1100.0	190	MG/KG			
CHROMIUM	7440-47-3	16.0	0.46	MG/KG			
COBALT	7440-48-4	9.4	0.093	MG/KG			
COPPER	7440-50-8	12.0	0.37	MG/KG			
IRON	7439-89-6	19000.0	46	MG/KG			
LEAD	7439-92-1	38.0	0.28	MG/KG			
MAGNESIUM	7439-95-4	2000.0	93	MG/KG			
MANGANESE	7439-96-5	760.0	0.46	MG/KG	J	J	
NICKEL	7440-02-0	18.0	0.46	MG/KG			
POTASSIUM	7440-09-7	801.0	93	MG/KG			
SELENIUM	7782-49-2	0.6	0.46	MG/KG		J-	M, Q
SILVER	7440-22-4	0.073	0.093	MG/KG	J	J	
SODIUM	7440-23-5	37	93	MG/KG	J	U	F
THALLIUM	7440-28-0	0.21	0.19	MG/KG		UJ	C, F
VANADIUM	7440-62-2	18.0	0.46	MG/KG			
ZINC	7440-66-6	120.0	3.7	MG/KG			

Sample Delivery Group: 240-17422-1

Analysis Method SW7471A

Sample Name 076SS-0020M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-17422-2 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
MERCURY	7439-97-6	0.077	0.10	MG/KG	J	U	B

Analysis Method SW8081

Sample Name 076SS-0020M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-17422-2 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
ALDRIN	309-00-2	6.7	20	UG/KG	U	U	
ALPHA BHC	319-84-6	6.7	13	UG/KG	U	U	
ALPHA ENDOSULFAN	959-98-8	3.4	8.6	UG/KG	U	U	
ALPHA-CHLORDANE	5103-71-9	6.7	15	UG/KG	U	U	
BETA BHC	319-85-7	6.7	18	UG/KG	U	U	
BETA ENDOSULFAN	33213-65-9	6.7	13	UG/KG	U	U	
DELTA BHC	319-86-8	6.7	20	UG/KG	U	U	
DIELDRIN	60-57-1	3.4	8.6	UG/KG	U	U	
ENDOSULFAN SULFATE	1031-07-8	6.7	15	UG/KG	U	U	
ENDRIN	72-20-8	3.4	8.6	UG/KG	U	U	
ENDRIN ALDEHYDE	7421-93-4	6.7	15	UG/KG	U	U	
ENDRIN KETONE	53494-70-5	3.4	10	UG/KG	U	U	
GAMMA BHC (LINDANE)	58-89-9	6.7	13	UG/KG	U	U	
GAMMA-CHLORDANE	5566-34-7	3.4	8.6	UG/KG	U	U	
HEPTACHLOR	76-44-8	6.7	18	UG/KG	U	U	
HEPTACHLOR EPOXIDE	1024-57-3	6.7	13	UG/KG	U J	U	
METHOXYCHLOR	72-43-5	17	25	UG/KG	U	U	
P,P'-DDD	72-54-8	3.4	10	UG/KG	U	U	
P,P'-DDE	72-55-9	3.4	8.6	UG/KG	U	U	
P,P'-DDT	50-29-3	3.4	10	UG/KG	U	U	
TOXAPHENE	8001-35-2	100	340	UG/KG	U	UJ	C

Sample Delivery Group: 240-17422-1

Analysis Method SW8082

Sample Name 076SS-0020M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-17422-2 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
AROCLOR 1016	12674-11-2	25	66	UG/KG	U	U	
AROCLOR 1221	11104-28-2	25	51	UG/KG	U	U	
AROCLOR 1232	11141-16-5	25	46	UG/KG	U	U	
AROCLOR 1242	53469-21-9	25	40	UG/KG	U	U	
AROCLOR 1248	12672-29-6	25	56	UG/KG	U	U	
AROCLOR 1254	11097-69-1	25	56	UG/KG	U	U	
AROCLOR 1260	11096-82-5	25	56	UG/KG	U	U	

Sample Delivery Group: 240-17422-1

Analysis Method SW8260B

Sample Name 076SS-0020M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-17422-2 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
1,1,1-TRICHLOROETHANE	71-55-6	1.2	5.8	UG/KG	U	U	
1,1,2,2-TETRACHLOROETHANE	79-34-5	0.58	5.8	UG/KG	U	U	
1,1,2-TRICHLOROETHANE	79-00-5	0.58	5.8	UG/KG	U	U	
1,1-DICHLOROETHANE	75-34-3	0.58	5.8	UG/KG	U	U	
1,1-DICHLOROETHENE	75-35-4	1.2	5.8	UG/KG	U	U	
1,2-DIBROMOETHANE	106-93-4	1.2	5.8	UG/KG	U	U	
1,2-DICHLOROETHANE	107-06-2	0.58	5.8	UG/KG	U	U	
1,2-DICHLOROPROPANE	78-87-5	1.2	5.8	UG/KG	U	U	
2-HEXANONE	591-78-6	1.2	23	UG/KG	U	U	
ACETONE	67-64-1	26.0	23	UG/KG		U	B
BENZENE	71-43-2	0.58	5.8	UG/KG	U	U	
BROMOCHLOROMETHANE	74-97-5	1.2	5.8	UG/KG	U	U	
BROMODICHLOROMETHANE	75-27-4	0.58	5.8	UG/KG	U	U	
BROMOFORM	75-25-2	0.58	5.8	UG/KG	U	U	
BROMOMETHANE	74-83-9	1.2	5.8	UG/KG	U	U	
CARBON DISULFIDE	75-15-0	0.58	5.8	UG/KG	U	U	
CARBON TETRACHLORIDE	56-23-5	0.58	5.8	UG/KG	U	U	
CHLOROBENZENE	108-90-7	0.58	5.8	UG/KG	U J	U	
CHLOROETHANE	75-00-3	1.2	5.8	UG/KG	U	U	
CHLOROFORM	67-66-3	0.58	5.8	UG/KG	U	U	
CHLOROMETHANE	74-87-3	0.58	5.8	UG/KG	U	U	
CIS-1,3-DICHLOROPROPENE	10061-01-5	0.58	5.8	UG/KG	U	U	
DIBROMOCHLOROMETHANE	124-48-1	1.2	5.8	UG/KG	U	U	
ETHYLBENZENE	100-41-4	0.58	5.8	UG/KG	U J	U	
METHYL ETHYL KETONE	78-93-3	2.3	23	UG/KG	U	U	
METHYL ISOBUTYL KETONE	108-10-1	1.2	23	UG/KG	U	U	
METHYLENE CHLORIDE	75-09-2	1.2	5.8	UG/KG	U	U	
STYRENE	100-42-5	0.58	5.8	UG/KG	U J	U	

Sample Delivery Group: 240-17422-1

TERT-BUTYL METHYL ETHER	1634-04-4	0.58	5.8	UG/KG	U	U
TETRACHLOROETHYLENE	127-18-4	1.2	5.8	UG/KG	U	U
TOLUENE	108-88-3	0.58	5.8	UG/KG	U	U
TOTAL 1,2-DICHLOROETHENE	540-59-0	1.2	12	UG/KG	U	U
TRANS-1,3-DICHLOROPROPENE	10061-02-6	1.2	5.8	UG/KG	U	U
TRICHLOROETHYLENE	79-01-6	0.58	5.8	UG/KG	U	U
VINYL CHLORIDE	75-01-4	0.58	5.8	UG/KG	U	U
XYLENES, TOTAL		1.7	12	UG/KG	U J	U

Sample Delivery Group: 240-17422-1

Analysis Method SW8270D

Sample Name 076SS-0020M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-17422-2 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
1,2,4-TRICHLOROBENZENE	120-82-1	27	49	UG/KG	U	U	
1,2-DICHLOROBENZENE	95-50-1	27	49	UG/KG	U	U	
1,3-DICHLOROBENZENE	541-73-1	27	49	UG/KG	U	U	
1,4-DICHLOROBENZENE	106-46-7	33.0	49	UG/KG	J	J	
2,2'-OXYBIS(1-CHLORO)PROPAN	108-60-1	27	98	UG/KG	U	U	
2,4,5-TRICHLOROPHENOL	95-95-4	27	150	UG/KG	U	U	
2,4,6-TRICHLOROPHENOL	88-06-2	79	150	UG/KG	U	U	
2,4-DICHLOROPHENOL	120-83-2	27	150	UG/KG	U	U	
2,4-DIMETHYLPHENOL	105-67-9	79	150	UG/KG	U	U	
2,4-DINITROPHENOL	51-28-5	79	330	UG/KG	U	U	
2,4-DINITROTOLUENE	121-14-2	27	200	UG/KG	U	U	
2,6-DINITROTOLUENE	606-20-2	27	200	UG/KG	U	U	
2-CHLORONAPHTHALENE	91-58-7	3.3	49	UG/KG	U	U	
2-CHLOROPHENOL	95-57-8	27	49	UG/KG	U	U	
2-METHYLNAPHTHALENE	91-57-6	18.0	6.6	UG/KG			
2-METHYLPHENOL (O-CRESOL)	95-48-7	79	200	UG/KG	U	U	
2-NITROANILINE	88-74-4	27	200	UG/KG	U	U	
2-NITROPHENOL	88-75-5	27	49	UG/KG	U	U	
3,3'-DICHLOROBENZIDINE	91-94-1	79	98	UG/KG	U J	R	Q
3-NITROANILINE	99-09-2	79	200	UG/KG	U J	R	Q
4,6-DINITRO-2-METHYLPHENOL	534-52-1	79	150	UG/KG	U	U	
4-BROMOPHENYL PHENYL ETHE	101-55-3	27	49	UG/KG	U	U	
4-CHLORO-3-METHYLPHENOL	59-50-7	27	150	UG/KG	U	U	
4-CHLOROANILINE	106-47-8	27	150	UG/KG	U J	UJ	Q
4-CHLOROPHENYL PHENYL ETH	7005-72-3	27	49	UG/KG	U	U	
4-NITROANILINE	100-01-6	27	200	UG/KG	U J	UJ	Q
4-NITROPHENOL	100-02-7	79	330	UG/KG	U	U	
ACENAPHTHENE	83-32-9	3.3	6.6	UG/KG	U	U	

Sample Delivery Group: 240-17422-1

ACENAPHTHYLENE	208-96-8	3.3	6.6	UG/KG	U	U	
ANTHRACENE	120-12-7	3.3	6.6	UG/KG	U	U	
BENZO(A)ANTHRACENE	56-55-3	3.3	6.6	UG/KG	U	U	
BENZO(A)PYRENE	50-32-8	19.0	6.6	UG/KG			
BENZO(B)FLUORANTHENE	205-99-2	19.0	6.6	UG/KG			
BENZO(G,H,I)PERYLENE	191-24-2	10.0	6.6	UG/KG	M		
BENZO(K)FLUORANTHENE	207-08-9	9.7	6.6	UG/KG	M		
BENZOIC ACID	65-85-0	330	650	UG/KG	U	U	
BENZYL ALCOHOL	100-51-6	27	330	UG/KG	U	U	
BENZYL BUTYL PHTHALATE	85-68-7	27	49	UG/KG	U	U	
BIS(2-CHLOROETHOXY) METHA	111-91-1	27	98	UG/KG	U	U	
BIS(2-CHLOROETHYL) ETHER	111-44-4	3.3	98	UG/KG	U	U	
BIS(2-ETHYLHEXYL) PHTHALAT	117-81-7	36.0	49	UG/KG	J	U	B
CARBAZOLE	86-74-8	27	49	UG/KG	U	U	
CHRYSENE	218-01-9	3.3	6.6	UG/KG	U	U	
CRESOLS, M & P		79	390	UG/KG	U	U	
DIBENZ(A,H)ANTHRACENE	53-70-3	3.3	6.6	UG/KG	U	U	
DIBENZOFURAN	132-64-9	7.0	49	UG/KG	J	J	
DIETHYL PHTHALATE	84-66-2	21.0	49	UG/KG	J B	U	B
DIMETHYL PHTHALATE	131-11-3	27	49	UG/KG	U	U	
DI-N-BUTYL PHTHALATE	84-74-2	16.0	49	UG/KG	J	J	
DI-N-OCTYLPHTHALATE	117-84-0	27	49	UG/KG	U	U	
FLUORANTHENE	206-44-0	28.0	6.6	UG/KG			
FLUORENE	86-73-7	4.7	6.6	UG/KG	J	J	
HEXACHLOROBENZENE	118-74-1	3.3	6.6	UG/KG	U	U	
HEXACHLOROBUTADIENE	87-68-3	27	49	UG/KG	U	U	
HEXACHLOROCYCLOPENTADIE	77-47-4	27	330	UG/KG	U	U	
HEXACHLOROETHANE	67-72-1	27	49	UG/KG	U	U	
INDENO(1,2,3-C,D)PYRENE	193-39-5	13.0	6.6	UG/KG			
ISOPHORONE	78-59-1	20.0	49	UG/KG	J	J	
NAPHTHALENE	91-20-3	20.0	6.6	UG/KG			
NITROBENZENE	98-95-3	3.3	98	UG/KG	U	U	
N-NITROSODI-N-PROPYLAMINE	621-64-7	27	49	UG/KG	U	U	

Sample Delivery Group: 240-17422-1

N-NITROSODIPHENYLAMINE	86-30-6	27	49	UG/KG	U	U	
PENTACHLOROPHENOL	87-86-5	79	150	UG/KG	U	U	
PHENANTHRENE	85-01-8	22.0	6.6	UG/KG			
PHENOL	108-95-2	27	49	UG/KG	U	U	
PYRENE	129-00-0	19.0	6.6	UG/KG			

Analysis Method SW8330

Sample Name 076SS-0020M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-17422-2 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
1,3,5-TRINITROBENZENE	99-35-4	0.050	0.25	MG/KG	U	U	
1,3-DINITROBENZENE	99-65-0	0.050	0.25	MG/KG	U	U	
2,4,6-TRINITROTOLUENE	118-96-7	0.050	0.25	MG/KG	U	U	
2,4-DINITROTOLUENE	121-14-2	0.050	0.25	MG/KG	U	R	D
2,6-DINITROTOLUENE	606-20-2	0.050	0.25	MG/KG	U	R	D
2-AMINO-4,6-DINITROTOLUENE	35572-78-2	0.050	0.25	MG/KG	U	U	
2-NITROTOLUENE	88-72-2	0.050	0.25	MG/KG	U	UJ	C
3-NITROTOLUENE	99-08-1	0.050	0.25	MG/KG	U	U	
4-AMINO-2,6-DINITROTOLUENE	19406-51-0	0.050	0.25	MG/KG	U	U	
4-NITROTOLUENE	99-99-0	0.050	0.25	MG/KG	U	U	
HMX	2691-41-0	0.050	0.25	MG/KG	U	U	
NITROBENZENE	98-95-3	0.050	0.25	MG/KG	U	R	D
NITROGLYCERIN	55-63-0	0.25	0.50	MG/KG	U	U	
NITROGUANIDINE	556-88-7	0.040	0.25	MG/KG	U	U	
PETN	78-11-5	0.25	0.50	MG/KG	U	U	
RDX	121-82-4	0.050	0.25	MG/KG	U	UJ	C
TETRYL	479-45-8	0.041	0.25	MG/KG	J	NJ	*III

Sample Delivery Group: 240-18544-1

Analysis Method E353.2

Sample Name 076SB-0102M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-18544-21 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
NITROCELLULOSE	9004-70-0	9.3	46	MG/KG	J	J	

Sample Delivery Group: 240-18544-1

Analysis Method SW6020

Sample Name 076SB-0094-0001-SO **AnalysisType:** N

Lab Sample Name: 240-18544-12 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
ALUMINUM	7429-90-5	9500.0	2.7	MG/KG			
ANTIMONY	7440-36-0	0.23	0.18	MG/KG		J-	Q
ARSENIC	7440-38-2	17.0	0.089	MG/KG		J-	Q
BARIUM	7440-39-3	47.0	0.89	MG/KG	Q	J	M
BERYLLIUM	7440-41-7	0.51	0.089	MG/KG		J-	Q
CADMIUM	7440-43-9	0.13	0.089	MG/KG	Q	J-	Q
CALCIUM	7440-70-2	970.0	8.9	MG/KG		J+	Q
CHROMIUM	7440-47-3	17.0	0.18	MG/KG		J-	Q
COBALT	7440-48-4	9.7	0.045	MG/KG	Q	J-	Q
COPPER	7440-50-8	17.0	0.18	MG/KG	Q	J-	Q
IRON	7439-89-6	29000.0	4.5	MG/KG			
LEAD	7439-92-1	24.0	0.089	MG/KG		J	E
MAGNESIUM	7439-95-4	2100.0	8.9	MG/KG			
MANGANESE	7439-96-5	380.0	0.45	MG/KG	Q	J	E
NICKEL	7440-02-0	21.0	0.089	MG/KG	Q	J-	Q
POTASSIUM	7440-09-7	790.0	8.9	MG/KG		J-	Q
SELENIUM	7782-49-2	0.47	0.45	MG/KG		J-	Q
SILVER	7440-22-4	0.025	0.089	MG/KG	J	J-	Q
SODIUM	7440-23-5	39.0	8.9	MG/KG			
THALLIUM	7440-28-0	0.14	0.089	MG/KG			
VANADIUM	7440-62-2	18.0	0.089	MG/KG			
ZINC	7440-66-6	63.0	0.45	MG/KG	Q	J	A

Sample Name 076SB-0096-0001-SO **AnalysisType:** N

Lab Sample Name: 240-18544-14 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
ALUMINUM	7429-90-5	6600.0	2.1	MG/KG			
ANTIMONY	7440-36-0	0.11	0.14	MG/KG	J	J-	Q

ARSENIC	7440-38-2	13.0	0.070	MG/KG		J-	Q
BARIUM	7440-39-3	29.0	0.70	MG/KG	Q	J	M
BERYLLIUM	7440-41-7	0.42	0.070	MG/KG		J-	Q
CADMIUM	7440-43-9	0.19	0.070	MG/KG	Q	J-	Q
CALCIUM	7440-70-2	700.0	7.0	MG/KG		J+	Q
CHROMIUM	7440-47-3	14.0	0.14	MG/KG		J-	Q
COBALT	7440-48-4	8.3	0.035	MG/KG	Q	J-	Q
COPPER	7440-50-8	17.0	0.14	MG/KG	Q	J-	Q
IRON	7439-89-6	26000.0	3.5	MG/KG			
LEAD	7439-92-1	14.0	0.070	MG/KG		J	E
MAGNESIUM	7439-95-4	1900.0	7.0	MG/KG			
MANGANESE	7439-96-5	510.0	0.35	MG/KG	Q	J	E
NICKEL	7440-02-0	21.0	0.070	MG/KG	Q	J-	Q
POTASSIUM	7440-09-7	810.0	7.0	MG/KG		J-	Q
SELENIUM	7782-49-2	0.32	0.35	MG/KG	J	J-	Q
SILVER	7440-22-4	0.019	0.070	MG/KG	J	J-	Q
SODIUM	7440-23-5	20.0	7.0	MG/KG			
THALLIUM	7440-28-0	0.13	0.070	MG/KG			
VANADIUM	7440-62-2	13.0	0.070	MG/KG			
ZINC	7440-66-6	62.0	0.35	MG/KG	Q	J	A

Sample Name 076SB-0102M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-18544-21 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
ALUMINUM	7429-90-5	7900.0	2.3	MG/KG			
ANTIMONY	7440-36-0	0.12	0.15	MG/KG	J	J-	Q
ARSENIC	7440-38-2	15.0	0.076	MG/KG		J-	Q
BARIUM	7440-39-3	34.0	0.76	MG/KG	Q	J	M
BERYLLIUM	7440-41-7	0.53	0.076	MG/KG		J-	Q
CADMIUM	7440-43-9	0.19	0.076	MG/KG	Q	J-	Q
CALCIUM	7440-70-2	680.0	7.6	MG/KG		J+	Q
CHROMIUM	7440-47-3	22.0	0.15	MG/KG		J-	Q
COBALT	7440-48-4	9.2	0.038	MG/KG	Q	J-	Q

COPPER	7440-50-8	16.0	0.15	MG/KG	Q	J-	Q
IRON	7439-89-6	27000.0	3.8	MG/KG			
LEAD	7439-92-1	15.0	0.076	MG/KG		J	E
MAGNESIUM	7439-95-4	2000.0	7.6	MG/KG			
MANGANESE	7439-96-5	430.0	0.38	MG/KG	Q	J	E
NICKEL	7440-02-0	23.0	0.076	MG/KG	Q	J-	Q
POTASSIUM	7440-09-7	840.0	7.6	MG/KG		J-	Q
SELENIUM	7782-49-2	0.29	0.38	MG/KG	J	J-	Q
SILVER	7440-22-4	0.02	0.076	MG/KG	J	J-	Q
SODIUM	7440-23-5	28.0	7.6	MG/KG			
THALLIUM	7440-28-0	0.13	0.076	MG/KG			
VANADIUM	7440-62-2	15.0	0.076	MG/KG			
ZINC	7440-66-6	75.0	0.38	MG/KG	Q	J	A

Sample Name 076SB-0114M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-18544-33 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
ALUMINUM	7429-90-5	7600.0	2.7	MG/KG			
ANTIMONY	7440-36-0	0.088	0.18	MG/KG	J	J-	Q
ARSENIC	7440-38-2	13.0	0.091	MG/KG		J-	Q
BARIUM	7440-39-3	36.0	0.91	MG/KG	Q	J	M
BERYLLIUM	7440-41-7	0.35	0.091	MG/KG		J-	Q
CADMIUM	7440-43-9	0.15	0.091	MG/KG		J-	Q
CALCIUM	7440-70-2	530.0	9.1	MG/KG		J+	Q
CHROMIUM	7440-47-3	12.0	0.18	MG/KG		J-	Q
COBALT	7440-48-4	8.0	0.045	MG/KG	Q	J-	Q
COPPER	7440-50-8	16.0	0.18	MG/KG	Q	J-	Q
IRON	7439-89-6	20000.0	4.5	MG/KG			
LEAD	7439-92-1	11.0	0.091	MG/KG		J	E
MAGNESIUM	7439-95-4	1900.0	9.1	MG/KG			
MANGANESE	7439-96-5	420.0	0.45	MG/KG		J	E
NICKEL	7440-02-0	17.0	0.091	MG/KG		J-	Q
POTASSIUM	7440-09-7	550.0	9.1	MG/KG		J-	Q

Sample Delivery Group: 240-18544-1

SELENIUM	7782-49-2	0.51	0.45	MG/KG	Q	J-	Q
SILVER	7440-22-4	0.019	0.091	MG/KG	J	J-	Q
SODIUM	7440-23-5	20.0	9.1	MG/KG			
THALLIUM	7440-28-0	0.12	0.091	MG/KG			
VANADIUM	7440-62-2	13.0	0.091	MG/KG			
ZINC	7440-66-6	54.0	0.45	MG/KG	Q	J	A

Analysis Method SW7471A

Sample Name 076SB-0094-0001-SO **AnalysisType:** N

Lab Sample Name: 240-18544-12 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
MERCURY	7439-97-6	0.042	0.10	MG/KG	J	J	

Sample Name 076SB-0096-0001-SO **AnalysisType:** N

Lab Sample Name: 240-18544-14 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
MERCURY	7439-97-6	0.031	0.098	MG/KG	J	J	

Sample Name 076SB-0102M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-18544-21 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
MERCURY	7439-97-6	0.03	0.092	MG/KG	J	J	

Sample Name 076SB-0114M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-18544-33 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
MERCURY	7439-97-6	0.03	0.090	MG/KG	J	J	

Sample Delivery Group: 240-18544-1

Analysis Method SW8082

Sample Name 076SB-0102M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-18544-21 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
AROCLOR 1016	12674-11-2	25	65	UG/KG	U	U	
AROCLOR 1221	11104-28-2	25	50	UG/KG	U	U	
AROCLOR 1232	11141-16-5	25	45	UG/KG	U	U	
AROCLOR 1242	53469-21-9	25	40	UG/KG	U	U	
AROCLOR 1248	12672-29-6	25	55	UG/KG	U	U	
AROCLOR 1254	11097-69-1	25	55	UG/KG	U	U	
AROCLOR 1260	11096-82-5	25	55	UG/KG	U	U	

Sample Delivery Group: 240-18544-1

Analysis Method SW8260B

Sample Name 076SB-0094-0001-SO **AnalysisType:** N

Lab Sample Name: 240-18544-12 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
1,1,1-TRICHLOROETHANE	71-55-6	1.1	5.7	UG/KG	U	UJ	S
1,1,2,2-TETRACHLOROETHANE	79-34-5	0.57	5.7	UG/KG	U	UJ	S
1,1,2-TRICHLOROETHANE	79-00-5	0.57	5.7	UG/KG	U	UJ	S
1,1-DICHLOROETHANE	75-34-3	0.57	5.7	UG/KG	U	UJ	S
1,1-DICHLOROETHENE	75-35-4	1.1	5.7	UG/KG	U	UJ	S
1,2-DIBROMOETHANE	106-93-4	1.1	5.7	UG/KG	U	UJ	S
1,2-DICHLOROETHANE	107-06-2	0.57	5.7	UG/KG	U	UJ	S
1,2-DICHLOROPROPANE	78-87-5	1.1	5.7	UG/KG	U	UJ	S
2-HEXANONE	591-78-6	1.1	23	UG/KG	U	UJ	C, S
ACETONE	67-64-1	7.2	23	UG/KG	U	UJ	S
BENZENE	71-43-2	0.57	5.7	UG/KG	U	UJ	S
BROMOCHLOROMETHANE	74-97-5	1.1	5.7	UG/KG	U	UJ	S
BROMODICHLOROMETHANE	75-27-4	0.57	5.7	UG/KG	U	UJ	S
BROMOFORM	75-25-2	0.57	5.7	UG/KG	U	UJ	S
BROMOMETHANE	74-83-9	1.1	5.7	UG/KG	U	UJ	S
CARBON DISULFIDE	75-15-0	0.57	5.7	UG/KG	U	UJ	S
CARBON TETRACHLORIDE	56-23-5	0.57	5.7	UG/KG	U	UJ	S
CHLOROBENZENE	108-90-7	0.57	5.7	UG/KG	U	UJ	S
CHLOROETHANE	75-00-3	1.1	5.7	UG/KG	U	UJ	S
CHLOROFORM	67-66-3	0.57	5.7	UG/KG	U	UJ	S
CHLOROMETHANE	74-87-3	0.57	5.7	UG/KG	U	UJ	S
CIS-1,3-DICHLOROPROPENE	10061-01-5	0.57	5.7	UG/KG	U	UJ	S
DIBROMOCHLOROMETHANE	124-48-1	1.1	5.7	UG/KG	U	UJ	S
ETHYLBENZENE	100-41-4	0.57	5.7	UG/KG	U	UJ	S
METHYL ETHYL KETONE	78-93-3	2.3	23	UG/KG	U	UJ	S
METHYL ISOBUTYL KETONE	108-10-1	1.1	23	UG/KG	U	UJ	C, S
METHYLENE CHLORIDE	75-09-2	1.1	5.7	UG/KG	U	UJ	S
STYRENE	100-42-5	0.57	5.7	UG/KG	U	UJ	S

TETRACHLOROETHYLENE	127-18-4	1.1	5.7	UG/KG	U	UJ	S
TOLUENE	108-88-3	1.0	5.7	UG/KG	J	J	S
TOTAL 1,2-DICHLOROETHENE	540-59-0	1.1	11	UG/KG	U	UJ	S
TRANS-1,3-DICHLOROPROPENE	10061-02-6	1.1	5.7	UG/KG	U	UJ	S
TRICHLOROETHYLENE	79-01-6	0.57	5.7	UG/KG	U	UJ	S
VINYL CHLORIDE	75-01-4	0.57	5.7	UG/KG	U	UJ	S
XYLENES, TOTAL		1.7	11	UG/KG	U	UJ	S

Sample Name 076SB-0102M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-18544-21 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
1,1,1-TRICHLOROETHANE	71-55-6	1.1	5.6	UG/KG	U	U	
1,1,2,2-TETRACHLOROETHANE	79-34-5	0.56	5.6	UG/KG	U	U	
1,1,2-TRICHLOROETHANE	79-00-5	0.56	5.6	UG/KG	U	U	
1,1-DICHLOROETHANE	75-34-3	0.56	5.6	UG/KG	U	U	
1,1-DICHLOROETHENE	75-35-4	1.1	5.6	UG/KG	U	U	
1,2-DIBROMOETHANE	106-93-4	1.1	5.6	UG/KG	U	U	
1,2-DICHLOROETHANE	107-06-2	0.56	5.6	UG/KG	U	U	
1,2-DICHLOROPROPANE	78-87-5	1.1	5.6	UG/KG	U	U	
2-HEXANONE	591-78-6	1.1	22	UG/KG	U	UJ	C
ACETONE	67-64-1	7.0	22	UG/KG	U	U	
BENZENE	71-43-2	0.56	5.6	UG/KG	U	U	
BROMOCHLOROMETHANE	74-97-5	1.1	5.6	UG/KG	U	U	
BROMODICHLOROMETHANE	75-27-4	0.56	5.6	UG/KG	U	U	
BROMOFORM	75-25-2	0.56	5.6	UG/KG	U	U	
BROMOMETHANE	74-83-9	1.1	5.6	UG/KG	U	U	
CARBON DISULFIDE	75-15-0	0.56	5.6	UG/KG	U	U	
CARBON TETRACHLORIDE	56-23-5	0.56	5.6	UG/KG	U	U	
CHLOROBENZENE	108-90-7	0.56	5.6	UG/KG	U	U	
CHLOROETHANE	75-00-3	1.1	5.6	UG/KG	U	U	
CHLOROFORM	67-66-3	0.56	5.6	UG/KG	U	U	
CHLOROMETHANE	74-87-3	0.56	5.6	UG/KG	U	U	
CIS-1,3-DICHLOROPROPENE	10061-01-5	0.56	5.6	UG/KG	U	U	

DIBROMOCHLOROMETHANE	124-48-1	1.1	5.6	UG/KG	U	U	
ETHYLBENZENE	100-41-4	0.56	5.6	UG/KG	U	U	
METHYL ETHYL KETONE	78-93-3	2.2	22	UG/KG	U	U	
METHYL ISOBUTYL KETONE	108-10-1	1.1	22	UG/KG	U	UJ	C
METHYLENE CHLORIDE	75-09-2	1.1	5.6	UG/KG	U	U	
STYRENE	100-42-5	0.56	5.6	UG/KG	U	U	
TETRACHLOROETHYLENE	127-18-4	1.1	5.6	UG/KG	U	U	
TOLUENE	108-88-3	1.7	5.6	UG/KG	J	J	
TOTAL 1,2-DICHLOROETHENE	540-59-0	1.1	11	UG/KG	U	U	
TRANS-1,3-DICHLOROPROPENE	10061-02-6	1.1	5.6	UG/KG	U	U	
TRICHLOROETHYLENE	79-01-6	0.56	5.6	UG/KG	U	U	
VINYL CHLORIDE	75-01-4	0.56	5.6	UG/KG	U	U	
XYLENES, TOTAL		1.7	11	UG/KG	U	U	

Sample Name 076SB-0114M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-18544-33 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
1,1,1-TRICHLOROETHANE	71-55-6	0.96	4.8	UG/KG	U	U	
1,1,2,2-TETRACHLOROETHANE	79-34-5	0.48	4.8	UG/KG	U	U	
1,1,2-TRICHLOROETHANE	79-00-5	0.48	4.8	UG/KG	U	U	
1,1-DICHLOROETHANE	75-34-3	0.48	4.8	UG/KG	U	U	
1,1-DICHLOROETHENE	75-35-4	0.96	4.8	UG/KG	U	U	
1,2-DIBROMOETHANE	106-93-4	0.96	4.8	UG/KG	U	U	
1,2-DICHLOROETHANE	107-06-2	0.48	4.8	UG/KG	U	U	
1,2-DICHLOROPROPANE	78-87-5	0.96	4.8	UG/KG	U	U	
2-HEXANONE	591-78-6	0.96	19	UG/KG	U	U	
ACETONE	67-64-1	6.0	19	UG/KG	U	U	
BENZENE	71-43-2	0.48	4.8	UG/KG	U	U	
BROMOCHLOROMETHANE	74-97-5	0.96	4.8	UG/KG	U	U	
BROMODICHLOROMETHANE	75-27-4	0.48	4.8	UG/KG	U	U	
BROMOFORM	75-25-2	0.48	4.8	UG/KG	U	U	
BROMOMETHANE	74-83-9	0.96	4.8	UG/KG	U	U	
CARBON DISULFIDE	75-15-0	0.48	4.8	UG/KG	U	U	

Sample Delivery Group: 240-18544-1

CARBON TETRACHLORIDE	56-23-5	0.48	4.8	UG/KG	U	U
CHLOROBENZENE	108-90-7	0.48	4.8	UG/KG	U	U
CHLOROETHANE	75-00-3	0.96	4.8	UG/KG	U	U
CHLOROFORM	67-66-3	0.48	4.8	UG/KG	U	U
CHLOROMETHANE	74-87-3	0.48	4.8	UG/KG	U	U
CIS-1,3-DICHLOROPROPENE	10061-01-5	0.48	4.8	UG/KG	U	U
DIBROMOCHLOROMETHANE	124-48-1	0.96	4.8	UG/KG	U	U
ETHYLBENZENE	100-41-4	0.48	4.8	UG/KG	U	U
METHYL ETHYL KETONE	78-93-3	1.9	19	UG/KG	U	U
METHYL ISOBUTYL KETONE	108-10-1	0.96	19	UG/KG	U	U
METHYLENE CHLORIDE	75-09-2	0.96	4.8	UG/KG	U	U
STYRENE	100-42-5	0.48	4.8	UG/KG	U	U
TETRACHLOROETHYLENE	127-18-4	0.96	4.8	UG/KG	U	U
TOLUENE	108-88-3	0.52	4.8	UG/KG	J	J
TOTAL 1,2-DICHLOROETHENE	540-59-0	0.96	9.6	UG/KG	U	U
TRANS-1,3-DICHLOROPROPENE	10061-02-6	0.96	4.8	UG/KG	U	U
TRICHLOROETHYLENE	79-01-6	0.48	4.8	UG/KG	U	U
VINYL CHLORIDE	75-01-4	0.48	4.8	UG/KG	U	U
XYLENES, TOTAL		1.4	9.6	UG/KG	U	U

Sample Delivery Group: 240-18544-1

Analysis Method SW8270D

Sample Name 076SB-0094-0001-SO **AnalysisType:** N

Lab Sample Name: 240-18544-12 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
1,2,4-TRICHLOROBENZENE	120-82-1	27	50	UG/KG	U	U	
1,2-DICHLOROBENZENE	95-50-1	27	50	UG/KG	U	U	
1,3-DICHLOROBENZENE	541-73-1	27	50	UG/KG	U	U	
1,4-DICHLOROBENZENE	106-46-7	27	50	UG/KG	U	U	
2,4,5-TRICHLOROPHENOL	95-95-4	27	150	UG/KG	U	U	
2,4,6-TRICHLOROPHENOL	88-06-2	79	150	UG/KG	U	U	
2,4-DICHLOROPHENOL	120-83-2	27	150	UG/KG	U	U	
2,4-DIMETHYLPHENOL	105-67-9	79	150	UG/KG	U	U	
2,4-DINITROPHENOL	51-28-5	79	330	UG/KG	U	U	
2,4-DINITROTOLUENE	121-14-2	27	200	UG/KG	U	U	
2,6-DINITROTOLUENE	606-20-2	27	200	UG/KG	U	U	
2-CHLORONAPHTHALENE	91-58-7	3.3	50	UG/KG	U	U	
2-CHLOROPHENOL	95-57-8	27	50	UG/KG	U	U	
2-METHYLNAPHTHALENE	91-57-6	3.3	6.6	UG/KG	U	U	
2-METHYLPHENOL (O-CRESOL)	95-48-7	79	200	UG/KG	U	U	
2-NITROANILINE	88-74-4	27	200	UG/KG	U	U	
2-NITROPHENOL	88-75-5	27	50	UG/KG	U	U	
3,3'-DICHLOROBENZIDINE	91-94-1	79	99	UG/KG	U	U	
3-NITROANILINE	99-09-2	79	200	UG/KG	U	U	
4,6-DINITRO-2-METHYLPHENOL	534-52-1	79	150	UG/KG	U	U	
4-BROMOPHENYL PHENYL ETHE	101-55-3	27	50	UG/KG	U	U	
4-CHLORO-3-METHYLPHENOL	59-50-7	27	150	UG/KG	U	U	
4-CHLOROANILINE	106-47-8	27	150	UG/KG	U	U	
4-CHLOROPHENYL PHENYL ETH	7005-72-3	27	50	UG/KG	U	U	
4-NITROANILINE	100-01-6	27	200	UG/KG	U	U	
4-NITROPHENOL	100-02-7	79	330	UG/KG	U	U	
ACENAPHTHENE	83-32-9	3.3	6.6	UG/KG	U	U	
ACENAPHTHYLENE	208-96-8	3.3	6.6	UG/KG	U	U	

Sample Delivery Group: 240-18544-1

ANTHRACENE	120-12-7	3.3	6.6	UG/KG	U	U	
BENZO(A)ANTHRACENE	56-55-3	3.3	6.6	UG/KG	U	U	
BENZO(A)PYRENE	50-32-8	3.3	6.6	UG/KG	U	U	
BENZO(B)FLUORANTHENE	205-99-2	3.3	6.6	UG/KG	U	U	
BENZO(G,H,I)PERYLENE	191-24-2	3.3	6.6	UG/KG	U	U	
BENZO(K)FLUORANTHENE	207-08-9	3.3	6.6	UG/KG	U	U	
BENZOIC ACID	65-85-0	330	650	UG/KG	U	U	
BENZYL ALCOHOL	100-51-6	27	330	UG/KG	U	U	
BENZYL BUTYL PHTHALATE	85-68-7	27	50	UG/KG	U	U	
BIS(2-CHLOROETHOXY) METHA	111-91-1	27	99	UG/KG	U	U	
BIS(2-CHLOROETHYL) ETHER	111-44-4	3.3	99	UG/KG	U	U	
BIS(2-CHLOROISOPROPYL) ETHE	108-60-1	27	99	UG/KG	U	U	
BIS(2-ETHYLHEXYL) PHTHALAT	117-81-7	27.0	50	UG/KG	J B	U	B
CARBAZOLE	86-74-8	27	50	UG/KG	U	U	
CHRYSENE	218-01-9	3.3	6.6	UG/KG	U	U	
CRESOLS, M & P		79	400	UG/KG	U	U	
DIBENZ(A,H)ANTHRACENE	53-70-3	3.3	6.6	UG/KG	U	U	
DIBENZOFURAN	132-64-9	3.3	50	UG/KG	U	U	
DIETHYL PHTHALATE	84-66-2	27	50	UG/KG	U	U	
DIMETHYL PHTHALATE	131-11-3	27	50	UG/KG	U	U	
DI-N-BUTYL PHTHALATE	84-74-2	27	50	UG/KG	U	U	
DI-N-OCTYLPHTHALATE	117-84-0	27	50	UG/KG	U	U	
FLUORANTHENE	206-44-0	3.3	6.6	UG/KG	U	U	
FLUORENE	86-73-7	3.3	6.6	UG/KG	U	U	
HEXACHLOROBENZENE	118-74-1	3.3	6.6	UG/KG	U	U	
HEXACHLOROBUTADIENE	87-68-3	27	50	UG/KG	U	U	
HEXACHLOROCYCLOPENTADIE	77-47-4	27	330	UG/KG	U	U	
HEXACHLOROETHANE	67-72-1	27	50	UG/KG	U	U	
INDENO(1,2,3-C,D)PYRENE	193-39-5	3.3	6.6	UG/KG	U	U	
ISOPHORONE	78-59-1	27	50	UG/KG	U	U	
NAPHTHALENE	91-20-3	3.3	6.6	UG/KG	U	U	
NITROBENZENE	98-95-3	3.3	99	UG/KG	U	U	
N-NITROSODI-N-PROPYLAMINE	621-64-7	27	50	UG/KG	U	U	

N-NITROSODIPHENYLAMINE	86-30-6	27	50	UG/KG	U	U
PENTACHLOROPHENOL	87-86-5	79	150	UG/KG	U	U
PHENANTHRENE	85-01-8	3.3	6.6	UG/KG	U	U
PHENOL	108-95-2	27	50	UG/KG	U	U
PYRENE	129-00-0	3.3	6.6	UG/KG	U	U

Sample Name 076SB-0096-0001-SO **AnalysisType:** N

Lab Sample Name: 240-18544-14 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
1,2,4-TRICHLOROBENZENE	120-82-1	27	50	UG/KG	U	U	
1,2-DICHLOROBENZENE	95-50-1	27	50	UG/KG	U	U	
1,3-DICHLOROBENZENE	541-73-1	27	50	UG/KG	U	U	
1,4-DICHLOROBENZENE	106-46-7	27	50	UG/KG	U	U	
2,4,5-TRICHLOROPHENOL	95-95-4	27	150	UG/KG	U	U	
2,4,6-TRICHLOROPHENOL	88-06-2	80	150	UG/KG	U	U	
2,4-DICHLOROPHENOL	120-83-2	27	150	UG/KG	U	U	
2,4-DIMETHYLPHENOL	105-67-9	80	150	UG/KG	U	U	
2,4-DINITROPHENOL	51-28-5	80	330	UG/KG	U	U	
2,4-DINITROTOLUENE	121-14-2	27	200	UG/KG	U	U	
2,6-DINITROTOLUENE	606-20-2	27	200	UG/KG	U	U	
2-CHLORONAPHTHALENE	91-58-7	3.3	50	UG/KG	U	U	
2-CHLOROPHENOL	95-57-8	27	50	UG/KG	U	U	
2-METHYLNAPHTHALENE	91-57-6	3.3	6.7	UG/KG	U	U	
2-METHYLPHENOL (O-CRESOL)	95-48-7	80	200	UG/KG	U	U	
2-NITROANILINE	88-74-4	27	200	UG/KG	U	U	
2-NITROPHENOL	88-75-5	27	50	UG/KG	U	U	
3,3'-DICHLOROBENZIDINE	91-94-1	80	100	UG/KG	U	U	
3-NITROANILINE	99-09-2	80	200	UG/KG	U	U	
4,6-DINITRO-2-METHYLPHENOL	534-52-1	80	150	UG/KG	U	U	
4-BROMOPHENYL PHENYL ETHE	101-55-3	27	50	UG/KG	U	U	
4-CHLORO-3-METHYLPHENOL	59-50-7	27	150	UG/KG	U	U	
4-CHLOROANILINE	106-47-8	27	150	UG/KG	U	U	
4-CHLOROPHENYL PHENYL ETH	7005-72-3	27	50	UG/KG	U	U	

4-NITROANILINE	100-01-6	27	200	UG/KG	U	U	
4-NITROPHENOL	100-02-7	80	330	UG/KG	U	U	
ACENAPHTHENE	83-32-9	3.3	6.7	UG/KG	U	U	
ACENAPHTHYLENE	208-96-8	3.3	6.7	UG/KG	U	U	
ANTHRACENE	120-12-7	3.3	6.7	UG/KG	U	U	
BENZO(A)ANTHRACENE	56-55-3	3.3	6.7	UG/KG	U	U	
BENZO(A)PYRENE	50-32-8	3.3	6.7	UG/KG	U	U	
BENZO(B)FLUORANTHENE	205-99-2	3.3	6.7	UG/KG	U	U	
BENZO(G,H,I)PERYLENE	191-24-2	3.3	6.7	UG/KG	U	U	
BENZO(K)FLUORANTHENE	207-08-9	3.3	6.7	UG/KG	U	U	
BENZOIC ACID	65-85-0	330	660	UG/KG	U	U	
BENZYL ALCOHOL	100-51-6	27	330	UG/KG	U	U	
BENZYL BUTYL PHTHALATE	85-68-7	27	50	UG/KG	U	U	
BIS(2-CHLOROETHOXY) METHA	111-91-1	27	100	UG/KG	U	U	
BIS(2-CHLOROETHYL) ETHER	111-44-4	3.3	100	UG/KG	U	U	
BIS(2-CHLOROISOPROPYL) ETHE	108-60-1	27	100	UG/KG	U	U	
BIS(2-ETHYLHEXYL) PHTHALAT	117-81-7	27.0	50	UG/KG	J B	U	B
CARBAZOLE	86-74-8	27	50	UG/KG	U	U	
CHRYSENE	218-01-9	3.3	6.7	UG/KG	U	U	
CRESOLS, M & P		80	400	UG/KG	U	U	
DIBENZ(A,H)ANTHRACENE	53-70-3	3.3	6.7	UG/KG	U	U	
DIBENZOFURAN	132-64-9	3.3	50	UG/KG	U	U	
DIETHYL PHTHALATE	84-66-2	27	50	UG/KG	U	U	
DIMETHYL PHTHALATE	131-11-3	27	50	UG/KG	U	U	
DI-N-BUTYL PHTHALATE	84-74-2	27	50	UG/KG	U	U	
DI-N-OCTYLPHTHALATE	117-84-0	27	50	UG/KG	U	U	
FLUORANTHENE	206-44-0	3.3	6.7	UG/KG	U	U	
FLUORENE	86-73-7	3.3	6.7	UG/KG	U	U	
HEXACHLOROBENZENE	118-74-1	3.3	6.7	UG/KG	U	U	
HEXACHLOROBUTADIENE	87-68-3	27	50	UG/KG	U	U	
HEXACHLOROCYCLOPENTADIE	77-47-4	27	330	UG/KG	U	U	
HEXACHLOROETHANE	67-72-1	27	50	UG/KG	U	U	
INDENO(1,2,3-C,D)PYRENE	193-39-5	3.3	6.7	UG/KG	U	U	

ISOPHORONE	78-59-1	27	50	UG/KG	U	U
NAPHTHALENE	91-20-3	3.3	6.7	UG/KG	U	U
NITROBENZENE	98-95-3	3.3	100	UG/KG	U	U
N-NITROSODI-N-PROPYLAMINE	621-64-7	27	50	UG/KG	U	U
N-NITROSODIPHENYLAMINE	86-30-6	27	50	UG/KG	U	U
PENTACHLOROPHENOL	87-86-5	80	150	UG/KG	U	U
PHENANTHRENE	85-01-8	3.3	6.7	UG/KG	U	U
PHENOL	108-95-2	27	50	UG/KG	U	U
PYRENE	129-00-0	3.3	6.7	UG/KG	U	U

Sample Name 076SB-0102M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-18544-21 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
1,2,4-TRICHLOROBENZENE	120-82-1	27	50	UG/KG	U	U	
1,2-DICHLOROBENZENE	95-50-1	27	50	UG/KG	U	U	
1,3-DICHLOROBENZENE	541-73-1	27	50	UG/KG	U	U	
1,4-DICHLOROBENZENE	106-46-7	27	50	UG/KG	U	U	
2,4,5-TRICHLOROPHENOL	95-95-4	27	150	UG/KG	U	U	
2,4,6-TRICHLOROPHENOL	88-06-2	81	150	UG/KG	U	U	
2,4-DICHLOROPHENOL	120-83-2	27	150	UG/KG	U	U	
2,4-DIMETHYLPHENOL	105-67-9	81	150	UG/KG	U	U	
2,4-DINITROPHENOL	51-28-5	81	330	UG/KG	U	U	
2,4-DINITROTOLUENE	121-14-2	27	200	UG/KG	U	U	
2,6-DINITROTOLUENE	606-20-2	27	200	UG/KG	U	U	
2-CHLORONAPHTHALENE	91-58-7	3.3	50	UG/KG	U	U	
2-CHLOROPHENOL	95-57-8	27	50	UG/KG	U	U	
2-METHYLNAPHTHALENE	91-57-6	4.9	6.7	UG/KG	J	J	
2-METHYLPHENOL (O-CRESOL)	95-48-7	81	200	UG/KG	U	U	
2-NITROANILINE	88-74-4	27	200	UG/KG	U	U	
2-NITROPHENOL	88-75-5	27	50	UG/KG	U	U	
3,3'-DICHLOROBENZIDINE	91-94-1	81	100	UG/KG	U	U	
3-NITROANILINE	99-09-2	81	200	UG/KG	U	U	
4,6-DINITRO-2-METHYLPHENOL	534-52-1	81	150	UG/KG	U	U	

4-BROMOPHENYL PHENYL ETHE	101-55-3	27	50	UG/KG	U	U	
4-CHLORO-3-METHYLPHENOL	59-50-7	27	150	UG/KG	U	U	
4-CHLOROANILINE	106-47-8	27	150	UG/KG	U	U	
4-CHLOROPHENYL PHENYL ETH	7005-72-3	27	50	UG/KG	U	U	
4-NITROANILINE	100-01-6	27	200	UG/KG	U	U	
4-NITROPHENOL	100-02-7	81	330	UG/KG	U	U	
ACENAPHTHENE	83-32-9	3.3	6.7	UG/KG	U	U	
ACENAPHTHYLENE	208-96-8	3.3	6.7	UG/KG	U	U	
ANTHRACENE	120-12-7	3.3	6.7	UG/KG	U	U	
BENZO(A)ANTHRACENE	56-55-3	3.3	6.7	UG/KG	U	U	
BENZO(A)PYRENE	50-32-8	3.3	6.7	UG/KG	U	U	
BENZO(B)FLUORANTHENE	205-99-2	3.3	6.7	UG/KG	U	U	
BENZO(G,H,I)PERYLENE	191-24-2	3.3	6.7	UG/KG	U	U	
BENZO(K)FLUORANTHENE	207-08-9	3.3	6.7	UG/KG	U	U	
BENZOIC ACID	65-85-0	340	670	UG/KG	U	U	
BENZYL ALCOHOL	100-51-6	27	330	UG/KG	U	U	
BENZYL BUTYL PHTHALATE	85-68-7	27	50	UG/KG	U	U	
BIS(2-CHLOROETHOXY) METHA	111-91-1	27	100	UG/KG	U	U	
BIS(2-CHLOROETHYL) ETHER	111-44-4	3.3	100	UG/KG	U	U	
BIS(2-CHLOROISOPROPYL) ETHE	108-60-1	27	100	UG/KG	U	U	
BIS(2-ETHYLHEXYL) PHTHALAT	117-81-7	27.0	50	UG/KG	J	U	B
CARBAZOLE	86-74-8	27	50	UG/KG	U	U	
CHRYSENE	218-01-9	3.3	6.7	UG/KG	U	U	
CRESOLS, M & P		81	400	UG/KG	U	U	
DIBENZ(A,H)ANTHRACENE	53-70-3	3.3	6.7	UG/KG	U	U	
DIBENZOFURAN	132-64-9	3.3	50	UG/KG	U	U	
DIETHYL PHTHALATE	84-66-2	27	50	UG/KG	U	U	
DIMETHYL PHTHALATE	131-11-3	27	50	UG/KG	U	U	
DI-N-BUTYL PHTHALATE	84-74-2	27	50	UG/KG	U	U	
DI-N-OCTYLPHTHALATE	117-84-0	27	50	UG/KG	U	U	
FLUORANTHENE	206-44-0	3.3	6.7	UG/KG	U	U	
FLUORENE	86-73-7	3.3	6.7	UG/KG	U	U	
HEXACHLOROBENZENE	118-74-1	3.3	6.7	UG/KG	U	U	

HEXACHLOROBUTADIENE	87-68-3	27	50	UG/KG	U	U	
HEXACHLOROCYCLOPENTADIE	77-47-4	27	330	UG/KG	U	U	
HEXACHLOROETHANE	67-72-1	27	50	UG/KG	U	U	
INDENO(1,2,3-C,D)PYRENE	193-39-5	3.3	6.7	UG/KG	U	U	
ISOPHORONE	78-59-1	27	50	UG/KG	U	U	
NAPHTHALENE	91-20-3	4.8	6.7	UG/KG	J	J	
NITROBENZENE	98-95-3	3.3	100	UG/KG	U	U	
N-NITROSODI-N-PROPYLAMINE	621-64-7	27	50	UG/KG	U	U	
N-NITROSODIPHENYLAMINE	86-30-6	27	50	UG/KG	U	R	C
PENTACHLOROPHENOL	87-86-5	81	150	UG/KG	U	U	
PHENANTHRENE	85-01-8	3.3	6.7	UG/KG	U	U	
PHENOL	108-95-2	27	50	UG/KG	U	U	
PYRENE	129-00-0	3.3	6.7	UG/KG	U	U	

Sample Name 076SB-0114M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-18544-33 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
1,2,4-TRICHLOROBENZENE	120-82-1	27	50	UG/KG	U	U	
1,2-DICHLOROBENZENE	95-50-1	27	50	UG/KG	U	U	
1,3-DICHLOROBENZENE	541-73-1	27	50	UG/KG	U	U	
1,4-DICHLOROBENZENE	106-46-7	27	50	UG/KG	U	U	
2,4,5-TRICHLOROPHENOL	95-95-4	27	150	UG/KG	U	U	
2,4,6-TRICHLOROPHENOL	88-06-2	81	150	UG/KG	U	U	
2,4-DICHLOROPHENOL	120-83-2	27	150	UG/KG	U	U	
2,4-DIMETHYLPHENOL	105-67-9	81	150	UG/KG	U	U	
2,4-DINITROPHENOL	51-28-5	81	330	UG/KG	U	U	
2,4-DINITROTOLUENE	121-14-2	27	200	UG/KG	U	U	
2,6-DINITROTOLUENE	606-20-2	27	200	UG/KG	U	U	
2-CHLORONAPHTHALENE	91-58-7	3.3	50	UG/KG	U	U	
2-CHLOROPHENOL	95-57-8	27	50	UG/KG	U	U	
2-METHYLNAPHTHALENE	91-57-6	8.3	6.7	UG/KG			
2-METHYLPHENOL (O-CRESOL)	95-48-7	81	200	UG/KG	U	U	
2-NITROANILINE	88-74-4	27	200	UG/KG	U	U	

2-NITROPHENOL	88-75-5	27	50	UG/KG	U	U	
3,3'-DICHLOROBENZIDINE	91-94-1	81	100	UG/KG	U	U	
3-NITROANILINE	99-09-2	81	200	UG/KG	U	U	
4,6-DINITRO-2-METHYLPHENOL	534-52-1	81	150	UG/KG	U	U	
4-BROMOPHENYL PHENYL ETHE	101-55-3	27	50	UG/KG	U	U	
4-CHLORO-3-METHYLPHENOL	59-50-7	27	150	UG/KG	U	U	
4-CHLOROANILINE	106-47-8	27	150	UG/KG	U	U	
4-CHLOROPHENYL PHENYL ETH	7005-72-3	27	50	UG/KG	U	U	
4-NITROANILINE	100-01-6	27	200	UG/KG	U	U	
4-NITROPHENOL	100-02-7	81	330	UG/KG	U	U	
ACENAPHTHENE	83-32-9	3.3	6.7	UG/KG	U	U	
ACENAPHTHYLENE	208-96-8	3.3	6.7	UG/KG	U	U	
ANTHRACENE	120-12-7	4.5	6.7	UG/KG	J	J	
BENZO(A)ANTHRACENE	56-55-3	23.0	6.7	UG/KG			
BENZO(A)PYRENE	50-32-8	23.0	6.7	UG/KG			
BENZO(B)FLUORANTHENE	205-99-2	35.0	6.7	UG/KG			
BENZO(G,H,I)PERYLENE	191-24-2	17.0	6.7	UG/KG			
BENZO(K)FLUORANTHENE	207-08-9	8.6	6.7	UG/KG	M		
BENZOIC ACID	65-85-0	340	660	UG/KG	U	U	
BENZYL ALCOHOL	100-51-6	27	330	UG/KG	U	U	
BENZYL BUTYL PHTHALATE	85-68-7	27	50	UG/KG	U	U	
BIS(2-CHLOROETHOXY) METHA	111-91-1	27	100	UG/KG	U	U	
BIS(2-CHLOROETHYL) ETHER	111-44-4	3.3	100	UG/KG	U	U	
BIS(2-CHLOROISOPROPYL) ETHE	108-60-1	27	100	UG/KG	U	U	
BIS(2-ETHYLHEXYL) PHTHALAT	117-81-7	27.0	50	UG/KG	J	U	B
CARBAZOLE	86-74-8	27	50	UG/KG	U	U	
CHRYSENE	218-01-9	28.0	6.7	UG/KG			
CRESOLS, M & P		81	400	UG/KG	U	U	
DIBENZ(A,H)ANTHRACENE	53-70-3	3.3	6.7	UG/KG	U	U	
DIBENZOFURAN	132-64-9	4.2	50	UG/KG	J	J	
DIETHYL PHTHALATE	84-66-2	27	50	UG/KG	U	U	
DIMETHYL PHTHALATE	131-11-3	27	50	UG/KG	U	U	
DI-N-BUTYL PHTHALATE	84-74-2	27	50	UG/KG	U	U	

Sample Delivery Group: 240-18544-1

DI-N-OCTYLPHTHALATE	117-84-0	27	50	UG/KG	U	U	
FLUORANTHENE	206-44-0	53.0	6.7	UG/KG			
FLUORENE	86-73-7	3.3	6.7	UG/KG	U	U	
HEXACHLOROBENZENE	118-74-1	3.3	6.7	UG/KG	U	U	
HEXACHLOROBUTADIENE	87-68-3	27	50	UG/KG	U	U	
HEXACHLOROCYCLOPENTADIE	77-47-4	27	330	UG/KG	U	U	
HEXACHLOROETHANE	67-72-1	27	50	UG/KG	U	U	
INDENO(1,2,3-C,D)PYRENE	193-39-5	14.0	6.7	UG/KG			
ISOPHORONE	78-59-1	27	50	UG/KG	U	U	
NAPHTHALENE	91-20-3	8.3	6.7	UG/KG			
NITROBENZENE	98-95-3	3.3	100	UG/KG	U	U	
N-NITROSODI-N-PROPYLAMINE	621-64-7	27	50	UG/KG	U	U	
N-NITROSODIPHENYLAMINE	86-30-6	27	50	UG/KG	U	R	C
PENTACHLOROPHENOL	87-86-5	81	150	UG/KG	U	U	
PHENANTHRENE	85-01-8	34.0	6.7	UG/KG			
PHENOL	108-95-2	27	50	UG/KG	U	U	
PYRENE	129-00-0	44.0	6.7	UG/KG			

Sample Delivery Group: 240-18544-1

Analysis Method SW8330

Sample Name 076SB-0102M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-18544-21 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
1,3,5-TRINITROBENZENE	99-35-4	0.050	0.25	MG/KG	U	U	
1,3-DINITROBENZENE	99-65-0	0.050	0.25	MG/KG	U	U	
2,4,6-TRINITROTOLUENE	118-96-7	0.050	0.25	MG/KG	U	U	
2,4-DINITROTOLUENE	121-14-2	0.050	0.25	MG/KG	U	R	D
2,6-DINITROTOLUENE	606-20-2	0.050	0.25	MG/KG	U	R	D
2-AMINO-4,6-DINITROTOLUENE	35572-78-2	0.050	0.25	MG/KG	U	U	
2-NITROTOLUENE	88-72-2	0.050	0.25	MG/KG	U	UJ	C
3-NITROTOLUENE	99-08-1	0.050	0.25	MG/KG	U	U	
4-AMINO-2,6-DINITROTOLUENE	19406-51-0	0.050	0.25	MG/KG	U	U	
4-NITROTOLUENE	99-99-0	0.050	0.25	MG/KG	U	U	
HMX	2691-41-0	0.050	0.25	MG/KG	U	U	
NITROBENZENE	98-95-3	0.050	0.25	MG/KG	U	R	D
NITROGLYCERIN	55-63-0	0.25	0.50	MG/KG	U	U	
NITROGUANIDINE	556-88-7	0.039	0.24	MG/KG	U	U	
PETN	78-11-5	0.25	0.50	MG/KG	U	U	
RDX	121-82-4	0.050	0.25	MG/KG	U	UJ	C
TETRYL	479-45-8	0.050	0.25	MG/KG	U J	U	

Sample Name 076SB-0114M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-18544-33 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
1,3,5-TRINITROBENZENE	99-35-4	0.050	0.25	MG/KG	U	U	
1,3-DINITROBENZENE	99-65-0	0.050	0.25	MG/KG	U	U	
2,4,6-TRINITROTOLUENE	118-96-7	0.050	0.25	MG/KG	U	U	
2,4-DINITROTOLUENE	121-14-2	0.050	0.25	MG/KG	U	R	D
2,6-DINITROTOLUENE	606-20-2	0.050	0.25	MG/KG	U	R	D
2-AMINO-4,6-DINITROTOLUENE	35572-78-2	0.050	0.25	MG/KG	U	U	
2-NITROTOLUENE	88-72-2	0.050	0.25	MG/KG	U	UJ	C

Sample Delivery Group: 240-18544-1

3-NITROTOLUENE	99-08-1	0.050	0.25	MG/KG	U	U	
4-AMINO-2,6-DINITROTOLUENE	19406-51-0	0.050	0.25	MG/KG	U	U	
4-NITROTOLUENE	99-99-0	0.050	0.25	MG/KG	U	U	
HMX	2691-41-0	0.050	0.25	MG/KG	U	U	
NITROBENZENE	98-95-3	0.050	0.25	MG/KG	U	R	D
NITROGLYCERIN	55-63-0	0.25	0.50	MG/KG	U	U	
PETN	78-11-5	0.25	0.50	MG/KG	U	U	
RDX	121-82-4	0.050	0.25	MG/KG	U	UJ	C
TETRYL	479-45-8	0.050	0.25	MG/KG	U	U	

Validated Sample Result Forms for Sampling : Ravenna Army Ammunition Plant Ravenna, Ohio
Remediation Investigation Compliance Restoration Site: RVAAP-78 Quarry Pond Surface Dump

Sample Delivery Group: 240-22559-1_78_SB

Analysis Method E353.2

Sample Name 078SB-0016M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-22559-14 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
NITROCELLULOSE	9004-70-0	1.8	4.9	MG/KG	U	U	

Sample Delivery Group: 240-22559-1_78_SB

Analysis Method SW6020

Sample Name 078SB-0008M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-22559-8 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
ALUMINUM	7429-90-5	3400	3	MG/KG			
ANTIMONY	7440-36-0	0.097	0.2	MG/KG	J	J-	Q
ARSENIC	7440-38-2	4.7	0.1	MG/KG		J-	Q
BARIUM	7440-39-3	30	1	MG/KG	Q		
BERYLLIUM	7440-41-7	0.2	0.1	MG/KG			
CADMIUM	7440-43-9	0.1	0.1	MG/KG			
CALCIUM	7440-70-2	410	10	MG/KG			
CHROMIUM	7440-47-3	5.7	0.2	MG/KG			
COBALT	7440-48-4	4	0.05	MG/KG	Q		
COPPER	7440-50-8	8.9	0.2	MG/KG	Q		
IRON	7439-89-6	12000	5	MG/KG			
LEAD	7439-92-1	9.5	0.1	MG/KG	Q		
MAGNESIUM	7439-95-4	740	10	MG/KG			
MANGANESE	7439-96-5	280	0.5	MG/KG	Q	J+	Q
NICKEL	7440-02-0	8.1	0.1	MG/KG			
POTASSIUM	7440-09-7	480	10	MG/KG			
SELENIUM	7782-49-2	0.12	0.5	MG/KG	J	J-	Q
SILVER	7440-22-4	0.015	0.1	MG/KG	J	J	
SODIUM	7440-23-5	21	10	MG/KG			
THALLIUM	7440-28-0	0.074	0.1	MG/KG	J	J	
VANADIUM	7440-62-2	6.8	0.1	MG/KG			
ZINC	7440-66-6	29	0.5	MG/KG	Q		

Sample Name 078SB-0016M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-22559-14 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
ALUMINUM	7429-90-5	1200	2.7	MG/KG			
ANTIMONY	7440-36-0	0.31	0.18	MG/KG		J-	Q

Sample Delivery Group: 240-22559-1_78_SB

ARSENIC	7440-38-2	0.94	0.09	MG/KG		J-	Q
BARIUM	7440-39-3	11	0.9	MG/KG	Q		
BERYLLIUM	7440-41-7	0.18	0.09	MG/KG			
CADMIUM	7440-43-9	0.079	0.09	MG/KG	J	J	
CALCIUM	7440-70-2	200	9	MG/KG			
CHROMIUM	7440-47-3	2.9	0.18	MG/KG			
COBALT	7440-48-4	2.3	0.045	MG/KG	Q		
COPPER	7440-50-8	4.6	0.18	MG/KG	Q		
IRON	7439-89-6	6600	4.5	MG/KG			
LEAD	7439-92-1	7	0.09	MG/KG	Q		
MAGNESIUM	7439-95-4	300	9	MG/KG			
MANGANESE	7439-96-5	160	0.45	MG/KG	Q	J+	Q
NICKEL	7440-02-0	4.9	0.09	MG/KG			
POTASSIUM	7440-09-7	340	9	MG/KG			
SELENIUM	7782-49-2	0.09	0.45	MG/KG	U	UJ	Q
SILVER	7440-22-4	0.021	0.09	MG/KG	J	J	
SODIUM	7440-23-5	16	9	MG/KG			
THALLIUM	7440-28-0	0.035	0.09	MG/KG	J	J	
VANADIUM	7440-62-2	2.8	0.09	MG/KG			
ZINC	7440-66-6	20	0.45	MG/KG	Q		

Analysis Method SW7471A

Sample Name 078SB-0008M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-22559-8 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
MERCURY	7439-97-6	0.053	0.1	MG/KG	J	J	

Sample Name 078SB-0016M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-22559-14 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
MERCURY	7439-97-6	0.039	0.12	MG/KG	U	U	

Sample Delivery Group: 240-22559-1_78_SB

Analysis Method SW8081

Sample Name 078SB-0016M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-22559-14 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
ALDRIN	309-00-2	1.3	4	UG/KG	U	U	
ALPHA BHC	319-84-6	1.3	2.5	UG/KG	U	U	
ALPHA ENDOSULFAN	959-98-8	0.67	1.7	UG/KG	U	U	
ALPHA-CHLORDANE	5103-71-9	1.3	3	UG/KG	U	U	
BETA BHC	319-85-7	1.3	3.5	UG/KG	U	U	
BETA ENDOSULFAN	33213-65-9	1.3	2.5	UG/KG	U	U	
DELTA BHC	319-86-8	1.3	4	UG/KG	U	U	
DIELDRIN	60-57-1	0.67	1.7	UG/KG	U	U	
ENDOSULFAN SULFATE	1031-07-8	1.3	3	UG/KG	U	U	
ENDRIN	72-20-8	0.67	1.7	UG/KG	U	U	
ENDRIN ALDEHYDE	7421-93-4	1.3	3	UG/KG	U	U	
ENDRIN KETONE	53494-70-5	0.67	2	UG/KG	U	U	
GAMMA BHC (LINDANE)	58-89-9	1.3	2.5	UG/KG	U	U	
GAMMA-CHLORDANE	5566-34-7	0.67	1.7	UG/KG	U	U	
HEPTACHLOR	76-44-8	1.3	3.5	UG/KG	U	U	
HEPTACHLOR EPOXIDE	1024-57-3	1.3	2.5	UG/KG	U	U	
METHOXYCHLOR	72-43-5	3.3	5	UG/KG	U	U	
P,P'-DDD	72-54-8	0.67	2	UG/KG	U	UJ	C
P,P'-DDE	72-55-9	0.67	1.7	UG/KG	U	U	
P,P'-DDT	50-29-3	1.7	2	UG/KG	J	J	
TOXAPHENE	8001-35-2	20	67	UG/KG	U	UJ	C

Sample Delivery Group: 240-22559-1_78_SB

Analysis Method SW8082

Sample Name 078SB-0008M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-22559-8 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
PCB-1016	12674-11-2	25	65	UG/KG	U	U	
PCB-1221	11104-28-2	25	50	UG/KG	U	UJ	C
PCB-1232	11141-16-5	25	45	UG/KG	U	U	
PCB-1242	53469-21-9	25	40	UG/KG	U	U	
PCB-1248	12672-29-6	25	55	UG/KG	U	U	
PCB-1254	11097-69-1	25	55	UG/KG	U	U	
PCB-1260	11096-82-5	25	55	UG/KG	U	U	

Sample Name 078SB-0016M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-22559-14 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
PCB-1016	12674-11-2	25	65	UG/KG	U	U	
PCB-1221	11104-28-2	25	50	UG/KG	U	U	
PCB-1232	11141-16-5	25	45	UG/KG	U	U	
PCB-1242	53469-21-9	25	40	UG/KG	U	U	
PCB-1248	12672-29-6	25	55	UG/KG	U	U	
PCB-1254	11097-69-1	25	55	UG/KG	U	U	
PCB-1260	11096-82-5	25	55	UG/KG	U	U	

Sample Delivery Group: 240-22559-1_78_SB

Analysis Method SW8260B

Sample Name 078SB-0008M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-22559-8 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
1,1,1-TRICHLOROETHANE	71-55-6	1.1	5.5	UG/KG	U	UJ	S
1,1,2,2-TETRACHLOROETHANE	79-34-5	0.55	5.5	UG/KG	U	UJ	S
1,1,2-TRICHLOROETHANE	79-00-5	0.55	5.5	UG/KG	U	UJ	S
1,1-DICHLOROETHANE	75-34-3	0.55	5.5	UG/KG	U	UJ	S
1,1-DICHLOROETHENE	75-35-4	1.1	5.5	UG/KG	U	UJ	S
1,2-DIBROMOETHANE	106-93-4	1.1	5.5	UG/KG	U	UJ	S
1,2-DICHLOROETHANE	107-06-2	0.55	5.5	UG/KG	U	UJ	S
1,2-DICHLOROPROPANE	78-87-5	1.1	5.5	UG/KG	U	UJ	S
2-HEXANONE	591-78-6	1.1	22	UG/KG	U	UJ	S
ACETONE	67-64-1	7	22	UG/KG	U	UJ	S
BENZENE	71-43-2	0.55	5.5	UG/KG	U	UJ	S
BROMOCHLOROMETHANE	74-97-5	1.1	5.5	UG/KG	U	UJ	S
BROMODICHLOROMETHANE	75-27-4	0.55	5.5	UG/KG	U	UJ	S
BROMOFORM	75-25-2	0.55	5.5	UG/KG	U	UJ	S
BROMOMETHANE	74-83-9	1.1	5.5	UG/KG	U	UJ	S
CARBON DISULFIDE	75-15-0	0.55	5.5	UG/KG	U	UJ	S
CARBON TETRACHLORIDE	56-23-5	0.55	5.5	UG/KG	U	UJ	S
CHLOROBENZENE	108-90-7	0.55	5.5	UG/KG	U	UJ	S
CHLOROETHANE	75-00-3	1.1	5.5	UG/KG	U	UJ	S
CHLOROFORM	67-66-3	0.55	5.5	UG/KG	U	UJ	S
CHLOROMETHANE	74-87-3	0.55	5.5	UG/KG	U	UJ	S
CIS-1,3-DICHLOROPROPENE	10061-01-5	0.55	5.5	UG/KG	U	UJ	S
DIBROMOCHLOROMETHANE	124-48-1	1.1	5.5	UG/KG	U	UJ	S
ETHYLBENZENE	100-41-4	0.55	5.5	UG/KG	U	UJ	S
METHYL ETHYL KETONE	78-93-3	2.2	22	UG/KG	U	UJ	S
METHYL ISOBUTYL KETONE	108-10-1	1.1	22	UG/KG	U	UJ	S
METHYLENE CHLORIDE	75-09-2	2	5.5	UG/KG	J B	UJ	B, S
STYRENE	100-42-5	0.55	5.5	UG/KG	U	UJ	S

TETRACHLOROETHYLENE	127-18-4	1.1	5.5	UG/KG	U	UJ	S
TOLUENE	108-88-3	0.3	5.5	UG/KG	J	J	S
TOTAL 1,2-DICHLOROETHENE	540-59-0	1.1	11	UG/KG	U	UJ	S
TRANS-1,3-DICHLOROPROPENE	10061-02-6	1.1	5.5	UG/KG	U	UJ	S
TRICHLOROETHYLENE	79-01-6	0.55	5.5	UG/KG	U	UJ	S
VINYL CHLORIDE	75-01-4	0.55	5.5	UG/KG	U	UJ	S
XYLENES, TOTAL		1.7	11	UG/KG	U	UJ	S

Sample Name 078SB-0016M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-22559-14 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
1,1,1-TRICHLOROETHANE	71-55-6	0.95	4.8	UG/KG	U	U	
1,1,2,2-TETRACHLOROETHANE	79-34-5	0.48	4.8	UG/KG	U	U	
1,1,2-TRICHLOROETHANE	79-00-5	0.48	4.8	UG/KG	U	U	
1,1-DICHLOROETHANE	75-34-3	0.48	4.8	UG/KG	U	U	
1,1-DICHLOROETHENE	75-35-4	0.95	4.8	UG/KG	U	U	
1,2-DIBROMOETHANE	106-93-4	0.95	4.8	UG/KG	U	U	
1,2-DICHLOROETHANE	107-06-2	0.48	4.8	UG/KG	U	U	
1,2-DICHLOROPROPANE	78-87-5	0.95	4.8	UG/KG	U	U	
2-HEXANONE	591-78-6	0.95	19	UG/KG	U	U	
ACETONE	67-64-1	6	19	UG/KG	U	U	
BENZENE	71-43-2	0.48	4.8	UG/KG	U	U	
BROMOCHLOROMETHANE	74-97-5	0.95	4.8	UG/KG	U	U	
BROMODICHLOROMETHANE	75-27-4	0.48	4.8	UG/KG	U	U	
BROMOFORM	75-25-2	0.48	4.8	UG/KG	U	U	
BROMOMETHANE	74-83-9	0.95	4.8	UG/KG	U	U	
CARBON DISULFIDE	75-15-0	0.48	4.8	UG/KG	U	U	
CARBON TETRACHLORIDE	56-23-5	0.48	4.8	UG/KG	U	U	
CHLOROBENZENE	108-90-7	0.48	4.8	UG/KG	U	U	
CHLOROETHANE	75-00-3	0.95	4.8	UG/KG	U	U	
CHLOROFORM	67-66-3	0.48	4.8	UG/KG	U	U	
CHLOROMETHANE	74-87-3	0.48	4.8	UG/KG	U	U	
CIS-1,3-DICHLOROPROPENE	10061-01-5	0.48	4.8	UG/KG	U	U	

Sample Delivery Group: 240-22559-1_78_SB

DIBROMOCHLOROMETHANE	124-48-1	0.95	4.8	UG/KG	U	U	
ETHYLBENZENE	100-41-4	0.48	4.8	UG/KG	U	U	
METHYL ETHYL KETONE	78-93-3	1.9	19	UG/KG	U	U	
METHYL ISOBUTYL KETONE	108-10-1	0.95	19	UG/KG	U	U	
METHYLENE CHLORIDE	75-09-2	1.4	4.8	UG/KG	J B	U	B
STYRENE	100-42-5	0.48	4.8	UG/KG	U	U	
TETRACHLOROETHYLENE	127-18-4	0.95	4.8	UG/KG	U	U	
TOLUENE	108-88-3	0.48	4.8	UG/KG	U	U	
TOTAL 1,2-DICHLOROETHENE	540-59-0	0.95	9.5	UG/KG	U	U	
TRANS-1,3-DICHLOROPROPENE	10061-02-6	0.95	4.8	UG/KG	U	U	
TRICHLOROETHYLENE	79-01-6	0.48	4.8	UG/KG	U	U	
VINYL CHLORIDE	75-01-4	0.48	4.8	UG/KG	U	U	
XYLENES, TOTAL		1.4	9.5	UG/KG	U	U	

Sample Delivery Group: 240-22559-1_78_SB

Analysis Method SW8270C

Sample Name 078SB-0008M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-22559-8 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
1,2,4-TRICHLOROBENZENE	120-82-1	27	50	UG/KG	U	U	
1,2-DICHLOROBENZENE	95-50-1	27	50	UG/KG	U	U	
1,3-DICHLOROBENZENE	541-73-1	27	50	UG/KG	U	U	
1,4-DICHLOROBENZENE	106-46-7	27	50	UG/KG	U	U	
2,4,5-TRICHLOROPHENOL	95-95-4	27	150	UG/KG	U	U	
2,4,6-TRICHLOROPHENOL	88-06-2	79	150	UG/KG	U	U	
2,4-DICHLOROPHENOL	120-83-2	27	150	UG/KG	U	U	
2,4-DIMETHYLPHENOL	105-67-9	79	150	UG/KG	U	U	
2,4-DINITROPHENOL	51-28-5	79	330	UG/KG	U	UJ	C
2,4-DINITROTOLUENE	121-14-2	27	200	UG/KG	U	U	
2,6-DINITROTOLUENE	606-20-2	27	200	UG/KG	U	U	
2-CHLORONAPHTHALENE	91-58-7	3.3	50	UG/KG	U	U	
2-CHLOROPHENOL	95-57-8	27	50	UG/KG	U	U	
2-METHYLNAPHTHALENE	91-57-6	3.7	6.6	UG/KG	J	J	
2-METHYLPHENOL (O-CRESOL)	95-48-7	79	200	UG/KG	U	U	
2-NITROANILINE	88-74-4	27	200	UG/KG	U	U	
2-NITROPHENOL	88-75-5	27	50	UG/KG	U	U	
3,3'-DICHLOROBENZIDINE	91-94-1	79	99	UG/KG	U	U	
3-NITROANILINE	99-09-2	79	200	UG/KG	U	U	
4,6-DINITRO-2-METHYLPHENOL	534-52-1	79	150	UG/KG	U	UJ	C
4-BROMOPHENYL PHENYL ETHE	101-55-3	27	50	UG/KG	U	U	
4-CHLORO-3-METHYLPHENOL	59-50-7	27	150	UG/KG	U	U	
4-CHLOROANILINE	106-47-8	27	150	UG/KG	U	U	
4-CHLOROPHENYL PHENYL ETH	7005-72-3	27	50	UG/KG	U	U	
4-NITROANILINE	100-01-6	27	200	UG/KG	U	U	
4-NITROPHENOL	100-02-7	79	330	UG/KG	U	U	
ACENAPHTHENE	83-32-9	3.3	6.6	UG/KG	U	U	
ACENAPHTHYLENE	208-96-8	3.3	6.6	UG/KG	U	U	

Sample Delivery Group: 240-22559-1_78_SB

ANTHRACENE	120-12-7	3.3	6.6	UG/KG	U	U	
BENZO(A)ANTHRACENE	56-55-3	3.3	6.6	UG/KG	U	U	
BENZO(A)PYRENE	50-32-8	3.3	6.6	UG/KG	U	U	
BENZO(B)FLUORANTHENE	205-99-2	3.3	6.6	UG/KG	U	U	
BENZO(G,H,I)PERYLENE	191-24-2	3.3	6.6	UG/KG	U	UJ	C
BENZO(K)FLUORANTHENE	207-08-9	3.3	6.6	UG/KG	U	U	
BENZOIC ACID	65-85-0	330	660	UG/KG	U	U	
BENZYL ALCOHOL	100-51-6	27	330	UG/KG	U	U	
BENZYL BUTYL PHTHALATE	85-68-7	27	50	UG/KG	U	U	
BIS(2-CHLOROETHOXY) METHA	111-91-1	27	99	UG/KG	U	U	
BIS(2-CHLOROETHYL) ETHER	111-44-4	3.3	99	UG/KG	U	U	
BIS(2-CHLOROISOPROPYL) ETHE	108-60-1	27	99	UG/KG	U	U	
BIS(2-ETHYLHEXYL) PHTHALAT	117-81-7	54	50	UG/KG			
CARBAZOLE	86-74-8	27	50	UG/KG	U	U	
CHRYSENE	218-01-9	3.3	6.6	UG/KG	U	U	
CRESOLS, M & P		79	400	UG/KG	U	U	
DIBENZ(A,H)ANTHRACENE	53-70-3	3.3	6.6	UG/KG	U	U	
DIBENZOFURAN	132-64-9	3.3	50	UG/KG	U	U	
DIETHYL PHTHALATE	84-66-2	27	50	UG/KG	U	U	
DIMETHYL PHTHALATE	131-11-3	27	50	UG/KG	U	U	
DI-N-BUTYL PHTHALATE	84-74-2	27	50	UG/KG	U	U	
DI-N-OCTYLPHTHALATE	117-84-0	27	50	UG/KG	U	U	
FLUORANTHENE	206-44-0	3.3	6.6	UG/KG	U	U	
FLUORENE	86-73-7	3.3	6.6	UG/KG	U	U	
HEXACHLOROBENZENE	118-74-1	3.3	6.6	UG/KG	U	U	
HEXACHLOROBUTADIENE	87-68-3	27	50	UG/KG	U	U	
HEXACHLOROCYCLOPENTADIE	77-47-4	27	330	UG/KG	U	U	
HEXACHLOROETHANE	67-72-1	27	50	UG/KG	U	UJ	C
INDENO(1,2,3-C,D)PYRENE	193-39-5	3.3	6.6	UG/KG	U	U	
ISOPHORONE	78-59-1	27	50	UG/KG	U	U	
NAPHTHALENE	91-20-3	3.9	6.6	UG/KG	J	J	
NITROBENZENE	98-95-3	3.3	99	UG/KG	U	U	
N-NITROSODI-N-PROPYLAMINE	621-64-7	27	50	UG/KG	U	U	

N-NITROSODIPHENYLAMINE	86-30-6	27	50	UG/KG	U	U	
PENTACHLOROPHENOL	87-86-5	79	150	UG/KG	U	U	
PHENANTHRENE	85-01-8	3.3	6.6	UG/KG	U	U	
PHENOL	108-95-2	27	50	UG/KG	U	U	
PYRENE	129-00-0	3.3	6.6	UG/KG	U	U	

Sample Name 078SB-0016M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-22559-14 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
1,2,4-TRICHLOROBENZENE	120-82-1	27	50	UG/KG	U	U	
1,2-DICHLOROBENZENE	95-50-1	27	50	UG/KG	U	U	
1,3-DICHLOROBENZENE	541-73-1	27	50	UG/KG	U	U	
1,4-DICHLOROBENZENE	106-46-7	27	50	UG/KG	U	U	
2,4,5-TRICHLOROPHENOL	95-95-4	27	150	UG/KG	U	U	
2,4,6-TRICHLOROPHENOL	88-06-2	80	150	UG/KG	U	U	
2,4-DICHLOROPHENOL	120-83-2	27	150	UG/KG	U	U	
2,4-DIMETHYLPHENOL	105-67-9	80	150	UG/KG	U	U	
2,4-DINITROPHENOL	51-28-5	80	330	UG/KG	U	UJ	C
2,4-DINITROTOLUENE	121-14-2	27	200	UG/KG	U	U	
2,6-DINITROTOLUENE	606-20-2	27	200	UG/KG	U	U	
2-CHLORONAPHTHALENE	91-58-7	3.3	50	UG/KG	U	U	
2-CHLOROPHENOL	95-57-8	27	50	UG/KG	U	U	
2-METHYLNAPHTHALENE	91-57-6	11	6.6	UG/KG			
2-METHYLPHENOL (O-CRESOL)	95-48-7	80	200	UG/KG	U	U	
2-NITROANILINE	88-74-4	27	200	UG/KG	U	U	
2-NITROPHENOL	88-75-5	27	50	UG/KG	U	U	
3,3'-DICHLOROBENZIDINE	91-94-1	80	100	UG/KG	U	U	
3-NITROANILINE	99-09-2	80	200	UG/KG	U	U	
4,6-DINITRO-2-METHYLPHENOL	534-52-1	80	150	UG/KG	U	UJ	C
4-BROMOPHENYL PHENYL ETHE	101-55-3	27	50	UG/KG	U	U	
4-CHLORO-3-METHYLPHENOL	59-50-7	27	150	UG/KG	U	U	
4-CHLOROANILINE	106-47-8	27	150	UG/KG	U	U	
4-CHLOROPHENYL PHENYL ETH	7005-72-3	27	50	UG/KG	U	U	

Sample Delivery Group: 240-22559-1_78_SB

4-NITROANILINE	100-01-6	27	200	UG/KG	U	U	
4-NITROPHENOL	100-02-7	80	330	UG/KG	U	U	
ACENAPHTHENE	83-32-9	3.3	6.6	UG/KG	U	U	
ACENAPHTHYLENE	208-96-8	3.3	6.6	UG/KG	U	U	
ANTHRACENE	120-12-7	3.3	6.6	UG/KG	U	U	
BENZO(A)ANTHRACENE	56-55-3	3.3	6.6	UG/KG	U	U	
BENZO(A)PYRENE	50-32-8	7.5	6.6	UG/KG			
BENZO(B)FLUORANTHENE	205-99-2	19	6.6	UG/KG	M		
BENZO(G,H,I)PERYLENE	191-24-2	7.6	6.6	UG/KG		J	C
BENZO(K)FLUORANTHENE	207-08-9	3.3	6.6	UG/KG	U	U	
BENZOIC ACID	65-85-0	330	660	UG/KG	U	U	
BENZYL ALCOHOL	100-51-6	27	330	UG/KG	U	U	
BENZYL BUTYL PHTHALATE	85-68-7	27	50	UG/KG	U	U	
BIS(2-CHLOROETHOXY) METHA	111-91-1	27	100	UG/KG	U	U	
BIS(2-CHLOROETHYL) ETHER	111-44-4	3.3	100	UG/KG	U	U	
BIS(2-CHLOROISOPROPYL) ETHE	108-60-1	27	100	UG/KG	U	U	
BIS(2-ETHYLHEXYL) PHTHALAT	117-81-7	55	50	UG/KG			
CARBAZOLE	86-74-8	27	50	UG/KG	U	U	
CHRYSENE	218-01-9	3.3	6.6	UG/KG	U	U	
CRESOLS, M & P		80	400	UG/KG	U	U	
DIBENZ(A,H)ANTHRACENE	53-70-3	3.3	6.6	UG/KG	U	U	
DIBENZOFURAN	132-64-9	3.3	50	UG/KG	U	U	
DIETHYL PHTHALATE	84-66-2	27	50	UG/KG	U	U	
DIMETHYL PHTHALATE	131-11-3	27	50	UG/KG	U	U	
DI-N-BUTYL PHTHALATE	84-74-2	27	50	UG/KG	U	U	
DI-N-OCTYLPHTHALATE	117-84-0	27	50	UG/KG	U	U	
FLUORANTHENE	206-44-0	16	6.6	UG/KG			
FLUORENE	86-73-7	3.3	6.6	UG/KG	U	U	
HEXACHLOROBENZENE	118-74-1	3.3	6.6	UG/KG	U	U	
HEXACHLOROBUTADIENE	87-68-3	27	50	UG/KG	U	U	
HEXACHLOROCYCLOPENTADIE	77-47-4	27	330	UG/KG	U	U	
HEXACHLOROETHANE	67-72-1	27	50	UG/KG	U	UJ	C
INDENO(1,2,3-C,D)PYRENE	193-39-5	3.3	6.6	UG/KG	U	U	

Sample Delivery Group: 240-22559-1_78_SB

ISOPHORONE	78-59-1	27	50	UG/KG	U	U
NAPHTHALENE	91-20-3	5.9	6.6	UG/KG	J	J
NITROBENZENE	98-95-3	3.3	100	UG/KG	U	U
N-NITROSODI-N-PROPYLAMINE	621-64-7	27	50	UG/KG	U	U
N-NITROSODIPHENYLAMINE	86-30-6	27	50	UG/KG	U	U
PENTACHLOROPHENOL	87-86-5	80	150	UG/KG	U	U
PHENANTHRENE	85-01-8	34	6.6	UG/KG		
PHENOL	108-95-2	27	50	UG/KG	U	U
PYRENE	129-00-0	16	6.6	UG/KG		

Analysis Method SW8330B

Sample Name 078SB-0016M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-22559-14 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
1,3,5-TRINITROBENZENE	99-35-4	0.05	0.25	MG/KG	U	U	
1,3-DINITROBENZENE	99-65-0	0.05	0.25	MG/KG	U	U	
2,4,6-TRINITROTOLUENE	118-96-7	0.05	0.25	MG/KG	U	U	
2,4-DINITROTOLUENE	121-14-2	0.05	0.25	MG/KG	U	R	D
2,6-DINITROTOLUENE	606-20-2	0.05	0.25	MG/KG	U	R	D
2-AMINO-4,6-DINITROTOLUENE	35572-78-2	0.05	0.25	MG/KG	U	U	
2-NITROTOLUENE	88-72-2	0.05	0.25	MG/KG	U	U	
3-NITROTOLUENE	99-08-1	0.05	0.25	MG/KG	U	U	
4-AMINO-2,6-DINITROTOLUENE	19406-51-0	0.05	0.25	MG/KG	U	U	
4-NITROTOLUENE	99-99-0	0.05	0.25	MG/KG	U	U	
HMX	2691-41-0	0.05	0.25	MG/KG	U	U	
NITROBENZENE	98-95-3	0.05	0.25	MG/KG	U	R	D
NITROGLYCERIN	55-63-0	0.25	0.5	MG/KG	U	U	
NITROGUANIDINE	556-88-7	0.039	0.25	MG/KG	U	U	
PETN	78-11-5	0.25	0.5	MG/KG	U	U	
RDX	121-82-4	0.05	0.25	MG/KG	U	U	
TETRYL	479-45-8	0.05	0.25	MG/KG	U	U	

Validated Sample Result Forms for Sampling : Ravenna Army Ammunition Plant Ravenna, Ohio
Remediation Investigation Compliance Restoration Site: RVAAP-79 DLA Ore Storage Site-Main Ore Storage Yard

Sample Delivery Group: 240-22274-1

Analysis Method SW6020

Sample Name 079SD-0305-0001-SD **AnalysisType:** N

Lab Sample Name: 240-22274-3 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
ALUMINUM	7429-90-5	12000	5	MG/KG	J		
ANTIMONY	7440-36-0	0.14	0.33	MG/KG	J	J-	Q
ARSENIC	7440-38-2	240	0.17	MG/KG	J		
BARIUM	7440-39-3	71	1.7	MG/KG	Q	J	M
BERYLLIUM	7440-41-7	0.65	0.17	MG/KG			
CADMIUM	7440-43-9	0.35	0.17	MG/KG			
CALCIUM	7440-70-2	2400	17	MG/KG		J	E
CHROMIUM	7440-47-3	28	0.33	MG/KG			
COBALT	7440-48-4	8.6	0.083	MG/KG	Q		
COPPER	7440-50-8	21	0.33	MG/KG	Q		
IRON	7439-89-6	21000	8.3	MG/KG	J		
LEAD	7439-92-1	51	0.17	MG/KG	J		
MAGNESIUM	7439-95-4	2800	17	MG/KG			
MANGANESE	7439-96-5	710	0.83	MG/KG	Q		
NICKEL	7440-02-0	29	0.17	MG/KG			
POTASSIUM	7440-09-7	1500	17	MG/KG			
SELENIUM	7782-49-2	0.61	0.83	MG/KG	J Q	J-	B
SILVER	7440-22-4	0.08	0.17	MG/KG	J	J	
SODIUM	7440-23-5	67	17	MG/KG			
THALLIUM	7440-28-0	0.17	0.17	MG/KG			
VANADIUM	7440-62-2	27	0.17	MG/KG			
ZINC	7440-66-6	80	0.83	MG/KG	Q		

Sample Delivery Group: 240-22274-1

Analysis Method SW7471A

Sample Name 079SD-0305-0001-SD **AnalysisType:** N

Lab Sample Name: 240-22274-3 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
MERCURY	7439-97-6	0.046	0.19	MG/KG	J	J	

Sample Delivery Group: 240-22281-1

Analysis Method SW6020

Sample Name 079SB-0245M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-22281-1 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
ALUMINUM	7429-90-5	4500	2.9	MG/KG			
ANTIMONY	7440-36-0	0.097	0.19	MG/KG	U	UJ	Q
ARSENIC	7440-38-2	5	0.097	MG/KG		J-	Q, A
BARIUM	7440-39-3	25	0.97	MG/KG	Q		
BERYLLIUM	7440-41-7	0.26	0.097	MG/KG			
CADMIUM	7440-43-9	0.046	0.097	MG/KG	J	J	
CALCIUM	7440-70-2	260	9.7	MG/KG			
CHROMIUM	7440-47-3	6	0.19	MG/KG			
COBALT	7440-48-4	4.8	0.049	MG/KG	Q		
COPPER	7440-50-8	6.4	0.19	MG/KG	Q		
IRON	7439-89-6	10000	4.9	MG/KG			
LEAD	7439-92-1	5.2	0.097	MG/KG	Q		
MAGNESIUM	7439-95-4	940	9.7	MG/KG			
MANGANESE	7439-96-5	270	0.49	MG/KG	Q		
NICKEL	7440-02-0	10	0.097	MG/KG			
POTASSIUM	7440-09-7	420	9.7	MG/KG			
SELENIUM	7782-49-2	0.067	0.49	MG/KG	J	J-	B, Q
SILVER	7440-22-4	0.029	0.097	MG/KG	U Q	U	
SODIUM	7440-23-5	26	9.7	MG/KG			
THALLIUM	7440-28-0	0.084	0.097	MG/KG	J	J	
VANADIUM	7440-62-2	7.9	0.097	MG/KG			
ZINC	7440-66-6	19	0.49	MG/KG	Q	J-	Q, A

Sample Name 079SB-0247M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-22281-4 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
ALUMINUM	7429-90-5	2100	2.9	MG/KG			
ANTIMONY	7440-36-0	0.19	0.2	MG/KG	J	J-	Q

ARSENIC	7440-38-2	4.7	0.098	MG/KG		J-	Q, A
BARIUM	7440-39-3	45	0.98	MG/KG	Q		
BERYLLIUM	7440-41-7	0.14	0.098	MG/KG			
CADMIUM	7440-43-9	0.055	0.098	MG/KG	J	J	
CALCIUM	7440-70-2	210	9.8	MG/KG			
CHROMIUM	7440-47-3	7.8	0.2	MG/KG			
COBALT	7440-48-4	4.5	0.049	MG/KG	Q		
COPPER	7440-50-8	3.6	0.2	MG/KG	Q		
IRON	7439-89-6	6800	4.9	MG/KG			
LEAD	7439-92-1	3.6	0.098	MG/KG	Q		
MAGNESIUM	7439-95-4	450	9.8	MG/KG			
MANGANESE	7439-96-5	950	0.49	MG/KG	Q		
NICKEL	7440-02-0	11	0.098	MG/KG			
POTASSIUM	7440-09-7	350	9.8	MG/KG			
SELENIUM	7782-49-2	0.098	0.49	MG/KG	U	UJ	B, Q
SILVER	7440-22-4	0.029	0.098	MG/KG	U Q	U	
SODIUM	7440-23-5	24	9.8	MG/KG			
THALLIUM	7440-28-0	0.061	0.098	MG/KG	J	J	
VANADIUM	7440-62-2	4.2	0.098	MG/KG			
ZINC	7440-66-6	21	0.49	MG/KG	Q	J-	Q, A

Sample Name 079SB-0252M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-22281-10 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
ALUMINUM	7429-90-5	4500	2.9	MG/KG			
ANTIMONY	7440-36-0	0.097	0.19	MG/KG	U	UJ	Q
ARSENIC	7440-38-2	12	0.097	MG/KG		J-	Q, A
BARIUM	7440-39-3	20	0.97	MG/KG	Q		
BERYLLIUM	7440-41-7	0.24	0.097	MG/KG			
CADMIUM	7440-43-9	0.066	0.097	MG/KG	J	J	
CALCIUM	7440-70-2	150	9.7	MG/KG			
CHROMIUM	7440-47-3	7.2	0.19	MG/KG			
COBALT	7440-48-4	3.9	0.049	MG/KG	Q		

COPPER	7440-50-8	6.4	0.19	MG/KG	Q		
IRON	7439-89-6	11000	4.9	MG/KG			
LEAD	7439-92-1	5.1	0.097	MG/KG	Q		
MAGNESIUM	7439-95-4	900	9.7	MG/KG			
MANGANESE	7439-96-5	150	0.49	MG/KG	Q		
NICKEL	7440-02-0	11	0.097	MG/KG			
POTASSIUM	7440-09-7	520	9.7	MG/KG			
SELENIUM	7782-49-2	0.07	0.49	MG/KG	J	J-	B, Q
SILVER	7440-22-4	0.029	0.097	MG/KG	U Q	U	
SODIUM	7440-23-5	23	9.7	MG/KG		U	B
THALLIUM	7440-28-0	0.11	0.097	MG/KG			
VANADIUM	7440-62-2	7.7	0.097	MG/KG			
ZINC	7440-66-6	22	0.49	MG/KG	Q	J-	Q, A

Sample Name 079SB-0267M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-22281-20 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
ALUMINUM	7429-90-5	8400	3	MG/KG			
ANTIMONY	7440-36-0	0.099	0.2	MG/KG	U	UJ	Q
ARSENIC	7440-38-2	51	0.099	MG/KG		J-	Q, A
BARIUM	7440-39-3	58	0.99	MG/KG	Q		
BERYLLIUM	7440-41-7	0.57	0.099	MG/KG			
CADMIUM	7440-43-9	0.1	0.099	MG/KG			
CALCIUM	7440-70-2	3800	9.9	MG/KG			
CHROMIUM	7440-47-3	12	0.2	MG/KG			
COBALT	7440-48-4	7.3	0.05	MG/KG	Q		
COPPER	7440-50-8	12	0.2	MG/KG	Q		
IRON	7439-89-6	18000	5	MG/KG			
LEAD	7439-92-1	12	0.099	MG/KG	Q		
MAGNESIUM	7439-95-4	2900	9.9	MG/KG			
MANGANESE	7439-96-5	390	0.5	MG/KG	Q		
NICKEL	7440-02-0	17	0.099	MG/KG			
POTASSIUM	7440-09-7	1300	9.9	MG/KG			

Sample Delivery Group: 240-22281-1

SELENIUM	7782-49-2	0.22	0.5	MG/KG	J	J-	B, Q
SILVER	7440-22-4	0.018	0.099	MG/KG	J Q	J	
SODIUM	7440-23-5	240	9.9	MG/KG			
THALLIUM	7440-28-0	0.12	0.099	MG/KG			
VANADIUM	7440-62-2	13	0.099	MG/KG			
ZINC	7440-66-6	36	0.5	MG/KG	Q	J-	Q, A

Sample Name 079SB-0269M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-22281-22 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
ALUMINUM	7429-90-5	2300	3	MG/KG			
ANTIMONY	7440-36-0	0.099	0.2	MG/KG	U	UJ	Q
ARSENIC	7440-38-2	27	0.099	MG/KG		J-	Q, A
BARIUM	7440-39-3	39	0.99	MG/KG	Q		
BERYLLIUM	7440-41-7	0.19	0.099	MG/KG			
CADMIUM	7440-43-9	0.035	0.099	MG/KG	J	J	
CALCIUM	7440-70-2	1400	9.9	MG/KG			
CHROMIUM	7440-47-3	4.6	0.2	MG/KG			
COBALT	7440-48-4	2.7	0.05	MG/KG	Q		
COPPER	7440-50-8	18	0.2	MG/KG	Q		
IRON	7439-89-6	6400	5	MG/KG			
LEAD	7439-92-1	160	0.099	MG/KG	Q		
MAGNESIUM	7439-95-4	980	9.9	MG/KG			
MANGANESE	7439-96-5	5000	5	MG/KG	D Q		
NICKEL	7440-02-0	6.8	0.099	MG/KG			
POTASSIUM	7440-09-7	490	9.9	MG/KG			
SELENIUM	7782-49-2	0.099	0.5	MG/KG	U	UJ	B, Q
SILVER	7440-22-4	0.03	0.099	MG/KG	U Q	U	
SODIUM	7440-23-5	130	9.9	MG/KG			
THALLIUM	7440-28-0	0.049	0.099	MG/KG	J	J	
VANADIUM	7440-62-2	5	0.099	MG/KG			
ZINC	7440-66-6	17	0.5	MG/KG	Q	J-	Q, A

Sample Delivery Group: 240-22281-1

Sample Name 079SB-0272M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-22281-26 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
ALUMINUM	7429-90-5	990	3	MG/KG			
ANTIMONY	7440-36-0	0.18	0.2	MG/KG	J	J-	Q
ARSENIC	7440-38-2	8.8	0.1	MG/KG		J-	Q, A
BARIUM	7440-39-3	7.7	1	MG/KG	Q		
BERYLLIUM	7440-41-7	0.088	0.1	MG/KG	J	J	
CADMIUM	7440-43-9	0.11	0.1	MG/KG			
CALCIUM	7440-70-2	170	10	MG/KG			
CHROMIUM	7440-47-3	4.5	0.2	MG/KG			
COBALT	7440-48-4	1.9	0.05	MG/KG	Q		
COPPER	7440-50-8	2	0.2	MG/KG	Q		
IRON	7439-89-6	15000	5	MG/KG			
LEAD	7439-92-1	2.5	0.1	MG/KG	Q		
MAGNESIUM	7439-95-4	410	10	MG/KG			
MANGANESE	7439-96-5	300	0.5	MG/KG	Q		
NICKEL	7440-02-0	6.4	0.1	MG/KG			
POTASSIUM	7440-09-7	280	10	MG/KG			
SELENIUM	7782-49-2	0.1	0.5	MG/KG	U	UJ	B, Q
SILVER	7440-22-4	0.03	0.1	MG/KG	U Q	U	
SODIUM	7440-23-5	24	10	MG/KG			
THALLIUM	7440-28-0	0.058	0.1	MG/KG	J	J	
VANADIUM	7440-62-2	2.6	0.1	MG/KG			
ZINC	7440-66-6	56	0.5	MG/KG	Q	J-	Q, A

Sample Delivery Group: 240-22281-1

Analysis Method SW7471A

Sample Name 079SB-0245M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-22281-1 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
MERCURY	7439-97-6	0.016	0.1	MG/KG	J	J	

Sample Name 079SB-0247M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-22281-4 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
MERCURY	7439-97-6	0.031	0.095	MG/KG	U	U	

Sample Name 079SB-0252M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-22281-10 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
MERCURY	7439-97-6	0.038	0.12	MG/KG	U	U	

Sample Name 079SB-0267M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-22281-20 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
MERCURY	7439-97-6	0.023	0.11	MG/KG	J	J	

Sample Name 079SB-0269M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-22281-22 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
MERCURY	7439-97-6	0.034	0.1	MG/KG	U	U	

Sample Name 079SB-0272M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-22281-26 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
MERCURY	7439-97-6	0.037	0.11	MG/KG	U	U	

Sample Delivery Group: 240-22381-1

Analysis Method SW6020

Sample Name 079SB-0217M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-22381-19 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
ALUMINUM	7429-90-5	6100	2.8	MG/KG			
ANTIMONY	7440-36-0	0.053	0.19	MG/KG	J	J-	Q
ARSENIC	7440-38-2	6.6	0.094	MG/KG		J-	Q
BARIUM	7440-39-3	36	0.94	MG/KG	Q	J-	E, Q
BERYLLIUM	7440-41-7	0.36	0.094	MG/KG			
CADMIUM	7440-43-9	0.13	0.094	MG/KG	Q		
CALCIUM	7440-70-2	330	9.4	MG/KG			
CHROMIUM	7440-47-3	8.2	0.19	MG/KG			
COBALT	7440-48-4	6.9	0.047	MG/KG	Q		
COPPER	7440-50-8	11	0.19	MG/KG	Q	J-	Q
IRON	7439-89-6	15000	4.7	MG/KG			
LEAD	7439-92-1	8.6	0.094	MG/KG		J	E
MAGNESIUM	7439-95-4	1700	9.4	MG/KG			
MANGANESE	7439-96-5	490	0.47	MG/KG	Q	J	E
NICKEL	7440-02-0	15	0.094	MG/KG		J-	Q
POTASSIUM	7440-09-7	690	9.4	MG/KG			
SELENIUM	7782-49-2	0.21	0.47	MG/KG	J	J-	Q
SILVER	7440-22-4	0.02	0.094	MG/KG	J	J	
SODIUM	7440-23-5	32	9.4	MG/KG		J	E
THALLIUM	7440-28-0	0.12	0.094	MG/KG		J	E
VANADIUM	7440-62-2	9.8	0.094	MG/KG			
ZINC	7440-66-6	46	0.47	MG/KG	Q	J-	Q, A

Sample Name 079SB-0234M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-22381-25 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
ALUMINUM	7429-90-5	12000	3	MG/KG			
ANTIMONY	7440-36-0	0.099	0.2	MG/KG	U	R	Q

Sample Delivery Group: 240-22381-1

ARSENIC	7440-38-2	9.9	0.099	MG/KG		J-	Q
BARIUM	7440-39-3	81	0.99	MG/KG	Q	J-	E, Q
BERYLLIUM	7440-41-7	0.65	0.099	MG/KG			
CADMIUM	7440-43-9	0.15	0.099	MG/KG	Q		
CALCIUM	7440-70-2	750	9.9	MG/KG			
CHROMIUM	7440-47-3	19	0.2	MG/KG			
COBALT	7440-48-4	13	0.05	MG/KG	Q		
COPPER	7440-50-8	17	0.2	MG/KG	Q	J-	Q
IRON	7439-89-6	24000	5	MG/KG			
LEAD	7439-92-1	14	0.099	MG/KG		J	E
MAGNESIUM	7439-95-4	3800	9.9	MG/KG			
MANGANESE	7439-96-5	490	0.5	MG/KG	Q	J	E
NICKEL	7440-02-0	28	0.099	MG/KG		J-	Q
POTASSIUM	7440-09-7	1100	9.9	MG/KG			
SELENIUM	7782-49-2	0.23	0.5	MG/KG	J	J-	Q
SILVER	7440-22-4	0.023	0.099	MG/KG	J	J	
SODIUM	7440-23-5	120	9.9	MG/KG		J	E
THALLIUM	7440-28-0	0.15	0.099	MG/KG		J	E
VANADIUM	7440-62-2	18	0.099	MG/KG			
ZINC	7440-66-6	53	0.5	MG/KG	Q	J-	Q, A

Sample Name 079SB-0236M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-22381-27 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
ALUMINUM	7429-90-5	4000	3	MG/KG			
ANTIMONY	7440-36-0	0.1	0.2	MG/KG	U	R	Q
ARSENIC	7440-38-2	11	0.1	MG/KG		J-	Q
BARIUM	7440-39-3	100	1	MG/KG	Q	J-	E, Q
BERYLLIUM	7440-41-7	0.25	0.1	MG/KG			
CADMIUM	7440-43-9	0.059	0.1	MG/KG	J Q	J	
CALCIUM	7440-70-2	310	10	MG/KG			
CHROMIUM	7440-47-3	17	0.2	MG/KG			
COBALT	7440-48-4	5.2	0.05	MG/KG	Q		

Sample Delivery Group: 240-22381-1

COPPER	7440-50-8	7.2	0.2	MG/KG	Q	J-	Q
IRON	7439-89-6	12000	5	MG/KG			
LEAD	7439-92-1	6.4	0.1	MG/KG		J	E
MAGNESIUM	7439-95-4	1200	10	MG/KG			
MANGANESE	7439-96-5	2500	5	MG/KG	D Q	J	E
NICKEL	7440-02-0	14	0.1	MG/KG		J-	Q
POTASSIUM	7440-09-7	620	10	MG/KG			
SELENIUM	7782-49-2	0.12	0.5	MG/KG	J	J-	Q
SILVER	7440-22-4	0.014	0.1	MG/KG	J	J	
SODIUM	7440-23-5	48	10	MG/KG		J	E
THALLIUM	7440-28-0	0.18	0.1	MG/KG		J	E
VANADIUM	7440-62-2	7.6	0.1	MG/KG			
ZINC	7440-66-6	24	0.5	MG/KG	Q	J-	Q, A

Analysis Method SW7471A

Sample Name 079SB-0217M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-22381-19 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
MERCURY	7439-97-6	0.034	0.12	MG/KG	J	J	

Sample Name 079SB-0234M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-22381-25 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
MERCURY	7439-97-6	0.025	0.09	MG/KG	J	J	

Sample Name 079SB-0236M-0001-SO **AnalysisType:** N

Lab Sample Name: 240-22381-27 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
MERCURY	7439-97-6	0.038	0.12	MG/KG	U	U	

Sample Delivery Group: 240-22662-1

Analysis Method E353.2

Sample Name 079SW-0311-0001-SW **AnalysisType:** N

Lab Sample Name: 240-22662-1 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
NITROCELLULOSE	9004-70-0	1	2	MG/L	U	U	

Analysis Method SW6020

Sample Name 079SW-0311-0001-SW **AnalysisType:** N

Lab Sample Name: 240-22662-1 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
ALUMINUM	7429-90-5	40	30	UG/L			
ANTIMONY	7440-36-0	0.9	2	UG/L	U	U	
ARSENIC	7440-38-2	15	1	UG/L			
BARIUM	7440-39-3	12	10	UG/L	Q		
BERYLLIUM	7440-41-7	0.09	1	UG/L	U	U	
CADMIUM	7440-43-9	0.3	1	UG/L	U	U	
CALCIUM	7440-70-2	14000	100	UG/L			
CHROMIUM	7440-47-3	1.6	2	UG/L	J	J	
COBALT	7440-48-4	0.044	0.5	UG/L	J Q	J	
COPPER	7440-50-8	1.4	2	UG/L	J Q	J	
IRON	7439-89-6	220	50	UG/L			
LEAD	7439-92-1	0.3	1	UG/L	J Q	U	B
MAGNESIUM	7439-95-4	3000	100	UG/L			
MANGANESE	7439-96-5	12	5	UG/L	Q		
NICKEL	7440-02-0	0.57	1	UG/L	J	J	
POTASSIUM	7440-09-7	5000	100	UG/L			
SELENIUM	7782-49-2	1	5	UG/L	U	U	
SILVER	7440-22-4	0.2	1	UG/L	U	U	
SODIUM	7440-23-5	2900	100	UG/L			
THALLIUM	7440-28-0	0.2	1	UG/L	U	U	
VANADIUM	7440-62-2	0.6	1	UG/L	U	U	
ZINC	7440-66-6	1.8	5	UG/L	J Q	J	

Sample Delivery Group: 240-22662-1

Analysis Method SW7470A

Sample Name 079SW-0311-0001-SW **AnalysisType:** N

Lab Sample Name: 240-22662-1 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
MERCURY	7439-97-6	0.2	0.2	UG/L	U	U	

Analysis Method SW8081

Sample Name 079SW-0311-0001-SW **AnalysisType:** N

Lab Sample Name: 240-22662-1 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
ALDRIN	309-00-2	0.011	0.053	UG/L	U	U	
ALPHA BHC	319-84-6	0.011	0.053	UG/L	U	U	
ALPHA ENDOSULFAN	959-98-8	0.014	0.053	UG/L	U	U	
ALPHA-CHLORDANE	5103-71-9	0.015	0.053	UG/L	U	U	
BETA BHC	319-85-7	0.011	0.053	UG/L	U	U	
BETA ENDOSULFAN	33213-65-9	0.013	0.053	UG/L	U	U	
DELTA BHC	319-86-8	0.011	0.053	UG/L	U	U	
DIELDRIN	60-57-1	0.011	0.053	UG/L	U	U	
ENDOSULFAN SULFATE	1031-07-8	0.012	0.053	UG/L	U	U	
ENDRIN	72-20-8	0.012	0.053	UG/L	U	U	
ENDRIN ALDEHYDE	7421-93-4	0.012	0.053	UG/L	U	U	
ENDRIN KETONE	53494-70-5	0.011	0.053	UG/L	U	U	
GAMMA BHC (LINDANE)	58-89-9	0.011	0.053	UG/L	U	U	
GAMMA-CHLORDANE	5566-34-7	0.013	0.053	UG/L	U	U	
HEPTACHLOR	76-44-8	0.011	0.053	UG/L	U	U	
HEPTACHLOR EPOXIDE	1024-57-3	0.011	0.053	UG/L	U	U	
METHOXYCHLOR	72-43-5	0.034	0.11	UG/L	U	U	
P,P'-DDD	72-54-8	0.011	0.053	UG/L	U	U	
P,P'-DDE	72-55-9	0.011	0.053	UG/L	U	U	
P,P'-DDT	50-29-3	0.032	0.053	UG/L	U	U	
TOXAPHENE	8001-35-2	0.53	2.1	UG/L	U	UJ	C

Sample Delivery Group: 240-22662-1

Analysis Method SW8082

Sample Name 079SW-0311-0001-SW **AnalysisType:** N

Lab Sample Name: 240-22662-1 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
PCB-1016	12674-11-2	0.21	0.53	UG/L	U	U	
PCB-1221	11104-28-2	0.21	0.53	UG/L	U	UJ	C
PCB-1232	11141-16-5	0.21	0.53	UG/L	U	U	
PCB-1242	53469-21-9	0.42	0.53	UG/L	U	U	
PCB-1248	12672-29-6	0.21	0.53	UG/L	U	U	
PCB-1254	11097-69-1	0.21	0.53	UG/L	U	U	
PCB-1260	11096-82-5	0.21	0.53	UG/L	U	U	

Sample Delivery Group: 240-22662-1

Analysis Method SW8260B

Sample Name 079SW-0311-0001-SW **AnalysisType:** N

Lab Sample Name: 240-22662-1 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
1,1,1-TRICHLOROETHANE	71-55-6	0.25	1	UG/L	U	U	
1,1,2,2-TETRACHLOROETHANE	79-34-5	0.25	1	UG/L	U	U	
1,1,2-TRICHLOROETHANE	79-00-5	0.5	1	UG/L	U	U	
1,1-DICHLOROETHANE	75-34-3	0.25	1	UG/L	U	U	
1,1-DICHLOROETHENE	75-35-4	0.25	1	UG/L	U	U	
1,2-DIBROMOETHANE	106-93-4	0.25	1	UG/L	U	U	
1,2-DICHLOROETHANE	107-06-2	0.25	1	UG/L	U	U	
1,2-DICHLOROPROPANE	78-87-5	0.25	1	UG/L	U	U	
2-HEXANONE	591-78-6	0.5	10	UG/L	U	U	
ACETONE	67-64-1	1.2	10	UG/L	J	J	C
BENZENE	71-43-2	0.25	1	UG/L	U	U	
BROMOCHLOROMETHANE	74-97-5	0.5	1	UG/L	U	U	
BROMODICHLOROMETHANE	75-27-4	0.25	1	UG/L	U	U	
BROMOFORM	75-25-2	0.64	1	UG/L	U	U	
BROMOMETHANE	74-83-9	0.5	1	UG/L	U	U	
CARBON DISULFIDE	75-15-0	0.25	1	UG/L	U	U	
CARBON TETRACHLORIDE	56-23-5	0.25	1	UG/L	U	U	
CHLOROBENZENE	108-90-7	0.25	1	UG/L	U	U	
CHLOROETHANE	75-00-3	0.5	1	UG/L	U	U	
CHLOROFORM	67-66-3	0.25	1	UG/L	U	U	
CHLOROMETHANE	74-87-3	0.5	1	UG/L	U	U	
CIS-1,3-DICHLOROPROPENE	10061-01-5	0.25	1	UG/L	U	U	
DIBROMOCHLOROMETHANE	124-48-1	0.25	1	UG/L	U	U	
ETHYLBENZENE	100-41-4	0.25	1	UG/L	U	U	
METHYL ETHYL KETONE	78-93-3	0.57	10	UG/L	U	U	
METHYL ISOBUTYL KETONE	108-10-1	0.5	10	UG/L	U	U	
METHYLENE CHLORIDE	75-09-2	0.5	1	UG/L	U	U	
STYRENE	100-42-5	0.25	1	UG/L	U	U	

Sample Delivery Group: 240-22662-1

TERT-BUTYL METHYL ETHER	1634-04-4	0.25	1	UG/L	U	U
TETRACHLOROETHYLENE	127-18-4	0.5	1	UG/L	U	U
TOLUENE	108-88-3	0.25	1	UG/L	U	U
TOTAL 1,2-DICHLOROETHENE	540-59-0	0.5	2	UG/L	U	U
TRANS-1,3-DICHLOROPROPENE	10061-02-6	0.25	1	UG/L	U	U
TRICHLOROETHYLENE	79-01-6	0.25	1	UG/L	U	U
VINYL CHLORIDE	75-01-4	0.25	1	UG/L	U	U
XYLENES, TOTAL		0.75	2	UG/L	U	U

Sample Delivery Group: 240-22662-1

Analysis Method SW8270C

Sample Name 079SW-0311-0001-SW **AnalysisType:** N

Lab Sample Name: 240-22662-1 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
1,2,4-TRICHLOROBENZENE	120-82-1	0.85	1.1	UG/L	U	U	
1,2-DICHLOROBENZENE	95-50-1	0.85	1.1	UG/L	U	U	
1,3-DICHLOROBENZENE	541-73-1	0.85	1.1	UG/L	U	U	
1,4-DICHLOROBENZENE	106-46-7	0.85	1.1	UG/L	U	U	
2,4,5-TRICHLOROPHENOL	95-95-4	0.85	5.3	UG/L	U	U	
2,4,6-TRICHLOROPHENOL	88-06-2	0.85	5.3	UG/L	U	U	
2,4-DICHLOROPHENOL	120-83-2	0.85	2.1	UG/L	U	U	
2,4-DIMETHYLPHENOL	105-67-9	0.85	2.1	UG/L	U	U	
2,4-DINITROPHENOL	51-28-5	2.6	5.3	UG/L	U	U	
2,4-DINITROTOLUENE	121-14-2	0.85	5.3	UG/L	U	R	D
2,6-DINITROTOLUENE	606-20-2	0.85	5.3	UG/L	U	R	D
2-CHLORONAPHTHALENE	91-58-7	0.11	1.1	UG/L	U	U	
2-CHLOROPHENOL	95-57-8	0.85	1.1	UG/L	U	U	
2-METHYLNAPHTHALENE	91-57-6	0.11	0.21	UG/L	U	U	
2-METHYLPHENOL (O-CRESOL)	95-48-7	0.85	1.1	UG/L	U	U	
2-NITROANILINE	88-74-4	0.85	2.1	UG/L	U	U	
2-NITROPHENOL	88-75-5	0.85	2.1	UG/L	U	U	
3,3'-DICHLOROBENZIDINE	91-94-1	0.85	5.3	UG/L	U	U	
3-NITROANILINE	99-09-2	0.85	2.1	UG/L	U	U	
4,6-DINITRO-2-METHYLPHENOL	534-52-1	2.6	5.3	UG/L	U	U	
4-BROMOPHENYL PHENYL ETHE	101-55-3	0.85	2.1	UG/L	U	U	
4-CHLORO-3-METHYLPHENOL	59-50-7	0.85	2.1	UG/L	U	U	
4-CHLOROANILINE	106-47-8	0.85	2.1	UG/L	U	U	
4-CHLOROPHENYL PHENYL ETH	7005-72-3	0.85	2.1	UG/L	U	U	
4-NITROANILINE	100-01-6	0.85	2.1	UG/L	U	U	
4-NITROPHENOL	100-02-7	2.6	5.3	UG/L	U	U	
ACENAPHTHENE	83-32-9	0.11	0.21	UG/L	U	U	
ACENAPHTHYLENE	208-96-8	0.11	0.21	UG/L	U	U	

Sample Delivery Group: 240-22662-1

ANTHRACENE	120-12-7	0.11	0.21	UG/L	U	U
BENZO(A)ANTHRACENE	56-55-3	0.11	0.21	UG/L	U	U
BENZO(A)PYRENE	50-32-8	0.11	0.21	UG/L	U	U
BENZO(B)FLUORANTHENE	205-99-2	0.11	0.21	UG/L	U	U
BENZO(G,H,I)PERYLENE	191-24-2	0.11	0.21	UG/L	U	U
BENZO(K)FLUORANTHENE	207-08-9	0.11	0.21	UG/L	U	U
BENZOIC ACID	65-85-0	11	27	UG/L	U	U
BENZYL ALCOHOL	100-51-6	0.85	5.3	UG/L	U	U
BENZYL BUTYL PHTHALATE	85-68-7	0.85	1.1	UG/L	U	U
BIS(2-CHLOROETHOXY) METHA	111-91-1	0.85	1.1	UG/L	U	U
BIS(2-CHLOROETHYL) ETHER	111-44-4	0.11	1.1	UG/L	U	U
BIS(2-CHLOROISOPROPYL) ETHE	108-60-1	0.85	1.1	UG/L	U	U
BIS(2-ETHYLHEXYL) PHTHALAT	117-81-7	0.85	2.1	UG/L	U	U
CARBAZOLE	86-74-8	0.85	1.1	UG/L	U	U
CHRYSENE	218-01-9	0.11	0.21	UG/L	U	U
CRESOLS, M & P		0.85	2.1	UG/L	U	U
DIBENZ(A,H)ANTHRACENE	53-70-3	0.11	0.21	UG/L	U	U
DIBENZOFURAN	132-64-9	0.11	1.1	UG/L	U	U
DIETHYL PHTHALATE	84-66-2	0.85	1.1	UG/L	U	U
DIMETHYL PHTHALATE	131-11-3	0.85	1.1	UG/L	U	U
DI-N-BUTYL PHTHALATE	84-74-2	0.85	1.1	UG/L	U	U
DI-N-OCTYLPHTHALATE	117-84-0	0.85	1.1	UG/L	U	U
FLUORANTHENE	206-44-0	0.11	0.21	UG/L	U	U
FLUORENE	86-73-7	0.11	0.21	UG/L	U	U
HEXACHLOROBENZENE	118-74-1	0.11	0.21	UG/L	U	U
HEXACHLOROBUTADIENE	87-68-3	0.85	1.1	UG/L	U	U
HEXACHLOROCYCLOPENTADIE	77-47-4	0.85	11	UG/L	U Q	U
HEXACHLOROETHANE	67-72-1	0.85	1.1	UG/L	U	U
INDENO(1,2,3-C,D)PYRENE	193-39-5	0.11	0.21	UG/L	U	U
ISOPHORONE	78-59-1	0.85	1.1	UG/L	U	U
NAPHTHALENE	91-20-3	0.11	0.21	UG/L	U	U
NITROBENZENE	98-95-3	0.11	1.1	UG/L	U	U
N-NITROSODI-N-PROPYLAMINE	621-64-7	0.85	1.1	UG/L	U	U

Sample Delivery Group: 240-22662-1

N-NITROSODIPHENYLAMINE	86-30-6	0.85	1.1	UG/L	U	U	
PENTACHLOROPHENOL	87-86-5	2.6	5.3	UG/L	U	U	
PHENANTHRENE	85-01-8	0.11	0.21	UG/L	U	U	
PHENOL	108-95-2	0.85	1.1	UG/L	U	U	
PYRENE	129-00-0	0.11	0.21	UG/L	U	U	

Analysis Method SW8330B

Sample Name 079SW-0311-0001-SW **AnalysisType:** N

Lab Sample Name: 240-22662-1 **Validation Level:** IV

Analyte	CAS No	Result Value	LOQ	Result	Lab Qualifier	Validation Qualifier	Validation Qualifier Code
1,3,5-TRINITROBENZENE	99-35-4	2.2	2.2	UG/L	U	U	$
1,3-DINITROBENZENE	99-65-0	1.1	1.1	UG/L	U	U	$
2,4,6-TRINITROTOLUENE	118-96-7	1.1	1.1	UG/L	U	U	$
2,4-DINITROTOLUENE	121-14-2	0.11	0.11	UG/L	U	U	
2,6-DINITROTOLUENE	606-20-2	0.11	0.11	UG/L	U	U	
2-AMINO-4,6-DINITROTOLUENE	35572-78-2	1.1	1.1	UG/L	U	U	$
2-NITROTOLUENE	88-72-2	0.11	0.56	UG/L	U	U	
3-NITROTOLUENE	99-08-1	0.11	0.56	UG/L	U	U	
4-AMINO-2,6-DINITROTOLUENE	19406-51-0	1.1	1.1	UG/L	U	U	$
4-NITROTOLUENE	99-99-0	0.11	0.56	UG/L	U	U	
HMX	2691-41-0	1.1	1.1	UG/L	U	U	$
NITROBENZENE	98-95-3	2.2	2.2	UG/L	U	R	D, $
NITROGLYCERIN	55-63-0	4.4	4.4	UG/L	U	U	$
NITROGUANIDINE	556-88-7	6	20	UG/L	U	U	
PETN	78-11-5	0.56	0.73	UG/L	U	U	
RDX	121-82-4	2.2	2.2	UG/L	U	U	$
TETRYL	479-45-8	1.1	1.1	UG/L	U	U	$

APPENDIX B

Sample Qualification Summary

Sample	Analyte	Result	Units	DL	LOQ	LOD	Qual	Code
068SB-0053M-0001-SO	ALUMINUM	8700	MG/KG	0.26	2.7	0.55	J	E
068SB-0053M-0001-SO	ANTIMONY	0.046	MG/KG	0.042	0.18	0.091	J-	Q
068SB-0053M-0001-SO	ARSENIC	11	MG/KG	0.016	0.091	0.045	J-	E, Q
068SB-0053M-0001-SO	BARIUM	53	MG/KG	0.0097	0.91	0.018	J	M, E
068SB-0053M-0001-SO	CALCIUM	3400	MG/KG	1.2	9.1	2.3	J	E, Q
068SB-0053M-0001-SO	CHROMIUM	12	MG/KG	0.02	0.18	0.036	J	E
068SB-0053M-0001-SO	COBALT	8.6	MG/KG	0.0022	0.045	0.0091	J	E
068SB-0053M-0001-SO	COPPER	16	MG/KG	0.03	0.18	0.055	J	E
068SB-0053M-0001-SO	IRON	21000	MG/KG	0.98	4.5	1.8	J	E
068SB-0053M-0001-SO	LEAD	13	MG/KG	0.014	0.091	0.027	J	E
068SB-0053M-0001-SO	MAGNESIUM	2400	MG/KG	0.98	9.1	1.8	J	E
068SB-0053M-0001-SO	MANGANESE	370	MG/KG	0.014	0.45	0.027	J	E
068SB-0053M-0001-SO	NICKEL	18	MG/KG	0.01	0.091	0.027	J	E
068SB-0053M-0001-SO	POTASSIUM	770	MG/KG	2.9	9.1	5.5	J	E
068SB-0053M-0001-SO	SELENIUM	0.29	MG/KG	0.046	0.45	0.091	J-	Q
068SB-0053M-0001-SO	SODIUM	44	MG/KG	2.4	9.1	4.5	J	E
068SB-0053M-0001-SO	VANADIUM	15	MG/KG	0.027	0.091	0.055	J	E
068SB-0053M-0001-SO	ZINC	40	MG/KG	0.059	0.45	0.18	J-	E, Q, A
068SB-0053M-0001-SO	PCB-1221	25	UG/KG	16	50	25	UJ	C
068SB-0053M-0001-SO	2,4-DINITROPHENOL	80	UG/KG	80	330	80	UJ	C
068SB-0053M-0001-SO	BIS(2-ETHYLHEXYL) PHTHALATE	74	UG/KG	19	74	27	U	B
068SD-0009-0001-SO	ANTIMONY	0.13	MG/KG	0.06	0.19	0.14	J-	Q
068SD-0009-0001-SO	ARSENIC	16	MG/KG	0.05	0.48	0.14	J-	Q
068SD-0009-0001-SO	CALCIUM	1500	MG/KG	39	190	96	J-	Q
068SD-0009-0001-SO	LEAD	23	MG/KG	0.068	0.29	0.19	J-	Q
068SD-0009-0001-SO	MANGANESE	1200	MG/KG	3.1	9.6	7.7	J	E
068SD-0009-0001-SO	SELENIUM	0.8	MG/KG	0.02	0.48	0.058	J-	M, Q
068SD-0009-0001-SO	THALLIUM	0.22	MG/KG	0.054	0.19	0.14	J+	C
068SD-0009-0001-SO	MERCURY	0.031	MG/KG	0.013	0.095	0.031	U	B
068SD-0009-0001-SO	2,4-DINITROPHENOL	79	UG/KG	79	330	79	UJ	C
068SD-0009-0001-SO	3,3'-DICHLOROBENZIDINE	79	UG/KG	18	99	79	R	Q
068SD-0009-0001-SO	3-NITROANILINE	79	UG/KG	16	200	79	UJ	Q
068SD-0009-0001-SO	4-CHLOROANILINE	27	UG/KG	17	150	27	UJ	Q
068SD-0009-0001-SO	4-NITROANILINE	27	UG/KG	26	200	27	UJ	Q
068SD-0009-0001-SO	BENZO(G,H,I)PERYLENE	16	UG/KG	3.3	6.6	3.3	J	C
068SD-0009-0001-SO	BIS(2-ETHYLHEXYL) PHTHALATE	38	UG/KG	19	49	27	U	B
068SD-0009-0001-SO	DIBENZ(A,H)ANTHRACENE	3.3	UG/KG	3.3	6.6	3.3	UJ	C
068SD-0009-0001-SO	HEXACHLOROCYCLOPENTADIENE	27	UG/KG	27	330	27	R	C
068SD-0009-0001-SO	INDENO(1,2,3-C,D)PYRENE	17	UG/KG	3.3	6.6	3.3	J	C
068SS-0003M-0001-SO	NITROCELLULOSE	0.88	MG/KG	0.75	4.8	1.8	J	Q
068SS-0003M-0001-SO	ANTIMONY	2.16	MG/KG	0.26	0.85	0.64	J-	Q
068SS-0003M-0001-SO	MANGANESE	386	MG/KG	0.68	2.1	1.7	J	E
068SS-0003M-0001-SO	SELENIUM	0.57	MG/KG	0.018	0.43	0.051	J	M
068SS-0003M-0001-SO	SODIUM	52	MG/KG	12	85	34	U	F
068SS-0003M-0001-SO	MERCURY	0.046	MG/KG	0.014	0.098	0.032	U	B
068SS-0003M-0001-SO	CHLOROBENZENE	0.4	UG/KG	0.26	4	0.4	UJ	Q
068SS-0003M-0001-SO	ETHYLBENZENE	0.4	UG/KG	0.21	4	0.4	UJ	Q
068SS-0003M-0001-SO	STYRENE	0.4	UG/KG	0.12	4	0.4	UJ	Q
068SS-0003M-0001-SO	XYLENES, TOTAL	1.2	UG/KG	0.54	8	1.2	UJ	Q

Sample	Analyte	Result	Units	DL	LOQ	LOD	Qual	Code
068SS-0003M-0001-SO	2,4-DINITROPHENOL	80	UG/KG	80	330	80	UJ	C
068SS-0003M-0001-SO	3,3'-DICHLOROBENZIDINE	80	UG/KG	18	100	80	UJ	Q
068SS-0003M-0001-SO	4,6-DINITRO-2-METHYLPHENOL	80	UG/KG	80	150	80	UJ	C
068SS-0003M-0001-SO	BENZOIC ACID	330	UG/KG	330	660	330	UJ	Q
068SS-0003M-0001-SO	BIS(2-ETHYLHEXYL) PHTHALATE	34	UG/KG	19	50	27	U	B
068SS-0003M-0001-SO	DIBENZ(A,H)ANTHRACENE	57	UG/KG	3.3	6.7	3.3	J	C
068SS-0003M-0001-SO	HEXACHLOROETHANE	27	UG/KG	9	50	27	UJ	C
068SS-0003M-0001-SO	N-NITROSODIPHENYLAMINE	27	UG/KG	21	50	27	R	C
068SS-0003M-0001-SO	2,4-DINITROTOLUENE	0.05	MG/KG	0.0053	0.25	0.05	R	D
068SS-0003M-0001-SO	2,6-DINITROTOLUENE	0.05	MG/KG	0.0073	0.25	0.05	R	D
068SS-0003M-0001-SO	2-NITROTOLUENE	0.05	MG/KG	0.013	0.25	0.05	UJ	C
068SS-0003M-0001-SO	NITROBENZENE	0.05	MG/KG	0.018	0.25	0.05	R	D
068SS-0003M-0001-SO	RDX	0.05	MG/KG	0.012	0.25	0.05	UJ	C
068SS-0003M-0001-SO	TETRYL	0.05	MG/KG	0.01	0.25	0.05	U	B
068SW-0016-0001-SW	BARIUM	34	UG/L	1.6	5	4	J	M
068SW-0016-0001-SW	IRON	1300	UG/L	44	150	100	J+	C
068SW-0016-0001-SW	SELENIUM	0.5	UG/L	0.2	5	0.5	UJ	M
068SW-0016-0001-SW	THALLIUM	1	UG/L	0.32	2	1	U	B
068SW-0016-0001-SW	ZINC	20	UG/L	8.8	40	20	U	B
068SW-0016-0001-SW	MERCURY	0.2	UG/L	0.12	0.2	0.2	UJ	C
068SW-0016-0001-SW	1,2,4-TRICHLOROBENZENE	0.76	UG/L	0.27	0.95	0.76	UJ	Q
068SW-0016-0001-SW	1,2-DICHLOROBENZENE	0.76	UG/L	0.28	0.95	0.76	UJ	Q
068SW-0016-0001-SW	1,3-DICHLOROBENZENE	0.76	UG/L	0.76	0.95	0.76	UJ	Q
068SW-0016-0001-SW	1,4-DICHLOROBENZENE	0.76	UG/L	0.32	0.95	0.76	UJ	Q
068SW-0016-0001-SW	BENZO(G,H,I)PERYLENE	0.095	UG/L	0.095	0.19	0.095	UJ	Q
068SW-0016-0001-SW	BIS(2-CHLOROETHYL) ETHER	0.095	UG/L	0.095	0.95	0.095	UJ	Q
068SW-0016-0001-SW	BIS(2-CHLOROISOPROPYL) ETHER	0.76	UG/L	0.38	0.95	0.76	UJ	Q
068SW-0016-0001-SW	DIBENZ(A,H)ANTHRACENE	0.095	UG/L	0.095	0.19	0.095	UJ	Q
068SW-0016-0001-SW	DI-N-OCTYLPHTHALATE	0.76	UG/L	0.76	0.95	0.76	UJ	Q
068SW-0016-0001-SW	HEXACHLOROBUTADIENE	0.76	UG/L	0.26	0.95	0.76	UJ	Q
068SW-0016-0001-SW	HEXACHLOROETHANE	0.76	UG/L	0.76	0.95	0.76	UJ	Q
068SW-0016-0001-SW	INDENO(1,2,3-C,D)PYRENE	0.095	UG/L	0.095	0.19	0.095	UJ	Q

Sample	Analyte	Result	Units	DL	LOQ	LOD	Qual	Code
069SB-0013M-0001-SO	ANTIMONY	0.052	MG/KG	0.042	0.18	0.091	J	I, Q
069SB-0013M-0001-SO	BARIUM	39.0	MG/KG	0.0097	0.91	0.018	J	M
069SB-0013M-0001-SO	CADMIUM	0.17	MG/KG	0.012	0.091	0.027	J+	I
069SB-0013M-0001-SO	CALCIUM	10000	MG/KG	1.2	9.1	2.3	J-	Q
069SB-0013M-0001-SO	SELENIUM	0.47	MG/KG	0.046	0.45	0.091	J-	Q
069SB-0013M-0001-SO	SILVER	0.028	MG/KG	0.010	0.091	0.027	J+	I
069SB-0013M-0001-SO	CARBON DISULFIDE	0.51	UG/KG	0.45	5.1	0.51	UJ	C
069SB-0013M-0001-SO	3,3'-DICHLOROBENZIDINE	79	UG/KG	18	98	79	UJ	C
069SB-0013M-0001-SO	BIS(2-ETHYLHEXYL) PHTHALATE	130.0	UG/KG	19	49	27	U	B
069SB-0013M-0001-SO	N-NITROSODIPHENYLAMINE	27	UG/KG	21	49	27	R	C
069SS-0001M-0001-SO	ANTIMONY	0.14	MG/KG	0.041	0.18	0.089	J	I, Q
069SS-0001M-0001-SO	ARSENIC	10.0	MG/KG	0.016	0.089	0.045	J-	Q
069SS-0001M-0001-SO	BARIUM	76.0	MG/KG	0.0096	0.89	0.018	J	M
069SS-0001M-0001-SO	CADMIUM	0.29	MG/KG	0.012	0.089	0.027	J-	Q
069SS-0001M-0001-SO	CALCIUM	5300	MG/KG	1.2	8.9	2.2	J	A, E
069SS-0001M-0001-SO	COPPER	19.0	MG/KG	0.029	0.18	0.054	J-	Q
069SS-0001M-0001-SO	SELENIUM	0.78	MG/KG	0.045	0.45	0.089	J-	Q
069SS-0001M-0001-SO	SILVER	0.034	MG/KG	0.010	0.089	0.027	J+	I
069SS-0001M-0001-SO	SODIUM	53.0	MG/KG	2.4	8.9	4.5	U	F
069SS-0001M-0001-SO	THALLIUM	0.23	MG/KG	0.0091	0.089	0.018	U	F
069SS-0001M-0001-SO	CARBON DISULFIDE	0.51	UG/KG	0.45	5.1	0.51	UJ	C
069SS-0001M-0001-SO	2,4-DINITROTOLUENE	140	UG/KG	140	1000	140	R	D
069SS-0001M-0001-SO	2,6-DINITROTOLUENE	140	UG/KG	110	1000	140	R	D
069SS-0001M-0001-SO	3,3'-DICHLOROBENZIDINE	400	UG/KG	91	500	400	R	Q
069SS-0001M-0001-SO	4,6-DINITRO-2-METHYLPHENOL	400	UG/KG	400	750	400	UJ	Q
069SS-0001M-0001-SO	4-NITROPHENOL	400	UG/KG	400	1700	400	UJ	Q
069SS-0001M-0001-SO	BENZOIC ACID	1700	UG/KG	1700	3300	1700	R	Q
069SS-0001M-0001-SO	N-NITROSODIPHENYLAMINE	140	UG/KG	110	250	140	R	C
069SS-0001M-0001-SO	2-NITROTOLUENE	0.05	MG/KG	0.013	0.25	0.05	UJ	C
069SS-0001M-0001-SO	NITROBENZENE	0.05	MG/KG	0.018	0.25	0.05	R	D
069SS-0001M-0001-SO	RDX	0.05	MG/KG	0.012	0.25	0.05	UJ	C

Sample	Analyte	Result	Units	DL	LOQ	LOD	Qualifier	Code
073SB-0009M-0001-SO	ANTIMONY	0.065	MG/KG	0.044	0.19	0.095	J-	Q
073SB-0009M-0001-SO	ARSENIC	7.8	MG/KG	0.017	0.095	0.048	J-	Q
073SB-0009M-0001-SO	CADMIUM	0.18	MG/KG	0.013	0.095	0.029	J+	I
073SB-0009M-0001-SO	CALCIUM	6500.0	MG/KG	1.3	9.5	2.4	J-	Q
073SB-0009M-0001-SO	CHROMIUM	14.0	MG/KG	0.021	0.19	0.038	J+	Q
073SB-0009M-0001-SO	COPPER	14.0	MG/KG	0.031	0.19	0.057	J-	Q
073SB-0009M-0001-SO	POTASSIUM	1100.0	MG/KG	3.0	9.5	5.7	J+	Q
073SB-0009M-0001-SO	SELENIUM	0.71	MG/KG	0.048	0.48	0.095	J-	Q
073SB-0009M-0001-SO	THALLIUM	0.13	MG/KG	0.0097	0.095	0.019	J-	Q
073SB-0009M-0001-SO	VANADIUM	13.0	MG/KG	0.028	0.095	0.057	J+	Q
073SB-0009M-0001-SO	ZINC	45.0	MG/KG	0.062	0.48	0.19	J-	P
073SB-0009M-0001-SO	3,3'-DICHLOROBENZIDINE	390	UG/KG	89	490	390	UJ	C
073SB-0016M-0001-SO	ANTIMONY	0.047	MG/KG	0.046	0.2	0.1	J-	Q
073SB-0016M-0001-SO	ARSENIC	7.3	MG/KG	0.018	0.1	0.05	J-	Q
073SB-0016M-0001-SO	BERYLLIUM	0.38	MG/KG	0.0075	0.1	0.01	J-	Q, A
073SB-0016M-0001-SO	CADMIUM	0.2	MG/KG	0.013	0.1	0.03	J+	I
073SB-0016M-0001-SO	CALCIUM	5500	MG/KG	1.3	10	2.5	J-	Q, E
073SB-0016M-0001-SO	COPPER	12	MG/KG	0.033	0.2	0.06	J-	Q
073SB-0016M-0001-SO	SELENIUM	0.25	MG/KG	0.051	0.5	0.1	J-	Q
073SB-0016M-0001-SO	THALLIUM	0.091	MG/KG	0.01	0.1	0.02	J+	I
073SB-0016M-0001-SO	ZINC	43	MG/KG	0.065	0.5	0.2	J-	Q, A
073SB-0016M-0001-SO	BIS(2-ETHYLHEXYL) PHTHALATE	89	UG/KG	19	50	27	U	B
073SB-0016M-0001-SO	DI-N-BUTYL PHTHALATE	27	UG/KG	15	50	27	U	B
073SB-0016M-0001-SO	HEXACHLOROETHANE	27	UG/KG	9	50	27	UJ	C
073SB-0038M-0001-SO	ANTIMONY	0.067	MG/KG	0.043	0.19	0.093	J-	Q
073SB-0038M-0001-SO	ARSENIC	19	MG/KG	0.017	0.093	0.046	J-	Q
073SB-0038M-0001-SO	SELENIUM	0.28	MG/KG	0.047	0.46	0.093	J-	Q
073SB-0038M-0001-SO	ZINC	64	MG/KG	0.06	0.46	0.19	J-	Q
073SB-0038M-0001-SO	1,2,4-TRICHLOROBENZENE	270	UG/KG	270	500	270	UJ	H
073SB-0038M-0001-SO	1,2-DICHLOROBENZENE	270	UG/KG	98	500	270	UJ	H
073SB-0038M-0001-SO	1,3-DICHLOROBENZENE	270	UG/KG	110	500	270	UJ	H
073SB-0038M-0001-SO	1,4-DICHLOROBENZENE	270	UG/KG	200	500	270	UJ	H
073SB-0038M-0001-SO	2,4,5-TRICHLOROPHENOL	270	UG/KG	250	1500	270	UJ	H
073SB-0038M-0001-SO	2,4,6-TRICHLOROPHENOL	810	UG/KG	810	1500	810	UJ	H
073SB-0038M-0001-SO	2,4-DICHLOROPHENOL	270	UG/KG	200	1500	270	UJ	H
073SB-0038M-0001-SO	2,4-DIMETHYLPHENOL	810	UG/KG	200	1500	810	UJ	H
073SB-0038M-0001-SO	2,4-DINITROPHENOL	810	UG/KG	810	3300	810	UJ	H, C
073SB-0038M-0001-SO	2,4-DINITROTOLUENE	270	UG/KG	270	2000	270	UJ	H
073SB-0038M-0001-SO	2,6-DINITROTOLUENE	270	UG/KG	210	2000	270	UJ	H
073SB-0038M-0001-SO	2-CHLORONAPHTHALENE	33	UG/KG	33	500	33	UJ	H
073SB-0038M-0001-SO	2-CHLOROPHENOL	270	UG/KG	270	500	270	UJ	H
073SB-0038M-0001-SO	2-METHYLNAPHTHALENE	33	UG/KG	33	67	33	UJ	H
073SB-0038M-0001-SO	2-METHYLPHENOL (O-CRESOL)	810	UG/KG	810	2000	810	UJ	H
073SB-0038M-0001-SO	2-NITROANILINE	270	UG/KG	92	2000	270	UJ	H
073SB-0038M-0001-SO	2-NITROPHENOL	270	UG/KG	270	500	270	UJ	H
073SB-0038M-0001-SO	3,3'-DICHLOROBENZIDINE	810	UG/KG	180	1000	810	UJ	H
073SB-0038M-0001-SO	3-NITROANILINE	810	UG/KG	160	2000	810	UJ	H
073SB-0038M-0001-SO	4,6-DINITRO-2-METHYLPHENOL	810	UG/KG	810	1500	810	UJ	H, C
073SB-0038M-0001-SO	4-BROMOPHENYL PHENYL ETHER	270	UG/KG	130	500	270	UJ	H

Sample	Analyte	Result	Units	DL	LOQ	LOD	Qualifier	Code
073SB-0038M-0001-SO	4-CHLORO-3-METHYLPHENOL	270	UG/KG	210	1500	270	UJ	H
073SB-0038M-0001-SO	4-CHLOROANILINE	270	UG/KG	170	1500	270	UJ	H
073SB-0038M-0001-SO	4-CHLOROPHENYL PHENYL ETHER	270	UG/KG	130	500	270	UJ	H
073SB-0038M-0001-SO	4-NITROANILINE	270	UG/KG	260	2000	270	UJ	H
073SB-0038M-0001-SO	4-NITROPHENOL	810	UG/KG	810	3300	810	UJ	H
073SB-0038M-0001-SO	ACENAPHTHENE	33	UG/KG	33	67	33	UJ	H
073SB-0038M-0001-SO	ACENAPHTHYLENE	33	UG/KG	33	67	33	UJ	H
073SB-0038M-0001-SO	ANTHRACENE	33	UG/KG	33	67	33	UJ	H
073SB-0038M-0001-SO	BENZO(A)ANTHRACENE	33	UG/KG	33	67	33	UJ	H
073SB-0038M-0001-SO	BENZO(A)PYRENE	33	UG/KG	33	67	33	UJ	H
073SB-0038M-0001-SO	BENZO(B)FLUORANTHENE	33	UG/KG	33	67	33	UJ	H
073SB-0038M-0001-SO	BENZO(G,H,I)PERYLENE	33	UG/KG	33	67	33	UJ	H
073SB-0038M-0001-SO	BENZO(K)FLUORANTHENE	33	UG/KG	33	67	33	UJ	H
073SB-0038M-0001-SO	BENZOIC ACID	3400	UG/KG	3400	6700	3400	R	L
073SB-0038M-0001-SO	BENZYL ALCOHOL	270	UG/KG	210	3300	270	UJ	H
073SB-0038M-0001-SO	BENZYL BUTYL PHTHALATE	270	UG/KG	100	710	270	UJ	H
073SB-0038M-0001-SO	BIS(2-CHLOROETHOXY) METHANE	270	UG/KG	220	1000	270	UJ	H
073SB-0038M-0001-SO	BIS(2-CHLOROETHYL) ETHER	33	UG/KG	20	1000	33	UJ	H
073SB-0038M-0001-SO	BIS(2-CHLOROISOPROPYL) ETHER	270	UG/KG	96	1000	270	UJ	H
073SB-0038M-0001-SO	BIS(2-ETHYLHEXYL) PHTHALATE	270	UG/KG	190	710	270	UJ	H
073SB-0038M-0001-SO	CARBAZOLE	270	UG/KG	270	500	270	UJ	H
073SB-0038M-0001-SO	CHRYSENE	33	UG/KG	11	67	33	UJ	H
073SB-0038M-0001-SO	CRESOLS, M & P	810	UG/KG	200	4000	810	UJ	H
073SB-0038M-0001-SO	DIBENZ(A,H)ANTHRACENE	33	UG/KG	33	67	33	UJ	H
073SB-0038M-0001-SO	DIBENZOFURAN	33	UG/KG	33	500	33	UJ	H
073SB-0038M-0001-SO	DIETHYL PHTHALATE	270	UG/KG	160	710	270	UJ	H
073SB-0038M-0001-SO	DIMETHYL PHTHALATE	270	UG/KG	170	710	270	UJ	H
073SB-0038M-0001-SO	DI-N-BUTYL PHTHALATE	270	UG/KG	150	710	270	UJ	H
073SB-0038M-0001-SO	DI-N-OCTYLPHTHALATE	270	UG/KG	270	710	270	UJ	H
073SB-0038M-0001-SO	FLUORANTHENE	33	UG/KG	33	67	33	UJ	H
073SB-0038M-0001-SO	FLUORENE	33	UG/KG	33	67	33	UJ	H
073SB-0038M-0001-SO	HEXACHLOROBENZENE	33	UG/KG	21	67	33	UJ	H
073SB-0038M-0001-SO	HEXACHLOROBUTADIENE	270	UG/KG	270	500	270	UJ	H
073SB-0038M-0001-SO	HEXACHLOROCYCLOPENTADIENE	270	UG/KG	270	3300	270	UJ	H
073SB-0038M-0001-SO	HEXACHLOROETHANE	270	UG/KG	91	500	270	UJ	H
073SB-0038M-0001-SO	INDENO(1,2,3-C,D)PYRENE	33	UG/KG	33	67	33	UJ	H
073SB-0038M-0001-SO	ISOPHORONE	270	UG/KG	130	500	270	UJ	H
073SB-0038M-0001-SO	NAPHTHALENE	33	UG/KG	33	67	33	UJ	H
073SB-0038M-0001-SO	NITROBENZENE	33	UG/KG	22	1000	33	UJ	H
073SB-0038M-0001-SO	N-NITROSODI-N-PROPYLAMINE	270	UG/KG	270	500	270	UJ	H
073SB-0038M-0001-SO	N-NITROSODIPHENYLAMINE	270	UG/KG	210	500	270	UJ	H
073SB-0038M-0001-SO	PENTACHLOROPHENOL	810	UG/KG	810	1500	810	UJ	H
073SB-0038M-0001-SO	PHENANTHRENE	33	UG/KG	33	67	33	UJ	H
073SB-0038M-0001-SO	PHENOL	270	UG/KG	270	500	270	UJ	H
073SB-0038M-0001-SO	PYRENE	33	UG/KG	33	67	33	UJ	H
073SD-0047-0001-SD	BIS(2-ETHYLHEXYL) PHTHALATE	160	UG/KG	29	75	41	U	B
073SD-0047-0001-SD	HEXACHLOROETHANE	41	UG/KG	14	75	41	UJ	C
073SS-0002M-0001-SO	ANTIMONY	0.13	MG/KG	0.052	0.17	0.13	R	B, Q
073SS-0002M-0001-SO	ARSENIC	9.4	MG/KG	0.044	0.42	0.13	J-	Q

Sample	Analyte	Result	Units	DL	LOQ	LOD	Qualifier	Code
073SS-0002M-0001-SO	SELENIUM	0.47	MG/KG	0.017	0.42	0.05	J-	M, Q
073SS-0002M-0001-SO	THALLIUM	0.13	MG/KG	0.047	0.17	0.13	U	B
073SS-0002M-0001-SO	MERCURY	0.051	MG/KG	0.013	0.095	0.031	U	B
073SS-0002M-0001-SO	TOXAPHENE	410	UG/KG	390	1400	410	UJ	C
073SS-0002M-0001-SO	1,1,2,2-TETRACHLOROETHANE	0.67	UG/KG	0.45	6.7	0.67	UJ	I
073SS-0002M-0001-SO	TOLUENE	0.67	UG/KG	0.36	6.7	0.67	U	F
073SS-0002M-0001-SO	2,4-DINITROPHENOL	320	UG/KG	320	1300	320	UJ	C
073SS-0002M-0001-SO	2,4-DINITROTOLUENE	110	UG/KG	110	810	110	R	D
073SS-0002M-0001-SO	2,6-DINITROTOLUENE	110	UG/KG	85	810	110	R	D
073SS-0002M-0001-SO	3,3'-DICHLOROBENZIDINE	320	UG/KG	73	400	320	UJ	C
073SS-0002M-0001-SO	BENZO(G,H,I)PERYLENE	29	UG/KG	13	27	13	J	C
073SS-0002M-0001-SO	DIBENZ(A,H)ANTHRACENE	13	UG/KG	13	27	13	UJ	C
073SS-0002M-0001-SO	INDENO(1,2,3-C,D)PYRENE	54	UG/KG	13	27	13	J	C
073SS-0002M-0001-SO	2-NITROTOLUENE	0.049	MG/KG	0.013	0.25	0.049	UJ	C
073SS-0002M-0001-SO	NITROBENZENE	0.049	MG/KG	0.017	0.25	0.049	R	D
073SS-0002M-0001-SO	RDX	0.049	MG/KG	0.012	0.25	0.049	UJ	C
073SS-0002M-0001-SO	TETRYL	0.049	MG/KG	0.0098	0.25	0.049	U	B

Sample	Analyte	Result	Units	DL	LOQ	LOD	Qualifier	Code
074SB-0002-0001-SO	2,4-DINITROPHENOL	94	UG/KG	94	390	94	UJ	C
074SB-0002-0001-SO	4,6-DINITRO-2-METHYLPHENOL	94	UG/KG	94	180	94	UJ	C
074SB-0002-0001-SO	BIS(2-ETHYLHEXYL) PHTHALATE	32	UG/KG	22	82	32	U	B
074SB-0010-0001-SO	CADMIUM	0.2	MG/KG	0.016	0.12	0.035	J+	I
074SB-0010-0001-SO	SELENIUM	0.26	MG/KG	0.06	0.59	0.12	J+	I
074SB-0010-0001-SO	SILVER	0.037	MG/KG	0.013	0.12	0.035	J+	I
074SB-0010-0001-SO	MERCURY	0.039	MG/KG	0.017	0.12	0.039	UJ	C
074SB-0010-0001-SO	2-HEXANONE	0.93	UG/KG	0.58	19	0.93	UJ	S
074SB-0010-0001-SO	METHYL ETHYL KETONE	1.9	UG/KG	1.3	19	1.9	UJ	S
074SB-0010-0001-SO	METHYL ISOBUTYL KETONE	0.93	UG/KG	0.5	19	0.93	UJ	S
074SB-0010-0001-SO	1,2,4-TRICHLOROBENZENE	32	UG/KG	32	58	32	UJ	H
074SB-0010-0001-SO	1,2-DICHLOROBENZENE	32	UG/KG	11	58	32	UJ	H
074SB-0010-0001-SO	1,3-DICHLOROBENZENE	32	UG/KG	13	58	32	UJ	H
074SB-0010-0001-SO	1,4-DICHLOROBENZENE	32	UG/KG	23	58	32	UJ	H
074SB-0010-0001-SO	2,4,5-TRICHLOROPHENOL	32	UG/KG	29	180	32	UJ	H
074SB-0010-0001-SO	2,4,6-TRICHLOROPHENOL	93	UG/KG	93	180	93	UJ	H
074SB-0010-0001-SO	2,4-DICHLOROPHENOL	32	UG/KG	23	180	32	UJ	H
074SB-0010-0001-SO	2,4-DIMETHYLPHENOL	93	UG/KG	23	180	93	UJ	H
074SB-0010-0001-SO	2,4-DINITROPHENOL	93	UG/KG	93	390	93	UJ	H, C
074SB-0010-0001-SO	2,4-DINITROTOLUENE	32	UG/KG	32	230	32	UJ	H
074SB-0010-0001-SO	2,6-DINITROTOLUENE	32	UG/KG	25	230	32	UJ	H
074SB-0010-0001-SO	2-CHLORONAPHTHALENE	3.9	UG/KG	3.9	58	3.9	UJ	H
074SB-0010-0001-SO	2-CHLOROPHENOL	32	UG/KG	32	58	32	UJ	H
074SB-0010-0001-SO	2-METHYLNAPHTHALENE	3.9	UG/KG	3.9	7.8	3.9	UJ	H
074SB-0010-0001-SO	2-METHYLPHENOL (O-CRESOL)	93	UG/KG	93	230	93	UJ	H
074SB-0010-0001-SO	2-NITROANILINE	32	UG/KG	11	230	32	UJ	H
074SB-0010-0001-SO	2-NITROPHENOL	32	UG/KG	32	58	32	UJ	H
074SB-0010-0001-SO	3,3'-DICHLOROBENZIDINE	93	UG/KG	21	120	93	UJ	H
074SB-0010-0001-SO	3-NITROANILINE	93	UG/KG	19	230	93	UJ	H
074SB-0010-0001-SO	4,6-DINITRO-2-METHYLPHENOL	93	UG/KG	93	180	93	UJ	H
074SB-0010-0001-SO	4-BROMOPHENYL PHENYL ETHER	32	UG/KG	15	58	32	UJ	H
074SB-0010-0001-SO	4-CHLORO-3-METHYLPHENOL	32	UG/KG	25	180	32	UJ	H
074SB-0010-0001-SO	4-CHLOROANILINE	32	UG/KG	20	180	32	UJ	H
074SB-0010-0001-SO	4-CHLOROPHENYL PHENYL ETHER	32	UG/KG	15	58	32	UJ	H
074SB-0010-0001-SO	4-NITROANILINE	32	UG/KG	30	230	32	UJ	H
074SB-0010-0001-SO	4-NITROPHENOL	93	UG/KG	93	390	93	UJ	H
074SB-0010-0001-SO	ACENAPHTHENE	3.9	UG/KG	3.9	7.8	3.9	UJ	H
074SB-0010-0001-SO	ACENAPHTHYLENE	3.9	UG/KG	3.9	7.8	3.9	UJ	H
074SB-0010-0001-SO	ANTHRACENE	3.9	UG/KG	3.9	7.8	3.9	UJ	H
074SB-0010-0001-SO	BENZO(A)ANTHRACENE	3.9	UG/KG	3.9	7.8	3.9	UJ	H
074SB-0010-0001-SO	BENZO(A)PYRENE	3.9	UG/KG	3.9	7.8	3.9	UJ	H
074SB-0010-0001-SO	BENZO(B)FLUORANTHENE	3.9	UG/KG	3.9	7.8	3.9	UJ	H
074SB-0010-0001-SO	BENZO(G,H,I)PERYLENE	3.9	UG/KG	3.9	7.8	3.9	UJ	H
074SB-0010-0001-SO	BENZO(K)FLUORANTHENE	3.9	UG/KG	3.9	7.8	3.9	UJ	H
074SB-0010-0001-SO	BENZOIC ACID	390	UG/KG	390	770	390	R	L
074SB-0010-0001-SO	BENZYL ALCOHOL	32	UG/KG	25	390	32	UJ	H
074SB-0010-0001-SO	BENZYL BUTYL PHTHALATE	32	UG/KG	12	82	32	UJ	H
074SB-0010-0001-SO	BIS(2-CHLOROETHOXY) METHANE	32	UG/KG	26	120	32	UJ	H
074SB-0010-0001-SO	BIS(2-CHLOROETHYL) ETHER	3.9	UG/KG	2.3	120	3.9	UJ	H

Sample	Analyte	Result	Units	DL	LOQ	LOD	Qualifier	Code
074SB-0010-0001-SO	BIS(2-CHLOROISOPROPYL) ETHER	32	UG/KG	11	120	32	UJ	H
074SB-0010-0001-SO	BIS(2-ETHYLHEXYL) PHTHALATE	120	UG/KG	22	82	32	J	H
074SB-0010-0001-SO	CARBAZOLE	32	UG/KG	32	58	32	UJ	H
074SB-0010-0001-SO	CHRYSENE	3.9	UG/KG	1.3	7.8	3.9	UJ	H
074SB-0010-0001-SO	CRESOLS, M & P	93	UG/KG	23	470	93	UJ	H
074SB-0010-0001-SO	DIBENZ(A,H)ANTHRACENE	3.9	UG/KG	3.9	7.8	3.9	UJ	H
074SB-0010-0001-SO	DIBENZOFURAN	3.9	UG/KG	3.9	58	3.9	UJ	H
074SB-0010-0001-SO	DIETHYL PHTHALATE	32	UG/KG	19	82	32	UJ	H
074SB-0010-0001-SO	DIMETHYL PHTHALATE	32	UG/KG	20	82	32	UJ	H
074SB-0010-0001-SO	DI-N-BUTYL PHTHALATE	32	UG/KG	18	82	32	UJ	H
074SB-0010-0001-SO	DI-N-OCTYLPHTHALATE	32	UG/KG	32	82	32	UJ	H
074SB-0010-0001-SO	FLUORANTHENE	3.9	UG/KG	3.9	7.8	3.9	UJ	H
074SB-0010-0001-SO	FLUORENE	3.9	UG/KG	3.9	7.8	3.9	UJ	H
074SB-0010-0001-SO	HEXACHLOROBENZENE	3.9	UG/KG	2.5	7.8	3.9	UJ	H
074SB-0010-0001-SO	HEXACHLOROBUTADIENE	32	UG/KG	32	58	32	UJ	H
074SB-0010-0001-SO	HEXACHLOROCYCLOPENTADIENE	32	UG/KG	32	390	32	UJ	H
074SB-0010-0001-SO	HEXACHLOROETHANE	32	UG/KG	11	58	32	UJ	H
074SB-0010-0001-SO	INDENO(1,2,3-C,D)PYRENE	3.9	UG/KG	3.9	7.8	3.9	UJ	H
074SB-0010-0001-SO	ISOPHORONE	32	UG/KG	15	58	32	UJ	H
074SB-0010-0001-SO	NAPHTHALENE	3.9	UG/KG	3.9	7.8	3.9	UJ	H
074SB-0010-0001-SO	NITROBENZENE	3.9	UG/KG	2.6	120	3.9	UJ	H
074SB-0010-0001-SO	N-NITROSODI-N-PROPYLAMINE	32	UG/KG	32	58	32	UJ	H
074SB-0010-0001-SO	N-NITROSODIPHENYLAMINE	32	UG/KG	25	58	32	UJ	H
074SB-0010-0001-SO	PENTACHLOROPHENOL	93	UG/KG	93	180	93	UJ	H
074SB-0010-0001-SO	PHENANTHRENE	3.9	UG/KG	3.9	7.8	3.9	UJ	H
074SB-0010-0001-SO	PHENOL	32	UG/KG	32	58	32	UJ	H
074SB-0010-0001-SO	PYRENE	3.9	UG/KG	3.9	7.8	3.9	UJ	H
074SB-0010-0001-SO	2,4-DINITROTOLUENE	0.05	MG/KG	0.0053	0.25	0.05	R	D
074SB-0010-0001-SO	2,6-DINITROTOLUENE	0.05	MG/KG	0.0072	0.25	0.05	R	D
074SB-0010-0001-SO	NITROBENZENE	0.05	MG/KG	0.017	0.25	0.05	R	D
074SB-0027-0001-SO	DI-N-BUTYL PHTHALATE	33	UG/KG	18	82	32	U	B

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Code
076SB-0094-0001-SO	ANTIMONY	0.23	MG/KG	0.18	0.089	J-	Q
076SB-0094-0001-SO	ARSENIC	17.0	MG/KG	0.089	0.045	J-	Q
076SB-0094-0001-SO	BARIUM	47.0	MG/KG	0.89	0.018	J	M
076SB-0094-0001-SO	BERYLLIUM	0.51	MG/KG	0.089	0.0089	J-	Q
076SB-0094-0001-SO	CADMIUM	0.13	MG/KG	0.089	0.027	J-	Q
076SB-0094-0001-SO	CALCIUM	970.0	MG/KG	8.9	2.2	J+	Q
076SB-0094-0001-SO	CHROMIUM	17.0	MG/KG	0.18	0.036	J-	Q
076SB-0094-0001-SO	COBALT	9.7	MG/KG	0.045	0.0089	J-	Q
076SB-0094-0001-SO	COPPER	17.0	MG/KG	0.18	0.054	J-	Q
076SB-0094-0001-SO	LEAD	24.0	MG/KG	0.089	0.027	J	E
076SB-0094-0001-SO	MANGANESE	380.0	MG/KG	0.45	0.027	J	E
076SB-0094-0001-SO	NICKEL	21.0	MG/KG	0.089	0.027	J-	Q
076SB-0094-0001-SO	POTASSIUM	790.0	MG/KG	8.9	5.4	J-	Q
076SB-0094-0001-SO	SELENIUM	0.47	MG/KG	0.45	0.089	J-	Q
076SB-0094-0001-SO	SILVER	0.025	MG/KG	0.089	0.027	J-	Q
076SB-0094-0001-SO	ZINC	63.0	MG/KG	0.45	0.18	J	A
076SB-0094-0001-SO	1,1,1-TRICHLOROETHANE	0	UG/KG	5.7	1.1	UJ	S
076SB-0094-0001-SO	1,1,2,2-TETRACHLOROETHANE	0	UG/KG	5.7	0.57	UJ	S
076SB-0094-0001-SO	1,1,2-TRICHLOROETHANE	0	UG/KG	5.7	0.57	UJ	S
076SB-0094-0001-SO	1,1-DICHLOROETHANE	0	UG/KG	5.7	0.57	UJ	S
076SB-0094-0001-SO	1,1-DICHLOROETHENE	0	UG/KG	5.7	1.1	UJ	S
076SB-0094-0001-SO	1,2-DIBROMOETHANE	0	UG/KG	5.7	1.1	UJ	S
076SB-0094-0001-SO	1,2-DICHLOROETHANE	0	UG/KG	5.7	0.57	UJ	S
076SB-0094-0001-SO	1,2-DICHLOROPROPANE	0	UG/KG	5.7	1.1	UJ	S
076SB-0094-0001-SO	2-HEXANONE	0	UG/KG	23	1.1	UJ	C, S
076SB-0094-0001-SO	ACETONE	0	UG/KG	23	7.2	UJ	S
076SB-0094-0001-SO	BENZENE	0	UG/KG	5.7	0.57	UJ	S
076SB-0094-0001-SO	BROMOCHLOROMETHANE	0	UG/KG	5.7	1.1	UJ	S
076SB-0094-0001-SO	BROMODICHLOROMETHANE	0	UG/KG	5.7	0.57	UJ	S
076SB-0094-0001-SO	BROMOFORM	0	UG/KG	5.7	0.57	UJ	S
076SB-0094-0001-SO	BROMOMETHANE	0	UG/KG	5.7	1.1	UJ	S
076SB-0094-0001-SO	CARBON DISULFIDE	0	UG/KG	5.7	0.57	UJ	S
076SB-0094-0001-SO	CARBON TETRACHLORIDE	0	UG/KG	5.7	0.57	UJ	S
076SB-0094-0001-SO	CHLOROBENZENE	0	UG/KG	5.7	0.57	UJ	S
076SB-0094-0001-SO	CHLOROETHANE	0	UG/KG	5.7	1.1	UJ	S
076SB-0094-0001-SO	CHLOROFORM	0	UG/KG	5.7	0.57	UJ	S
076SB-0094-0001-SO	CHLOROMETHANE	0	UG/KG	5.7	0.57	UJ	S
076SB-0094-0001-SO	CIS-1,3-DICHLOROPROPENE	0	UG/KG	5.7	0.57	UJ	S
076SB-0094-0001-SO	DIBROMOCHLOROMETHANE	0	UG/KG	5.7	1.1	UJ	S
076SB-0094-0001-SO	ETHYLBENZENE	0	UG/KG	5.7	0.57	UJ	S
076SB-0094-0001-SO	METHYL ETHYL KETONE	0	UG/KG	23	2.3	UJ	S
076SB-0094-0001-SO	METHYL ISOBUTYL KETONE	0	UG/KG	23	1.1	UJ	C, S
076SB-0094-0001-SO	METHYLENE CHLORIDE	0	UG/KG	5.7	1.1	UJ	S
076SB-0094-0001-SO	STYRENE	0	UG/KG	5.7	0.57	UJ	S
076SB-0094-0001-SO	TETRACHLOROETHYLENE	0	UG/KG	5.7	1.1	UJ	S
076SB-0094-0001-SO	TOLUENE	1.0	UG/KG	5.7	0.57	J	S

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Code
076SB-0094-0001-SO	TOTAL 1,2-DICHLOROETHENE	0	UG/KG	11	1.1	UJ	S
076SB-0094-0001-SO	TRANS-1,3-DICHLOROPROPENE	0	UG/KG	5.7	1.1	UJ	S
076SB-0094-0001-SO	TRICHLOROETHYLENE	0	UG/KG	5.7	0.57	UJ	S
076SB-0094-0001-SO	VINYL CHLORIDE	0	UG/KG	5.7	0.57	UJ	S
076SB-0094-0001-SO	XYLENES, TOTAL	0	UG/KG	11	1.7	UJ	S
076SB-0094-0001-SO	BIS(2-ETHYLHEXYL) PHTHALATE	27.0	UG/KG	50	27	U	B
076SB-0096-0001-SO	ANTIMONY	0.11	MG/KG	0.14	0.070	J-	Q
076SB-0096-0001-SO	ARSENIC	13.0	MG/KG	0.070	0.035	J-	Q
076SB-0096-0001-SO	BARIUM	29.0	MG/KG	0.70	0.014	J	M
076SB-0096-0001-SO	BERYLLIUM	0.42	MG/KG	0.070	0.0070	J-	Q
076SB-0096-0001-SO	CADMIUM	0.19	MG/KG	0.070	0.021	J-	Q
076SB-0096-0001-SO	CALCIUM	700.0	MG/KG	7.0	1.8	J+	Q
076SB-0096-0001-SO	CHROMIUM	14.0	MG/KG	0.14	0.028	J-	Q
076SB-0096-0001-SO	COBALT	8.3	MG/KG	0.035	0.0070	J-	Q
076SB-0096-0001-SO	COPPER	17.0	MG/KG	0.14	0.042	J-	Q
076SB-0096-0001-SO	LEAD	14.0	MG/KG	0.070	0.021	J	E
076SB-0096-0001-SO	MANGANESE	510.0	MG/KG	0.35	0.021	J	E
076SB-0096-0001-SO	NICKEL	21.0	MG/KG	0.070	0.021	J-	Q
076SB-0096-0001-SO	POTASSIUM	810.0	MG/KG	7.0	4.2	J-	Q
076SB-0096-0001-SO	SELENIUM	0.32	MG/KG	0.35	0.070	J-	Q
076SB-0096-0001-SO	SILVER	0.019	MG/KG	0.070	0.021	J-	Q
076SB-0096-0001-SO	ZINC	62.0	MG/KG	0.35	0.14	J	A
076SB-0096-0001-SO	BIS(2-ETHYLHEXYL) PHTHALATE	27.0	UG/KG	50	27	U	B
076SB-0102M-0001-SO	ANTIMONY	0.12	MG/KG	0.15	0.076	J-	Q
076SB-0102M-0001-SO	ARSENIC	15.0	MG/KG	0.076	0.038	J-	Q
076SB-0102M-0001-SO	BARIUM	34.0	MG/KG	0.76	0.015	J	M
076SB-0102M-0001-SO	BERYLLIUM	0.53	MG/KG	0.076	0.0076	J-	Q
076SB-0102M-0001-SO	CADMIUM	0.19	MG/KG	0.076	0.023	J-	Q
076SB-0102M-0001-SO	CALCIUM	680.0	MG/KG	7.6	1.9	J+	Q
076SB-0102M-0001-SO	CHROMIUM	22.0	MG/KG	0.15	0.030	J-	Q
076SB-0102M-0001-SO	COBALT	9.2	MG/KG	0.038	0.0076	J-	Q
076SB-0102M-0001-SO	COPPER	16.0	MG/KG	0.15	0.045	J-	Q
076SB-0102M-0001-SO	LEAD	15.0	MG/KG	0.076	0.023	J	E
076SB-0102M-0001-SO	MANGANESE	430.0	MG/KG	0.38	0.023	J	E
076SB-0102M-0001-SO	NICKEL	23.0	MG/KG	0.076	0.023	J-	Q
076SB-0102M-0001-SO	POTASSIUM	840.0	MG/KG	7.6	4.5	J-	Q
076SB-0102M-0001-SO	SELENIUM	0.29	MG/KG	0.38	0.076	J-	Q
076SB-0102M-0001-SO	SILVER	0.02	MG/KG	0.076	0.023	J-	Q
076SB-0102M-0001-SO	ZINC	75.0	MG/KG	0.38	0.15	J	A
076SB-0102M-0001-SO	2-HEXANONE	0	UG/KG	22	1.1	UJ	C
076SB-0102M-0001-SO	METHYL ISOBUTYL KETONE	0	UG/KG	22	1.1	UJ	C
076SB-0102M-0001-SO	BIS(2-ETHYLHEXYL) PHTHALATE	27.0	UG/KG	50	27	U	B
076SB-0102M-0001-SO	N-NITROSODIPHENYLAMINE	0	UG/KG	50	27	R	C
076SB-0102M-0001-SO	2,4-DINITROTOLUENE	0	MG/KG	0.25	0.050	R	D
076SB-0102M-0001-SO	2,6-DINITROTOLUENE	0	MG/KG	0.25	0.050	R	D
076SB-0102M-0001-SO	2-NITROTOLUENE	0	MG/KG	0.25	0.050	UJ	C

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Code
076SB-0102M-0001-SO	NITROBENZENE	0	MG/KG	0.25	0.050	R	D
076SB-0102M-0001-SO	RDX	0	MG/KG	0.25	0.050	UJ	C
076SB-0114M-0001-SO	ANTIMONY	0.088	MG/KG	0.18	0.091	J-	Q
076SB-0114M-0001-SO	ARSENIC	13.0	MG/KG	0.091	0.045	J-	Q
076SB-0114M-0001-SO	BARIUM	36.0	MG/KG	0.91	0.018	J	M
076SB-0114M-0001-SO	BERYLLIUM	0.35	MG/KG	0.091	0.0091	J-	Q
076SB-0114M-0001-SO	CADMIUM	0.15	MG/KG	0.091	0.027	J-	Q
076SB-0114M-0001-SO	CALCIUM	530.0	MG/KG	9.1	2.3	J+	Q
076SB-0114M-0001-SO	CHROMIUM	12.0	MG/KG	0.18	0.036	J-	Q
076SB-0114M-0001-SO	COBALT	8.0	MG/KG	0.045	0.0091	J-	Q
076SB-0114M-0001-SO	COPPER	16.0	MG/KG	0.18	0.055	J-	Q
076SB-0114M-0001-SO	LEAD	11.0	MG/KG	0.091	0.027	J	E
076SB-0114M-0001-SO	MANGANESE	420.0	MG/KG	0.45	0.027	J	E
076SB-0114M-0001-SO	NICKEL	17.0	MG/KG	0.091	0.027	J-	Q
076SB-0114M-0001-SO	POTASSIUM	550.0	MG/KG	9.1	5.5	J-	Q
076SB-0114M-0001-SO	SELENIUM	0.51	MG/KG	0.45	0.091	J-	Q
076SB-0114M-0001-SO	SILVER	0.019	MG/KG	0.091	0.027	J-	Q
076SB-0114M-0001-SO	ZINC	54.0	MG/KG	0.45	0.18	J	A
076SB-0114M-0001-SO	BIS(2-ETHYLHEXYL) PHTHALATE	27.0	UG/KG	50	27	U	B
076SB-0114M-0001-SO	N-NITROSODIPHENYLAMINE	0	UG/KG	50	27	R	C
076SB-0114M-0001-SO	2,4-DINITROTOLUENE	0	MG/KG	0.25	0.050	R	D
076SB-0114M-0001-SO	2,6-DINITROTOLUENE	0	MG/KG	0.25	0.050	R	D
076SB-0114M-0001-SO	2-NITROTOLUENE	0	MG/KG	0.25	0.050	UJ	C
076SB-0114M-0001-SO	NITROBENZENE	0	MG/KG	0.25	0.050	R	D
076SB-0114M-0001-SO	RDX	0	MG/KG	0.25	0.050	UJ	C
076SD-0009-0001-SO	ANTIMONY	0	MG/KG	0.96	0.72	R	Q
076SD-0009-0001-SO	CALCIUM	1800.0	MG/KG	190	96	J+	Q
076SD-0009-0001-SO	CHROMIUM	44.0	MG/KG	0.48	0.43	J	E
076SD-0009-0001-SO	NICKEL	30.0	MG/KG	0.48	0.24	J	Q
076SD-0009-0001-SO	POTASSIUM	590.0	MG/KG	96	9.6	J+	Q
076SD-0009-0001-SO	SELENIUM	0.52	MG/KG	0.48	0.058	J	M
076SD-0009-0001-SO	VANADIUM	14.0	MG/KG	0.48	0.096	J+	Q
076SD-0009-0001-SO	MERCURY	0.053	MG/KG	0.095	0.031	U	B
076SD-0009-0001-SO	2,4-DINITROPHENOL	0	UG/KG	330	81	UJ	C
076SD-0009-0001-SO	3,3'-DICHLOROBENZIDINE	0	UG/KG	100	81	R	Q
076SD-0009-0001-SO	3-NITROANILINE	0	UG/KG	200	81	R	Q
076SD-0009-0001-SO	4-BROMOPHENYL PHENYL ETHER	0	UG/KG	51	27	UJ	C
076SD-0009-0001-SO	4-CHLOROANILINE	0	UG/KG	150	27	UJ	Q
076SD-0009-0001-SO	4-NITROANILINE	0	UG/KG	200	27	R	Q
076SD-0009-0001-SO	BENZO(G,H,I)PERYLENE	39.0	UG/KG	6.8	3.3	J	Q
076SD-0009-0001-SO	BENZOIC ACID	0	UG/KG	670	340	UJ	C
076SD-0009-0001-SO	HEXACHLOROETHANE	0	UG/KG	51	27	UJ	C, Q
076SD-0009-0001-SO	PENTACHLOROPHENOL	0	UG/KG	150	81	UJ	C
076SS-0020M-0001-SO	ANTIMONY	0.17	MG/KG	0.19	0.14	J-	Q
076SS-0020M-0001-SO	ARSENIC	11.0	MG/KG	0.46	0.14	J-	Q
076SS-0020M-0001-SO	SELENIUM	0.6	MG/KG	0.46	0.056	J-	M, Q

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Code
076SS-0020M-0001-SO	SODIUM	37	MG/KG	93	37	U	F
076SS-0020M-0001-SO	THALLIUM	0.21	MG/KG	0.19	0.14	UJ	C, F
076SS-0020M-0001-SO	MERCURY	0.077	MG/KG	0.10	0.033	U	B
076SS-0020M-0001-SO	TOXAPHENE	0	UG/KG	340	100	UJ	C
076SS-0020M-0001-SO	ACETONE	26.0	UG/KG	23	7.3	U	B
076SS-0020M-0001-SO	3,3'-DICHLOROBENZIDINE	0	UG/KG	98	79	R	Q
076SS-0020M-0001-SO	3-NITROANILINE	0	UG/KG	200	79	R	Q
076SS-0020M-0001-SO	4-CHLOROANILINE	0	UG/KG	150	27	UJ	Q
076SS-0020M-0001-SO	4-NITROANILINE	0	UG/KG	200	27	UJ	Q
076SS-0020M-0001-SO	BIS(2-ETHYLHEXYL) PHTHALATE	36.0	UG/KG	49	27	U	B
076SS-0020M-0001-SO	DIETHYL PHTHALATE	21.0	UG/KG	49	27	U	B
076SS-0020M-0001-SO	2,4-DINITROTOLUENE	0	MG/KG	0.25	0.050	R	D
076SS-0020M-0001-SO	2,6-DINITROTOLUENE	0	MG/KG	0.25	0.050	R	D
076SS-0020M-0001-SO	2-NITROTOLUENE	0	MG/KG	0.25	0.050	UJ	C
076SS-0020M-0001-SO	NITROBENZENE	0	MG/KG	0.25	0.050	R	D
076SS-0020M-0001-SO	RDX	0	MG/KG	0.25	0.050	UJ	C
076SS-0020M-0001-SO	TETRYL	0.041	MG/KG	0.25	0.050	NJ	*III

Sample	Analyte	Result	Units	DL	LOQ	LOD	Qualifier	Code
078SB-0008M-0001-SO	ANTIMONY	0.097	MG/KG	0.046	0.2	0.1	J-	Q
078SB-0008M-0001-SO	ARSENIC	4.7	MG/KG	0.018	0.1	0.05	J-	Q
078SB-0008M-0001-SO	MANGANESE	280	MG/KG	0.016	0.5	0.03	J+	Q
078SB-0008M-0001-SO	SELENIUM	0.12	MG/KG	0.051	0.5	0.1	J-	Q
078SB-0008M-0001-SO	PCB-1221	25	UG/KG	16	50	25	UJ	C
078SB-0008M-0001-SO	1,1,1-TRICHLOROETHANE	1.1	UG/KG	0.62	5.5	1.1	UJ	S
078SB-0008M-0001-SO	1,1,2,2-TETRACHLOROETHANE	0.55	UG/KG	0.38	5.5	0.55	UJ	S
078SB-0008M-0001-SO	1,1,2-TRICHLOROETHANE	0.55	UG/KG	0.43	5.5	0.55	UJ	S
078SB-0008M-0001-SO	1,1-DICHLOROETHANE	0.55	UG/KG	0.4	5.5	0.55	UJ	S
078SB-0008M-0001-SO	1,1-DICHLOROETHENE	1.1	UG/KG	0.57	5.5	1.1	UJ	S
078SB-0008M-0001-SO	1,2-DIBROMOETHANE	1.1	UG/KG	0.55	5.5	1.1	UJ	S
078SB-0008M-0001-SO	1,2-DICHLOROETHANE	0.55	UG/KG	0.38	5.5	0.55	UJ	S
078SB-0008M-0001-SO	1,2-DICHLOROPROPANE	1.1	UG/KG	0.76	5.5	1.1	UJ	S
078SB-0008M-0001-SO	2-HEXANONE	1.1	UG/KG	0.7	22	1.1	UJ	S
078SB-0008M-0001-SO	ACETONE	7	UG/KG	7	22	7	UJ	S
078SB-0008M-0001-SO	BENZENE	0.55	UG/KG	0.25	5.5	0.55	UJ	S
078SB-0008M-0001-SO	BROMOCHLOROMETHANE	1.1	UG/KG	0.78	5.5	1.1	UJ	S
078SB-0008M-0001-SO	BROMODICHLOROMETHANE	0.55	UG/KG	0.31	5.5	0.55	UJ	S
078SB-0008M-0001-SO	BROMOFORM	0.55	UG/KG	0.36	5.5	0.55	UJ	S
078SB-0008M-0001-SO	BROMOMETHANE	1.1	UG/KG	0.6	5.5	1.1	UJ	S
078SB-0008M-0001-SO	CARBON DISULFIDE	0.55	UG/KG	0.49	5.5	0.55	UJ	S
078SB-0008M-0001-SO	CARBON TETRACHLORIDE	0.55	UG/KG	0.41	5.5	0.55	UJ	S
078SB-0008M-0001-SO	CHLOROBENZENE	0.55	UG/KG	0.36	5.5	0.55	UJ	S
078SB-0008M-0001-SO	CHLOROETHANE	1.1	UG/KG	0.95	5.5	1.1	UJ	S
078SB-0008M-0001-SO	CHLOROFORM	0.55	UG/KG	0.32	5.5	0.55	UJ	S
078SB-0008M-0001-SO	CHLOROMETHANE	0.55	UG/KG	0.45	5.5	0.55	UJ	S
078SB-0008M-0001-SO	CIS-1,3-DICHLOROPROPENE	0.55	UG/KG	0.38	5.5	0.55	UJ	S
078SB-0008M-0001-SO	DIBROMOCHLOROMETHANE	1.1	UG/KG	0.61	5.5	1.1	UJ	S
078SB-0008M-0001-SO	ETHYLBENZENE	0.55	UG/KG	0.29	5.5	0.55	UJ	S
078SB-0008M-0001-SO	METHYL ETHYL KETONE	2.2	UG/KG	1.5	22	2.2	UJ	S
078SB-0008M-0001-SO	METHYL ISOBUTYL KETONE	1.1	UG/KG	0.6	22	1.1	UJ	S
078SB-0008M-0001-SO	METHYLENE CHLORIDE	2.0	UG/KG	0.74	5.5	1.1	UJ	B, S
078SB-0008M-0001-SO	STYRENE	0.55	UG/KG	0.17	5.5	0.55	UJ	S
078SB-0008M-0001-SO	TETRACHLOROETHYLENE	1.1	UG/KG	0.57	5.5	1.1	UJ	S
078SB-0008M-0001-SO	TOLUENE	0.3	UG/KG	0.3	5.5	0.55	J	S
078SB-0008M-0001-SO	TOTAL 1,2-DICHLOROETHENE	1.1	UG/KG	0.85	11	1.1	UJ	S
078SB-0008M-0001-SO	TRANS-1,3-DICHLOROPROPENE	1.1	UG/KG	0.6	5.5	1.1	UJ	S
078SB-0008M-0001-SO	TRICHLOROETHYLENE	0.55	UG/KG	0.46	5.5	0.55	UJ	S
078SB-0008M-0001-SO	VINYL CHLORIDE	0.55	UG/KG	0.43	5.5	0.55	UJ	S
078SB-0008M-0001-SO	XYLENES, TOTAL	1.7	UG/KG	0.74	11	1.7	UJ	S
078SB-0008M-0001-SO	2,4-DINITROPHENOL	79	UG/KG	79	330	79	UJ	C
078SB-0008M-0001-SO	4,6-DINITRO-2-METHYLPHENOL	79	UG/KG	79	150	79	UJ	C
078SB-0008M-0001-SO	BENZO(G,H,I)PERYLENE	3.3	UG/KG	3.3	6.6	3.3	UJ	C
078SB-0008M-0001-SO	HEXACHLOROETHANE	27	UG/KG	8.9	50	27	UJ	C
078SB-0016M-0001-SO	ANTIMONY	0.31	MG/KG	0.041	0.18	0.09	J-	Q
078SB-0016M-0001-SO	ARSENIC	0.94	MG/KG	0.016	0.09	0.045	J-	Q
078SB-0016M-0001-SO	MANGANESE	160	MG/KG	0.014	0.45	0.027	J+	Q
078SB-0016M-0001-SO	SELENIUM	0.09	MG/KG	0.046	0.45	0.09	UJ	Q
078SB-0016M-0001-SO	4,4'-DDD	0.67	UG/KG	0.62	2	0.67	UJ	C

Sample	Analyte	Result	Units	DL	LOQ	LOD	Qualifier	Code
078SB-0016M-0001-SO	TOXAPHENE	20	UG/KG	19	67	20	UJ	C
078SB-0016M-0001-SO	METHYLENE CHLORIDE	1.4	UG/KG	0.64	4.8	0.95	U	B
078SB-0016M-0001-SO	2,4-DINITROPHENOL	80	UG/KG	80	330	80	UJ	C
078SB-0016M-0001-SO	4,6-DINITRO-2-METHYLPHENOL	80	UG/KG	80	150	80	UJ	C
078SB-0016M-0001-SO	BENZO(G,H,I)PERYLENE	7.6	UG/KG	3.3	6.6	3.3	J	C
078SB-0016M-0001-SO	HEXACHLOROETHANE	27	UG/KG	9	50	27	UJ	C
078SB-0016M-0001-SO	2,4-DINITROTOLUENE	0.05	MG/KG	0.0053	0.25	0.05	R	D
078SB-0016M-0001-SO	2,6-DINITROTOLUENE	0.05	MG/KG	0.0073	0.25	0.05	R	D
078SB-0016M-0001-SO	NITROBENZENE	0.05	MG/KG	0.018	0.25	0.05	R	D

Sample	Analyte	Result	Units	DL	LOQ	LOD	Qualifier	Code
079SB-0217M-0001-SO	ANTIMONY	0.053	MG/KG	0.043	0.19	0.094	J-	Q
079SB-0217M-0001-SO	ARSENIC	6.6	MG/KG	0.017	0.094	0.047	J-	Q
079SB-0217M-0001-SO	BARIUM	36	MG/KG	0.01	0.94	0.019	J-	E, Q
079SB-0217M-0001-SO	COPPER	11	MG/KG	0.031	0.19	0.057	J-	Q
079SB-0217M-0001-SO	LEAD	8.6	MG/KG	0.015	0.094	0.028	J	E
079SB-0217M-0001-SO	MANGANESE	490	MG/KG	0.015	0.47	0.028	J	E
079SB-0217M-0001-SO	NICKEL	15	MG/KG	0.011	0.094	0.028	J-	Q
079SB-0217M-0001-SO	SELENIUM	0.21	MG/KG	0.048	0.47	0.094	J-	Q
079SB-0217M-0001-SO	SODIUM	32	MG/KG	2.5	9.4	4.7	J	E
079SB-0217M-0001-SO	THALLIUM	0.12	MG/KG	0.0096	0.094	0.019	J	E
079SB-0217M-0001-SO	ZINC	46	MG/KG	0.061	0.47	0.19	J-	Q, A
079SB-0234M-0001-SO	ANTIMONY	0.099	MG/KG	0.045	0.2	0.099	R	Q
079SB-0234M-0001-SO	ARSENIC	9.9	MG/KG	0.018	0.099	0.05	J-	Q
079SB-0234M-0001-SO	BARIUM	81	MG/KG	0.011	0.99	0.02	J-	E, Q
079SB-0234M-0001-SO	COPPER	17	MG/KG	0.033	0.2	0.059	J-	Q
079SB-0234M-0001-SO	LEAD	14	MG/KG	0.015	0.099	0.03	J	E
079SB-0234M-0001-SO	MANGANESE	490	MG/KG	0.016	0.5	0.03	J	E
079SB-0234M-0001-SO	NICKEL	28	MG/KG	0.011	0.099	0.03	J-	Q
079SB-0234M-0001-SO	SELENIUM	0.23	MG/KG	0.05	0.5	0.099	J-	Q
079SB-0234M-0001-SO	SODIUM	120	MG/KG	2.6	9.9	5	J	E
079SB-0234M-0001-SO	THALLIUM	0.15	MG/KG	0.01	0.099	0.02	J	E
079SB-0234M-0001-SO	ZINC	53	MG/KG	0.064	0.5	0.2	J-	Q, A
079SB-0236M-0001-SO	ANTIMONY	0.1	MG/KG	0.046	0.2	0.1	R	Q
079SB-0236M-0001-SO	ARSENIC	11	MG/KG	0.018	0.1	0.05	J-	Q
079SB-0236M-0001-SO	BARIUM	100	MG/KG	0.011	1	0.02	J-	E, Q
079SB-0236M-0001-SO	COPPER	7.2	MG/KG	0.033	0.2	0.06	J-	Q
079SB-0236M-0001-SO	LEAD	6.4	MG/KG	0.015	0.1	0.03	J	E
079SB-0236M-0001-SO	MANGANESE	2500	MG/KG	0.16	5	0.3	J	E
079SB-0236M-0001-SO	NICKEL	14	MG/KG	0.011	0.1	0.03	J-	Q
079SB-0236M-0001-SO	SELENIUM	0.12	MG/KG	0.051	0.5	0.1	J-	Q
079SB-0236M-0001-SO	SODIUM	48	MG/KG	2.7	10	5	J	E
079SB-0236M-0001-SO	THALLIUM	0.18	MG/KG	0.01	0.1	0.02	J	E
079SB-0236M-0001-SO	ZINC	24	MG/KG	0.065	0.5	0.2	J-	Q, A
079SB-0245M-0001-SO	ANTIMONY	0.097	MG/KG	0.045	0.19	0.097	UJ	Q
079SB-0245M-0001-SO	ARSENIC	5	MG/KG	0.018	0.097	0.049	J-	Q, A
079SB-0245M-0001-SO	SELENIUM	0.067	MG/KG	0.049	0.49	0.097	J-	B, Q
079SB-0245M-0001-SO	ZINC	19	MG/KG	0.063	0.49	0.19	J-	Q, A
079SB-0247M-0001-SO	ANTIMONY	0.19	MG/KG	0.045	0.2	0.098	J-	Q
079SB-0247M-0001-SO	ARSENIC	4.7	MG/KG	0.018	0.098	0.049	J-	Q, A
079SB-0247M-0001-SO	SELENIUM	0.098	MG/KG	0.05	0.49	0.098	UJ	B, Q
079SB-0247M-0001-SO	ZINC	21	MG/KG	0.064	0.49	0.2	J-	Q, A
079SB-0252M-0001-SO	ANTIMONY	0.097	MG/KG	0.045	0.19	0.097	UJ	Q
079SB-0252M-0001-SO	ARSENIC	12	MG/KG	0.018	0.097	0.049	J-	Q, A
079SB-0252M-0001-SO	SELENIUM	0.07	MG/KG	0.049	0.49	0.097	J-	B, Q
079SB-0252M-0001-SO	SODIUM	23	MG/KG	2.6	9.7	4.9	U	B
079SB-0252M-0001-SO	ZINC	22	MG/KG	0.063	0.49	0.19	J-	Q, A
079SB-0267M-0001-SO	ANTIMONY	0.099	MG/KG	0.045	0.2	0.099	UJ	Q
079SB-0267M-0001-SO	ARSENIC	51	MG/KG	0.018	0.099	0.05	J-	Q, A
079SB-0267M-0001-SO	SELENIUM	0.22	MG/KG	0.05	0.5	0.099	J-	B, Q

Sample	Analyte	Result	Units	DL	LOQ	LOD	Qualifier	Code
079SB-0267M-0001-SO	ZINC	36	MG/KG	0.064	0.5	0.2	J-	Q, A
079SB-0269M-0001-SO	ANTIMONY	0.099	MG/KG	0.045	0.2	0.099	UJ	Q
079SB-0269M-0001-SO	ARSENIC	27	MG/KG	0.018	0.099	0.05	J-	Q, A
079SB-0269M-0001-SO	SELENIUM	0.099	MG/KG	0.05	0.5	0.099	UJ	B, Q
079SB-0269M-0001-SO	ZINC	17	MG/KG	0.064	0.5	0.2	J-	Q, A
079SB-0272M-0001-SO	ANTIMONY	0.18	MG/KG	0.046	0.2	0.1	J-	Q
079SB-0272M-0001-SO	ARSENIC	8.8	MG/KG	0.018	0.1	0.05	J-	Q, A
079SB-0272M-0001-SO	SELENIUM	0.1	MG/KG	0.051	0.5	0.1	UJ	B, Q
079SB-0272M-0001-SO	ZINC	56	MG/KG	0.065	0.5	0.2	J-	Q, A
079SD-0305-0001-SD	ANTIMONY	0.14	MG/KG	0.076	0.33	0.17	J-	Q
079SD-0305-0001-SD	BARIUM	71	MG/KG	0.018	1.7	0.033	J	M
079SD-0305-0001-SD	CALCIUM	2400	MG/KG	2.2	17	4.1	J	E
079SD-0305-0001-SD	SELENIUM	0.61	MG/KG	0.084	0.83	0.17	J-	B
079SW-0311-0001-SW	LEAD	0.3	UG/L	0.15	1	0.3	U	B
079SW-0311-0001-SW	TOXAPHENE	0.53	UG/L	0.34	2.1	0.53	UJ	C
079SW-0311-0001-SW	PCB-1221	0.21	UG/L	0.14	0.53	0.21	UJ	C
079SW-0311-0001-SW	ACETONE	1.2	UG/L	1.1	10	1.1	J	C
079SW-0311-0001-SW	2,4-DINITROTOLUENE	0.85	UG/L	0.29	5.3	0.85	R	D
079SW-0311-0001-SW	2,6-DINITROTOLUENE	0.85	UG/L	0.85	5.3	0.85	R	D
079SW-0311-0001-SW	1,3,5-TRINITROBENZENE	2.2	UG/L	2.2	2.2	2.2	U	$
079SW-0311-0001-SW	1,3-DINITROBENZENE	1.1	UG/L	1.1	1.1	1.1	U	$
079SW-0311-0001-SW	2,4,6-TRINITROTOLUENE	1.1	UG/L	1.1	1.1	1.1	U	$
079SW-0311-0001-SW	2-AMINO-4,6-DINITROTOLUENE	1.1	UG/L	1.1	1.1	1.1	U	$
079SW-0311-0001-SW	4-AMINO-2,6-DINITROTOLUENE	1.1	UG/L	1.1	1.1	1.1	U	$
079SW-0311-0001-SW	HMX	1.1	UG/L	1.1	1.1	1.1	U	$
079SW-0311-0001-SW	NITROBENZENE	2.2	UG/L	2.2	2.2	2.2	R	D, $
079SW-0311-0001-SW	NITROGLYCERIN	4.4	UG/L	4.4	4.4	4.4	U	$
079SW-0311-0001-SW	RDX	2.2	UG/L	2.2	2.2	2.2	U	$
079SW-0311-0001-SW	TETRYL	1.1	UG/L	1.1	1.1	1.1	U	$

APPENDIX C

Primary/Field Duplicate Sample Comparisons

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
068SS-0003M-0001-SO	NITROCELLULOSE	0.88	MG/KG	4.8	1.8	J	068SS-0004M-0001-SO	1.8	5	1.8	U	N/A	Yes
068SB-0019M-0001-SO	ALUMINUM	11000	MG/KG	3	0.59		068SB-0022M-0001-SO	11000	2.9	0.58		0	N/A
068SB-0019M-0001-SO	ANTIMONY	0.099	MG/KG	0.2	0.099	U	068SB-0022M-0001-SO	0.097	0.19	0.097	U	N/A	Yes
068SB-0019M-0001-SO	ARSENIC	11	MG/KG	0.099	0.05		068SB-0022M-0001-SO	11	0.097	0.049		0	N/A
068SB-0019M-0001-SO	BARIUM	74	MG/KG	0.99	0.02		068SB-0022M-0001-SO	61	0.97	0.019		19	N/A
068SB-0019M-0001-SO	BERYLLIUM	0.57	MG/KG	0.099	0.0099		068SB-0022M-0001-SO	0.56	0.097	0.0097		2	N/A
068SB-0019M-0001-SO	CADMIUM	0.23	MG/KG	0.099	0.03		068SB-0022M-0001-SO	0.19	0.097	0.029		N/A	Yes
068SB-0019M-0001-SO	CALCIUM	25000	MG/KG	9.9	2.5		068SB-0022M-0001-SO	26000	9.7	2.4		4	N/A
068SB-0019M-0001-SO	CHROMIUM	18	MG/KG	0.2	0.04		068SB-0022M-0001-SO	17	0.19	0.039		6	N/A
068SB-0019M-0001-SO	COBALT	12	MG/KG	0.05	0.0099		068SB-0022M-0001-SO	13	0.049	0.0097		8	N/A
068SB-0019M-0001-SO	COPPER	20	MG/KG	0.2	0.059		068SB-0022M-0001-SO	19	0.19	0.058		5	N/A
068SB-0019M-0001-SO	IRON	26000	MG/KG	5	2		068SB-0022M-0001-SO	25000	4.9	1.9		4	N/A
068SB-0019M-0001-SO	LEAD	12	MG/KG	0.099	0.03		068SB-0022M-0001-SO	11	0.097	0.029		9	N/A
068SB-0019M-0001-SO	MAGNESIUM	7400	MG/KG	9.9	2		068SB-0022M-0001-SO	7400	9.7	1.9		0	N/A
068SB-0019M-0001-SO	MANGANESE	360	MG/KG	0.5	0.03		068SB-0022M-0001-SO	380	0.49	0.029		5	N/A
068SB-0019M-0001-SO	NICKEL	29	MG/KG	0.099	0.03		068SB-0022M-0001-SO	29	0.097	0.029		0	N/A
068SB-0019M-0001-SO	POTASSIUM	1500	MG/KG	9.9	5.9		068SB-0022M-0001-SO	1400	9.7	5.8		7	N/A
068SB-0019M-0001-SO	SELENIUM	0.31	MG/KG	0.5	0.099	J	068SB-0022M-0001-SO	0.28	0.49	0.097	J	N/A	Yes
068SB-0019M-0001-SO	SILVER	0.04	MG/KG	0.099	0.03	J	068SB-0022M-0001-SO	0.037	0.097	0.029	J	N/A	Yes
068SB-0019M-0001-SO	SODIUM	120	MG/KG	9.9	5		068SB-0022M-0001-SO	120	9.7	4.9		0	N/A
068SB-0019M-0001-SO	THALLIUM	0.16	MG/KG	0.099	0.02		068SB-0022M-0001-SO	0.16	0.097	0.019		N/A	Yes
068SB-0019M-0001-SO	VANADIUM	18	MG/KG	0.099	0.059		068SB-0022M-0001-SO	18	0.097	0.058		0	N/A
068SB-0019M-0001-SO	ZINC	49	MG/KG	0.5	0.2		068SB-0022M-0001-SO	48	0.49	0.19		2	N/A
068SB-0035M-0001-SO	ALUMINUM	12000	MG/KG	2.7	0.54		068SB-0036M-0001-SO	11000	2.9	0.58		9	N/A
068SB-0035M-0001-SO	ANTIMONY	0.09	MG/KG	0.18	0.09	U	068SB-0036M-0001-SO	0.096	0.19	0.096	U	N/A	Yes
068SB-0035M-0001-SO	ARSENIC	11	MG/KG	0.09	0.045		068SB-0036M-0001-SO	9.4	0.096	0.048		16	N/A
068SB-0035M-0001-SO	BARIUM	64	MG/KG	0.9	0.018		068SB-0036M-0001-SO	63	0.96	0.019		2	N/A
068SB-0035M-0001-SO	BERYLLIUM	0.56	MG/KG	0.09	0.009		068SB-0036M-0001-SO	0.55	0.096	0.0096		2	N/A
068SB-0035M-0001-SO	CADMIUM	0.14	MG/KG	0.09	0.027		068SB-0036M-0001-SO	0.16	0.096	0.029		N/A	Yes
068SB-0035M-0001-SO	CALCIUM	2300	MG/KG	9	2.3		068SB-0036M-0001-SO	1900	9.6	2.4		19	N/A
068SB-0035M-0001-SO	CHROMIUM	16	MG/KG	0.18	0.036		068SB-0036M-0001-SO	15	0.19	0.038		6	N/A
068SB-0035M-0001-SO	COBALT	10	MG/KG	0.045	0.009		068SB-0036M-0001-SO	16	0.048	0.0096		46	N/A
068SB-0035M-0001-SO	COPPER	19	MG/KG	0.18	0.054		068SB-0036M-0001-SO	16	0.19	0.058		17	N/A
068SB-0035M-0001-SO	IRON	26000	MG/KG	4.5	1.8		068SB-0036M-0001-SO	24000	4.8	1.9		8	N/A
068SB-0035M-0001-SO	LEAD	13	MG/KG	0.09	0.027		068SB-0036M-0001-SO	15	0.096	0.029		14	N/A
068SB-0035M-0001-SO	MAGNESIUM	3300	MG/KG	9	1.8		068SB-0036M-0001-SO	2900	9.6	1.9		13	N/A

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
068SB-0035M-0001-SO	MANGANESE	360	MG/KG	0.45	0.027		068SB-0036M-0001-SO	620	0.48	0.029		53	N/A
068SB-0035M-0001-SO	NICKEL	24	MG/KG	0.09	0.027		068SB-0036M-0001-SO	22	0.096	0.029		9	N/A
068SB-0035M-0001-SO	POTASSIUM	1200	MG/KG	9	5.4		068SB-0036M-0001-SO	1100	9.6	5.8		9	N/A
068SB-0035M-0001-SO	SELENIUM	0.29	MG/KG	0.45	0.09	J	068SB-0036M-0001-SO	0.35	0.48	0.096	J	N/A	Yes
068SB-0035M-0001-SO	SILVER	0.031	MG/KG	0.09	0.027	J	068SB-0036M-0001-SO	0.028	0.096	0.029	J	N/A	Yes
068SB-0035M-0001-SO	SODIUM	41	MG/KG	9	4.5		068SB-0036M-0001-SO	38	9.6	4.8		N/A	Yes
068SB-0035M-0001-SO	THALLIUM	0.16	MG/KG	0.09	0.018		068SB-0036M-0001-SO	0.15	0.096	0.019		N/A	Yes
068SB-0035M-0001-SO	VANADIUM	18	MG/KG	0.09	0.054		068SB-0036M-0001-SO	19	0.096	0.058		5	N/A
068SB-0035M-0001-SO	ZINC	53	MG/KG	0.45	0.18		068SB-0036M-0001-SO	55	0.48	0.19		4	N/A
068SB-0054M-0001-SO	ALUMINUM	8400	MG/KG	2.9	0.58		068SB-0053M-0001-SO	8700	2.7	0.55		4	N/A
068SB-0054M-0001-SO	ANTIMONY	0.054	MG/KG	0.19	0.097	J	068SB-0053M-0001-SO	0.046	0.18	0.091	J	N/A	Yes
068SB-0054M-0001-SO	ARSENIC	12	MG/KG	0.097	0.049		068SB-0053M-0001-SO	11	0.091	0.045		9	N/A
068SB-0054M-0001-SO	BARIUM	58	MG/KG	0.97	0.019		068SB-0053M-0001-SO	53	0.91	0.018		9	N/A
068SB-0054M-0001-SO	BERYLLIUM	0.47	MG/KG	0.097	0.0097		068SB-0053M-0001-SO	0.5	0.091	0.0091		N/A	Yes
068SB-0054M-0001-SO	CADMIUM	0.13	MG/KG	0.097	0.029		068SB-0053M-0001-SO	0.12	0.091	0.027		N/A	Yes
068SB-0054M-0001-SO	CALCIUM	910	MG/KG	9.7	2.4		068SB-0053M-0001-SO	3400	9.1	2.3		116	N/A
068SB-0054M-0001-SO	CHROMIUM	12	MG/KG	0.19	0.039		068SB-0053M-0001-SO	12	0.18	0.036		0	N/A
068SB-0054M-0001-SO	COBALT	9.1	MG/KG	0.049	0.0097		068SB-0053M-0001-SO	8.6	0.045	0.0091		6	N/A
068SB-0054M-0001-SO	COPPER	18	MG/KG	0.19	0.058		068SB-0053M-0001-SO	16	0.18	0.055		12	N/A
068SB-0054M-0001-SO	IRON	21000	MG/KG	4.9	1.9		068SB-0053M-0001-SO	21000	4.5	1.8		0	N/A
068SB-0054M-0001-SO	LEAD	15	MG/KG	0.097	0.029		068SB-0053M-0001-SO	13	0.091	0.027		14	N/A
068SB-0054M-0001-SO	MAGNESIUM	2300	MG/KG	9.7	1.9		068SB-0053M-0001-SO	2400	9.1	1.8		4	N/A
068SB-0054M-0001-SO	MANGANESE	310	MG/KG	0.49	0.029		068SB-0053M-0001-SO	370	0.45	0.027		18	N/A
068SB-0054M-0001-SO	NICKEL	20	MG/KG	0.097	0.029		068SB-0053M-0001-SO	18	0.091	0.027		11	N/A
068SB-0054M-0001-SO	POTASSIUM	870	MG/KG	9.7	5.8		068SB-0053M-0001-SO	770	9.1	5.5		12	N/A
068SB-0054M-0001-SO	SELENIUM	0.29	MG/KG	0.49	0.097	J	068SB-0053M-0001-SO	0.29	0.45	0.091	J	N/A	Yes
068SB-0054M-0001-SO	SILVER	0.028	MG/KG	0.097	0.029	J	068SB-0053M-0001-SO	0.028	0.091	0.027	J	N/A	Yes
068SB-0054M-0001-SO	SODIUM	37	MG/KG	9.7	4.9		068SB-0053M-0001-SO	44	9.1	4.5		N/A	Yes
068SB-0054M-0001-SO	THALLIUM	0.13	MG/KG	0.097	0.019		068SB-0053M-0001-SO	0.12	0.091	0.018		N/A	Yes
068SB-0054M-0001-SO	VANADIUM	14	MG/KG	0.097	0.058		068SB-0053M-0001-SO	15	0.091	0.055		7	N/A
068SB-0054M-0001-SO	ZINC	42	MG/KG	0.49	0.19		068SB-0053M-0001-SO	40	0.45	0.18		5	N/A
068SD-0009-0001-SO	ALUMINUM	12000	MG/KG	9.6	3.8	J	068SD-00010-0001-SO	13000	8.2	3.3		8	N/A
068SD-0009-0001-SO	ANTIMONY	0.13	MG/KG	0.19	0.14	J	068SD-00010-0001-SO	0.13	0.16	0.12	J	N/A	Yes
068SD-0009-0001-SO	ARSENIC	16	MG/KG	0.48	0.14		068SD-00010-0001-SO	16	0.41	0.12		0	N/A
068SD-0009-0001-SO	BARIUM	78	MG/KG	0.48	0.29		068SD-00010-0001-SO	75	0.41	0.25		4	N/A
068SD-0009-0001-SO	BERYLLIUM	0.76	MG/KG	0.096	0.0096		068SD-00010-0001-SO	0.74	0.082	0.0082		3	N/A

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
068SD-0009-0001-SO	CADMIUM	0.61	MG/KG	0.19	0.0096		068SD-00010-0001-SO	0.49	0.16	0.0082		N/A	Yes
068SD-0009-0001-SO	CALCIUM	1500	MG/KG	190	96		068SD-00010-0001-SO	1200	160	82		22	N/A
068SD-0009-0001-SO	CHROMIUM	21	MG/KG	0.48	0.43		068SD-00010-0001-SO	22	0.41	0.37		5	N/A
068SD-0009-0001-SO	COBALT	12	MG/KG	0.096	0.014		068SD-00010-0001-SO	12	0.082	0.012		0	N/A
068SD-0009-0001-SO	COPPER	30	MG/KG	0.38	0.29		068SD-00010-0001-SO	27	0.33	0.25		11	N/A
068SD-0009-0001-SO	IRON	26000	MG/KG	48	29	J	068SD-00010-0001-SO	30000	200	120		14	N/A
068SD-0009-0001-SO	LEAD	23	MG/KG	0.29	0.19		068SD-00010-0001-SO	21	0.25	0.16		9	N/A
068SD-0009-0001-SO	MAGNESIUM	2400	MG/KG	96	24		068SD-00010-0001-SO	2400	82	20		0	N/A
068SD-0009-0001-SO	MANGANESE	891	MG/KG	4.8	3.8		068SD-00010-0001-SO	770	0.41	0.33		15	N/A
068SD-0009-0001-SO	NICKEL	24	MG/KG	0.48	0.24		068SD-00010-0001-SO	25	0.41	0.2		4	N/A
068SD-0009-0001-SO	POTASSIUM	790	MG/KG	96	9.6		068SD-00010-0001-SO	790	82	8.2		0	N/A
068SD-0009-0001-SO	SELENIUM	0.8	MG/KG	0.48	0.058		068SD-00010-0001-SO	0.78	0.41	0.049		N/A	Yes
068SD-0009-0001-SO	SILVER	0.056	MG/KG	0.096	0.048	J	068SD-00010-0001-SO	0.05	0.082	0.041	J	N/A	Yes
068SD-0009-0001-SO	SODIUM	47	MG/KG	96	38	J	068SD-00010-0001-SO	43	82	33		N/A	Yes
068SD-0009-0001-SO	THALLIUM	0.22	MG/KG	0.19	0.14		068SD-00010-0001-SO	0.23	0.16	0.12		N/A	Yes
068SD-0009-0001-SO	VANADIUM	19	MG/KG	0.48	0.096		068SD-00010-0001-SO	19	0.41	0.082		0	N/A
068SD-0009-0001-SO	ZINC	160	MG/KG	3.8	1.9		068SD-00010-0001-SO	130	3.3	1.6		21	N/A
068SB-0019M-0001-SO	MERCURY	0.021	MG/KG	0.1	0.033	J	068SB-0022M-0001-SO	0.019	0.1	0.034	J	N/A	Yes
068SB-0035M-0001-SO	MERCURY	0.015	MG/KG	0.11	0.036	J	068SB-0036M-0001-SO	0.019	0.1	0.034	J	N/A	Yes
068SB-0054M-0001-SO	MERCURY	0.014	MG/KG	0.086	0.028	J	068SB-0053M-0001-SO	0.015	0.1	0.034	J	N/A	Yes
068SD-0009-0001-SO	MERCURY	0.031	MG/KG	0.095	0.031	J	068SD-00010-0001-SO	0.032	0.098	0.032	J	N/A	Yes
068SB-0019M-0001-SO	PCB-1016	25	UG/KG	66	25	U	068SB-0022M-0001-SO	24	64	24	U	N/A	Yes
068SB-0019M-0001-SO	PCB-1221	25	UG/KG	51	25	U	068SB-0022M-0001-SO	24	49	24	U	N/A	Yes
068SB-0019M-0001-SO	PCB-1232	25	UG/KG	46	25	U	068SB-0022M-0001-SO	24	44	24	U	N/A	Yes
068SB-0019M-0001-SO	PCB-1242	25	UG/KG	41	25	U	068SB-0022M-0001-SO	24	40	24	U	N/A	Yes
068SB-0019M-0001-SO	PCB-1248	25	UG/KG	56	25	U	068SB-0022M-0001-SO	24	54	24	U	N/A	Yes
068SB-0019M-0001-SO	PCB-1254	25	UG/KG	56	25	U	068SB-0022M-0001-SO	24	54	24	U	N/A	Yes
068SB-0019M-0001-SO	PCB-1260	25	UG/KG	56	25	U	068SB-0022M-0001-SO	24	54	24	U	N/A	Yes
068SB-0035M-0001-SO	PCB-1016	24	UG/KG	64	24	U	068SB-0036M-0001-SO	25	66	25	U	N/A	Yes
068SB-0035M-0001-SO	PCB-1221	24	UG/KG	49	24	U	068SB-0036M-0001-SO	25	51	25	U	N/A	Yes
068SB-0035M-0001-SO	PCB-1232	24	UG/KG	44	24	U	068SB-0036M-0001-SO	25	46	25	U	N/A	Yes
068SB-0035M-0001-SO	PCB-1242	24	UG/KG	39	24	U	068SB-0036M-0001-SO	25	41	25	U	N/A	Yes
068SB-0035M-0001-SO	PCB-1248	24	UG/KG	54	24	U	068SB-0036M-0001-SO	25	56	25	U	N/A	Yes
068SB-0035M-0001-SO	PCB-1254	24	UG/KG	54	24	U	068SB-0036M-0001-SO	25	56	25	U	N/A	Yes
068SB-0035M-0001-SO	PCB-1260	24	UG/KG	54	24	U	068SB-0036M-0001-SO	25	56	25	U	N/A	Yes
068SB-0054M-0001-SO	PCB-1016	25	UG/KG	66	25	U	068SB-0053M-0001-SO	25	65	25	U	N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
068SB-0054M-0001-SO	PCB-1221	25	UG/KG	50	25	U	068SB-0053M-0001-SO	25	50	25	U	N/A	Yes
068SB-0054M-0001-SO	PCB-1232	25	UG/KG	45	25	U	068SB-0053M-0001-SO	25	45	25	U	N/A	Yes
068SB-0054M-0001-SO	PCB-1242	25	UG/KG	40	25	U	068SB-0053M-0001-SO	25	40	25	U	N/A	Yes
068SB-0054M-0001-SO	PCB-1248	25	UG/KG	55	25	U	068SB-0053M-0001-SO	25	55	25	U	N/A	Yes
068SB-0054M-0001-SO	PCB-1254	25	UG/KG	55	25	U	068SB-0053M-0001-SO	25	55	25	U	N/A	Yes
068SB-0054M-0001-SO	PCB-1260	25	UG/KG	55	25	U	068SB-0053M-0001-SO	25	55	25	U	N/A	Yes
068SD-0009-0001-SO	PCB-1016	24	UG/KG	64	24	U	068SD-00010-0001-SO	25	65	25	U	N/A	Yes
068SD-0009-0001-SO	PCB-1221	24	UG/KG	49	24	U	068SD-00010-0001-SO	25	50	25	U	N/A	Yes
068SD-0009-0001-SO	PCB-1232	24	UG/KG	44	24	U	068SD-00010-0001-SO	25	45	25	U	N/A	Yes
068SD-0009-0001-SO	PCB-1242	24	UG/KG	39	24	U	068SD-00010-0001-SO	25	40	25	U	N/A	Yes
068SD-0009-0001-SO	PCB-1248	24	UG/KG	54	24	U	068SD-00010-0001-SO	25	55	25	U	N/A	Yes
068SD-0009-0001-SO	PCB-1254	24	UG/KG	54	24	U	068SD-00010-0001-SO	25	55	25	U	N/A	Yes
068SD-0009-0001-SO	PCB-1260	24	UG/KG	54	24	U	068SD-00010-0001-SO	25	55	25	U	N/A	Yes
068SB-0019M-0001-SO	1,2,4-TRICHLOROBENZENE	130	UG/KG	250	130	U	068SB-0022M-0001-SO	140	250	140	U	N/A	Yes
068SB-0019M-0001-SO	1,2-DICHLOROBENZENE	130	UG/KG	250	130	U	068SB-0022M-0001-SO	140	250	140	U	N/A	Yes
068SB-0019M-0001-SO	1,3-DICHLOROBENZENE	130	UG/KG	250	130	U	068SB-0022M-0001-SO	140	250	140	U	N/A	Yes
068SB-0019M-0001-SO	1,4-DICHLOROBENZENE	130	UG/KG	250	130	U	068SB-0022M-0001-SO	140	250	140	U	N/A	Yes
068SB-0019M-0001-SO	2,4,5-TRICHLOROPHENOL	130	UG/KG	740	130	U	068SB-0022M-0001-SO	140	760	140	U	N/A	Yes
068SB-0019M-0001-SO	2,4,6-TRICHLOROPHENOL	390	UG/KG	740	390	U	068SB-0022M-0001-SO	410	760	410	U	N/A	Yes
068SB-0019M-0001-SO	2,4-DICHLOROPHENOL	130	UG/KG	740	130	U	068SB-0022M-0001-SO	140	760	140	U	N/A	Yes
068SB-0019M-0001-SO	2,4-DIMETHYLPHENOL	390	UG/KG	740	390	U	068SB-0022M-0001-SO	410	760	410	U	N/A	Yes
068SB-0019M-0001-SO	2,4-DINITROPHENOL	390	UG/KG	1600	390	U	068SB-0022M-0001-SO	410	1700	410	U	N/A	Yes
068SB-0019M-0001-SO	2,4-DINITROTOLUENE	130	UG/KG	990	130	U	068SB-0022M-0001-SO	140	1000	140	U	N/A	Yes
068SB-0019M-0001-SO	2,6-DINITROTOLUENE	130	UG/KG	990	130	U	068SB-0022M-0001-SO	140	1000	140	U	N/A	Yes
068SB-0019M-0001-SO	2-CHLORONAPHTHALENE	16	UG/KG	250	16	U	068SB-0022M-0001-SO	17	250	17	U	N/A	Yes
068SB-0019M-0001-SO	2-CHLOROPHENOL	130	UG/KG	250	130	U	068SB-0022M-0001-SO	140	250	140	U	N/A	Yes
068SB-0019M-0001-SO	2-METHYLNAPHTHALENE	16	UG/KG	33	16	U	068SB-0022M-0001-SO	17	34	17	U	N/A	Yes
068SB-0019M-0001-SO	2-METHYLPHENOL (O-CRESOL)	390	UG/KG	990	390	U	068SB-0022M-0001-SO	410	1000	410	U	N/A	Yes
068SB-0019M-0001-SO	2-NITROANILINE	130	UG/KG	990	130	U	068SB-0022M-0001-SO	140	1000	140	U	N/A	Yes
068SB-0019M-0001-SO	2-NITROPHENOL	130	UG/KG	250	130	U	068SB-0022M-0001-SO	140	250	140	U	N/A	Yes
068SB-0019M-0001-SO	3,3'-DICHLOROBENZIDINE	390	UG/KG	490	390	U	068SB-0022M-0001-SO	410	510	410	U	N/A	Yes
068SB-0019M-0001-SO	3-NITROANILINE	390	UG/KG	990	390	U	068SB-0022M-0001-SO	410	1000	410	U	N/A	Yes
068SB-0019M-0001-SO	4,6-DINITRO-2-METHYLPHENOL	390	UG/KG	740	390	U	068SB-0022M-0001-SO	410	760	410	U	N/A	Yes
068SB-0019M-0001-SO	4-BROMOPHENYL PHENYL ETHER	130	UG/KG	250	130	U	068SB-0022M-0001-SO	140	250	140	U	N/A	Yes
068SB-0019M-0001-SO	4-CHLORO-3-METHYLPHENOL	130	UG/KG	740	130	U	068SB-0022M-0001-SO	140	760	140	U	N/A	Yes
068SB-0019M-0001-SO	4-CHLOROANILINE	130	UG/KG	740	130	U	068SB-0022M-0001-SO	140	760	140	U	N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
068SB-0019M-0001-SO	4-CHLOROPHENYL PHENYL ETHER	130	UG/KG	250	130	U	068SB-0022M-0001-SO	140	250	140	U	N/A	Yes
068SB-0019M-0001-SO	4-NITROANILINE	130	UG/KG	990	130	U	068SB-0022M-0001-SO	140	1000	140	U	N/A	Yes
068SB-0019M-0001-SO	4-NITROPHENOL	390	UG/KG	1600	390	U	068SB-0022M-0001-SO	410	1700	410	U	N/A	Yes
068SB-0019M-0001-SO	ACENAPHTHENE	16	UG/KG	33	16	U	068SB-0022M-0001-SO	17	34	17	U	N/A	Yes
068SB-0019M-0001-SO	ACENAPHTHYLENE	16	UG/KG	33	16	U	068SB-0022M-0001-SO	17	34	17	U	N/A	Yes
068SB-0019M-0001-SO	ANTHRACENE	16	UG/KG	33	16	U	068SB-0022M-0001-SO	17	34	17	U	N/A	Yes
068SB-0019M-0001-SO	BENZO(A)ANTHRACENE	16	UG/KG	33	16	U	068SB-0022M-0001-SO	17	34	17	U	N/A	Yes
068SB-0019M-0001-SO	BENZO(A)PYRENE	16	UG/KG	33	16	U	068SB-0022M-0001-SO	17	34	17	U	N/A	Yes
068SB-0019M-0001-SO	BENZO(B)FLUORANTHENE	16	UG/KG	33	16	U	068SB-0022M-0001-SO	17	34	17	U	N/A	Yes
068SB-0019M-0001-SO	BENZO(G,H,I)PERYLENE	16	UG/KG	33	16	U	068SB-0022M-0001-SO	17	34	17	U	N/A	Yes
068SB-0019M-0001-SO	BENZO(K)FLUORANTHENE	16	UG/KG	33	16	U	068SB-0022M-0001-SO	17	34	17	U	N/A	Yes
068SB-0019M-0001-SO	BENZOIC ACID	1600	UG/KG	3300	1600	U	068SB-0022M-0001-SO	1700	3400	1700	U	N/A	Yes
068SB-0019M-0001-SO	BENZYL ALCOHOL	130	UG/KG	1600	130	U	068SB-0022M-0001-SO	140	1700	140	U	N/A	Yes
068SB-0019M-0001-SO	BENZYL BUTYL PHTHALATE	130	UG/KG	340	130	U	068SB-0022M-0001-SO	140	360	140	U	N/A	Yes
068SB-0019M-0001-SO	BIS(2-CHLOROETHOXY) METHANE	130	UG/KG	490	130	U	068SB-0022M-0001-SO	140	510	140	U	N/A	Yes
068SB-0019M-0001-SO	BIS(2-CHLOROETHYL) ETHER	16	UG/KG	490	16	U	068SB-0022M-0001-SO	17	510	17	U	N/A	Yes
068SB-0019M-0001-SO	BIS(2-CHLOROISOPROPYL) ETHER	130	UG/KG	490	130	U	068SB-0022M-0001-SO	140	510	140	U	N/A	Yes
068SB-0019M-0001-SO	BIS(2-ETHYLHEXYL) PHTHALATE	130	UG/KG	340	130	U	068SB-0022M-0001-SO	140	360	140	U	N/A	Yes
068SB-0019M-0001-SO	CARBAZOLE	130	UG/KG	250	130	U	068SB-0022M-0001-SO	140	250	140	U	N/A	Yes
068SB-0019M-0001-SO	CHRYSENE	16	UG/KG	33	16	U	068SB-0022M-0001-SO	17	34	17	U	N/A	Yes
068SB-0019M-0001-SO	CRESOLS, M & P	390	UG/KG	2000	390	U	068SB-0022M-0001-SO	410	2000	410	U	N/A	Yes
068SB-0019M-0001-SO	DIBENZ(A,H)ANTHRACENE	16	UG/KG	33	16	U	068SB-0022M-0001-SO	17	34	17	U	N/A	Yes
068SB-0019M-0001-SO	DIBENZOFURAN	16	UG/KG	250	16	U	068SB-0022M-0001-SO	17	250	17	U	N/A	Yes
068SB-0019M-0001-SO	DIETHYL PHTHALATE	130	UG/KG	340	130	U	068SB-0022M-0001-SO	140	360	140	U	N/A	Yes
068SB-0019M-0001-SO	DIMETHYL PHTHALATE	130	UG/KG	340	130	U	068SB-0022M-0001-SO	140	360	140	U	N/A	Yes
068SB-0019M-0001-SO	DI-N-BUTYL PHTHALATE	130	UG/KG	340	130	U	068SB-0022M-0001-SO	140	360	140	U	N/A	Yes
068SB-0019M-0001-SO	DI-N-OCTYLPHTHALATE	130	UG/KG	340	130	U	068SB-0022M-0001-SO	140	360	140	U	N/A	Yes
068SB-0019M-0001-SO	FLUORANTHENE	16	UG/KG	33	16	U	068SB-0022M-0001-SO	17	34	17	U	N/A	Yes
068SB-0019M-0001-SO	FLUORENE	16	UG/KG	33	16	U	068SB-0022M-0001-SO	17	34	17	U	N/A	Yes
068SB-0019M-0001-SO	HEXACHLOROBENZENE	16	UG/KG	33	16	U	068SB-0022M-0001-SO	17	34	17	U	N/A	Yes
068SB-0019M-0001-SO	HEXACHLOROBUTADIENE	130	UG/KG	250	130	U	068SB-0022M-0001-SO	140	250	140	U	N/A	Yes
068SB-0019M-0001-SO	HEXACHLOROCYCLOPENTADIENE	130	UG/KG	1600	130	U	068SB-0022M-0001-SO	140	1700	140	U	N/A	Yes
068SB-0019M-0001-SO	HEXACHLOROETHANE	130	UG/KG	250	130	U	068SB-0022M-0001-SO	140	250	140	U	N/A	Yes
068SB-0019M-0001-SO	INDENO(1,2,3-C,D)PYRENE	16	UG/KG	33	16	U	068SB-0022M-0001-SO	17	34	17	U	N/A	Yes
068SB-0019M-0001-SO	ISOPHORONE	130	UG/KG	250	130	U	068SB-0022M-0001-SO	140	250	140	U	N/A	Yes
068SB-0019M-0001-SO	NAPHTHALENE	16	UG/KG	33	16	U	068SB-0022M-0001-SO	17	34	17	U	N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
068SB-0019M-0001-SO	NITROBENZENE	16	UG/KG	490	16	U	068SB-0022M-0001-SO	17	510	17	U	N/A	Yes
068SB-0019M-0001-SO	N-NITROSODI-N-PROPYLAMINE	130	UG/KG	250	130	U	068SB-0022M-0001-SO	140	250	140	U	N/A	Yes
068SB-0019M-0001-SO	N-NITROSODIPHENYLAMINE	130	UG/KG	250	130	U	068SB-0022M-0001-SO	140	250	140	U	N/A	Yes
068SB-0019M-0001-SO	PENTACHLOROPHENOL	390	UG/KG	740	390	U	068SB-0022M-0001-SO	410	760	410	U	N/A	Yes
068SB-0019M-0001-SO	PHENANTHRENE	16	UG/KG	33	16	U	068SB-0022M-0001-SO	17	34	17	U	N/A	Yes
068SB-0019M-0001-SO	PHENOL	130	UG/KG	250	130	U	068SB-0022M-0001-SO	140	250	140	U	N/A	Yes
068SB-0019M-0001-SO	PYRENE	16	UG/KG	33	16	U	068SB-0022M-0001-SO	17	34	17	U	N/A	Yes
068SB-0035M-0001-SO	1,2,4-TRICHLOROBENZENE	27	UG/KG	50	27	U	068SB-0036M-0001-SO	27	50	27	U	N/A	Yes
068SB-0035M-0001-SO	1,2-DICHLOROBENZENE	27	UG/KG	50	27	U	068SB-0036M-0001-SO	27	50	27	U	N/A	Yes
068SB-0035M-0001-SO	1,3-DICHLOROBENZENE	27	UG/KG	50	27	U	068SB-0036M-0001-SO	27	50	27	U	N/A	Yes
068SB-0035M-0001-SO	1,4-DICHLOROBENZENE	27	UG/KG	50	27	U	068SB-0036M-0001-SO	27	50	27	U	N/A	Yes
068SB-0035M-0001-SO	2,4,5-TRICHLOROPHENOL	27	UG/KG	150	27	U	068SB-0036M-0001-SO	27	150	27	U	N/A	Yes
068SB-0035M-0001-SO	2,4,6-TRICHLOROPHENOL	79	UG/KG	150	79	U	068SB-0036M-0001-SO	80	150	80	U	N/A	Yes
068SB-0035M-0001-SO	2,4-DICHLOROPHENOL	27	UG/KG	150	27	U	068SB-0036M-0001-SO	27	150	27	U	N/A	Yes
068SB-0035M-0001-SO	2,4-DIMETHYLPHENOL	79	UG/KG	150	79	U	068SB-0036M-0001-SO	80	150	80	U	N/A	Yes
068SB-0035M-0001-SO	2,4-DINITROPHENOL	79	UG/KG	330	79	U	068SB-0036M-0001-SO	80	330	80	U	N/A	Yes
068SB-0035M-0001-SO	2,4-DINITROTOLUENE	27	UG/KG	200	27	U	068SB-0036M-0001-SO	27	200	27	U	N/A	Yes
068SB-0035M-0001-SO	2,6-DINITROTOLUENE	27	UG/KG	200	27	U	068SB-0036M-0001-SO	27	200	27	U	N/A	Yes
068SB-0035M-0001-SO	2-CHLORONAPHTHALENE	3.3	UG/KG	50	3.3	U	068SB-0036M-0001-SO	3.3	50	3.3	U	N/A	Yes
068SB-0035M-0001-SO	2-CHLOROPHENOL	27	UG/KG	50	27	U	068SB-0036M-0001-SO	27	50	27	U	N/A	Yes
068SB-0035M-0001-SO	2-METHYLNAPHTHALENE	7.8	UG/KG	6.6	3.3		068SB-0036M-0001-SO	6.5	6.7	3.3	J	N/A	Yes
068SB-0035M-0001-SO	2-METHYLPHENOL (O-CRESOL)	79	UG/KG	200	79	U	068SB-0036M-0001-SO	80	200	80	U	N/A	Yes
068SB-0035M-0001-SO	2-NITROANILINE	27	UG/KG	200	27	U	068SB-0036M-0001-SO	27	200	27	U	N/A	Yes
068SB-0035M-0001-SO	2-NITROPHENOL	27	UG/KG	50	27	U	068SB-0036M-0001-SO	27	50	27	U	N/A	Yes
068SB-0035M-0001-SO	3,3'-DICHLOROBENZIDINE	79	UG/KG	99	79	U	068SB-0036M-0001-SO	80	100	80	U	N/A	Yes
068SB-0035M-0001-SO	3-NITROANILINE	79	UG/KG	200	79	U	068SB-0036M-0001-SO	80	200	80	U	N/A	Yes
068SB-0035M-0001-SO	4,6-DINITRO-2-METHYLPHENOL	79	UG/KG	150	79	U	068SB-0036M-0001-SO	80	150	80	U	N/A	Yes
068SB-0035M-0001-SO	4-BROMOPHENYL PHENYL ETHER	27	UG/KG	50	27	U	068SB-0036M-0001-SO	27	50	27	U	N/A	Yes
068SB-0035M-0001-SO	4-CHLORO-3-METHYLPHENOL	27	UG/KG	150	27	U	068SB-0036M-0001-SO	27	150	27	U	N/A	Yes
068SB-0035M-0001-SO	4-CHLOROANILINE	27	UG/KG	150	27	U	068SB-0036M-0001-SO	27	150	27	U	N/A	Yes
068SB-0035M-0001-SO	4-CHLOROPHENYL PHENYL ETHER	27	UG/KG	50	27	U	068SB-0036M-0001-SO	27	50	27	U	N/A	Yes
068SB-0035M-0001-SO	4-NITROANILINE	27	UG/KG	200	27	U	068SB-0036M-0001-SO	27	200	27	U	N/A	Yes
068SB-0035M-0001-SO	4-NITROPHENOL	79	UG/KG	330	79	U	068SB-0036M-0001-SO	80	330	80	U	N/A	Yes
068SB-0035M-0001-SO	ACENAPHTHENE	3.3	UG/KG	6.6	3.3	U	068SB-0036M-0001-SO	3.3	6.7	3.3	U	N/A	Yes
068SB-0035M-0001-SO	ACENAPHTHYLENE	3.3	UG/KG	6.6	3.3	U	068SB-0036M-0001-SO	3.3	6.7	3.3	U	N/A	Yes
068SB-0035M-0001-SO	ANTHRACENE	3.3	UG/KG	6.6	3.3	U	068SB-0036M-0001-SO	3.3	6.7	3.3	U	N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
068SB-0035M-0001-SO	BENZO(A)ANTHRACENE	3.3	UG/KG	6.6	3.3	U	068SB-0036M-0001-SO	3.3	6.7	3.3	U	N/A	Yes
068SB-0035M-0001-SO	BENZO(A)PYRENE	3.3	UG/KG	6.6	3.3	U	068SB-0036M-0001-SO	3.3	6.7	3.3	U	N/A	Yes
068SB-0035M-0001-SO	BENZO(B)FLUORANTHENE	3.3	UG/KG	6.6	3.3	U	068SB-0036M-0001-SO	3.3	6.7	3.3	U	N/A	Yes
068SB-0035M-0001-SO	BENZO(G,H,I)PERYLENE	3.3	UG/KG	6.6	3.3	U	068SB-0036M-0001-SO	3.3	6.7	3.3	U	N/A	Yes
068SB-0035M-0001-SO	BENZO(K)FLUORANTHENE	3.3	UG/KG	6.6	3.3	U	068SB-0036M-0001-SO	3.3	6.7	3.3	U	N/A	Yes
068SB-0035M-0001-SO	BENZOIC ACID	330	UG/KG	650	330	U	068SB-0036M-0001-SO	330	660	330	U	N/A	Yes
068SB-0035M-0001-SO	BENZYL ALCOHOL	27	UG/KG	330	27	U	068SB-0036M-0001-SO	27	330	27	U	N/A	Yes
068SB-0035M-0001-SO	BENZYL BUTYL PHTHALATE	27	UG/KG	69	27	U	068SB-0036M-0001-SO	27	70	27	U	N/A	Yes
068SB-0035M-0001-SO	BIS(2-CHLOROETHOXY) METHANE	27	UG/KG	99	27	U	068SB-0036M-0001-SO	27	100	27	U	N/A	Yes
068SB-0035M-0001-SO	BIS(2-CHLOROETHYL) ETHER	3.3	UG/KG	99	3.3	U	068SB-0036M-0001-SO	3.3	100	3.3	U	N/A	Yes
068SB-0035M-0001-SO	BIS(2-CHLOROISOPROPYL) ETHER	27	UG/KG	99	27	U	068SB-0036M-0001-SO	27	100	27	U	N/A	Yes
068SB-0035M-0001-SO	BIS(2-ETHYLHEXYL) PHTHALATE	27	UG/KG	73	27	J	068SB-0036M-0001-SO	27	70	27	J	N/A	Yes
068SB-0035M-0001-SO	CARBAZOLE	27	UG/KG	50	27	U	068SB-0036M-0001-SO	27	50	27	U	N/A	Yes
068SB-0035M-0001-SO	CHRYSENE	3.3	UG/KG	6.6	3.3	U	068SB-0036M-0001-SO	3.3	6.7	3.3	U	N/A	Yes
068SB-0035M-0001-SO	CRESOLS, M & P	79	UG/KG	400	79	U	068SB-0036M-0001-SO	80	400	80	U	N/A	Yes
068SB-0035M-0001-SO	DIBENZ(A,H)ANTHRACENE	3.3	UG/KG	6.6	3.3	U	068SB-0036M-0001-SO	3.3	6.7	3.3	U	N/A	Yes
068SB-0035M-0001-SO	DIBENZOFURAN	3.3	UG/KG	50	3.3	U	068SB-0036M-0001-SO	3.3	50	3.3	U	N/A	Yes
068SB-0035M-0001-SO	DIETHYL PHTHALATE	27	UG/KG	69	27	U	068SB-0036M-0001-SO	27	70	27	U	N/A	Yes
068SB-0035M-0001-SO	DIMETHYL PHTHALATE	27	UG/KG	69	27	U	068SB-0036M-0001-SO	27	70	27	U	N/A	Yes
068SB-0035M-0001-SO	DI-N-BUTYL PHTHALATE	27	UG/KG	69	27	U	068SB-0036M-0001-SO	27	70	27	U	N/A	Yes
068SB-0035M-0001-SO	DI-N-OCTYLPHTHALATE	27	UG/KG	69	27	U	068SB-0036M-0001-SO	27	70	27	U	N/A	Yes
068SB-0035M-0001-SO	FLUORANTHENE	3.3	UG/KG	6.6	3.3	U	068SB-0036M-0001-SO	3.3	6.7	3.3	U	N/A	Yes
068SB-0035M-0001-SO	FLUORENE	3.3	UG/KG	6.6	3.3	U	068SB-0036M-0001-SO	3.3	6.7	3.3	U	N/A	Yes
068SB-0035M-0001-SO	HEXACHLOROBENZENE	3.3	UG/KG	6.6	3.3	U	068SB-0036M-0001-SO	3.3	6.7	3.3	U	N/A	Yes
068SB-0035M-0001-SO	HEXACHLOROBUTADIENE	27	UG/KG	50	27	U	068SB-0036M-0001-SO	27	50	27	U	N/A	Yes
068SB-0035M-0001-SO	HEXACHLOROCYCLOPENTADIENE	27	UG/KG	330	27	U	068SB-0036M-0001-SO	27	330	27	U	N/A	Yes
068SB-0035M-0001-SO	HEXACHLOROETHANE	27	UG/KG	50	27	U	068SB-0036M-0001-SO	27	50	27	U	N/A	Yes
068SB-0035M-0001-SO	INDENO(1,2,3-C,D)PYRENE	3.3	UG/KG	6.6	3.3	U	068SB-0036M-0001-SO	3.3	6.7	3.3	U	N/A	Yes
068SB-0035M-0001-SO	ISOPHORONE	27	UG/KG	50	27	U	068SB-0036M-0001-SO	27	50	27	U	N/A	Yes
068SB-0035M-0001-SO	NAPHTHALENE	10	UG/KG	6.6	3.3		068SB-0036M-0001-SO	8.3	6.7	3.3		N/A	Yes
068SB-0035M-0001-SO	NITROBENZENE	3.3	UG/KG	99	3.3	U	068SB-0036M-0001-SO	3.3	100	3.3	U	N/A	Yes
068SB-0035M-0001-SO	N-NITROSODI-N-PROPYLAMINE	27	UG/KG	50	27	U	068SB-0036M-0001-SO	27	50	27	U	N/A	Yes
068SB-0035M-0001-SO	N-NITROSODIPHENYLAMINE	27	UG/KG	50	27	U	068SB-0036M-0001-SO	27	50	27	U	N/A	Yes
068SB-0035M-0001-SO	PENTACHLOROPHENOL	79	UG/KG	150	79	U	068SB-0036M-0001-SO	80	150	80	U	N/A	Yes
068SB-0035M-0001-SO	PHENANTHRENE	4.6	UG/KG	6.6	3.3	J	068SB-0036M-0001-SO	3.3	6.7	3.3	U	N/A	Yes
068SB-0035M-0001-SO	PHENOL	27	UG/KG	50	27	U	068SB-0036M-0001-SO	27	50	27	U	N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
068SB-0035M-0001-SO	PYRENE	3.3	UG/KG	6.6	3.3	U	068SB-0036M-0001-SO	3.3	6.7	3.3	U	N/A	Yes
068SB-0053M-0001-SO	1,2,4-TRICHLOROBENZENE	27	UG/KG	50	27	U	068SB-0054M-0001-SO	27	50	27	U	N/A	Yes
068SB-0053M-0001-SO	1,2-DICHLOROBENZENE	27	UG/KG	50	27	U	068SB-0054M-0001-SO	27	50	27	U	N/A	Yes
068SB-0053M-0001-SO	1,3-DICHLOROBENZENE	27	UG/KG	50	27	U	068SB-0054M-0001-SO	27	50	27	U	N/A	Yes
068SB-0053M-0001-SO	1,4-DICHLOROBENZENE	27	UG/KG	50	27	U	068SB-0054M-0001-SO	27	50	27	U	N/A	Yes
068SB-0053M-0001-SO	2,4,5-TRICHLOROPHENOL	27	UG/KG	150	27	U	068SB-0054M-0001-SO	27	150	27	U	N/A	Yes
068SB-0053M-0001-SO	2,4,6-TRICHLOROPHENOL	80	UG/KG	150	80	U	068SB-0054M-0001-SO	80	150	80	U	N/A	Yes
068SB-0053M-0001-SO	2,4-DICHLOROPHENOL	27	UG/KG	150	27	U	068SB-0054M-0001-SO	27	150	27	U	N/A	Yes
068SB-0053M-0001-SO	2,4-DIMETHYLPHENOL	80	UG/KG	150	80	U	068SB-0054M-0001-SO	80	150	80	U	N/A	Yes
068SB-0053M-0001-SO	2,4-DINITROPHENOL	80	UG/KG	330	80	UJ	068SB-0054M-0001-SO	80	330	80	U	N/A	Yes
068SB-0053M-0001-SO	2,4-DINITROTOLUENE	27	UG/KG	200	27	U	068SB-0054M-0001-SO	27	200	27	U	N/A	Yes
068SB-0053M-0001-SO	2,6-DINITROTOLUENE	27	UG/KG	200	27	U	068SB-0054M-0001-SO	27	200	27	U	N/A	Yes
068SB-0053M-0001-SO	2-CHLORONAPHTHALENE	3.3	UG/KG	50	3.3	U	068SB-0054M-0001-SO	3.3	50	3.3	U	N/A	Yes
068SB-0053M-0001-SO	2-CHLOROPHENOL	27	UG/KG	50	27	U	068SB-0054M-0001-SO	27	50	27	U	N/A	Yes
068SB-0053M-0001-SO	2-METHYLNAPHTHALENE	4.4	UG/KG	6.6	3.3	J	068SB-0054M-0001-SO	9.6	6.6	3.3		N/A	Yes
068SB-0053M-0001-SO	2-METHYLPHENOL (O-CRESOL)	80	UG/KG	200	80	U	068SB-0054M-0001-SO	80	200	80	U	N/A	Yes
068SB-0053M-0001-SO	2-NITROANILINE	27	UG/KG	200	27	U	068SB-0054M-0001-SO	27	200	27	U	N/A	Yes
068SB-0053M-0001-SO	2-NITROPHENOL	27	UG/KG	50	27	U	068SB-0054M-0001-SO	27	50	27	U	N/A	Yes
068SB-0053M-0001-SO	3,3'-DICHLOROBENZIDINE	80	UG/KG	100	80	U	068SB-0054M-0001-SO	80	100	80	U	N/A	Yes
068SB-0053M-0001-SO	3-NITROANILINE	80	UG/KG	200	80	U	068SB-0054M-0001-SO	80	200	80	U	N/A	Yes
068SB-0053M-0001-SO	4,6-DINITRO-2-METHYLPHENOL	80	UG/KG	150	80	U	068SB-0054M-0001-SO	80	150	80	U	N/A	Yes
068SB-0053M-0001-SO	4-BROMOPHENYL PHENYL ETHER	27	UG/KG	50	27	U	068SB-0054M-0001-SO	27	50	27	U	N/A	Yes
068SB-0053M-0001-SO	4-CHLORO-3-METHYLPHENOL	27	UG/KG	150	27	U	068SB-0054M-0001-SO	27	150	27	U	N/A	Yes
068SB-0053M-0001-SO	4-CHLOROANILINE	27	UG/KG	150	27	U	068SB-0054M-0001-SO	27	150	27	U	N/A	Yes
068SB-0053M-0001-SO	4-CHLOROPHENYL PHENYL ETHER	27	UG/KG	50	27	U	068SB-0054M-0001-SO	27	50	27	U	N/A	Yes
068SB-0053M-0001-SO	4-NITROANILINE	27	UG/KG	200	27	U	068SB-0054M-0001-SO	27	200	27	U	N/A	Yes
068SB-0053M-0001-SO	4-NITROPHENOL	80	UG/KG	330	80	U	068SB-0054M-0001-SO	80	330	80	U	N/A	Yes
068SB-0053M-0001-SO	ACENAPHTHENE	3.3	UG/KG	6.6	3.3	U	068SB-0054M-0001-SO	3.3	6.6	3.3	U	N/A	Yes
068SB-0053M-0001-SO	ACENAPHTHYLENE	3.3	UG/KG	6.6	3.3	U	068SB-0054M-0001-SO	3.3	6.6	3.3	U	N/A	Yes
068SB-0053M-0001-SO	ANTHRACENE	3.3	UG/KG	6.6	3.3	U	068SB-0054M-0001-SO	3.3	6.6	3.3	U	N/A	Yes
068SB-0053M-0001-SO	BENZO(A)ANTHRACENE	3.3	UG/KG	6.6	3.3	U	068SB-0054M-0001-SO	3.3	6.6	3.3	U	N/A	Yes
068SB-0053M-0001-SO	BENZO(A)PYRENE	3.3	UG/KG	6.6	3.3	U	068SB-0054M-0001-SO	3.3	6.6	3.3	U	N/A	Yes
068SB-0053M-0001-SO	BENZO(B)FLUORANTHENE	3.3	UG/KG	6.6	3.3	U	068SB-0054M-0001-SO	3.3	6.6	3.3	U	N/A	Yes
068SB-0053M-0001-SO	BENZO(G,H,I)PERYLENE	3.3	UG/KG	6.6	3.3	U	068SB-0054M-0001-SO	3.3	6.6	3.3	U	N/A	Yes
068SB-0053M-0001-SO	BENZO(K)FLUORANTHENE	3.3	UG/KG	6.6	3.3	U	068SB-0054M-0001-SO	3.3	6.6	3.3	U	N/A	Yes
068SB-0053M-0001-SO	BENZOIC ACID	330	UG/KG	660	330	U	068SB-0054M-0001-SO	330	660	330	U	N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
068SB-0053M-0001-SO	BENZYL ALCOHOL	27	UG/KG	330	27	U	068SB-0054M-0001-SO	27	330	27	U	N/A	Yes
068SB-0053M-0001-SO	BENZYL BUTYL PHTHALATE	27	UG/KG	70	27	U	068SB-0054M-0001-SO	27	70	27	U	N/A	Yes
068SB-0053M-0001-SO	BIS(2-CHLOROETHOXY) METHANE	27	UG/KG	100	27	U	068SB-0054M-0001-SO	27	100	27	U	N/A	Yes
068SB-0053M-0001-SO	BIS(2-CHLOROETHYL) ETHER	3.3	UG/KG	100	3.3	U	068SB-0054M-0001-SO	3.3	100	3.3	U	N/A	Yes
068SB-0053M-0001-SO	BIS(2-CHLOROISOPROPYL) ETHER	27	UG/KG	100	27	U	068SB-0054M-0001-SO	27	100	27	U	N/A	Yes
068SB-0053M-0001-SO	BIS(2-ETHYLHEXYL) PHTHALATE	74	UG/KG	74	27	U	068SB-0054M-0001-SO	27	70	27	J	N/A	Yes
068SB-0053M-0001-SO	CARBAZOLE	27	UG/KG	50	27	U	068SB-0054M-0001-SO	27	50	27	U	N/A	Yes
068SB-0053M-0001-SO	CHRYSENE	3.3	UG/KG	6.6	3.3	U	068SB-0054M-0001-SO	3.3	6.6	3.3	U	N/A	Yes
068SB-0053M-0001-SO	CRESOLS, M & P	80	UG/KG	400	80	U	068SB-0054M-0001-SO	80	400	80	U	N/A	Yes
068SB-0053M-0001-SO	DIBENZ(A,H)ANTHRACENE	3.3	UG/KG	6.6	3.3	U	068SB-0054M-0001-SO	3.3	6.6	3.3	U	N/A	Yes
068SB-0053M-0001-SO	DIBENZOFURAN	3.3	UG/KG	50	3.3	U	068SB-0054M-0001-SO	3.3	50	3.3	U	N/A	Yes
068SB-0053M-0001-SO	DIETHYL PHTHALATE	27	UG/KG	70	27	U	068SB-0054M-0001-SO	27	70	27	U	N/A	Yes
068SB-0053M-0001-SO	DIMETHYL PHTHALATE	27	UG/KG	70	27	U	068SB-0054M-0001-SO	27	70	27	U	N/A	Yes
068SB-0053M-0001-SO	DI-N-BUTYL PHTHALATE	27	UG/KG	70	27	U	068SB-0054M-0001-SO	27	70	27	U	N/A	Yes
068SB-0053M-0001-SO	DI-N-OCTYLPHTHALATE	27	UG/KG	70	27	U	068SB-0054M-0001-SO	27	70	27	U	N/A	Yes
068SB-0053M-0001-SO	FLUORANTHENE	3.3	UG/KG	6.6	3.3	U	068SB-0054M-0001-SO	3.3	6.6	3.3	U	N/A	Yes
068SB-0053M-0001-SO	FLUORENE	3.3	UG/KG	6.6	3.3	U	068SB-0054M-0001-SO	3.3	6.6	3.3	U	N/A	Yes
068SB-0053M-0001-SO	HEXACHLOROBENZENE	3.3	UG/KG	6.6	3.3	U	068SB-0054M-0001-SO	3.3	6.6	3.3	U	N/A	Yes
068SB-0053M-0001-SO	HEXACHLOROBUTADIENE	27	UG/KG	50	27	U	068SB-0054M-0001-SO	27	50	27	U	N/A	Yes
068SB-0053M-0001-SO	HEXACHLOROCYCLOPENTADIENE	27	UG/KG	330	27	U	068SB-0054M-0001-SO	27	330	27	U	N/A	Yes
068SB-0053M-0001-SO	HEXACHLOROETHANE	27	UG/KG	50	27	U	068SB-0054M-0001-SO	27	50	27	U	N/A	Yes
068SB-0053M-0001-SO	INDENO(1,2,3-C,D)PYRENE	3.3	UG/KG	6.6	3.3	U	068SB-0054M-0001-SO	3.3	6.6	3.3	U	N/A	Yes
068SB-0053M-0001-SO	ISOPHORONE	27	UG/KG	50	27	U	068SB-0054M-0001-SO	27	50	27	U	N/A	Yes
068SB-0053M-0001-SO	NAPHTHALENE	3.3	UG/KG	6.6	3.3	U	068SB-0054M-0001-SO	3.3	6.6	3.3	U	N/A	Yes
068SB-0053M-0001-SO	NITROBENZENE	3.3	UG/KG	100	3.3	U	068SB-0054M-0001-SO	3.3	100	3.3	U	N/A	Yes
068SB-0053M-0001-SO	N-NITROSODI-N-PROPYLAMINE	27	UG/KG	50	27	U	068SB-0054M-0001-SO	27	50	27	U	N/A	Yes
068SB-0053M-0001-SO	N-NITROSODIPHENYLAMINE	27	UG/KG	50	27	U	068SB-0054M-0001-SO	27	50	27	U	N/A	Yes
068SB-0053M-0001-SO	PENTACHLOROPHENOL	80	UG/KG	150	80	U	068SB-0054M-0001-SO	80	150	80	U	N/A	Yes
068SB-0053M-0001-SO	PHENANTHRENE	3.3	UG/KG	6.6	3.3	U	068SB-0054M-0001-SO	5.4	6.6	3.3	J	N/A	Yes
068SB-0053M-0001-SO	PHENOL	27	UG/KG	50	27	U	068SB-0054M-0001-SO	27	50	27	U	N/A	Yes
068SB-0053M-0001-SO	PYRENE	3.3	UG/KG	6.6	3.3	U	068SB-0054M-0001-SO	3.3	6.6	3.3	U	N/A	Yes
068SD-00010-0001-SO	1,2,4-TRICHLOROBENZENE	27	UG/KG	50	27	U	068SD-0009-0001-SO	27	49	27	U	N/A	Yes
068SD-00010-0001-SO	1,2-DICHLOROBENZENE	27	UG/KG	50	27	U	068SD-0009-0001-SO	27	49	27	U	N/A	Yes
068SD-00010-0001-SO	1,3-DICHLOROBENZENE	27	UG/KG	50	27	U	068SD-0009-0001-SO	27	49	27	U	N/A	Yes
068SD-00010-0001-SO	1,4-DICHLOROBENZENE	20	UG/KG	50	27	J	068SD-0009-0001-SO	27	49	27	U	N/A	Yes
068SD-00010-0001-SO	2,4,5-TRICHLOROPHENOL	27	UG/KG	150	27	U	068SD-0009-0001-SO	27	150	27	U	N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
068SD-00010-0001-SO	2,4,6-TRICHLOROPHENOL	81	UG/KG	150	81	U	068SD-0009-0001-SO	79	150	79	U	N/A	Yes
068SD-00010-0001-SO	2,4-DICHLOROPHENOL	27	UG/KG	150	27	U	068SD-0009-0001-SO	27	150	27	U	N/A	Yes
068SD-00010-0001-SO	2,4-DIMETHYLPHENOL	81	UG/KG	150	81	U	068SD-0009-0001-SO	79	150	79	U	N/A	Yes
068SD-00010-0001-SO	2,4-DINITROPHENOL	81	UG/KG	330	81	U	068SD-0009-0001-SO	79	330	79	U	N/A	Yes
068SD-00010-0001-SO	2,4-DINITROTOLUENE	27	UG/KG	200	27	U	068SD-0009-0001-SO	27	200	27	U	N/A	Yes
068SD-00010-0001-SO	2,6-DINITROTOLUENE	27	UG/KG	200	27	U	068SD-0009-0001-SO	27	200	27	U	N/A	Yes
068SD-00010-0001-SO	2-CHLORONAPHTHALENE	3.3	UG/KG	50	3.3	U	068SD-0009-0001-SO	3.3	49	3.3	U	N/A	Yes
068SD-00010-0001-SO	2-CHLOROPHENOL	27	UG/KG	50	27	U	068SD-0009-0001-SO	27	49	27	U	N/A	Yes
068SD-00010-0001-SO	2-METHYLNAPHTHALENE	14	UG/KG	6.7	3.3		068SD-0009-0001-SO	13	6.6	3.3		N/A	Yes
068SD-00010-0001-SO	2-METHYLPHENOL (O-CRESOL)	81	UG/KG	200	81	U	068SD-0009-0001-SO	79	200	79	U	N/A	Yes
068SD-00010-0001-SO	2-NITROANILINE	27	UG/KG	200	27	U	068SD-0009-0001-SO	27	200	27	U	N/A	Yes
068SD-00010-0001-SO	2-NITROPHENOL	27	UG/KG	50	27	U	068SD-0009-0001-SO	27	49	27	U	N/A	Yes
068SD-00010-0001-SO	3,3'-DICHLOROBENZIDINE	81	UG/KG	100	81	U	068SD-0009-0001-SO	79	99	79	U	N/A	Yes
068SD-00010-0001-SO	3-NITROANILINE	81	UG/KG	200	81	U	068SD-0009-0001-SO	79	200	79	U	N/A	Yes
068SD-00010-0001-SO	4,6-DINITRO-2-METHYLPHENOL	81	UG/KG	150	81	U	068SD-0009-0001-SO	79	150	79	U	N/A	Yes
068SD-00010-0001-SO	4-BROMOPHENYL PHENYL ETHER	27	UG/KG	50	27	U	068SD-0009-0001-SO	27	49	27	U	N/A	Yes
068SD-00010-0001-SO	4-CHLORO-3-METHYLPHENOL	27	UG/KG	150	27	U	068SD-0009-0001-SO	27	150	27	U	N/A	Yes
068SD-00010-0001-SO	4-CHLOROANILINE	27	UG/KG	150	27	U	068SD-0009-0001-SO	27	150	27	U	N/A	Yes
068SD-00010-0001-SO	4-CHLOROPHENYL PHENYL ETHER	27	UG/KG	50	27	U	068SD-0009-0001-SO	27	49	27	U	N/A	Yes
068SD-00010-0001-SO	4-NITROANILINE	27	UG/KG	200	27	U	068SD-0009-0001-SO	27	200	27	U	N/A	Yes
068SD-00010-0001-SO	4-NITROPHENOL	81	UG/KG	330	81	U	068SD-0009-0001-SO	79	330	79	U	N/A	Yes
068SD-00010-0001-SO	ACENAPHTHENE	3.3	UG/KG	6.7	3.3	J	068SD-0009-0001-SO	3.3	6.6	3.3	U	N/A	Yes
068SD-00010-0001-SO	ACENAPHTHYLENE	3.3	UG/KG	6.7	3.3	U	068SD-0009-0001-SO	3.3	6.6	3.3	U	N/A	Yes
068SD-00010-0001-SO	ANTHRACENE	3.4	UG/KG	6.7	3.3	J	068SD-0009-0001-SO	3.3	6.6	3.3	J	N/A	Yes
068SD-00010-0001-SO	BENZO(A)ANTHRACENE	18	UG/KG	6.7	3.3		068SD-0009-0001-SO	16	6.6	3.3		N/A	Yes
068SD-00010-0001-SO	BENZO(A)PYRENE	27	UG/KG	6.7	3.3		068SD-0009-0001-SO	26	6.6	3.3		N/A	Yes
068SD-00010-0001-SO	BENZO(B)FLUORANTHENE	51	UG/KG	6.7	3.3		068SD-0009-0001-SO	46	6.6	3.3		10	N/A
068SD-00010-0001-SO	BENZO(G,H,I)PERYLENE	16	UG/KG	6.7	3.3		068SD-0009-0001-SO	16	6.6	3.3		N/A	Yes
068SD-00010-0001-SO	BENZO(K)FLUORANTHENE	11	UG/KG	6.7	3.3		068SD-0009-0001-SO	12	6.6	3.3		N/A	Yes
068SD-00010-0001-SO	BENZOIC ACID	340	UG/KG	660	340	U	068SD-0009-0001-SO	330	650	330	U	N/A	Yes
068SD-00010-0001-SO	BENZYL ALCOHOL	27	UG/KG	330	27	U	068SD-0009-0001-SO	27	330	27	U	N/A	Yes
068SD-00010-0001-SO	BENZYL BUTYL PHTHALATE	27	UG/KG	50	27	U	068SD-0009-0001-SO	27	49	27	U	N/A	Yes
068SD-00010-0001-SO	BIS(2-CHLOROETHOXY) METHANE	27	UG/KG	100	27	U	068SD-0009-0001-SO	27	99	27	U	N/A	Yes
068SD-00010-0001-SO	BIS(2-CHLOROETHYL) ETHER	3.3	UG/KG	100	3.3	U	068SD-0009-0001-SO	3.3	99	3.3	U	N/A	Yes
068SD-00010-0001-SO	BIS(2-CHLOROISOPROPYL) ETHER	27	UG/KG	100	27	U	068SD-0009-0001-SO	27	99	27	U	N/A	Yes
068SD-00010-0001-SO	BIS(2-ETHYLHEXYL) PHTHALATE	27	UG/KG	50	27	U	068SD-0009-0001-SO	27	49	27	J	N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
068SD-00010-0001-SO	CARBAZOLE	27	UG/KG	50	27	U	068SD-0009-0001-SO	27	49	27	U	N/A	Yes
068SD-00010-0001-SO	CHRYSENE	36	UG/KG	6.7	3.3		068SD-0009-0001-SO	28	6.6	3.3		N/A	No
068SD-00010-0001-SO	CRESOLS, M & P	81	UG/KG	400	81	U	068SD-0009-0001-SO	79	400	79	U	N/A	Yes
068SD-00010-0001-SO	DIBENZ(A,H)ANTHRACENE	3.3	UG/KG	6.7	3.3	U	068SD-0009-0001-SO	3.3	6.6	3.3	U	N/A	Yes
068SD-00010-0001-SO	DIBENZOFURAN	4.7	UG/KG	50	3.3		068SD-0009-0001-SO	3.3	49	3.3	U	N/A	Yes
068SD-00010-0001-SO	DIETHYL PHTHALATE	27	UG/KG	50	27	U	068SD-0009-0001-SO	27	49	27	U	N/A	Yes
068SD-00010-0001-SO	DIMETHYL PHTHALATE	27	UG/KG	50	27	U	068SD-0009-0001-SO	27	49	27	U	N/A	Yes
068SD-00010-0001-SO	DI-N-BUTYL PHTHALATE	27	UG/KG	50	27	U	068SD-0009-0001-SO	27	49	27	U	N/A	Yes
068SD-00010-0001-SO	DI-N-OCTYLPHTHALATE	27	UG/KG	50	27	U	068SD-0009-0001-SO	27	49	27	U	N/A	Yes
068SD-00010-0001-SO	FLUORANTHENE	50	UG/KG	6.7	3.3		068SD-0009-0001-SO	38	6.6	3.3		27	N/A
068SD-00010-0001-SO	FLUORENE	3.8	UG/KG	6.7	3.3		068SD-0009-0001-SO	3.3	6.6	3.3	U	N/A	Yes
068SD-00010-0001-SO	HEXACHLOROBENZENE	3.3	UG/KG	6.7	3.3	U	068SD-0009-0001-SO	3.3	6.6	3.3	U	N/A	Yes
068SD-00010-0001-SO	HEXACHLOROBUTADIENE	27	UG/KG	50	27	U	068SD-0009-0001-SO	27	49	27	U	N/A	Yes
068SD-00010-0001-SO	HEXACHLOROCYCLOPENTADIENE	27	UG/KG	330	27	U	068SD-0009-0001-SO	27	330	27	U	N/A	Yes
068SD-00010-0001-SO	HEXACHLOROETHANE	27	UG/KG	50	27	U	068SD-0009-0001-SO	27	49	27	U	N/A	Yes
068SD-00010-0001-SO	INDENO(1,2,3-C,D)PYRENE	20	UG/KG	6.7	3.3		068SD-0009-0001-SO	17	6.6	3.3		N/A	Yes
068SD-00010-0001-SO	ISOPHORONE	14	UG/KG	50	27		068SD-0009-0001-SO	27	49	27	U	N/A	Yes
068SD-00010-0001-SO	NAPHTHALENE	15	UG/KG	6.7	3.3		068SD-0009-0001-SO	11	6.7	3.3		N/A	Yes
068SD-00010-0001-SO	NITROBENZENE	3.3	UG/KG	100	3.3	U	068SD-0009-0001-SO	3.3	99	3.3	U	N/A	Yes
068SD-00010-0001-SO	N-NITROSODI-N-PROPYLAMINE	27	UG/KG	50	27	U	068SD-0009-0001-SO	27	49	27	U	N/A	Yes
068SD-00010-0001-SO	N-NITROSODIPHENYLAMINE	27	UG/KG	50	27	U	068SD-0009-0001-SO	27	49	27	U	N/A	Yes
068SD-00010-0001-SO	PENTACHLOROPHENOL	81	UG/KG	150	81	U	068SD-0009-0001-SO	79	150	79	U	N/A	Yes
068SD-00010-0001-SO	PHENANTHRENE	25	UG/KG	6.7	3.3		068SD-0009-0001-SO	22	6.6	3.3		N/A	Yes
068SD-00010-0001-SO	PHENOL	27	UG/KG	50	27	U	068SD-0009-0001-SO	27	49	27	U	N/A	Yes
068SD-00010-0001-SO	PYRENE	35	UG/KG	6.7	3.3		068SD-0009-0001-SO	28	6.6	3.3		N/A	No
068SS-0003M-0001-SO	1,2,4-TRICHLOROBENZENE	27	UG/KG	50	27	U	068SS-0004M-0001-SO	130	250	130	U	N/A	Yes
068SS-0003M-0001-SO	1,2-DICHLOROBENZENE	27	UG/KG	50	27	U	068SS-0004M-0001-SO	130	250	130	U	N/A	Yes
068SS-0003M-0001-SO	1,3-DICHLOROBENZENE	27	UG/KG	50	27	U	068SS-0004M-0001-SO	130	250	130	U	N/A	Yes
068SS-0003M-0001-SO	1,4-DICHLOROBENZENE	27	UG/KG	50	27	U	068SS-0004M-0001-SO	130	250	130	U	N/A	Yes
068SS-0003M-0001-SO	2,4,5-TRICHLOROPHENOL	27	UG/KG	150	27	U	068SS-0004M-0001-SO	130	740	130	U	N/A	Yes
068SS-0003M-0001-SO	2,4,6-TRICHLOROPHENOL	80	UG/KG	150	80	U	068SS-0004M-0001-SO	400	740	400	U	N/A	Yes
068SS-0003M-0001-SO	2,4-DICHLOROPHENOL	27	UG/KG	150	27	U	068SS-0004M-0001-SO	130	740	130	U	N/A	Yes
068SS-0003M-0001-SO	2,4-DIMETHYLPHENOL	80	UG/KG	150	80	U	068SS-0004M-0001-SO	400	740	400	U	N/A	Yes
068SS-0003M-0001-SO	2,4-DINITROPHENOL	80	UG/KG	330	80	UJ	068SS-0004M-0001-SO	400	1600	400	U	N/A	Yes
068SS-0003M-0001-SO	2,4-DINITROTOLUENE	27	UG/KG	200	27	U	068SS-0004M-0001-SO	130	990	130	U	N/A	Yes
068SS-0003M-0001-SO	2,6-DINITROTOLUENE	27	UG/KG	200	27	U	068SS-0004M-0001-SO	130	990	130	U	N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
068SS-0003M-0001-SO	2-CHLORONAPHTHALENE	3.3	UG/KG	50	3.3	U	068SS-0004M-0001-SO	16	250	16	U	N/A	Yes
068SS-0003M-0001-SO	2-CHLOROPHENOL	27	UG/KG	50	27	U	068SS-0004M-0001-SO	130	250	130	U	N/A	Yes
068SS-0003M-0001-SO	2-METHYLNAPHTHALENE	30	UG/KG	6.7	3.3		068SS-0004M-0001-SO	23	33	16		N/A	Yes
068SS-0003M-0001-SO	2-METHYLPHENOL (O-CRESOL)	80	UG/KG	200	80	U	068SS-0004M-0001-SO	400	990	400	U	N/A	Yes
068SS-0003M-0001-SO	2-NITROANILINE	27	UG/KG	200	27	U	068SS-0004M-0001-SO	130	990	130	U	N/A	Yes
068SS-0003M-0001-SO	2-NITROPHENOL	27	UG/KG	50	27	U	068SS-0004M-0001-SO	130	250	130	U	N/A	Yes
068SS-0003M-0001-SO	3,3'-DICHLOROBENZIDINE	80	UG/KG	100	80	UJ	068SS-0004M-0001-SO	400	500	400	U	N/A	Yes
068SS-0003M-0001-SO	3-NITROANILINE	80	UG/KG	200	80	U	068SS-0004M-0001-SO	400	990	400	U	N/A	Yes
068SS-0003M-0001-SO	4,6-DINITRO-2-METHYLPHENOL	80	UG/KG	150	80	UJ	068SS-0004M-0001-SO	400	740	400	U	N/A	Yes
068SS-0003M-0001-SO	4-BROMOPHENYL PHENYL ETHER	27	UG/KG	50	27	U	068SS-0004M-0001-SO	130	250	130	U	N/A	Yes
068SS-0003M-0001-SO	4-CHLORO-3-METHYLPHENOL	27	UG/KG	150	27	U	068SS-0004M-0001-SO	130	740	130	U	N/A	Yes
068SS-0003M-0001-SO	4-CHLOROANILINE	27	UG/KG	150	27	U	068SS-0004M-0001-SO	130	740	130	U	N/A	Yes
068SS-0003M-0001-SO	4-CHLOROPHENYL PHENYL ETHER	27	UG/KG	50	27	U	068SS-0004M-0001-SO	130	250	130	U	N/A	Yes
068SS-0003M-0001-SO	4-NITROANILINE	27	UG/KG	200	27	U	068SS-0004M-0001-SO	130	990	130	U	N/A	Yes
068SS-0003M-0001-SO	4-NITROPHENOL	80	UG/KG	330	80	U	068SS-0004M-0001-SO	400	1600	400	U	N/A	Yes
068SS-0003M-0001-SO	ACENAPHTHENE	17	UG/KG	6.7	3.3		068SS-0004M-0001-SO	16	33	16	U	N/A	Yes
068SS-0003M-0001-SO	ACENAPHTHYLENE	9.2	UG/KG	6.7	3.3		068SS-0004M-0001-SO	16	33	16	U	N/A	Yes
068SS-0003M-0001-SO	ANTHRACENE	48	UG/KG	6.7	3.3		068SS-0004M-0001-SO	28	33	16		N/A	Yes
068SS-0003M-0001-SO	BENZO(A)ANTHRACENE	270	UG/KG	6.7	3.3		068SS-0004M-0001-SO	190	33	16		35	N/A
068SS-0003M-0001-SO	BENZO(A)PYRENE	330	UG/KG	6.7	3.3		068SS-0004M-0001-SO	250	33	16		28	N/A
068SS-0003M-0001-SO	BENZO(B)FLUORANTHENE	520	UG/KG	6.7	3.3		068SS-0004M-0001-SO	390	33	16		29	N/A
068SS-0003M-0001-SO	BENZO(G,H,I)PERYLENE	260	UG/KG	6.7	3.3		068SS-0004M-0001-SO	130	33	16		N/A	No
068SS-0003M-0001-SO	BENZO(K)FLUORANTHENE	180	UG/KG	6.7	3.3		068SS-0004M-0001-SO	100	33	16		N/A	No
068SS-0003M-0001-SO	BENZOIC ACID	330	UG/KG	660	330	UJ	068SS-0004M-0001-SO	1700	3300	1700	U	N/A	Yes
068SS-0003M-0001-SO	BENZYL ALCOHOL	448	UG/KG	330	27		068SS-0004M-0001-SO	130	1600	130	U	N/A	Yes
068SS-0003M-0001-SO	BENZYL BUTYL PHTHALATE	27	UG/KG	50	27	U	068SS-0004M-0001-SO	130	250	130	U	N/A	Yes
068SS-0003M-0001-SO	BIS(2-CHLOROETHOXY) METHANE	27	UG/KG	100	27	U	068SS-0004M-0001-SO	130	500	130	U	N/A	Yes
068SS-0003M-0001-SO	BIS(2-CHLOROETHYL) ETHER	3.3	UG/KG	100	3.3	U	068SS-0004M-0001-SO	16	500	16	U	N/A	Yes
068SS-0003M-0001-SO	BIS(2-CHLOROISOPROPYL) ETHER	27	UG/KG	100	27	U	068SS-0004M-0001-SO	130	500	130	U	N/A	Yes
068SS-0003M-0001-SO	BIS(2-ETHYLHEXYL) PHTHALATE	34	UG/KG	50	27	U	068SS-0004M-0001-SO	130	250	130	U	N/A	Yes
068SS-0003M-0001-SO	CARBAZOLE	44	UG/KG	50	27		068SS-0004M-0001-SO	130	250	130	U	N/A	Yes
068SS-0003M-0001-SO	CHRYSENE	340	UG/KG	6.7	3.3		068SS-0004M-0001-SO	230	33	16		39	N/A
068SS-0003M-0001-SO	CRESOLS, M & P	80	UG/KG	400	80	U	068SS-0004M-0001-SO	400	2000	400	U	N/A	Yes
068SS-0003M-0001-SO	DIBENZ(A,H)ANTHRACENE	57	UG/KG	6.7	3.3	J	068SS-0004M-0001-SO	16	33	16	U	N/A	No
068SS-0003M-0001-SO	DIBENZOFURAN	15	UG/KG	50	3.3		068SS-0004M-0001-SO	16	250	16	U	N/A	Yes
068SS-0003M-0001-SO	DIETHYL PHTHALATE	22	UG/KG	50	27	J	068SS-0004M-0001-SO	130	250	130	U	N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
068SS-0003M-0001-SO	DIMETHYL PHTHALATE	27	UG/KG	50	27	U	068SS-0004M-0001-SO	130	250	130	U	N/A	Yes
068SS-0003M-0001-SO	DI-N-BUTYL PHTHALATE	19	UG/KG	50	27	J	068SS-0004M-0001-SO	130	250	130	U	N/A	Yes
068SS-0003M-0001-SO	DI-N-OCTYLPHTHALATE	27	UG/KG	50	27	U	068SS-0004M-0001-SO	130	250	130	U	N/A	Yes
068SS-0003M-0001-SO	FLUORANTHENE	650	UG/KG	6.7	3.3		068SS-0004M-0001-SO	410	33	16		45	N/A
068SS-0003M-0001-SO	FLUORENE	16	UG/KG	6.7	3.3		068SS-0004M-0001-SO	16	33	16	U	N/A	Yes
068SS-0003M-0001-SO	HEXACHLOROBENZENE	3.3	UG/KG	6.7	3.3	U	068SS-0004M-0001-SO	16	33	16	U	N/A	Yes
068SS-0003M-0001-SO	HEXACHLOROBUTADIENE	27	UG/KG	50	27	U	068SS-0004M-0001-SO	130	250	130	U	N/A	Yes
068SS-0003M-0001-SO	HEXACHLOROCYCLOPENTADIENE	27	UG/KG	330	27	U	068SS-0004M-0001-SO	130	1600	130	U	N/A	Yes
068SS-0003M-0001-SO	HEXACHLOROETHANE	27	UG/KG	50	27	UJ	068SS-0004M-0001-SO	130	250	130	U	N/A	Yes
068SS-0003M-0001-SO	INDENO(1,2,3-C,D)PYRENE	220	UG/KG	6.7	3.3		068SS-0004M-0001-SO	140	33	16		N/A	No
068SS-0003M-0001-SO	ISOPHORONE	16	UG/KG	50	27		068SS-0004M-0001-SO	130	250	130	U	N/A	Yes
068SS-0003M-0001-SO	NAPHTHALENE	24	UG/KG	6.7	3.3		068SS-0004M-0001-SO	16	33	16	U	N/A	Yes
068SS-0003M-0001-SO	NITROBENZENE	3.3	UG/KG	100	3.3	U	068SS-0004M-0001-SO	16	500	16	U	N/A	Yes
068SS-0003M-0001-SO	N-NITROSODI-N-PROPYLAMINE	27	UG/KG	50	27	U	068SS-0004M-0001-SO	130	250	130	U	N/A	Yes
068SS-0003M-0001-SO	N-NITROSODIPHENYLAMINE	27	UG/KG	50	27	R	068SS-0004M-0001-SO	130	250	130	U	N/A	N/A
068SS-0003M-0001-SO	PENTACHLOROPHENOL	80	UG/KG	150	80	U	068SS-0004M-0001-SO	400	740	400	U	N/A	Yes
068SS-0003M-0001-SO	PHENANTHRENE	250	UG/KG	6.7	3.3		068SS-0004M-0001-SO	150	33	16		N/A	No
068SS-0003M-0001-SO	PHENOL	27	UG/KG	50	27	U	068SS-0004M-0001-SO	130	250	130	U	N/A	Yes
068SS-0003M-0001-SO	PYRENE	480	UG/KG	6.7	3.3		068SS-0004M-0001-SO	310	33	16		43	N/A
068SW-0013-0001-SW	1,2,4-TRICHLOROBENZENE	0.76	UG/L	0.95	0.76	U	068SW-0014-0001-SW	0.76	0.95	0.76	U	N/A	Yes
068SW-0013-0001-SW	1,2-DICHLOROBENZENE	0.76	UG/L	0.95	0.76	U	068SW-0014-0001-SW	0.76	0.95	0.76	U	N/A	Yes
068SW-0013-0001-SW	1,3-DICHLOROBENZENE	0.76	UG/L	0.95	0.76	U	068SW-0014-0001-SW	0.76	0.95	0.76	U	N/A	Yes
068SW-0013-0001-SW	1,4-DICHLOROBENZENE	0.76	UG/L	0.95	0.76	U	068SW-0014-0001-SW	0.76	0.95	0.76	U	N/A	Yes
068SW-0013-0001-SW	2,4,5-TRICHLOROPHENOL	0.76	UG/L	4.8	0.76	U	068SW-0014-0001-SW	0.76	4.8	0.76	U	N/A	Yes
068SW-0013-0001-SW	2,4,6-TRICHLOROPHENOL	0.76	UG/L	4.8	0.76	U	068SW-0014-0001-SW	0.76	4.8	0.76	U	N/A	Yes
068SW-0013-0001-SW	2,4-DICHLOROPHENOL	0.76	UG/L	1.9	0.76	U	068SW-0014-0001-SW	0.76	1.9	0.76	U	N/A	Yes
068SW-0013-0001-SW	2,4-DIMETHYLPHENOL	0.76	UG/L	1.9	0.76	U	068SW-0014-0001-SW	0.76	1.9	0.76	U	N/A	Yes
068SW-0013-0001-SW	2,4-DINITROPHENOL	2.3	UG/L	4.8	2.3	U	068SW-0014-0001-SW	2.3	4.8	2.3	U	N/A	Yes
068SW-0013-0001-SW	2,4-DINITROTOLUENE	0.76	UG/L	4.8	0.76	U	068SW-0014-0001-SW	0.76	4.8	0.76	U	N/A	Yes
068SW-0013-0001-SW	2,6-DINITROTOLUENE	0.76	UG/L	4.8	0.76	U	068SW-0014-0001-SW	0.76	4.8	0.76	U	N/A	Yes
068SW-0013-0001-SW	2-CHLORONAPHTHALENE	0.095	UG/L	0.95	0.095	U	068SW-0014-0001-SW	0.095	0.95	0.095	U	N/A	Yes
068SW-0013-0001-SW	2-CHLOROPHENOL	0.76	UG/L	0.95	0.76	U	068SW-0014-0001-SW	0.76	0.95	0.76	U	N/A	Yes
068SW-0013-0001-SW	2-METHYLNAPHTHALENE	0.095	UG/L	0.19	0.095	U	068SW-0014-0001-SW	0.095	0.19	0.095	U	N/A	Yes
068SW-0013-0001-SW	2-METHYLPHENOL (O-CRESOL)	0.76	UG/L	0.95	0.76	U	068SW-0014-0001-SW	0.76	0.95	0.76	U	N/A	Yes
068SW-0013-0001-SW	2-NITROANILINE	0.76	UG/L	1.9	0.76	U	068SW-0014-0001-SW	0.76	1.9	0.76	U	N/A	Yes
068SW-0013-0001-SW	2-NITROPHENOL	0.76	UG/L	1.9	0.76	U	068SW-0014-0001-SW	0.76	1.9	0.76	U	N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
068SW-0013-0001-SW	3,3'-DICHLOROBENZIDINE	0.76	UG/L	4.8	0.76	U	068SW-0014-0001-SW	0.76	4.8	0.76	U	N/A	Yes
068SW-0013-0001-SW	3-NITROANILINE	0.76	UG/L	1.9	0.76	U	068SW-0014-0001-SW	0.76	1.9	0.76	U	N/A	Yes
068SW-0013-0001-SW	4,6-DINITRO-2-METHYLPHENOL	2.3	UG/L	4.8	2.3	U	068SW-0014-0001-SW	2.3	4.8	2.3	U	N/A	Yes
068SW-0013-0001-SW	4-BROMOPHENYL PHENYL ETHER	0.76	UG/L	1.9	0.76	U	068SW-0014-0001-SW	0.76	1.9	0.76	U	N/A	Yes
068SW-0013-0001-SW	4-CHLORO-3-METHYLPHENOL	0.76	UG/L	1.9	0.76	U	068SW-0014-0001-SW	0.76	1.9	0.76	U	N/A	Yes
068SW-0013-0001-SW	4-CHLOROANILINE	0.76	UG/L	1.9	0.76	U	068SW-0014-0001-SW	0.76	1.9	0.76	U	N/A	Yes
068SW-0013-0001-SW	4-CHLOROPHENYL PHENYL ETHER	0.76	UG/L	1.9	0.76	U	068SW-0014-0001-SW	0.76	1.9	0.76	U	N/A	Yes
068SW-0013-0001-SW	4-NITROANILINE	0.76	UG/L	1.9	0.76	U	068SW-0014-0001-SW	0.76	1.9	0.76	U	N/A	Yes
068SW-0013-0001-SW	4-NITROPHENOL	2.3	UG/L	4.8	2.3	U	068SW-0014-0001-SW	2.3	4.8	2.3	U	N/A	Yes
068SW-0013-0001-SW	ACENAPHTHENE	0.095	UG/L	0.19	0.095	U	068SW-0014-0001-SW	0.095	0.19	0.095	U	N/A	Yes
068SW-0013-0001-SW	ACENAPHTHYLENE	0.095	UG/L	0.19	0.095	U	068SW-0014-0001-SW	0.095	0.19	0.095	U	N/A	Yes
068SW-0013-0001-SW	ANTHRACENE	0.095	UG/L	0.19	0.095	U	068SW-0014-0001-SW	0.095	0.19	0.095	U	N/A	Yes
068SW-0013-0001-SW	BENZO(A)ANTHRACENE	0.095	UG/L	0.19	0.095	U	068SW-0014-0001-SW	0.095	0.19	0.095	U	N/A	Yes
068SW-0013-0001-SW	BENZO(A)PYRENE	0.095	UG/L	0.19	0.095	U	068SW-0014-0001-SW	0.095	0.19	0.095	U	N/A	Yes
068SW-0013-0001-SW	BENZO(B)FLUORANTHENE	0.095	UG/L	0.19	0.095	U	068SW-0014-0001-SW	0.095	0.19	0.095	U	N/A	Yes
068SW-0013-0001-SW	BENZO(G,H,I)PERYLENE	0.095	UG/L	0.19	0.095	U	068SW-0014-0001-SW	0.095	0.19	0.095	U	N/A	Yes
068SW-0013-0001-SW	BENZO(K)FLUORANTHENE	0.095	UG/L	0.19	0.095	U	068SW-0014-0001-SW	0.095	0.19	0.095	U	N/A	Yes
068SW-0013-0001-SW	BENZOIC ACID	9.5	UG/L	24	9.5	U	068SW-0014-0001-SW	9.5	24	9.5	U	N/A	Yes
068SW-0013-0001-SW	BENZYL ALCOHOL	0.76	UG/L	4.8	0.76	U	068SW-0014-0001-SW	0.76	4.8	0.76	U	N/A	Yes
068SW-0013-0001-SW	BENZYL BUTYL PHTHALATE	0.76	UG/L	0.95	0.76	U	068SW-0014-0001-SW	0.76	0.95	0.76	U	N/A	Yes
068SW-0013-0001-SW	BIS(2-CHLOROETHOXY) METHANE	0.76	UG/L	0.95	0.76	U	068SW-0014-0001-SW	0.76	0.95	0.76	U	N/A	Yes
068SW-0013-0001-SW	BIS(2-CHLOROETHYL) ETHER	0.095	UG/L	0.95	0.095	U	068SW-0014-0001-SW	0.095	0.95	0.095	U	N/A	Yes
068SW-0013-0001-SW	BIS(2-CHLOROISOPROPYL) ETHER	0.76	UG/L	0.95	0.76	U	068SW-0014-0001-SW	0.76	0.95	0.76	U	N/A	Yes
068SW-0013-0001-SW	BIS(2-ETHYLHEXYL) PHTHALATE	23	UG/L	1.9	0.76		068SW-0014-0001-SW	2.8	1.9	0.76		N/A	No
068SW-0013-0001-SW	CARBAZOLE	0.76	UG/L	0.95	0.76	U	068SW-0014-0001-SW	0.76	0.95	0.76	U	N/A	Yes
068SW-0013-0001-SW	CHRYSENE	0.095	UG/L	0.19	0.095	U	068SW-0014-0001-SW	0.095	0.19	0.095	U	N/A	Yes
068SW-0013-0001-SW	CRESOLS, M & P	0.76	UG/L	1.9	0.76	U	068SW-0014-0001-SW	0.76	1.9	0.76	U	N/A	Yes
068SW-0013-0001-SW	DIBENZ(A,H)ANTHRACENE	0.095	UG/L	0.19	0.095	U	068SW-0014-0001-SW	0.095	0.19	0.095	U	N/A	Yes
068SW-0013-0001-SW	DIBENZOFURAN	0.095	UG/L	0.95	0.095	U	068SW-0014-0001-SW	0.095	0.95	0.095	U	N/A	Yes
068SW-0013-0001-SW	DIETHYL PHTHALATE	0.76	UG/L	0.95	0.76	U	068SW-0014-0001-SW	0.76	0.95	0.76	U	N/A	Yes
068SW-0013-0001-SW	DIMETHYL PHTHALATE	0.76	UG/L	0.95	0.76	U	068SW-0014-0001-SW	0.76	0.95	0.76	U	N/A	Yes
068SW-0013-0001-SW	DI-N-BUTYL PHTHALATE	0.76	UG/L	0.95	0.76	U	068SW-0014-0001-SW	0.76	0.95	0.76	U	N/A	Yes
068SW-0013-0001-SW	DI-N-OCTYLPHTHALATE	0.76	UG/L	0.95	0.76	U	068SW-0014-0001-SW	0.76	0.95	0.76	U	N/A	Yes
068SW-0013-0001-SW	FLUORANTHENE	0.095	UG/L	0.19	0.095	U	068SW-0014-0001-SW	0.095	0.19	0.095	U	N/A	Yes
068SW-0013-0001-SW	FLUORENE	0.095	UG/L	0.19	0.095	U	068SW-0014-0001-SW	0.095	0.19	0.095	U	N/A	Yes
068SW-0013-0001-SW	HEXACHLOROBENZENE	0.095	UG/L	0.19	0.095	U	068SW-0014-0001-SW	0.095	0.19	0.095	U	N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
068SW-0013-0001-SW	HEXACHLOROBUTADIENE	0.76	UG/L	0.95	0.76	U	068SW-0014-0001-SW	0.76	0.95	0.76	U	N/A	Yes
068SW-0013-0001-SW	HEXACHLOROCYCLOPENTADIENE	0.76	UG/L	9.5	0.76	U	068SW-0014-0001-SW	0.76	9.5	0.76	U	N/A	Yes
068SW-0013-0001-SW	HEXACHLOROETHANE	0.76	UG/L	0.95	0.76	U	068SW-0014-0001-SW	0.76	0.95	0.76	U	N/A	Yes
068SW-0013-0001-SW	INDENO(1,2,3-C,D)PYRENE	0.095	UG/L	0.19	0.095	U	068SW-0014-0001-SW	0.095	0.19	0.095	U	N/A	Yes
068SW-0013-0001-SW	ISOPHORONE	0.76	UG/L	0.95	0.76	U	068SW-0014-0001-SW	0.76	0.95	0.76	U	N/A	Yes
068SW-0013-0001-SW	NAPHTHALENE	0.095	UG/L	0.19	0.095	U	068SW-0014-0001-SW	0.095	0.19	0.095	U	N/A	Yes
068SW-0013-0001-SW	NITROBENZENE	0.095	UG/L	0.95	0.095	U	068SW-0014-0001-SW	0.095	0.95	0.095	U	N/A	Yes
068SW-0013-0001-SW	N-NITROSODI-N-PROPYLAMINE	0.76	UG/L	0.95	0.76	U	068SW-0014-0001-SW	0.76	0.95	0.76	U	N/A	Yes
068SW-0013-0001-SW	N-NITROSODIPHENYLAMINE	0.76	UG/L	0.95	0.76	U	068SW-0014-0001-SW	0.76	0.95	0.76	U	N/A	Yes
068SW-0013-0001-SW	PENTACHLOROPHENOL	2.3	UG/L	4.8	2.3	U	068SW-0014-0001-SW	2.3	4.8	2.3	U	N/A	Yes
068SW-0013-0001-SW	PHENANTHRENE	0.095	UG/L	0.19	0.095	U	068SW-0014-0001-SW	0.095	0.19	0.095	U	N/A	Yes
068SW-0013-0001-SW	PHENOL	0.76	UG/L	0.95	0.76	U	068SW-0014-0001-SW	0.76	0.95	0.76	U	N/A	Yes
068SW-0013-0001-SW	PYRENE	0.095	UG/L	0.19	0.095	U	068SW-0014-0001-SW	0.095	0.19	0.095	U	N/A	Yes
068SS-0003M-0001-SO	1,3,5-TRINITROBENZENE	0.05	MG/KG	0.25	0.05	U	068SS-0004M-0001-SO	0.05	0.25	0.05	U	N/A	Yes
068SS-0003M-0001-SO	1,3-DINITROBENZENE	0.05	MG/KG	0.25	0.05	U	068SS-0004M-0001-SO	0.05	0.25	0.05	U	N/A	Yes
068SS-0003M-0001-SO	2,4,6-TRINITROTOLUENE	0.05	MG/KG	0.25	0.05	U	068SS-0004M-0001-SO	0.05	0.25	0.05	U	N/A	Yes
068SS-0003M-0001-SO	2,4-DINITROTOLUENE	0.05	MG/KG	0.25	0.05	R	068SS-0004M-0001-SO	0.05	0.25	0.05	U	N/A	N/A
068SS-0003M-0001-SO	2,6-DINITROTOLUENE	0.05	MG/KG	0.25	0.05	R	068SS-0004M-0001-SO	0.05	0.25	0.05	U	N/A	N/A
068SS-0003M-0001-SO	2-AMINO-4,6-DINITROTOLUENE	0.05	MG/KG	0.25	0.05	U	068SS-0004M-0001-SO	0.05	0.25	0.05	J	N/A	Yes
068SS-0003M-0001-SO	2-NITROTOLUENE	0.05	MG/KG	0.25	0.05	UJ	068SS-0004M-0001-SO	0.05	0.25	0.05	U	N/A	Yes
068SS-0003M-0001-SO	3-NITROTOLUENE	0.05	MG/KG	0.25	0.05	U	068SS-0004M-0001-SO	0.05	0.25	0.05	U	N/A	Yes
068SS-0003M-0001-SO	4-AMINO-2,6-DINITROTOLUENE	0.05	MG/KG	0.25	0.05	U	068SS-0004M-0001-SO	0.05	0.25	0.05	J+	N/A	Yes
068SS-0003M-0001-SO	4-NITROTOLUENE	0.05	MG/KG	0.25	0.05	U	068SS-0004M-0001-SO	0.05	0.25	0.05	U	N/A	Yes
068SS-0003M-0001-SO	HMX	0.05	MG/KG	0.25	0.05	U	068SS-0004M-0001-SO	0.05	0.25	0.05	U	N/A	Yes
068SS-0003M-0001-SO	NITROBENZENE	0.05	MG/KG	0.25	0.05	R	068SS-0004M-0001-SO	0.05	0.25	0.05	U	N/A	N/A
068SS-0003M-0001-SO	NITROGLYCERIN	0.25	MG/KG	0.5	0.25	U	068SS-0004M-0001-SO	0.25	0.5	0.25	U	N/A	Yes
068SS-0003M-0001-SO	PETN	0.25	MG/KG	0.5	0.25	U	068SS-0004M-0001-SO	0.25	0.5	0.25	U	N/A	Yes
068SS-0003M-0001-SO	RDX	0.05	MG/KG	0.25	0.05	UJ	068SS-0004M-0001-SO	0.05	0.25	0.05	U	N/A	Yes
068SS-0003M-0001-SO	TETRYL	0.05	MG/KG	0.25	0.05	U	068SS-0004M-0001-SO	0.039	0.25	0.05	U	N/A	Yes
068SS-0003M-0001-SO	1,1,1-TRICHLOROETHANE	0.8	UG/KG	4	0.8	U	068SS-0004M-0001-SO	0.73	0.41	3.7	U	N/A	Yes
068SS-0003M-0001-SO	1,1,2,2-TETRACHLOROETHANE	0.4	UG/KG	4	0.4	U	068SS-0004M-0001-SO	0.37	0.25	3.7	U	N/A	Yes
068SS-0003M-0001-SO	1,1,2-TRICHLOROETHANE	0.4	UG/KG	4	0.4	U	068SS-0004M-0001-SO	0.37	0.29	3.7	U	N/A	Yes
068SS-0003M-0001-SO	1,1-DICHLOROETHANE	0.4	UG/KG	4	0.4	U	068SS-0004M-0001-SO	0.37	0.26	3.7	U	N/A	Yes
068SS-0003M-0001-SO	1,1-DICHLOROETHENE	0.8	UG/KG	4	0.8	U	068SS-0004M-0001-SO	0.73	0.38	3.7	U	N/A	Yes
068SS-0003M-0001-SO	1,2-DIBROMOETHANE	0.8	UG/KG	4	0.8	U	068SS-0004M-0001-SO	0.73	0.37	3.7	U	N/A	Yes
068SS-0003M-0001-SO	1,2-DICHLOROETHANE	0.4	UG/KG	4	0.4	U	068SS-0004M-0001-SO	0.37	0.25	3.7	U	N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
068SS-0003M-0001-SO	1,2-DICHLOROPROPANE	0.8	UG/KG	4	0.8	U	068SS-0004M-0001-SO	0.73	0.51	3.7	U	N/A	Yes
068SS-0003M-0001-SO	2-HEXANONE	0.8	UG/KG	16	0.8	U	068SS-0004M-0001-SO	0.73	0.46	15	U	N/A	Yes
068SS-0003M-0001-SO	ACETONE	5	UG/KG	16	5	U	068SS-0004M-0001-SO	4.6	4.6	15	J	N/A	Yes
068SS-0003M-0001-SO	BENZENE	0.4	UG/KG	4	0.4	U	068SS-0004M-0001-SO	0.37	0.17	3.7	U	N/A	Yes
068SS-0003M-0001-SO	BROMOCHLOROMETHANE	0.8	UG/KG	4	0.8	U	068SS-0004M-0001-SO	0.73	0.52	3.7	U	N/A	Yes
068SS-0003M-0001-SO	BROMODICHLOROMETHANE	0.4	UG/KG	4	0.4	U	068SS-0004M-0001-SO	0.37	0.21	3.7	U	N/A	Yes
068SS-0003M-0001-SO	BROMOFORM	0.4	UG/KG	4	0.4	U	068SS-0004M-0001-SO	0.37	0.24	3.7	U	N/A	Yes
068SS-0003M-0001-SO	BROMOMETHANE	0.8	UG/KG	4	0.8	U	068SS-0004M-0001-SO	0.73	0.4	3.7	U	N/A	Yes
068SS-0003M-0001-SO	CARBON DISULFIDE	0.69	UG/KG	4	0.4		068SS-0004M-0001-SO	0.66	0.32	3.7	U	N/A	Yes
068SS-0003M-0001-SO	CARBON TETRACHLORIDE	0.4	UG/KG	4	0.4	U	068SS-0004M-0001-SO	0.37	0.27	3.7	U	N/A	Yes
068SS-0003M-0001-SO	CHLOROBENZENE	0.4	UG/KG	4	0.4	UJ	068SS-0004M-0001-SO	0.37	0.24	3.7	U	N/A	Yes
068SS-0003M-0001-SO	CHLOROETHANE	0.8	UG/KG	4	0.8	U	068SS-0004M-0001-SO	0.73	0.63	3.7	U	N/A	Yes
068SS-0003M-0001-SO	CHLOROFORM	0.4	UG/KG	4	0.4	U	068SS-0004M-0001-SO	0.37	0.21	3.7	U	N/A	Yes
068SS-0003M-0001-SO	CHLOROMETHANE	0.4	UG/KG	4	0.4	U	068SS-0004M-0001-SO	0.37	0.3	3.7	U	N/A	Yes
068SS-0003M-0001-SO	CIS-1,3-DICHLOROPROPENE	0.4	UG/KG	4	0.4	U	068SS-0004M-0001-SO	0.37	0.25	3.7	U	N/A	Yes
068SS-0003M-0001-SO	DIBROMOCHLOROMETHANE	0.8	UG/KG	4	0.8	U	068SS-0004M-0001-SO	0.73	0.4	3.7	U	N/A	Yes
068SS-0003M-0001-SO	ETHYLBENZENE	0.4	UG/KG	4	0.4	UJ	068SS-0004M-0001-SO	0.37	0.19	3.7	U	N/A	Yes
068SS-0003M-0001-SO	METHYL ETHYL KETONE	1.6	UG/KG	16	1.6	U	068SS-0004M-0001-SO	1.5	1	15	U	N/A	Yes
068SS-0003M-0001-SO	METHYL ISOBUTYL KETONE	0.8	UG/KG	16	0.8	U	068SS-0004M-0001-SO	0.73	0.4	15	U	N/A	Yes
068SS-0003M-0001-SO	METHYLENE CHLORIDE	0.8	UG/KG	4	0.8	U	068SS-0004M-0001-SO	0.73	0.49	3.7	U	N/A	Yes
068SS-0003M-0001-SO	STYRENE	0.4	UG/KG	4	0.4	UJ	068SS-0004M-0001-SO	0.14	0.11	3.7	U	N/A	Yes
068SS-0003M-0001-SO	TETRACHLOROETHYLENE	0.8	UG/KG	4	0.8	U	068SS-0004M-0001-SO	0.73	0.38	3.7	U	N/A	Yes
068SS-0003M-0001-SO	TOLUENE	0.4	UG/KG	4	0.4	U	068SS-0004M-0001-SO	0.37	0.2	3.7	U	N/A	Yes
068SS-0003M-0001-SO	TOTAL 1,2-DICHLOROETHENE	0.8	UG/KG	8	0.8	U	068SS-0004M-0001-SO	0.73	0.57	7.3	U	N/A	Yes
068SS-0003M-0001-SO	TRANS-1,3-DICHLOROPROPENE	0.8	UG/KG	4	0.8	U	068SS-0004M-0001-SO	0.73	0.4	3.7	U	N/A	Yes
068SS-0003M-0001-SO	TRICHLOROETHYLENE	0.4	UG/KG	4	0.4	U	068SS-0004M-0001-SO	0.37	0.31	3.7	U	N/A	Yes
068SS-0003M-0001-SO	VINYL CHLORIDE	0.4	UG/KG	4	0.4	U	068SS-0004M-0001-SO	0.37	0.29	3.7	U	N/A	Yes
068SS-0003M-0001-SO	XYLENES, TOTAL	1.2	UG/KG	8	1.2	UJ	068SS-0004M-0001-SO	1.1	0.49	7.3	U	N/A	Yes
068SS-0003M-0001-SO	Nitroguanidine	0.04	mg/Kg	0.25	0.02	U	068SS-0004M-0001-SO	0.04	0.02	0.25	U	N/A	Yes
068SS-0003M-0001-SO	ALDRIN	13	UG/KG	40	13	U	068SS-0004M-0001-SO	13	40	13		N/A	Yes
068SS-0003M-0001-SO	ALPHA BHC	13	UG/KG	25	13	U	068SS-0004M-0001-SO	13	25	13		N/A	Yes
068SS-0003M-0001-SO	ALPHA ENDOSULFAN	6.7	UG/KG	17	6.7	U	068SS-0004M-0001-SO	6.7	17	6.7		N/A	Yes
068SS-0003M-0001-SO	ALPHA-CHLORDANE	13	UG/KG	30	13	U	068SS-0004M-0001-SO	13	30	13		N/A	Yes
068SS-0003M-0001-SO	BETA BHC	13	UG/KG	35	13	U	068SS-0004M-0001-SO	13	35	13		N/A	Yes
068SS-0003M-0001-SO	BETA ENDOSULFAN	13	UG/KG	25	13	J	068SS-0004M-0001-SO	13	25	13		N/A	Yes
068SS-0003M-0001-SO	DELTA BHC	13	UG/KG	40	13	U	068SS-0004M-0001-SO	13	40	13		N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
068SS-0003M-0001-SO	DIELDRIN	6.7	UG/KG	17	6.7	U	068SS-0004M-0001-SO	6.7	17	6.7		N/A	Yes
068SS-0003M-0001-SO	ENDOSULFAN SULFATE	13	UG/KG	30	13	U	068SS-0004M-0001-SO	13	30	13		N/A	Yes
068SS-0003M-0001-SO	ENDRIN	6.7	UG/KG	17	6.7	U	068SS-0004M-0001-SO	6.7	17	6.7		N/A	Yes
068SS-0003M-0001-SO	ENDRIN ALDEHYDE	13	UG/KG	30	13	U	068SS-0004M-0001-SO	13	30	13		N/A	Yes
068SS-0003M-0001-SO	ENDRIN KETONE	6.7	UG/KG	20	6.7	U	068SS-0004M-0001-SO	6.7	20	6.7		N/A	Yes
068SS-0003M-0001-SO	GAMMA BHC (LINDANE)	13	UG/KG	25	13	U	068SS-0004M-0001-SO	13	25	13		N/A	Yes
068SS-0003M-0001-SO	GAMMA-CHLORDANE	6.7	UG/KG	17	6.7	U	068SS-0004M-0001-SO	6.7	17	6.7		N/A	Yes
068SS-0003M-0001-SO	HEPTACHLOR	13	UG/KG	35	13	U	068SS-0004M-0001-SO	13	35	13		N/A	Yes
068SS-0003M-0001-SO	HEPTACHLOR EPOXIDE	13	UG/KG	25	13		068SS-0004M-0001-SO	13	25	13		N/A	Yes
068SS-0003M-0001-SO	METHOXYCHLOR	33	UG/KG	50	33	U	068SS-0004M-0001-SO	33	50	33		N/A	Yes
068SS-0003M-0001-SO	P,P'-DDD	6.7	UG/KG	20	6.7		068SS-0004M-0001-SO	6.7	20	6.7		N/A	Yes
068SS-0003M-0001-SO	P,P'-DDE	6.7	UG/KG	17	6.7	U	068SS-0004M-0001-SO	6.7	17	6.7		N/A	Yes
068SS-0003M-0001-SO	P,P'-DDT	6.7	UG/KG	20	6.7	U	068SS-0004M-0001-SO	6.7	20	6.7		N/A	Yes
068SS-0003M-0001-SO	TOXAPHENE	200	UG/KG	670	200	U	068SS-0004M-0001-SO	200	670	200		N/A	Yes
068SS-0003M-0001-SO	ALUMINUM	13000	MG/KG	8.5	3.4		068SS-0004M-0001-SO	16000	40	16		21	N/A
068SS-0003M-0001-SO	ANTIMONY	2.16	MG/KG	0.85	0.64	J-	068SS-0004M-0001-SO	0.6	0.79	0.6	U	N/A	No
068SS-0003M-0001-SO	ARSENIC	12	MG/KG	0.43	0.13		068SS-0004M-0001-SO	11	0.4	0.12		9	N/A
068SS-0003M-0001-SO	BARIUM	90.5	MG/KG	2.1	1.3		068SS-0004M-0001-SO	83	2	1.2		9	N/A
068SS-0003M-0001-SO	BERYLLIUM	0.87	MG/KG	0.085	0.0085		068SS-0004M-0001-SO	0.83	0.079	0.0079		5	N/A
068SS-0003M-0001-SO	CADMIUM	0.12	MG/KG	0.17	0.0085	J	068SS-0004M-0001-SO	0.1	0.16	0.0079	J	N/A	Yes
068SS-0003M-0001-SO	CALCIUM	3900	MG/KG	170	85		068SS-0004M-0001-SO	3900	160	79		0	N/A
068SS-0003M-0001-SO	CHROMIUM	22	MG/KG	0.43	0.38		068SS-0004M-0001-SO	24	2	1.8		9	N/A
068SS-0003M-0001-SO	COBALT	13	MG/KG	0.085	0.013		068SS-0004M-0001-SO	11	0.4	0.06		17	N/A
068SS-0003M-0001-SO	COPPER	18	MG/KG	0.34	0.26		068SS-0004M-0001-SO	22	1.6	1.2		20	N/A
068SS-0003M-0001-SO	IRON	29800	MG/KG	210	130		068SS-0004M-0001-SO	29000	200	120		3	N/A
068SS-0003M-0001-SO	LEAD	26.3	MG/KG	1.3	0.85		068SS-0004M-0001-SO	16	1.2	0.79		49	N/A
068SS-0003M-0001-SO	MAGNESIUM	3700	MG/KG	85	21		068SS-0004M-0001-SO	4500	400	99		20	N/A
068SS-0003M-0001-SO	MANGANESE	386	MG/KG	2.1	1.7	J	068SS-0004M-0001-SO	280	0.4	0.32		32	N/A
068SS-0003M-0001-SO	NICKEL	28	MG/KG	0.43	0.21		068SS-0004M-0001-SO	33	2	0.99		16	N/A
068SS-0003M-0001-SO	POTASSIUM	1200	MG/KG	85	8.5		068SS-0004M-0001-SO	1600	79	7.9		29	N/A
068SS-0003M-0001-SO	SELENIUM	0.57	MG/KG	0.43	0.051	J	068SS-0004M-0001-SO	0.56	0.4	0.048		N/A	Yes
068SS-0003M-0001-SO	SILVER	0.029	MG/KG	0.085	0.043	J	068SS-0004M-0001-SO	0.03	0.079	0.04	J	N/A	Yes
068SS-0003M-0001-SO	SODIUM	52	MG/KG	85	34	U	068SS-0004M-0001-SO	72	400	160	J	N/A	Yes
068SS-0003M-0001-SO	THALLIUM	7.97	MG/KG	0.85	0.64		068SS-0004M-0001-SO	0.26	0.79	0.6	J	N/A	No
068SS-0003M-0001-SO	VANADIUM	21	MG/KG	0.43	0.085		068SS-0004M-0001-SO	24	2	0.4		13	N/A
068SS-0003M-0001-SO	ZINC	63	MG/KG	3.4	1.7		068SS-0004M-0001-SO	74	16	7.9		N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
068SS-0003M-0001-SO	MERCURY	0.046	MG/KG	0.098	0.032	U	068SS-0004M-0001-SO	0.037	0.11	0.037	J	N/A	Yes
068SS-0003M-0001-SO	PCB-1016	25	UG/KG	65	25	U	068SS-0004M-0001-SO	25	65	25	U	N/A	Yes
068SS-0003M-0001-SO	PCB-1221	25	UG/KG	50	25	U	068SS-0004M-0001-SO	25	50	25	U	N/A	Yes
068SS-0003M-0001-SO	PCB-1232	25	UG/KG	45	25	U	068SS-0004M-0001-SO	25	45	25	U	N/A	Yes
068SS-0003M-0001-SO	PCB-1242	25	UG/KG	40	25	U	068SS-0004M-0001-SO	25	40	25	U	N/A	Yes
068SS-0003M-0001-SO	PCB-1248	25	UG/KG	55	25	U	068SS-0004M-0001-SO	25	55	25	U	N/A	Yes
068SS-0003M-0001-SO	PCB-1254	25	UG/KG	55	25	U	068SS-0004M-0001-SO	25	55	25	U	N/A	Yes
068SS-0003M-0001-SO	PCB-1260	25	UG/KG	55	25	U	068SS-0004M-0001-SO	25	55	25	U	N/A	Yes
068SW-0016-0001-SW	ALUMINUM	320	UG/L	60	60		068SW-0014-0001-SW	250	60	60		N/A	No
068SW-0016-0001-SW	ANTIMONY	1	UG/L	2	0.5		068SW-0014-0001-SW	0.5	2	0.5	U	N/A	Yes
068SW-0016-0001-SW	ARSENIC	0.78	UG/L	5	1		068SW-0014-0001-SW	0.7	5	1	J	N/A	Yes
068SW-0016-0001-SW	BARIUM	34	UG/L	5	4	J	068SW-0014-0001-SW	32	5	4		6	N/A
068SW-0016-0001-SW	BERYLLIUM	0.5	UG/L	1	0.5	U	068SW-0014-0001-SW	0.5	1	0.5	U	N/A	Yes
068SW-0016-0001-SW	CADMIUM	0.4	UG/L	2	0.4	U	068SW-0014-0001-SW	0.4	2	0.4	U	N/A	Yes
068SW-0016-0001-SW	CALCIUM	31000	UG/L	2000	1000		068SW-0014-0001-SW	33000	2000	1000		6	N/A
068SW-0016-0001-SW	CHROMIUM	1.5	UG/L	2	1.5	U	068SW-0014-0001-SW	1.5	2	1.5	U	N/A	Yes
068SW-0016-0001-SW	COBALT	0.31	UG/L	1	0.2	J	068SW-0014-0001-SW	0.2	1	0.2	U	N/A	Yes
068SW-0016-0001-SW	COPPER	1.6	UG/L	4	4		068SW-0014-0001-SW	4	4	4	U	N/A	Yes
068SW-0016-0001-SW	IRON	1300	UG/L	150	100	J+	068SW-0014-0001-SW	1000	150	100		26	N/A
068SW-0016-0001-SW	LEAD	0.59	UG/L	1	0.5	J	068SW-0014-0001-SW	0.5	1	0.5	J	N/A	Yes
068SW-0016-0001-SW	MAGNESIUM	8300	UG/L	1000	300		068SW-0014-0001-SW	9000	1000	300		8	N/A
068SW-0016-0001-SW	MANGANESE	330	UG/L	5	3		068SW-0014-0001-SW	240	5	3		32	N/A
068SW-0016-0001-SW	NICKEL	0.9	UG/L	5	1.5		068SW-0014-0001-SW	0.74	5	1.5	J	N/A	Yes
068SW-0016-0001-SW	POTASSIUM	1900	UG/L	1000	50		068SW-0014-0001-SW	2000	1000	50		N/A	Yes
068SW-0016-0001-SW	SELENIUM	0.5	UG/L	5	0.5	UJ	068SW-0014-0001-SW	0.5	5	0.5	U	N/A	Yes
068SW-0016-0001-SW	SILVER	0.93	UG/L	1	0.25	J	068SW-0014-0001-SW	0.25	1	0.25	U	N/A	Yes
068SW-0016-0001-SW	SODIUM	3900	UG/L	1000	400		068SW-0014-0001-SW	4100	1000	400		N/A	Yes
068SW-0016-0001-SW	THALLIUM	1	UG/L	2	1	U	068SW-0014-0001-SW	1	2	1	U	N/A	Yes
068SW-0016-0001-SW	VANADIUM	0.72	UG/L	5	1.5		068SW-0014-0001-SW	0.55	5	1.5	J	N/A	Yes
068SW-0016-0001-SW	ZINC	20	UG/L	40	20	U	068SW-0014-0001-SW	20	40	20	U	N/A	Yes
068SW-0016-0001-SW	MERCURY	0.2	UG/L	0.2	0.2		068SW-0014-0001-SW	0.2	0.2	0.2	U	N/A	Yes
068SW-0016-0001-SW	PCB-1016	0.19	UG/L	0.48	0.19	U	068SW-0014-0001-SW	0.19	0.48	0.19	U	N/A	Yes
068SW-0016-0001-SW	PCB-1221	0.19	UG/L	0.48	0.19	U	068SW-0014-0001-SW	0.19	0.48	0.19	U	N/A	Yes
068SW-0016-0001-SW	PCB-1232	0.19	UG/L	0.48	0.19	U	068SW-0014-0001-SW	0.19	0.48	0.19	U	N/A	Yes
068SW-0016-0001-SW	PCB-1242	0.38	UG/L	0.48	0.38	U	068SW-0014-0001-SW	0.38	0.48	0.38	U	N/A	Yes
068SW-0016-0001-SW	PCB-1248	0.19	UG/L	0.48	0.19	U	068SW-0014-0001-SW	0.19	0.48	0.19	U	N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
068SW-0016-0001-SW	PCB-1254	0.19	UG/L	0.48	0.19	U	068SW-0014-0001-SW	0.19	0.48	0.19	U	N/A	Yes
068SW-0016-0001-SW	PCB-1260	0.19	UG/L	0.48	0.19	U	068SW-0014-0001-SW	0.19	0.48	0.19	U	N/A	Yes
068SW-0016-0001-SW	1,2,4-TRICHLOROBENZENE	0.76	UG/L	0.95	0.76	UJ	068SW-0014-0001-SW	0.76	0.95	0.76	U	N/A	Yes
068SW-0016-0001-SW	1,2-DICHLOROBENZENE	0.76	UG/L	0.95	0.76	UJ	068SW-0014-0001-SW	0.76	0.95	0.76	U	N/A	Yes
068SW-0016-0001-SW	1,3-DICHLOROBENZENE	0.76	UG/L	0.95	0.76	UJ	068SW-0014-0001-SW	0.76	0.95	0.76	U	N/A	Yes
068SW-0016-0001-SW	1,4-DICHLOROBENZENE	0.76	UG/L	0.95	0.76	UJ	068SW-0014-0001-SW	0.76	0.95	0.76	U	N/A	Yes
068SW-0016-0001-SW	2,4,5-TRICHLOROPHENOL	0.76	UG/L	4.8	0.76	U	068SW-0014-0001-SW	0.76	4.8	0.76	U	N/A	Yes
068SW-0016-0001-SW	2,4,6-TRICHLOROPHENOL	0.76	UG/L	4.8	0.76	U	068SW-0014-0001-SW	0.76	4.8	0.76	U	N/A	Yes
068SW-0016-0001-SW	2,4-DICHLOROPHENOL	0.76	UG/L	1.9	0.76	U	068SW-0014-0001-SW	0.76	1.9	0.76	U	N/A	Yes
068SW-0016-0001-SW	2,4-DIMETHYLPHENOL	0.76	UG/L	1.9	0.76	U	068SW-0014-0001-SW	0.76	1.9	0.76	U	N/A	Yes
068SW-0016-0001-SW	2,4-DINITROPHENOL	2.3	UG/L	4.8	2.3	U	068SW-0014-0001-SW	2.3	4.8	2.3	U	N/A	Yes
068SW-0016-0001-SW	2,4-DINITROTOLUENE	0.76	UG/L	4.8	0.76	U	068SW-0014-0001-SW	0.76	4.8	0.76	U	N/A	Yes
068SW-0016-0001-SW	2,6-DINITROTOLUENE	0.76	UG/L	4.8	0.76	U	068SW-0014-0001-SW	0.76	4.8	0.76	U	N/A	Yes
068SW-0016-0001-SW	2-CHLORONAPHTHALENE	0.095	UG/L	0.95	0.095	U	068SW-0014-0001-SW	0.095	0.95	0.095	U	N/A	Yes
068SW-0016-0001-SW	2-CHLOROPHENOL	0.76	UG/L	0.95	0.76	U	068SW-0014-0001-SW	0.76	0.95	0.76	U	N/A	Yes
068SW-0016-0001-SW	2-METHYLNAPHTHALENE	0.095	UG/L	0.19	0.095	U	068SW-0014-0001-SW	0.095	0.19	0.095	U	N/A	Yes
068SW-0016-0001-SW	2-METHYLPHENOL (O-CRESOL)	0.76	UG/L	0.95	0.76	U	068SW-0014-0001-SW	0.76	0.95	0.76	U	N/A	Yes
068SW-0016-0001-SW	2-NITROANILINE	0.76	UG/L	1.9	0.76	U	068SW-0014-0001-SW	0.76	1.9	0.76	U	N/A	Yes
068SW-0016-0001-SW	2-NITROPHENOL	0.76	UG/L	1.9	0.76	U	068SW-0014-0001-SW	0.76	1.9	0.76	U	N/A	Yes
068SW-0016-0001-SW	3,3'-DICHLOROBENZIDINE	0.76	UG/L	4.8	0.76	U	068SW-0014-0001-SW	0.76	4.8	0.76	U	N/A	Yes
068SW-0016-0001-SW	3-NITROANILINE	0.76	UG/L	1.9	0.76	U	068SW-0014-0001-SW	0.76	1.9	0.76	U	N/A	Yes
068SW-0016-0001-SW	4,6-DINITRO-2-METHYLPHENOL	2.3	UG/L	4.8	2.3	U	068SW-0014-0001-SW	2.3	4.8	2.3	U	N/A	Yes
068SW-0016-0001-SW	4-BROMOPHENYL PHENYL ETHER	0.76	UG/L	1.9	0.76	U	068SW-0014-0001-SW	0.76	1.9	0.76	U	N/A	Yes
068SW-0016-0001-SW	4-CHLORO-3-METHYLPHENOL	0.76	UG/L	1.9	0.76	U	068SW-0014-0001-SW	0.76	1.9	0.76	U	N/A	Yes
068SW-0016-0001-SW	4-CHLOROANILINE	0.76	UG/L	1.9	0.76	U	068SW-0014-0001-SW	0.76	1.9	0.76	U	N/A	Yes
068SW-0016-0001-SW	4-CHLOROPHENYL PHENYL ETHER	0.76	UG/L	1.9	0.76	U	068SW-0014-0001-SW	0.76	1.9	0.76	U	N/A	Yes
068SW-0016-0001-SW	4-NITROANILINE	0.76	UG/L	1.9	0.76	U	068SW-0014-0001-SW	0.76	1.9	0.76	U	N/A	Yes
068SW-0016-0001-SW	4-NITROPHENOL	2.3	UG/L	4.8	2.3	U	068SW-0014-0001-SW	2.3	4.8	2.3	U	N/A	Yes
068SW-0016-0001-SW	ACENAPHTHENE	0.095	UG/L	0.19	0.095	U	068SW-0014-0001-SW	0.095	0.19	0.095	U	N/A	Yes
068SW-0016-0001-SW	ACENAPHTHYLENE	0.095	UG/L	0.19	0.095	U	068SW-0014-0001-SW	0.095	0.19	0.095	U	N/A	Yes
068SW-0016-0001-SW	ANTHRACENE	0.095	UG/L	0.19	0.095	U	068SW-0014-0001-SW	0.095	0.19	0.095	U	N/A	Yes
068SW-0016-0001-SW	BENZO(A)ANTHRACENE	0.095	UG/L	0.19	0.095	U	068SW-0014-0001-SW	0.095	0.19	0.095	U	N/A	Yes
068SW-0016-0001-SW	BENZO(A)PYRENE	0.095	UG/L	0.19	0.095	U	068SW-0014-0001-SW	0.095	0.19	0.095	U	N/A	Yes
068SW-0016-0001-SW	BENZO(B)FLUORANTHENE	0.095	UG/L	0.19	0.095	U	068SW-0014-0001-SW	0.095	0.19	0.095	U	N/A	Yes
068SW-0016-0001-SW	BENZO(G,H,I)PERYLENE	0.095	UG/L	0.19	0.095	UJ	068SW-0014-0001-SW	0.095	0.19	0.095	U	N/A	Yes
068SW-0016-0001-SW	BENZO(K)FLUORANTHENE	0.095	UG/L	0.19	0.095	U	068SW-0014-0001-SW	0.095	0.19	0.095	U	N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
068SW-0016-0001-SW	BENZOIC ACID	9.5	UG/L	24	9.5	U	068SW-0014-0001-SW	9.5	24	9.5	U	N/A	Yes
068SW-0016-0001-SW	BENZYL ALCOHOL	0.76	UG/L	4.8	0.76	U	068SW-0014-0001-SW	0.76	4.8	0.76	U	N/A	Yes
068SW-0016-0001-SW	BENZYL BUTYL PHTHALATE	0.76	UG/L	0.95	0.76	U	068SW-0014-0001-SW	0.76	0.95	0.76	U	N/A	Yes
068SW-0016-0001-SW	BIS(2-CHLOROETHOXY) METHANE	0.76	UG/L	0.95	0.76	U	068SW-0014-0001-SW	0.76	0.95	0.76	U	N/A	Yes
068SW-0016-0001-SW	BIS(2-CHLOROETHYL) ETHER	0.095	UG/L	0.95	0.095	UJ	068SW-0014-0001-SW	0.095	0.95	0.095	U	N/A	Yes
068SW-0016-0001-SW	BIS(2-CHLOROISOPROPYL) ETHER	0.76	UG/L	0.95	0.76	UJ	068SW-0014-0001-SW	0.76	0.95	0.76	U	N/A	Yes
068SW-0016-0001-SW	BIS(2-ETHYLHEXYL) PHTHALATE	0.76	UG/L	1.9	0.76	U	068SW-0014-0001-SW	2.8	1.9	0.76		N/A	No
068SW-0016-0001-SW	CARBAZOLE	0.76	UG/L	0.95	0.76	U	068SW-0014-0001-SW	0.76	0.95	0.76	U	N/A	Yes
068SW-0016-0001-SW	CHRYSENE	0.095	UG/L	0.19	0.095	U	068SW-0014-0001-SW	0.095	0.19	0.095	U	N/A	Yes
068SW-0016-0001-SW	CRESOLS, M & P	0.76	UG/L	1.9	0.76	U	068SW-0014-0001-SW	0.76	1.9	0.76	U	N/A	Yes
068SW-0016-0001-SW	DIBENZ(A,H)ANTHRACENE	0.095	UG/L	0.19	0.095	UJ	068SW-0014-0001-SW	0.095	0.19	0.095	U	N/A	Yes
068SW-0016-0001-SW	DIBENZOFURAN	0.095	UG/L	0.95	0.095	U	068SW-0014-0001-SW	0.095	0.95	0.095	U	N/A	Yes
068SW-0016-0001-SW	DIETHYL PHTHALATE	0.76	UG/L	0.95	0.76	U	068SW-0014-0001-SW	0.76	0.95	0.76	U	N/A	Yes
068SW-0016-0001-SW	DIMETHYL PHTHALATE	0.76	UG/L	0.95	0.76	U	068SW-0014-0001-SW	0.76	0.95	0.76	U	N/A	Yes
068SW-0016-0001-SW	DI-N-BUTYL PHTHALATE	0.76	UG/L	0.95	0.76	U	068SW-0014-0001-SW	0.76	0.95	0.76	U	N/A	Yes
068SW-0016-0001-SW	DI-N-OCTYLPHTHALATE	0.76	UG/L	0.95	0.76	UJ	068SW-0014-0001-SW	0.76	0.95	0.76	U	N/A	Yes
068SW-0016-0001-SW	FLUORANTHENE	0.095	UG/L	0.19	0.095	U	068SW-0014-0001-SW	0.095	0.19	0.095	U	N/A	Yes
068SW-0016-0001-SW	FLUORENE	0.095	UG/L	0.19	0.095	U	068SW-0014-0001-SW	0.095	0.19	0.095	U	N/A	Yes
068SW-0016-0001-SW	HEXACHLOROBENZENE	0.095	UG/L	0.19	0.095	U	068SW-0014-0001-SW	0.095	0.19	0.095	U	N/A	Yes
068SW-0016-0001-SW	HEXACHLOROBUTADIENE	0.76	UG/L	0.95	0.76	UJ	068SW-0014-0001-SW	0.76	0.95	0.76	U	N/A	Yes
068SW-0016-0001-SW	HEXACHLOROCYCLOPENTADIENE	0.76	UG/L	9.5	0.76	U	068SW-0014-0001-SW	0.76	9.5	0.76	U	N/A	Yes
068SW-0016-0001-SW	HEXACHLOROETHANE	0.76	UG/L	0.95	0.76	UJ	068SW-0014-0001-SW	0.76	0.95	0.76	U	N/A	Yes
068SW-0016-0001-SW	INDENO(1,2,3-C,D)PYRENE	0.095	UG/L	0.19	0.095	UJ	068SW-0014-0001-SW	0.095	0.19	0.095	U	N/A	Yes
068SW-0016-0001-SW	ISOPHORONE	0.76	UG/L	0.95	0.76	U	068SW-0014-0001-SW	0.76	0.95	0.76	U	N/A	Yes
068SW-0016-0001-SW	NAPHTHALENE	0.095	UG/L	0.19	0.095	U	068SW-0014-0001-SW	0.095	0.19	0.095	U	N/A	Yes
068SW-0016-0001-SW	NITROBENZENE	0.095	UG/L	0.95	0.095	U	068SW-0014-0001-SW	0.095	0.95	0.095	U	N/A	Yes
068SW-0016-0001-SW	N-NITROSODI-N-PROPYLAMINE	0.76	UG/L	0.95	0.76	U	068SW-0014-0001-SW	0.76	0.95	0.76	U	N/A	Yes
068SW-0016-0001-SW	N-NITROSODIPHENYLAMINE	0.76	UG/L	0.95	0.76	U	068SW-0014-0001-SW	0.76	0.95	0.76	U	N/A	Yes
068SW-0016-0001-SW	PENTACHLOROPHENOL	2.3	UG/L	4.8	2.3	U	068SW-0014-0001-SW	2.3	4.8	2.3	U	N/A	Yes
068SW-0016-0001-SW	PHENANTHRENE	0.095	UG/L	0.19	0.095	U	068SW-0014-0001-SW	0.095	0.19	0.095	U	N/A	Yes
068SW-0016-0001-SW	PHENOL	0.76	UG/L	0.95	0.76	U	068SW-0014-0001-SW	0.76	0.95	0.76	U	N/A	Yes
068SW-0016-0001-SW	PYRENE	0.095	UG/L	0.19	0.095	U	068SW-0014-0001-SW	0.095	0.19	0.095	U	N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
069SS-0001M-0001-SO	NITROCELLULOSE	17	MG/KG	47	17	U	069SS-0002M-0001-SO	17	47	17	U	N/A	Yes
069SS-0001M-0001-SO	ALUMINUM	14000	MG/KG	2.7	0.54	J	069SS-0002M-0001-SO	13000	2.8	0.57		7	N/A
069SS-0001M-0001-SO	ANTIMONY	0.14	MG/KG	0.18	0.089	J	069SS-0002M-0001-SO	0.16	0.19	0.094		N/A	Yes
069SS-0001M-0001-SO	ARSENIC	10	MG/KG	0.089	0.045	J-	069SS-0002M-0001-SO	10	0.094	0.047		0	N/A
069SS-0001M-0001-SO	BARIUM	76	MG/KG	0.89	0.018	J	069SS-0002M-0001-SO	74	0.94	0.019		3	N/A
069SS-0001M-0001-SO	BERYLLIUM	0.82	MG/KG	0.089	0.0089		069SS-0002M-0001-SO	0.75	0.094	0.0094		9	N/A
069SS-0001M-0001-SO	CADMIUM	0.29	MG/KG	0.089	0.027	J-	069SS-0002M-0001-SO	0.27	0.094	0.028		N/A	Yes
069SS-0001M-0001-SO	CALCIUM	5300	MG/KG	8.9	2.2	J	069SS-0002M-0001-SO	5000	9.4	2.4		6	N/A
069SS-0001M-0001-SO	CHROMIUM	24	MG/KG	0.18	0.036		069SS-0002M-0001-SO	19	0.19	0.038		23	N/A
069SS-0001M-0001-SO	COBALT	11	MG/KG	0.045	0.0089		069SS-0002M-0001-SO	11	0.047	0.0094		0	N/A
069SS-0001M-0001-SO	COPPER	19	MG/KG	0.18	0.054	J-	069SS-0002M-0001-SO	30	0.19	0.057		45	N/A
069SS-0001M-0001-SO	IRON	24000	MG/KG	4.5	1.8		069SS-0002M-0001-SO	24000	4.7	1.9		0	N/A
069SS-0001M-0001-SO	LEAD	19	MG/KG	0.089	0.027		069SS-0002M-0001-SO	19	0.094	0.028		0	N/A
069SS-0001M-0001-SO	MAGNESIUM	3900	MG/KG	8.9	1.8		069SS-0002M-0001-SO	3800	9.4	1.9		3	N/A
069SS-0001M-0001-SO	MANGANESE	430	MG/KG	0.45	0.027	J	069SS-0002M-0001-SO	480	0.47	0.028		11	N/A
069SS-0001M-0001-SO	NICKEL	27	MG/KG	0.089	0.027		069SS-0002M-0001-SO	24	0.094	0.028		12	N/A
069SS-0001M-0001-SO	POTASSIUM	1500	MG/KG	8.9	5.4		069SS-0002M-0001-SO	1200	9.4	5.7		22	N/A
069SS-0001M-0001-SO	SELENIUM	0.78	MG/KG	0.45	0.089	J-	069SS-0002M-0001-SO	0.71	0.47	0.094		N/A	Yes
069SS-0001M-0001-SO	SILVER	0.034	MG/KG	0.089	0.027	J+	069SS-0002M-0001-SO	0.035	0.094	0.028		N/A	Yes
069SS-0001M-0001-SO	SODIUM	53	MG/KG	8.9	4.5	U	069SS-0002M-0001-SO	52	9.4	4.7		2	N/A
069SS-0001M-0001-SO	THALLIUM	0.23	MG/KG	0.089	0.018	U	069SS-0002M-0001-SO	0.18	0.094	0.019		N/A	Yes
069SS-0001M-0001-SO	VANADIUM	21	MG/KG	0.089	0.054		069SS-0002M-0001-SO	20	0.094	0.057		5	N/A
069SS-0001M-0001-SO	ZINC	79	MG/KG	0.45	0.18		069SS-0002M-0001-SO	78	0.47	0.19		1	N/A
069SS-0001M-0001-SO	MERCURY	0.206	MG/KG	0.11	0.035		069SS-0002M-0001-SO	0.12	0.11	0.036		N/A	Yes
069SS-0001M-0001-SO	ALDRIN	26	UG/KG	79	26	U	069SS-0002M-0001-SO	13	40	13	U	N/A	Yes
069SS-0001M-0001-SO	ALPHA BHC	26	UG/KG	49	26	U	069SS-0002M-0001-SO	13	25	13	U	N/A	Yes
069SS-0001M-0001-SO	ALPHA ENDOSULFAN	13	UG/KG	34	13	U	069SS-0002M-0001-SO	6.8	17	6.8	U	N/A	Yes
069SS-0001M-0001-SO	ALPHA-CHLORDANE	26	UG/KG	59	26	U	069SS-0002M-0001-SO	13	30	13	U	N/A	Yes
069SS-0001M-0001-SO	BETA BHC	26	UG/KG	69	26	U	069SS-0002M-0001-SO	13	35	13	U	N/A	Yes
069SS-0001M-0001-SO	BETA ENDOSULFAN	26	UG/KG	49	26	J	069SS-0002M-0001-SO	13	25	13	J	N/A	Yes
069SS-0001M-0001-SO	DELTA BHC	26	UG/KG	79	26	U	069SS-0002M-0001-SO	13	40	13	U	N/A	Yes
069SS-0001M-0001-SO	DIELDRIN	13	UG/KG	34	13	U	069SS-0002M-0001-SO	6.8	17	6.8	U	N/A	Yes
069SS-0001M-0001-SO	ENDOSULFAN SULFATE	26	UG/KG	59	26	U	069SS-0002M-0001-SO	13	30	13	U	N/A	Yes
069SS-0001M-0001-SO	ENDRIN	13	UG/KG	34	13	U	069SS-0002M-0001-SO	6.8	17	6.8	U	N/A	Yes
069SS-0001M-0001-SO	ENDRIN ALDEHYDE	26	UG/KG	59	26	U	069SS-0002M-0001-SO	13	30	13	U	N/A	Yes
069SS-0001M-0001-SO	ENDRIN KETONE	13	UG/KG	40	13	U	069SS-0002M-0001-SO	6.8	20	6.8	U	N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
069SS-0001M-0001-SO	GAMMA BHC (LINDANE)	26	UG/KG	49	26	U	069SS-0002M-0001-SO	13	25	13	U	N/A	Yes
069SS-0001M-0001-SO	GAMMA-CHLORDANE	13	UG/KG	34	13	U	069SS-0002M-0001-SO	6.8	17	6.8	U	N/A	Yes
069SS-0001M-0001-SO	HEPTACHLOR	26	UG/KG	69	26	U	069SS-0002M-0001-SO	13	35	13	U	N/A	Yes
069SS-0001M-0001-SO	HEPTACHLOR EPOXIDE	26	UG/KG	49	26	U	069SS-0002M-0001-SO	13	25	13	U	N/A	Yes
069SS-0001M-0001-SO	METHOXYCHLOR	65	UG/KG	99	65	U	069SS-0002M-0001-SO	33	50	33	U	N/A	Yes
069SS-0001M-0001-SO	P,P'-DDD	13	UG/KG	40	13	U	069SS-0002M-0001-SO	6.8	20	6.8	U	N/A	Yes
069SS-0001M-0001-SO	P,P'-DDE	13	UG/KG	34	13	U	069SS-0002M-0001-SO	6.8	17	6.8	U	N/A	Yes
069SS-0001M-0001-SO	P,P'-DDT	13	UG/KG	40	13	U	069SS-0002M-0001-SO	6.8	20	6.8	U	N/A	Yes
069SS-0001M-0001-SO	TOXAPHENE	400	UG/KG	1300	400	U	069SS-0002M-0001-SO	200	680	200	U	N/A	Yes
069SS-0001M-0001-SO	PCB-1016	24	UG/KG	64	24	U	069SS-0002M-0001-SO	25	66	25	U	N/A	Yes
069SS-0001M-0001-SO	PCB-1221	24	UG/KG	49	24	U	069SS-0002M-0001-SO	25	50	25	U	N/A	Yes
069SS-0001M-0001-SO	PCB-1232	24	UG/KG	44	24	U	069SS-0002M-0001-SO	25	45	25	U	N/A	Yes
069SS-0001M-0001-SO	PCB-1242	24	UG/KG	40	24	U	069SS-0002M-0001-SO	25	40	25	U	N/A	Yes
069SS-0001M-0001-SO	PCB-1248	24	UG/KG	54	24	U	069SS-0002M-0001-SO	25	55	25	U	N/A	Yes
069SS-0001M-0001-SO	PCB-1254	24	UG/KG	54	24	U	069SS-0002M-0001-SO	25	55	25	U	N/A	Yes
069SS-0001M-0001-SO	PCB-1260	41	UG/KG	54	24	J	069SS-0002M-0001-SO	25	55	25	U	N/A	Yes
069SS-0001M-0001-SO	1,1,1-TRICHLOROETHANE	0.97	UG/KG	4.9	0.97	U	069SS-0002M-0001-SO	1	5	1	U	N/A	Yes
069SS-0001M-0001-SO	1,1,2,2-TETRACHLOROETHANE	0.51	UG/KG	5.1	0.51	U	069SS-0002M-0001-SO	0.45	4.5	0.45	U	N/A	Yes
069SS-0001M-0001-SO	1,1,2-TRICHLOROETHANE	0.51	UG/KG	5.1	0.51	U	069SS-0002M-0001-SO	0.45	4.5	0.45	U	N/A	Yes
069SS-0001M-0001-SO	1,1-DICHLOROETHANE	0.51	UG/KG	5.1	0.51	U	069SS-0002M-0001-SO	0.45	4.5	0.45	U	N/A	Yes
069SS-0001M-0001-SO	1,1-DICHLOROETHENE	1	UG/KG	5.1	1	U	069SS-0002M-0001-SO	0.91	4.5	0.91	U	N/A	Yes
069SS-0001M-0001-SO	1,2-DIBROMOETHANE	1	UG/KG	5.1	1	U	069SS-0002M-0001-SO	0.91	4.5	0.91	U	N/A	Yes
069SS-0001M-0001-SO	1,2-DICHLOROETHANE	0.51	UG/KG	5.1	0.51	U	069SS-0002M-0001-SO	0.45	4.5	0.45	U	N/A	Yes
069SS-0001M-0001-SO	1,2-DICHLOROPROPANE	1	UG/KG	5.1	1	U	069SS-0002M-0001-SO	0.91	4.5	0.91	U	N/A	Yes
069SS-0001M-0001-SO	2-HEXANONE	1	UG/KG	20	1	U	069SS-0002M-0001-SO	1.4	18	0.91	J	N/A	Yes
069SS-0001M-0001-SO	ACETONE	6.1	UG/KG	19	6.1	U	069SS-0002M-0001-SO	6.3	20	6.3	U	N/A	Yes
069SS-0001M-0001-SO	BENZENE	0.51	UG/KG	5.1	0.51	U	069SS-0002M-0001-SO	0.45	4.5	0.45	U	N/A	Yes
069SS-0001M-0001-SO	BROMOCHLOROMETHANE	1	UG/KG	5.1	1	U	069SS-0002M-0001-SO	0.91	4.5	0.91	U	N/A	Yes
069SS-0001M-0001-SO	BROMODICHLOROMETHANE	0.51	UG/KG	5.1	0.51	U	069SS-0002M-0001-SO	0.45	4.5	0.45	U	N/A	Yes
069SS-0001M-0001-SO	BROMOFORM	0.51	UG/KG	5.1	0.51	U	069SS-0002M-0001-SO	0.45	4.5	0.45	U	N/A	Yes
069SS-0001M-0001-SO	BROMOMETHANE	1	UG/KG	5.1	1	U	069SS-0002M-0001-SO	0.91	4.5	0.91	U	N/A	Yes
069SS-0001M-0001-SO	CARBON DISULFIDE	0.51	UG/KG	5.1	0.51	UJ	069SS-0002M-0001-SO	0.45	4.5	0.45	U	N/A	Yes
069SS-0001M-0001-SO	CARBON TETRACHLORIDE	0.49	UG/KG	4.9	0.49	U	069SS-0002M-0001-SO	0.5	5	0.5	U	N/A	Yes
069SS-0001M-0001-SO	CHLOROBENZENE	0.51	UG/KG	5.1	0.51	U	069SS-0002M-0001-SO	0.45	4.5	0.45	U	N/A	Yes
069SS-0001M-0001-SO	CHLOROETHANE	1	UG/KG	5.1	1	U	069SS-0002M-0001-SO	0.91	4.5	0.91	U	N/A	Yes
069SS-0001M-0001-SO	CHLOROFORM	0.51	UG/KG	5.1	0.51	U	069SS-0002M-0001-SO	0.45	4.5	0.45	U	N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
069SS-0001M-0001-SO	CHLOROMETHANE	0.51	UG/KG	5.1	0.51	U	069SS-0002M-0001-SO	0.45	4.5	0.45	U	N/A	Yes
069SS-0001M-0001-SO	CIS-1,3-DICHLOROPROPENE	0.51	UG/KG	5.1	0.51	U	069SS-0002M-0001-SO	0.45	4.5	0.45	U	N/A	Yes
069SS-0001M-0001-SO	DIBROMOCHLOROMETHANE	1	UG/KG	5.1	1	U	069SS-0002M-0001-SO	0.91	4.5	0.91	U	N/A	Yes
069SS-0001M-0001-SO	ETHYLBENZENE	0.51	UG/KG	5.1	0.51	U	069SS-0002M-0001-SO	0.45	4.5	0.45	U	N/A	Yes
069SS-0001M-0001-SO	METHYL ETHYL KETONE	2	UG/KG	20	2	U	069SS-0002M-0001-SO	1.8	18	1.8	U	N/A	Yes
069SS-0001M-0001-SO	METHYL ISOBUTYL KETONE	1	UG/KG	20	1	U	069SS-0002M-0001-SO	0.93	18	0.91	J	N/A	Yes
069SS-0001M-0001-SO	METHYLENE CHLORIDE	1	UG/KG	5.1	1	U	069SS-0002M-0001-SO	0.91	4.5	0.91	U	N/A	Yes
069SS-0001M-0001-SO	STYRENE	0.51	UG/KG	5.1	0.51	U	069SS-0002M-0001-SO	0.45	4.5	0.45	U	N/A	Yes
069SS-0001M-0001-SO	TERT-BUTYL METHYL ETHER	0.51	UG/KG	5.1	0.51	U	069SS-0002M-0001-SO	0.45	4.5	0.45	U	N/A	Yes
069SS-0001M-0001-SO	TETRACHLOROETHYLENE	1	UG/KG	5.1	1	U	069SS-0002M-0001-SO	0.91	4.5	0.91	U	N/A	Yes
069SS-0001M-0001-SO	TOLUENE	0.51	UG/KG	5.1	0.51	U	069SS-0002M-0001-SO	0.45	4.5	0.45	U	N/A	Yes
069SS-0001M-0001-SO	TOTAL 1,2-DICHLOROETHENE	1	UG/KG	10	1	U	069SS-0002M-0001-SO	0.91	9.1	0.91	U	N/A	Yes
069SS-0001M-0001-SO	TRANS-1,3-DICHLOROPROPENE	1	UG/KG	5.1	1	U	069SS-0002M-0001-SO	0.91	4.5	0.91	U	N/A	Yes
069SS-0001M-0001-SO	TRICHLOROETHYLENE	0.51	UG/KG	5.1	0.51	U	069SS-0002M-0001-SO	0.45	4.5	0.45	U	N/A	Yes
069SS-0001M-0001-SO	VINYL CHLORIDE	0.51	UG/KG	5.1	0.51	U	069SS-0002M-0001-SO	0.45	4.5	0.45	U	N/A	Yes
069SS-0001M-0001-SO	XYLENES, TOTAL	1.5	UG/KG	10	1.5	U	069SS-0002M-0001-SO	1.4	9.1	1.4	U	N/A	Yes
069SS-0001M-0001-SO	1,2,4-TRICHLOROBENZENE	140	UG/KG	250	140	U	069SS-0002M-0001-SO	110	200	110	U	N/A	Yes
069SS-0001M-0001-SO	1,2-DICHLOROBENZENE	140	UG/KG	250	140	U	069SS-0002M-0001-SO	110	200	110	U	N/A	Yes
069SS-0001M-0001-SO	1,3-DICHLOROBENZENE	140	UG/KG	250	140	U	069SS-0002M-0001-SO	110	200	110	U	N/A	Yes
069SS-0001M-0001-SO	1,4-DICHLOROBENZENE	140	UG/KG	250	140	U	069SS-0002M-0001-SO	110	200	110	U	N/A	Yes
069SS-0001M-0001-SO	2,4,5-TRICHLOROPHENOL	140	UG/KG	750	140	U	069SS-0002M-0001-SO	110	600	110	U	N/A	Yes
069SS-0001M-0001-SO	2,4,6-TRICHLOROPHENOL	400	UG/KG	750	400	U	069SS-0002M-0001-SO	320	600	320	U	N/A	Yes
069SS-0001M-0001-SO	2,4-DICHLOROPHENOL	140	UG/KG	750	140	U	069SS-0002M-0001-SO	110	600	110	U	N/A	Yes
069SS-0001M-0001-SO	2,4-DIMETHYLPHENOL	400	UG/KG	750	400	U	069SS-0002M-0001-SO	320	600	320	U	N/A	Yes
069SS-0001M-0001-SO	2,4-DINITROPHENOL	400	UG/KG	1700	400	J	069SS-0002M-0001-SO	320	1300	320	J	N/A	Yes
069SS-0001M-0001-SO	2,4-DINITROTOLUENE	140	UG/KG	1000	140	R	069SS-0002M-0001-SO	110	800	110	U	N/A	N/A
069SS-0001M-0001-SO	2,6-DINITROTOLUENE	140	UG/KG	1000	140	R	069SS-0002M-0001-SO	110	800	110	U	N/A	N/A
069SS-0001M-0001-SO	2-CHLORONAPHTHALENE	17	UG/KG	250	17	U	069SS-0002M-0001-SO	13	200	13	U	N/A	Yes
069SS-0001M-0001-SO	2-CHLOROPHENOL	140	UG/KG	250	140	U	069SS-0002M-0001-SO	110	200	110	U	N/A	Yes
069SS-0001M-0001-SO	2-METHYLNAPHTHALENE	20	UG/KG	34	17	J	069SS-0002M-0001-SO	21	27	13	J	N/A	Yes
069SS-0001M-0001-SO	2-METHYLPHENOL	400	UG/KG	1000	400	U	069SS-0002M-0001-SO	320	800	320	U	N/A	Yes
069SS-0001M-0001-SO	2-NITROANILINE	140	UG/KG	1000	140	U	069SS-0002M-0001-SO	110	800	110	U	N/A	Yes
069SS-0001M-0001-SO	2-NITROPHENOL	140	UG/KG	250	140	U	069SS-0002M-0001-SO	110	200	110	U	N/A	Yes
069SS-0001M-0001-SO	3,3'-DICHLOROBENZIDINE	400	UG/KG	500	400	R	069SS-0002M-0001-SO	320	400	320	U	N/A	N/A
069SS-0001M-0001-SO	3-NITROANILINE	400	UG/KG	1000	400	U	069SS-0002M-0001-SO	320	800	320	U	N/A	Yes
069SS-0001M-0001-SO	4,6-DINITRO-2-METHYLPHENOL	400	UG/KG	750	400	UJ	069SS-0002M-0001-SO	320	600	320	J	N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
069SS-0001M-0001-SO	4-BROMOPHENYL PHENYL ETHER	140	UG/KG	250	140	U	069SS-0002M-0001-SO	110	200	110	U	N/A	Yes
069SS-0001M-0001-SO	4-CHLORO-3-METHYLPHENOL	140	UG/KG	750	140	U	069SS-0002M-0001-SO	110	600	110	U	N/A	Yes
069SS-0001M-0001-SO	4-CHLOROANILINE	140	UG/KG	750	140	U	069SS-0002M-0001-SO	110	600	110	U	N/A	Yes
069SS-0001M-0001-SO	4-CHLOROPHENYL PHENYL ETHER	140	UG/KG	250	140	U	069SS-0002M-0001-SO	110	200	110	U	N/A	Yes
069SS-0001M-0001-SO	4-NITROANILINE	140	UG/KG	1000	140	U	069SS-0002M-0001-SO	110	800	110	U	N/A	Yes
069SS-0001M-0001-SO	4-NITROPHENOL	400	UG/KG	1700	400	UJ	069SS-0002M-0001-SO	320	1300	320	J	N/A	Yes
069SS-0001M-0001-SO	ACENAPHTHENE	17	UG/KG	34	17	U	069SS-0002M-0001-SO	13	27	13	U	N/A	Yes
069SS-0001M-0001-SO	ACENAPHTHYLENE	17	UG/KG	34	17	U	069SS-0002M-0001-SO	16	27	13	J	N/A	Yes
069SS-0001M-0001-SO	ANTHRACENE	17	UG/KG	34	17	U	069SS-0002M-0001-SO	18	27	13	J	N/A	Yes
069SS-0001M-0001-SO	BENZO(A)ANTHRACENE	54	UG/KG	34	17		069SS-0002M-0001-SO	120	27	13		N/A	No
069SS-0001M-0001-SO	BENZO(A)PYRENE	93	UG/KG	34	17		069SS-0002M-0001-SO	120	27	13		N/A	Yes
069SS-0001M-0001-SO	BENZO(B)FLUORANTHENE	90	UG/KG	34	17		069SS-0002M-0001-SO	150	27	13		N/A	No
069SS-0001M-0001-SO	BENZO(G,H,I)PERYLENE	52	UG/KG	34	17		069SS-0002M-0001-SO	63	27	13		N/A	Yes
069SS-0001M-0001-SO	BENZO(K)FLUORANTHENE	28	UG/KG	34	17	J	069SS-0002M-0001-SO	45	27	13		N/A	Yes
069SS-0001M-0001-SO	BENZOIC ACID	1700	UG/KG	3300	1700	R	069SS-0002M-0001-SO	1300	2600	1300	U	N/A	N/A
069SS-0001M-0001-SO	BENZYL ALCOHOL	140	UG/KG	1700	140	U	069SS-0002M-0001-SO	110	1300	110	U	N/A	Yes
069SS-0001M-0001-SO	BENZYL BUTYL PHTHALATE	140	UG/KG	250	140	U	069SS-0002M-0001-SO	110	200	110	U	N/A	Yes
069SS-0001M-0001-SO	BIS(2-CHLOROETHOXY) METHANE	140	UG/KG	500	140	U	069SS-0002M-0001-SO	110	400	110	U	N/A	Yes
069SS-0001M-0001-SO	BIS(2-CHLOROETHYL) ETHER	17	UG/KG	500	17	U	069SS-0002M-0001-SO	13	400	13	U	N/A	Yes
069SS-0001M-0001-SO	BIS(2-CHLOROISOPROPYL) ETHER	140	UG/KG	500	140	U	069SS-0002M-0001-SO	110	400	110	U	N/A	Yes
069SS-0001M-0001-SO	BIS(2-ETHYLHEXYL) PHTHALATE	140	UG/KG	250	140	U	069SS-0002M-0001-SO	110	200	110	U	N/A	Yes
069SS-0001M-0001-SO	CARBAZOLE	140	UG/KG	250	140	U	069SS-0002M-0001-SO	110	200	110	U	N/A	Yes
069SS-0001M-0001-SO	CHRYSENE	72	UG/KG	34	17		069SS-0002M-0001-SO	130	27	13		N/A	No
069SS-0001M-0001-SO	CRESOLS, M & P	400	UG/KG	2000	400	U	069SS-0002M-0001-SO	320	1600	320	U	N/A	Yes
069SS-0001M-0001-SO	DIBENZ(A,H)ANTHRACENE	17	UG/KG	34	17	U	069SS-0002M-0001-SO	13	27	13	U	N/A	Yes
069SS-0001M-0001-SO	DIBENZOFURAN	17	UG/KG	250	17	U	069SS-0002M-0001-SO	13	200	13	U	N/A	Yes
069SS-0001M-0001-SO	DIETHYL PHTHALATE	140	UG/KG	250	140	U	069SS-0002M-0001-SO	110	200	110	U	N/A	Yes
069SS-0001M-0001-SO	DIMETHYL PHTHALATE	140	UG/KG	250	140	U	069SS-0002M-0001-SO	110	200	110	U	N/A	Yes
069SS-0001M-0001-SO	DI-N-BUTYL PHTHALATE	140	UG/KG	250	140	U	069SS-0002M-0001-SO	110	200	110	U	N/A	Yes
069SS-0001M-0001-SO	DI-N-OCTYLPHTHALATE	140	UG/KG	250	140	U	069SS-0002M-0001-SO	110	200	110	U	N/A	Yes
069SS-0001M-0001-SO	FLUORANTHENE	120	UG/KG	34	17		069SS-0002M-0001-SO	190	27	13		N/A	No
069SS-0001M-0001-SO	FLUORENE	17	UG/KG	34	17	U	069SS-0002M-0001-SO	13	27	13	U	N/A	Yes
069SS-0001M-0001-SO	HEXACHLOROBENZENE	17	UG/KG	34	17	U	069SS-0002M-0001-SO	13	27	13	U	N/A	Yes
069SS-0001M-0001-SO	HEXACHLOROBUTADIENE	140	UG/KG	250	140	U	069SS-0002M-0001-SO	110	200	110	U	N/A	Yes
069SS-0001M-0001-SO	HEXACHLOROCYCLOPENTADIENE	140	UG/KG	1700	140	U	069SS-0002M-0001-SO	110	1300	110	U	N/A	Yes
069SS-0001M-0001-SO	HEXACHLOROETHANE	140	UG/KG	250	140	U	069SS-0002M-0001-SO	110	200	110	U	N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
069SS-0001M-0001-SO	INDENO(1,2,3-C,D)PYRENE	69	UG/KG	34	17		069SS-0002M-0001-SO	82	27	13		N/A	Yes
069SS-0001M-0001-SO	ISOPHORONE	140	UG/KG	250	140	U	069SS-0002M-0001-SO	110	200	110	U	N/A	Yes
069SS-0001M-0001-SO	NAPHTHALENE	18	UG/KG	34	17	J	069SS-0002M-0001-SO	13	27	13	U	N/A	Yes
069SS-0001M-0001-SO	NITROBENZENE	17	UG/KG	500	17	U	069SS-0002M-0001-SO	13	400	13	U	N/A	Yes
069SS-0001M-0001-SO	N-NITROSODI-N-PROPYLAMINE	140	UG/KG	250	140	U	069SS-0002M-0001-SO	110	200	110	U	N/A	Yes
069SS-0001M-0001-SO	N-NITROSODIPHENYLAMINE	140	UG/KG	250	140	R	069SS-0002M-0001-SO	110	200	110	U	N/A	N/A
069SS-0001M-0001-SO	PENTACHLOROPHENOL	400	UG/KG	750	400	U	069SS-0002M-0001-SO	320	600	320	U	N/A	Yes
069SS-0001M-0001-SO	PHENANTHRENE	53	UG/KG	34	17		069SS-0002M-0001-SO	65	27	13		N/A	Yes
069SS-0001M-0001-SO	PHENOL	140	UG/KG	250	140	U	069SS-0002M-0001-SO	110	200	110	U	N/A	Yes
069SS-0001M-0001-SO	PYRENE	86	UG/KG	34	17		069SS-0002M-0001-SO	170	27	13		N/A	No
069SS-0001M-0001-SO	1,3,5-TRINITROBENZENE	0.05	MG/KG	0.25	0.05	U	069SS-0002M-0001-SO	0.049	0.25	0.049	U	N/A	Yes
069SS-0001M-0001-SO	1,3-DINITROBENZENE	0.05	MG/KG	0.25	0.05	U	069SS-0002M-0001-SO	0.049	0.25	0.049	U	N/A	Yes
069SS-0001M-0001-SO	2,4,6-TRINITROTOLUENE	0.05	MG/KG	0.25	0.05	U	069SS-0002M-0001-SO	0.049	0.25	0.049	U	N/A	Yes
069SS-0001M-0001-SO	2,4-DINITROTOLUENE	0.05	MG/KG	0.25	0.05	U	069SS-0002M-0001-SO	0.049	0.25	0.049	U	N/A	Yes
069SS-0001M-0001-SO	2,6-DINITROTOLUENE	0.05	MG/KG	0.25	0.05	U	069SS-0002M-0001-SO	0.049	0.25	0.049	U	N/A	Yes
069SS-0001M-0001-SO	2-AMINO-4,6-DINITROTOLUENE	0.05	MG/KG	0.25	0.05	U	069SS-0002M-0001-SO	0.049	0.25	0.049	U	N/A	Yes
069SS-0001M-0001-SO	2-NITROTOLUENE	0.05	MG/KG	0.25	0.05	UJ	069SS-0002M-0001-SO	0.049	0.25	0.049	U	N/A	Yes
069SS-0001M-0001-SO	3-NITROTOLUENE	0.05	MG/KG	0.25	0.05	U	069SS-0002M-0001-SO	0.049	0.25	0.049	U	N/A	Yes
069SS-0001M-0001-SO	4-AMINO-2,6-DINITROTOLUENE	0.05	MG/KG	0.25	0.05	U	069SS-0002M-0001-SO	0.049	0.25	0.049	U	N/A	Yes
069SS-0001M-0001-SO	4-NITROTOLUENE	0.05	MG/KG	0.25	0.05	U	069SS-0002M-0001-SO	0.049	0.25	0.049	U	N/A	Yes
069SS-0001M-0001-SO	HMX	0.05	MG/KG	0.25	0.05	U	069SS-0002M-0001-SO	0.049	0.25	0.049	U	N/A	Yes
069SS-0001M-0001-SO	NITROBENZENE	0.05	MG/KG	0.25	0.05	R	069SS-0002M-0001-SO	0.049	0.25	0.049	U	N/A	N/A
069SS-0001M-0001-SO	NITROGLYCERIN	0.25	MG/KG	0.5	0.25	U	069SS-0002M-0001-SO	0.25	0.49	0.25	U	N/A	Yes
069SS-0001M-0001-SO	NITROGUANIDINE	0.039	MG/KG	0.24	0.039	U	069SS-0002M-0001-SO	0.34	0.24	0.038		N/A	No
069SS-0001M-0001-SO	PETN	0.25	MG/KG	0.5	0.25	U	069SS-0002M-0001-SO	0.25	0.49	0.25	U	N/A	Yes
069SS-0001M-0001-SO	RDX	0.05	MG/KG	0.25	0.05	UJ	069SS-0002M-0001-SO	0.049	0.25	0.049	U	N/A	Yes
069SS-0001M-0001-SO	TETRYL	0.05	MG/KG	0.25	0.05	U	069SS-0002M-0001-SO	0.073	0.25	0.049	J	N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
073SB-0009M-0001-SO	ALUMINUM	7500	MG/KG	2.9	0.57		073SB-0010M-0001-SO	11000	2.4	0.49		38	N/A
073SB-0009M-0001-SO	ANTIMONY	0.065	MG/KG	0.19	0.095	J-	073SB-0010M-0001-SO	0.058	0.16	0.081	J	N/A	Yes
073SB-0009M-0001-SO	ARSENIC	7.8	MG/KG	0.095	0.048	J-	073SB-0010M-0001-SO	13	0.081	0.041		50	N/A
073SB-0009M-0001-SO	BARIUM	44	MG/KG	0.95	0.019		073SB-0010M-0001-SO	52	0.81	0.016		17	N/A
073SB-0009M-0001-SO	BERYLLIUM	0.43	MG/KG	0.095	0.0095		073SB-0010M-0001-SO	0.62	0.081	0.0081		N/A	No
073SB-0009M-0001-SO	CADMIUM	0.18	MG/KG	0.095	0.029	J+	073SB-0010M-0001-SO	0.15	0.081	0.024		N/A	Yes
073SB-0009M-0001-SO	CALCIUM	6500	MG/KG	9.5	2.4	J-	073SB-0010M-0001-SO	4500	8.1	2		36	N/A
073SB-0009M-0001-SO	CHROMIUM	14	MG/KG	0.19	0.038	J+	073SB-0010M-0001-SO	17	0.16	0.033		19	N/A
073SB-0009M-0001-SO	COBALT	7.7	MG/KG	0.048	0.0095		073SB-0010M-0001-SO	9.9	0.041	0.0081		25	N/A
073SB-0009M-0001-SO	COPPER	14	MG/KG	0.19	0.057	J-	073SB-0010M-0001-SO	19	0.16	0.049		30	N/A
073SB-0009M-0001-SO	IRON	18000	MG/KG	4.8	1.9		073SB-0010M-0001-SO	24000	4.1	1.6		29	N/A
073SB-0009M-0001-SO	LEAD	10	MG/KG	0.095	0.029		073SB-0010M-0001-SO	11	0.081	0.024		10	N/A
073SB-0009M-0001-SO	MAGNESIUM	2900	MG/KG	9.5	1.9		073SB-0010M-0001-SO	3400	8.1	1.6		16	N/A
073SB-0009M-0001-SO	MANGANESE	280	MG/KG	0.48	0.029		073SB-0010M-0001-SO	300	0.41	0.024		7	N/A
073SB-0009M-0001-SO	NICKEL	19	MG/KG	0.095	0.029		073SB-0010M-0001-SO	24	0.081	0.024		23	N/A
073SB-0009M-0001-SO	POTASSIUM	1100	MG/KG	9.5	5.7	J+	073SB-0010M-0001-SO	1600	8.1	4.9		37	N/A
073SB-0009M-0001-SO	SELENIUM	0.71	MG/KG	0.48	0.095	J-	073SB-0010M-0001-SO	0.7	0.41	0.081		N/A	Yes
073SB-0009M-0001-SO	SILVER	0.024	MG/KG	0.095	0.029		073SB-0010M-0001-SO	0.019	0.081	0.024	J	N/A	Yes
073SB-0009M-0001-SO	SODIUM	78	MG/KG	9.5	4.8		073SB-0010M-0001-SO	58	8.1	4.1		29	N/A
073SB-0009M-0001-SO	THALLIUM	0.13	MG/KG	0.095	0.019	J-	073SB-0010M-0001-SO	0.16	0.081	0.016		N/A	Yes
073SB-0009M-0001-SO	VANADIUM	13	MG/KG	0.095	0.057	J+	073SB-0010M-0001-SO	16	0.081	0.049		21	N/A
073SB-0009M-0001-SO	ZINC	45	MG/KG	0.48	0.19	J-	073SB-0010M-0001-SO	58	0.41	0.16		25	N/A
073SB-0009M-0001-SO	MERCURY	0.026	MG/KG	0.092	0.03		073SB-0010M-0001-SO	0.019	0.087	0.029	J	N/A	Yes
073SB-0009M-0001-SO	1,2,4-TRICHLOROBENZENE	130	UG/KG	250	130	U	073SB-0010M-0001-SO	140	250	140	U	N/A	Yes
073SB-0009M-0001-SO	1,2-DICHLOROBENZENE	130	UG/KG	250	130	U	073SB-0010M-0001-SO	140	250	140	U	N/A	Yes
073SB-0009M-0001-SO	1,3-DICHLOROBENZENE	130	UG/KG	250	130	U	073SB-0010M-0001-SO	140	250	140	U	N/A	Yes
073SB-0009M-0001-SO	1,4-DICHLOROBENZENE	130	UG/KG	250	130	U	073SB-0010M-0001-SO	140	250	140	U	N/A	Yes
073SB-0009M-0001-SO	2,2'-DICHLORODIISOPROPYL ETHER	16	UG/KG	490	16	U	073SB-0010M-0001-SO	17	500	17	U	N/A	Yes
073SB-0009M-0001-SO	2,4,5-TRICHLOROPHENOL	130	UG/KG	740	130	U	073SB-0010M-0001-SO	140	760	140	U	N/A	Yes
073SB-0009M-0001-SO	2,4,6-TRICHLOROPHENOL	390	UG/KG	740	390	U	073SB-0010M-0001-SO	400	760	400	U	N/A	Yes
073SB-0009M-0001-SO	2,4-DICHLOROPHENOL	130	UG/KG	740	130	U	073SB-0010M-0001-SO	140	760	140	U	N/A	Yes
073SB-0009M-0001-SO	2,4-DIMETHYLPHENOL	390	UG/KG	740	390	U	073SB-0010M-0001-SO	400	760	400	U	N/A	Yes
073SB-0009M-0001-SO	2,4-DINITROPHENOL	390	UG/KG	1600	390	U	073SB-0010M-0001-SO	400	1700	400	U	N/A	Yes
073SB-0009M-0001-SO	2,4-DINITROTOLUENE	130	UG/KG	990	130	R	073SB-0010M-0001-SO	140	1000	140	U	N/A	Yes
073SB-0009M-0001-SO	2,6-DINITROTOLUENE	130	UG/KG	990	130	R	073SB-0010M-0001-SO	140	1000	140	U	N/A	Yes
073SB-0009M-0001-SO	2-CHLORONAPHTHALENE	16	UG/KG	250	16	U	073SB-0010M-0001-SO	17	250	17	U	N/A	Yes
073SB-0009M-0001-SO	2-CHLOROPHENOL	130	UG/KG	250	130	U	073SB-0010M-0001-SO	140	250	140	U	N/A	Yes
073SB-0009M-0001-SO	2-METHYLNAPHTHALENE	23	UG/KG	33	16		073SB-0010M-0001-SO	17	34	17	U	N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
073SB-0009M-0001-SO	2-METHYLPHENOL (O-CRESOL)	390	UG/KG	990	390	U	073SB-0010M-0001-SO	400	1000	400	U	N/A	Yes
073SB-0009M-0001-SO	2-NITROANILINE	130	UG/KG	990	130	U	073SB-0010M-0001-SO	140	1000	140	U	N/A	Yes
073SB-0009M-0001-SO	2-NITROPHENOL	130	UG/KG	250	130	U	073SB-0010M-0001-SO	140	250	140	U	N/A	Yes
073SB-0009M-0001-SO	3,3'-DICHLOROBENZIDINE	390	UG/KG	490	390	UJ	073SB-0010M-0001-SO	400	500	400	U	N/A	Yes
073SB-0009M-0001-SO	3-NITROANILINE	390	UG/KG	990	390	U	073SB-0010M-0001-SO	400	1000	400	U	N/A	Yes
073SB-0009M-0001-SO	4,6-DINITRO-2-METHYLPHENOL	390	UG/KG	740	390	U	073SB-0010M-0001-SO	400	760	400	U	N/A	Yes
073SB-0009M-0001-SO	4-BROMOPHENYL PHENYL ETHER	130	UG/KG	250	130	U	073SB-0010M-0001-SO	140	250	140	U	N/A	Yes
073SB-0009M-0001-SO	4-CHLORO-3-METHYLPHENOL	130	UG/KG	740	130	U	073SB-0010M-0001-SO	140	760	140	U	N/A	Yes
073SB-0009M-0001-SO	4-CHLOROANILINE	130	UG/KG	740	130	U	073SB-0010M-0001-SO	140	760	140	U	N/A	Yes
073SB-0009M-0001-SO	4-CHLOROPHENYL PHENYL ETHER	130	UG/KG	250	130	U	073SB-0010M-0001-SO	140	250	140	U	N/A	Yes
073SB-0009M-0001-SO	4-NITROANILINE	130	UG/KG	990	130	U	073SB-0010M-0001-SO	140	1000	140	U	N/A	Yes
073SB-0009M-0001-SO	4-NITROPHENOL	390	UG/KG	1600	390	U	073SB-0010M-0001-SO	400	1700	400	U	N/A	Yes
073SB-0009M-0001-SO	ACENAPHTHENE	16	UG/KG	33	16	U	073SB-0010M-0001-SO	17	34	17	U	N/A	Yes
073SB-0009M-0001-SO	ACENAPHTHYLENE	16	UG/KG	33	16	U	073SB-0010M-0001-SO	17	34	17	U	N/A	Yes
073SB-0009M-0001-SO	ANTHRACENE	16	UG/KG	33	16	U	073SB-0010M-0001-SO	17	34	17	U	N/A	Yes
073SB-0009M-0001-SO	BENZO(A)ANTHRACENE	16	UG/KG	33	16	U	073SB-0010M-0001-SO	17	34	17	U	N/A	Yes
073SB-0009M-0001-SO	BENZO(A)PYRENE	16	UG/KG	33	16	U	073SB-0010M-0001-SO	17	34	17	U	N/A	Yes
073SB-0009M-0001-SO	BENZO(B)FLUORANTHENE	16	UG/KG	33	16	U	073SB-0010M-0001-SO	17	34	17	U	N/A	Yes
073SB-0009M-0001-SO	BENZO(G,H,I)PERYLENE	16	UG/KG	33	16	U	073SB-0010M-0001-SO	17	34	17	U	N/A	Yes
073SB-0009M-0001-SO	BENZO(K)FLUORANTHENE	16	UG/KG	33	16	U	073SB-0010M-0001-SO	17	34	17	U	N/A	Yes
073SB-0009M-0001-SO	BENZOIC ACID	1600	UG/KG	3300	1600	U	073SB-0010M-0001-SO	1700	3300	1700	U	N/A	Yes
073SB-0009M-0001-SO	BENZYL ALCOHOL	130	UG/KG	1600	130	U	073SB-0010M-0001-SO	140	1700	140	U	N/A	Yes
073SB-0009M-0001-SO	BENZYL BUTYL PHTHALATE	130	UG/KG	250	130	U	073SB-0010M-0001-SO	140	250	140	U	N/A	Yes
073SB-0009M-0001-SO	BIS(2-CHLOROETHOXY) METHANE	130	UG/KG	490	130	U	073SB-0010M-0001-SO	140	500	140	U	N/A	Yes
073SB-0009M-0001-SO	BIS(2-CHLOROISOPROPYL) ETHER	130	UG/KG	490	130	U	073SB-0010M-0001-SO	140	500	140	U	N/A	Yes
073SB-0009M-0001-SO	BIS(2-ETHYLHEXYL) PHTHALATE	130	UG/KG	250	130	U	073SB-0010M-0001-SO	140	250	140	U	N/A	Yes
073SB-0009M-0001-SO	CARBAZOLE	130	UG/KG	250	130	U	073SB-0010M-0001-SO	140	250	140	U	N/A	Yes
073SB-0009M-0001-SO	CHRYSENE	16	UG/KG	33	16	U	073SB-0010M-0001-SO	17	34	17	U	N/A	Yes
073SB-0009M-0001-SO	CRESOLS, M & P	390	UG/KG	2000	390	U	073SB-0010M-0001-SO	400	2000	400	U	N/A	Yes
073SB-0009M-0001-SO	DIBENZ(A,H)ANTHRACENE	16	UG/KG	33	16	U	073SB-0010M-0001-SO	17	34	17	U	N/A	Yes
073SB-0009M-0001-SO	DIBENZOFURAN	16	UG/KG	250	16	U	073SB-0010M-0001-SO	17	250	17	U	N/A	Yes
073SB-0009M-0001-SO	DIETHYL PHTHALATE	130	UG/KG	250	130	U	073SB-0010M-0001-SO	140	250	140	U	N/A	Yes
073SB-0009M-0001-SO	DIMETHYL PHTHALATE	130	UG/KG	250	130	U	073SB-0010M-0001-SO	140	250	140	U	N/A	Yes
073SB-0009M-0001-SO	DI-N-BUTYL PHTHALATE	130	UG/KG	250	130	U	073SB-0010M-0001-SO	140	250	140	U	N/A	Yes
073SB-0009M-0001-SO	DI-N-OCTYLPHTHALATE	130	UG/KG	250	130	U	073SB-0010M-0001-SO	140	250	140	U	N/A	Yes
073SB-0009M-0001-SO	FLUORANTHENE	16	UG/KG	33	16	U	073SB-0010M-0001-SO	17	34	17	U	N/A	Yes
073SB-0009M-0001-SO	FLUORENE	16	UG/KG	33	16	U	073SB-0010M-0001-SO	17	34	17	U	N/A	Yes
073SB-0009M-0001-SO	HEXACHLOROBENZENE	16	UG/KG	33	16	U	073SB-0010M-0001-SO	17	34	17	U	N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
073SB-0009M-0001-SO	HEXACHLOROBUTADIENE	130	UG/KG	250	130	U	073SB-0010M-0001-SO	140	250	140	U	N/A	Yes
073SB-0009M-0001-SO	HEXACHLOROCYCLOPENTADIENE	130	UG/KG	1600	130	U	073SB-0010M-0001-SO	140	1700	140	U	N/A	Yes
073SB-0009M-0001-SO	HEXACHLOROETHANE	130	UG/KG	250	130	U	073SB-0010M-0001-SO	140	250	140	U	N/A	Yes
073SB-0009M-0001-SO	INDENO(1,2,3-C,D)PYRENE	16	UG/KG	33	16	U	073SB-0010M-0001-SO	17	34	17	U	N/A	Yes
073SB-0009M-0001-SO	ISOPHORONE	130	UG/KG	250	130	U	073SB-0010M-0001-SO	140	250	140	U	N/A	Yes
073SB-0009M-0001-SO	NAPHTHALENE	16	UG/KG	33	16	U	073SB-0010M-0001-SO	17	34	17	U	N/A	Yes
073SB-0009M-0001-SO	NITROBENZENE	16	UG/KG	490	16	U	073SB-0010M-0001-SO	17	500	17	U	N/A	Yes
073SB-0009M-0001-SO	N-NITROSODI-N-PROPYLAMINE	130	UG/KG	250	130	U	073SB-0010M-0001-SO	140	250	140	U	N/A	Yes
073SB-0009M-0001-SO	N-NITROSODIPHENYLAMINE	130	UG/KG	250	130	U	073SB-0010M-0001-SO	140	250	140	U	N/A	Yes
073SB-0009M-0001-SO	PENTACHLOROPHENOL	390	UG/KG	740	390	U	073SB-0010M-0001-SO	400	760	400	U	N/A	Yes
073SB-0009M-0001-SO	PHENANTHRENE	27	UG/KG	33	16		073SB-0010M-0001-SO	17	34	17	U	N/A	Yes
073SB-0009M-0001-SO	PHENOL	130	UG/KG	250	130	U	073SB-0010M-0001-SO	140	250	140	U	N/A	Yes
073SB-0009M-0001-SO	PYRENE	17	UG/KG	33	16		073SB-0010M-0001-SO	17	34	17	U	N/A	Yes
073SB-0016M-0001-SO	ALUMINUM	5500	MG/KG	3	0.6		073SB-0017M-0001-SO	5300	3	0.59		4	N/A
073SB-0016M-0001-SO	ANTIMONY	0.047	MG/KG	0.2	0.1	J-	073SB-0017M-0001-SO	0.099	0.2	0.099	U	N/A	Yes
073SB-0016M-0001-SO	ARSENIC	7.3	MG/KG	0.1	0.05	J-	073SB-0017M-0001-SO	6.6	0.099	0.05		10	N/A
073SB-0016M-0001-SO	BARIUM	50	MG/KG	1	0.02		073SB-0017M-0001-SO	48	0.99	0.02		4	N/A
073SB-0016M-0001-SO	BERYLLIUM	0.38	MG/KG	0.1	0.01	J-	073SB-0017M-0001-SO	0.36	0.099	0.0099		N/A	Yes
073SB-0016M-0001-SO	CADMIUM	0.2	MG/KG	0.1	0.03	J+	073SB-0017M-0001-SO	0.19	0.099	0.03		N/A	Yes
073SB-0016M-0001-SO	CALCIUM	5500	MG/KG	10	2.5	J-	073SB-0017M-0001-SO	2000	9.9	2.5		93	N/A
073SB-0016M-0001-SO	CHROMIUM	9.6	MG/KG	0.2	0.04		073SB-0017M-0001-SO	8.8	0.2	0.04		9	N/A
073SB-0016M-0001-SO	COBALT	6.6	MG/KG	0.05	0.01		073SB-0017M-0001-SO	6.3	0.05	0.0099		5	N/A
073SB-0016M-0001-SO	COPPER	12	MG/KG	0.2	0.06	J-	073SB-0017M-0001-SO	11	0.2	0.059		9	N/A
073SB-0016M-0001-SO	IRON	14000	MG/KG	5	2		073SB-0017M-0001-SO	14000	5	2		0	N/A
073SB-0016M-0001-SO	LEAD	11	MG/KG	0.1	0.03		073SB-0017M-0001-SO	10	0.099	0.03		10	N/A
073SB-0016M-0001-SO	MAGNESIUM	1800	MG/KG	10	2		073SB-0017M-0001-SO	1600	9.9	2		12	N/A
073SB-0016M-0001-SO	MANGANESE	360	MG/KG	0.5	0.03		073SB-0017M-0001-SO	400	0.5	0.03		11	N/A
073SB-0016M-0001-SO	NICKEL	15	MG/KG	0.1	0.03		073SB-0017M-0001-SO	14	0.099	0.03		7	N/A
073SB-0016M-0001-SO	POTASSIUM	560	MG/KG	10	6		073SB-0017M-0001-SO	540	9.9	5.9		4	N/A
073SB-0016M-0001-SO	SELENIUM	0.25	MG/KG	0.5	0.1	J-	073SB-0017M-0001-SO	0.26	0.5	0.099	J	N/A	Yes
073SB-0016M-0001-SO	SILVER	0.24	MG/KG	0.1	0.03		073SB-0017M-0001-SO	0.23	0.099	0.03		N/A	Yes
073SB-0016M-0001-SO	SODIUM	32	MG/KG	10	5		073SB-0017M-0001-SO	33	9.9	5		N/A	Yes
073SB-0016M-0001-SO	THALLIUM	0.091	MG/KG	0.1	0.02	J+	073SB-0017M-0001-SO	0.084	0.099	0.02	J	N/A	Yes
073SB-0016M-0001-SO	VANADIUM	9.8	MG/KG	0.1	0.06		073SB-0017M-0001-SO	9.3	0.099	0.059		5	N/A
073SB-0016M-0001-SO	ZINC	43	MG/KG	0.5	0.2	J-	073SB-0017M-0001-SO	42	0.5	0.2		2	N/A
073SB-0016M-0001-SO	MERCURY	0.03	MG/KG	0.11	0.036	J	073SB-0017M-0001-SO	0.028	0.11	0.037	J	N/A	Yes
073SB-0016M-0001-SO	1,2,4-TRICHLOROBENZENE	27	UG/KG	50	27	U	073SB-0017M-0001-SO	27	49	27	U	N/A	Yes
073SB-0016M-0001-SO	1,2-DICHLOROBENZENE	27	UG/KG	50	27	U	073SB-0017M-0001-SO	27	49	27	U	N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
073SB-0016M-0001-SO	1,3-DICHLOROBENZENE	27	UG/KG	50	27	U	073SB-0017M-0001-SO	27	49	27	U	N/A	Yes
073SB-0016M-0001-SO	1,4-DICHLOROBENZENE	28	UG/KG	50	27	J	073SB-0017M-0001-SO	24	49	27	J	N/A	Yes
073SB-0016M-0001-SO	2,4,5-TRICHLOROPHENOL	27	UG/KG	150	27	U	073SB-0017M-0001-SO	27	150	27	U	N/A	Yes
073SB-0016M-0001-SO	2,4,6-TRICHLOROPHENOL	80	UG/KG	150	80	U	073SB-0017M-0001-SO	79	150	79	U	N/A	Yes
073SB-0016M-0001-SO	2,4-DICHLOROPHENOL	27	UG/KG	150	27	U	073SB-0017M-0001-SO	27	150	27	U	N/A	Yes
073SB-0016M-0001-SO	2,4-DIMETHYLPHENOL	80	UG/KG	150	80	U	073SB-0017M-0001-SO	79	150	79	U	N/A	Yes
073SB-0016M-0001-SO	2,4-DINITROPHENOL	80	UG/KG	330	80	U	073SB-0017M-0001-SO	79	330	79	U	N/A	Yes
073SB-0016M-0001-SO	2,4-DINITROTOLUENE	27	UG/KG	200	27	U	073SB-0017M-0001-SO	27	200	27	U	N/A	Yes
073SB-0016M-0001-SO	2,6-DINITROTOLUENE	27	UG/KG	200	27	U	073SB-0017M-0001-SO	27	200	27	U	N/A	Yes
073SB-0016M-0001-SO	2-CHLORONAPHTHALENE	3.3	UG/KG	50	3.3	U	073SB-0017M-0001-SO	3.3	49	3.3	U	N/A	Yes
073SB-0016M-0001-SO	2-CHLOROPHENOL	27	UG/KG	50	27	U	073SB-0017M-0001-SO	27	49	27	U	N/A	Yes
073SB-0016M-0001-SO	2-METHYLNAPHTHALENE	60	UG/KG	6.6	3.3		073SB-0017M-0001-SO	36	6.6	3.3		50	N/A
073SB-0016M-0001-SO	2-METHYLPHENOL (O-CRESOL)	80	UG/KG	200	80	U	073SB-0017M-0001-SO	79	200	79	U	N/A	Yes
073SB-0016M-0001-SO	2-NITROANILINE	27	UG/KG	200	27	U	073SB-0017M-0001-SO	27	200	27	U	N/A	Yes
073SB-0016M-0001-SO	2-NITROPHENOL	27	UG/KG	50	27	U	073SB-0017M-0001-SO	27	49	27	U	N/A	Yes
073SB-0016M-0001-SO	3,3'-DICHLOROBENZIDINE	80	UG/KG	100	80	U	073SB-0017M-0001-SO	79	99	79	U	N/A	Yes
073SB-0016M-0001-SO	3-NITROANILINE	80	UG/KG	200	80	U	073SB-0017M-0001-SO	79	200	79	U	N/A	Yes
073SB-0016M-0001-SO	4,6-DINITRO-2-METHYLPHENOL	80	UG/KG	150	80	U	073SB-0017M-0001-SO	79	150	79	U	N/A	Yes
073SB-0016M-0001-SO	4-BROMOPHENYL PHENYL ETHER	27	UG/KG	50	27	U	073SB-0017M-0001-SO	27	49	27	U	N/A	Yes
073SB-0016M-0001-SO	4-CHLORO-3-METHYLPHENOL	27	UG/KG	150	27	U	073SB-0017M-0001-SO	27	150	27	U	N/A	Yes
073SB-0016M-0001-SO	4-CHLOROANILINE	27	UG/KG	150	27	U	073SB-0017M-0001-SO	27	150	27	U	N/A	Yes
073SB-0016M-0001-SO	4-CHLOROPHENYL PHENYL ETHER	27	UG/KG	50	27	U	073SB-0017M-0001-SO	27	49	27	U	N/A	Yes
073SB-0016M-0001-SO	4-NITROANILINE	27	UG/KG	200	27	U	073SB-0017M-0001-SO	27	200	27	U	N/A	Yes
073SB-0016M-0001-SO	4-NITROPHENOL	80	UG/KG	330	80	U	073SB-0017M-0001-SO	79	330	79	U	N/A	Yes
073SB-0016M-0001-SO	ACENAPHTHENE	3.3	UG/KG	6.6	3.3	U	073SB-0017M-0001-SO	3.3	6.6	3.3	U	N/A	Yes
073SB-0016M-0001-SO	ACENAPHTHYLENE	9.4	UG/KG	6.6	3.3		073SB-0017M-0001-SO	4.8	6.6	3.3	J	N/A	Yes
073SB-0016M-0001-SO	ANTHRACENE	16	UG/KG	6.6	3.3		073SB-0017M-0001-SO	25	6.6	3.3		N/A	No
073SB-0016M-0001-SO	BENZO(A)ANTHRACENE	77	UG/KG	6.6	3.3		073SB-0017M-0001-SO	70	6.6	3.3		10	N/A
073SB-0016M-0001-SO	BENZO(A)PYRENE	62	UG/KG	6.6	3.3		073SB-0017M-0001-SO	58	6.6	3.3		7	N/A
073SB-0016M-0001-SO	BENZO(B)FLUORANTHENE	110	UG/KG	6.6	3.3		073SB-0017M-0001-SO	85	6.6	3.3		26	N/A
073SB-0016M-0001-SO	BENZO(G,H,I)PERYLENE	38	UG/KG	6.6	3.3		073SB-0017M-0001-SO	32	6.6	3.3		N/A	Yes
073SB-0016M-0001-SO	BENZO(K)FLUORANTHENE	27	UG/KG	6.6	3.3		073SB-0017M-0001-SO	31	6.6	3.3		N/A	Yes
073SB-0016M-0001-SO	BENZOIC ACID	330	UG/KG	660	330	U	073SB-0017M-0001-SO	330	650	330	U	N/A	Yes
073SB-0016M-0001-SO	BENZYL ALCOHOL	27	UG/KG	330	27	U	073SB-0017M-0001-SO	37	330	27	J	N/A	Yes
073SB-0016M-0001-SO	BENZYL BUTYL PHTHALATE	27	UG/KG	50	27	U	073SB-0017M-0001-SO	27	49	27	U	N/A	Yes
073SB-0016M-0001-SO	BIS(2-CHLOROETHOXY) METHANE	27	UG/KG	100	27	U	073SB-0017M-0001-SO	27	99	27	U	N/A	Yes
073SB-0016M-0001-SO	BIS(2-CHLOROETHYL) ETHER	3.3	UG/KG	100	3.3	U	073SB-0017M-0001-SO	3.3	99	3.3	U	N/A	Yes
073SB-0016M-0001-SO	BIS(2-CHLOROISOPROPYL) ETHER	27	UG/KG	100	27	U	073SB-0017M-0001-SO	27	99	27	U	N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
073SB-0016M-0001-SO	BIS(2-ETHYLHEXYL) PHTHALATE	89	UG/KG	50	27	U	073SB-0017M-0001-SO	27	68	27		N/A	Yes
073SB-0016M-0001-SO	CARBAZOLE	27	UG/KG	50	27	U	073SB-0017M-0001-SO	27	49	27	U	N/A	Yes
073SB-0016M-0001-SO	CHRYSENE	77	UG/KG	6.6	3.3		073SB-0017M-0001-SO	67	6.6	3.3		14	N/A
073SB-0016M-0001-SO	CRESOLS, M & P	80	UG/KG	400	80	U	073SB-0017M-0001-SO	79	390	79	U	N/A	Yes
073SB-0016M-0001-SO	DIBENZ(A,H)ANTHRACENE	3.3	UG/KG	6.6	3.3	U	073SB-0017M-0001-SO	3.3	6.6	3.3	U	N/A	Yes
073SB-0016M-0001-SO	DIBENZOFURAN	14	UG/KG	50	3.3	J	073SB-0017M-0001-SO	11	49	3.3	J	N/A	Yes
073SB-0016M-0001-SO	DIETHYL PHTHALATE	27	UG/KG	50	27	U	073SB-0017M-0001-SO	27	49	27	U	N/A	Yes
073SB-0016M-0001-SO	DIMETHYL PHTHALATE	27	UG/KG	50	27	U	073SB-0017M-0001-SO	27	49	27	U	N/A	Yes
073SB-0016M-0001-SO	DI-N-BUTYL PHTHALATE	27	UG/KG	50	27	U	073SB-0017M-0001-SO	27	49	27	J	N/A	Yes
073SB-0016M-0001-SO	DI-N-OCTYLPHTHALATE	27	UG/KG	50	27	U	073SB-0017M-0001-SO	27	49	27	U	N/A	Yes
073SB-0016M-0001-SO	FLUORANTHENE	130	UG/KG	6.6	3.3		073SB-0017M-0001-SO	150	6.6	3.3		14	N/A
073SB-0016M-0001-SO	FLUORENE	5.9	UG/KG	6.6	3.3	J	073SB-0017M-0001-SO	9.6	6.6	3.3		N/A	Yes
073SB-0016M-0001-SO	HEXACHLOROBENZENE	3.3	UG/KG	6.6	3.3	U	073SB-0017M-0001-SO	3.3	6.6	3.3	U	N/A	Yes
073SB-0016M-0001-SO	HEXACHLOROBUTADIENE	27	UG/KG	50	27	U	073SB-0017M-0001-SO	27	49	27	U	N/A	Yes
073SB-0016M-0001-SO	HEXACHLOROCYCLOPENTADIENE	27	UG/KG	330	27	U	073SB-0017M-0001-SO	27	330	27	U	N/A	Yes
073SB-0016M-0001-SO	HEXACHLOROETHANE	27	UG/KG	50	27	UJ	073SB-0017M-0001-SO	27	49	27	U	N/A	Yes
073SB-0016M-0001-SO	INDENO(1,2,3-C,D)PYRENE	33	UG/KG	6.6	3.3		073SB-0017M-0001-SO	31	6.6	3.3		N/A	Yes
073SB-0016M-0001-SO	ISOPHORONE	18	UG/KG	50	27	J	073SB-0017M-0001-SO	23	49	27	J	N/A	Yes
073SB-0016M-0001-SO	NAPHTHALENE	51	UG/KG	6.6	3.3		073SB-0017M-0001-SO	34	6.6	3.3		40	N/A
073SB-0016M-0001-SO	NITROBENZENE	3.3	UG/KG	100	3.3	U	073SB-0017M-0001-SO	3.3	99	3.3	U	N/A	Yes
073SB-0016M-0001-SO	N-NITROSODI-N-PROPYLAMINE	27	UG/KG	50	27	U	073SB-0017M-0001-SO	27	49	27	U	N/A	Yes
073SB-0016M-0001-SO	N-NITROSODIPHENYLAMINE	27	UG/KG	50	27	U	073SB-0017M-0001-SO	27	49	27	U	N/A	Yes
073SB-0016M-0001-SO	PENTACHLOROPHENOL	80	UG/KG	150	80	U	073SB-0017M-0001-SO	79	150	79	U	N/A	Yes
073SB-0016M-0001-SO	PHENANTHRENE	62	UG/KG	6.6	3.3		073SB-0017M-0001-SO	87	6.6	3.3		34	N/A
073SB-0016M-0001-SO	PHENOL	27	UG/KG	50	27	U	073SB-0017M-0001-SO	27	49	27	U	N/A	Yes
073SB-0016M-0001-SO	PYRENE	100	UG/KG	6.6	3.3		073SB-0017M-0001-SO	120	6.6	3.3		18	N/A
073SB-0027M-0001-SO	ALUMINUM	8500	MG/KG	3	0.59		073SB-0028M-0001-SO	8300	2.9	0.58		2	N/A
073SB-0027M-0001-SO	ANTIMONY	0	MG/KG	0.2	0.099		073SB-0028M-0001-SO	0.096	0.19	0.096	U	N/A	Yes
073SB-0027M-0001-SO	ARSENIC	4.1	MG/KG	0.099	0.05		073SB-0028M-0001-SO	5.3	0.096	0.048		26	N/A
073SB-0027M-0001-SO	BARIUM	80	MG/KG	0.99	0.02		073SB-0028M-0001-SO	74	0.96	0.019		8	N/A
073SB-0027M-0001-SO	BERYLLIUM	0.97	MG/KG	0.099	0.0099		073SB-0028M-0001-SO	0.84	0.096	0.0096		14	N/A
073SB-0027M-0001-SO	CADMIUM	0.25	MG/KG	0.099	0.03		073SB-0028M-0001-SO	0.25	0.096	0.029		N/A	Yes
073SB-0027M-0001-SO	CALCIUM	24000	MG/KG	9.9	2.5		073SB-0028M-0001-SO	21000	9.6	2.4		13	N/A
073SB-0027M-0001-SO	CHROMIUM	7.2	MG/KG	0.2	0.04		073SB-0028M-0001-SO	8.4	0.19	0.038		15	N/A
073SB-0027M-0001-SO	COBALT	5.1	MG/KG	0.05	0.0099		073SB-0028M-0001-SO	6.1	0.048	0.0096		18	N/A
073SB-0027M-0001-SO	COPPER	9	MG/KG	0.2	0.059		073SB-0028M-0001-SO	11	0.19	0.058		20	N/A
073SB-0027M-0001-SO	IRON	10000	MG/KG	5	2		073SB-0028M-0001-SO	12000	4.8	1.9		18	N/A
073SB-0027M-0001-SO	LEAD	9.4	MG/KG	0.099	0.03		073SB-0028M-0001-SO	11	0.096	0.029		16	N/A

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
073SB-0027M-0001-SO	MAGNESIUM	3900	MG/KG	9.9	2		073SB-0028M-0001-SO	3400	9.6	1.9		14	N/A
073SB-0027M-0001-SO	MANGANESE	840	MG/KG	0.5	0.03		073SB-0028M-0001-SO	780	0.48	0.029		7	N/A
073SB-0027M-0001-SO	NICKEL	11	MG/KG	0.099	0.03		073SB-0028M-0001-SO	13	0.096	0.029		17	N/A
073SB-0027M-0001-SO	POTASSIUM	730	MG/KG	9.9	5.9		073SB-0028M-0001-SO	690	9.6	5.8		6	N/A
073SB-0027M-0001-SO	SELENIUM	0.62	MG/KG	0.5	0.099		073SB-0028M-0001-SO	0.69	0.48	0.096		N/A	Yes
073SB-0027M-0001-SO	SILVER	0.035	MG/KG	0.099	0.03		073SB-0028M-0001-SO	0.038	0.096	0.029	J	N/A	Yes
073SB-0027M-0001-SO	SODIUM	160	MG/KG	9.9	5		073SB-0028M-0001-SO	110	9.6	4.8		37	N/A
073SB-0027M-0001-SO	THALLIUM	0.077	MG/KG	0.099	0.02		073SB-0028M-0001-SO	0.086	0.096	0.019	J	N/A	Yes
073SB-0027M-0001-SO	VANADIUM	8.7	MG/KG	0.099	0.059		073SB-0028M-0001-SO	9.9	0.096	0.058		13	N/A
073SB-0027M-0001-SO	ZINC	28	MG/KG	0.5	0.2		073SB-0028M-0001-SO	33	0.48	0.19		16	N/A
073SB-0027M-0001-SO	MERCURY	0	MG/KG	0.11	0.037		073SB-0028M-0001-SO	0.034	0.1	0.034	J	N/A	Yes
073SB-0027M-0001-SO	1,2,4-TRICHLOROBENZENE	0	UG/KG	250	130		073SB-0028M-0001-SO	140	250	140	U	N/A	Yes
073SB-0027M-0001-SO	1,2-DICHLOROBENZENE	0	UG/KG	250	130		073SB-0028M-0001-SO	140	250	140	U	N/A	Yes
073SB-0027M-0001-SO	1,3-DICHLOROBENZENE	0	UG/KG	250	130		073SB-0028M-0001-SO	140	250	140	U	N/A	Yes
073SB-0027M-0001-SO	1,4-DICHLOROBENZENE	0	UG/KG	250	130		073SB-0028M-0001-SO	140	250	140	U	N/A	Yes
073SB-0027M-0001-SO	2,4,5-TRICHLOROPHENOL	0	UG/KG	750	130		073SB-0028M-0001-SO	140	760	140	U	N/A	Yes
073SB-0027M-0001-SO	2,4,6-TRICHLOROPHENOL	0	UG/KG	750	400		073SB-0028M-0001-SO	400	760	400	U	N/A	Yes
073SB-0027M-0001-SO	2,4-DICHLOROPHENOL	0	UG/KG	750	130		073SB-0028M-0001-SO	140	760	140	U	N/A	Yes
073SB-0027M-0001-SO	2,4-DIMETHYLPHENOL	0	UG/KG	750	400		073SB-0028M-0001-SO	400	760	400	U	N/A	Yes
073SB-0027M-0001-SO	2,4-DINITROPHENOL	0	UG/KG	1600	400		073SB-0028M-0001-SO	400	1700	400	U	N/A	Yes
073SB-0027M-0001-SO	2,4-DINITROTOLUENE	0	UG/KG	1000	130		073SB-0028M-0001-SO	140	1000	140	U	N/A	Yes
073SB-0027M-0001-SO	2,6-DINITROTOLUENE	0	UG/KG	1000	130		073SB-0028M-0001-SO	140	1000	140	U	N/A	Yes
073SB-0027M-0001-SO	2-CHLORONAPHTHALENE	0	UG/KG	250	16		073SB-0028M-0001-SO	17	250	17	U	N/A	Yes
073SB-0027M-0001-SO	2-CHLOROPHENOL	0	UG/KG	250	130		073SB-0028M-0001-SO	140	250	140	U	N/A	Yes
073SB-0027M-0001-SO	2-METHYLNAPHTHALENE	68	UG/KG	33	16		073SB-0028M-0001-SO	67	34	17		N/A	Yes
073SB-0027M-0001-SO	2-METHYLPHENOL (O-CRESOL)	0	UG/KG	1000	400		073SB-0028M-0001-SO	400	1000	400	U	N/A	Yes
073SB-0027M-0001-SO	2-NITROANILINE	0	UG/KG	1000	130		073SB-0028M-0001-SO	140	1000	140	U	N/A	Yes
073SB-0027M-0001-SO	2-NITROPHENOL	0	UG/KG	250	130		073SB-0028M-0001-SO	140	250	140	U	N/A	Yes
073SB-0027M-0001-SO	3,3'-DICHLOROBENZIDINE	0	UG/KG	500	400		073SB-0028M-0001-SO	400	510	400	U	N/A	Yes
073SB-0027M-0001-SO	3-NITROANILINE	0	UG/KG	1000	400		073SB-0028M-0001-SO	400	1000	400	U	N/A	Yes
073SB-0027M-0001-SO	4,6-DINITRO-2-METHYLPHENOL	0	UG/KG	750	400		073SB-0028M-0001-SO	400	760	400	U	N/A	Yes
073SB-0027M-0001-SO	4-BROMOPHENYL PHENYL ETHER	0	UG/KG	250	130		073SB-0028M-0001-SO	140	250	140	U	N/A	Yes
073SB-0027M-0001-SO	4-CHLORO-3-METHYLPHENOL	0	UG/KG	750	130		073SB-0028M-0001-SO	140	760	140	U	N/A	Yes
073SB-0027M-0001-SO	4-CHLOROANILINE	0	UG/KG	750	130		073SB-0028M-0001-SO	140	760	140	U	N/A	Yes
073SB-0027M-0001-SO	4-CHLOROPHENYL PHENYL ETHER	0	UG/KG	250	130		073SB-0028M-0001-SO	140	250	140	U	N/A	Yes
073SB-0027M-0001-SO	4-NITROANILINE	0	UG/KG	1000	130		073SB-0028M-0001-SO	140	1000	140	U	N/A	Yes
073SB-0027M-0001-SO	4-NITROPHENOL	0	UG/KG	1600	400		073SB-0028M-0001-SO	400	1700	400	U	N/A	Yes
073SB-0027M-0001-SO	ACENAPHTHENE	0	UG/KG	33	16		073SB-0028M-0001-SO	17	34	17	U	N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
073SB-0027M-0001-SO	ACENAPHTHYLENE	0	UG/KG	33	16		073SB-0028M-0001-SO	17	34	17	U	N/A	Yes
073SB-0027M-0001-SO	ANTHRACENE	0	UG/KG	33	16		073SB-0028M-0001-SO	17	34	17	U	N/A	Yes
073SB-0027M-0001-SO	BENZO(A)ANTHRACENE	48	UG/KG	33	16		073SB-0028M-0001-SO	27	34	17	J	N/A	Yes
073SB-0027M-0001-SO	BENZO(A)PYRENE	49	UG/KG	33	16		073SB-0028M-0001-SO	33	34	17	J	N/A	Yes
073SB-0027M-0001-SO	BENZO(B)FLUORANTHENE	110	UG/KG	33	16		073SB-0028M-0001-SO	72	34	17		N/A	No
073SB-0027M-0001-SO	BENZO(G,H,I)PERYLENE	41	UG/KG	33	16		073SB-0028M-0001-SO	32	34	17	J	N/A	Yes
073SB-0027M-0001-SO	BENZO(K)FLUORANTHENE	30	UG/KG	33	16		073SB-0028M-0001-SO	20	34	17	J	N/A	Yes
073SB-0027M-0001-SO	BENZOIC ACID	0	UG/KG	3300	1700		073SB-0028M-0001-SO	1700	3300	1700	U	N/A	Yes
073SB-0027M-0001-SO	BENZYL ALCOHOL	0	UG/KG	1600	130		073SB-0028M-0001-SO	140	1700	140	U	N/A	Yes
073SB-0027M-0001-SO	BENZYL BUTYL PHTHALATE	0	UG/KG	250	130		073SB-0028M-0001-SO	140	250	140	U	N/A	Yes
073SB-0027M-0001-SO	BIS(2-CHLOROETHOXY) METHANE	0	UG/KG	500	130		073SB-0028M-0001-SO	140	510	140	U	N/A	Yes
073SB-0027M-0001-SO	BIS(2-CHLOROETHYL) ETHER	0	UG/KG	500	16		073SB-0028M-0001-SO	17	510	17	U	N/A	Yes
073SB-0027M-0001-SO	BIS(2-CHLOROISOPROPYL) ETHER	0	UG/KG	500	130		073SB-0028M-0001-SO	140	510	140	U	N/A	Yes
073SB-0027M-0001-SO	BIS(2-ETHYLHEXYL) PHTHALATE	0	UG/KG	250	130		073SB-0028M-0001-SO	140	250	140	U	N/A	Yes
073SB-0027M-0001-SO	CARBAZOLE	0	UG/KG	250	130		073SB-0028M-0001-SO	140	250	140	U	N/A	Yes
073SB-0027M-0001-SO	CHRYSENE	88	UG/KG	33	16		073SB-0028M-0001-SO	60	34	17		N/A	Yes
073SB-0027M-0001-SO	CRESOLS, M & P	0	UG/KG	2000	400		073SB-0028M-0001-SO	400	2000	400	U	N/A	Yes
073SB-0027M-0001-SO	DIBENZ(A,H)ANTHRACENE	0	UG/KG	33	16		073SB-0028M-0001-SO	17	34	17	U	N/A	Yes
073SB-0027M-0001-SO	DIBENZOFURAN	22	UG/KG	250	16		073SB-0028M-0001-SO	22	250	17	J	N/A	Yes
073SB-0027M-0001-SO	DIETHYL PHTHALATE	0	UG/KG	250	130		073SB-0028M-0001-SO	140	250	140	U	N/A	Yes
073SB-0027M-0001-SO	DIMETHYL PHTHALATE	0	UG/KG	250	130		073SB-0028M-0001-SO	140	250	140	U	N/A	Yes
073SB-0027M-0001-SO	DI-N-BUTYL PHTHALATE	0	UG/KG	250	130		073SB-0028M-0001-SO	140	250	140	U	N/A	Yes
073SB-0027M-0001-SO	DI-N-OCTYLPHTHALATE	0	UG/KG	250	130		073SB-0028M-0001-SO	140	250	140	U	N/A	Yes
073SB-0027M-0001-SO	FLUORANTHENE	98	UG/KG	33	16		073SB-0028M-0001-SO	66	34	17		N/A	Yes
073SB-0027M-0001-SO	FLUORENE	0	UG/KG	33	16		073SB-0028M-0001-SO	17	34	17	U	N/A	Yes
073SB-0027M-0001-SO	HEXACHLOROBENZENE	0	UG/KG	33	16		073SB-0028M-0001-SO	17	34	17	U	N/A	Yes
073SB-0027M-0001-SO	HEXACHLOROBUTADIENE	0	UG/KG	250	130		073SB-0028M-0001-SO	140	250	140	U	N/A	Yes
073SB-0027M-0001-SO	HEXACHLOROCYCLOPENTADIENE	0	UG/KG	1600	130		073SB-0028M-0001-SO	140	1700	140	U	N/A	Yes
073SB-0027M-0001-SO	HEXACHLOROETHANE	0	UG/KG	250	130		073SB-0028M-0001-SO	140	250	140	U	N/A	Yes
073SB-0027M-0001-SO	INDENO(1,2,3-C,D)PYRENE	33	UG/KG	33	16		073SB-0028M-0001-SO	23	34	17	J	N/A	Yes
073SB-0027M-0001-SO	ISOPHORONE	0	UG/KG	250	130		073SB-0028M-0001-SO	140	250	140	U	N/A	Yes
073SB-0027M-0001-SO	NAPHTHALENE	55	UG/KG	33	16		073SB-0028M-0001-SO	54	34	17		N/A	Yes
073SB-0027M-0001-SO	NITROBENZENE	0	UG/KG	500	16		073SB-0028M-0001-SO	17	510	17	U	N/A	Yes
073SB-0027M-0001-SO	N-NITROSODI-N-PROPYLAMINE	0	UG/KG	250	130		073SB-0028M-0001-SO	140	250	140	U	N/A	Yes
073SB-0027M-0001-SO	N-NITROSODIPHENYLAMINE	0	UG/KG	250	130		073SB-0028M-0001-SO	140	250	140	U	N/A	Yes
073SB-0027M-0001-SO	PENTACHLOROPHENOL	0	UG/KG	750	400		073SB-0028M-0001-SO	400	760	400	U	N/A	Yes
073SB-0027M-0001-SO	PHENANTHRENE	64	UG/KG	33	16		073SB-0028M-0001-SO	64	34	17		N/A	Yes
073SB-0027M-0001-SO	PHENOL	0	UG/KG	250	130		073SB-0028M-0001-SO	140	250	140	U	N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
073SB-0027M-0001-SO	PYRENE	80	UG/KG	33	16		073SB-0028M-0001-SO	55	34	17		N/A	Yes
073SB-0038M-0001-SO	ALUMINUM	6800	MG/KG	2.8	0.56		073SB-0039M-0001-SO	7000	2.4	0.48		3	N/A
073SB-0038M-0001-SO	ANTIMONY	0.067	MG/KG	0.19	0.093	J-	073SB-0039M-0001-SO	0.055	0.16	0.081	J	N/A	Yes
073SB-0038M-0001-SO	ARSENIC	19	MG/KG	0.093	0.046	J-	073SB-0039M-0001-SO	15	0.081	0.04		24	N/A
073SB-0038M-0001-SO	BARIUM	32	MG/KG	0.93	0.019		073SB-0039M-0001-SO	34	0.81	0.016		6	N/A
073SB-0038M-0001-SO	BERYLLIUM	0.35	MG/KG	0.093	0.0093		073SB-0039M-0001-SO	0.4	0.081	0.0081		N/A	Yes
073SB-0038M-0001-SO	CADMIUM	0.19	MG/KG	0.093	0.028		073SB-0039M-0001-SO	0.19	0.081	0.024		N/A	Yes
073SB-0038M-0001-SO	CALCIUM	640	MG/KG	9.3	2.3		073SB-0039M-0001-SO	710	8.1	2		10	N/A
073SB-0038M-0001-SO	CHROMIUM	10	MG/KG	0.19	0.037		073SB-0039M-0001-SO	10	0.16	0.032		0	N/A
073SB-0038M-0001-SO	COBALT	8.7	MG/KG	0.046	0.0093		073SB-0039M-0001-SO	8.7	0.04	0.0081		0	N/A
073SB-0038M-0001-SO	COPPER	20	MG/KG	0.19	0.056		073SB-0039M-0001-SO	19	0.16	0.048		5	N/A
073SB-0038M-0001-SO	IRON	22000	MG/KG	4.6	1.9		073SB-0039M-0001-SO	24000	4	1.6		9	N/A
073SB-0038M-0001-SO	LEAD	17	MG/KG	0.093	0.028		073SB-0039M-0001-SO	16	0.081	0.024		6	N/A
073SB-0038M-0001-SO	MAGNESIUM	2100	MG/KG	9.3	1.9		073SB-0039M-0001-SO	2200	8.1	1.6		5	N/A
073SB-0038M-0001-SO	MANGANESE	460	MG/KG	0.46	0.028		073SB-0039M-0001-SO	460	0.4	0.024		0	N/A
073SB-0038M-0001-SO	NICKEL	21	MG/KG	0.093	0.028		073SB-0039M-0001-SO	21	0.081	0.024		0	N/A
073SB-0038M-0001-SO	POTASSIUM	1000	MG/KG	9.3	5.6		073SB-0039M-0001-SO	970	8.1	4.8		3	N/A
073SB-0038M-0001-SO	SELENIUM	0.28	MG/KG	0.46	0.093	J-	073SB-0039M-0001-SO	0.26	0.4	0.081	J	N/A	Yes
073SB-0038M-0001-SO	SILVER	0.022	MG/KG	0.093	0.028	J	073SB-0039M-0001-SO	0.021	0.081	0.024	J	N/A	Yes
073SB-0038M-0001-SO	SODIUM	40	MG/KG	9.3	4.6		073SB-0039M-0001-SO	35	8.1	4		N/A	Yes
073SB-0038M-0001-SO	THALLIUM	0.15	MG/KG	0.093	0.019		073SB-0039M-0001-SO	0.14	0.081	0.016		N/A	Yes
073SB-0038M-0001-SO	VANADIUM	11	MG/KG	0.093	0.056		073SB-0039M-0001-SO	12	0.081	0.048		9	N/A
073SB-0038M-0001-SO	ZINC	64	MG/KG	0.46	0.19	J-	073SB-0039M-0001-SO	62	0.4	0.16		3	N/A
073SB-0038M-0001-SO	MERCURY	0.018	MG/KG	0.11	0.035	J	073SB-0039M-0001-SO	0.02	0.098	0.032	J	N/A	Yes
073SB-0038M-0001-SO	1,2,4-TRICHLOROBENZENE	270	UG/KG	500	270	UJ	073SB-0039M-0001-SO	270	500	270	U	N/A	Yes
073SB-0038M-0001-SO	1,2-DICHLOROBENZENE	270	UG/KG	500	270	UJ	073SB-0039M-0001-SO	270	500	270	U	N/A	Yes
073SB-0038M-0001-SO	1,3-DICHLOROBENZENE	270	UG/KG	500	270	UJ	073SB-0039M-0001-SO	270	500	270	U	N/A	Yes
073SB-0038M-0001-SO	1,4-DICHLOROBENZENE	270	UG/KG	500	270	UJ	073SB-0039M-0001-SO	270	500	270	U	N/A	Yes
073SB-0038M-0001-SO	2,4,5-TRICHLOROPHENOL	270	UG/KG	1500	270	UJ	073SB-0039M-0001-SO	270	1500	270	U	N/A	Yes
073SB-0038M-0001-SO	2,4,6-TRICHLOROPHENOL	810	UG/KG	1500	810	UJ	073SB-0039M-0001-SO	800	1500	800	U	N/A	Yes
073SB-0038M-0001-SO	2,4-DICHLOROPHENOL	270	UG/KG	1500	270	UJ	073SB-0039M-0001-SO	270	1500	270	U	N/A	Yes
073SB-0038M-0001-SO	2,4-DIMETHYLPHENOL	810	UG/KG	1500	810	UJ	073SB-0039M-0001-SO	800	1500	800	U	N/A	Yes
073SB-0038M-0001-SO	2,4-DINITROPHENOL	810	UG/KG	3300	810	UJ	073SB-0039M-0001-SO	800	3300	800	U	N/A	Yes
073SB-0038M-0001-SO	2,4-DINITROTOLUENE	270	UG/KG	2000	270	UJ	073SB-0039M-0001-SO	270	2000	270	U	N/A	Yes
073SB-0038M-0001-SO	2,6-DINITROTOLUENE	270	UG/KG	2000	270	UJ	073SB-0039M-0001-SO	270	2000	270	U	N/A	Yes
073SB-0038M-0001-SO	2-CHLORONAPHTHALENE	33	UG/KG	500	33	UJ	073SB-0039M-0001-SO	33	500	33	U	N/A	Yes
073SB-0038M-0001-SO	2-CHLOROPHENOL	270	UG/KG	500	270	UJ	073SB-0039M-0001-SO	270	500	270	U	N/A	Yes
073SB-0038M-0001-SO	2-METHYLNAPHTHALENE	33	UG/KG	67	33	UJ	073SB-0039M-0001-SO	33	67	33	U	N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
073SB-0038M-0001-SO	2-METHYLPHENOL (O-CRESOL)	810	UG/KG	2000	810	UJ	073SB-0039M-0001-SO	800	2000	800	U	N/A	Yes
073SB-0038M-0001-SO	2-NITROANILINE	270	UG/KG	2000	270	UJ	073SB-0039M-0001-SO	270	2000	270	U	N/A	Yes
073SB-0038M-0001-SO	2-NITROPHENOL	270	UG/KG	500	270	UJ	073SB-0039M-0001-SO	270	500	270	U	N/A	Yes
073SB-0038M-0001-SO	3,3'-DICHLOROBENZIDINE	810	UG/KG	1000	810	UJ	073SB-0039M-0001-SO	800	1000	800	U	N/A	Yes
073SB-0038M-0001-SO	3-NITROANILINE	810	UG/KG	2000	810	UJ	073SB-0039M-0001-SO	800	2000	800	U	N/A	Yes
073SB-0038M-0001-SO	4,6-DINITRO-2-METHYLPHENOL	810	UG/KG	1500	810	UJ	073SB-0039M-0001-SO	800	1500	800	U	N/A	Yes
073SB-0038M-0001-SO	4-BROMOPHENYL PHENYL ETHER	270	UG/KG	500	270	UJ	073SB-0039M-0001-SO	270	500	270	U	N/A	Yes
073SB-0038M-0001-SO	4-CHLORO-3-METHYLPHENOL	270	UG/KG	1500	270	UJ	073SB-0039M-0001-SO	270	1500	270	U	N/A	Yes
073SB-0038M-0001-SO	4-CHLOROANILINE	270	UG/KG	1500	270	UJ	073SB-0039M-0001-SO	270	1500	270	U	N/A	Yes
073SB-0038M-0001-SO	4-CHLOROPHENYL PHENYL ETHER	270	UG/KG	500	270	UJ	073SB-0039M-0001-SO	270	500	270	U	N/A	Yes
073SB-0038M-0001-SO	4-NITROANILINE	270	UG/KG	2000	270	UJ	073SB-0039M-0001-SO	270	2000	270	U	N/A	Yes
073SB-0038M-0001-SO	4-NITROPHENOL	810	UG/KG	3300	810	UJ	073SB-0039M-0001-SO	800	3300	800	U	N/A	Yes
073SB-0038M-0001-SO	ACENAPHTHENE	33	UG/KG	67	33	UJ	073SB-0039M-0001-SO	33	67	33	U	N/A	Yes
073SB-0038M-0001-SO	ACENAPHTHYLENE	33	UG/KG	67	33	UJ	073SB-0039M-0001-SO	33	67	33	U	N/A	Yes
073SB-0038M-0001-SO	ANTHRACENE	33	UG/KG	67	33	UJ	073SB-0039M-0001-SO	33	67	33	U	N/A	Yes
073SB-0038M-0001-SO	BENZO(A)ANTHRACENE	33	UG/KG	67	33	UJ	073SB-0039M-0001-SO	33	67	33	U	N/A	Yes
073SB-0038M-0001-SO	BENZO(A)PYRENE	33	UG/KG	67	33	UJ	073SB-0039M-0001-SO	33	67	33	U	N/A	Yes
073SB-0038M-0001-SO	BENZO(B)FLUORANTHENE	33	UG/KG	67	33	UJ	073SB-0039M-0001-SO	33	67	33	U	N/A	Yes
073SB-0038M-0001-SO	BENZO(G,H,I)PERYLENE	33	UG/KG	67	33	UJ	073SB-0039M-0001-SO	33	67	33	U	N/A	Yes
073SB-0038M-0001-SO	BENZO(K)FLUORANTHENE	33	UG/KG	67	33	UJ	073SB-0039M-0001-SO	33	67	33	U	N/A	Yes
073SB-0038M-0001-SO	BENZOIC ACID	3400	UG/KG	6700	3400	R	073SB-0039M-0001-SO	3300	6600	3300	U	N/A	Yes
073SB-0038M-0001-SO	BENZYL ALCOHOL	270	UG/KG	3300	270	UJ	073SB-0039M-0001-SO	270	3300	270	U	N/A	Yes
073SB-0038M-0001-SO	BENZYL BUTYL PHTHALATE	270	UG/KG	710	270	UJ	073SB-0039M-0001-SO	270	700	270	U	N/A	Yes
073SB-0038M-0001-SO	BIS(2-CHLOROETHOXY) METHANE	270	UG/KG	1000	270	UJ	073SB-0039M-0001-SO	270	1000	270	U	N/A	Yes
073SB-0038M-0001-SO	BIS(2-CHLOROETHYL) ETHER	33	UG/KG	1000	33	UJ	073SB-0039M-0001-SO	33	1000	33	U	N/A	Yes
073SB-0038M-0001-SO	BIS(2-CHLOROISOPROPYL) ETHER	270	UG/KG	1000	270	UJ	073SB-0039M-0001-SO	270	1000	270	U	N/A	Yes
073SB-0038M-0001-SO	BIS(2-ETHYLHEXYL) PHTHALATE	270	UG/KG	710	270	UJ	073SB-0039M-0001-SO	270	700	270	U	N/A	Yes
073SB-0038M-0001-SO	CARBAZOLE	270	UG/KG	500	270	UJ	073SB-0039M-0001-SO	270	500	270	U	N/A	Yes
073SB-0038M-0001-SO	CHRYSENE	33	UG/KG	67	33	UJ	073SB-0039M-0001-SO	33	67	33	U	N/A	Yes
073SB-0038M-0001-SO	CRESOLS, M & P	810	UG/KG	4000	810	UJ	073SB-0039M-0001-SO	800	4000	800	U	N/A	Yes
073SB-0038M-0001-SO	DIBENZ(A,H)ANTHRACENE	33	UG/KG	67	33	UJ	073SB-0039M-0001-SO	33	67	33	U	N/A	Yes
073SB-0038M-0001-SO	DIBENZOFURAN	33	UG/KG	500	33	UJ	073SB-0039M-0001-SO	33	500	33	U	N/A	Yes
073SB-0038M-0001-SO	DIETHYL PHTHALATE	270	UG/KG	710	270	UJ	073SB-0039M-0001-SO	270	700	270	U	N/A	Yes
073SB-0038M-0001-SO	DIMETHYL PHTHALATE	270	UG/KG	710	270	UJ	073SB-0039M-0001-SO	270	700	270	U	N/A	Yes
073SB-0038M-0001-SO	DI-N-BUTYL PHTHALATE	270	UG/KG	710	270	UJ	073SB-0039M-0001-SO	270	700	270	U	N/A	Yes
073SB-0038M-0001-SO	DI-N-OCTYLPHTHALATE	270	UG/KG	710	270	UJ	073SB-0039M-0001-SO	270	700	270	U	N/A	Yes
073SB-0038M-0001-SO	FLUORANTHENE	33	UG/KG	67	33	UJ	073SB-0039M-0001-SO	33	67	33	U	N/A	Yes
073SB-0038M-0001-SO	FLUORENE	33	UG/KG	67	33	UJ	073SB-0039M-0001-SO	33	67	33	U	N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
073SB-0038M-0001-SO	HEXACHLOROBENZENE	33	UG/KG	67	33	UJ	073SB-0039M-0001-SO	33	67	33	U	N/A	Yes
073SB-0038M-0001-SO	HEXACHLOROBUTADIENE	270	UG/KG	500	270	UJ	073SB-0039M-0001-SO	270	500	270	U	N/A	Yes
073SB-0038M-0001-SO	HEXACHLOROCYCLOPENTADIENE	270	UG/KG	3300	270	UJ	073SB-0039M-0001-SO	270	3300	270	U	N/A	Yes
073SB-0038M-0001-SO	HEXACHLOROETHANE	270	UG/KG	500	270	UJ	073SB-0039M-0001-SO	270	500	270	U	N/A	Yes
073SB-0038M-0001-SO	INDENO(1,2,3-C,D)PYRENE	33	UG/KG	67	33	UJ	073SB-0039M-0001-SO	33	67	33	U	N/A	Yes
073SB-0038M-0001-SO	ISOPHORONE	270	UG/KG	500	270	UJ	073SB-0039M-0001-SO	270	500	270	U	N/A	Yes
073SB-0038M-0001-SO	NAPHTHALENE	33	UG/KG	67	33	UJ	073SB-0039M-0001-SO	33	67	33	U	N/A	Yes
073SB-0038M-0001-SO	NITROBENZENE	33	UG/KG	1000	33	UJ	073SB-0039M-0001-SO	33	1000	33	U	N/A	Yes
073SB-0038M-0001-SO	N-NITROSODI-N-PROPYLAMINE	270	UG/KG	500	270	UJ	073SB-0039M-0001-SO	270	500	270	U	N/A	Yes
073SB-0038M-0001-SO	N-NITROSODIPHENYLAMINE	270	UG/KG	500	270	UJ	073SB-0039M-0001-SO	270	500	270	U	N/A	Yes
073SB-0038M-0001-SO	PENTACHLOROPHENOL	810	UG/KG	1500	810	UJ	073SB-0039M-0001-SO	800	1500	800	U	N/A	Yes
073SB-0038M-0001-SO	PHENANTHRENE	33	UG/KG	67	33	UJ	073SB-0039M-0001-SO	33	67	33	U	N/A	Yes
073SB-0038M-0001-SO	PHENOL	270	UG/KG	500	270	UJ	073SB-0039M-0001-SO	270	500	270	U	N/A	Yes
073SB-0038M-0001-SO	PYRENE	33	UG/KG	67	33	UJ	073SB-0039M-0001-SO	33	67	33	U	N/A	Yes
073SD-0047-0001-SD	1,2,4-TRICHLOROBENZENE	41	UG/KG	75	41	U	073SD-0048-0001-SD	41	77	41	U	N/A	Yes
073SD-0047-0001-SD	1,2-DICHLOROBENZENE	41	UG/KG	75	41	U	073SD-0048-0001-SD	41	77	41	U	N/A	Yes
073SD-0047-0001-SD	1,3-DICHLOROBENZENE	41	UG/KG	75	41	U	073SD-0048-0001-SD	41	77	41	U	N/A	Yes
073SD-0047-0001-SD	1,4-DICHLOROBENZENE	41	UG/KG	75	41	U	073SD-0048-0001-SD	41	77	41	U	N/A	Yes
073SD-0047-0001-SD	2,4,5-TRICHLOROPHENOL	41	UG/KG	230	41	U	073SD-0048-0001-SD	41	230	41	U	N/A	Yes
073SD-0047-0001-SD	2,4,6-TRICHLOROPHENOL	120	UG/KG	230	120	U	073SD-0048-0001-SD	120	230	120	U	N/A	Yes
073SD-0047-0001-SD	2,4-DICHLOROPHENOL	41	UG/KG	230	41	U	073SD-0048-0001-SD	41	230	41	U	N/A	Yes
073SD-0047-0001-SD	2,4-DIMETHYLPHENOL	120	UG/KG	230	120	U	073SD-0048-0001-SD	120	230	120	U	N/A	Yes
073SD-0047-0001-SD	2,4-DINITROPHENOL	120	UG/KG	500	120	U	073SD-0048-0001-SD	120	510	120	U	N/A	Yes
073SD-0047-0001-SD	2,4-DINITROTOLUENE	41	UG/KG	300	41	U	073SD-0048-0001-SD	41	310	41	U	N/A	Yes
073SD-0047-0001-SD	2,6-DINITROTOLUENE	41	UG/KG	300	41	U	073SD-0048-0001-SD	41	310	41	U	N/A	Yes
073SD-0047-0001-SD	2-CHLORONAPHTHALENE	5	UG/KG	75	5	U	073SD-0048-0001-SD	5.1	77	5.1	U	N/A	Yes
073SD-0047-0001-SD	2-CHLOROPHENOL	41	UG/KG	75	41	U	073SD-0048-0001-SD	41	77	41	U	N/A	Yes
073SD-0047-0001-SD	2-METHYLNAPHTHALENE	5	UG/KG	10	5	U	073SD-0048-0001-SD	7.4	10	5.1	J	N/A	Yes
073SD-0047-0001-SD	2-METHYLPHENOL (O-CRESOL)	120	UG/KG	300	120	U	073SD-0048-0001-SD	120	310	120	U	N/A	Yes
073SD-0047-0001-SD	2-NITROANILINE	41	UG/KG	300	41	U	073SD-0048-0001-SD	41	310	41	U	N/A	Yes
073SD-0047-0001-SD	2-NITROPHENOL	41	UG/KG	75	41	U	073SD-0048-0001-SD	41	77	41	U	N/A	Yes
073SD-0047-0001-SD	3,3'-DICHLOROBENZIDINE	120	UG/KG	150	120	U	073SD-0048-0001-SD	120	150	120	U	N/A	Yes
073SD-0047-0001-SD	3-NITROANILINE	120	UG/KG	300	120	U	073SD-0048-0001-SD	120	310	120	U	N/A	Yes
073SD-0047-0001-SD	4,6-DINITRO-2-METHYLPHENOL	120	UG/KG	230	120	U	073SD-0048-0001-SD	120	230	120	U	N/A	Yes
073SD-0047-0001-SD	4-BROMOPHENYL PHENYL ETHER	41	UG/KG	75	41	U	073SD-0048-0001-SD	41	77	41	U	N/A	Yes
073SD-0047-0001-SD	4-CHLORO-3-METHYLPHENOL	41	UG/KG	230	41	U	073SD-0048-0001-SD	41	230	41	U	N/A	Yes
073SD-0047-0001-SD	4-CHLOROANILINE	41	UG/KG	230	41	U	073SD-0048-0001-SD	41	230	41	U	N/A	Yes
073SD-0047-0001-SD	4-CHLOROPHENYL PHENYL ETHER	41	UG/KG	75	41	U	073SD-0048-0001-SD	41	77	41	U	N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
073SD-0047-0001-SD	4-NITROANILINE	41	UG/KG	300	41	U	073SD-0048-0001-SD	41	310	41	U	N/A	Yes
073SD-0047-0001-SD	4-NITROPHENOL	120	UG/KG	500	120	U	073SD-0048-0001-SD	120	510	120	U	N/A	Yes
073SD-0047-0001-SD	ACENAPHTHENE	5	UG/KG	10	5	U	073SD-0048-0001-SD	5.1	10	5.1	U	N/A	Yes
073SD-0047-0001-SD	ACENAPHTHYLENE	5	UG/KG	10	5	U	073SD-0048-0001-SD	5.1	10	5.1	U	N/A	Yes
073SD-0047-0001-SD	ANTHRACENE	5	UG/KG	10	5	U	073SD-0048-0001-SD	5.1	10	5.1	U	N/A	Yes
073SD-0047-0001-SD	BENZO(A)ANTHRACENE	7.6	UG/KG	10	5	J	073SD-0048-0001-SD	5.1	10	5.1	U	N/A	Yes
073SD-0047-0001-SD	BENZO(A)PYRENE	5	UG/KG	10	5	U	073SD-0048-0001-SD	5.1	10	5.1	U	N/A	Yes
073SD-0047-0001-SD	BENZO(B)FLUORANTHENE	8.2	UG/KG	10	5	J	073SD-0048-0001-SD	10	10	5.1		N/A	Yes
073SD-0047-0001-SD	BENZO(G,H,I)PERYLENE	5	UG/KG	10	5	U	073SD-0048-0001-SD	5.1	10	5.1	U	N/A	Yes
073SD-0047-0001-SD	BENZO(K)FLUORANTHENE	5	UG/KG	10	5	U	073SD-0048-0001-SD	5.1	10	5.1	U	N/A	Yes
073SD-0047-0001-SD	BENZOIC ACID	500	UG/KG	990	500	U	073SD-0048-0001-SD	510	1000	510	U	N/A	Yes
073SD-0047-0001-SD	BENZYL ALCOHOL	59	UG/KG	500	41	J	073SD-0048-0001-SD	150	510	41	J	N/A	Yes
073SD-0047-0001-SD	BENZYL BUTYL PHTHALATE	41	UG/KG	75	41	U	073SD-0048-0001-SD	41	77	41	U	N/A	Yes
073SD-0047-0001-SD	BIS(2-CHLOROETHOXY) METHANE	41	UG/KG	150	41	U	073SD-0048-0001-SD	41	150	41	U	N/A	Yes
073SD-0047-0001-SD	BIS(2-CHLOROETHYL) ETHER	5	UG/KG	150	5	U	073SD-0048-0001-SD	5.1	150	5.1	U	N/A	Yes
073SD-0047-0001-SD	BIS(2-CHLOROISOPROPYL) ETHER	41	UG/KG	150	41	U	073SD-0048-0001-SD	41	150	41	U	N/A	Yes
073SD-0047-0001-SD	BIS(2-ETHYLHEXYL) PHTHALATE	160	UG/KG	75	41	U	073SD-0048-0001-SD	41	77	41	J	N/A	No
073SD-0047-0001-SD	CARBAZOLE	41	UG/KG	75	41	U	073SD-0048-0001-SD	41	77	41	U	N/A	Yes
073SD-0047-0001-SD	CHRYSENE	5.4	UG/KG	10	5	J	073SD-0048-0001-SD	5.1	10	5.1	U	N/A	Yes
073SD-0047-0001-SD	CRESOLS, M & P	120	UG/KG	600	120	U	073SD-0048-0001-SD	120	610	120	U	N/A	Yes
073SD-0047-0001-SD	DIBENZ(A,H)ANTHRACENE	5	UG/KG	10	5	U	073SD-0048-0001-SD	5.1	10	5.1	U	N/A	Yes
073SD-0047-0001-SD	DIBENZOFURAN	5	UG/KG	75	5	U	073SD-0048-0001-SD	5.1	77	5.1	U	N/A	Yes
073SD-0047-0001-SD	DIETHYL PHTHALATE	41	UG/KG	75	41	U	073SD-0048-0001-SD	41	77	41	U	N/A	Yes
073SD-0047-0001-SD	DIMETHYL PHTHALATE	41	UG/KG	75	41	U	073SD-0048-0001-SD	41	77	41	U	N/A	Yes
073SD-0047-0001-SD	DI-N-BUTYL PHTHALATE	41	UG/KG	75	41	U	073SD-0048-0001-SD	41	77	41	J	N/A	Yes
073SD-0047-0001-SD	DI-N-OCTYLPHTHALATE	41	UG/KG	75	41	U	073SD-0048-0001-SD	41	77	41	U	N/A	Yes
073SD-0047-0001-SD	FLUORANTHENE	11	UG/KG	10	5		073SD-0048-0001-SD	5.1	10	5.1	U	N/A	Yes
073SD-0047-0001-SD	FLUORENE	5	UG/KG	10	5	U	073SD-0048-0001-SD	5.1	10	5.1	U	N/A	Yes
073SD-0047-0001-SD	HEXACHLOROBENZENE	5	UG/KG	10	5	U	073SD-0048-0001-SD	5.1	10	5.1	U	N/A	Yes
073SD-0047-0001-SD	HEXACHLOROBUTADIENE	41	UG/KG	75	41	U	073SD-0048-0001-SD	41	77	41	U	N/A	Yes
073SD-0047-0001-SD	HEXACHLOROCYCLOPENTADIENE	41	UG/KG	500	41	U	073SD-0048-0001-SD	41	510	41	U	N/A	Yes
073SD-0047-0001-SD	HEXACHLOROETHANE	41	UG/KG	75	41	UJ	073SD-0048-0001-SD	41	77	41	U	N/A	Yes
073SD-0047-0001-SD	INDENO(1,2,3-C,D)PYRENE	5	UG/KG	10	5	U	073SD-0048-0001-SD	5.1	10	5.1	U	N/A	Yes
073SD-0047-0001-SD	ISOPHORONE	41	UG/KG	75	41	U	073SD-0048-0001-SD	41	77	41	U	N/A	Yes
073SD-0047-0001-SD	NAPHTHALENE	5	UG/KG	10	5	U	073SD-0048-0001-SD	5.1	10	5.1	U	N/A	Yes
073SD-0047-0001-SD	NITROBENZENE	5	UG/KG	150	5	U	073SD-0048-0001-SD	5.1	150	5.1	U	N/A	Yes
073SD-0047-0001-SD	N-NITROSODI-N-PROPYLAMINE	41	UG/KG	75	41	U	073SD-0048-0001-SD	41	77	41	U	N/A	Yes
073SD-0047-0001-SD	N-NITROSODIPHENYLAMINE	41	UG/KG	75	41	U	073SD-0048-0001-SD	41	77	41	U	N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
073SD-0047-0001-SD	PENTACHLOROPHENOL	120	UG/KG	230	120	U	073SD-0048-0001-SD	120	230	120	U	N/A	Yes
073SD-0047-0001-SD	PHENANTHRENE	5	UG/KG	10	5	U	073SD-0048-0001-SD	5.1	10	5.1	U	N/A	Yes
073SD-0047-0001-SD	PHENOL	41	UG/KG	75	41	U	073SD-0048-0001-SD	41	77	41	U	N/A	Yes
073SD-0047-0001-SD	PYRENE	8.3	UG/KG	10	5	J	073SD-0048-0001-SD	8.2	10	5.1	J	N/A	Yes
073SD-0047-0001-SD	ALUMINUM	9600	MG/KG	4.5	0.91		073SD-0048-0001-SD	8800	4.6	0.92		9	N/A
073SD-0047-0001-SD	ANTIMONY	0.18	MG/KG	0.3		J	073SD-0048-0001-SD	0.072	0.31	0.15		N/A	Yes
073SD-0047-0001-SD	ARSENIC	7.6	MG/KG	0.15	0.076		073SD-0048-0001-SD	10	0.15	0.077		27	N/A
073SD-0047-0001-SD	BARIUM	180	MG/KG	1.5	0.03		073SD-0048-0001-SD	180	1.5	0.031		0	N/A
073SD-0047-0001-SD	BERYLLIUM	0.93	MG/KG	0.15	0.015		073SD-0048-0001-SD	0.94	0.15	0.015		1	N/A
073SD-0047-0001-SD	CADMIUM	0.89	MG/KG	0.15	0.045		073SD-0048-0001-SD	0.79	0.15	0.046		12	N/A
073SD-0047-0001-SD	CALCIUM	12000	MG/KG	15	3.8		073SD-0048-0001-SD	9800	15	3.8		20	N/A
073SD-0047-0001-SD	CHROMIUM	9.4	MG/KG	0.3	0.061		073SD-0048-0001-SD	8.2	0.31	0.061		14	N/A
073SD-0047-0001-SD	COBALT	11	MG/KG	0.076	0.015		073SD-0048-0001-SD	13	0.077	0.015		17	N/A
073SD-0047-0001-SD	COPPER	9.2	MG/KG	0.3	0.091		073SD-0048-0001-SD	9.7	0.31	0.092		5	N/A
073SD-0047-0001-SD	IRON	17000	MG/KG	15	3		073SD-0048-0001-SD	16000	7.7	3.1		6	N/A
073SD-0047-0001-SD	LEAD	0.18	MG/KG	0.15	0.045		073SD-0048-0001-SD	13	0.15	0.046		N/A	No
073SD-0047-0001-SD	MAGNESIUM	2800	MG/KG	15	3		073SD-0048-0001-SD	2400	15	3.1		15	N/A
073SD-0047-0001-SD	MANGANESE	2300	MG/KG	0.76	0.045		073SD-0048-0001-SD	2900	0.77	0.046		23	N/A
073SD-0047-0001-SD	NICKEL	21	MG/KG	0.15	0.045		073SD-0048-0001-SD	21	0.15	0.046		0	N/A
073SD-0047-0001-SD	POTASSIUM	490	MG/KG	15	9.1		073SD-0048-0001-SD	500	15	9.2		2	N/A
073SD-0047-0001-SD	SELENIUM	0.71	MG/KG	0.76	0.15	J	073SD-0048-0001-SD	0.78	0.77	0.15		N/A	Yes
073SD-0047-0001-SD	SILVER	0.043	MG/KG	0.15	0.045	J	073SD-0048-0001-SD	0.039	0.15	0.046		N/A	Yes
073SD-0047-0001-SD	SODIUM	80	MG/KG	15			073SD-0048-0001-SD	93	15	7.7		15	N/A
073SD-0047-0001-SD	THALLIUM	0.11	MG/KG	0.15		J	073SD-0048-0001-SD	0.13	0.15	0.031		N/A	Yes
073SD-0047-0001-SD	VANADIUM	17	MG/KG	0.15			073SD-0048-0001-SD	17	0.15	0.092		0	N/A
073SD-0047-0001-SD	ZINC	49	MG/KG	0.76			073SD-0048-0001-SD	54	0.77	0.31		10	N/A
073SD-0047-0001-SD	MERCURY	0.035	MG/KG	0.14	0.048	J	073SD-0048-0001-SD	0.032	0.16	0.054		N/A	Yes
073SS-0002M-0001-SO	ALUMINUM	6900	MG/KG	8.4	3.4		073SS-0003M-0001-SO	6600	9.4	3.8		4	N/A
073SS-0002M-0001-SO	ANTIMONY	0.13	MG/KG	0.17	0.13	R	073SS-0003M-0001-SO	0.098	0.19	0.14	J	N/A	N/A
073SS-0002M-0001-SO	ARSENIC	9.4	MG/KG	0.42	0.13	J-	073SS-0003M-0001-SO	9.7	0.47	0.14		3	N/A
073SS-0002M-0001-SO	BARIUM	48	MG/KG	0.42	0.25		073SS-0003M-0001-SO	49	0.47	0.28		2	N/A
073SS-0002M-0001-SO	BERYLLIUM	0.49	MG/KG	0.084	0.0084		073SS-0003M-0001-SO	0.47	0.094	0.0094		N/A	Yes
073SS-0002M-0001-SO	CADMIUM	0.22	MG/KG	0.17	0.0084		073SS-0003M-0001-SO	0.21	0.19	0.0094		N/A	Yes
073SS-0002M-0001-SO	CALCIUM	4400	MG/KG	170	84		073SS-0003M-0001-SO	4700	190	94		7	N/A
073SS-0002M-0001-SO	CHROMIUM	19	MG/KG	0.42	0.38		073SS-0003M-0001-SO	17	0.47	0.42		11	N/A
073SS-0002M-0001-SO	COBALT	6.8	MG/KG	0.084	0.013		073SS-0003M-0001-SO	7.1	0.094	0.014		4	N/A
073SS-0002M-0001-SO	COPPER	13	MG/KG	0.34	0.25		073SS-0003M-0001-SO	14	0.38	0.28		7	N/A
073SS-0002M-0001-SO	IRON	17000	MG/KG	42	25		073SS-0003M-0001-SO	18000	47	28		6	N/A

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
073SS-0002M-0001-SO	LEAD	14	MG/KG	0.25	0.17		073SS-0003M-0001-SO	15	0.28	0.19		7	N/A
073SS-0002M-0001-SO	MAGNESIUM	2300	MG/KG	84	21		073SS-0003M-0001-SO	2300	94	24		0	N/A
073SS-0002M-0001-SO	MANGANESE	380	MG/KG	0.42	0.34		073SS-0003M-0001-SO	410	0.47	0.38		8	N/A
073SS-0002M-0001-SO	NICKEL	22	MG/KG	0.42	0.21		073SS-0003M-0001-SO	22	0.47	0.24		0	N/A
073SS-0002M-0001-SO	POTASSIUM	950	MG/KG	84	8.4		073SS-0003M-0001-SO	840	94	9.4		12	N/A
073SS-0002M-0001-SO	SELENIUM	0.47	MG/KG	0.42	0.05	J-	073SS-0003M-0001-SO	0.44	0.47	0.057	J	N/A	Yes
073SS-0002M-0001-SO	SILVER	0.38	MG/KG	0.084	0.042		073SS-0003M-0001-SO	0.44	0.094	0.047		N/A	Yes
073SS-0002M-0001-SO	SODIUM	42	MG/KG	84	34	J	073SS-0003M-0001-SO	40	94	38	J	N/A	Yes
073SS-0002M-0001-SO	THALLIUM	0.13	MG/KG	0.17	0.13	U	073SS-0003M-0001-SO	0.11	0.19	0.14	J	N/A	Yes
073SS-0002M-0001-SO	VANADIUM	11	MG/KG	0.42	0.084		073SS-0003M-0001-SO	11	0.47	0.094		0	N/A
073SS-0002M-0001-SO	ZINC	64	MG/KG	3.4	1.7		073SS-0003M-0001-SO	64	3.8	1.9		0	N/A
073SS-0002M-0001-SO	MERCURY	0.051	MG/KG	0.095	0.031	U	073SS-0003M-0001-SO	0.031	0.095	0.031	U	N/A	Yes
073SS-0002M-0001-SO	ALDRIN	27	UG/KG	81	27	U	073SS-0003M-0001-SO	27	81	27	U	N/A	Yes
073SS-0002M-0001-SO	ALPHA BHC	27	UG/KG	51	27	U	073SS-0003M-0001-SO	27	51	27	U	N/A	Yes
073SS-0002M-0001-SO	ALPHA ENDOSULFAN	14	UG/KG	35	14	U	073SS-0003M-0001-SO	14	34	14	U	N/A	Yes
073SS-0002M-0001-SO	ALPHA-CHLORDANE	27	UG/KG	61	27	U	073SS-0003M-0001-SO	27	61	27	U	N/A	Yes
073SS-0002M-0001-SO	BETA BHC	27	UG/KG	71	27	U	073SS-0003M-0001-SO	27	71	27	J	N/A	Yes
073SS-0002M-0001-SO	BETA ENDOSULFAN	27	UG/KG	51	27	U	073SS-0003M-0001-SO	26	50	26	J	N/A	Yes
073SS-0002M-0001-SO	DELTA BHC	27	UG/KG	81	27	U	073SS-0003M-0001-SO	27	81	27	U	N/A	Yes
073SS-0002M-0001-SO	DIELDRIN	14	UG/KG	35	14	U	073SS-0003M-0001-SO	14	34	14	U	N/A	Yes
073SS-0002M-0001-SO	ENDOSULFAN SULFATE	27	UG/KG	61	27	U	073SS-0003M-0001-SO	27	61	27	U	N/A	Yes
073SS-0002M-0001-SO	ENDRIN	14	UG/KG	35	14	U	073SS-0003M-0001-SO	14	34	14	U	N/A	Yes
073SS-0002M-0001-SO	ENDRIN ALDEHYDE	27	UG/KG	61	27	U	073SS-0003M-0001-SO	27	61	27	U	N/A	Yes
073SS-0002M-0001-SO	ENDRIN KETONE	14	UG/KG	41	14	U	073SS-0003M-0001-SO	14	40	14	U	N/A	Yes
073SS-0002M-0001-SO	GAMMA BHC (LINDANE)	27	UG/KG	51	27	U	073SS-0003M-0001-SO	27	51	27	U	N/A	Yes
073SS-0002M-0001-SO	GAMMA-CHLORDANE	14	UG/KG	35	14	U	073SS-0003M-0001-SO	14	34	14	U	N/A	Yes
073SS-0002M-0001-SO	HEPTACHLOR	27	UG/KG	71	27	U	073SS-0003M-0001-SO	27	71	27	U	N/A	Yes
073SS-0002M-0001-SO	HEPTACHLOR EPOXIDE	27	UG/KG	51	27	U	073SS-0003M-0001-SO	26	50	26	J	N/A	Yes
073SS-0002M-0001-SO	METHOXYCHLOR	67	UG/KG	100	67	U	073SS-0003M-0001-SO	67	100	67	U	N/A	Yes
073SS-0002M-0001-SO	P,P'-DDD	14	UG/KG	41	14	U	073SS-0003M-0001-SO	13	40	13	J	N/A	Yes
073SS-0002M-0001-SO	P,P'-DDE	14	UG/KG	35	14	U	073SS-0003M-0001-SO	14	34	14	U	N/A	Yes
073SS-0002M-0001-SO	P,P'-DDT	14	UG/KG	41	14	U	073SS-0003M-0001-SO	14	40	14	U	N/A	Yes
073SS-0002M-0001-SO	TOXAPHENE	410	UG/KG	1400	410	UJ	073SS-0003M-0001-SO	400	1400	400	U	N/A	Yes
073SS-0002M-0001-SO	PCB-1016	25	UG/KG	66	25	U	073SS-0003M-0001-SO	25	66	25	U	N/A	Yes
073SS-0002M-0001-SO	PCB-1221	25	UG/KG	51	25	U	073SS-0003M-0001-SO	25	51	25	U	N/A	Yes
073SS-0002M-0001-SO	PCB-1232	25	UG/KG	46	25	U	073SS-0003M-0001-SO	25	46	25	U	N/A	Yes
073SS-0002M-0001-SO	PCB-1242	25	UG/KG	41	25	U	073SS-0003M-0001-SO	25	40	25	U	N/A	Yes
073SS-0002M-0001-SO	PCB-1248	25	UG/KG	56	25	U	073SS-0003M-0001-SO	25	56	25	U	N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
073SS-0002M-0001-SO	PCB-1254	25	UG/KG	56	25	U	073SS-0003M-0001-SO	25	56	25	U	N/A	Yes
073SS-0002M-0001-SO	PCB-1260	25	UG/KG	56	25	U	073SS-0003M-0001-SO	25	56	25	U	N/A	Yes
073SS-0002M-0001-SO	1,1,1-TRICHLOROETHANE	1.3	UG/KG	6.7	1.3	U	073SS-0003M-0001-SO	1.5	7.5	1.5	U	N/A	Yes
073SS-0002M-0001-SO	1,1,2,2-TETRACHLOROETHANE	0.67	UG/KG	6.7	0.67	UJ	073SS-0003M-0001-SO	0.75	7.5	0.75	U	N/A	Yes
073SS-0002M-0001-SO	1,1,2-TRICHLOROETHANE	0.67	UG/KG	6.7	0.67	U	073SS-0003M-0001-SO	0.75	7.5	0.75	U	N/A	Yes
073SS-0002M-0001-SO	1,1-DICHLOROETHANE	0.67	UG/KG	6.7	0.67	U	073SS-0003M-0001-SO	0.75	7.5	0.75	U	N/A	Yes
073SS-0002M-0001-SO	1,1-DICHLOROETHENE	1.3	UG/KG	6.7	1.3	U	073SS-0003M-0001-SO	1.5	7.5	1.5	U	N/A	Yes
073SS-0002M-0001-SO	1,2-DIBROMOETHANE	1.3	UG/KG	6.7	1.3	U	073SS-0003M-0001-SO	1.5	7.5	1.5	U	N/A	Yes
073SS-0002M-0001-SO	1,2-DICHLOROETHANE	0.67	UG/KG	6.7	0.67	U	073SS-0003M-0001-SO	0.75	7.5	0.75	U	N/A	Yes
073SS-0002M-0001-SO	1,2-DICHLOROPROPANE	1.3	UG/KG	6.7	1.3	U	073SS-0003M-0001-SO	1.5	7.5	1.5	U	N/A	Yes
073SS-0002M-0001-SO	2-HEXANONE	1.3	UG/KG	27	1.3	U	073SS-0003M-0001-SO	1.5	30	1.5	U	N/A	Yes
073SS-0002M-0001-SO	ACETONE	8.4	UG/KG	27	8.4	U	073SS-0003M-0001-SO	9.5	30	9.5	U	N/A	Yes
073SS-0002M-0001-SO	BENZENE	0.67	UG/KG	6.7	0.67	U	073SS-0003M-0001-SO	0.75	7.5	0.75	U	N/A	Yes
073SS-0002M-0001-SO	BROMOCHLOROMETHANE	1.3	UG/KG	6.7	1.3	U	073SS-0003M-0001-SO	1.5	7.5	1.5	U	N/A	Yes
073SS-0002M-0001-SO	BROMODICHLOROMETHANE	0.67	UG/KG	6.7	0.67	U	073SS-0003M-0001-SO	0.75	7.5	0.75	U	N/A	Yes
073SS-0002M-0001-SO	BROMOFORM	0.67	UG/KG	6.7	0.67	U	073SS-0003M-0001-SO	0.75	7.5	0.75	U	N/A	Yes
073SS-0002M-0001-SO	BROMOMETHANE	1.3	UG/KG	6.7	1.3	U	073SS-0003M-0001-SO	1.5	7.5	1.5	U	N/A	Yes
073SS-0002M-0001-SO	CARBON DISULFIDE	0.67	UG/KG	6.7	0.67	U	073SS-0003M-0001-SO	1.3	7.5	0.75	J	N/A	Yes
073SS-0002M-0001-SO	CARBON TETRACHLORIDE	0.67	UG/KG	6.7	0.67	U	073SS-0003M-0001-SO	0.75	7.5	0.75	U	N/A	Yes
073SS-0002M-0001-SO	CHLOROBENZENE	0.67	UG/KG	6.7	0.67	U	073SS-0003M-0001-SO	0.75	7.5	0.75	U	N/A	Yes
073SS-0002M-0001-SO	CHLOROETHANE	1.3	UG/KG	6.7	1.3	U	073SS-0003M-0001-SO	1.5	7.5	1.5	U	N/A	Yes
073SS-0002M-0001-SO	CHLOROFORM	0.67	UG/KG	6.7	0.67	U	073SS-0003M-0001-SO	0.75	7.5	0.75	U	N/A	Yes
073SS-0002M-0001-SO	CHLOROMETHANE	0.67	UG/KG	6.7	0.67	U	073SS-0003M-0001-SO	0.75	7.5	0.75	U	N/A	Yes
073SS-0002M-0001-SO	CIS-1,3-DICHLOROPROPENE	0.67	UG/KG	6.7	0.67	U	073SS-0003M-0001-SO	0.75	7.5	0.75	U	N/A	Yes
073SS-0002M-0001-SO	DIBROMOCHLOROMETHANE	1.3	UG/KG	6.7	1.3	U	073SS-0003M-0001-SO	1.5	7.5	1.5	U	N/A	Yes
073SS-0002M-0001-SO	ETHYLBENZENE	0.67	UG/KG	6.7	0.67	U	073SS-0003M-0001-SO	0.75	7.5	0.75	U	N/A	Yes
073SS-0002M-0001-SO	METHYL ETHYL KETONE	2.7	UG/KG	27	2.7	U	073SS-0003M-0001-SO	3	30	3	U	N/A	Yes
073SS-0002M-0001-SO	METHYL ISOBUTYL KETONE	1.3	UG/KG	27	1.3	U	073SS-0003M-0001-SO	1.5	30	1.5	U	N/A	Yes
073SS-0002M-0001-SO	METHYLENE CHLORIDE	1.3	UG/KG	6.7	1.3	U	073SS-0003M-0001-SO	1.5	7.5	1.5	U	N/A	Yes
073SS-0002M-0001-SO	STYRENE	0.67	UG/KG	6.7	0.67	U	073SS-0003M-0001-SO	0.75	7.5	0.75	U	N/A	Yes
073SS-0002M-0001-SO	TERT-BUTYL METHYL ETHER	0.67	UG/KG	6.7	0.67	U	073SS-0003M-0001-SO	0.75	7.5	0.75	U	N/A	Yes
073SS-0002M-0001-SO	TETRACHLOROETHYLENE	1.3	UG/KG	6.7	1.3	U	073SS-0003M-0001-SO	1.5	7.5	1.5	U	N/A	Yes
073SS-0002M-0001-SO	TOLUENE	0.67	UG/KG	6.7	0.67	U	073SS-0003M-0001-SO	0.75	7.5	0.75	U	N/A	Yes
073SS-0002M-0001-SO	TOTAL 1,2-DICHLOROETHENE	1.3	UG/KG	13	1.3	U	073SS-0003M-0001-SO	1.5	15	1.5	U	N/A	Yes
073SS-0002M-0001-SO	TRANS-1,3-DICHLOROPROPENE	1.3	UG/KG	6.7	1.3	U	073SS-0003M-0001-SO	1.5	7.5	1.5	U	N/A	Yes
073SS-0002M-0001-SO	TRICHLOROETHYLENE	0.67	UG/KG	6.7	0.67	U	073SS-0003M-0001-SO	0.75	7.5	0.75	U	N/A	Yes
073SS-0002M-0001-SO	VINYL CHLORIDE	0.67	UG/KG	6.7	0.67	U	073SS-0003M-0001-SO	0.75	7.5	0.75	U	N/A	Yes
073SS-0002M-0001-SO	XYLENES, TOTAL	2	UG/KG	13	2	U	073SS-0003M-0001-SO	2.3	15	2.3	U	N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
073SS-0002M-0001-SO	1,2,4-TRICHLOROBENZENE	110	UG/KG	200	110	U	073SS-0003M-0001-SO	27	51	27	U	N/A	Yes
073SS-0002M-0001-SO	1,2-DICHLOROBENZENE	110	UG/KG	200	110	U	073SS-0003M-0001-SO	27	51	27	U	N/A	Yes
073SS-0002M-0001-SO	1,3-DICHLOROBENZENE	110	UG/KG	200	110	U	073SS-0003M-0001-SO	27	51	27	U	N/A	Yes
073SS-0002M-0001-SO	1,4-DICHLOROBENZENE	110	UG/KG	200	110	U	073SS-0003M-0001-SO	27	51	27	U	N/A	Yes
073SS-0002M-0001-SO	2,4,5-TRICHLOROPHENOL	110	UG/KG	610	110	U	073SS-0003M-0001-SO	27	150	27	U	N/A	Yes
073SS-0002M-0001-SO	2,4,6-TRICHLOROPHENOL	320	UG/KG	610	320	U	073SS-0003M-0001-SO	81	150	81	U	N/A	Yes
073SS-0002M-0001-SO	2,4-DICHLOROPHENOL	110	UG/KG	610	110	U	073SS-0003M-0001-SO	27	150	27	U	N/A	Yes
073SS-0002M-0001-SO	2,4-DIMETHYLPHENOL	320	UG/KG	610	320	U	073SS-0003M-0001-SO	81	150	81	U	N/A	Yes
073SS-0002M-0001-SO	2,4-DINITROPHENOL	320	UG/KG	1300	320	UJ	073SS-0003M-0001-SO	81	330	81	U	N/A	Yes
073SS-0002M-0001-SO	2,4-DINITROTOLUENE	110	UG/KG	810	110	R	073SS-0003M-0001-SO	27	200	27	U	N/A	N/A
073SS-0002M-0001-SO	2,6-DINITROTOLUENE	110	UG/KG	810	110	R	073SS-0003M-0001-SO	27	200	27	U	N/A	N/A
073SS-0002M-0001-SO	2-CHLORONAPHTHALENE	13	UG/KG	200	13	U	073SS-0003M-0001-SO	3.3	51	3.3	U	N/A	Yes
073SS-0002M-0001-SO	2-CHLOROPHENOL	110	UG/KG	200	110	U	073SS-0003M-0001-SO	27	51	27	U	N/A	Yes
073SS-0002M-0001-SO	2-METHYLNAPHTHALENE	90	UG/KG	27	13		073SS-0003M-0001-SO	62	6.8	3.3		N/A	No
073SS-0002M-0001-SO	2-METHYLPHENOL (O-CRESOL)	320	UG/KG	810	320	U	073SS-0003M-0001-SO	81	200	81	U	N/A	Yes
073SS-0002M-0001-SO	2-NITROANILINE	110	UG/KG	810	110	U	073SS-0003M-0001-SO	27	200	27	U	N/A	Yes
073SS-0002M-0001-SO	2-NITROPHENOL	110	UG/KG	200	110	U	073SS-0003M-0001-SO	27	51	27	U	N/A	Yes
073SS-0002M-0001-SO	3,3'-DICHLOROBENZIDINE	320	UG/KG	400	320	UJ	073SS-0003M-0001-SO	81	100	81	U	N/A	Yes
073SS-0002M-0001-SO	3-NITROANILINE	320	UG/KG	810	320	U	073SS-0003M-0001-SO	81	200	81	U	N/A	Yes
073SS-0002M-0001-SO	4,6-DINITRO-2-METHYLPHENOL	320	UG/KG	610	320	U	073SS-0003M-0001-SO	81	150	81	U	N/A	Yes
073SS-0002M-0001-SO	4-BROMOPHENYL PHENYL ETHER	110	UG/KG	200	110	U	073SS-0003M-0001-SO	27	51	27	U	N/A	Yes
073SS-0002M-0001-SO	4-CHLORO-3-METHYLPHENOL	110	UG/KG	610	110	U	073SS-0003M-0001-SO	27	150	27	U	N/A	Yes
073SS-0002M-0001-SO	4-CHLOROANILINE	110	UG/KG	610	110	U	073SS-0003M-0001-SO	27	150	27	U	N/A	Yes
073SS-0002M-0001-SO	4-CHLOROPHENYL PHENYL ETHER	110	UG/KG	200	110	U	073SS-0003M-0001-SO	27	51	27	U	N/A	Yes
073SS-0002M-0001-SO	4-NITROANILINE	110	UG/KG	810	110	U	073SS-0003M-0001-SO	27	200	27	U	N/A	Yes
073SS-0002M-0001-SO	4-NITROPHENOL	320	UG/KG	1300	320	U	073SS-0003M-0001-SO	81	330	81	U	N/A	Yes
073SS-0002M-0001-SO	ACENAPHTHENE	13	UG/KG	27	13	U	073SS-0003M-0001-SO	3.3	6.8	3.3	U	N/A	Yes
073SS-0002M-0001-SO	ACENAPHTHYLENE	13	UG/KG	27	13	U	073SS-0003M-0001-SO	6.6	6.8	3.3	J	N/A	Yes
073SS-0002M-0001-SO	ANTHRACENE	13	UG/KG	27	13	U	073SS-0003M-0001-SO	16	6.8	3.3		N/A	Yes
073SS-0002M-0001-SO	BENZO(A)ANTHRACENE	52	UG/KG	27	13		073SS-0003M-0001-SO	57	6.8	3.3		N/A	Yes
073SS-0002M-0001-SO	BENZO(A)PYRENE	87	UG/KG	27	13		073SS-0003M-0001-SO	65	6.8	3.3		N/A	Yes
073SS-0002M-0001-SO	BENZO(B)FLUORANTHENE	120	UG/KG	27	13		073SS-0003M-0001-SO	110	6.8	3.3		N/A	Yes
073SS-0002M-0001-SO	BENZO(G,H,I)PERYLENE	29	UG/KG	27	13	J	073SS-0003M-0001-SO	47	6.8	3.3		N/A	Yes
073SS-0002M-0001-SO	BENZO(K)FLUORANTHENE	26	UG/KG	27	13	J	073SS-0003M-0001-SO	29	6.8	3.3		N/A	Yes
073SS-0002M-0001-SO	BENZOIC ACID	1300	UG/KG	2700	1300	U	073SS-0003M-0001-SO	340	670	340	U	N/A	Yes
073SS-0002M-0001-SO	BENZYL ALCOHOL	110	UG/KG	1300	110	U	073SS-0003M-0001-SO	27	330	27	U	N/A	Yes
073SS-0002M-0001-SO	BENZYL BUTYL PHTHALATE	110	UG/KG	200	110	U	073SS-0003M-0001-SO	27	51	27	U	N/A	Yes
073SS-0002M-0001-SO	BIS(2-CHLOROETHOXY) METHANE	110	UG/KG	400	110	U	073SS-0003M-0001-SO	27	100	27	U	N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
073SS-0002M-0001-SO	BIS(2-CHLOROETHYL) ETHER	13	UG/KG	400	13	U	073SS-0003M-0001-SO	3.3	100	3.3	U	N/A	Yes
073SS-0002M-0001-SO	BIS(2-CHLOROISOPROPYL) ETHER	110	UG/KG	400	110	U	073SS-0003M-0001-SO	27	100	27	U	N/A	Yes
073SS-0002M-0001-SO	BIS(2-ETHYLHEXYL) PHTHALATE	110	UG/KG	200	110	U	073SS-0003M-0001-SO	27	51	27	J	N/A	Yes
073SS-0002M-0001-SO	CARBAZOLE	110	UG/KG	200	110	U	073SS-0003M-0001-SO	27	51	27	U	N/A	Yes
073SS-0002M-0001-SO	CHRYSENE	80	UG/KG	27	13		073SS-0003M-0001-SO	71	6.8	3.3		N/A	Yes
073SS-0002M-0001-SO	CRESOLS, M & P	320	UG/KG	1600	320	U	073SS-0003M-0001-SO	81	410	81	U	N/A	Yes
073SS-0002M-0001-SO	DIBENZ(A,H)ANTHRACENE	13	UG/KG	27	13	UJ	073SS-0003M-0001-SO	3.3	6.8	3.3	U	N/A	Yes
073SS-0002M-0001-SO	DIBENZOFURAN	23	UG/KG	200	13	J	073SS-0003M-0001-SO	15	51	3.3	J	N/A	Yes
073SS-0002M-0001-SO	DIETHYL PHTHALATE	110	UG/KG	200	110	U	073SS-0003M-0001-SO	27	51	27	U	N/A	Yes
073SS-0002M-0001-SO	DIMETHYL PHTHALATE	110	UG/KG	200	110	U	073SS-0003M-0001-SO	27	51	27	U	N/A	Yes
073SS-0002M-0001-SO	DI-N-BUTYL PHTHALATE	110	UG/KG	200	110	U	073SS-0003M-0001-SO	27	51	27	U	N/A	Yes
073SS-0002M-0001-SO	DI-N-OCTYLPHTHALATE	110	UG/KG	200	110	U	073SS-0003M-0001-SO	27	51	27	U	N/A	Yes
073SS-0002M-0001-SO	FLUORANTHENE	99	UG/KG	27	13		073SS-0003M-0001-SO	120	6.8	3.3		N/A	Yes
073SS-0002M-0001-SO	FLUORENE	13	UG/KG	27	13	U	073SS-0003M-0001-SO	8.5	6.8	3.3		N/A	Yes
073SS-0002M-0001-SO	HEXACHLOROBENZENE	13	UG/KG	27	13	U	073SS-0003M-0001-SO	3.3	6.8	3.3	U	N/A	Yes
073SS-0002M-0001-SO	HEXACHLOROBUTADIENE	110	UG/KG	200	110	U	073SS-0003M-0001-SO	27	51	27	U	N/A	Yes
073SS-0002M-0001-SO	HEXACHLOROCYCLOPENTADIENE	110	UG/KG	1300	110	U	073SS-0003M-0001-SO	27	330	27	U	N/A	Yes
073SS-0002M-0001-SO	HEXACHLOROETHANE	110	UG/KG	200	110	U	073SS-0003M-0001-SO	27	51	27	U	N/A	Yes
073SS-0002M-0001-SO	INDENO(1,2,3-C,D)PYRENE	54	UG/KG	27	13	J	073SS-0003M-0001-SO	46	6.8	3.3		N/A	Yes
073SS-0002M-0001-SO	ISOPHORONE	110	UG/KG	200	110	U	073SS-0003M-0001-SO	27	51	27	U	N/A	Yes
073SS-0002M-0001-SO	NAPHTHALENE	63	UG/KG	27	13		073SS-0003M-0001-SO	49	6.6	3.2		N/A	Yes
073SS-0002M-0001-SO	NITROBENZENE	13	UG/KG	400	13	U	073SS-0003M-0001-SO	3.3	100	3.3	U	N/A	Yes
073SS-0002M-0001-SO	N-NITROSODI-N-PROPYLAMINE	110	UG/KG	200	110	U	073SS-0003M-0001-SO	27	51	27	U	N/A	Yes
073SS-0002M-0001-SO	N-NITROSODIPHENYLAMINE	110	UG/KG	200	110	U	073SS-0003M-0001-SO	27	51	27	U	N/A	Yes
073SS-0002M-0001-SO	PENTACHLOROPHENOL	320	UG/KG	610	320	U	073SS-0003M-0001-SO	81	150	81	U	N/A	Yes
073SS-0002M-0001-SO	PHENANTHRENE	61	UG/KG	27	13		073SS-0003M-0001-SO	71	6.8	3.3		N/A	Yes
073SS-0002M-0001-SO	PHENOL	110	UG/KG	200	110	U	073SS-0003M-0001-SO	27	51	27	U	N/A	Yes
073SS-0002M-0001-SO	PYRENE	78	UG/KG	27	13		073SS-0003M-0001-SO	88	6.6	3.2		N/A	Yes
073SS-0002M-0001-SO	1,3,5-TRINITROBENZENE	0.049	MG/KG	0.25	0.049	U	073SS-0003M-0001-SO	0.05	0.25	0.05	U	N/A	Yes
073SS-0002M-0001-SO	1,3-DINITROBENZENE	0.049	MG/KG	0.25	0.049	U	073SS-0003M-0001-SO	0.05	0.25	0.05	U	N/A	Yes
073SS-0002M-0001-SO	2,4,6-TRINITROTOLUENE	0.049	MG/KG	0.25	0.049	U	073SS-0003M-0001-SO	0.05	0.25	0.05	U	N/A	Yes
073SS-0002M-0001-SO	2,4-DINITROTOLUENE	0.049	MG/KG	0.25	0.049	U	073SS-0003M-0001-SO	0.05	0.25	0.05	U	N/A	Yes
073SS-0002M-0001-SO	2,6-DINITROTOLUENE	0.049	MG/KG	0.25	0.049	U	073SS-0003M-0001-SO	0.05	0.25	0.05	U	N/A	Yes
073SS-0002M-0001-SO	2-AMINO-4,6-DINITROTOLUENE	0.049	MG/KG	0.25	0.049	U	073SS-0003M-0001-SO	0.05	0.25	0.05	U	N/A	Yes
073SS-0002M-0001-SO	2-NITROTOLUENE	0.049	MG/KG	0.25	0.049	UJ	073SS-0003M-0001-SO	0.05	0.25	0.05	U	N/A	Yes
073SS-0002M-0001-SO	3-NITROTOLUENE	0.049	MG/KG	0.25	0.049	U	073SS-0003M-0001-SO	0.05	0.25	0.05	U	N/A	Yes
073SS-0002M-0001-SO	4-AMINO-2,6-DINITROTOLUENE	0.049	MG/KG	0.25	0.049	U	073SS-0003M-0001-SO	0.05	0.25	0.05	U	N/A	Yes
073SS-0002M-0001-SO	4-NITROTOLUENE	0.049	MG/KG	0.25	0.049	U	073SS-0003M-0001-SO	0.05	0.25	0.05	U	N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
073SS-0002M-0001-SO	HMX	0.049	MG/KG	0.25	0.049	U	073SS-0003M-0001-SO	0.05	0.25	0.05	U	N/A	Yes
073SS-0002M-0001-SO	NITROBENZENE	0.049	MG/KG	0.25	0.049	R	073SS-0003M-0001-SO	0.05	0.25	0.05	U	N/A	N/A
073SS-0002M-0001-SO	NITROGLYCERIN	0.25	MG/KG	0.49	0.25	U	073SS-0003M-0001-SO	0.25	0.5	0.25	U	N/A	Yes
073SS-0002M-0001-SO	PETN	0.25	MG/KG	0.49	0.25	U	073SS-0003M-0001-SO	0.25	0.5	0.25	U	N/A	Yes
073SS-0002M-0001-SO	RDX	0.049	MG/KG	0.25	0.049	UJ	073SS-0003M-0001-SO	0.05	0.25	0.05	U	N/A	Yes
073SS-0002M-0001-SO	TETRYL	0.049	MG/KG	0.25	0.049	U	073SS-0003M-0001-SO	0.024	0.25	0.05	J	N/A	Yes
073SS-0002M-0001-SO	Nitroguanidine	0.039	MG/KG	0.25	0.039	U	073SS-0003M-0001-SO	0.039	0.24	0.039	U	N/A	Yes
073SS-0002M-0001-SO	NITROCELLULOSE	17	MG/KG	47	17	U	073SS-0003M-0001-SO	17	48	17	U	N/A	Yes
073SW-0058-0001-SW	ALUMINUM	130	UG/L	30	5		073SW-0059-0001-SW	140	30	5		N/A	Yes
073SW-0058-0001-SW	ANTIMONY	0.9	UG/L	2	0.9	J	073SW-0059-0001-SW	0.9	2	0.9	U	N/A	Yes
073SW-0058-0001-SW	ARSENIC	0.5	UG/L	1	0.5	U	073SW-0059-0001-SW	0.66	1	0.5	J	N/A	Yes
073SW-0058-0001-SW	BARIUM	18	UG/L	10	0.15		073SW-0059-0001-SW	20	10	0.15		N/A	Yes
073SW-0058-0001-SW	BERYLLIUM	0.09	UG/L	1	0.09	U	073SW-0059-0001-SW	0.057	1	0.09	J	N/A	Yes
073SW-0058-0001-SW	CADMIUM	0.3	UG/L	1	0.3	U	073SW-0059-0001-SW	0.3	1	0.3	U	N/A	Yes
073SW-0058-0001-SW	CALCIUM	28000	UG/L	100	20		073SW-0059-0001-SW	28000	100	20		N/A	Yes
073SW-0058-0001-SW	CHROMIUM	1.8	UG/L	2	1	J	073SW-0059-0001-SW	1.4	2	1	J	N/A	Yes
073SW-0058-0001-SW	COBALT	0.05	UG/L	0.5	0.05	J	073SW-0059-0001-SW	0.05	0.5	0.05	J	N/A	Yes
073SW-0058-0001-SW	COPPER	2.3	UG/L	2	0.5		073SW-0059-0001-SW	2	2	0.5		N/A	Yes
073SW-0058-0001-SW	IRON	650	UG/L	50	20		073SW-0059-0001-SW	840	50	20		26	N/A
073SW-0058-0001-SW	LEAD	0.3	UG/L	1	0.3	U	073SW-0059-0001-SW	0.3	1	0.3	U	N/A	Yes
073SW-0058-0001-SW	MAGNESIUM	6200	UG/L	100	22		073SW-0059-0001-SW	6200	100	22		0	N/A
073SW-0058-0001-SW	MANGANESE	160	UG/L	5	0.3		073SW-0059-0001-SW	200	5	0.3		22	N/A
073SW-0058-0001-SW	NICKEL	0.32	UG/L	1	0.35	J	073SW-0059-0001-SW	0.33	1	0.35	J	N/A	Yes
073SW-0058-0001-SW	POTASSIUM	1300	UG/L	100	60		073SW-0059-0001-SW	1300	100	60		0	N/A
073SW-0058-0001-SW	SELENIUM	1	UG/L	5	1	U	073SW-0059-0001-SW	1	5	1	U	N/A	Yes
073SW-0058-0001-SW	SILVER	0.2	UG/L	1	0.2	U	073SW-0059-0001-SW	0.2	1	0.2	U	N/A	Yes
073SW-0058-0001-SW	SODIUM	18000	UG/L	100	55		073SW-0059-0001-SW	18000	100	55		0	N/A
073SW-0058-0001-SW	THALLIUM	0.2	UG/L	1	0.2	U	073SW-0059-0001-SW	0.2	1	0.2	U	N/A	Yes
073SW-0058-0001-SW	VANADIUM	0.6	UG/L	1	0.6	U	073SW-0059-0001-SW	0.6	1	0.6	U	N/A	Yes
073SW-0058-0001-SW	ZINC	3.2	UG/L	5	2	J	073SW-0059-0001-SW	3.1	5	2	J	N/A	Yes
073SW-0058-0001-SW	MERCURY	0.2	UG/L	0.2	0.2	U	073SW-0059-0001-SW	0.2	0.2	0.2	U	N/A	Yes
073SW-0058-0001-SW	1,2,4-TRICHLOROBENZENE	0.83	UG/L	1	0.83	U	073SW-0059-0001-SW	0.86	1.1	0.86	U	N/A	Yes
073SW-0058-0001-SW	1,2-DICHLOROBENZENE	0.83	UG/L	1	0.83	U	073SW-0059-0001-SW	0.86	1.1	0.86	U	N/A	Yes
073SW-0058-0001-SW	1,3-DICHLOROBENZENE	0.83	UG/L	1	0.83	U	073SW-0059-0001-SW	0.86	1.1	0.86	U	N/A	Yes
073SW-0058-0001-SW	1,4-DICHLOROBENZENE	0.83	UG/L	1	0.83	U	073SW-0059-0001-SW	0.86	1.1	0.86	U	N/A	Yes
073SW-0058-0001-SW	2,4,5-TRICHLOROPHENOL	0.83	UG/L	5.2	0.83	U	073SW-0059-0001-SW	0.86	5.4	0.86	U	N/A	Yes
073SW-0058-0001-SW	2,4,6-TRICHLOROPHENOL	0.83	UG/L	5.2	0.83	U	073SW-0059-0001-SW	0.86	5.4	0.86	U	N/A	Yes
073SW-0058-0001-SW	2,4-DICHLOROPHENOL	0.83	UG/L	2.1	0.83	U	073SW-0059-0001-SW	0.86	2.2	0.86	U	N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
073SW-0058-0001-SW	2,4-DIMETHYLPHENOL	0.83	UG/L	2.1	0.83	U	073SW-0059-0001-SW	0.86	2.2	0.86	U	N/A	Yes
073SW-0058-0001-SW	2,4-DINITROPHENOL	2.5	UG/L	5.2	2.5	U	073SW-0059-0001-SW	2.6	5.4	2.6	U	N/A	Yes
073SW-0058-0001-SW	2,4-DINITROTOLUENE	0.83	UG/L	5.2	0.83	U	073SW-0059-0001-SW	0.86	5.4	0.86	U	N/A	Yes
073SW-0058-0001-SW	2,6-DINITROTOLUENE	0.83	UG/L	5.2	0.83	U	073SW-0059-0001-SW	0.86	5.4	0.86	U	N/A	Yes
073SW-0058-0001-SW	2-CHLORONAPHTHALENE	0.1	UG/L	1	0.1	U	073SW-0059-0001-SW	0.11	1.1	0.11	U	N/A	Yes
073SW-0058-0001-SW	2-CHLOROPHENOL	0.83	UG/L	1	0.83	U	073SW-0059-0001-SW	0.86	1.1	0.86	U	N/A	Yes
073SW-0058-0001-SW	2-METHYLNAPHTHALENE	0.1	UG/L	0.21	0.1	U	073SW-0059-0001-SW	0.11	0.22	0.11	U	N/A	Yes
073SW-0058-0001-SW	2-METHYLPHENOL (O-CRESOL)	0.83	UG/L	1	0.83	U	073SW-0059-0001-SW	0.86	1.1	0.86	U	N/A	Yes
073SW-0058-0001-SW	2-NITROANILINE	0.83	UG/L	2.1	0.83	U	073SW-0059-0001-SW	0.86	2.2	0.86	U	N/A	Yes
073SW-0058-0001-SW	2-NITROPHENOL	0.83	UG/L	2.1	0.83	U	073SW-0059-0001-SW	0.86	2.2	0.86	U	N/A	Yes
073SW-0058-0001-SW	3,3'-DICHLOROBENZIDINE	0.83	UG/L	5.2	0.83	U	073SW-0059-0001-SW	0.86	5.4	0.86	U	N/A	Yes
073SW-0058-0001-SW	3-NITROANILINE	0.83	UG/L	2.1	0.83	U	073SW-0059-0001-SW	0.86	2.2	0.86	U	N/A	Yes
073SW-0058-0001-SW	4,6-DINITRO-2-METHYLPHENOL	2.5	UG/L	5.2	2.5	U	073SW-0059-0001-SW	2.6	5.4	2.6	U	N/A	Yes
073SW-0058-0001-SW	4-BROMOPHENYL PHENYL ETHER	0.83	UG/L	2.1	0.83	U	073SW-0059-0001-SW	0.86	2.2	0.86	U	N/A	Yes
073SW-0058-0001-SW	4-CHLORO-3-METHYLPHENOL	0.83	UG/L	2.1	0.83	U	073SW-0059-0001-SW	0.86	2.2	0.86	U	N/A	Yes
073SW-0058-0001-SW	4-CHLOROANILINE	0.83	UG/L	2.1	0.83	U	073SW-0059-0001-SW	0.86	2.2	0.86	U	N/A	Yes
073SW-0058-0001-SW	4-CHLOROPHENYL PHENYL ETHER	0.83	UG/L	2.1	0.83	U	073SW-0059-0001-SW	0.86	2.2	0.86	U	N/A	Yes
073SW-0058-0001-SW	4-NITROANILINE	0.83	UG/L	2.1	0.83	U	073SW-0059-0001-SW	0.86	2.2	0.86	U	N/A	Yes
073SW-0058-0001-SW	4-NITROPHENOL	2.5	UG/L	5.2	2.5	U	073SW-0059-0001-SW	2.6	5.4	2.6	U	N/A	Yes
073SW-0058-0001-SW	ACENAPHTHENE	0.1	UG/L	0.21	0.1	U	073SW-0059-0001-SW	0.11	0.22	0.11	U	N/A	Yes
073SW-0058-0001-SW	ACENAPHTHYLENE	0.1	UG/L	0.21	0.1	U	073SW-0059-0001-SW	0.11	0.22	0.11	U	N/A	Yes
073SW-0058-0001-SW	ANTHRACENE	0.1	UG/L	0.21	0.1	U	073SW-0059-0001-SW	0.11	0.22	0.11	U	N/A	Yes
073SW-0058-0001-SW	BENZO(A)ANTHRACENE	0.1	UG/L	0.21	0.1	U	073SW-0059-0001-SW	0.11	0.22	0.11	U	N/A	Yes
073SW-0058-0001-SW	BENZO(A)PYRENE	0.1	UG/L	0.21	0.1	U	073SW-0059-0001-SW	0.11	0.22	0.11	U	N/A	Yes
073SW-0058-0001-SW	BENZO(B)FLUORANTHENE	0.1	UG/L	0.21	0.1	U	073SW-0059-0001-SW	0.11	0.22	0.11	U	N/A	Yes
073SW-0058-0001-SW	BENZO(G,H,I)PERYLENE	0.1	UG/L	0.21	0.1	U	073SW-0059-0001-SW	0.11	0.22	0.11	U	N/A	Yes
073SW-0058-0001-SW	BENZO(K)FLUORANTHENE	0.1	UG/L	0.21	0.1	U	073SW-0059-0001-SW	0.11	0.22	0.11	U	N/A	Yes
073SW-0058-0001-SW	BENZOIC ACID	10	UG/L	26	10	U	073SW-0059-0001-SW	11	27	11	U	N/A	Yes
073SW-0058-0001-SW	BENZYL ALCOHOL	0.83	UG/L	5.2	0.83	U	073SW-0059-0001-SW	0.86	5.4	0.86	U	N/A	Yes
073SW-0058-0001-SW	BENZYL BUTYL PHTHALATE	0.83	UG/L	1	0.83	U	073SW-0059-0001-SW	0.86	1.1	0.86	U	N/A	Yes
073SW-0058-0001-SW	BIS(2-CHLOROETHOXY) METHANE	0.83	UG/L	1	0.83	U	073SW-0059-0001-SW	0.86	1.1	0.86	U	N/A	Yes
073SW-0058-0001-SW	BIS(2-CHLOROETHYL) ETHER (2-CHLOI	0.1	UG/L	1	0.1	U	073SW-0059-0001-SW	0.11	1.1	0.11	U	N/A	Yes
073SW-0058-0001-SW	BIS(2-CHLOROISOPROPYL) ETHER	0.83	UG/L	1	0.83	U	073SW-0059-0001-SW	0.86	1.1	0.86	U	N/A	Yes
073SW-0058-0001-SW	BIS(2-ETHYLHEXYL) PHTHALATE	1.4	UG/L	2.1	0.83	J	073SW-0059-0001-SW	0.86	2.2	0.86	U	N/A	Yes
073SW-0058-0001-SW	CARBAZOLE	0.83	UG/L	1	0.83	U	073SW-0059-0001-SW	0.86	1.1	0.86	U	N/A	Yes
073SW-0058-0001-SW	CHRYSENE	0.1	UG/L	0.21	0.1	U	073SW-0059-0001-SW	0.11	0.22	0.11	U	N/A	Yes
073SW-0058-0001-SW	CRESOLS, M & P	0.83	UG/L	2.1	0.83	U	073SW-0059-0001-SW	0.86	2.2	0.86	U	N/A	Yes
073SW-0058-0001-SW	DIBENZ(A,H)ANTHRACENE	0.1	UG/L	0.21	0.1	U	073SW-0059-0001-SW	0.11	0.22	0.11	U	N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
073SW-0058-0001-SW	DIBENZOFURAN	0.1	UG/L	1	0.1	U	073SW-0059-0001-SW	0.11	1.1	0.11	U	N/A	Yes
073SW-0058-0001-SW	DIETHYL PHTHALATE	0.83	UG/L	1	0.83	U	073SW-0059-0001-SW	0.86	1.1	0.86	U	N/A	Yes
073SW-0058-0001-SW	DIMETHYL PHTHALATE	0.83	UG/L	1	0.83	U	073SW-0059-0001-SW	0.86	1.1	0.86	U	N/A	Yes
073SW-0058-0001-SW	DI-N-BUTYL PHTHALATE	0.83	UG/L	1	0.83	U	073SW-0059-0001-SW	0.86	1.1	0.86	U	N/A	Yes
073SW-0058-0001-SW	DI-N-OCTYLPHTHALATE	0.83	UG/L	1	0.83	U	073SW-0059-0001-SW	0.86	1.1	0.86	U	N/A	Yes
073SW-0058-0001-SW	FLUORANTHENE	0.1	UG/L	0.21	0.1	U	073SW-0059-0001-SW	0.11	0.22	0.11	U	N/A	Yes
073SW-0058-0001-SW	FLUORENE	0.1	UG/L	0.21	0.1	U	073SW-0059-0001-SW	0.11	0.22	0.11	U	N/A	Yes
073SW-0058-0001-SW	HEXACHLOROBENZENE	0.1	UG/L	0.21	0.1	U	073SW-0059-0001-SW	0.11	0.22	0.11	U	N/A	Yes
073SW-0058-0001-SW	HEXACHLOROBUTADIENE	0.83	UG/L	1	0.83	U	073SW-0059-0001-SW	0.86	1.1	0.86	U	N/A	Yes
073SW-0058-0001-SW	HEXACHLOROCYCLOPENTADIENE	0.83	UG/L	10	0.83	U	073SW-0059-0001-SW	0.86	11	0.86	U	N/A	Yes
073SW-0058-0001-SW	HEXACHLOROETHANE	0.83	UG/L	1	0.83	U	073SW-0059-0001-SW	0.86	1.1	0.86	U	N/A	Yes
073SW-0058-0001-SW	INDENO(1,2,3-C,D)PYRENE	0.1	UG/L	0.21	0.1	U	073SW-0059-0001-SW	0.11	0.22	0.11	U	N/A	Yes
073SW-0058-0001-SW	ISOPHORONE	0.83	UG/L	1	0.83	U	073SW-0059-0001-SW	0.86	1.1	0.86	U	N/A	Yes
073SW-0058-0001-SW	NAPHTHALENE	0.1	UG/L	0.21	0.1	U	073SW-0059-0001-SW	0.11	0.22	0.11	U	N/A	Yes
073SW-0058-0001-SW	NITROBENZENE	0.1	UG/L	1	0.1	U	073SW-0059-0001-SW	0.11	1.1	0.11	U	N/A	Yes
073SW-0058-0001-SW	N-NITROSODI-N-PROPYLAMINE	0.83	UG/L	1	0.83	U	073SW-0059-0001-SW	0.86	1.1	0.86	U	N/A	Yes
073SW-0058-0001-SW	N-NITROSODIPHENYLAMINE	0.83	UG/L	1	0.83	U	073SW-0059-0001-SW	0.86	1.1	0.86	U	N/A	Yes
073SW-0058-0001-SW	PENTACHLOROPHENOL	2.5	UG/L	5.2	2.5	U	073SW-0059-0001-SW	2.6	5.4	2.6	U	N/A	Yes
073SW-0058-0001-SW	PHENANTHRENE	0.1	UG/L	0.21	0.1	U	073SW-0059-0001-SW	0.11	0.22	0.11	U	N/A	Yes
073SW-0058-0001-SW	PHENOL	0.83	UG/L	1	0.83	U	073SW-0059-0001-SW	0.86	1.1	0.86	U	N/A	Yes
073SW-0058-0001-SW	PYRENE	0.1	UG/L	0.21	0.1	U	073SW-0059-0001-SW	0.11	0.22	0.11	U	N/A	Yes

Sample	Analyte	Result	Units	DL	LOQ	LOD	Qual	Sample	Result	DL	LOQ	LOD	Qual	RPD	W/In LOQ
074SB-0002-0001-SO	C10-C20	11	MG/KG	11	19	11	U	074SB-0003-0001-SO	11	11	20	11	U	N/A	Yes
074SB-0002-0001-SO	C20-C34	11	MG/KG	11	19	11	U	074SB-0003-0001-SO	11	11	20	11	U	N/A	Yes
074SB-0002-0001-SO	1,2,4-TRICHLOROBENZENE	32	UG/KG	32	59	32	U	074SB-0003-0001-SO	32	32	59	32	U	N/A	Yes
074SB-0002-0001-SO	1,2-DICHLOROBENZENE	32	UG/KG	11	59	32	U	074SB-0003-0001-SO	32	11	59	32	U	N/A	Yes
074SB-0002-0001-SO	1,3-DICHLOROBENZENE	32	UG/KG	13	59	32	U	074SB-0003-0001-SO	32	13	59	32	U	N/A	Yes
074SB-0002-0001-SO	1,4-DICHLOROBENZENE	32	UG/KG	23	59	32	U	074SB-0003-0001-SO	32	24	59	32	U	N/A	Yes
074SB-0002-0001-SO	2,4,5-TRICHLOROPHENOL	32	UG/KG	29	180	32	U	074SB-0003-0001-SO	32	29	180	32	U	N/A	Yes
074SB-0002-0001-SO	2,4,6-TRICHLOROPHENOL	94	UG/KG	94	180	94	U	074SB-0003-0001-SO	94	94	180	94	U	N/A	Yes
074SB-0002-0001-SO	2,4-DICHLOROPHENOL	32	UG/KG	23	180	32	U	074SB-0003-0001-SO	32	24	180	32	U	N/A	Yes
074SB-0002-0001-SO	2,4-DIMETHYLPHENOL	94	UG/KG	23	180	94	U	074SB-0003-0001-SO	94	24	180	94	U	N/A	Yes
074SB-0002-0001-SO	2,4-DINITROPHENOL	94	UG/KG	94	390	94	UJ	074SB-0003-0001-SO	94	94	390	94	U	N/A	Yes
074SB-0002-0001-SO	2,4-DINITROTOLUENE	32	UG/KG	32	230	32	U	074SB-0003-0001-SO	32	32	240	32	U	N/A	Yes
074SB-0002-0001-SO	2,6-DINITROTOLUENE	32	UG/KG	25	230	32	U	074SB-0003-0001-SO	32	25	240	32	U	N/A	Yes
074SB-0002-0001-SO	2-CHLORONAPHTHALENE	3.9	UG/KG	3.9	59	3.9	U	074SB-0003-0001-SO	3.9	3.9	59	3.9	U	N/A	Yes
074SB-0002-0001-SO	2-CHLOROPHENOL	32	UG/KG	32	59	32	U	074SB-0003-0001-SO	32	32	59	32	U	N/A	Yes
074SB-0002-0001-SO	2-METHYLNAPHTHALENE	3.9	UG/KG	3.9	7.8	3.9	U	074SB-0003-0001-SO	3.9	3.9	7.9	3.9	U	N/A	Yes
074SB-0002-0001-SO	2-METHYLPHENOL	94	UG/KG	94	230	94	U	074SB-0003-0001-SO	94	94	240	94	U	N/A	Yes
074SB-0002-0001-SO	2-NITROANILINE	32	UG/KG	11	230	32	U	074SB-0003-0001-SO	32	11	240	32	U	N/A	Yes
074SB-0002-0001-SO	2-NITROPHENOL	32	UG/KG	32	59	32	U	074SB-0003-0001-SO	32	32	59	32	U	N/A	Yes
074SB-0002-0001-SO	3,3'-DICHLOROBENZIDINE	94	UG/KG	21	120	94	U	074SB-0003-0001-SO	94	21	120	94	U	N/A	Yes
074SB-0002-0001-SO	3-NITROANILINE	94	UG/KG	19	230	94	U	074SB-0003-0001-SO	94	19	240	94	U	N/A	Yes
074SB-0002-0001-SO	4,6-DINITRO-2-METHYLPHENOL	94	UG/KG	94	180	94	UJ	074SB-0003-0001-SO	94	94	180	94	U	N/A	Yes
074SB-0002-0001-SO	4-BROMOPHENYL PHENYL ETHER	32	UG/KG	15	59	32	U	074SB-0003-0001-SO	32	15	59	32	U	N/A	Yes
074SB-0002-0001-SO	4-CHLORO-3-METHYLPHENOL	32	UG/KG	25	180	32	U	074SB-0003-0001-SO	32	25	180	32	U	N/A	Yes
074SB-0002-0001-SO	4-CHLOROANILINE	32	UG/KG	20	180	32	U	074SB-0003-0001-SO	32	20	180	32	U	N/A	Yes
074SB-0002-0001-SO	4-CHLOROPHENYL PHENYL ETHER	32	UG/KG	15	59	32	U	074SB-0003-0001-SO	32	15	59	32	U	N/A	Yes
074SB-0002-0001-SO	4-NITROANILINE	32	UG/KG	30	230	32	U	074SB-0003-0001-SO	32	31	240	32	U	N/A	Yes
074SB-0002-0001-SO	4-NITROPHENOL	94	UG/KG	94	390	94	U	074SB-0003-0001-SO	94	94	390	94	U	N/A	Yes
074SB-0002-0001-SO	ACENAPHTHENE	3.9	UG/KG	3.9	7.8	3.9	U	074SB-0003-0001-SO	3.9	3.9	7.9	3.9	U	N/A	Yes
074SB-0002-0001-SO	ACENAPHTHYLENE	3.9	UG/KG	3.9	7.8	3.9	U	074SB-0003-0001-SO	3.9	3.9	7.9	3.9	U	N/A	Yes
074SB-0002-0001-SO	ANTHRACENE	3.9	UG/KG	3.9	7.8	3.9	U	074SB-0003-0001-SO	3.9	3.9	7.9	3.9	U	N/A	Yes
074SB-0002-0001-SO	BENZO(A)ANTHRACENE	3.9	UG/KG	3.9	7.8	3.9	U	074SB-0003-0001-SO	3.9	3.9	7.9	3.9	U	N/A	Yes
074SB-0002-0001-SO	BENZO(A)PYRENE	3.9	UG/KG	3.9	7.8	3.9	U	074SB-0003-0001-SO	3.9	3.9	7.9	3.9	U	N/A	Yes
074SB-0002-0001-SO	BENZO(B)FLUORANTHENE	3.9	UG/KG	3.9	7.8	3.9	U	074SB-0003-0001-SO	3.9	3.9	7.9	3.9	U	N/A	Yes
074SB-0002-0001-SO	BENZO(G,H,I)PERYLENE	3.9	UG/KG	3.9	7.8	3.9	U	074SB-0003-0001-SO	3.9	3.9	7.9	3.9	U	N/A	Yes
074SB-0002-0001-SO	BENZO(K)FLUORANTHENE	3.9	UG/KG	3.9	7.8	3.9	U	074SB-0003-0001-SO	3.9	3.9	7.9	3.9	U	N/A	Yes

Sample	Analyte	Result	Units	DL	LOQ	LOD	Qual	Sample	Result	DL	LOQ	LOD	Qual	RPD	W/In LOQ
074SB-0002-0001-SO	BENZOIC ACID	390	UG/KG	390	770	390	U	074SB-0003-0001-SO	390	390	780	390	U	N/A	Yes
074SB-0002-0001-SO	BENZYL ALCOHOL	32	UG/KG	25	390	32	U	074SB-0003-0001-SO	32	25	390	32	U	N/A	Yes
074SB-0002-0001-SO	BENZYL BUTYL PHTHALATE	32	UG/KG	12	82	32	U	074SB-0003-0001-SO	32	12	82	32	U	N/A	Yes
074SB-0002-0001-SO	BIS(2-CHLOROETHOXY) METHANE	32	UG/KG	26	120	32	U	074SB-0003-0001-SO	32	26	120	32	U	N/A	Yes
074SB-0002-0001-SO	BIS(2-CHLOROETHYL) ETHER	3.9	UG/KG	2.3	120	3.9	U	074SB-0003-0001-SO	3.9	2.4	120	3.9	U	N/A	Yes
074SB-0002-0001-SO	BIS(2-CHLOROISOPROPYL) ETHER	32	UG/KG	11	120	32	U	074SB-0003-0001-SO	32	11	120	32	U	N/A	Yes
074SB-0002-0001-SO	BIS(2-ETHYLHEXYL) PHTHALATE	32	UG/KG	22	82	32	U	074SB-0003-0001-SO	32	22	82	32	J	N/A	Yes
074SB-0002-0001-SO	CARBAZOLE	32	UG/KG	32	59	32	U	074SB-0003-0001-SO	32	32	59	32	U	N/A	Yes
074SB-0002-0001-SO	CHRYSENE	3.9	UG/KG	1.3	7.8	3.9	U	074SB-0003-0001-SO	3.9	1.3	7.9	3.9	U	N/A	Yes
074SB-0002-0001-SO	CRESOLS, M & P	94	UG/KG	23	470	94	U	074SB-0003-0001-SO	94	24	470	94	U	N/A	Yes
074SB-0002-0001-SO	DIBENZ(A,H)ANTHRACENE	3.9	UG/KG	3.9	7.8	3.9	U	074SB-0003-0001-SO	3.9	3.9	7.9	3.9	U	N/A	Yes
074SB-0002-0001-SO	DIBENZOFURAN	3.9	UG/KG	3.9	59	3.9	U	074SB-0003-0001-SO	3.9	3.9	59	3.9	U	N/A	Yes
074SB-0002-0001-SO	DIETHYL PHTHALATE	32	UG/KG	19	82	32	U	074SB-0003-0001-SO	32	19	82	32	U	N/A	Yes
074SB-0002-0001-SO	DIMETHYL PHTHALATE	32	UG/KG	20	82	32	U	074SB-0003-0001-SO	32	20	82	32	U	N/A	Yes
074SB-0002-0001-SO	DI-N-BUTYL PHTHALATE	32	UG/KG	18	82	32	U	074SB-0003-0001-SO	32	18	82	32	J	N/A	Yes
074SB-0002-0001-SO	DI-N-OCTYLPHTHALATE	32	UG/KG	32	82	32	U	074SB-0003-0001-SO	32	32	82	32	U	N/A	Yes
074SB-0002-0001-SO	FLUORANTHENE	3.9	UG/KG	3.9	7.8	3.9	U	074SB-0003-0001-SO	3.9	3.9	7.9	3.9	U	N/A	Yes
074SB-0002-0001-SO	FLUORENE	3.9	UG/KG	3.9	7.8	3.9	U	074SB-0003-0001-SO	3.9	3.9	7.9	3.9	U	N/A	Yes
074SB-0002-0001-SO	HEXACHLOROBENZENE	3.9	UG/KG	2.5	7.8	3.9	U	074SB-0003-0001-SO	3.9	2.5	7.9	3.9	U	N/A	Yes
074SB-0002-0001-SO	HEXACHLOROBUTADIENE	32	UG/KG	32	59	32	U	074SB-0003-0001-SO	32	32	59	32	U	N/A	Yes
074SB-0002-0001-SO	HEXACHLOROCYCLOPENTADIENE	32	UG/KG	32	390	32	U	074SB-0003-0001-SO	32	32	390	32	U	N/A	Yes
074SB-0002-0001-SO	HEXACHLOROETHANE	32	UG/KG	11	59	32	U	074SB-0003-0001-SO	32	11	59	32	U	N/A	Yes
074SB-0002-0001-SO	INDENO(1,2,3-C,D)PYRENE	3.9	UG/KG	3.9	7.8	3.9	U	074SB-0003-0001-SO	3.9	3.9	7.9	3.9	U	N/A	Yes
074SB-0002-0001-SO	ISOPHORONE	32	UG/KG	15	59	32	U	074SB-0003-0001-SO	32	15	59	32	U	N/A	Yes
074SB-0002-0001-SO	NAPHTHALENE	3.9	UG/KG	3.9	7.8	3.9	U	074SB-0003-0001-SO	3.9	3.9	7.9	3.9	U	N/A	Yes
074SB-0002-0001-SO	NITROBENZENE	3.9	UG/KG	2.6	120	3.9	U	074SB-0003-0001-SO	3.9	2.6	120	3.9	U	N/A	Yes
074SB-0002-0001-SO	N-NITROSODI-N-PROPYLAMINE	32	UG/KG	32	59	32	U	074SB-0003-0001-SO	32	32	59	32	U	N/A	Yes
074SB-0002-0001-SO	N-NITROSODIPHENYLAMINE	32	UG/KG	25	59	32	U	074SB-0003-0001-SO	32	25	59	32	U	N/A	Yes
074SB-0002-0001-SO	PENTACHLOROPHENOL	94	UG/KG	94	180	94	U	074SB-0003-0001-SO	94	94	180	94	U	N/A	Yes
074SB-0002-0001-SO	PHENANTHRENE	3.9	UG/KG	3.9	7.8	3.9	U	074SB-0003-0001-SO	3.9	3.9	7.9	3.9	U	N/A	Yes
074SB-0002-0001-SO	PHENOL	32	UG/KG	32	59	32	U	074SB-0003-0001-SO	32	32	59	32	U	N/A	Yes
074SB-0002-0001-SO	PYRENE	3.9	UG/KG	3.9	7.8	3.9	U	074SB-0003-0001-SO	3.9	3.9	7.9	3.9	U	N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
076SB-0092-0001-SO	ALUMINUM	8000	MG/KG	2.2	0.45		076SB-0093-0001-SO	8000	2.3	0.46		0	N/A
076SB-0092-0001-SO	ANTIMONY	0.16	MG/KG	0.15	0.075		076SB-0093-0001-SO	0.12	0.15	0.077	J	N/A	Yes
076SB-0092-0001-SO	ARSENIC	13	MG/KG	0.075	0.037		076SB-0093-0001-SO	12	0.077	0.038		8	N/A
076SB-0092-0001-SO	BARIUM	42	MG/KG	0.75	0.015		076SB-0093-0001-SO	39	0.77	0.015		7	N/A
076SB-0092-0001-SO	BERYLLIUM	0.43	MG/KG	0.075	0.0075		076SB-0093-0001-SO	0.43	0.077	0.0077		0	N/A
076SB-0092-0001-SO	CADMIUM	0.11	MG/KG	0.075	0.022		076SB-0093-0001-SO	0.12	0.077	0.023		N/A	Yes
076SB-0092-0001-SO	CALCIUM	3400	MG/KG	7.5	1.9		076SB-0093-0001-SO	3300	7.7	1.9		3	N/A
076SB-0092-0001-SO	CHROMIUM	16	MG/KG	0.15	0.03		076SB-0093-0001-SO	16	0.15	0.031		0	N/A
076SB-0092-0001-SO	COBALT	10	MG/KG	0.037	0.0075		076SB-0093-0001-SO	9.1	0.038	0.0077		9	N/A
076SB-0092-0001-SO	COPPER	16	MG/KG	0.15	0.045		076SB-0093-0001-SO	17	0.15	0.046		6	N/A
076SB-0092-0001-SO	IRON	22000	MG/KG	3.7	1.5		076SB-0093-0001-SO	25000	3.8	1.5		13	N/A
076SB-0092-0001-SO	LEAD	17	MG/KG	0.075	0.022		076SB-0093-0001-SO	20	0.077	0.023		16	N/A
076SB-0092-0001-SO	MAGNESIUM	2500	MG/KG	7.5	1.5		076SB-0093-0001-SO	2600	7.7	1.5		4	N/A
076SB-0092-0001-SO	MANGANESE	490	MG/KG	0.37	0.022		076SB-0093-0001-SO	460	0.38	0.023		6	N/A
076SB-0092-0001-SO	NICKEL	19	MG/KG	0.075	0.022		076SB-0093-0001-SO	19	0.077	0.023		0	N/A
076SB-0092-0001-SO	POTASSIUM	720	MG/KG	7.5	4.5		076SB-0093-0001-SO	810	7.7	4.6		12	N/A
076SB-0092-0001-SO	SELENIUM	0.44	MG/KG	0.37	0.075		076SB-0093-0001-SO	0.37	0.38	0.077	J	N/A	Yes
076SB-0092-0001-SO	SILVER	0.028	MG/KG	0.075	0.022	J	076SB-0093-0001-SO	0.026	0.077	0.023	J	N/A	Yes
076SB-0092-0001-SO	SODIUM	39	MG/KG	7.5	3.7		076SB-0093-0001-SO	41	7.7	3.8		5	N/A
076SB-0092-0001-SO	THALLIUM	0.13	MG/KG	0.075	0.015		076SB-0093-0001-SO	0.13	0.077	0.015		N/A	Yes
076SB-0092-0001-SO	VANADIUM	15	MG/KG	0.075	0.045		076SB-0093-0001-SO	17	0.077	0.046		13	N/A
076SB-0092-0001-SO	ZINC	53	MG/KG	0.37	0.15		076SB-0093-0001-SO	57	0.38	0.15		7	N/A
076SB-0092-0001-SO	MERCURY	0.038	MG/KG	0.12	0.039	J	076SB-0093-0001-SO	0.039	0.1	0.034	J	N/A	Yes
076SB-0092-0001-SO	1,1,1-TRICHLOROETHANE	0.98	UG/KG	4.9	0.98		076SB-0093-0001-SO	1.2	6	1.2		N/A	Yes
076SB-0092-0001-SO	1,1,2,2-TETRACHLOROETHANE	0.49	UG/KG	4.9	0.49		076SB-0093-0001-SO	0.6	6	0.6		N/A	Yes
076SB-0092-0001-SO	1,1,2-TRICHLOROETHANE	0.49	UG/KG	4.9	0.49		076SB-0093-0001-SO	0.6	6	0.6		N/A	Yes
076SB-0092-0001-SO	1,1-DICHLOROETHANE	0.49	UG/KG	4.9	0.49		076SB-0093-0001-SO	0.6	6	0.6		N/A	Yes
076SB-0092-0001-SO	1,1-DICHLOROETHENE	0.98	UG/KG	4.9	0.98		076SB-0093-0001-SO	1.2	6	1.2		N/A	Yes
076SB-0092-0001-SO	1,2-DIBROMOETHANE	0.98	UG/KG	4.9	0.98		076SB-0093-0001-SO	1.2	6	1.2		N/A	Yes
076SB-0092-0001-SO	1,2-DICHLOROETHANE	0.49	UG/KG	4.9	0.49		076SB-0093-0001-SO	0.6	6	0.6		N/A	Yes
076SB-0092-0001-SO	1,2-DICHLOROPROPANE	0.98	UG/KG	4.9	0.98		076SB-0093-0001-SO	1.2	6	1.2		N/A	Yes
076SB-0092-0001-SO	2-HEXANONE	1.5	UG/KG	20	0.98	J	076SB-0093-0001-SO	1.2	24	1.2		N/A	Yes
076SB-0092-0001-SO	ACETONE	6.2	UG/KG	20	6.2		076SB-0093-0001-SO	7.6	24	7.6		N/A	Yes
076SB-0092-0001-SO	BENZENE	0.49	UG/KG	4.9	0.49		076SB-0093-0001-SO	0.6	6	0.6		N/A	Yes
076SB-0092-0001-SO	BROMOCHLOROMETHANE	0.98	UG/KG	4.9	0.98		076SB-0093-0001-SO	1.2	6	1.2		N/A	Yes
076SB-0092-0001-SO	BROMODICHLOROMETHANE	0.49	UG/KG	4.9	0.49		076SB-0093-0001-SO	0.6	6	0.6		N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
076SB-0092-0001-SO	BROMOFORM	0.49	UG/KG	4.9	0.49		076SB-0093-0001-SO	0.6	6	0.6		N/A	Yes
076SB-0092-0001-SO	BROMOMETHANE	0.98	UG/KG	4.9	0.98		076SB-0093-0001-SO	1.2	6	1.2		N/A	Yes
076SB-0092-0001-SO	CARBON DISULFIDE	0.49	UG/KG	4.9	0.49		076SB-0093-0001-SO	0.6	6	0.6		N/A	Yes
076SB-0092-0001-SO	CARBON TETRACHLORIDE	0.49	UG/KG	4.9	0.49		076SB-0093-0001-SO	0.6	6	0.6		N/A	Yes
076SB-0092-0001-SO	CHLOROBENZENE	0.49	UG/KG	4.9	0.49		076SB-0093-0001-SO	0.6	6	0.6		N/A	Yes
076SB-0092-0001-SO	CHLOROETHANE	0.98	UG/KG	4.9	0.98		076SB-0093-0001-SO	1.2	6	1.2		N/A	Yes
076SB-0092-0001-SO	CHLOROFORM	0.49	UG/KG	4.9	0.49		076SB-0093-0001-SO	0.6	6	0.6		N/A	Yes
076SB-0092-0001-SO	CHLOROMETHANE	0.49	UG/KG	4.9	0.49		076SB-0093-0001-SO	0.6	6	0.6		N/A	Yes
076SB-0092-0001-SO	CIS-1,3-DICHLOROPROPENE	0.49	UG/KG	4.9	0.49		076SB-0093-0001-SO	0.6	6	0.6		N/A	Yes
076SB-0092-0001-SO	DIBROMOCHLOROMETHANE	0.98	UG/KG	4.9	0.98		076SB-0093-0001-SO	1.2	6	1.2		N/A	Yes
076SB-0092-0001-SO	ETHYLBENZENE	0.49	UG/KG	4.9	0.49		076SB-0093-0001-SO	0.6	6	0.6		N/A	Yes
076SB-0092-0001-SO	METHYL ETHYL KETONE	2	UG/KG	20	2		076SB-0093-0001-SO	2.4	24	2.4		N/A	Yes
076SB-0092-0001-SO	METHYL ISOBUTYL KETONE	1	UG/KG	20	0.98	J	076SB-0093-0001-SO	1.2	24	1.2		N/A	Yes
076SB-0092-0001-SO	METHYLENE CHLORIDE	0.98	UG/KG	4.9	0.98		076SB-0093-0001-SO	1.2	6	1.2		N/A	Yes
076SB-0092-0001-SO	STYRENE	0.49	UG/KG	4.9	0.49		076SB-0093-0001-SO	0.6	6	0.6		N/A	Yes
076SB-0092-0001-SO	TETRACHLOROETHYLENE	0.98	UG/KG	4.9	0.98		076SB-0093-0001-SO	1.2	6	1.2		N/A	Yes
076SB-0092-0001-SO	TOLUENE	0.84	UG/KG	4.9	0.49	J	076SB-0093-0001-SO	1.1	6	0.6	J	N/A	Yes
076SB-0092-0001-SO	TOTAL 1,2-DICHLOROETHENE	0.98	UG/KG	9.8	0.98		076SB-0093-0001-SO	1.2	12	1.2		N/A	Yes
076SB-0092-0001-SO	TRANS-1,3-DICHLOROPROPENE	0.98	UG/KG	4.9	0.98		076SB-0093-0001-SO	1.2	6	1.2		N/A	Yes
076SB-0092-0001-SO	TRICHLOROETHYLENE	0.49	UG/KG	4.9	0.49		076SB-0093-0001-SO	0.6	6	0.6		N/A	Yes
076SB-0092-0001-SO	VINYL CHLORIDE	0.49	UG/KG	4.9	0.49		076SB-0093-0001-SO	0.6	6	0.6		N/A	Yes
076SB-0092-0001-SO	XYLENES, TOTAL	1.5	UG/KG	9.8	1.5		076SB-0093-0001-SO	1.8	12	1.8		N/A	Yes
076SB-0092-0001-SO	1,2,4-TRICHLOROBENZENE	27	UG/KG	49	27		076SB-0093-0001-SO	27	50	27		N/A	Yes
076SB-0092-0001-SO	1,2-DICHLOROBENZENE	27	UG/KG	49	27		076SB-0093-0001-SO	27	50	27		N/A	Yes
076SB-0092-0001-SO	1,3-DICHLOROBENZENE	27	UG/KG	49	27		076SB-0093-0001-SO	27	50	27		N/A	Yes
076SB-0092-0001-SO	1,4-DICHLOROBENZENE	27	UG/KG	49	27		076SB-0093-0001-SO	27	50	27		N/A	Yes
076SB-0092-0001-SO	2,4,5-TRICHLOROPHENOL	27	UG/KG	150	27		076SB-0093-0001-SO	27	150	27		N/A	Yes
076SB-0092-0001-SO	2,4,6-TRICHLOROPHENOL	79	UG/KG	150	79		076SB-0093-0001-SO	80	150	80		N/A	Yes
076SB-0092-0001-SO	2,4-DICHLOROPHENOL	27	UG/KG	150	27		076SB-0093-0001-SO	27	150	27		N/A	Yes
076SB-0092-0001-SO	2,4-DIMETHYLPHENOL	79	UG/KG	150	79		076SB-0093-0001-SO	80	150	80		N/A	Yes
076SB-0092-0001-SO	2,4-DINITROPHENOL	79	UG/KG	330	79		076SB-0093-0001-SO	80	330	80		N/A	Yes
076SB-0092-0001-SO	2,4-DINITROTOLUENE	27	UG/KG	200	27		076SB-0093-0001-SO	27	200	27		N/A	Yes
076SB-0092-0001-SO	2,6-DINITROTOLUENE	27	UG/KG	200	27		076SB-0093-0001-SO	27	200	27		N/A	Yes
076SB-0092-0001-SO	2-CHLORONAPHTHALENE	3.3	UG/KG	49	3.3		076SB-0093-0001-SO	3.3	50	3.3		N/A	Yes
076SB-0092-0001-SO	2-CHLOROPHENOL	27	UG/KG	49	27		076SB-0093-0001-SO	27	50	27		N/A	Yes
076SB-0092-0001-SO	2-METHYLNAPHTHALENE	3.3	UG/KG	6.6	3.3	J	076SB-0093-0001-SO	3.3	6.7	3.3		N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
076SB-0092-0001-SO	2-METHYLPHENOL	79	UG/KG	200	79		076SB-0093-0001-SO	80	200	80		N/A	Yes
076SB-0092-0001-SO	2-NITROANILINE	27	UG/KG	200	27		076SB-0093-0001-SO	27	200	27		N/A	Yes
076SB-0092-0001-SO	2-NITROPHENOL	27	UG/KG	49	27		076SB-0093-0001-SO	27	50	27		N/A	Yes
076SB-0092-0001-SO	3,3'-DICHLOROBENZIDINE	79	UG/KG	99	79		076SB-0093-0001-SO	80	100	80		N/A	Yes
076SB-0092-0001-SO	3-NITROANILINE	79	UG/KG	200	79		076SB-0093-0001-SO	80	200	80		N/A	Yes
076SB-0092-0001-SO	4,6-DINITRO-2-METHYLPHENOL	79	UG/KG	150	79		076SB-0093-0001-SO	80	150	80		N/A	Yes
076SB-0092-0001-SO	4-BROMOPHENYL PHENYL ETHER	27	UG/KG	49	27		076SB-0093-0001-SO	27	50	27		N/A	Yes
076SB-0092-0001-SO	4-CHLORO-3-METHYLPHENOL	27	UG/KG	150	27		076SB-0093-0001-SO	27	150	27		N/A	Yes
076SB-0092-0001-SO	4-CHLOROANILINE	27	UG/KG	150	27		076SB-0093-0001-SO	27	150	27		N/A	Yes
076SB-0092-0001-SO	4-CHLOROPHENYL PHENYL ETHER	27	UG/KG	49	27		076SB-0093-0001-SO	27	50	27		N/A	Yes
076SB-0092-0001-SO	4-NITROANILINE	27	UG/KG	200	27		076SB-0093-0001-SO	27	200	27		N/A	Yes
076SB-0092-0001-SO	4-NITROPHENOL	79	UG/KG	330	79		076SB-0093-0001-SO	80	330	80		N/A	Yes
076SB-0092-0001-SO	ACENAPHTHENE	3.3	UG/KG	6.6	3.3		076SB-0093-0001-SO	3.3	6.7	3.3		N/A	Yes
076SB-0092-0001-SO	ACENAPHTHYLENE	3.3	UG/KG	6.6	3.3		076SB-0093-0001-SO	3.3	6.7	3.3		N/A	Yes
076SB-0092-0001-SO	ANTHRACENE	3.3	UG/KG	6.6	3.3		076SB-0093-0001-SO	3.3	6.7	3.3		N/A	Yes
076SB-0092-0001-SO	BENZO(A)ANTHRACENE	3.3	UG/KG	6.6	3.3		076SB-0093-0001-SO	3.3	6.7	3.3		N/A	Yes
076SB-0092-0001-SO	BENZO(A)PYRENE	3.3	UG/KG	6.6	3.3		076SB-0093-0001-SO	3.3	6.7	3.3		N/A	Yes
076SB-0092-0001-SO	BENZO(B)FLUORANTHENE	3.3	UG/KG	6.6	3.3		076SB-0093-0001-SO	3.3	6.7	3.3		N/A	Yes
076SB-0092-0001-SO	BENZO(G,H,I)PERYLENE	3.3	UG/KG	6.6	3.3		076SB-0093-0001-SO	3.3	6.7	3.3		N/A	Yes
076SB-0092-0001-SO	BENZO(K)FLUORANTHENE	3.3	UG/KG	6.6	3.3		076SB-0093-0001-SO	3.3	6.7	3.3		N/A	Yes
076SB-0092-0001-SO	BENZOIC ACID	330	UG/KG	650	330		076SB-0093-0001-SO	330	660	330		N/A	Yes
076SB-0092-0001-SO	BENZYL ALCOHOL	27	UG/KG	330	27		076SB-0093-0001-SO	27	330	27		N/A	Yes
076SB-0092-0001-SO	BENZYL BUTYL PHTHALATE	27	UG/KG	49	27		076SB-0093-0001-SO	27	50	27		N/A	Yes
076SB-0092-0001-SO	BIS(2-CHLOROETHOXY) METHANE	27	UG/KG	99	27		076SB-0093-0001-SO	27	100	27		N/A	Yes
076SB-0092-0001-SO	BIS(2-CHLOROETHYL) ETHER	3.3	UG/KG	99	3.3		076SB-0093-0001-SO	3.3	100	3.3		N/A	Yes
076SB-0092-0001-SO	BIS(2-CHLOROISOPROPYL) ETHER	27	UG/KG	99	27		076SB-0093-0001-SO	27	100	27		N/A	Yes
076SB-0092-0001-SO	BIS(2-ETHYLHEXYL) PHTHALATE	30	UG/KG	49	27	J	076SB-0093-0001-SO	34	50	27	J	N/A	Yes
076SB-0092-0001-SO	CARBAZOLE	27	UG/KG	49	27		076SB-0093-0001-SO	27	50	27		N/A	Yes
076SB-0092-0001-SO	CHRYSENE	3.3	UG/KG	6.6	3.3		076SB-0093-0001-SO	3.3	6.7	3.3		N/A	Yes
076SB-0092-0001-SO	CRESOLS, M & P	79	UG/KG	390	79		076SB-0093-0001-SO	80	400	80		N/A	Yes
076SB-0092-0001-SO	DIBENZ(A,H)ANTHRACENE	3.3	UG/KG	6.6	3.3		076SB-0093-0001-SO	3.3	6.7	3.3		N/A	Yes
076SB-0092-0001-SO	DIBENZOFURAN	3.3	UG/KG	49	3.3		076SB-0093-0001-SO	3.3	50	3.3		N/A	Yes
076SB-0092-0001-SO	DIETHYL PHTHALATE	27	UG/KG	49	27		076SB-0093-0001-SO	27	50	27		N/A	Yes
076SB-0092-0001-SO	DIMETHYL PHTHALATE	27	UG/KG	49	27		076SB-0093-0001-SO	27	50	27		N/A	Yes
076SB-0092-0001-SO	DI-N-BUTYL PHTHALATE	27	UG/KG	49	27		076SB-0093-0001-SO	27	50	27		N/A	Yes
076SB-0092-0001-SO	DI-N-OCTYLPHTHALATE	27	UG/KG	49	27		076SB-0093-0001-SO	27	50	27		N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
076SB-0092-0001-SO	FLUORANTHENE	3.3	UG/KG	6.6	3.3		076SB-0093-0001-SO	3.3	6.7	3.3		N/A	Yes
076SB-0092-0001-SO	FLUORENE	3.3	UG/KG	6.6	3.3		076SB-0093-0001-SO	3.3	6.7	3.3		N/A	Yes
076SB-0092-0001-SO	HEXACHLOROBENZENE	3.3	UG/KG	6.6	3.3		076SB-0093-0001-SO	3.3	6.7	3.3		N/A	Yes
076SB-0092-0001-SO	HEXACHLOROBUTADIENE	27	UG/KG	49	27		076SB-0093-0001-SO	27	50	27		N/A	Yes
076SB-0092-0001-SO	HEXACHLOROCYCLOPENTADIENE	27	UG/KG	330	27		076SB-0093-0001-SO	27	330	27		N/A	Yes
076SB-0092-0001-SO	HEXACHLOROETHANE	27	UG/KG	49	27		076SB-0093-0001-SO	27	50	27		N/A	Yes
076SB-0092-0001-SO	INDENO(1,2,3-C,D)PYRENE	3.3	UG/KG	6.6	3.3		076SB-0093-0001-SO	3.3	6.7	3.3		N/A	Yes
076SB-0092-0001-SO	ISOPHORONE	27	UG/KG	49	27		076SB-0093-0001-SO	27	50	27		N/A	Yes
076SB-0092-0001-SO	NAPHTHALENE	3.3	UG/KG	6.6	3.3		076SB-0093-0001-SO	3.3	6.7	3.3		N/A	Yes
076SB-0092-0001-SO	NITROBENZENE	3.3	UG/KG	99	3.3		076SB-0093-0001-SO	3.3	100	3.3		N/A	Yes
076SB-0092-0001-SO	N-NITROSODI-N-PROPYLAMINE	27	UG/KG	49	27		076SB-0093-0001-SO	27	50	27		N/A	Yes
076SB-0092-0001-SO	N-NITROSODIPHENYLAMINE	27	UG/KG	49	27		076SB-0093-0001-SO	27	50	27		N/A	Yes
076SB-0092-0001-SO	PENTACHLOROPHENOL	79	UG/KG	150	79		076SB-0093-0001-SO	80	150	80		N/A	Yes
076SB-0092-0001-SO	PHENANTHRENE	5.1	UG/KG	6.6	3.3	J	076SB-0093-0001-SO	3.5	6.7	3.3	J	N/A	Yes
076SB-0092-0001-SO	PHENOL	27	UG/KG	49	27		076SB-0093-0001-SO	27	50	27		N/A	Yes
076SB-0092-0001-SO	PYRENE	3.3	UG/KG	6.6	3.3		076SB-0093-0001-SO	3.3	6.7	3.3		N/A	Yes
076SB-0094-0001-SO	ALUMINUM	9500	MG/KG	2.7	0.54		076SB-0095-0001-SO	11000	2.1	0.42		15	N/A
076SB-0094-0001-SO	ANTIMONY	0.23	MG/KG	0.18	0.089	J-	076SB-0095-0001-SO	0.11	0.14	0.069	J	N/A	Yes
076SB-0094-0001-SO	ARSENIC	17	MG/KG	0.089	0.045	J-	076SB-0095-0001-SO	13	0.069	0.035		27	N/A
076SB-0094-0001-SO	BARIUM	47	MG/KG	0.89	0.018	J	076SB-0095-0001-SO	49	0.69	0.014		4	N/A
076SB-0094-0001-SO	BERYLLIUM	0.51	MG/KG	0.089	0.0089	J-	076SB-0095-0001-SO	0.5	0.069	0.0069		2	N/A
076SB-0094-0001-SO	CADMIUM	0.13	MG/KG	0.089	0.027	J-	076SB-0095-0001-SO	0.13	0.069	0.021		N/A	Yes
076SB-0094-0001-SO	CALCIUM	970	MG/KG	8.9	2.2	J+	076SB-0095-0001-SO	1000	6.9	1.7		3	N/A
076SB-0094-0001-SO	CHROMIUM	17	MG/KG	0.18	0.036	J-	076SB-0095-0001-SO	18	0.14	0.028		6	N/A
076SB-0094-0001-SO	COBALT	9.7	MG/KG	0.045	0.0089	J-	076SB-0095-0001-SO	8.6	0.035	0.0069		12	N/A
076SB-0094-0001-SO	COPPER	17	MG/KG	0.18	0.054	J-	076SB-0095-0001-SO	17	0.14	0.042		0	N/A
076SB-0094-0001-SO	IRON	29000	MG/KG	4.5	1.8		076SB-0095-0001-SO	25000	3.5	1.4		15	N/A
076SB-0094-0001-SO	LEAD	24	MG/KG	0.089	0.027	J	076SB-0095-0001-SO	20	0.069	0.021		18	N/A
076SB-0094-0001-SO	MAGNESIUM	2100	MG/KG	8.9	1.8		076SB-0095-0001-SO	2300	6.9	1.4		9	N/A
076SB-0094-0001-SO	MANGANESE	380	MG/KG	0.45	0.027	J	076SB-0095-0001-SO	310	0.35	0.021		20	N/A
076SB-0094-0001-SO	NICKEL	21	MG/KG	0.089	0.027	J-	076SB-0095-0001-SO	20	0.069	0.021		5	N/A
076SB-0094-0001-SO	POTASSIUM	790	MG/KG	8.9	5.4	J-	076SB-0095-0001-SO	820	6.9	4.2		4	N/A
076SB-0094-0001-SO	SELENIUM	0.47	MG/KG	0.45	0.089	J-	076SB-0095-0001-SO	0.39	0.35	0.069		N/A	Yes
076SB-0094-0001-SO	SILVER	0.025	MG/KG	0.089	0.027	J-	076SB-0095-0001-SO	0.024	0.069	0.021	J	N/A	Yes
076SB-0094-0001-SO	SODIUM	39	MG/KG	8.9	4.5		076SB-0095-0001-SO	40	6.9	3.5		3	N/A
076SB-0094-0001-SO	THALLIUM	0.14	MG/KG	0.089	0.018		076SB-0095-0001-SO	0.15	0.069	0.014		N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
076SB-0094-0001-SO	VANADIUM	18	MG/KG	0.089	0.054		076SB-0095-0001-SO	19	0.069	0.042		5	N/A
076SB-0094-0001-SO	ZINC	63	MG/KG	0.45	0.18	J	076SB-0095-0001-SO	59	0.35	0.14		7	N/A
076SB-0094-0001-SO	MERCURY	0.042	MG/KG	0.1	0.034	J	076SB-0095-0001-SO	0.038	0.097	0.032	J	N/A	Yes
076SB-0094-0001-SO	1,1,1-TRICHLOROETHANE	1.1	UG/KG	5.7	1.1	UJ	076SB-0095-0001-SO	1.2	5.8	1.2		N/A	Yes
076SB-0094-0001-SO	1,1,2,2-TETRACHLOROETHANE	0.57	UG/KG	5.7	0.57	UJ	076SB-0095-0001-SO	0.58	5.8	0.58		N/A	Yes
076SB-0094-0001-SO	1,1,2-TRICHLOROETHANE	0.57	UG/KG	5.7	0.57	UJ	076SB-0095-0001-SO	0.58	5.8	0.58		N/A	Yes
076SB-0094-0001-SO	1,1-DICHLOROETHANE	0.57	UG/KG	5.7	0.57	UJ	076SB-0095-0001-SO	0.58	5.8	0.58		N/A	Yes
076SB-0094-0001-SO	1,1-DICHLOROETHENE	1.1	UG/KG	5.7	1.1	UJ	076SB-0095-0001-SO	1.2	5.8	1.2		N/A	Yes
076SB-0094-0001-SO	1,2-DIBROMOETHANE	1.1	UG/KG	5.7	1.1	UJ	076SB-0095-0001-SO	1.2	5.8	1.2		N/A	Yes
076SB-0094-0001-SO	1,2-DICHLOROETHANE	0.57	UG/KG	5.7	0.57	UJ	076SB-0095-0001-SO	0.58	5.8	0.58		N/A	Yes
076SB-0094-0001-SO	1,2-DICHLOROPROPANE	1.1	UG/KG	5.7	1.1	UJ	076SB-0095-0001-SO	1.2	5.8	1.2		N/A	Yes
076SB-0094-0001-SO	2-HEXANONE	1.1	UG/KG	23	1.1	UJ	076SB-0095-0001-SO	1.2	23	1.2		N/A	Yes
076SB-0094-0001-SO	ACETONE	7.2	UG/KG	23	7.2	UJ	076SB-0095-0001-SO	7.3	23	7.3		N/A	Yes
076SB-0094-0001-SO	BENZENE	0.57	UG/KG	5.7	0.57	UJ	076SB-0095-0001-SO	0.58	5.8	0.58		N/A	Yes
076SB-0094-0001-SO	BROMOCHLOROMETHANE	1.1	UG/KG	5.7	1.1	UJ	076SB-0095-0001-SO	1.2	5.8	1.2		N/A	Yes
076SB-0094-0001-SO	BROMODICHLOROMETHANE	0.57	UG/KG	5.7	0.57	UJ	076SB-0095-0001-SO	0.58	5.8	0.58		N/A	Yes
076SB-0094-0001-SO	BROMOFORM	0.57	UG/KG	5.7	0.57	UJ	076SB-0095-0001-SO	0.58	5.8	0.58		N/A	Yes
076SB-0094-0001-SO	BROMOMETHANE	1.1	UG/KG	5.7	1.1	UJ	076SB-0095-0001-SO	1.2	5.8	1.2		N/A	Yes
076SB-0094-0001-SO	CARBON DISULFIDE	0.57	UG/KG	5.7	0.57	UJ	076SB-0095-0001-SO	0.58	5.8	0.58		N/A	Yes
076SB-0094-0001-SO	CARBON TETRACHLORIDE	0.57	UG/KG	5.7	0.57	UJ	076SB-0095-0001-SO	0.58	5.8	0.58		N/A	Yes
076SB-0094-0001-SO	CHLOROBENZENE	0.57	UG/KG	5.7	0.57	UJ	076SB-0095-0001-SO	0.58	5.8	0.58		N/A	Yes
076SB-0094-0001-SO	CHLOROETHANE	1.1	UG/KG	5.7	1.1	UJ	076SB-0095-0001-SO	1.2	5.8	1.2		N/A	Yes
076SB-0094-0001-SO	CHLOROFORM	0.57	UG/KG	5.7	0.57	UJ	076SB-0095-0001-SO	0.58	5.8	0.58		N/A	Yes
076SB-0094-0001-SO	CHLOROMETHANE	0.57	UG/KG	5.7	0.57	UJ	076SB-0095-0001-SO	0.58	5.8	0.58		N/A	Yes
076SB-0094-0001-SO	CIS-1,3-DICHLOROPROPENE	0.57	UG/KG	5.7	0.57	UJ	076SB-0095-0001-SO	0.58	5.8	0.58		N/A	Yes
076SB-0094-0001-SO	DIBROMOCHLOROMETHANE	1.1	UG/KG	5.7	1.1	UJ	076SB-0095-0001-SO	1.2	5.8	1.2		N/A	Yes
076SB-0094-0001-SO	ETHYLBENZENE	0.57	UG/KG	5.7	0.57	UJ	076SB-0095-0001-SO	0.58	5.8	0.58		N/A	Yes
076SB-0094-0001-SO	METHYL ETHYL KETONE	2.3	UG/KG	23	2.3	UJ	076SB-0095-0001-SO	2.3	23	2.3		N/A	Yes
076SB-0094-0001-SO	METHYL ISOBUTYL KETONE	1.1	UG/KG	23	1.1	UJ	076SB-0095-0001-SO	1.2	23	1.2		N/A	Yes
076SB-0094-0001-SO	METHYLENE CHLORIDE	1.1	UG/KG	5.7	1.1	UJ	076SB-0095-0001-SO	1.4	5.8	1.2	J	N/A	Yes
076SB-0094-0001-SO	STYRENE	0.57	UG/KG	5.7	0.57	UJ	076SB-0095-0001-SO	0.58	5.8	0.58		N/A	Yes
076SB-0094-0001-SO	TETRACHLOROETHYLENE	1.1	UG/KG	5.7	1.1	UJ	076SB-0095-0001-SO	1.2	5.8	1.2		N/A	Yes
076SB-0094-0001-SO	TOLUENE	1	UG/KG	5.7	0.57	J	076SB-0095-0001-SO	2.7	5.8	0.58	J	N/A	Yes
076SB-0094-0001-SO	TOTAL 1,2-DICHLOROETHENE	1.1	UG/KG	11	1.1	UJ	076SB-0095-0001-SO	1.2	12	1.2		N/A	Yes
076SB-0094-0001-SO	TRANS-1,3-DICHLOROPROPENE	1.1	UG/KG	5.7	1.1	UJ	076SB-0095-0001-SO	1.2	5.8	1.2		N/A	Yes
076SB-0094-0001-SO	TRICHLOROETHYLENE	0.57	UG/KG	5.7	0.57	UJ	076SB-0095-0001-SO	0.58	5.8	0.58		N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
076SB-0094-0001-SO	VINYL CHLORIDE	0.57	UG/KG	5.7	0.57	UJ	076SB-0095-0001-SO	0.58	5.8	0.58		N/A	Yes
076SB-0094-0001-SO	XYLENES, TOTAL	1.7	UG/KG	11	1.7	UJ	076SB-0095-0001-SO	1.7	12	1.7		N/A	Yes
076SB-0094-0001-SO	1,2,4-TRICHLOROBENZENE	27	UG/KG	50	27	U	076SB-0095-0001-SO	27	50	27		N/A	Yes
076SB-0094-0001-SO	1,2-DICHLOROBENZENE	27	UG/KG	50	27	U	076SB-0095-0001-SO	27	50	27		N/A	Yes
076SB-0094-0001-SO	1,3-DICHLOROBENZENE	27	UG/KG	50	27	U	076SB-0095-0001-SO	27	50	27		N/A	Yes
076SB-0094-0001-SO	1,4-DICHLOROBENZENE	27	UG/KG	50	27	U	076SB-0095-0001-SO	27	50	27		N/A	Yes
076SB-0094-0001-SO	2,4,5-TRICHLOROPHENOL	27	UG/KG	150	27	U	076SB-0095-0001-SO	27	150	27		N/A	Yes
076SB-0094-0001-SO	2,4,6-TRICHLOROPHENOL	79	UG/KG	150	79	U	076SB-0095-0001-SO	80	150	80		N/A	Yes
076SB-0094-0001-SO	2,4-DICHLOROPHENOL	27	UG/KG	150	27	U	076SB-0095-0001-SO	27	150	27		N/A	Yes
076SB-0094-0001-SO	2,4-DIMETHYLPHENOL	79	UG/KG	150	79	U	076SB-0095-0001-SO	80	150	80		N/A	Yes
076SB-0094-0001-SO	2,4-DINITROPHENOL	79	UG/KG	330	79	U	076SB-0095-0001-SO	80	330	80		N/A	Yes
076SB-0094-0001-SO	2,4-DINITROTOLUENE	27	UG/KG	200	27	U	076SB-0095-0001-SO	27	200	27		N/A	Yes
076SB-0094-0001-SO	2,6-DINITROTOLUENE	27	UG/KG	200	27	U	076SB-0095-0001-SO	27	200	27		N/A	Yes
076SB-0094-0001-SO	2-CHLORONAPHTHALENE	3.3	UG/KG	50	3.3	U	076SB-0095-0001-SO	3.3	50	3.3		N/A	Yes
076SB-0094-0001-SO	2-CHLOROPHENOL	27	UG/KG	50	27	U	076SB-0095-0001-SO	27	50	27		N/A	Yes
076SB-0094-0001-SO	2-METHYLNAPHTHALENE	3.3	UG/KG	6.6	3.3	U	076SB-0095-0001-SO	3.3	6.7	3.3		N/A	Yes
076SB-0094-0001-SO	2-METHYLPHENOL	79	UG/KG	200	79	U	076SB-0095-0001-SO	80	200	80		N/A	Yes
076SB-0094-0001-SO	2-NITROANILINE	27	UG/KG	200	27	U	076SB-0095-0001-SO	27	200	27		N/A	Yes
076SB-0094-0001-SO	2-NITROPHENOL	27	UG/KG	50	27	U	076SB-0095-0001-SO	27	50	27		N/A	Yes
076SB-0094-0001-SO	3,3'-DICHLOROBENZIDINE	79	UG/KG	99	79	U	076SB-0095-0001-SO	80	100	80		N/A	Yes
076SB-0094-0001-SO	3-NITROANILINE	79	UG/KG	200	79	U	076SB-0095-0001-SO	80	200	80		N/A	Yes
076SB-0094-0001-SO	4,6-DINITRO-2-METHYLPHENOL	79	UG/KG	150	79	U	076SB-0095-0001-SO	80	150	80		N/A	Yes
076SB-0094-0001-SO	4-BROMOPHENYL PHENYL ETHER	27	UG/KG	50	27	U	076SB-0095-0001-SO	27	50	27		N/A	Yes
076SB-0094-0001-SO	4-CHLORO-3-METHYLPHENOL	27	UG/KG	150	27	U	076SB-0095-0001-SO	27	150	27		N/A	Yes
076SB-0094-0001-SO	4-CHLOROANILINE	27	UG/KG	150	27	U	076SB-0095-0001-SO	27	150	27		N/A	Yes
076SB-0094-0001-SO	4-CHLOROPHENYL PHENYL ETHER	27	UG/KG	50	27	U	076SB-0095-0001-SO	27	50	27		N/A	Yes
076SB-0094-0001-SO	4-NITROANILINE	27	UG/KG	200	27	U	076SB-0095-0001-SO	27	200	27		N/A	Yes
076SB-0094-0001-SO	4-NITROPHENOL	79	UG/KG	330	79	U	076SB-0095-0001-SO	80	330	80		N/A	Yes
076SB-0094-0001-SO	ACENAPHTHENE	3.3	UG/KG	6.6	3.3	U	076SB-0095-0001-SO	3.3	6.7	3.3		N/A	Yes
076SB-0094-0001-SO	ACENAPHTHYLENE	3.3	UG/KG	6.6	3.3	U	076SB-0095-0001-SO	3.3	6.7	3.3		N/A	Yes
076SB-0094-0001-SO	ANTHRACENE	3.3	UG/KG	6.6	3.3	U	076SB-0095-0001-SO	3.3	6.7	3.3		N/A	Yes
076SB-0094-0001-SO	BENZO(A)ANTHRACENE	3.3	UG/KG	6.6	3.3	U	076SB-0095-0001-SO	3.3	6.7	3.3		N/A	Yes
076SB-0094-0001-SO	BENZO(A)PYRENE	3.3	UG/KG	6.6	3.3	U	076SB-0095-0001-SO	3.3	6.7	3.3		N/A	Yes
076SB-0094-0001-SO	BENZO(B)FLUORANTHENE	3.3	UG/KG	6.6	3.3	U	076SB-0095-0001-SO	3.3	6.7	3.3		N/A	Yes
076SB-0094-0001-SO	BENZO(G,H,I)PERYLENE	3.3	UG/KG	6.6	3.3	U	076SB-0095-0001-SO	3.3	6.7	3.3		N/A	Yes
076SB-0094-0001-SO	BENZO(K)FLUORANTHENE	3.3	UG/KG	6.6	3.3	U	076SB-0095-0001-SO	3.3	6.7	3.3		N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
076SB-0094-0001-SO	BENZOIC ACID	330	UG/KG	650	330	U	076SB-0095-0001-SO	330	660	330		N/A	Yes
076SB-0094-0001-SO	BENZYL ALCOHOL	27	UG/KG	330	27	U	076SB-0095-0001-SO	27	330	27		N/A	Yes
076SB-0094-0001-SO	BENZYL BUTYL PHTHALATE	27	UG/KG	50	27	U	076SB-0095-0001-SO	27	50	27		N/A	Yes
076SB-0094-0001-SO	BIS(2-CHLOROETHOXY) METHANE	27	UG/KG	99	27	U	076SB-0095-0001-SO	27	100	27		N/A	Yes
076SB-0094-0001-SO	BIS(2-CHLOROETHYL) ETHER	3.3	UG/KG	99	3.3	U	076SB-0095-0001-SO	3.3	100	3.3		N/A	Yes
076SB-0094-0001-SO	BIS(2-CHLOROISOPROPYL) ETHER	27	UG/KG	99	27	U	076SB-0095-0001-SO	27	100	27		N/A	Yes
076SB-0094-0001-SO	BIS(2-ETHYLHEXYL) PHTHALATE	27	UG/KG	50	27	U	076SB-0095-0001-SO	33	50	27	J	N/A	Yes
076SB-0094-0001-SO	CARBAZOLE	27	UG/KG	50	27	U	076SB-0095-0001-SO	27	50	27		N/A	Yes
076SB-0094-0001-SO	CHRYSENE	3.3	UG/KG	6.6	3.3	U	076SB-0095-0001-SO	3.3	6.7	3.3		N/A	Yes
076SB-0094-0001-SO	CRESOLS, M & P	79	UG/KG	400	79	U	076SB-0095-0001-SO	80	400	80		N/A	Yes
076SB-0094-0001-SO	DIBENZ(A,H)ANTHRACENE	3.3	UG/KG	6.6	3.3	U	076SB-0095-0001-SO	3.3	6.7	3.3		N/A	Yes
076SB-0094-0001-SO	DIBENZOFURAN	3.3	UG/KG	50	3.3	U	076SB-0095-0001-SO	3.3	50	3.3		N/A	Yes
076SB-0094-0001-SO	DIETHYL PHTHALATE	27	UG/KG	50	27	U	076SB-0095-0001-SO	27	50	27		N/A	Yes
076SB-0094-0001-SO	DIMETHYL PHTHALATE	27	UG/KG	50	27	U	076SB-0095-0001-SO	27	50	27		N/A	Yes
076SB-0094-0001-SO	DI-N-BUTYL PHTHALATE	27	UG/KG	50	27	U	076SB-0095-0001-SO	27	50	27		N/A	Yes
076SB-0094-0001-SO	DI-N-OCTYLPHTHALATE	27	UG/KG	50	27	U	076SB-0095-0001-SO	27	50	27		N/A	Yes
076SB-0094-0001-SO	FLUORANTHENE	3.3	UG/KG	6.6	3.3	U	076SB-0095-0001-SO	3.3	6.7	3.3		N/A	Yes
076SB-0094-0001-SO	FLUORENE	3.3	UG/KG	6.6	3.3	U	076SB-0095-0001-SO	3.3	6.7	3.3		N/A	Yes
076SB-0094-0001-SO	HEXACHLOROBENZENE	3.3	UG/KG	6.6	3.3	U	076SB-0095-0001-SO	3.3	6.7	3.3		N/A	Yes
076SB-0094-0001-SO	HEXACHLOROBUTADIENE	27	UG/KG	50	27	U	076SB-0095-0001-SO	27	50	27		N/A	Yes
076SB-0094-0001-SO	HEXACHLOROCYCLOPENTADIENE	27	UG/KG	330	27	U	076SB-0095-0001-SO	27	330	27		N/A	Yes
076SB-0094-0001-SO	HEXACHLOROETHANE	27	UG/KG	50	27	U	076SB-0095-0001-SO	27	50	27		N/A	Yes
076SB-0094-0001-SO	INDENO(1,2,3-C,D)PYRENE	3.3	UG/KG	6.6	3.3	U	076SB-0095-0001-SO	3.3	6.7	3.3		N/A	Yes
076SB-0094-0001-SO	ISOPHORONE	27	UG/KG	50	27	U	076SB-0095-0001-SO	27	50	27		N/A	Yes
076SB-0094-0001-SO	NAPHTHALENE	3.3	UG/KG	6.6	3.3	U	076SB-0095-0001-SO	3.3	6.7	3.3		N/A	Yes
076SB-0094-0001-SO	NITROBENZENE	3.3	UG/KG	99	3.3	U	076SB-0095-0001-SO	3.3	100	3.3		N/A	Yes
076SB-0094-0001-SO	N-NITROSODI-N-PROPYLAMINE	27	UG/KG	50	27	U	076SB-0095-0001-SO	27	50	27		N/A	Yes
076SB-0094-0001-SO	N-NITROSODIPHENYLAMINE	27	UG/KG	50	27	U	076SB-0095-0001-SO	27	50	27		N/A	Yes
076SB-0094-0001-SO	PENTACHLOROPHENOL	79	UG/KG	150	79	U	076SB-0095-0001-SO	80	150	80		N/A	Yes
076SB-0094-0001-SO	PHENANTHRENE	3.3	UG/KG	6.6	3.3	U	076SB-0095-0001-SO	3.6	6.7	3.3	J	N/A	Yes
076SB-0094-0001-SO	PHENOL	27	UG/KG	50	27	U	076SB-0095-0001-SO	27	50	27		N/A	Yes
076SB-0094-0001-SO	PYRENE	3.3	UG/KG	6.6	3.3	U	076SB-0095-0001-SO	3.3	6.7	3.3		N/A	Yes
076SB-0096-0001-SO	ALUMINUM	6600	MG/KG	2.1	0.42		076SB-0097-0001-SO	6600	2.4	0.48		0	N/A
076SB-0096-0001-SO	ANTIMONY	0.11	MG/KG	0.14	0.07	J-	076SB-0097-0001-SO	0.12	0.16	0.081	J	N/A	Yes
076SB-0096-0001-SO	ARSENIC	13	MG/KG	0.07	0.035	J-	076SB-0097-0001-SO	16	0.081	0.04		21	N/A
076SB-0096-0001-SO	BARIUM	29	MG/KG	0.7	0.014	J	076SB-0097-0001-SO	30	0.81	0.016		3	N/A

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
076SB-0096-0001-SO	BERYLLIUM	0.42	MG/KG	0.07	0.007	J-	076SB-0097-0001-SO	0.47	0.081	0.0081		11	N/A
076SB-0096-0001-SO	CADMIUM	0.19	MG/KG	0.07	0.021	J-	076SB-0097-0001-SO	0.2	0.081	0.024		N/A	Yes
076SB-0096-0001-SO	CALCIUM	700	MG/KG	7	1.8	J+	076SB-0097-0001-SO	640	8.1	2		9	N/A
076SB-0096-0001-SO	CHROMIUM	14	MG/KG	0.14	0.028	J-	076SB-0097-0001-SO	15	0.16	0.032		7	N/A
076SB-0096-0001-SO	COBALT	8.3	MG/KG	0.035	0.007	J-	076SB-0097-0001-SO	8.6	0.04	0.0081		4	N/A
076SB-0096-0001-SO	COPPER	17	MG/KG	0.14	0.042	J-	076SB-0097-0001-SO	18	0.16	0.048		6	N/A
076SB-0096-0001-SO	IRON	26000	MG/KG	3.5	1.4		076SB-0097-0001-SO	26000	4	1.6		0	N/A
076SB-0096-0001-SO	LEAD	14	MG/KG	0.07	0.021	J	076SB-0097-0001-SO	14	0.081	0.024		0	N/A
076SB-0096-0001-SO	MAGNESIUM	1900	MG/KG	7	1.4		076SB-0097-0001-SO	1800	8.1	1.6		5	N/A
076SB-0096-0001-SO	MANGANESE	510	MG/KG	0.35	0.021	J	076SB-0097-0001-SO	480	0.4	0.024		6	N/A
076SB-0096-0001-SO	NICKEL	21	MG/KG	0.07	0.021	J-	076SB-0097-0001-SO	22	0.081	0.024		5	N/A
076SB-0096-0001-SO	POTASSIUM	810	MG/KG	7	4.2	J-	076SB-0097-0001-SO	870	8.1	4.8		7	N/A
076SB-0096-0001-SO	SELENIUM	0.32	MG/KG	0.35	0.07	J-	076SB-0097-0001-SO	0.29	0.4	0.081	J	N/A	Yes
076SB-0096-0001-SO	SILVER	0.019	MG/KG	0.07	0.021	J-	076SB-0097-0001-SO	0.019	0.081	0.024	J	N/A	Yes
076SB-0096-0001-SO	SODIUM	20	MG/KG	7	3.5		076SB-0097-0001-SO	22	8.1	4		N/A	Yes
076SB-0096-0001-SO	THALLIUM	0.13	MG/KG	0.07	0.014		076SB-0097-0001-SO	0.13	0.081	0.016		N/A	Yes
076SB-0096-0001-SO	VANADIUM	13	MG/KG	0.07	0.042		076SB-0097-0001-SO	13	0.081	0.048		0	N/A
076SB-0096-0001-SO	ZINC	62	MG/KG	0.35	0.14	J	076SB-0097-0001-SO	70	0.4	0.16		12	N/A
076SB-0096-0001-SO	MERCURY	0.031	MG/KG	0.098	0.032	J	076SB-0097-0001-SO	0.026	0.09	0.03	J	N/A	Yes
076SB-0096-0001-SO	1,1,1-TRICHLOROETHANE	0.93	UG/KG	4.7	0.93		076SB-0097-0001-SO	0.89	4.4	0.89		N/A	Yes
076SB-0096-0001-SO	1,1,2,2-TETRACHLOROETHANE	0.47	UG/KG	4.7	0.47		076SB-0097-0001-SO	0.44	4.4	0.44		N/A	Yes
076SB-0096-0001-SO	1,1,2-TRICHLOROETHANE	0.47	UG/KG	4.7	0.47		076SB-0097-0001-SO	0.44	4.4	0.44		N/A	Yes
076SB-0096-0001-SO	1,1-DICHLOROETHANE	0.47	UG/KG	4.7	0.47		076SB-0097-0001-SO	0.44	4.4	0.44		N/A	Yes
076SB-0096-0001-SO	1,1-DICHLOROETHENE	0.93	UG/KG	4.7	0.93		076SB-0097-0001-SO	0.89	4.4	0.89		N/A	Yes
076SB-0096-0001-SO	1,2-DIBROMOETHANE	0.93	UG/KG	4.7	0.93		076SB-0097-0001-SO	0.89	4.4	0.89		N/A	Yes
076SB-0096-0001-SO	1,2-DICHLOROETHANE	0.47	UG/KG	4.7	0.47		076SB-0097-0001-SO	0.44	4.4	0.44		N/A	Yes
076SB-0096-0001-SO	1,2-DICHLOROPROPANE	0.93	UG/KG	4.7	0.93		076SB-0097-0001-SO	0.89	4.4	0.89		N/A	Yes
076SB-0096-0001-SO	2-HEXANONE	0.93	UG/KG	19	0.93		076SB-0097-0001-SO	0.89	18	0.89		N/A	Yes
076SB-0096-0001-SO	ACETONE	5.9	UG/KG	19	5.9		076SB-0097-0001-SO	5.6	18	5.6		N/A	Yes
076SB-0096-0001-SO	BENZENE	0.47	UG/KG	4.7	0.47		076SB-0097-0001-SO	0.44	4.4	0.44		N/A	Yes
076SB-0096-0001-SO	BROMOCHLOROMETHANE	0.93	UG/KG	4.7	0.93		076SB-0097-0001-SO	0.89	4.4	0.89		N/A	Yes
076SB-0096-0001-SO	BROMODICHLOROMETHANE	0.47	UG/KG	4.7	0.47		076SB-0097-0001-SO	0.44	4.4	0.44		N/A	Yes
076SB-0096-0001-SO	BROMOFORM	0.47	UG/KG	4.7	0.47		076SB-0097-0001-SO	0.44	4.4	0.44		N/A	Yes
076SB-0096-0001-SO	BROMOMETHANE	0.93	UG/KG	4.7	0.93		076SB-0097-0001-SO	0.89	4.4	0.89		N/A	Yes
076SB-0096-0001-SO	CARBON DISULFIDE	0.47	UG/KG	4.7	0.47		076SB-0097-0001-SO	0.44	4.4	0.44		N/A	Yes
076SB-0096-0001-SO	CARBON TETRACHLORIDE	0.47	UG/KG	4.7	0.47		076SB-0097-0001-SO	0.44	4.4	0.44		N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
076SB-0096-0001-SO	CHLOROBENZENE	0.47	UG/KG	4.7	0.47		076SB-0097-0001-SO	0.44	4.4	0.44		N/A	Yes
076SB-0096-0001-SO	CHLOROETHANE	0.93	UG/KG	4.7	0.93		076SB-0097-0001-SO	0.89	4.4	0.89		N/A	Yes
076SB-0096-0001-SO	CHLOROFORM	0.47	UG/KG	4.7	0.47		076SB-0097-0001-SO	0.44	4.4	0.44		N/A	Yes
076SB-0096-0001-SO	CHLOROMETHANE	0.47	UG/KG	4.7	0.47		076SB-0097-0001-SO	0.44	4.4	0.44		N/A	Yes
076SB-0096-0001-SO	CIS-1,3-DICHLOROPROPENE	0.47	UG/KG	4.7	0.47		076SB-0097-0001-SO	0.44	4.4	0.44		N/A	Yes
076SB-0096-0001-SO	DIBROMOCHLOROMETHANE	0.93	UG/KG	4.7	0.93		076SB-0097-0001-SO	0.89	4.4	0.89		N/A	Yes
076SB-0096-0001-SO	ETHYLBENZENE	0.47	UG/KG	4.7	0.47		076SB-0097-0001-SO	0.44	4.4	0.44		N/A	Yes
076SB-0096-0001-SO	METHYL ETHYL KETONE	1.9	UG/KG	19	1.9		076SB-0097-0001-SO	1.8	18	1.8		N/A	Yes
076SB-0096-0001-SO	METHYL ISOBUTYL KETONE	0.93	UG/KG	19	0.93		076SB-0097-0001-SO	0.89	18	0.89		N/A	Yes
076SB-0096-0001-SO	METHYLENE CHLORIDE	0.93	UG/KG	4.7	0.93		076SB-0097-0001-SO	0.89	4.4	0.89		N/A	Yes
076SB-0096-0001-SO	STYRENE	0.47	UG/KG	4.7	0.47		076SB-0097-0001-SO	0.44	4.4	0.44		N/A	Yes
076SB-0096-0001-SO	TETRACHLOROETHYLENE	0.93	UG/KG	4.7	0.93		076SB-0097-0001-SO	0.89	4.4	0.89		N/A	Yes
076SB-0096-0001-SO	TOLUENE	0.94	UG/KG	4.7	0.47	J	076SB-0097-0001-SO	0.73	4.4	0.44	J	N/A	Yes
076SB-0096-0001-SO	TOTAL 1,2-DICHLOROETHENE	0.93	UG/KG	9.3	0.93		076SB-0097-0001-SO	0.89	8.9	0.89		N/A	Yes
076SB-0096-0001-SO	TRANS-1,3-DICHLOROPROPENE	0.93	UG/KG	4.7	0.93		076SB-0097-0001-SO	0.89	4.4	0.89		N/A	Yes
076SB-0096-0001-SO	TRICHLOROETHYLENE	0.47	UG/KG	4.7	0.47		076SB-0097-0001-SO	0.44	4.4	0.44		N/A	Yes
076SB-0096-0001-SO	VINYL CHLORIDE	0.47	UG/KG	4.7	0.47		076SB-0097-0001-SO	0.44	4.4	0.44		N/A	Yes
076SB-0096-0001-SO	XYLENES, TOTAL	1.4	UG/KG	9.3	1.4		076SB-0097-0001-SO	1.3	8.9	1.3		N/A	Yes
076SB-0096-0001-SO	1,2,4-TRICHLOROBENZENE	27	UG/KG	50	27	U	076SB-0097-0001-SO	27	50	27		N/A	Yes
076SB-0096-0001-SO	1,2-DICHLOROBENZENE	27	UG/KG	50	27	U	076SB-0097-0001-SO	27	50	27		N/A	Yes
076SB-0096-0001-SO	1,3-DICHLOROBENZENE	27	UG/KG	50	27	U	076SB-0097-0001-SO	27	50	27		N/A	Yes
076SB-0096-0001-SO	1,4-DICHLOROBENZENE	27	UG/KG	50	27	U	076SB-0097-0001-SO	27	50	27		N/A	Yes
076SB-0096-0001-SO	2,4,5-TRICHLOROPHENOL	27	UG/KG	150	27	U	076SB-0097-0001-SO	27	150	27		N/A	Yes
076SB-0096-0001-SO	2,4,6-TRICHLOROPHENOL	80	UG/KG	150	80	U	076SB-0097-0001-SO	80	150	80		N/A	Yes
076SB-0096-0001-SO	2,4-DICHLOROPHENOL	27	UG/KG	150	27	U	076SB-0097-0001-SO	27	150	27		N/A	Yes
076SB-0096-0001-SO	2,4-DIMETHYLPHENOL	80	UG/KG	150	80	U	076SB-0097-0001-SO	80	150	80		N/A	Yes
076SB-0096-0001-SO	2,4-DINITROPHENOL	80	UG/KG	330	80	U	076SB-0097-0001-SO	80	330	80		N/A	Yes
076SB-0096-0001-SO	2,4-DINITROTOLUENE	27	UG/KG	200	27	U	076SB-0097-0001-SO	27	200	27		N/A	Yes
076SB-0096-0001-SO	2,6-DINITROTOLUENE	27	UG/KG	200	27	U	076SB-0097-0001-SO	27	200	27		N/A	Yes
076SB-0096-0001-SO	2-CHLORONAPHTHALENE	3.3	UG/KG	50	3.3	U	076SB-0097-0001-SO	3.3	50	3.3		N/A	Yes
076SB-0096-0001-SO	2-CHLOROPHENOL	27	UG/KG	50	27	U	076SB-0097-0001-SO	27	50	27		N/A	Yes
076SB-0096-0001-SO	2-METHYLNAPHTHALENE	3.3	UG/KG	6.7	3.3	U	076SB-0097-0001-SO	3.3	6.6	3.3		N/A	Yes
076SB-0096-0001-SO	2-METHYLPHENOL	80	UG/KG	200	80	U	076SB-0097-0001-SO	80	200	80		N/A	Yes
076SB-0096-0001-SO	2-NITROANILINE	27	UG/KG	200	27	U	076SB-0097-0001-SO	27	200	27		N/A	Yes
076SB-0096-0001-SO	2-NITROPHENOL	27	UG/KG	50	27	U	076SB-0097-0001-SO	27	50	27		N/A	Yes
076SB-0096-0001-SO	3,3'-DICHLOROBENZIDINE	80	UG/KG	100	80	U	076SB-0097-0001-SO	80	99	80		N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
076SB-0096-0001-SO	3-NITROANILINE	80	UG/KG	200	80	U	076SB-0097-0001-SO	80	200	80		N/A	Yes
076SB-0096-0001-SO	4,6-DINITRO-2-METHYLPHENOL	80	UG/KG	150	80	U	076SB-0097-0001-SO	80	150	80		N/A	Yes
076SB-0096-0001-SO	4-BROMOPHENYL PHENYL ETHER	27	UG/KG	50	27	U	076SB-0097-0001-SO	27	50	27		N/A	Yes
076SB-0096-0001-SO	4-CHLORO-3-METHYLPHENOL	27	UG/KG	150	27	U	076SB-0097-0001-SO	27	150	27		N/A	Yes
076SB-0096-0001-SO	4-CHLOROANILINE	27	UG/KG	150	27	U	076SB-0097-0001-SO	27	150	27		N/A	Yes
076SB-0096-0001-SO	4-CHLOROPHENYL PHENYL ETHER	27	UG/KG	50	27	U	076SB-0097-0001-SO	27	50	27		N/A	Yes
076SB-0096-0001-SO	4-NITROANILINE	27	UG/KG	200	27	U	076SB-0097-0001-SO	27	200	27		N/A	Yes
076SB-0096-0001-SO	4-NITROPHENOL	80	UG/KG	330	80	U	076SB-0097-0001-SO	80	330	80		N/A	Yes
076SB-0096-0001-SO	ACENAPHTHENE	3.3	UG/KG	6.7	3.3	U	076SB-0097-0001-SO	3.3	6.6	3.3		N/A	Yes
076SB-0096-0001-SO	ACENAPHTHYLENE	3.3	UG/KG	6.7	3.3	U	076SB-0097-0001-SO	3.3	6.6	3.3		N/A	Yes
076SB-0096-0001-SO	ANTHRACENE	3.3	UG/KG	6.7	3.3	U	076SB-0097-0001-SO	3.3	6.6	3.3		N/A	Yes
076SB-0096-0001-SO	BENZO(A)ANTHRACENE	3.3	UG/KG	6.7	3.3	U	076SB-0097-0001-SO	3.3	6.6	3.3		N/A	Yes
076SB-0096-0001-SO	BENZO(A)PYRENE	3.3	UG/KG	6.7	3.3	U	076SB-0097-0001-SO	3.3	6.6	3.3		N/A	Yes
076SB-0096-0001-SO	BENZO(B)FLUORANTHENE	3.3	UG/KG	6.7	3.3	U	076SB-0097-0001-SO	3.3	6.6	3.3		N/A	Yes
076SB-0096-0001-SO	BENZO(G,H,I)PERYLENE	3.3	UG/KG	6.7	3.3	U	076SB-0097-0001-SO	3.3	6.6	3.3		N/A	Yes
076SB-0096-0001-SO	BENZO(K)FLUORANTHENE	3.3	UG/KG	6.7	3.3	U	076SB-0097-0001-SO	3.3	6.6	3.3		N/A	Yes
076SB-0096-0001-SO	BENZOIC ACID	330	UG/KG	660	330	U	076SB-0097-0001-SO	330	660	330		N/A	Yes
076SB-0096-0001-SO	BENZYL ALCOHOL	27	UG/KG	330	27	U	076SB-0097-0001-SO	27	330	27		N/A	Yes
076SB-0096-0001-SO	BENZYL BUTYL PHTHALATE	27	UG/KG	50	27	U	076SB-0097-0001-SO	27	50	27		N/A	Yes
076SB-0096-0001-SO	BIS(2-CHLOROETHOXY) METHANE	27	UG/KG	100	27	U	076SB-0097-0001-SO	27	99	27		N/A	Yes
076SB-0096-0001-SO	BIS(2-CHLOROETHYL) ETHER	3.3	UG/KG	100	3.3	U	076SB-0097-0001-SO	3.3	99	3.3		N/A	Yes
076SB-0096-0001-SO	BIS(2-CHLOROISOPROPYL) ETHER	27	UG/KG	100	27	U	076SB-0097-0001-SO	27	99	27		N/A	Yes
076SB-0096-0001-SO	BIS(2-ETHYLHEXYL) PHTHALATE	27	UG/KG	50	27	U	076SB-0097-0001-SO	26	50	27	J	N/A	Yes
076SB-0096-0001-SO	CARBAZOLE	27	UG/KG	50	27	U	076SB-0097-0001-SO	27	50	27		N/A	Yes
076SB-0096-0001-SO	CHRYSENE	3.3	UG/KG	6.7	3.3	U	076SB-0097-0001-SO	3.3	6.6	3.3		N/A	Yes
076SB-0096-0001-SO	CRESOLS, M & P	80	UG/KG	400	80	U	076SB-0097-0001-SO	80	400	80		N/A	Yes
076SB-0096-0001-SO	DIBENZ(A,H)ANTHRACENE	3.3	UG/KG	6.7	3.3	U	076SB-0097-0001-SO	3.3	6.6	3.3		N/A	Yes
076SB-0096-0001-SO	DIBENZOFURAN	3.3	UG/KG	50	3.3	U	076SB-0097-0001-SO	3.3	50	3.3		N/A	Yes
076SB-0096-0001-SO	DIETHYL PHTHALATE	27	UG/KG	50	27	U	076SB-0097-0001-SO	27	50	27		N/A	Yes
076SB-0096-0001-SO	DIMETHYL PHTHALATE	27	UG/KG	50	27	U	076SB-0097-0001-SO	27	50	27		N/A	Yes
076SB-0096-0001-SO	DI-N-BUTYL PHTHALATE	27	UG/KG	50	27	U	076SB-0097-0001-SO	27	50	27		N/A	Yes
076SB-0096-0001-SO	DI-N-OCTYLPHTHALATE	27	UG/KG	50	27	U	076SB-0097-0001-SO	27	50	27		N/A	Yes
076SB-0096-0001-SO	FLUORANTHENE	3.3	UG/KG	6.7	3.3	U	076SB-0097-0001-SO	3.3	6.6	3.3		N/A	Yes
076SB-0096-0001-SO	FLUORENE	3.3	UG/KG	6.7	3.3	U	076SB-0097-0001-SO	3.3	6.6	3.3		N/A	Yes
076SB-0096-0001-SO	HEXACHLOROBENZENE	3.3	UG/KG	6.7	3.3	U	076SB-0097-0001-SO	3.3	6.6	3.3		N/A	Yes
076SB-0096-0001-SO	HEXACHLOROBUTADIENE	27	UG/KG	50	27	U	076SB-0097-0001-SO	27	50	27		N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
076SB-0096-0001-SO	HEXACHLOROCYCLOPENTADIENE	27	UG/KG	330	27	U	076SB-0097-0001-SO	27	330	27		N/A	Yes
076SB-0096-0001-SO	HEXACHLOROETHANE	27	UG/KG	50	27	U	076SB-0097-0001-SO	27	50	27		N/A	Yes
076SB-0096-0001-SO	INDENO(1,2,3-C,D)PYRENE	3.3	UG/KG	6.7	3.3	U	076SB-0097-0001-SO	3.3	6.6	3.3		N/A	Yes
076SB-0096-0001-SO	ISOPHORONE	27	UG/KG	50	27	U	076SB-0097-0001-SO	27	50	27		N/A	Yes
076SB-0096-0001-SO	NAPHTHALENE	3.3	UG/KG	6.7	3.3	U	076SB-0097-0001-SO	3.3	6.6	3.3		N/A	Yes
076SB-0096-0001-SO	NITROBENZENE	3.3	UG/KG	100	3.3	U	076SB-0097-0001-SO	3.3	99	3.3		N/A	Yes
076SB-0096-0001-SO	N-NITROSODI-N-PROPYLAMINE	27	UG/KG	50	27	U	076SB-0097-0001-SO	27	50	27		N/A	Yes
076SB-0096-0001-SO	N-NITROSODIPHENYLAMINE	27	UG/KG	50	27	U	076SB-0097-0001-SO	27	50	27		N/A	Yes
076SB-0096-0001-SO	PENTACHLOROPHENOL	80	UG/KG	150	80	U	076SB-0097-0001-SO	80	150	80		N/A	Yes
076SB-0096-0001-SO	PHENANTHRENE	3.3	UG/KG	6.7	3.3	U	076SB-0097-0001-SO	3.3	6.6	3.3		N/A	Yes
076SB-0096-0001-SO	PHENOL	27	UG/KG	50	27	U	076SB-0097-0001-SO	27	50	27		N/A	Yes
076SB-0096-0001-SO	PYRENE	3.3	UG/KG	6.7	3.3	U	076SB-0097-0001-SO	3.3	6.6	3.3		N/A	Yes
076SB-0102M-0001-SO	NITROCELLULOSE	9.3	MG/KG	46	17	J	076SB-0103M-0001-SO	9.5	49	18	J	N/A	Yes
076SB-0102M-0001-SO	ALUMINUM	7900	MG/KG	2.3	0.45		076SB-0103M-0001-SO	7800	2	0.41		1	N/A
076SB-0102M-0001-SO	ANTIMONY	0.12	MG/KG	0.15	0.076	J-	076SB-0103M-0001-SO	0.1	0.14	0.068	J	N/A	Yes
076SB-0102M-0001-SO	ARSENIC	15	MG/KG	0.076	0.038	J-	076SB-0103M-0001-SO	14	0.068	0.034		7	N/A
076SB-0102M-0001-SO	BARIUM	34	MG/KG	0.76	0.015	J	076SB-0103M-0001-SO	32	0.68	0.014		6	N/A
076SB-0102M-0001-SO	BERYLLIUM	0.53	MG/KG	0.076	0.0076	J-	076SB-0103M-0001-SO	0.46	0.068	0.0068		14	N/A
076SB-0102M-0001-SO	CADMIUM	0.19	MG/KG	0.076	0.023	J-	076SB-0103M-0001-SO	0.16	0.068	0.02		N/A	Yes
076SB-0102M-0001-SO	CALCIUM	680	MG/KG	7.6	1.9	J+	076SB-0103M-0001-SO	640	6.8	1.7		6	N/A
076SB-0102M-0001-SO	CHROMIUM	22	MG/KG	0.15	0.03	J-	076SB-0103M-0001-SO	16	0.14	0.027		32	N/A
076SB-0102M-0001-SO	COBALT	9.2	MG/KG	0.038	0.0076	J-	076SB-0103M-0001-SO	9	0.034	0.0068		2	N/A
076SB-0102M-0001-SO	COPPER	16	MG/KG	0.15	0.045	J-	076SB-0103M-0001-SO	15	0.14	0.041		6	N/A
076SB-0102M-0001-SO	IRON	27000	MG/KG	3.8	1.5		076SB-0103M-0001-SO	22000	3.4	1.4		20	N/A
076SB-0102M-0001-SO	LEAD	15	MG/KG	0.076	0.023	J	076SB-0103M-0001-SO	13	0.068	0.02		14	N/A
076SB-0102M-0001-SO	MAGNESIUM	2000	MG/KG	7.6	1.5		076SB-0103M-0001-SO	2000	6.8	1.4		0	N/A
076SB-0102M-0001-SO	MANGANESE	430	MG/KG	0.38	0.023	J	076SB-0103M-0001-SO	350	0.34	0.02		21	N/A
076SB-0102M-0001-SO	NICKEL	23	MG/KG	0.076	0.023	J-	076SB-0103M-0001-SO	19	0.068	0.02		19	N/A
076SB-0102M-0001-SO	POTASSIUM	840	MG/KG	7.6	4.5	J-	076SB-0103M-0001-SO	850	6.8	4.1		1	N/A
076SB-0102M-0001-SO	SELENIUM	0.29	MG/KG	0.38	0.076	J-	076SB-0103M-0001-SO	0.24	0.34	0.068	J	N/A	Yes
076SB-0102M-0001-SO	SILVER	0.02	MG/KG	0.076	0.023	J-	076SB-0103M-0001-SO	0.021	0.068	0.02	J	N/A	Yes
076SB-0102M-0001-SO	SODIUM	28	MG/KG	7.6	3.8		076SB-0103M-0001-SO	26	6.8	3.4		N/A	Yes
076SB-0102M-0001-SO	THALLIUM	0.13	MG/KG	0.076	0.015		076SB-0103M-0001-SO	0.12	0.068	0.014		N/A	Yes
076SB-0102M-0001-SO	VANADIUM	15	MG/KG	0.076	0.045		076SB-0103M-0001-SO	13	0.068	0.041		14	N/A
076SB-0102M-0001-SO	ZINC	75	MG/KG	0.38	0.15	J	076SB-0103M-0001-SO	59	0.34	0.14		24	N/A
076SB-0102M-0001-SO	MERCURY	0.03	MG/KG	0.092	0.03	J	076SB-0103M-0001-SO	0.031	0.1	0.034	J	N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
076SB-0102M-0001-SO	AROCLOR 1016	25	UG/KG	65	25	U	076SB-0103M-0001-SO	25	65	25		N/A	Yes
076SB-0102M-0001-SO	AROCLOR 1221	25	UG/KG	50	25	U	076SB-0103M-0001-SO	25	50	25		N/A	Yes
076SB-0102M-0001-SO	AROCLOR 1232	25	UG/KG	45	25	U	076SB-0103M-0001-SO	25	45	25		N/A	Yes
076SB-0102M-0001-SO	AROCLOR 1242	25	UG/KG	40	25	U	076SB-0103M-0001-SO	25	40	25		N/A	Yes
076SB-0102M-0001-SO	AROCLOR 1248	25	UG/KG	55	25	U	076SB-0103M-0001-SO	25	55	25		N/A	Yes
076SB-0102M-0001-SO	AROCLOR 1254	25	UG/KG	55	25	U	076SB-0103M-0001-SO	25	55	25		N/A	Yes
076SB-0102M-0001-SO	AROCLOR 1260	25	UG/KG	55	25	U	076SB-0103M-0001-SO	25	55	25		N/A	Yes
076SB-0102M-0001-SO	1,1,1-TRICHLOROETHANE	1.1	UG/KG	5.6	1.1	U	076SB-0103M-0001-SO	1.1	5.4	1.1		N/A	Yes
076SB-0102M-0001-SO	1,1,2,2-TETRACHLOROETHANE	0.56	UG/KG	5.6	0.56	U	076SB-0103M-0001-SO	0.54	5.4	0.54		N/A	Yes
076SB-0102M-0001-SO	1,1,2-TRICHLOROETHANE	0.56	UG/KG	5.6	0.56	U	076SB-0103M-0001-SO	0.54	5.4	0.54		N/A	Yes
076SB-0102M-0001-SO	1,1-DICHLOROETHANE	0.56	UG/KG	5.6	0.56	U	076SB-0103M-0001-SO	0.54	5.4	0.54		N/A	Yes
076SB-0102M-0001-SO	1,1-DICHLOROETHENE	1.1	UG/KG	5.6	1.1	U	076SB-0103M-0001-SO	1.1	5.4	1.1		N/A	Yes
076SB-0102M-0001-SO	1,2-DIBROMOETHANE	1.1	UG/KG	5.6	1.1	U	076SB-0103M-0001-SO	1.1	5.4	1.1		N/A	Yes
076SB-0102M-0001-SO	1,2-DICHLOROETHANE	0.56	UG/KG	5.6	0.56	U	076SB-0103M-0001-SO	0.54	5.4	0.54		N/A	Yes
076SB-0102M-0001-SO	1,2-DICHLOROPROPANE	1.1	UG/KG	5.6	1.1	U	076SB-0103M-0001-SO	1.1	5.4	1.1		N/A	Yes
076SB-0102M-0001-SO	2-HEXANONE	1.1	UG/KG	22	1.1	UJ	076SB-0103M-0001-SO	1.9	22	1.1	J	N/A	Yes
076SB-0102M-0001-SO	ACETONE	7	UG/KG	22	7	U	076SB-0103M-0001-SO	6.8	22	6.8		N/A	Yes
076SB-0102M-0001-SO	BENZENE	0.56	UG/KG	5.6	0.56	U	076SB-0103M-0001-SO	0.54	5.4	0.54		N/A	Yes
076SB-0102M-0001-SO	BROMOCHLOROMETHANE	1.1	UG/KG	5.6	1.1	U	076SB-0103M-0001-SO	1.1	5.4	1.1		N/A	Yes
076SB-0102M-0001-SO	BROMODICHLOROMETHANE	0.56	UG/KG	5.6	0.56	U	076SB-0103M-0001-SO	0.54	5.4	0.54		N/A	Yes
076SB-0102M-0001-SO	BROMOFORM	0.56	UG/KG	5.6	0.56	U	076SB-0103M-0001-SO	0.54	5.4	0.54		N/A	Yes
076SB-0102M-0001-SO	BROMOMETHANE	1.1	UG/KG	5.6	1.1	U	076SB-0103M-0001-SO	1.1	5.4	1.1		N/A	Yes
076SB-0102M-0001-SO	CARBON DISULFIDE	0.56	UG/KG	5.6	0.56	U	076SB-0103M-0001-SO	0.54	5.4	0.54		N/A	Yes
076SB-0102M-0001-SO	CARBON TETRACHLORIDE	0.56	UG/KG	5.6	0.56	U	076SB-0103M-0001-SO	0.54	5.4	0.54		N/A	Yes
076SB-0102M-0001-SO	CHLOROBENZENE	0.56	UG/KG	5.6	0.56	U	076SB-0103M-0001-SO	0.54	5.4	0.54		N/A	Yes
076SB-0102M-0001-SO	CHLOROETHANE	1.1	UG/KG	5.6	1.1	U	076SB-0103M-0001-SO	1.1	5.4	1.1		N/A	Yes
076SB-0102M-0001-SO	CHLOROFORM	0.56	UG/KG	5.6	0.56	U	076SB-0103M-0001-SO	0.54	5.4	0.54		N/A	Yes
076SB-0102M-0001-SO	CHLOROMETHANE	0.56	UG/KG	5.6	0.56	U	076SB-0103M-0001-SO	0.54	5.4	0.54		N/A	Yes
076SB-0102M-0001-SO	CIS-1,3-DICHLOROPROPENE	0.56	UG/KG	5.6	0.56	U	076SB-0103M-0001-SO	0.54	5.4	0.54		N/A	Yes
076SB-0102M-0001-SO	DIBROMOCHLOROMETHANE	1.1	UG/KG	5.6	1.1	U	076SB-0103M-0001-SO	1.1	5.4	1.1		N/A	Yes
076SB-0102M-0001-SO	ETHYLBENZENE	0.56	UG/KG	5.6	0.56	U	076SB-0103M-0001-SO	0.54	5.4	0.54		N/A	Yes
076SB-0102M-0001-SO	METHYL ETHYL KETONE	2.2	UG/KG	22	2.2	U	076SB-0103M-0001-SO	2.2	22	2.2		N/A	Yes
076SB-0102M-0001-SO	METHYL ISOBUTYL KETONE	1.1	UG/KG	22	1.1	UJ	076SB-0103M-0001-SO	1.3	22	1.1	J	N/A	Yes
076SB-0102M-0001-SO	METHYLENE CHLORIDE	1.1	UG/KG	5.6	1.1	U	076SB-0103M-0001-SO	1.1	5.4	1.1		N/A	Yes
076SB-0102M-0001-SO	STYRENE	0.56	UG/KG	5.6	0.56	U	076SB-0103M-0001-SO	0.54	5.4	0.54		N/A	Yes
076SB-0102M-0001-SO	TETRACHLOROETHYLENE	1.1	UG/KG	5.6	1.1	U	076SB-0103M-0001-SO	1.1	5.4	1.1		N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
076SB-0102M-0001-SO	TOLUENE	1.7	UG/KG	5.6	0.56	J	076SB-0103M-0001-SO	1.5	5.4	0.54	J	N/A	Yes
076SB-0102M-0001-SO	TOTAL 1,2-DICHLOROETHENE	1.1	UG/KG	11	1.1	U	076SB-0103M-0001-SO	1.1	11	1.1		N/A	Yes
076SB-0102M-0001-SO	TRANS-1,3-DICHLOROPROPENE	1.1	UG/KG	5.6	1.1	U	076SB-0103M-0001-SO	1.1	5.4	1.1		N/A	Yes
076SB-0102M-0001-SO	TRICHLOROETHYLENE	0.56	UG/KG	5.6	0.56	U	076SB-0103M-0001-SO	0.54	5.4	0.54		N/A	Yes
076SB-0102M-0001-SO	VINYL CHLORIDE	0.56	UG/KG	5.6	0.56	U	076SB-0103M-0001-SO	0.54	5.4	0.54		N/A	Yes
076SB-0102M-0001-SO	XYLENES, TOTAL	1.7	UG/KG	11	1.7	U	076SB-0103M-0001-SO	1.6	11	1.6		N/A	Yes
076SB-0102M-0001-SO	1,2,4-TRICHLOROBENZENE	27	UG/KG	50	27	U	076SB-0103M-0001-SO	27	50	27		N/A	Yes
076SB-0102M-0001-SO	1,2-DICHLOROBENZENE	27	UG/KG	50	27	U	076SB-0103M-0001-SO	27	50	27		N/A	Yes
076SB-0102M-0001-SO	1,3-DICHLOROBENZENE	27	UG/KG	50	27	U	076SB-0103M-0001-SO	27	50	27		N/A	Yes
076SB-0102M-0001-SO	1,4-DICHLOROBENZENE	27	UG/KG	50	27	U	076SB-0103M-0001-SO	27	50	27		N/A	Yes
076SB-0102M-0001-SO	2,4,5-TRICHLOROPHENOL	27	UG/KG	150	27	U	076SB-0103M-0001-SO	27	150	27		N/A	Yes
076SB-0102M-0001-SO	2,4,6-TRICHLOROPHENOL	81	UG/KG	150	81	U	076SB-0103M-0001-SO	80	150	80		N/A	Yes
076SB-0102M-0001-SO	2,4-DICHLOROPHENOL	27	UG/KG	150	27	U	076SB-0103M-0001-SO	27	150	27		N/A	Yes
076SB-0102M-0001-SO	2,4-DIMETHYLPHENOL	81	UG/KG	150	81	U	076SB-0103M-0001-SO	80	150	80		N/A	Yes
076SB-0102M-0001-SO	2,4-DINITROPHENOL	81	UG/KG	330	81	U	076SB-0103M-0001-SO	80	330	80		N/A	Yes
076SB-0102M-0001-SO	2,4-DINITROTOLUENE	27	UG/KG	200	27	U	076SB-0103M-0001-SO	27	200	27		N/A	Yes
076SB-0102M-0001-SO	2,6-DINITROTOLUENE	27	UG/KG	200	27	U	076SB-0103M-0001-SO	27	200	27		N/A	Yes
076SB-0102M-0001-SO	2-CHLORONAPHTHALENE	3.3	UG/KG	50	3.3	U	076SB-0103M-0001-SO	3.3	50	3.3		N/A	Yes
076SB-0102M-0001-SO	2-CHLOROPHENOL	27	UG/KG	50	27	U	076SB-0103M-0001-SO	27	50	27		N/A	Yes
076SB-0102M-0001-SO	2-METHYLNAPHTHALENE	4.9	UG/KG	6.7	3.3	J	076SB-0103M-0001-SO	3.7	6.6	3.3	J	N/A	Yes
076SB-0102M-0001-SO	2-METHYLPHENOL	81	UG/KG	200	81	U	076SB-0103M-0001-SO	80	200	80		N/A	Yes
076SB-0102M-0001-SO	2-NITROANILINE	27	UG/KG	200	27	U	076SB-0103M-0001-SO	27	200	27		N/A	Yes
076SB-0102M-0001-SO	2-NITROPHENOL	27	UG/KG	50	27	U	076SB-0103M-0001-SO	27	50	27		N/A	Yes
076SB-0102M-0001-SO	3,3'-DICHLOROBENZIDINE	81	UG/KG	100	81	U	076SB-0103M-0001-SO	80	100	80		N/A	Yes
076SB-0102M-0001-SO	3-NITROANILINE	81	UG/KG	200	81	U	076SB-0103M-0001-SO	80	200	80		N/A	Yes
076SB-0102M-0001-SO	4,6-DINITRO-2-METHYLPHENOL	81	UG/KG	150	81	U	076SB-0103M-0001-SO	80	150	80		N/A	Yes
076SB-0102M-0001-SO	4-BROMOPHENYL PHENYL ETHER	27	UG/KG	50	27	U	076SB-0103M-0001-SO	27	50	27		N/A	Yes
076SB-0102M-0001-SO	4-CHLORO-3-METHYLPHENOL	27	UG/KG	150	27	U	076SB-0103M-0001-SO	27	150	27		N/A	Yes
076SB-0102M-0001-SO	4-CHLOROANILINE	27	UG/KG	150	27	U	076SB-0103M-0001-SO	27	150	27		N/A	Yes
076SB-0102M-0001-SO	4-CHLOROPHENYL PHENYL ETHER	27	UG/KG	50	27	U	076SB-0103M-0001-SO	27	50	27		N/A	Yes
076SB-0102M-0001-SO	4-NITROANILINE	27	UG/KG	200	27	U	076SB-0103M-0001-SO	27	200	27		N/A	Yes
076SB-0102M-0001-SO	4-NITROPHENOL	81	UG/KG	330	81	U	076SB-0103M-0001-SO	80	330	80		N/A	Yes
076SB-0102M-0001-SO	ACENAPHTHENE	3.3	UG/KG	6.7	3.3	U	076SB-0103M-0001-SO	3.3	6.6	3.3		N/A	Yes
076SB-0102M-0001-SO	ACENAPHTHYLENE	3.3	UG/KG	6.7	3.3	U	076SB-0103M-0001-SO	3.3	6.6	3.3		N/A	Yes
076SB-0102M-0001-SO	ANTHRACENE	3.3	UG/KG	6.7	3.3	U	076SB-0103M-0001-SO	3.3	6.6	3.3		N/A	Yes
076SB-0102M-0001-SO	BENZO(A)ANTHRACENE	3.3	UG/KG	6.7	3.3	U	076SB-0103M-0001-SO	3.3	6.6	3.3		N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
076SB-0102M-0001-SO	BENZO(A)PYRENE	3.3	UG/KG	6.7	3.3	U	076SB-0103M-0001-SO	3.3	6.6	3.3		N/A	Yes
076SB-0102M-0001-SO	BENZO(B)FLUORANTHENE	3.3	UG/KG	6.7	3.3	U	076SB-0103M-0001-SO	3.3	6.6	3.3		N/A	Yes
076SB-0102M-0001-SO	BENZO(G,H,I)PERYLENE	3.3	UG/KG	6.7	3.3	U	076SB-0103M-0001-SO	3.3	6.6	3.3		N/A	Yes
076SB-0102M-0001-SO	BENZO(K)FLUORANTHENE	3.3	UG/KG	6.7	3.3	U	076SB-0103M-0001-SO	3.3	6.6	3.3		N/A	Yes
076SB-0102M-0001-SO	BENZOIC ACID	340	UG/KG	670	340	U	076SB-0103M-0001-SO	330	660	330		N/A	Yes
076SB-0102M-0001-SO	BENZYL ALCOHOL	27	UG/KG	330	27	U	076SB-0103M-0001-SO	27	330	27		N/A	Yes
076SB-0102M-0001-SO	BENZYL BUTYL PHTHALATE	27	UG/KG	50	27	U	076SB-0103M-0001-SO	27	50	27		N/A	Yes
076SB-0102M-0001-SO	BIS(2-CHLOROETHOXY) METHANE	27	UG/KG	100	27	U	076SB-0103M-0001-SO	27	100	27		N/A	Yes
076SB-0102M-0001-SO	BIS(2-CHLOROETHYL) ETHER	3.3	UG/KG	100	3.3	U	076SB-0103M-0001-SO	3.3	100	3.3		N/A	Yes
076SB-0102M-0001-SO	BIS(2-CHLOROISOPROPYL) ETHER	27	UG/KG	100	27	U	076SB-0103M-0001-SO	27	100	27		N/A	Yes
076SB-0102M-0001-SO	BIS(2-ETHYLHEXYL) PHTHALATE	27	UG/KG	50	27	U	076SB-0103M-0001-SO	20	50	27	J	N/A	Yes
076SB-0102M-0001-SO	CARBAZOLE	27	UG/KG	50	27	U	076SB-0103M-0001-SO	27	50	27		N/A	Yes
076SB-0102M-0001-SO	CHRYSENE	3.3	UG/KG	6.7	3.3	U	076SB-0103M-0001-SO	3.3	6.6	3.3		N/A	Yes
076SB-0102M-0001-SO	CRESOLS, M & P	81	UG/KG	400	81	U	076SB-0103M-0001-SO	80	400	80		N/A	Yes
076SB-0102M-0001-SO	DIBENZ(A,H)ANTHRACENE	3.3	UG/KG	6.7	3.3	U	076SB-0103M-0001-SO	3.3	6.6	3.3		N/A	Yes
076SB-0102M-0001-SO	DIBENZOFURAN	3.3	UG/KG	50	3.3	U	076SB-0103M-0001-SO	3.3	50	3.3		N/A	Yes
076SB-0102M-0001-SO	DIETHYL PHTHALATE	27	UG/KG	50	27	U	076SB-0103M-0001-SO	27	50	27		N/A	Yes
076SB-0102M-0001-SO	DIMETHYL PHTHALATE	27	UG/KG	50	27	U	076SB-0103M-0001-SO	27	50	27		N/A	Yes
076SB-0102M-0001-SO	DI-N-BUTYL PHTHALATE	27	UG/KG	50	27	U	076SB-0103M-0001-SO	27	50	27		N/A	Yes
076SB-0102M-0001-SO	DI-N-OCTYLPHTHALATE	27	UG/KG	50	27	U	076SB-0103M-0001-SO	27	50	27		N/A	Yes
076SB-0102M-0001-SO	FLUORANTHENE	3.3	UG/KG	6.7	3.3	U	076SB-0103M-0001-SO	3.3	6.6	3.3		N/A	Yes
076SB-0102M-0001-SO	FLUORENE	3.3	UG/KG	6.7	3.3	U	076SB-0103M-0001-SO	3.3	6.6	3.3		N/A	Yes
076SB-0102M-0001-SO	HEXACHLOROBENZENE	3.3	UG/KG	6.7	3.3	U	076SB-0103M-0001-SO	3.3	6.6	3.3		N/A	Yes
076SB-0102M-0001-SO	HEXACHLOROBUTADIENE	27	UG/KG	50	27	U	076SB-0103M-0001-SO	27	50	27		N/A	Yes
076SB-0102M-0001-SO	HEXACHLOROCYCLOPENTADIENE	27	UG/KG	330	27	U	076SB-0103M-0001-SO	27	330	27		N/A	Yes
076SB-0102M-0001-SO	HEXACHLOROETHANE	27	UG/KG	50	27	U	076SB-0103M-0001-SO	27	50	27		N/A	Yes
076SB-0102M-0001-SO	INDENO(1,2,3-C,D)PYRENE	3.3	UG/KG	6.7	3.3	U	076SB-0103M-0001-SO	3.3	6.6	3.3		N/A	Yes
076SB-0102M-0001-SO	ISOPHORONE	27	UG/KG	50	27	U	076SB-0103M-0001-SO	27	50	27		N/A	Yes
076SB-0102M-0001-SO	NAPHTHALENE	4.8	UG/KG	6.7	3.3	J	076SB-0103M-0001-SO	4.7	6.6	3.3	J	N/A	Yes
076SB-0102M-0001-SO	NITROBENZENE	3.3	UG/KG	100	3.3	U	076SB-0103M-0001-SO	3.3	100	3.3		N/A	Yes
076SB-0102M-0001-SO	N-NITROSODI-N-PROPYLAMINE	27	UG/KG	50	27	U	076SB-0103M-0001-SO	27	50	27		N/A	Yes
076SB-0102M-0001-SO	N-NITROSODIPHENYLAMINE	27	UG/KG	50	27	R	076SB-0103M-0001-SO	27	50	27		N/A	N/A
076SB-0102M-0001-SO	PENTACHLOROPHENOL	81	UG/KG	150	81	U	076SB-0103M-0001-SO	80	150	80		N/A	Yes
076SB-0102M-0001-SO	PHENANTHRENE	3.3	UG/KG	6.7	3.3	U	076SB-0103M-0001-SO	3.7	6.6	3.3	J	N/A	Yes
076SB-0102M-0001-SO	PHENOL	27	UG/KG	50	27	U	076SB-0103M-0001-SO	27	50	27		N/A	Yes
076SB-0102M-0001-SO	PYRENE	3.3	UG/KG	6.7	3.3	U	076SB-0103M-0001-SO	3.3	6.6	3.3		N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
076SB-0102M-0001-SO	1,3,5-TRINITROBENZENE	0.05	MG/KG	0.25	0.05	U	076SB-0103M-0001-SO	0.05	0.25	0.05		N/A	Yes
076SB-0102M-0001-SO	1,3-DINITROBENZENE	0.05	MG/KG	0.25	0.05	U	076SB-0103M-0001-SO	0.05	0.25	0.05		N/A	Yes
076SB-0102M-0001-SO	2,4,6-TRINITROTOLUENE	0.05	MG/KG	0.25	0.05	U	076SB-0103M-0001-SO	0.05	0.25	0.05		N/A	Yes
076SB-0102M-0001-SO	2,4-DINITROTOLUENE	0.05	MG/KG	0.25	0.05	R	076SB-0103M-0001-SO	0.05	0.25	0.05		N/A	N/A
076SB-0102M-0001-SO	2,6-DINITROTOLUENE	0.05	MG/KG	0.25	0.05	R	076SB-0103M-0001-SO	0.05	0.25	0.05		N/A	N/A
076SB-0102M-0001-SO	2-AMINO-4,6-DINITROTOLUENE	0.05	MG/KG	0.25	0.05	U	076SB-0103M-0001-SO	0.05	0.25	0.05		N/A	Yes
076SB-0102M-0001-SO	2-NITROTOLUENE	0.05	MG/KG	0.25	0.05	UJ	076SB-0103M-0001-SO	0.05	0.25	0.05		N/A	Yes
076SB-0102M-0001-SO	3-NITROTOLUENE	0.05	MG/KG	0.25	0.05	U	076SB-0103M-0001-SO	0.05	0.25	0.05		N/A	Yes
076SB-0102M-0001-SO	4-AMINO-2,6-DINITROTOLUENE	0.05	MG/KG	0.25	0.05	U	076SB-0103M-0001-SO	0.05	0.25	0.05		N/A	Yes
076SB-0102M-0001-SO	4-NITROTOLUENE	0.05	MG/KG	0.25	0.05	U	076SB-0103M-0001-SO	0.05	0.25	0.05		N/A	Yes
076SB-0102M-0001-SO	HMX	0.05	MG/KG	0.25	0.05	U	076SB-0103M-0001-SO	0.05	0.25	0.05		N/A	Yes
076SB-0102M-0001-SO	NITROBENZENE	0.05	MG/KG	0.25	0.05	R	076SB-0103M-0001-SO	0.05	0.25	0.05		N/A	N/A
076SB-0102M-0001-SO	NITROGLYCERIN	0.25	MG/KG	0.5	0.25	U	076SB-0103M-0001-SO	0.25	0.5	0.25		N/A	Yes
076SB-0102M-0001-SO	NITROGUANIDINE	0.039	MG/KG	0.24	0.039	U	076SB-0103M-0001-SO	0.04	0.25	0.04		N/A	Yes
076SB-0102M-0001-SO	PETN	0.25	MG/KG	0.5	0.25	U	076SB-0103M-0001-SO	0.25	0.5	0.25		N/A	Yes
076SB-0102M-0001-SO	RDX	0.05	MG/KG	0.25	0.05	UJ	076SB-0103M-0001-SO	0.05	0.25	0.05		N/A	Yes
076SB-0102M-0001-SO	TETRYL	0.05	MG/KG	0.25	0.05	U	076SB-0103M-0001-SO	0.05	0.25	0.05		N/A	Yes
076SB-0104M-0001-SO	NITROCELLULOSE	9.2	MG/KG	49	18	J	076SB-0105M-0001-SO	9	50	18	J	N/A	Yes
076SB-0104M-0001-SO	ALUMINUM	11000	MG/KG	2.5	0.51		076SB-0105M-0001-SO	11000	2.3	0.46		0	N/A
076SB-0104M-0001-SO	ANTIMONY	0.085	MG/KG	0.17	0.085	J	076SB-0105M-0001-SO	0.086	0.15	0.077	J	N/A	Yes
076SB-0104M-0001-SO	ARSENIC	14	MG/KG	0.085	0.042		076SB-0105M-0001-SO	14	0.077	0.038		0	N/A
076SB-0104M-0001-SO	BARIUM	52	MG/KG	0.85	0.017		076SB-0105M-0001-SO	50	0.77	0.015		4	N/A
076SB-0104M-0001-SO	BERYLLIUM	0.63	MG/KG	0.085	0.0085		076SB-0105M-0001-SO	0.65	0.077	0.0077		3	N/A
076SB-0104M-0001-SO	CADMIUM	0.17	MG/KG	0.085	0.025		076SB-0105M-0001-SO	0.17	0.077	0.023		N/A	Yes
076SB-0104M-0001-SO	CALCIUM	1100	MG/KG	8.5	2.1		076SB-0105M-0001-SO	1000	7.7	1.9		10	N/A
076SB-0104M-0001-SO	CHROMIUM	16	MG/KG	0.17	0.034		076SB-0105M-0001-SO	17	0.15	0.031		6	N/A
076SB-0104M-0001-SO	COBALT	9.5	MG/KG	0.042	0.0085		076SB-0105M-0001-SO	10	0.038	0.0077		5	N/A
076SB-0104M-0001-SO	COPPER	15	MG/KG	0.17	0.051		076SB-0105M-0001-SO	15	0.15	0.046		0	N/A
076SB-0104M-0001-SO	IRON	27000	MG/KG	4.2	1.7		076SB-0105M-0001-SO	27000	3.8	1.5		0	N/A
076SB-0104M-0001-SO	LEAD	11	MG/KG	0.085	0.025		076SB-0105M-0001-SO	11	0.077	0.023		0	N/A
076SB-0104M-0001-SO	MAGNESIUM	3300	MG/KG	8.5	1.7		076SB-0105M-0001-SO	3300	7.7	1.5		0	N/A
076SB-0104M-0001-SO	MANGANESE	280	MG/KG	0.42	0.025		076SB-0105M-0001-SO	320	0.38	0.023		13	N/A
076SB-0104M-0001-SO	NICKEL	24	MG/KG	0.085	0.025		076SB-0105M-0001-SO	24	0.077	0.023		0	N/A
076SB-0104M-0001-SO	POTASSIUM	1000	MG/KG	8.5	5.1		076SB-0105M-0001-SO	1100	7.7	4.6		10	N/A
076SB-0104M-0001-SO	SELENIUM	0.34	MG/KG	0.42	0.085	J	076SB-0105M-0001-SO	0.32	0.38	0.077	J	N/A	Yes
076SB-0104M-0001-SO	SILVER	0.027	MG/KG	0.085	0.025	J	076SB-0105M-0001-SO	0.025	0.077	0.023	J	N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
076SB-0104M-0001-SO	SODIUM	44	MG/KG	8.5	4.2		076SB-0105M-0001-SO	47	7.7	3.8		7	N/A
076SB-0104M-0001-SO	THALLIUM	0.14	MG/KG	0.085	0.017		076SB-0105M-0001-SO	0.14	0.077	0.015		N/A	Yes
076SB-0104M-0001-SO	VANADIUM	17	MG/KG	0.085	0.051		076SB-0105M-0001-SO	18	0.077	0.046		6	N/A
076SB-0104M-0001-SO	ZINC	54	MG/KG	0.42	0.17		076SB-0105M-0001-SO	55	0.38	0.15		2	N/A
076SB-0104M-0001-SO	MERCURY	0.03	MG/KG	0.097	0.032	J	076SB-0105M-0001-SO	0.03	0.09	0.03	J	N/A	Yes
076SB-0104M-0001-SO	AROCLOR 1016	25	UG/KG	66	25		076SB-0105M-0001-SO	25	66	25		N/A	Yes
076SB-0104M-0001-SO	AROCLOR 1221	25	UG/KG	51	25		076SB-0105M-0001-SO	25	51	25		N/A	Yes
076SB-0104M-0001-SO	AROCLOR 1232	25	UG/KG	46	25		076SB-0105M-0001-SO	25	46	25		N/A	Yes
076SB-0104M-0001-SO	AROCLOR 1242	25	UG/KG	40	25		076SB-0105M-0001-SO	25	40	25		N/A	Yes
076SB-0104M-0001-SO	AROCLOR 1248	25	UG/KG	56	25		076SB-0105M-0001-SO	25	56	25		N/A	Yes
076SB-0104M-0001-SO	AROCLOR 1254	25	UG/KG	56	25		076SB-0105M-0001-SO	25	56	25		N/A	Yes
076SB-0104M-0001-SO	AROCLOR 1260	25	UG/KG	56	25		076SB-0105M-0001-SO	25	56	25		N/A	Yes
076SB-0104M-0001-SO	1,1,1-TRICHLOROETHANE	0.95	UG/KG	4.7	0.95		076SB-0105M-0001-SO	1.2	5.8	1.2		N/A	Yes
076SB-0104M-0001-SO	1,1,2,2-TETRACHLOROETHANE	0.47	UG/KG	4.7	0.47		076SB-0105M-0001-SO	0.58	5.8	0.58		N/A	Yes
076SB-0104M-0001-SO	1,1,2-TRICHLOROETHANE	0.47	UG/KG	4.7	0.47		076SB-0105M-0001-SO	0.58	5.8	0.58		N/A	Yes
076SB-0104M-0001-SO	1,1-DICHLOROETHANE	0.47	UG/KG	4.7	0.47		076SB-0105M-0001-SO	0.58	5.8	0.58		N/A	Yes
076SB-0104M-0001-SO	1,1-DICHLOROETHENE	0.95	UG/KG	4.7	0.95		076SB-0105M-0001-SO	1.2	5.8	1.2		N/A	Yes
076SB-0104M-0001-SO	1,2-DIBROMOETHANE	0.95	UG/KG	4.7	0.95		076SB-0105M-0001-SO	1.2	5.8	1.2		N/A	Yes
076SB-0104M-0001-SO	1,2-DICHLOROETHANE	0.47	UG/KG	4.7	0.47		076SB-0105M-0001-SO	0.58	5.8	0.58		N/A	Yes
076SB-0104M-0001-SO	1,2-DICHLOROPROPANE	0.95	UG/KG	4.7	0.95		076SB-0105M-0001-SO	1.2	5.8	1.2		N/A	Yes
076SB-0104M-0001-SO	2-HEXANONE	0.95	UG/KG	19	0.95		076SB-0105M-0001-SO	1.2	23	1.2		N/A	Yes
076SB-0104M-0001-SO	ACETONE	6	UG/KG	19	6		076SB-0105M-0001-SO	7.2	23	7.2		N/A	Yes
076SB-0104M-0001-SO	BENZENE	0.47	UG/KG	4.7	0.47		076SB-0105M-0001-SO	0.58	5.8	0.58		N/A	Yes
076SB-0104M-0001-SO	BROMOCHLOROMETHANE	0.95	UG/KG	4.7	0.95		076SB-0105M-0001-SO	1.2	5.8	1.2		N/A	Yes
076SB-0104M-0001-SO	BROMODICHLOROMETHANE	0.47	UG/KG	4.7	0.47		076SB-0105M-0001-SO	0.58	5.8	0.58		N/A	Yes
076SB-0104M-0001-SO	BROMOFORM	0.47	UG/KG	4.7	0.47		076SB-0105M-0001-SO	0.58	5.8	0.58		N/A	Yes
076SB-0104M-0001-SO	BROMOMETHANE	0.95	UG/KG	4.7	0.95		076SB-0105M-0001-SO	1.2	5.8	1.2		N/A	Yes
076SB-0104M-0001-SO	CARBON DISULFIDE	0.47	UG/KG	4.7	0.47		076SB-0105M-0001-SO	0.58	5.8	0.58		N/A	Yes
076SB-0104M-0001-SO	CARBON TETRACHLORIDE	0.47	UG/KG	4.7	0.47		076SB-0105M-0001-SO	0.58	5.8	0.58		N/A	Yes
076SB-0104M-0001-SO	CHLOROBENZENE	0.47	UG/KG	4.7	0.47		076SB-0105M-0001-SO	0.58	5.8	0.58		N/A	Yes
076SB-0104M-0001-SO	CHLOROETHANE	0.95	UG/KG	4.7	0.95		076SB-0105M-0001-SO	1.2	5.8	1.2		N/A	Yes
076SB-0104M-0001-SO	CHLOROFORM	0.47	UG/KG	4.7	0.47		076SB-0105M-0001-SO	0.58	5.8	0.58		N/A	Yes
076SB-0104M-0001-SO	CHLOROMETHANE	0.47	UG/KG	4.7	0.47		076SB-0105M-0001-SO	0.58	5.8	0.58		N/A	Yes
076SB-0104M-0001-SO	CIS-1,3-DICHLOROPROPENE	0.47	UG/KG	4.7	0.47		076SB-0105M-0001-SO	0.58	5.8	0.58		N/A	Yes
076SB-0104M-0001-SO	DIBROMOCHLOROMETHANE	0.95	UG/KG	4.7	0.95		076SB-0105M-0001-SO	1.2	5.8	1.2		N/A	Yes
076SB-0104M-0001-SO	ETHYLBENZENE	0.47	UG/KG	4.7	0.47		076SB-0105M-0001-SO	0.58	5.8	0.58		N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
076SB-0104M-0001-SO	METHYL ETHYL KETONE	1.9	UG/KG	19	1.9		076SB-0105M-0001-SO	2.3	23	2.3		N/A	Yes
076SB-0104M-0001-SO	METHYL ISOBUTYL KETONE	0.95	UG/KG	19	0.95		076SB-0105M-0001-SO	1.2	23	1.2		N/A	Yes
076SB-0104M-0001-SO	METHYLENE CHLORIDE	0.95	UG/KG	4.7	0.95		076SB-0105M-0001-SO	2.5	5.8	1.2	J	N/A	Yes
076SB-0104M-0001-SO	STYRENE	0.47	UG/KG	4.7	0.47		076SB-0105M-0001-SO	0.58	5.8	0.58		N/A	Yes
076SB-0104M-0001-SO	TETRACHLOROETHYLENE	0.95	UG/KG	4.7	0.95		076SB-0105M-0001-SO	1.2	5.8	1.2		N/A	Yes
076SB-0104M-0001-SO	TOLUENE	1.4	UG/KG	4.7	0.47	J	076SB-0105M-0001-SO	1.5	5.8	0.58	J	N/A	Yes
076SB-0104M-0001-SO	TOTAL 1,2-DICHLOROETHENE	0.95	UG/KG	9.5	0.95		076SB-0105M-0001-SO	1.2	12	1.2		N/A	Yes
076SB-0104M-0001-SO	TRANS-1,3-DICHLOROPROPENE	0.95	UG/KG	4.7	0.95		076SB-0105M-0001-SO	1.2	5.8	1.2		N/A	Yes
076SB-0104M-0001-SO	TRICHLOROETHYLENE	0.47	UG/KG	4.7	0.47		076SB-0105M-0001-SO	0.58	5.8	0.58		N/A	Yes
076SB-0104M-0001-SO	VINYL CHLORIDE	0.47	UG/KG	4.7	0.47		076SB-0105M-0001-SO	0.58	5.8	0.58		N/A	Yes
076SB-0104M-0001-SO	XYLENES, TOTAL	1.4	UG/KG	9.5	1.4		076SB-0105M-0001-SO	1.7	12	1.7		N/A	Yes
076SB-0104M-0001-SO	1,2,4-TRICHLOROBENZENE	27	UG/KG	50	27		076SB-0105M-0001-SO	27	50	27		N/A	Yes
076SB-0104M-0001-SO	1,2-DICHLOROBENZENE	27	UG/KG	50	27		076SB-0105M-0001-SO	27	50	27		N/A	Yes
076SB-0104M-0001-SO	1,3-DICHLOROBENZENE	27	UG/KG	50	27		076SB-0105M-0001-SO	27	50	27		N/A	Yes
076SB-0104M-0001-SO	1,4-DICHLOROBENZENE	27	UG/KG	50	27		076SB-0105M-0001-SO	27	50	27		N/A	Yes
076SB-0104M-0001-SO	2,4,5-TRICHLOROPHENOL	27	UG/KG	150	27		076SB-0105M-0001-SO	27	150	27		N/A	Yes
076SB-0104M-0001-SO	2,4,6-TRICHLOROPHENOL	80	UG/KG	150	80		076SB-0105M-0001-SO	79	150	79		N/A	Yes
076SB-0104M-0001-SO	2,4-DICHLOROPHENOL	27	UG/KG	150	27		076SB-0105M-0001-SO	27	150	27		N/A	Yes
076SB-0104M-0001-SO	2,4-DIMETHYLPHENOL	80	UG/KG	150	80		076SB-0105M-0001-SO	79	150	79		N/A	Yes
076SB-0104M-0001-SO	2,4-DINITROPHENOL	80	UG/KG	330	80		076SB-0105M-0001-SO	79	330	79		N/A	Yes
076SB-0104M-0001-SO	2,4-DINITROTOLUENE	27	UG/KG	200	27		076SB-0105M-0001-SO	27	200	27		N/A	Yes
076SB-0104M-0001-SO	2,6-DINITROTOLUENE	27	UG/KG	200	27		076SB-0105M-0001-SO	27	200	27		N/A	Yes
076SB-0104M-0001-SO	2-CHLORONAPHTHALENE	3.3	UG/KG	50	3.3		076SB-0105M-0001-SO	3.3	50	3.3		N/A	Yes
076SB-0104M-0001-SO	2-CHLOROPHENOL	27	UG/KG	50	27		076SB-0105M-0001-SO	27	50	27		N/A	Yes
076SB-0104M-0001-SO	2-METHYLNAPHTHALENE	4.2	UG/KG	6.7	3.3	J	076SB-0105M-0001-SO	4.7	6.6	3.3	J	N/A	Yes
076SB-0104M-0001-SO	2-METHYLPHENOL	80	UG/KG	200	80		076SB-0105M-0001-SO	79	200	79		N/A	Yes
076SB-0104M-0001-SO	2-NITROANILINE	27	UG/KG	200	27		076SB-0105M-0001-SO	27	200	27		N/A	Yes
076SB-0104M-0001-SO	2-NITROPHENOL	27	UG/KG	50	27		076SB-0105M-0001-SO	27	50	27		N/A	Yes
076SB-0104M-0001-SO	3,3'-DICHLOROBENZIDINE	80	UG/KG	100	80		076SB-0105M-0001-SO	79	99	79		N/A	Yes
076SB-0104M-0001-SO	3-NITROANILINE	80	UG/KG	200	80		076SB-0105M-0001-SO	79	200	79		N/A	Yes
076SB-0104M-0001-SO	4,6-DINITRO-2-METHYLPHENOL	80	UG/KG	150	80		076SB-0105M-0001-SO	79	150	79		N/A	Yes
076SB-0104M-0001-SO	4-BROMOPHENYL PHENYL ETHER	27	UG/KG	50	27		076SB-0105M-0001-SO	27	50	27		N/A	Yes
076SB-0104M-0001-SO	4-CHLORO-3-METHYLPHENOL	27	UG/KG	150	27		076SB-0105M-0001-SO	27	150	27		N/A	Yes
076SB-0104M-0001-SO	4-CHLOROANILINE	27	UG/KG	150	27		076SB-0105M-0001-SO	27	150	27		N/A	Yes
076SB-0104M-0001-SO	4-CHLOROPHENYL PHENYL ETHER	27	UG/KG	50	27		076SB-0105M-0001-SO	27	50	27		N/A	Yes
076SB-0104M-0001-SO	4-NITROANILINE	27	UG/KG	200	27		076SB-0105M-0001-SO	27	200	27		N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
076SB-0104M-0001-SO	4-NITROPHENOL	80	UG/KG	330	80		076SB-0105M-0001-SO	79	330	79		N/A	Yes
076SB-0104M-0001-SO	ACENAPHTHENE	3.3	UG/KG	6.7	3.3		076SB-0105M-0001-SO	3.3	6.6	3.3		N/A	Yes
076SB-0104M-0001-SO	ACENAPHTHYLENE	3.3	UG/KG	6.7	3.3		076SB-0105M-0001-SO	3.3	6.6	3.3		N/A	Yes
076SB-0104M-0001-SO	ANTHRACENE	3.3	UG/KG	6.7	3.3		076SB-0105M-0001-SO	3.3	6.6	3.3		N/A	Yes
076SB-0104M-0001-SO	BENZO(A)ANTHRACENE	3.3	UG/KG	6.7	3.3		076SB-0105M-0001-SO	3.3	6.6	3.3		N/A	Yes
076SB-0104M-0001-SO	BENZO(A)PYRENE	3.3	UG/KG	6.7	3.3		076SB-0105M-0001-SO	3.3	6.6	3.3		N/A	Yes
076SB-0104M-0001-SO	BENZO(B)FLUORANTHENE	3.3	UG/KG	6.7	3.3		076SB-0105M-0001-SO	3.3	6.6	3.3		N/A	Yes
076SB-0104M-0001-SO	BENZO(G,H,I)PERYLENE	3.3	UG/KG	6.7	3.3		076SB-0105M-0001-SO	3.3	6.6	3.3		N/A	Yes
076SB-0104M-0001-SO	BENZO(K)FLUORANTHENE	3.3	UG/KG	6.7	3.3		076SB-0105M-0001-SO	3.3	6.6	3.3		N/A	Yes
076SB-0104M-0001-SO	BENZOIC ACID	330	UG/KG	660	330		076SB-0105M-0001-SO	330	650	330		N/A	Yes
076SB-0104M-0001-SO	BENZYL ALCOHOL	27	UG/KG	330	27		076SB-0105M-0001-SO	27	330	27		N/A	Yes
076SB-0104M-0001-SO	BENZYL BUTYL PHTHALATE	27	UG/KG	50	27		076SB-0105M-0001-SO	27	50	27		N/A	Yes
076SB-0104M-0001-SO	BIS(2-CHLOROETHOXY) METHANE	27	UG/KG	100	27		076SB-0105M-0001-SO	27	99	27		N/A	Yes
076SB-0104M-0001-SO	BIS(2-CHLOROETHYL) ETHER	3.3	UG/KG	100	3.3		076SB-0105M-0001-SO	3.3	99	3.3		N/A	Yes
076SB-0104M-0001-SO	BIS(2-CHLOROISOPROPYL) ETHER	27	UG/KG	100	27		076SB-0105M-0001-SO	27	99	27		N/A	Yes
076SB-0104M-0001-SO	BIS(2-ETHYLHEXYL) PHTHALATE	22	UG/KG	50	27	J	076SB-0105M-0001-SO	26	50	27	J	N/A	Yes
076SB-0104M-0001-SO	CARBAZOLE	27	UG/KG	50	27		076SB-0105M-0001-SO	27	50	27		N/A	Yes
076SB-0104M-0001-SO	CHRYSENE	3.3	UG/KG	6.7	3.3		076SB-0105M-0001-SO	3.3	6.6	3.3		N/A	Yes
076SB-0104M-0001-SO	CRESOLS, M & P	80	UG/KG	400	80		076SB-0105M-0001-SO	79	400	79		N/A	Yes
076SB-0104M-0001-SO	DIBENZ(A,H)ANTHRACENE	3.3	UG/KG	6.7	3.3		076SB-0105M-0001-SO	3.3	6.6	3.3		N/A	Yes
076SB-0104M-0001-SO	DIBENZOFURAN	3.3	UG/KG	50	3.3		076SB-0105M-0001-SO	3.3	50	3.3		N/A	Yes
076SB-0104M-0001-SO	DIETHYL PHTHALATE	27	UG/KG	50	27		076SB-0105M-0001-SO	27	50	27		N/A	Yes
076SB-0104M-0001-SO	DIMETHYL PHTHALATE	27	UG/KG	50	27		076SB-0105M-0001-SO	27	50	27		N/A	Yes
076SB-0104M-0001-SO	DI-N-BUTYL PHTHALATE	27	UG/KG	50	27		076SB-0105M-0001-SO	27	50	27		N/A	Yes
076SB-0104M-0001-SO	DI-N-OCTYLPHTHALATE	27	UG/KG	50	27		076SB-0105M-0001-SO	27	50	27		N/A	Yes
076SB-0104M-0001-SO	FLUORANTHENE	3.3	UG/KG	6.7	3.3		076SB-0105M-0001-SO	3.3	6.6	3.3		N/A	Yes
076SB-0104M-0001-SO	FLUORENE	3.3	UG/KG	6.7	3.3		076SB-0105M-0001-SO	3.3	6.6	3.3		N/A	Yes
076SB-0104M-0001-SO	HEXACHLOROBENZENE	3.3	UG/KG	6.7	3.3		076SB-0105M-0001-SO	3.3	6.6	3.3		N/A	Yes
076SB-0104M-0001-SO	HEXACHLOROBUTADIENE	27	UG/KG	50	27		076SB-0105M-0001-SO	27	50	27		N/A	Yes
076SB-0104M-0001-SO	HEXACHLOROCYCLOPENTADIENE	27	UG/KG	330	27		076SB-0105M-0001-SO	27	330	27		N/A	Yes
076SB-0104M-0001-SO	HEXACHLOROETHANE	27	UG/KG	50	27		076SB-0105M-0001-SO	27	50	27		N/A	Yes
076SB-0104M-0001-SO	INDENO(1,2,3-C,D)PYRENE	3.3	UG/KG	6.7	3.3		076SB-0105M-0001-SO	3.3	6.6	3.3		N/A	Yes
076SB-0104M-0001-SO	ISOPHORONE	27	UG/KG	50	27		076SB-0105M-0001-SO	27	50	27		N/A	Yes
076SB-0104M-0001-SO	NAPHTHALENE	3.3	UG/KG	6.7	3.3		076SB-0105M-0001-SO	6.3	6.6	3.3	J	N/A	Yes
076SB-0104M-0001-SO	NITROBENZENE	3.3	UG/KG	100	3.3		076SB-0105M-0001-SO	3.3	99	3.3		N/A	Yes
076SB-0104M-0001-SO	N-NITROSODI-N-PROPYLAMINE	27	UG/KG	50	27		076SB-0105M-0001-SO	27	50	27		N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
076SB-0104M-0001-SO	N-NITROSODIPHENYLAMINE	27	UG/KG	50	27		076SB-0105M-0001-SO	27	50	27		N/A	Yes
076SB-0104M-0001-SO	PENTACHLOROPHENOL	80	UG/KG	150	80		076SB-0105M-0001-SO	79	150	79		N/A	Yes
076SB-0104M-0001-SO	PHENANTHRENE	4.1	UG/KG	6.7	3.3	J	076SB-0105M-0001-SO	3.3	6.6	3.3		N/A	Yes
076SB-0104M-0001-SO	PHENOL	27	UG/KG	50	27		076SB-0105M-0001-SO	27	50	27		N/A	Yes
076SB-0104M-0001-SO	PYRENE	3.3	UG/KG	6.7	3.3		076SB-0105M-0001-SO	3.3	6.6	3.3		N/A	Yes
076SB-0104M-0001-SO	1,3,5-TRINITROBENZENE	0.05	MG/KG	0.25	0.05		076SB-0105M-0001-SO	0.05	0.25	0.05		N/A	Yes
076SB-0104M-0001-SO	1,3-DINITROBENZENE	0.05	MG/KG	0.25	0.05		076SB-0105M-0001-SO	0.05	0.25	0.05		N/A	Yes
076SB-0104M-0001-SO	2,4,6-TRINITROTOLUENE	0.05	MG/KG	0.25	0.05		076SB-0105M-0001-SO	0.05	0.25	0.05		N/A	Yes
076SB-0104M-0001-SO	2,4-DINITROTOLUENE	0.05	MG/KG	0.25	0.05		076SB-0105M-0001-SO	0.05	0.25	0.05		N/A	Yes
076SB-0104M-0001-SO	2,6-DINITROTOLUENE	0.05	MG/KG	0.25	0.05		076SB-0105M-0001-SO	0.05	0.25	0.05		N/A	Yes
076SB-0104M-0001-SO	2-AMINO-4,6-DINITROTOLUENE	0.05	MG/KG	0.25	0.05		076SB-0105M-0001-SO	0.05	0.25	0.05		N/A	Yes
076SB-0104M-0001-SO	2-NITROTOLUENE	0.05	MG/KG	0.25	0.05		076SB-0105M-0001-SO	0.05	0.25	0.05		N/A	Yes
076SB-0104M-0001-SO	3-NITROTOLUENE	0.05	MG/KG	0.25	0.05		076SB-0105M-0001-SO	0.05	0.25	0.05		N/A	Yes
076SB-0104M-0001-SO	4-AMINO-2,6-DINITROTOLUENE	0.05	MG/KG	0.25	0.05		076SB-0105M-0001-SO	0.05	0.25	0.05		N/A	Yes
076SB-0104M-0001-SO	4-NITROTOLUENE	0.05	MG/KG	0.25	0.05		076SB-0105M-0001-SO	0.05	0.25	0.05		N/A	Yes
076SB-0104M-0001-SO	HMX	0.05	MG/KG	0.25	0.05		076SB-0105M-0001-SO	0.05	0.25	0.05		N/A	Yes
076SB-0104M-0001-SO	NITROBENZENE	0.05	MG/KG	0.25	0.05		076SB-0105M-0001-SO	0.05	0.25	0.05		N/A	Yes
076SB-0104M-0001-SO	NITROGLYCERIN	0.25	MG/KG	0.5	0.25		076SB-0105M-0001-SO	0.25	0.5	0.25		N/A	Yes
076SB-0104M-0001-SO	NITROGUANIDINE	0.039	MG/KG	0.25	0.039		076SB-0105M-0001-SO	0.04	0.25	0.04		N/A	Yes
076SB-0104M-0001-SO	PETN	0.25	MG/KG	0.5	0.25		076SB-0105M-0001-SO	0.25	0.5	0.25		N/A	Yes
076SB-0104M-0001-SO	RDX	0.05	MG/KG	0.25	0.05		076SB-0105M-0001-SO	0.05	0.25	0.05		N/A	Yes
076SB-0104M-0001-SO	TETRYL	0.05	MG/KG	0.25	0.05		076SB-0105M-0001-SO	0.05	0.25	0.05		N/A	Yes
076SB-0106M-0001-SO	NITROCELLULOSE	8.8	MG/KG	49	18	J	076SB-0107M-0001-SO	9.2	47	17	J	N/A	Yes
076SB-0106M-0001-SO	ALUMINUM	6100	MG/KG	2.4	0.48		076SB-0107M-0001-SO	7500	2.2	0.44		21	N/A
076SB-0106M-0001-SO	ANTIMONY	0.13	MG/KG	0.16	0.079	J	076SB-0107M-0001-SO	0.14	0.15	0.074	J	N/A	Yes
076SB-0106M-0001-SO	ARSENIC	13	MG/KG	0.079	0.04		076SB-0107M-0001-SO	15	0.074	0.037		14	N/A
076SB-0106M-0001-SO	BARIUM	29	MG/KG	0.79	0.016		076SB-0107M-0001-SO	30	0.74	0.015		3	N/A
076SB-0106M-0001-SO	BERYLLIUM	0.42	MG/KG	0.079	0.0079		076SB-0107M-0001-SO	0.45	0.074	0.0074		7	N/A
076SB-0106M-0001-SO	CADMIUM	0.16	MG/KG	0.079	0.024		076SB-0107M-0001-SO	0.15	0.074	0.022		N/A	Yes
076SB-0106M-0001-SO	CALCIUM	1200	MG/KG	7.9	2		076SB-0107M-0001-SO	1100	7.4	1.9		9	N/A
076SB-0106M-0001-SO	CHROMIUM	16	MG/KG	0.16	0.032		076SB-0107M-0001-SO	16	0.15	0.03		0	N/A
076SB-0106M-0001-SO	COBALT	7.9	MG/KG	0.04	0.0079		076SB-0107M-0001-SO	7.9	0.037	0.0074		0	N/A
076SB-0106M-0001-SO	COPPER	16	MG/KG	0.16	0.048		076SB-0107M-0001-SO	17	0.15	0.044		6	N/A
076SB-0106M-0001-SO	IRON	22000	MG/KG	4	1.6		076SB-0107M-0001-SO	22000	3.7	1.5		0	N/A
076SB-0106M-0001-SO	LEAD	15	MG/KG	0.079	0.024		076SB-0107M-0001-SO	12	0.074	0.022		22	N/A
076SB-0106M-0001-SO	MAGNESIUM	1700	MG/KG	7.9	1.6		076SB-0107M-0001-SO	1900	7.4	1.5		11	N/A

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
076SB-0106M-0001-SO	MANGANESE	370	MG/KG	0.4	0.024		076SB-0107M-0001-SO	320	0.37	0.022		14	N/A
076SB-0106M-0001-SO	NICKEL	21	MG/KG	0.079	0.024		076SB-0107M-0001-SO	21	0.074	0.022		0	N/A
076SB-0106M-0001-SO	POTASSIUM	740	MG/KG	7.9	4.8		076SB-0107M-0001-SO	950	7.4	4.4		25	N/A
076SB-0106M-0001-SO	SELENIUM	0.19	MG/KG	0.4	0.079	J	076SB-0107M-0001-SO	0.48	0.37	0.074		N/A	Yes
076SB-0106M-0001-SO	SILVER	0.022	MG/KG	0.079	0.024	J	076SB-0107M-0001-SO	0.02	0.074	0.022	J	N/A	Yes
076SB-0106M-0001-SO	SODIUM	23	MG/KG	7.9	4		076SB-0107M-0001-SO	28	7.4	3.7		N/A	Yes
076SB-0106M-0001-SO	THALLIUM	0.11	MG/KG	0.079	0.016		076SB-0107M-0001-SO	0.14	0.074	0.015		N/A	Yes
076SB-0106M-0001-SO	VANADIUM	11	MG/KG	0.079	0.048		076SB-0107M-0001-SO	13	0.074	0.044		17	N/A
076SB-0106M-0001-SO	ZINC	56	MG/KG	0.4	0.16		076SB-0107M-0001-SO	60	0.37	0.15		7	N/A
076SB-0106M-0001-SO	MERCURY	0.026	MG/KG	0.11	0.037	J	076SB-0107M-0001-SO	0.025	0.09	0.03	J	N/A	Yes
076SB-0106M-0001-SO	AROCLOR 1016	25	UG/KG	65	25		076SB-0107M-0001-SO	25	65	25		N/A	Yes
076SB-0106M-0001-SO	AROCLOR 1221	25	UG/KG	50	25		076SB-0107M-0001-SO	25	50	25		N/A	Yes
076SB-0106M-0001-SO	AROCLOR 1232	25	UG/KG	45	25		076SB-0107M-0001-SO	25	45	25		N/A	Yes
076SB-0106M-0001-SO	AROCLOR 1242	25	UG/KG	40	25		076SB-0107M-0001-SO	25	40	25		N/A	Yes
076SB-0106M-0001-SO	AROCLOR 1248	25	UG/KG	55	25		076SB-0107M-0001-SO	25	55	25		N/A	Yes
076SB-0106M-0001-SO	AROCLOR 1254	25	UG/KG	55	25		076SB-0107M-0001-SO	25	55	25		N/A	Yes
076SB-0106M-0001-SO	AROCLOR 1260	25	UG/KG	55	25		076SB-0107M-0001-SO	25	55	25		N/A	Yes
076SB-0106M-0001-SO	1,1,1-TRICHLOROETHANE	0.94	UG/KG	4.7	0.94		076SB-0107M-0001-SO	1	5.2	1		N/A	Yes
076SB-0106M-0001-SO	1,1,2,2-TETRACHLOROETHANE	0.47	UG/KG	4.7	0.47		076SB-0107M-0001-SO	0.52	5.2	0.52		N/A	Yes
076SB-0106M-0001-SO	1,1,2-TRICHLOROETHANE	0.47	UG/KG	4.7	0.47		076SB-0107M-0001-SO	0.52	5.2	0.52		N/A	Yes
076SB-0106M-0001-SO	1,1-DICHLOROETHANE	0.47	UG/KG	4.7	0.47		076SB-0107M-0001-SO	0.52	5.2	0.52		N/A	Yes
076SB-0106M-0001-SO	1,1-DICHLOROETHENE	0.94	UG/KG	4.7	0.94		076SB-0107M-0001-SO	1	5.2	1		N/A	Yes
076SB-0106M-0001-SO	1,2-DIBROMOETHANE	0.94	UG/KG	4.7	0.94		076SB-0107M-0001-SO	1	5.2	1		N/A	Yes
076SB-0106M-0001-SO	1,2-DICHLOROETHANE	0.47	UG/KG	4.7	0.47		076SB-0107M-0001-SO	0.52	5.2	0.52		N/A	Yes
076SB-0106M-0001-SO	1,2-DICHLOROPROPANE	0.94	UG/KG	4.7	0.94		076SB-0107M-0001-SO	1	5.2	1		N/A	Yes
076SB-0106M-0001-SO	2-HEXANONE	0.94	UG/KG	19	0.94		076SB-0107M-0001-SO	1	21	1		N/A	Yes
076SB-0106M-0001-SO	ACETONE	5.9	UG/KG	19	5.9		076SB-0107M-0001-SO	6.5	21	6.5		N/A	Yes
076SB-0106M-0001-SO	BENZENE	0.47	UG/KG	4.7	0.47		076SB-0107M-0001-SO	0.52	5.2	0.52		N/A	Yes
076SB-0106M-0001-SO	BROMOCHLOROMETHANE	0.94	UG/KG	4.7	0.94		076SB-0107M-0001-SO	1	5.2	1		N/A	Yes
076SB-0106M-0001-SO	BROMODICHLOROMETHANE	0.47	UG/KG	4.7	0.47		076SB-0107M-0001-SO	0.52	5.2	0.52		N/A	Yes
076SB-0106M-0001-SO	BROMOFORM	0.47	UG/KG	4.7	0.47		076SB-0107M-0001-SO	0.52	5.2	0.52		N/A	Yes
076SB-0106M-0001-SO	BROMOMETHANE	0.94	UG/KG	4.7	0.94		076SB-0107M-0001-SO	1	5.2	1		N/A	Yes
076SB-0106M-0001-SO	CARBON DISULFIDE	0.47	UG/KG	4.7	0.47		076SB-0107M-0001-SO	0.52	5.2	0.52		N/A	Yes
076SB-0106M-0001-SO	CARBON TETRACHLORIDE	0.47	UG/KG	4.7	0.47		076SB-0107M-0001-SO	0.52	5.2	0.52		N/A	Yes
076SB-0106M-0001-SO	CHLOROBENZENE	0.47	UG/KG	4.7	0.47		076SB-0107M-0001-SO	0.52	5.2	0.52		N/A	Yes
076SB-0106M-0001-SO	CHLOROETHANE	0.94	UG/KG	4.7	0.94		076SB-0107M-0001-SO	1	5.2	1		N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
076SB-0106M-0001-SO	CHLOROFORM	0.47	UG/KG	4.7	0.47		076SB-0107M-0001-SO	0.52	5.2	0.52		N/A	Yes
076SB-0106M-0001-SO	CHLOROMETHANE	0.47	UG/KG	4.7	0.47		076SB-0107M-0001-SO	0.52	5.2	0.52		N/A	Yes
076SB-0106M-0001-SO	CIS-1,3-DICHLOROPROPENE	0.47	UG/KG	4.7	0.47		076SB-0107M-0001-SO	0.52	5.2	0.52		N/A	Yes
076SB-0106M-0001-SO	DIBROMOCHLOROMETHANE	0.94	UG/KG	4.7	0.94		076SB-0107M-0001-SO	1	5.2	1		N/A	Yes
076SB-0106M-0001-SO	ETHYLBENZENE	0.47	UG/KG	4.7	0.47		076SB-0107M-0001-SO	0.52	5.2	0.52		N/A	Yes
076SB-0106M-0001-SO	METHYL ETHYL KETONE	1.9	UG/KG	19	1.9		076SB-0107M-0001-SO	2.1	21	2.1		N/A	Yes
076SB-0106M-0001-SO	METHYL ISOBUTYL KETONE	0.94	UG/KG	19	0.94		076SB-0107M-0001-SO	1	21	1		N/A	Yes
076SB-0106M-0001-SO	METHYLENE CHLORIDE	0.94	UG/KG	4.7	0.94		076SB-0107M-0001-SO	1	5.2	1		N/A	Yes
076SB-0106M-0001-SO	STYRENE	0.47	UG/KG	4.7	0.47		076SB-0107M-0001-SO	0.52	5.2	0.52		N/A	Yes
076SB-0106M-0001-SO	TETRACHLOROETHYLENE	0.94	UG/KG	4.7	0.94		076SB-0107M-0001-SO	1	5.2	1		N/A	Yes
076SB-0106M-0001-SO	TOLUENE	0.97	UG/KG	4.7	0.47	J	076SB-0107M-0001-SO	1	5.2	0.52	J	N/A	Yes
076SB-0106M-0001-SO	TOTAL 1,2-DICHLOROETHENE	0.94	UG/KG	9.4	0.94		076SB-0107M-0001-SO	1	10	1		N/A	Yes
076SB-0106M-0001-SO	TRANS-1,3-DICHLOROPROPENE	0.94	UG/KG	4.7	0.94		076SB-0107M-0001-SO	1	5.2	1		N/A	Yes
076SB-0106M-0001-SO	TRICHLOROETHYLENE	0.47	UG/KG	4.7	0.47		076SB-0107M-0001-SO	0.52	5.2	0.52		N/A	Yes
076SB-0106M-0001-SO	VINYL CHLORIDE	0.47	UG/KG	4.7	0.47		076SB-0107M-0001-SO	0.52	5.2	0.52		N/A	Yes
076SB-0106M-0001-SO	XYLENES, TOTAL	1.4	UG/KG	9.4	1.4		076SB-0107M-0001-SO	1.6	10	1.6		N/A	Yes
076SB-0106M-0001-SO	1,2,4-TRICHLOROBENZENE	27	UG/KG	50	27		076SB-0107M-0001-SO	27	50	27		N/A	Yes
076SB-0106M-0001-SO	1,2-DICHLOROBENZENE	27	UG/KG	50	27		076SB-0107M-0001-SO	27	50	27		N/A	Yes
076SB-0106M-0001-SO	1,3-DICHLOROBENZENE	27	UG/KG	50	27		076SB-0107M-0001-SO	27	50	27		N/A	Yes
076SB-0106M-0001-SO	1,4-DICHLOROBENZENE	27	UG/KG	50	27		076SB-0107M-0001-SO	27	50	27		N/A	Yes
076SB-0106M-0001-SO	2,4,5-TRICHLOROPHENOL	27	UG/KG	150	27		076SB-0107M-0001-SO	27	150	27		N/A	Yes
076SB-0106M-0001-SO	2,4,6-TRICHLOROPHENOL	79	UG/KG	150	79		076SB-0107M-0001-SO	80	150	80		N/A	Yes
076SB-0106M-0001-SO	2,4-DICHLOROPHENOL	27	UG/KG	150	27		076SB-0107M-0001-SO	27	150	27		N/A	Yes
076SB-0106M-0001-SO	2,4-DIMETHYLPHENOL	79	UG/KG	150	79		076SB-0107M-0001-SO	80	150	80		N/A	Yes
076SB-0106M-0001-SO	2,4-DINITROPHENOL	79	UG/KG	330	79		076SB-0107M-0001-SO	80	330	80		N/A	Yes
076SB-0106M-0001-SO	2,4-DINITROTOLUENE	27	UG/KG	200	27		076SB-0107M-0001-SO	27	200	27		N/A	Yes
076SB-0106M-0001-SO	2,6-DINITROTOLUENE	27	UG/KG	200	27		076SB-0107M-0001-SO	27	200	27		N/A	Yes
076SB-0106M-0001-SO	2-CHLORONAPHTHALENE	3.3	UG/KG	50	3.3		076SB-0107M-0001-SO	3.3	50	3.3		N/A	Yes
076SB-0106M-0001-SO	2-CHLOROPHENOL	27	UG/KG	50	27		076SB-0107M-0001-SO	27	50	27		N/A	Yes
076SB-0106M-0001-SO	2-METHYLNAPHTHALENE	4.2	UG/KG	6.6	3.3	J	076SB-0107M-0001-SO	4.7	6.7	3.3	J	N/A	Yes
076SB-0106M-0001-SO	2-METHYLPHENOL	79	UG/KG	200	79		076SB-0107M-0001-SO	80	200	80		N/A	Yes
076SB-0106M-0001-SO	2-NITROANILINE	27	UG/KG	200	27		076SB-0107M-0001-SO	27	200	27		N/A	Yes
076SB-0106M-0001-SO	2-NITROPHENOL	27	UG/KG	50	27		076SB-0107M-0001-SO	27	50	27		N/A	Yes
076SB-0106M-0001-SO	3,3'-DICHLOROBENZIDINE	79	UG/KG	99	79		076SB-0107M-0001-SO	80	100	80		N/A	Yes
076SB-0106M-0001-SO	3-NITROANILINE	79	UG/KG	200	79		076SB-0107M-0001-SO	80	200	80		N/A	Yes
076SB-0106M-0001-SO	4,6-DINITRO-2-METHYLPHENOL	79	UG/KG	150	79		076SB-0107M-0001-SO	80	150	80		N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
076SB-0106M-0001-SO	4-BROMOPHENYL PHENYL ETHER	27	UG/KG	50	27		076SB-0107M-0001-SO	27	50	27		N/A	Yes
076SB-0106M-0001-SO	4-CHLORO-3-METHYLPHENOL	27	UG/KG	150	27		076SB-0107M-0001-SO	27	150	27		N/A	Yes
076SB-0106M-0001-SO	4-CHLOROANILINE	27	UG/KG	150	27		076SB-0107M-0001-SO	27	150	27		N/A	Yes
076SB-0106M-0001-SO	4-CHLOROPHENYL PHENYL ETHER	27	UG/KG	50	27		076SB-0107M-0001-SO	27	50	27		N/A	Yes
076SB-0106M-0001-SO	4-NITROANILINE	27	UG/KG	200	27		076SB-0107M-0001-SO	27	200	27		N/A	Yes
076SB-0106M-0001-SO	4-NITROPHENOL	79	UG/KG	330	79		076SB-0107M-0001-SO	80	330	80		N/A	Yes
076SB-0106M-0001-SO	ACENAPHTHENE	3.3	UG/KG	6.6	3.3		076SB-0107M-0001-SO	3.3	6.7	3.3		N/A	Yes
076SB-0106M-0001-SO	ACENAPHTHYLENE	3.3	UG/KG	6.6	3.3		076SB-0107M-0001-SO	3.3	6.7	3.3		N/A	Yes
076SB-0106M-0001-SO	ANTHRACENE	3.3	UG/KG	6.6	3.3		076SB-0107M-0001-SO	3.3	6.7	3.3		N/A	Yes
076SB-0106M-0001-SO	BENZO(A)ANTHRACENE	3.3	UG/KG	6.6	3.3		076SB-0107M-0001-SO	3.3	6.7	3.3		N/A	Yes
076SB-0106M-0001-SO	BENZO(A)PYRENE	3.3	UG/KG	6.6	3.3		076SB-0107M-0001-SO	3.3	6.7	3.3		N/A	Yes
076SB-0106M-0001-SO	BENZO(B)FLUORANTHENE	3.3	UG/KG	6.6	3.3		076SB-0107M-0001-SO	3.3	6.7	3.3		N/A	Yes
076SB-0106M-0001-SO	BENZO(G,H,I)PERYLENE	3.3	UG/KG	6.6	3.3		076SB-0107M-0001-SO	3.3	6.7	3.3		N/A	Yes
076SB-0106M-0001-SO	BENZO(K)FLUORANTHENE	3.3	UG/KG	6.6	3.3		076SB-0107M-0001-SO	3.3	6.7	3.3		N/A	Yes
076SB-0106M-0001-SO	BENZOIC ACID	330	UG/KG	650	330		076SB-0107M-0001-SO	330	660	330		N/A	Yes
076SB-0106M-0001-SO	BENZYL ALCOHOL	27	UG/KG	330	27		076SB-0107M-0001-SO	27	330	27		N/A	Yes
076SB-0106M-0001-SO	BENZYL BUTYL PHTHALATE	27	UG/KG	50	27		076SB-0107M-0001-SO	27	50	27		N/A	Yes
076SB-0106M-0001-SO	BIS(2-CHLOROETHOXY) METHANE	27	UG/KG	99	27		076SB-0107M-0001-SO	27	100	27		N/A	Yes
076SB-0106M-0001-SO	BIS(2-CHLOROETHYL) ETHER	3.3	UG/KG	99	3.3		076SB-0107M-0001-SO	3.3	100	3.3		N/A	Yes
076SB-0106M-0001-SO	BIS(2-CHLOROISOPROPYL) ETHER	27	UG/KG	99	27		076SB-0107M-0001-SO	27	100	27		N/A	Yes
076SB-0106M-0001-SO	BIS(2-ETHYLHEXYL) PHTHALATE	25	UG/KG	50	27	J	076SB-0107M-0001-SO	25	50	27	J	N/A	Yes
076SB-0106M-0001-SO	CARBAZOLE	27	UG/KG	50	27		076SB-0107M-0001-SO	27	50	27		N/A	Yes
076SB-0106M-0001-SO	CHRYSENE	3.3	UG/KG	6.6	3.3		076SB-0107M-0001-SO	3.3	6.7	3.3		N/A	Yes
076SB-0106M-0001-SO	CRESOLS, M & P	79	UG/KG	400	79		076SB-0107M-0001-SO	80	400	80		N/A	Yes
076SB-0106M-0001-SO	DIBENZ(A,H)ANTHRACENE	3.3	UG/KG	6.6	3.3		076SB-0107M-0001-SO	3.3	6.7	3.3		N/A	Yes
076SB-0106M-0001-SO	DIBENZOFURAN	3.3	UG/KG	50	3.3		076SB-0107M-0001-SO	3.3	50	3.3		N/A	Yes
076SB-0106M-0001-SO	DIETHYL PHTHALATE	27	UG/KG	50	27		076SB-0107M-0001-SO	27	50	27		N/A	Yes
076SB-0106M-0001-SO	DIMETHYL PHTHALATE	27	UG/KG	50	27		076SB-0107M-0001-SO	27	50	27		N/A	Yes
076SB-0106M-0001-SO	DI-N-BUTYL PHTHALATE	27	UG/KG	50	27		076SB-0107M-0001-SO	27	50	27		N/A	Yes
076SB-0106M-0001-SO	DI-N-OCTYLPHTHALATE	27	UG/KG	50	27		076SB-0107M-0001-SO	27	50	27		N/A	Yes
076SB-0106M-0001-SO	FLUORANTHENE	3.3	UG/KG	6.6	3.3		076SB-0107M-0001-SO	3.3	6.7	3.3		N/A	Yes
076SB-0106M-0001-SO	FLUORENE	3.3	UG/KG	6.6	3.3		076SB-0107M-0001-SO	3.3	6.7	3.3		N/A	Yes
076SB-0106M-0001-SO	HEXACHLOROBENZENE	3.3	UG/KG	6.6	3.3		076SB-0107M-0001-SO	3.3	6.7	3.3		N/A	Yes
076SB-0106M-0001-SO	HEXACHLOROBUTADIENE	27	UG/KG	50	27		076SB-0107M-0001-SO	27	50	27		N/A	Yes
076SB-0106M-0001-SO	HEXACHLOROCYCLOPENTADIENE	27	UG/KG	330	27		076SB-0107M-0001-SO	27	330	27		N/A	Yes
076SB-0106M-0001-SO	HEXACHLOROETHANE	27	UG/KG	50	27		076SB-0107M-0001-SO	27	50	27		N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
076SB-0106M-0001-SO	INDENO(1,2,3-C,D)PYRENE	3.3	UG/KG	6.6	3.3		076SB-0107M-0001-SO	3.3	6.7	3.3		N/A	Yes
076SB-0106M-0001-SO	ISOPHORONE	33	UG/KG	50	27	J	076SB-0107M-0001-SO	27	50	27		N/A	Yes
076SB-0106M-0001-SO	NAPHTHALENE	4.5	UG/KG	6.6	3.3	J	076SB-0107M-0001-SO	3.3	6.7	3.3		N/A	Yes
076SB-0106M-0001-SO	NITROBENZENE	3.3	UG/KG	99	3.3		076SB-0107M-0001-SO	3.3	100	3.3		N/A	Yes
076SB-0106M-0001-SO	N-NITROSODI-N-PROPYLAMINE	27	UG/KG	50	27		076SB-0107M-0001-SO	27	50	27		N/A	Yes
076SB-0106M-0001-SO	N-NITROSODIPHENYLAMINE	27	UG/KG	50	27		076SB-0107M-0001-SO	27	50	27		N/A	Yes
076SB-0106M-0001-SO	PENTACHLOROPHENOL	79	UG/KG	150	79		076SB-0107M-0001-SO	80	150	80		N/A	Yes
076SB-0106M-0001-SO	PHENANTHRENE	3.3	UG/KG	6.6	3.3		076SB-0107M-0001-SO	3.3	6.7	3.3		N/A	Yes
076SB-0106M-0001-SO	PHENOL	27	UG/KG	50	27		076SB-0107M-0001-SO	27	50	27		N/A	Yes
076SB-0106M-0001-SO	PYRENE	3.3	UG/KG	6.6	3.3		076SB-0107M-0001-SO	3.3	6.7	3.3		N/A	Yes
076SB-0106M-0001-SO	1,3,5-TRINITROBENZENE	0.05	MG/KG	0.25	0.05		076SB-0107M-0001-SO	0.05	0.25	0.05		N/A	Yes
076SB-0106M-0001-SO	1,3-DINITROBENZENE	0.05	MG/KG	0.25	0.05		076SB-0107M-0001-SO	0.05	0.25	0.05		N/A	Yes
076SB-0106M-0001-SO	2,4,6-TRINITROTOLUENE	0.05	MG/KG	0.25	0.05		076SB-0107M-0001-SO	0.05	0.25	0.05		N/A	Yes
076SB-0106M-0001-SO	2,4-DINITROTOLUENE	0.05	MG/KG	0.25	0.05		076SB-0107M-0001-SO	0.05	0.25	0.05		N/A	Yes
076SB-0106M-0001-SO	2,6-DINITROTOLUENE	0.05	MG/KG	0.25	0.05		076SB-0107M-0001-SO	0.05	0.25	0.05		N/A	Yes
076SB-0106M-0001-SO	2-AMINO-4,6-DINITROTOLUENE	0.05	MG/KG	0.25	0.05		076SB-0107M-0001-SO	0.05	0.25	0.05		N/A	Yes
076SB-0106M-0001-SO	2-NITROTOLUENE	0.05	MG/KG	0.25	0.05		076SB-0107M-0001-SO	0.05	0.25	0.05		N/A	Yes
076SB-0106M-0001-SO	3-NITROTOLUENE	0.05	MG/KG	0.25	0.05		076SB-0107M-0001-SO	0.05	0.25	0.05		N/A	Yes
076SB-0106M-0001-SO	4-AMINO-2,6-DINITROTOLUENE	0.05	MG/KG	0.25	0.05		076SB-0107M-0001-SO	0.05	0.25	0.05		N/A	Yes
076SB-0106M-0001-SO	4-NITROTOLUENE	0.05	MG/KG	0.25	0.05		076SB-0107M-0001-SO	0.05	0.25	0.05		N/A	Yes
076SB-0106M-0001-SO	HMX	0.05	MG/KG	0.25	0.05		076SB-0107M-0001-SO	0.05	0.25	0.05		N/A	Yes
076SB-0106M-0001-SO	NITROBENZENE	0.05	MG/KG	0.25	0.05		076SB-0107M-0001-SO	0.05	0.25	0.05		N/A	Yes
076SB-0106M-0001-SO	NITROGLYCERIN	0.25	MG/KG	0.5	0.25		076SB-0107M-0001-SO	0.25	0.5	0.25		N/A	Yes
076SB-0106M-0001-SO	NITROGUANIDINE	0.039	MG/KG	0.25	0.039		076SB-0107M-0001-SO	0.039	0.24	0.039		N/A	Yes
076SB-0106M-0001-SO	PETN	0.25	MG/KG	0.5	0.25		076SB-0107M-0001-SO	0.25	0.5	0.25		N/A	Yes
076SB-0106M-0001-SO	RDX	0.05	MG/KG	0.25	0.05		076SB-0107M-0001-SO	0.05	0.25	0.05		N/A	Yes
076SB-0106M-0001-SO	TETRYL	0.05	MG/KG	0.25	0.05		076SB-0107M-0001-SO	0.05	0.25	0.05		N/A	Yes
076SB-0110M-0001-SO	ALUMINUM	8100	MG/KG	2.6	0.52		076SB-0111M-0001-SO	6700	2.6	0.53		19	N/A
076SB-0110M-0001-SO	ANTIMONY	0.082	MG/KG	0.17	0.086	J	076SB-0111M-0001-SO	0.082	0.18	0.088	J	N/A	Yes
076SB-0110M-0001-SO	ARSENIC	15	MG/KG	0.086	0.043		076SB-0111M-0001-SO	14	0.088	0.044		7	N/A
076SB-0110M-0001-SO	BARIUM	38	MG/KG	0.86	0.017		076SB-0111M-0001-SO	32	0.88	0.018		17	N/A
076SB-0110M-0001-SO	BERYLLIUM	0.43	MG/KG	0.086	0.0086		076SB-0111M-0001-SO	0.38	0.088	0.0088		N/A	Yes
076SB-0110M-0001-SO	CADMIUM	0.16	MG/KG	0.086	0.026		076SB-0111M-0001-SO	0.15	0.088	0.026		N/A	Yes
076SB-0110M-0001-SO	CALCIUM	2900	MG/KG	8.6	2.2		076SB-0111M-0001-SO	3300	8.8	2.2		13	N/A
076SB-0110M-0001-SO	CHROMIUM	17	MG/KG	0.17	0.034		076SB-0111M-0001-SO	14	0.18	0.035		19	N/A
076SB-0110M-0001-SO	COBALT	8.8	MG/KG	0.043	0.0086		076SB-0111M-0001-SO	7.4	0.044	0.0088		17	N/A

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
076SB-0110M-0001-SO	COPPER	17	MG/KG	0.17	0.052		076SB-0111M-0001-SO	14	0.18	0.053		19	N/A
076SB-0110M-0001-SO	IRON	22000	MG/KG	4.3	1.7		076SB-0111M-0001-SO	21000	4.4	1.8		5	N/A
076SB-0110M-0001-SO	LEAD	11	MG/KG	0.086	0.026		076SB-0111M-0001-SO	9.8	0.088	0.026		12	N/A
076SB-0110M-0001-SO	MAGNESIUM	2500	MG/KG	8.6	1.7		076SB-0111M-0001-SO	2100	8.8	1.8		17	N/A
076SB-0110M-0001-SO	MANGANESE	400	MG/KG	0.43	0.026		076SB-0111M-0001-SO	350	0.44	0.026		13	N/A
076SB-0110M-0001-SO	NICKEL	21	MG/KG	0.086	0.026		076SB-0111M-0001-SO	18	0.088	0.026		15	N/A
076SB-0110M-0001-SO	POTASSIUM	870	MG/KG	8.6	5.2		076SB-0111M-0001-SO	700	8.8	5.3		22	N/A
076SB-0110M-0001-SO	SELENIUM	0.42	MG/KG	0.43	0.086	J	076SB-0111M-0001-SO	0.71	0.44	0.088		N/A	Yes
076SB-0110M-0001-SO	SILVER	0.021	MG/KG	0.086	0.026	J	076SB-0111M-0001-SO	0.022	0.088	0.026	J	N/A	Yes
076SB-0110M-0001-SO	SODIUM	35	MG/KG	8.6	4.3		076SB-0111M-0001-SO	37	8.8	4.4		N/A	Yes
076SB-0110M-0001-SO	THALLIUM	0.11	MG/KG	0.086	0.017		076SB-0111M-0001-SO	0.093	0.088	0.018		N/A	Yes
076SB-0110M-0001-SO	VANADIUM	14	MG/KG	0.086	0.052		076SB-0111M-0001-SO	12	0.088	0.053		15	N/A
076SB-0110M-0001-SO	ZINC	52	MG/KG	0.43	0.17		076SB-0111M-0001-SO	40	0.44	0.18		26	N/A
076SB-0110M-0001-SO	MERCURY	0.023	MG/KG	0.097	0.032	J	076SB-0111M-0001-SO	0.022	0.091	0.03	J	N/A	Yes
076SB-0110M-0001-SO	1,1,1-TRICHLOROETHANE	1	UG/KG	5	1		076SB-0111M-0001-SO	0.93	4.7	0.93		N/A	Yes
076SB-0110M-0001-SO	1,1,2,2-TETRACHLOROETHANE	0.5	UG/KG	5	0.5		076SB-0111M-0001-SO	0.47	4.7	0.47		N/A	Yes
076SB-0110M-0001-SO	1,1,2-TRICHLOROETHANE	0.5	UG/KG	5	0.5		076SB-0111M-0001-SO	0.47	4.7	0.47		N/A	Yes
076SB-0110M-0001-SO	1,1-DICHLOROETHANE	0.5	UG/KG	5	0.5		076SB-0111M-0001-SO	0.47	4.7	0.47		N/A	Yes
076SB-0110M-0001-SO	1,1-DICHLOROETHENE	1	UG/KG	5	1		076SB-0111M-0001-SO	0.93	4.7	0.93		N/A	Yes
076SB-0110M-0001-SO	1,2-DIBROMOETHANE	1	UG/KG	5	1		076SB-0111M-0001-SO	0.93	4.7	0.93		N/A	Yes
076SB-0110M-0001-SO	1,2-DICHLOROETHANE	0.5	UG/KG	5	0.5		076SB-0111M-0001-SO	0.47	4.7	0.47		N/A	Yes
076SB-0110M-0001-SO	1,2-DICHLOROPROPANE	1	UG/KG	5	1		076SB-0111M-0001-SO	0.93	4.7	0.93		N/A	Yes
076SB-0110M-0001-SO	2-HEXANONE	1	UG/KG	20	1		076SB-0111M-0001-SO	0.93	19	0.93		N/A	Yes
076SB-0110M-0001-SO	ACETONE	30	UG/KG	20	6.3		076SB-0111M-0001-SO	30	19	5.9		N/A	Yes
076SB-0110M-0001-SO	BENZENE	0.5	UG/KG	5	0.5		076SB-0111M-0001-SO	0.47	4.7	0.47		N/A	Yes
076SB-0110M-0001-SO	BROMOCHLOROMETHANE	1	UG/KG	5	1		076SB-0111M-0001-SO	0.93	4.7	0.93		N/A	Yes
076SB-0110M-0001-SO	BROMODICHLOROMETHANE	0.5	UG/KG	5	0.5		076SB-0111M-0001-SO	0.47	4.7	0.47		N/A	Yes
076SB-0110M-0001-SO	BROMOFORM	0.5	UG/KG	5	0.5		076SB-0111M-0001-SO	0.47	4.7	0.47		N/A	Yes
076SB-0110M-0001-SO	BROMOMETHANE	1	UG/KG	5	1		076SB-0111M-0001-SO	0.93	4.7	0.93		N/A	Yes
076SB-0110M-0001-SO	CARBON DISULFIDE	0.5	UG/KG	5	0.5		076SB-0111M-0001-SO	0.47	4.7	0.47		N/A	Yes
076SB-0110M-0001-SO	CARBON TETRACHLORIDE	0.5	UG/KG	5	0.5		076SB-0111M-0001-SO	0.47	4.7	0.47		N/A	Yes
076SB-0110M-0001-SO	CHLOROBENZENE	0.5	UG/KG	5	0.5		076SB-0111M-0001-SO	0.47	4.7	0.47		N/A	Yes
076SB-0110M-0001-SO	CHLOROETHANE	1	UG/KG	5	1		076SB-0111M-0001-SO	0.93	4.7	0.93		N/A	Yes
076SB-0110M-0001-SO	CHLOROFORM	0.5	UG/KG	5	0.5		076SB-0111M-0001-SO	0.47	4.7	0.47		N/A	Yes
076SB-0110M-0001-SO	CHLOROMETHANE	0.5	UG/KG	5	0.5		076SB-0111M-0001-SO	0.47	4.7	0.47		N/A	Yes
076SB-0110M-0001-SO	CIS-1,3-DICHLOROPROPENE	0.5	UG/KG	5	0.5		076SB-0111M-0001-SO	0.47	4.7	0.47		N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
076SB-0110M-0001-SO	DIBROMOCHLOROMETHANE	1	UG/KG	5	1		076SB-0111M-0001-SO	0.93	4.7	0.93		N/A	Yes
076SB-0110M-0001-SO	ETHYLBENZENE	0.5	UG/KG	5	0.5		076SB-0111M-0001-SO	0.47	4.7	0.47		N/A	Yes
076SB-0110M-0001-SO	METHYL ETHYL KETONE	4.2	UG/KG	20	2	J	076SB-0111M-0001-SO	5.6	19	1.9	J	N/A	Yes
076SB-0110M-0001-SO	METHYL ISOBUTYL KETONE	1	UG/KG	20	1		076SB-0111M-0001-SO	0.93	19	0.93		N/A	Yes
076SB-0110M-0001-SO	METHYLENE CHLORIDE	1	UG/KG	5	1		076SB-0111M-0001-SO	0.93	4.7	0.93		N/A	Yes
076SB-0110M-0001-SO	STYRENE	0.5	UG/KG	5	0.5		076SB-0111M-0001-SO	0.47	4.7	0.47		N/A	Yes
076SB-0110M-0001-SO	TETRACHLOROETHYLENE	1	UG/KG	5	1		076SB-0111M-0001-SO	0.93	4.7	0.93		N/A	Yes
076SB-0110M-0001-SO	TOLUENE	1.2	UG/KG	5	0.5	J	076SB-0111M-0001-SO	0.95	4.7	0.47	J	N/A	Yes
076SB-0110M-0001-SO	TOTAL 1,2-DICHLOROETHENE	1	UG/KG	10	1		076SB-0111M-0001-SO	0.93	9.3	0.93		N/A	Yes
076SB-0110M-0001-SO	TRANS-1,3-DICHLOROPROPENE	1	UG/KG	5	1		076SB-0111M-0001-SO	0.93	4.7	0.93		N/A	Yes
076SB-0110M-0001-SO	TRICHLOROETHYLENE	0.5	UG/KG	5	0.5		076SB-0111M-0001-SO	0.47	4.7	0.47		N/A	Yes
076SB-0110M-0001-SO	VINYL CHLORIDE	0.5	UG/KG	5	0.5		076SB-0111M-0001-SO	0.47	4.7	0.47		N/A	Yes
076SB-0110M-0001-SO	XYLENES, TOTAL	1.5	UG/KG	10	1.5		076SB-0111M-0001-SO	1.4	9.3	1.4		N/A	Yes
076SB-0110M-0001-SO	1,2,4-TRICHLOROBENZENE	27	UG/KG	50	27		076SB-0111M-0001-SO	27	50	27		N/A	Yes
076SB-0110M-0001-SO	1,2-DICHLOROBENZENE	27	UG/KG	50	27		076SB-0111M-0001-SO	27	50	27		N/A	Yes
076SB-0110M-0001-SO	1,3-DICHLOROBENZENE	27	UG/KG	50	27		076SB-0111M-0001-SO	27	50	27		N/A	Yes
076SB-0110M-0001-SO	1,4-DICHLOROBENZENE	27	UG/KG	50	27		076SB-0111M-0001-SO	27	50	27		N/A	Yes
076SB-0110M-0001-SO	2,4,5-TRICHLOROPHENOL	27	UG/KG	150	27		076SB-0111M-0001-SO	27	150	27		N/A	Yes
076SB-0110M-0001-SO	2,4,6-TRICHLOROPHENOL	80	UG/KG	150	80		076SB-0111M-0001-SO	80	150	80		N/A	Yes
076SB-0110M-0001-SO	2,4-DICHLOROPHENOL	27	UG/KG	150	27		076SB-0111M-0001-SO	27	150	27		N/A	Yes
076SB-0110M-0001-SO	2,4-DIMETHYLPHENOL	80	UG/KG	150	80		076SB-0111M-0001-SO	80	150	80		N/A	Yes
076SB-0110M-0001-SO	2,4-DINITROPHENOL	80	UG/KG	330	80		076SB-0111M-0001-SO	80	330	80		N/A	Yes
076SB-0110M-0001-SO	2,4-DINITROTOLUENE	27	UG/KG	200	27		076SB-0111M-0001-SO	27	200	27		N/A	Yes
076SB-0110M-0001-SO	2,6-DINITROTOLUENE	27	UG/KG	200	27		076SB-0111M-0001-SO	27	200	27		N/A	Yes
076SB-0110M-0001-SO	2-CHLORONAPHTHALENE	3.3	UG/KG	50	3.3		076SB-0111M-0001-SO	3.3	50	3.3		N/A	Yes
076SB-0110M-0001-SO	2-CHLOROPHENOL	27	UG/KG	50	27		076SB-0111M-0001-SO	27	50	27		N/A	Yes
076SB-0110M-0001-SO	2-METHYLNAPHTHALENE	10	UG/KG	6.6	3.3		076SB-0111M-0001-SO	13	6.6	3.3		N/A	Yes
076SB-0110M-0001-SO	2-METHYLPHENOL	80	UG/KG	200	80		076SB-0111M-0001-SO	80	200	80		N/A	Yes
076SB-0110M-0001-SO	2-NITROANILINE	27	UG/KG	200	27		076SB-0111M-0001-SO	27	200	27		N/A	Yes
076SB-0110M-0001-SO	2-NITROPHENOL	27	UG/KG	50	27		076SB-0111M-0001-SO	27	50	27		N/A	Yes
076SB-0110M-0001-SO	3,3'-DICHLOROBENZIDINE	80	UG/KG	99	80		076SB-0111M-0001-SO	80	100	80		N/A	Yes
076SB-0110M-0001-SO	3-NITROANILINE	80	UG/KG	200	80		076SB-0111M-0001-SO	80	200	80		N/A	Yes
076SB-0110M-0001-SO	4,6-DINITRO-2-METHYLPHENOL	80	UG/KG	150	80		076SB-0111M-0001-SO	80	150	80		N/A	Yes
076SB-0110M-0001-SO	4-BROMOPHENYL PHENYL ETHER	27	UG/KG	50	27		076SB-0111M-0001-SO	27	50	27		N/A	Yes
076SB-0110M-0001-SO	4-CHLORO-3-METHYLPHENOL	27	UG/KG	150	27		076SB-0111M-0001-SO	27	150	27		N/A	Yes
076SB-0110M-0001-SO	4-CHLOROANILINE	27	UG/KG	150	27		076SB-0111M-0001-SO	27	150	27		N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
076SB-0110M-0001-SO	4-CHLOROPHENYL PHENYL ETHER	27	UG/KG	50	27		076SB-0111M-0001-SO	27	50	27		N/A	Yes
076SB-0110M-0001-SO	4-NITROANILINE	27	UG/KG	200	27		076SB-0111M-0001-SO	27	200	27		N/A	Yes
076SB-0110M-0001-SO	4-NITROPHENOL	80	UG/KG	330	80		076SB-0111M-0001-SO	80	330	80		N/A	Yes
076SB-0110M-0001-SO	ACENAPHTHENE	3.3	UG/KG	6.6	3.3		076SB-0111M-0001-SO	3.3	6.6	3.3		N/A	Yes
076SB-0110M-0001-SO	ACENAPHTHYLENE	3.3	UG/KG	6.6	3.3		076SB-0111M-0001-SO	3.3	6.6	3.3		N/A	Yes
076SB-0110M-0001-SO	ANTHRACENE	3.3	UG/KG	6.6	3.3		076SB-0111M-0001-SO	13	6.6	3.3		N/A	No
076SB-0110M-0001-SO	BENZO(A)ANTHRACENE	21	UG/KG	6.6	3.3		076SB-0111M-0001-SO	31	6.6	3.3		N/A	No
076SB-0110M-0001-SO	BENZO(A)PYRENE	20	UG/KG	6.6	3.3		076SB-0111M-0001-SO	23	6.6	3.3		N/A	Yes
076SB-0110M-0001-SO	BENZO(B)FLUORANTHENE	30	UG/KG	6.6	3.3		076SB-0111M-0001-SO	32	6.6	3.3		N/A	Yes
076SB-0110M-0001-SO	BENZO(G,H,I)PERYLENE	12	UG/KG	6.6	3.3		076SB-0111M-0001-SO	15	6.6	3.3		N/A	Yes
076SB-0110M-0001-SO	BENZO(K)FLUORANTHENE	7.7	UG/KG	6.6	3.3		076SB-0111M-0001-SO	10	6.6	3.3		N/A	Yes
076SB-0110M-0001-SO	BENZOIC ACID	330	UG/KG	660	330		076SB-0111M-0001-SO	330	660	330		N/A	Yes
076SB-0110M-0001-SO	BENZYL ALCOHOL	27	UG/KG	330	27		076SB-0111M-0001-SO	27	330	27		N/A	Yes
076SB-0110M-0001-SO	BENZYL BUTYL PHTHALATE	27	UG/KG	50	27		076SB-0111M-0001-SO	27	50	27		N/A	Yes
076SB-0110M-0001-SO	BIS(2-CHLOROETHOXY) METHANE	27	UG/KG	99	27		076SB-0111M-0001-SO	27	100	27		N/A	Yes
076SB-0110M-0001-SO	BIS(2-CHLOROETHYL) ETHER	3.3	UG/KG	99	3.3		076SB-0111M-0001-SO	3.3	100	3.3		N/A	Yes
076SB-0110M-0001-SO	BIS(2-CHLOROISOPROPYL) ETHER	27	UG/KG	99	27		076SB-0111M-0001-SO	27	100	27		N/A	Yes
076SB-0110M-0001-SO	BIS(2-ETHYLHEXYL) PHTHALATE	36	UG/KG	50	27	J	076SB-0111M-0001-SO	23	50	27	J	N/A	Yes
076SB-0110M-0001-SO	CARBAZOLE	27	UG/KG	50	27		076SB-0111M-0001-SO	27	50	27		N/A	Yes
076SB-0110M-0001-SO	CHRYSENE	20	UG/KG	6.6	3.3		076SB-0111M-0001-SO	28	6.6	3.3		N/A	No
076SB-0110M-0001-SO	CRESOLS, M & P	80	UG/KG	400	80		076SB-0111M-0001-SO	80	400	80		N/A	Yes
076SB-0110M-0001-SO	DIBENZ(A,H)ANTHRACENE	3.3	UG/KG	6.6	3.3		076SB-0111M-0001-SO	3.3	6.6	3.3		N/A	Yes
076SB-0110M-0001-SO	DIBENZOFURAN	3.4	UG/KG	50	3.3	J	076SB-0111M-0001-SO	8.5	50	3.3	J	N/A	Yes
076SB-0110M-0001-SO	DIETHYL PHTHALATE	27	UG/KG	50	27		076SB-0111M-0001-SO	27	50	27		N/A	Yes
076SB-0110M-0001-SO	DIMETHYL PHTHALATE	27	UG/KG	50	27		076SB-0111M-0001-SO	27	50	27		N/A	Yes
076SB-0110M-0001-SO	DI-N-BUTYL PHTHALATE	27	UG/KG	50	27		076SB-0111M-0001-SO	27	50	27		N/A	Yes
076SB-0110M-0001-SO	DI-N-OCTYLPHTHALATE	27	UG/KG	50	27		076SB-0111M-0001-SO	27	50	27		N/A	Yes
076SB-0110M-0001-SO	FLUORANTHENE	22	UG/KG	6.6	3.3		076SB-0111M-0001-SO	64	6.6	3.3		N/A	No
076SB-0110M-0001-SO	FLUORENE	3.3	UG/KG	6.6	3.3		076SB-0111M-0001-SO	7.4	6.6	3.3		N/A	Yes
076SB-0110M-0001-SO	HEXACHLOROBENZENE	3.3	UG/KG	6.6	3.3		076SB-0111M-0001-SO	3.3	6.6	3.3		N/A	Yes
076SB-0110M-0001-SO	HEXACHLOROBUTADIENE	27	UG/KG	50	27		076SB-0111M-0001-SO	27	50	27		N/A	Yes
076SB-0110M-0001-SO	HEXACHLOROCYCLOPENTADIENE	27	UG/KG	330	27		076SB-0111M-0001-SO	27	330	27		N/A	Yes
076SB-0110M-0001-SO	HEXACHLOROETHANE	27	UG/KG	50	27		076SB-0111M-0001-SO	27	50	27		N/A	Yes
076SB-0110M-0001-SO	INDENO(1,2,3-C,D)PYRENE	12	UG/KG	6.6	3.3		076SB-0111M-0001-SO	14	6.6	3.3		N/A	Yes
076SB-0110M-0001-SO	ISOPHORONE	27	UG/KG	50	27		076SB-0111M-0001-SO	27	50	27		N/A	Yes
076SB-0110M-0001-SO	NAPHTHALENE	8.7	UG/KG	6.6	3.3		076SB-0111M-0001-SO	12	6.6	3.3		N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
076SB-0110M-0001-SO	NITROBENZENE	3.3	UG/KG	99	3.3		076SB-0111M-0001-SO	3.3	100	3.3		N/A	Yes
076SB-0110M-0001-SO	N-NITROSODI-N-PROPYLAMINE	27	UG/KG	50	27		076SB-0111M-0001-SO	27	50	27		N/A	Yes
076SB-0110M-0001-SO	N-NITROSODIPHENYLAMINE	27	UG/KG	50	27		076SB-0111M-0001-SO	27	50	27		N/A	Yes
076SB-0110M-0001-SO	PENTACHLOROPHENOL	80	UG/KG	150	80		076SB-0111M-0001-SO	80	150	80		N/A	Yes
076SB-0110M-0001-SO	PHENANTHRENE	3.3	UG/KG	6.6	3.3		076SB-0111M-0001-SO	60	6.6	3.3		N/A	No
076SB-0110M-0001-SO	PHENOL	27	UG/KG	50	27		076SB-0111M-0001-SO	27	50	27		N/A	Yes
076SB-0110M-0001-SO	PYRENE	20	UG/KG	6.6	3.3		076SB-0111M-0001-SO	50	6.6	3.3		86	N/A
076SB-0112M-0001-SO	ALUMINUM	7600	MG/KG	3	0.6		076SB-0113M-0001-SO	7900	2.5	0.51		4	N/A
076SB-0112M-0001-SO	ANTIMONY	0.13	MG/KG	0.2	0.1	J	076SB-0113M-0001-SO	0.1	0.17	0.085	J	N/A	Yes
076SB-0112M-0001-SO	ARSENIC	13	MG/KG	0.1	0.05		076SB-0113M-0001-SO	12	0.085	0.042		8	N/A
076SB-0112M-0001-SO	BARIUM	63	MG/KG	1	0.02		076SB-0113M-0001-SO	57	0.85	0.017		10	N/A
076SB-0112M-0001-SO	BERYLLIUM	0.48	MG/KG	0.1	0.01		076SB-0113M-0001-SO	0.5	0.085	0.0085		N/A	Yes
076SB-0112M-0001-SO	CADMIUM	0.31	MG/KG	0.1	0.03		076SB-0113M-0001-SO	0.28	0.085	0.025		N/A	Yes
076SB-0112M-0001-SO	CALCIUM	5400	MG/KG	10	2.5		076SB-0113M-0001-SO	5900	8.5	2.1		9	N/A
076SB-0112M-0001-SO	CHROMIUM	17	MG/KG	0.2	0.04		076SB-0113M-0001-SO	13	0.17	0.034		27	N/A
076SB-0112M-0001-SO	COBALT	8.2	MG/KG	0.05	0.01		076SB-0113M-0001-SO	7.4	0.042	0.0085		10	N/A
076SB-0112M-0001-SO	COPPER	18	MG/KG	0.2	0.06		076SB-0113M-0001-SO	17	0.17	0.051		6	N/A
076SB-0112M-0001-SO	IRON	20000	MG/KG	5	2		076SB-0113M-0001-SO	19000	4.2	1.7		5	N/A
076SB-0112M-0001-SO	LEAD	15	MG/KG	0.1	0.03		076SB-0113M-0001-SO	15	0.085	0.025		0	N/A
076SB-0112M-0001-SO	MAGNESIUM	2400	MG/KG	10	2		076SB-0113M-0001-SO	2600	8.5	1.7		8	N/A
076SB-0112M-0001-SO	MANGANESE	520	MG/KG	0.5	0.03		076SB-0113M-0001-SO	440	0.42	0.025		17	N/A
076SB-0112M-0001-SO	NICKEL	21	MG/KG	0.1	0.03		076SB-0113M-0001-SO	18	0.085	0.025		15	N/A
076SB-0112M-0001-SO	POTASSIUM	650	MG/KG	10	6		076SB-0113M-0001-SO	730	8.5	5.1		12	N/A
076SB-0112M-0001-SO	SELENIUM	0.79	MG/KG	0.5	0.1		076SB-0113M-0001-SO	0.65	0.42	0.085		N/A	Yes
076SB-0112M-0001-SO	SILVER	0.031	MG/KG	0.1	0.03	J	076SB-0113M-0001-SO	0.028	0.085	0.025	J	N/A	Yes
076SB-0112M-0001-SO	SODIUM	43	MG/KG	10	5		076SB-0113M-0001-SO	42	8.5	4.2		N/A	Yes
076SB-0112M-0001-SO	THALLIUM	0.13	MG/KG	0.1	0.02		076SB-0113M-0001-SO	0.12	0.085	0.017		N/A	Yes
076SB-0112M-0001-SO	VANADIUM	15	MG/KG	0.1	0.06		076SB-0113M-0001-SO	15	0.085	0.051		0	N/A
076SB-0112M-0001-SO	ZINC	54	MG/KG	0.5	0.2		076SB-0113M-0001-SO	52	0.42	0.17		4	N/A
076SB-0112M-0001-SO	MERCURY	0.03	MG/KG	0.094	0.031	J	076SB-0113M-0001-SO	0.031	0.12	0.039	J	N/A	Yes
076SB-0112M-0001-SO	1,1,1-TRICHLOROETHANE	0.87	UG/KG	4.3	0.87		076SB-0113M-0001-SO	0.91	4.5	0.91	U	N/A	Yes
076SB-0112M-0001-SO	1,1,2,2-TETRACHLOROETHANE	0.43	UG/KG	4.3	0.43		076SB-0113M-0001-SO	0.45	4.5	0.45	U	N/A	Yes
076SB-0112M-0001-SO	1,1,2-TRICHLOROETHANE	0.43	UG/KG	4.3	0.43		076SB-0113M-0001-SO	0.45	4.5	0.45	U	N/A	Yes
076SB-0112M-0001-SO	1,1-DICHLOROETHANE	0.43	UG/KG	4.3	0.43		076SB-0113M-0001-SO	0.45	4.5	0.45	U	N/A	Yes
076SB-0112M-0001-SO	1,1-DICHLOROETHENE	0.87	UG/KG	4.3	0.87		076SB-0113M-0001-SO	0.91	4.5	0.91	U	N/A	Yes
076SB-0112M-0001-SO	1,2-DIBROMOETHANE	0.87	UG/KG	4.3	0.87		076SB-0113M-0001-SO	0.91	4.5	0.91	U	N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
076SB-0112M-0001-SO	1,2-DICHLOROETHANE	0.43	UG/KG	4.3	0.43		076SB-0113M-0001-SO	0.45	4.5	0.45	U	N/A	Yes
076SB-0112M-0001-SO	1,2-DICHLOROPROPANE	0.87	UG/KG	4.3	0.87		076SB-0113M-0001-SO	0.91	4.5	0.91	U	N/A	Yes
076SB-0112M-0001-SO	2-HEXANONE	0.87	UG/KG	17	0.87		076SB-0113M-0001-SO	0.91	18	0.91	U	N/A	Yes
076SB-0112M-0001-SO	ACETONE	6.6	UG/KG	17	5.5	J	076SB-0113M-0001-SO	12	18	5.7	J	N/A	Yes
076SB-0112M-0001-SO	BENZENE	0.43	UG/KG	4.3	0.43		076SB-0113M-0001-SO	0.45	4.5	0.45	U	N/A	Yes
076SB-0112M-0001-SO	BROMOCHLOROMETHANE	0.87	UG/KG	4.3	0.87		076SB-0113M-0001-SO	0.91	4.5	0.91	U	N/A	Yes
076SB-0112M-0001-SO	BROMODICHLOROMETHANE	0.43	UG/KG	4.3	0.43		076SB-0113M-0001-SO	0.45	4.5	0.45	U	N/A	Yes
076SB-0112M-0001-SO	BROMOFORM	0.43	UG/KG	4.3	0.43		076SB-0113M-0001-SO	0.45	4.5	0.45	U	N/A	Yes
076SB-0112M-0001-SO	BROMOMETHANE	0.87	UG/KG	4.3	0.87		076SB-0113M-0001-SO	0.91	4.5	0.91	U	N/A	Yes
076SB-0112M-0001-SO	CARBON DISULFIDE	0.43	UG/KG	4.3	0.43		076SB-0113M-0001-SO	0.45	4.5	0.45	U	N/A	Yes
076SB-0112M-0001-SO	CARBON TETRACHLORIDE	0.43	UG/KG	4.3	0.43		076SB-0113M-0001-SO	0.45	4.5	0.45	U	N/A	Yes
076SB-0112M-0001-SO	CHLOROBENZENE	0.43	UG/KG	4.3	0.43		076SB-0113M-0001-SO	0.45	4.5	0.45	U	N/A	Yes
076SB-0112M-0001-SO	CHLOROETHANE	0.87	UG/KG	4.3	0.87		076SB-0113M-0001-SO	0.91	4.5	0.91	U	N/A	Yes
076SB-0112M-0001-SO	CHLOROFORM	0.43	UG/KG	4.3	0.43		076SB-0113M-0001-SO	0.45	4.5	0.45	U	N/A	Yes
076SB-0112M-0001-SO	CHLOROMETHANE	0.43	UG/KG	4.3	0.43		076SB-0113M-0001-SO	0.45	4.5	0.45	U	N/A	Yes
076SB-0112M-0001-SO	CIS-1,3-DICHLOROPROPENE	0.43	UG/KG	4.3	0.43		076SB-0113M-0001-SO	0.45	4.5	0.45	U	N/A	Yes
076SB-0112M-0001-SO	DIBROMOCHLOROMETHANE	0.87	UG/KG	4.3	0.87		076SB-0113M-0001-SO	0.91	4.5	0.91	U	N/A	Yes
076SB-0112M-0001-SO	ETHYLBENZENE	0.43	UG/KG	4.3	0.43		076SB-0113M-0001-SO	0.45	4.5	0.45	U	N/A	Yes
076SB-0112M-0001-SO	METHYL ETHYL KETONE	1.7	UG/KG	17	1.7	J	076SB-0113M-0001-SO	3.3	18	1.8	J	N/A	Yes
076SB-0112M-0001-SO	METHYL ISOBUTYL KETONE	0.87	UG/KG	17	0.87		076SB-0113M-0001-SO	0.91	18	0.91	U	N/A	Yes
076SB-0112M-0001-SO	METHYLENE CHLORIDE	0.87	UG/KG	4.3	0.87		076SB-0113M-0001-SO	1.1	4.5	0.91	J	N/A	Yes
076SB-0112M-0001-SO	STYRENE	0.43	UG/KG	4.3	0.43		076SB-0113M-0001-SO	0.45	4.5	0.45	U	N/A	Yes
076SB-0112M-0001-SO	TETRACHLOROETHYLENE	0.87	UG/KG	4.3	0.87		076SB-0113M-0001-SO	0.91	4.5	0.91	U	N/A	Yes
076SB-0112M-0001-SO	TOLUENE	1	UG/KG	4.3	0.43	J	076SB-0113M-0001-SO	1.5	4.5	0.45	J	N/A	Yes
076SB-0112M-0001-SO	TOTAL 1,2-DICHLOROETHENE	0.87	UG/KG	8.7	0.87		076SB-0113M-0001-SO	0.91	9.1	0.91	U	N/A	Yes
076SB-0112M-0001-SO	TRANS-1,3-DICHLOROPROPENE	0.87	UG/KG	4.3	0.87		076SB-0113M-0001-SO	0.91	4.5	0.91	U	N/A	Yes
076SB-0112M-0001-SO	TRICHLOROETHYLENE	0.43	UG/KG	4.3	0.43		076SB-0113M-0001-SO	0.45	4.5	0.45	U	N/A	Yes
076SB-0112M-0001-SO	VINYL CHLORIDE	0.43	UG/KG	4.3	0.43		076SB-0113M-0001-SO	0.45	4.5	0.45	U	N/A	Yes
076SB-0112M-0001-SO	XYLENES, TOTAL	1.3	UG/KG	8.7	1.3		076SB-0113M-0001-SO	1.4	9.1	1.4	U	N/A	Yes
076SB-0112M-0001-SO	1,2,4-TRICHLOROBENZENE	530	UG/KG	990	530		076SB-0113M-0001-SO	540	1000	540	U	N/A	Yes
076SB-0112M-0001-SO	1,2-DICHLOROBENZENE	530	UG/KG	990	530		076SB-0113M-0001-SO	540	1000	540	U	N/A	Yes
076SB-0112M-0001-SO	1,3-DICHLOROBENZENE	530	UG/KG	990	530		076SB-0113M-0001-SO	540	1000	540	U	N/A	Yes
076SB-0112M-0001-SO	1,4-DICHLOROBENZENE	530	UG/KG	990	530		076SB-0113M-0001-SO	540	1000	540	U	N/A	Yes
076SB-0112M-0001-SO	2,4,5-TRICHLOROPHENOL	530	UG/KG	3000	530		076SB-0113M-0001-SO	540	3000	540	U	N/A	Yes
076SB-0112M-0001-SO	2,4,6-TRICHLOROPHENOL	1600	UG/KG	3000	1600		076SB-0113M-0001-SO	1600	3000	1600	U	N/A	Yes
076SB-0112M-0001-SO	2,4-DICHLOROPHENOL	530	UG/KG	3000	530		076SB-0113M-0001-SO	540	3000	540	U	N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
076SB-0112M-0001-SO	2,4-DIMETHYLPHENOL	1600	UG/KG	3000	1600		076SB-0113M-0001-SO	1600	3000	1600	U	N/A	Yes
076SB-0112M-0001-SO	2,4-DINITROPHENOL	1600	UG/KG	6500	1600		076SB-0113M-0001-SO	1600	6600	1600	U	N/A	Yes
076SB-0112M-0001-SO	2,4-DINITROTOLUENE	530	UG/KG	3900	530		076SB-0113M-0001-SO	540	4000	540	U	N/A	Yes
076SB-0112M-0001-SO	2,6-DINITROTOLUENE	530	UG/KG	3900	530		076SB-0113M-0001-SO	540	4000	540	U	N/A	Yes
076SB-0112M-0001-SO	2-CHLORONAPHTHALENE	65	UG/KG	990	65		076SB-0113M-0001-SO	66	1000	66	U	N/A	Yes
076SB-0112M-0001-SO	2-CHLOROPHENOL	530	UG/KG	990	530		076SB-0113M-0001-SO	540	1000	540	U	N/A	Yes
076SB-0112M-0001-SO	2-METHYLNAPHTHALENE	65	UG/KG	130	65		076SB-0113M-0001-SO	66	130	66	U	N/A	Yes
076SB-0112M-0001-SO	2-METHYLPHENOL	1600	UG/KG	3900	1600		076SB-0113M-0001-SO	1600	4000	1600	U	N/A	Yes
076SB-0112M-0001-SO	2-NITROANILINE	530	UG/KG	3900	530		076SB-0113M-0001-SO	540	4000	540	U	N/A	Yes
076SB-0112M-0001-SO	2-NITROPHENOL	530	UG/KG	990	530		076SB-0113M-0001-SO	540	1000	540	U	N/A	Yes
076SB-0112M-0001-SO	3,3'-DICHLOROBENZIDINE	1600	UG/KG	2000	1600		076SB-0113M-0001-SO	1600	2000	1600	U	N/A	Yes
076SB-0112M-0001-SO	3-NITROANILINE	1600	UG/KG	3900	1600		076SB-0113M-0001-SO	1600	4000	1600	U	N/A	Yes
076SB-0112M-0001-SO	4,6-DINITRO-2-METHYLPHENOL	1600	UG/KG	3000	1600		076SB-0113M-0001-SO	1600	3000	1600	U	N/A	Yes
076SB-0112M-0001-SO	4-BROMOPHENYL PHENYL ETHER	530	UG/KG	990	530		076SB-0113M-0001-SO	540	1000	540	U	N/A	Yes
076SB-0112M-0001-SO	4-CHLORO-3-METHYLPHENOL	530	UG/KG	3000	530		076SB-0113M-0001-SO	540	3000	540	U	N/A	Yes
076SB-0112M-0001-SO	4-CHLOROANILINE	530	UG/KG	3000	530		076SB-0113M-0001-SO	540	3000	540	U	N/A	Yes
076SB-0112M-0001-SO	4-CHLOROPHENYL PHENYL ETHER	530	UG/KG	990	530		076SB-0113M-0001-SO	540	1000	540	U	N/A	Yes
076SB-0112M-0001-SO	4-NITROANILINE	530	UG/KG	3900	530		076SB-0113M-0001-SO	540	4000	540	U	N/A	Yes
076SB-0112M-0001-SO	4-NITROPHENOL	1600	UG/KG	6500	1600		076SB-0113M-0001-SO	1600	6600	1600	U	N/A	Yes
076SB-0112M-0001-SO	ACENAPHTHENE	65	UG/KG	130	65		076SB-0113M-0001-SO	66	130	66	U	N/A	Yes
076SB-0112M-0001-SO	ACENAPHTHYLENE	65	UG/KG	130	65		076SB-0113M-0001-SO	66	130	66	U	N/A	Yes
076SB-0112M-0001-SO	ANTHRACENE	65	UG/KG	130	65		076SB-0113M-0001-SO	66	130	66	U	N/A	Yes
076SB-0112M-0001-SO	BENZO(A)ANTHRACENE	200	UG/KG	130	65		076SB-0113M-0001-SO	270	130	66		N/A	Yes
076SB-0112M-0001-SO	BENZO(A)PYRENE	140	UG/KG	130	65		076SB-0113M-0001-SO	220	130	66		N/A	Yes
076SB-0112M-0001-SO	BENZO(B)FLUORANTHENE	190	UG/KG	130	65		076SB-0113M-0001-SO	270	130	66		N/A	Yes
076SB-0112M-0001-SO	BENZO(G,H,I)PERYLENE	120	UG/KG	130	65	J	076SB-0113M-0001-SO	140	130	66		N/A	Yes
076SB-0112M-0001-SO	BENZO(K)FLUORANTHENE	110	UG/KG	130	65	J	076SB-0113M-0001-SO	110	130	66	J	N/A	Yes
076SB-0112M-0001-SO	BENZOIC ACID	6600	UG/KG	13000	6600		076SB-0113M-0001-SO	6600	13000	6600	U	N/A	Yes
076SB-0112M-0001-SO	BENZYL ALCOHOL	530	UG/KG	6500	530		076SB-0113M-0001-SO	540	6600	540	U	N/A	Yes
076SB-0112M-0001-SO	BENZYL BUTYL PHTHALATE	530	UG/KG	990	530		076SB-0113M-0001-SO	540	1000	540	U	N/A	Yes
076SB-0112M-0001-SO	BIS(2-CHLOROETHOXY) METHANE	530	UG/KG	2000	530		076SB-0113M-0001-SO	540	2000	540	U	N/A	Yes
076SB-0112M-0001-SO	BIS(2-CHLOROETHYL) ETHER	65	UG/KG	2000	65		076SB-0113M-0001-SO	66	2000	66	U	N/A	Yes
076SB-0112M-0001-SO	BIS(2-CHLOROISOPROPYL) ETHER	530	UG/KG	2000	530		076SB-0113M-0001-SO	540	2000	540	U	N/A	Yes
076SB-0112M-0001-SO	BIS(2-ETHYLHEXYL) PHTHALATE	530	UG/KG	990	530		076SB-0113M-0001-SO	540	1000	540	U	N/A	Yes
076SB-0112M-0001-SO	CARBAZOLE	530	UG/KG	990	530		076SB-0113M-0001-SO	540	1000	540	U	N/A	Yes
076SB-0112M-0001-SO	CHRYSENE	160	UG/KG	130	65		076SB-0113M-0001-SO	280	130	66		N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
076SB-0112M-0001-SO	CRESOLS, M & P	1600	UG/KG	7900	1600		076SB-0113M-0001-SO	1600	8000	1600	U	N/A	Yes
076SB-0112M-0001-SO	DIBENZ(A,H)ANTHRACENE	65	UG/KG	130	65		076SB-0113M-0001-SO	66	130	66	U	N/A	Yes
076SB-0112M-0001-SO	DIBENZOFURAN	65	UG/KG	990	65		076SB-0113M-0001-SO	66	1000	66	U	N/A	Yes
076SB-0112M-0001-SO	DIETHYL PHTHALATE	530	UG/KG	990	530		076SB-0113M-0001-SO	540	1000	540	U	N/A	Yes
076SB-0112M-0001-SO	DIMETHYL PHTHALATE	530	UG/KG	990	530		076SB-0113M-0001-SO	540	1000	540	U	N/A	Yes
076SB-0112M-0001-SO	DI-N-BUTYL PHTHALATE	530	UG/KG	990	530		076SB-0113M-0001-SO	540	1000	540	U	N/A	Yes
076SB-0112M-0001-SO	DI-N-OCTYLPHTHALATE	530	UG/KG	990	530		076SB-0113M-0001-SO	540	1000	540	U	N/A	Yes
076SB-0112M-0001-SO	FLUORANTHENE	410	UG/KG	130	65		076SB-0113M-0001-SO	660	130	66		N/A	No
076SB-0112M-0001-SO	FLUORENE	65	UG/KG	130	65		076SB-0113M-0001-SO	66	130	66	U	N/A	Yes
076SB-0112M-0001-SO	HEXACHLOROBENZENE	65	UG/KG	130	65		076SB-0113M-0001-SO	66	130	66	U	N/A	Yes
076SB-0112M-0001-SO	HEXACHLOROBUTADIENE	530	UG/KG	990	530		076SB-0113M-0001-SO	540	1000	540	U	N/A	Yes
076SB-0112M-0001-SO	HEXACHLOROCYCLOPENTADIENE	530	UG/KG	6500	530		076SB-0113M-0001-SO	540	6600	540	U	N/A	Yes
076SB-0112M-0001-SO	HEXACHLOROETHANE	530	UG/KG	990	530		076SB-0113M-0001-SO	540	1000	540	U	N/A	Yes
076SB-0112M-0001-SO	INDENO(1,2,3-C,D)PYRENE	83	UG/KG	130	65	J	076SB-0113M-0001-SO	120	130	66	J	N/A	Yes
076SB-0112M-0001-SO	ISOPHORONE	530	UG/KG	990	530		076SB-0113M-0001-SO	540	1000	540	U	N/A	Yes
076SB-0112M-0001-SO	NAPHTHALENE	65	UG/KG	130	65		076SB-0113M-0001-SO	66	130	66	U	N/A	Yes
076SB-0112M-0001-SO	NITROBENZENE	65	UG/KG	2000	65		076SB-0113M-0001-SO	66	2000	66	U	N/A	Yes
076SB-0112M-0001-SO	N-NITROSODI-N-PROPYLAMINE	530	UG/KG	990	530		076SB-0113M-0001-SO	540	1000	540	U	N/A	Yes
076SB-0112M-0001-SO	N-NITROSODIPHENYLAMINE	530	UG/KG	990	530		076SB-0113M-0001-SO	540	1000	540	U	N/A	Yes
076SB-0112M-0001-SO	PENTACHLOROPHENOL	1600	UG/KG	3000	1600		076SB-0113M-0001-SO	1600	3000	1600	U	N/A	Yes
076SB-0112M-0001-SO	PHENANTHRENE	280	UG/KG	130	65		076SB-0113M-0001-SO	470	130	66		N/A	No
076SB-0112M-0001-SO	PHENOL	530	UG/KG	990	530		076SB-0113M-0001-SO	540	1000	540	U	N/A	Yes
076SB-0112M-0001-SO	PYRENE	330	UG/KG	130	65		076SB-0113M-0001-SO	510	130	66		N/A	No
076SB-0114M-0001-SO	ALUMINUM	7600	MG/KG	2.7	0.55		076SB-0115M-0001-SO	7800	2.6	0.52		3	N/A
076SB-0114M-0001-SO	ANTIMONY	0.088	MG/KG	0.18	0.091	J-	076SB-0115M-0001-SO	0.093	0.17	0.087	J	N/A	Yes
076SB-0114M-0001-SO	ARSENIC	13	MG/KG	0.091	0.045	J-	076SB-0115M-0001-SO	14	0.087	0.043		7	N/A
076SB-0114M-0001-SO	BARIUM	36	MG/KG	0.91	0.018	J	076SB-0115M-0001-SO	37	0.87	0.017		3	N/A
076SB-0114M-0001-SO	BERYLLIUM	0.35	MG/KG	0.091	0.0091	J-	076SB-0115M-0001-SO	0.35	0.087	0.0087		N/A	Yes
076SB-0114M-0001-SO	CADMIUM	0.15	MG/KG	0.091	0.027	J-	076SB-0115M-0001-SO	0.15	0.087	0.026		N/A	Yes
076SB-0114M-0001-SO	CALCIUM	530	MG/KG	9.1	2.3	J+	076SB-0115M-0001-SO	570	8.7	2.2		7	N/A
076SB-0114M-0001-SO	CHROMIUM	12	MG/KG	0.18	0.036	J-	076SB-0115M-0001-SO	12	0.17	0.035		0	N/A
076SB-0114M-0001-SO	COBALT	8	MG/KG	0.045	0.0091	J-	076SB-0115M-0001-SO	8.2	0.043	0.0087		2	N/A
076SB-0114M-0001-SO	COPPER	16	MG/KG	0.18	0.055	J-	076SB-0115M-0001-SO	17	0.17	0.052		6	N/A
076SB-0114M-0001-SO	IRON	20000	MG/KG	4.5	1.8		076SB-0115M-0001-SO	20000	4.3	1.7		0	N/A
076SB-0114M-0001-SO	LEAD	11	MG/KG	0.091	0.027	J	076SB-0115M-0001-SO	12	0.087	0.026		9	N/A
076SB-0114M-0001-SO	MAGNESIUM	1900	MG/KG	9.1	1.8		076SB-0115M-0001-SO	1900	8.7	1.7		0	N/A

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
076SB-0114M-0001-SO	MANGANESE	420	MG/KG	0.45	0.027	J	076SB-0115M-0001-SO	430	0.43	0.026		2	N/A
076SB-0114M-0001-SO	NICKEL	17	MG/KG	0.091	0.027	J-	076SB-0115M-0001-SO	17	0.087	0.026		0	N/A
076SB-0114M-0001-SO	POTASSIUM	550	MG/KG	9.1	5.5	J-	076SB-0115M-0001-SO	580	8.7	5.2		5	N/A
076SB-0114M-0001-SO	SELENIUM	0.51	MG/KG	0.45	0.091	J-	076SB-0115M-0001-SO	0.48	0.43	0.087		N/A	Yes
076SB-0114M-0001-SO	SILVER	0.019	MG/KG	0.091	0.027	J-	076SB-0115M-0001-SO	0.02	0.087	0.026	J	N/A	Yes
076SB-0114M-0001-SO	SODIUM	20	MG/KG	9.1	4.5		076SB-0115M-0001-SO	22	8.7	4.3		N/A	Yes
076SB-0114M-0001-SO	THALLIUM	0.12	MG/KG	0.091	0.018		076SB-0115M-0001-SO	0.12	0.087	0.017		N/A	Yes
076SB-0114M-0001-SO	VANADIUM	13	MG/KG	0.091	0.055		076SB-0115M-0001-SO	14	0.087	0.052		7	N/A
076SB-0114M-0001-SO	ZINC	54	MG/KG	0.45	0.18	J	076SB-0115M-0001-SO	55	0.43	0.17		2	N/A
076SB-0114M-0001-SO	MERCURY	0.03	MG/KG	0.09	0.03	J	076SB-0115M-0001-SO	0.033	0.12	0.039	J	N/A	Yes
076SB-0114M-0001-SO	AROCLOR 1016	25	UG/KG	65	25	U	076SB-0115M-0001-SO	25	65	25	U	N/A	Yes
076SB-0114M-0001-SO	AROCLOR 1221	25	UG/KG	50	25	U	076SB-0115M-0001-SO	25	50	25	U	N/A	Yes
076SB-0114M-0001-SO	AROCLOR 1232	25	UG/KG	45	25	U	076SB-0115M-0001-SO	25	45	25	U	N/A	Yes
076SB-0114M-0001-SO	AROCLOR 1242	25	UG/KG	40	25	U	076SB-0115M-0001-SO	25	40	25	U	N/A	Yes
076SB-0114M-0001-SO	AROCLOR 1248	25	UG/KG	55	25	U	076SB-0115M-0001-SO	25	55	25	U	N/A	Yes
076SB-0114M-0001-SO	AROCLOR 1254	25	UG/KG	55	25	U	076SB-0115M-0001-SO	25	55	25	U	N/A	Yes
076SB-0114M-0001-SO	AROCLOR 1260	25	UG/KG	55	25	U	076SB-0115M-0001-SO	25	55	25	U	N/A	Yes
076SB-0114M-0001-SO	1,1,1-TRICHLOROETHANE	0.96	UG/KG	4.8	0.96	U	076SB-0115M-0001-SO	1	5.2	1	U	N/A	Yes
076SB-0114M-0001-SO	1,1,2,2-TETRACHLOROETHANE	0.48	UG/KG	4.8	0.48	U	076SB-0115M-0001-SO	0.52	5.2	0.52	U	N/A	Yes
076SB-0114M-0001-SO	1,1,2-TRICHLOROETHANE	0.48	UG/KG	4.8	0.48	U	076SB-0115M-0001-SO	0.52	5.2	0.52	U	N/A	Yes
076SB-0114M-0001-SO	1,1-DICHLOROETHANE	0.48	UG/KG	4.8	0.48	U	076SB-0115M-0001-SO	0.52	5.2	0.52	U	N/A	Yes
076SB-0114M-0001-SO	1,1-DICHLOROETHENE	0.96	UG/KG	4.8	0.96	U	076SB-0115M-0001-SO	1	5.2	1	U	N/A	Yes
076SB-0114M-0001-SO	1,2-DIBROMOETHANE	0.96	UG/KG	4.8	0.96	U	076SB-0115M-0001-SO	1	5.2	1	U	N/A	Yes
076SB-0114M-0001-SO	1,2-DICHLOROETHANE	0.48	UG/KG	4.8	0.48	U	076SB-0115M-0001-SO	0.52	5.2	0.52	U	N/A	Yes
076SB-0114M-0001-SO	1,2-DICHLOROPROPANE	0.96	UG/KG	4.8	0.96	U	076SB-0115M-0001-SO	1	5.2	1	U	N/A	Yes
076SB-0114M-0001-SO	2-HEXANONE	0.96	UG/KG	19	0.96	U	076SB-0115M-0001-SO	1	21	1	U	N/A	Yes
076SB-0114M-0001-SO	ACETONE	6	UG/KG	19	6	U	076SB-0115M-0001-SO	6.6	21	6.6	U	N/A	Yes
076SB-0114M-0001-SO	BENZENE	0.48	UG/KG	4.8	0.48	U	076SB-0115M-0001-SO	0.52	5.2	0.52	U	N/A	Yes
076SB-0114M-0001-SO	BROMOCHLOROMETHANE	0.96	UG/KG	4.8	0.96	U	076SB-0115M-0001-SO	1	5.2	1	U	N/A	Yes
076SB-0114M-0001-SO	BROMODICHLOROMETHANE	0.48	UG/KG	4.8	0.48	U	076SB-0115M-0001-SO	0.52	5.2	0.52	U	N/A	Yes
076SB-0114M-0001-SO	BROMOFORM	0.48	UG/KG	4.8	0.48	U	076SB-0115M-0001-SO	0.52	5.2	0.52	U	N/A	Yes
076SB-0114M-0001-SO	BROMOMETHANE	0.96	UG/KG	4.8	0.96	U	076SB-0115M-0001-SO	1	5.2	1	U	N/A	Yes
076SB-0114M-0001-SO	CARBON DISULFIDE	0.48	UG/KG	4.8	0.48	U	076SB-0115M-0001-SO	0.52	5.2	0.52	U	N/A	Yes
076SB-0114M-0001-SO	CARBON TETRACHLORIDE	0.48	UG/KG	4.8	0.48	U	076SB-0115M-0001-SO	0.52	5.2	0.52	U	N/A	Yes
076SB-0114M-0001-SO	CHLOROBENZENE	0.48	UG/KG	4.8	0.48	U	076SB-0115M-0001-SO	0.52	5.2	0.52	U	N/A	Yes
076SB-0114M-0001-SO	CHLOROETHANE	0.96	UG/KG	4.8	0.96	U	076SB-0115M-0001-SO	1	5.2	1	U	N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
076SB-0114M-0001-SO	CHLOROFORM	0.48	UG/KG	4.8	0.48	U	076SB-0115M-0001-SO	0.52	5.2	0.52	U	N/A	Yes
076SB-0114M-0001-SO	CHLOROMETHANE	0.48	UG/KG	4.8	0.48	U	076SB-0115M-0001-SO	0.52	5.2	0.52	U	N/A	Yes
076SB-0114M-0001-SO	CIS-1,3-DICHLOROPROPENE	0.48	UG/KG	4.8	0.48	U	076SB-0115M-0001-SO	0.52	5.2	0.52	U	N/A	Yes
076SB-0114M-0001-SO	DIBROMOCHLOROMETHANE	0.96	UG/KG	4.8	0.96	U	076SB-0115M-0001-SO	1	5.2	1	U	N/A	Yes
076SB-0114M-0001-SO	ETHYLBENZENE	0.48	UG/KG	4.8	0.48	U	076SB-0115M-0001-SO	0.52	5.2	0.52	U	N/A	Yes
076SB-0114M-0001-SO	METHYL ETHYL KETONE	1.9	UG/KG	19	1.9	U	076SB-0115M-0001-SO	2.1	21	2.1	U	N/A	Yes
076SB-0114M-0001-SO	METHYL ISOBUTYL KETONE	0.96	UG/KG	19	0.96	U	076SB-0115M-0001-SO	1	21	1	U	N/A	Yes
076SB-0114M-0001-SO	METHYLENE CHLORIDE	0.96	UG/KG	4.8	0.96	U	076SB-0115M-0001-SO	1.7	5.2	1	J	N/A	Yes
076SB-0114M-0001-SO	STYRENE	0.48	UG/KG	4.8	0.48	U	076SB-0115M-0001-SO	0.52	5.2	0.52	U	N/A	Yes
076SB-0114M-0001-SO	TETRACHLOROETHYLENE	0.96	UG/KG	4.8	0.96	U	076SB-0115M-0001-SO	1	5.2	1	U	N/A	Yes
076SB-0114M-0001-SO	TOLUENE	0.52	UG/KG	4.8	0.48	J	076SB-0115M-0001-SO	1.5	5.2	0.52	J	N/A	Yes
076SB-0114M-0001-SO	TOTAL 1,2-DICHLOROETHENE	0.96	UG/KG	9.6	0.96	U	076SB-0115M-0001-SO	1	10	1	U	N/A	Yes
076SB-0114M-0001-SO	TRANS-1,3-DICHLOROPROPENE	0.96	UG/KG	4.8	0.96	U	076SB-0115M-0001-SO	1	5.2	1	U	N/A	Yes
076SB-0114M-0001-SO	TRICHLOROETHYLENE	0.48	UG/KG	4.8	0.48	U	076SB-0115M-0001-SO	0.52	5.2	0.52	U	N/A	Yes
076SB-0114M-0001-SO	VINYL CHLORIDE	0.48	UG/KG	4.8	0.48	U	076SB-0115M-0001-SO	0.52	5.2	0.52	U	N/A	Yes
076SB-0114M-0001-SO	XYLENES, TOTAL	1.4	UG/KG	9.6	1.4	U	076SB-0115M-0001-SO	1.6	10	1.6	U	N/A	Yes
076SB-0114M-0001-SO	1,2,4-TRICHLOROBENZENE	27	UG/KG	50	27	U	076SB-0115M-0001-SO	27	49	27	U	N/A	Yes
076SB-0114M-0001-SO	1,2-DICHLOROBENZENE	27	UG/KG	50	27	U	076SB-0115M-0001-SO	27	49	27	U	N/A	Yes
076SB-0114M-0001-SO	1,3-DICHLOROBENZENE	27	UG/KG	50	27	U	076SB-0115M-0001-SO	27	49	27	U	N/A	Yes
076SB-0114M-0001-SO	1,4-DICHLOROBENZENE	27	UG/KG	50	27	U	076SB-0115M-0001-SO	27	49	27	U	N/A	Yes
076SB-0114M-0001-SO	2,4,5-TRICHLOROPHENOL	27	UG/KG	150	27	U	076SB-0115M-0001-SO	27	150	27	U	N/A	Yes
076SB-0114M-0001-SO	2,4,6-TRICHLOROPHENOL	81	UG/KG	150	81	U	076SB-0115M-0001-SO	79	150	79	U	N/A	Yes
076SB-0114M-0001-SO	2,4-DICHLOROPHENOL	27	UG/KG	150	27	U	076SB-0115M-0001-SO	27	150	27	U	N/A	Yes
076SB-0114M-0001-SO	2,4-DIMETHYLPHENOL	81	UG/KG	150	81	U	076SB-0115M-0001-SO	79	150	79	U	N/A	Yes
076SB-0114M-0001-SO	2,4-DINITROPHENOL	81	UG/KG	330	81	U	076SB-0115M-0001-SO	79	330	79	U	N/A	Yes
076SB-0114M-0001-SO	2,4-DINITROTOLUENE	27	UG/KG	200	27	U	076SB-0115M-0001-SO	27	200	27	U	N/A	Yes
076SB-0114M-0001-SO	2,6-DINITROTOLUENE	27	UG/KG	200	27	U	076SB-0115M-0001-SO	27	200	27	U	N/A	Yes
076SB-0114M-0001-SO	2-CHLORONAPHTHALENE	3.3	UG/KG	50	3.3	U	076SB-0115M-0001-SO	3.3	49	3.3	U	N/A	Yes
076SB-0114M-0001-SO	2-CHLOROPHENOL	27	UG/KG	50	27	U	076SB-0115M-0001-SO	27	49	27	U	N/A	Yes
076SB-0114M-0001-SO	2-METHYLNAPHTHALENE	8.3	UG/KG	6.7	3.3		076SB-0115M-0001-SO	12	6.6	3.3		N/A	Yes
076SB-0114M-0001-SO	2-METHYLPHENOL	81	UG/KG	200	81	U	076SB-0115M-0001-SO	79	200	79	U	N/A	Yes
076SB-0114M-0001-SO	2-NITROANILINE	27	UG/KG	200	27	U	076SB-0115M-0001-SO	27	200	27	U	N/A	Yes
076SB-0114M-0001-SO	2-NITROPHENOL	27	UG/KG	50	27	U	076SB-0115M-0001-SO	27	49	27	U	N/A	Yes
076SB-0114M-0001-SO	3,3'-DICHLOROBENZIDINE	81	UG/KG	100	81	U	076SB-0115M-0001-SO	79	99	79	U	N/A	Yes
076SB-0114M-0001-SO	3-NITROANILINE	81	UG/KG	200	81	U	076SB-0115M-0001-SO	79	200	79	U	N/A	Yes
076SB-0114M-0001-SO	4,6-DINITRO-2-METHYLPHENOL	81	UG/KG	150	81	U	076SB-0115M-0001-SO	79	150	79	U	N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
076SB-0114M-0001-SO	4-BROMOPHENYL PHENYL ETHER	27	UG/KG	50	27	U	076SB-0115M-0001-SO	27	49	27	U	N/A	Yes
076SB-0114M-0001-SO	4-CHLORO-3-METHYLPHENOL	27	UG/KG	150	27	U	076SB-0115M-0001-SO	27	150	27	U	N/A	Yes
076SB-0114M-0001-SO	4-CHLOROANILINE	27	UG/KG	150	27	U	076SB-0115M-0001-SO	27	150	27	U	N/A	Yes
076SB-0114M-0001-SO	4-CHLOROPHENYL PHENYL ETHER	27	UG/KG	50	27	U	076SB-0115M-0001-SO	27	49	27	U	N/A	Yes
076SB-0114M-0001-SO	4-NITROANILINE	27	UG/KG	200	27	U	076SB-0115M-0001-SO	27	200	27	U	N/A	Yes
076SB-0114M-0001-SO	4-NITROPHENOL	81	UG/KG	330	81	U	076SB-0115M-0001-SO	79	330	79	U	N/A	Yes
076SB-0114M-0001-SO	ACENAPHTHENE	3.3	UG/KG	6.7	3.3	U	076SB-0115M-0001-SO	3.3	6.6	3.3	U	N/A	Yes
076SB-0114M-0001-SO	ACENAPHTHYLENE	3.3	UG/KG	6.7	3.3	U	076SB-0115M-0001-SO	3.3	6.6	3.3	U	N/A	Yes
076SB-0114M-0001-SO	ANTHRACENE	4.5	UG/KG	6.7	3.3	J	076SB-0115M-0001-SO	9.1	6.6	3.3		N/A	Yes
076SB-0114M-0001-SO	BENZO(A)ANTHRACENE	23	UG/KG	6.7	3.3		076SB-0115M-0001-SO	33	6.6	3.3		N/A	No
076SB-0114M-0001-SO	BENZO(A)PYRENE	23	UG/KG	6.7	3.3		076SB-0115M-0001-SO	32	6.6	3.3		N/A	No
076SB-0114M-0001-SO	BENZO(B)FLUORANTHENE	35	UG/KG	6.7	3.3		076SB-0115M-0001-SO	50	6.6	3.3		35	N/A
076SB-0114M-0001-SO	BENZO(G,H,I)PERYLENE	17	UG/KG	6.7	3.3		076SB-0115M-0001-SO	26	6.6	3.3		N/A	No
076SB-0114M-0001-SO	BENZO(K)FLUORANTHENE	8.6	UG/KG	6.7	3.3		076SB-0115M-0001-SO	19	6.6	3.3		N/A	No
076SB-0114M-0001-SO	BENZOIC ACID	340	UG/KG	660	340	U	076SB-0115M-0001-SO	330	650	330	U	N/A	Yes
076SB-0114M-0001-SO	BENZYL ALCOHOL	27	UG/KG	330	27	U	076SB-0115M-0001-SO	27	330	27	U	N/A	Yes
076SB-0114M-0001-SO	BENZYL BUTYL PHTHALATE	27	UG/KG	50	27	U	076SB-0115M-0001-SO	27	49	27	U	N/A	Yes
076SB-0114M-0001-SO	BIS(2-CHLOROETHOXY) METHANE	27	UG/KG	100	27	U	076SB-0115M-0001-SO	27	99	27	U	N/A	Yes
076SB-0114M-0001-SO	BIS(2-CHLOROETHYL) ETHER	3.3	UG/KG	100	3.3	U	076SB-0115M-0001-SO	3.3	99	3.3	U	N/A	Yes
076SB-0114M-0001-SO	BIS(2-CHLOROISOPROPYL) ETHER	27	UG/KG	100	27	U	076SB-0115M-0001-SO	27	99	27	U	N/A	Yes
076SB-0114M-0001-SO	BIS(2-ETHYLHEXYL) PHTHALATE	27	UG/KG	50	27	U	076SB-0115M-0001-SO	25	49	27	J	N/A	Yes
076SB-0114M-0001-SO	CARBAZOLE	27	UG/KG	50	27	U	076SB-0115M-0001-SO	27	49	27	U	N/A	Yes
076SB-0114M-0001-SO	CHRYSENE	28	UG/KG	6.7	3.3		076SB-0115M-0001-SO	39	6.6	3.3		N/A	No
076SB-0114M-0001-SO	CRESOLS, M & P	81	UG/KG	400	81	U	076SB-0115M-0001-SO	79	390	79	U	N/A	Yes
076SB-0114M-0001-SO	DIBENZ(A,H)ANTHRACENE	3.3	UG/KG	6.7	3.3	U	076SB-0115M-0001-SO	3.3	6.6	3.3	U	N/A	Yes
076SB-0114M-0001-SO	DIBENZOFURAN	4.2	UG/KG	50	3.3	J	076SB-0115M-0001-SO	5.7	49	3.3	J	N/A	Yes
076SB-0114M-0001-SO	DIETHYL PHTHALATE	27	UG/KG	50	27	U	076SB-0115M-0001-SO	27	49	27	U	N/A	Yes
076SB-0114M-0001-SO	DIMETHYL PHTHALATE	27	UG/KG	50	27	U	076SB-0115M-0001-SO	27	49	27	U	N/A	Yes
076SB-0114M-0001-SO	DI-N-BUTYL PHTHALATE	27	UG/KG	50	27	U	076SB-0115M-0001-SO	27	49	27	U	N/A	Yes
076SB-0114M-0001-SO	DI-N-OCTYLPHTHALATE	27	UG/KG	50	27	U	076SB-0115M-0001-SO	27	49	27	U	N/A	Yes
076SB-0114M-0001-SO	FLUORANTHENE	53	UG/KG	6.7	3.3		076SB-0115M-0001-SO	79	6.6	3.3		39	N/A
076SB-0114M-0001-SO	FLUORENE	3.3	UG/KG	6.7	3.3	U	076SB-0115M-0001-SO	4.5	6.6	3.3	J	N/A	Yes
076SB-0114M-0001-SO	HEXACHLOROBENZENE	3.3	UG/KG	6.7	3.3	U	076SB-0115M-0001-SO	3.3	6.6	3.3	U	N/A	Yes
076SB-0114M-0001-SO	HEXACHLOROBUTADIENE	27	UG/KG	50	27	U	076SB-0115M-0001-SO	27	49	27	U	N/A	Yes
076SB-0114M-0001-SO	HEXACHLOROCYCLOPENTADIENE	27	UG/KG	330	27	U	076SB-0115M-0001-SO	27	330	27	U	N/A	Yes
076SB-0114M-0001-SO	HEXACHLOROETHANE	27	UG/KG	50	27	U	076SB-0115M-0001-SO	27	49	27	U	N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
076SB-0114M-0001-SO	INDENO(1,2,3-C,D)PYRENE	14	UG/KG	6.7	3.3		076SB-0115M-0001-SO	20	6.6	3.3		N/A	Yes
076SB-0114M-0001-SO	ISOPHORONE	27	UG/KG	50	27	U	076SB-0115M-0001-SO	27	49	27	U	N/A	Yes
076SB-0114M-0001-SO	NAPHTHALENE	8.3	UG/KG	6.7	3.3		076SB-0115M-0001-SO	11	6.6	3.3		N/A	Yes
076SB-0114M-0001-SO	NITROBENZENE	3.3	UG/KG	100	3.3	U	076SB-0115M-0001-SO	3.3	99	3.3	U	N/A	Yes
076SB-0114M-0001-SO	N-NITROSODI-N-PROPYLAMINE	27	UG/KG	50	27	U	076SB-0115M-0001-SO	27	49	27	U	N/A	Yes
076SB-0114M-0001-SO	N-NITROSODIPHENYLAMINE	27	UG/KG	50	27	R	076SB-0115M-0001-SO	27	49	27	U	N/A	N/A
076SB-0114M-0001-SO	PENTACHLOROPHENOL	81	UG/KG	150	81	U	076SB-0115M-0001-SO	79	150	79	U	N/A	Yes
076SB-0114M-0001-SO	PHENANTHRENE	34	UG/KG	6.7	3.3		076SB-0115M-0001-SO	52	6.6	3.3		42	N/A
076SB-0114M-0001-SO	PHENOL	27	UG/KG	50	27	U	076SB-0115M-0001-SO	27	49	27	U	N/A	Yes
076SB-0114M-0001-SO	PYRENE	44	UG/KG	6.7	3.3		076SB-0115M-0001-SO	67	6.6	3.3		41	N/A
076SD-0009-0001-SO	ALUMINUM	7500	MG/KG	9.6	3.8	J	076SD-0010-0001-SO	8500	49	19		13	N/A
076SD-0009-0001-SO	ANTIMONY	0.72	MG/KG	0.96	0.72	R	076SD-0010-0001-SO	0.73	0.97	0.73	U	N/A	N/A
076SD-0009-0001-SO	ARSENIC	9.5	MG/KG	0.48	0.14		076SD-0010-0001-SO	9.7	0.49	0.15		2	N/A
076SD-0009-0001-SO	BARIUM	57	MG/KG	2.4	1.4		076SD-0010-0001-SO	58	2.4	1.5		2	N/A
076SD-0009-0001-SO	BERYLLIUM	0.45	MG/KG	0.096	0.0096		076SD-0010-0001-SO	0.46	0.097	0.0097		N/A	Yes
076SD-0009-0001-SO	CADMIUM	0.16	MG/KG	0.19	0.0096	J	076SD-0010-0001-SO	0.16	0.19	0.0097	J	N/A	Yes
076SD-0009-0001-SO	CALCIUM	1800	MG/KG	190	96	J+	076SD-0010-0001-SO	2100	970	490		N/A	Yes
076SD-0009-0001-SO	CHROMIUM	44	MG/KG	0.48	0.43	J	076SD-0010-0001-SO	25	2.4	2.2		55	N/A
076SD-0009-0001-SO	COBALT	7.3	MG/KG	0.096	0.014		076SD-0010-0001-SO	8	0.49	0.073		9	N/A
076SD-0009-0001-SO	COPPER	15	MG/KG	0.38	0.29		076SD-0010-0001-SO	16	1.9	1.5		6	N/A
076SD-0009-0001-SO	IRON	19000	MG/KG	48	29	J	076SD-0010-0001-SO	21000	240	150		10	N/A
076SD-0009-0001-SO	LEAD	19	MG/KG	1.4	0.96		076SD-0010-0001-SO	19	1.5	0.97		0	N/A
076SD-0009-0001-SO	MAGNESIUM	1800	MG/KG	96	24		076SD-0010-0001-SO	2000	490	120		N/A	Yes
076SD-0009-0001-SO	MANGANESE	310	MG/KG	0.48	0.38		076SD-0010-0001-SO	360	2.4	1.9		15	N/A
076SD-0009-0001-SO	NICKEL	30	MG/KG	0.48	0.24	J	076SD-0010-0001-SO	22	2.4	1.2		31	N/A
076SD-0009-0001-SO	POTASSIUM	590	MG/KG	96	9.6	J+	076SD-0010-0001-SO	670	490	49		N/A	Yes
076SD-0009-0001-SO	SELENIUM	0.52	MG/KG	0.48	0.058	J	076SD-0010-0001-SO	0.54	0.49	0.058		N/A	Yes
076SD-0009-0001-SO	SILVER	0.029	MG/KG	0.096	0.048	J	076SD-0010-0001-SO	0.029	0.097	0.049	J	N/A	Yes
076SD-0009-0001-SO	SODIUM	49	MG/KG	96	38	J	076SD-0010-0001-SO	190	490	190	U	N/A	Yes
076SD-0009-0001-SO	THALLIUM	0.72	MG/KG	0.96	0.72	U	076SD-0010-0001-SO	0.73	0.97	0.73	U	N/A	Yes
076SD-0009-0001-SO	VANADIUM	14	MG/KG	0.48	0.096	J+	076SD-0010-0001-SO	15	2.4	0.49		7	N/A
076SD-0009-0001-SO	ZINC	49	MG/KG	3.8	1.9		076SD-0010-0001-SO	59	19	9.7		N/A	Yes
076SD-0009-0001-SO	MERCURY	0.053	MG/KG	0.095	0.031	U	076SD-0010-0001-SO	0.059	0.11	0.035	J	N/A	Yes
076SD-0009-0001-SO	1,2,4-TRICHLOROBENZENE	27	UG/KG	51	27	U	076SD-0010-0001-SO	27	51	27	U	N/A	Yes
076SD-0009-0001-SO	1,2-DICHLOROBENZENE	27	UG/KG	51	27	U	076SD-0010-0001-SO	27	51	27	U	N/A	Yes
076SD-0009-0001-SO	1,3-DICHLOROBENZENE	27	UG/KG	51	27	U	076SD-0010-0001-SO	27	51	27	U	N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
076SD-0009-0001-SO	1,4-DICHLOROBENZENE	27	UG/KG	51	27	U	076SD-0010-0001-SO	27	51	27	U	N/A	Yes
076SD-0009-0001-SO	2,2'-OXYBIS(1-CHLORO)PROPANE	27	UG/KG	100	27	U	076SD-0010-0001-SO	27	100	27	U	N/A	Yes
076SD-0009-0001-SO	2,4,5-TRICHLOROPHENOL	27	UG/KG	150	27	U	076SD-0010-0001-SO	27	150	27	U	N/A	Yes
076SD-0009-0001-SO	2,4,6-TRICHLOROPHENOL	81	UG/KG	150	81	U	076SD-0010-0001-SO	81	150	81	U	N/A	Yes
076SD-0009-0001-SO	2,4-DICHLOROPHENOL	27	UG/KG	150	27	U	076SD-0010-0001-SO	27	150	27	U	N/A	Yes
076SD-0009-0001-SO	2,4-DIMETHYLPHENOL	81	UG/KG	150	81	U	076SD-0010-0001-SO	81	150	81	U	N/A	Yes
076SD-0009-0001-SO	2,4-DINITROPHENOL	81	UG/KG	330	81	UJ	076SD-0010-0001-SO	81	330	81	U	N/A	Yes
076SD-0009-0001-SO	2,4-DINITROTOLUENE	27	UG/KG	200	27	U	076SD-0010-0001-SO	27	200	27	U	N/A	Yes
076SD-0009-0001-SO	2,6-DINITROTOLUENE	27	UG/KG	200	27	U	076SD-0010-0001-SO	27	200	27	U	N/A	Yes
076SD-0009-0001-SO	2-CHLORONAPHTHALENE	3.3	UG/KG	51	3.3	U	076SD-0010-0001-SO	3.3	51	3.3	U	N/A	Yes
076SD-0009-0001-SO	2-CHLOROPHENOL	27	UG/KG	51	27	U	076SD-0010-0001-SO	27	51	27	U	N/A	Yes
076SD-0009-0001-SO	2-METHYLNAPHTHALENE	30	UG/KG	6.8	3.3		076SD-0010-0001-SO	20	6.7	3.3		N/A	No
076SD-0009-0001-SO	2-METHYLPHENOL	81	UG/KG	200	81	U	076SD-0010-0001-SO	81	200	81	U	N/A	Yes
076SD-0009-0001-SO	2-NITROANILINE	27	UG/KG	200	27	U	076SD-0010-0001-SO	27	200	27	U	N/A	Yes
076SD-0009-0001-SO	2-NITROPHENOL	27	UG/KG	51	27	U	076SD-0010-0001-SO	27	51	27	U	N/A	Yes
076SD-0009-0001-SO	3,3'-DICHLOROBENZIDINE	81	UG/KG	100	81	R	076SD-0010-0001-SO	81	100	81	U	N/A	N/A
076SD-0009-0001-SO	3-NITROANILINE	81	UG/KG	200	81	R	076SD-0010-0001-SO	81	200	81	U	N/A	N/A
076SD-0009-0001-SO	4,6-DINITRO-2-METHYLPHENOL	81	UG/KG	150	81	U	076SD-0010-0001-SO	81	150	81	U	N/A	Yes
076SD-0009-0001-SO	4-BROMOPHENYL PHENYL ETHER	27	UG/KG	51	27	UJ	076SD-0010-0001-SO	27	51	27	U	N/A	Yes
076SD-0009-0001-SO	4-CHLORO-3-METHYLPHENOL	27	UG/KG	150	27	U	076SD-0010-0001-SO	27	150	27	U	N/A	Yes
076SD-0009-0001-SO	4-CHLOROANILINE	27	UG/KG	150	27	R	076SD-0010-0001-SO	27	150	27	U	N/A	N/A
076SD-0009-0001-SO	4-CHLOROPHENYL PHENYL ETHER	27	UG/KG	51	27	U	076SD-0010-0001-SO	27	51	27	U	N/A	Yes
076SD-0009-0001-SO	4-NITROANILINE	27	UG/KG	200	27	R	076SD-0010-0001-SO	27	200	27	U	N/A	N/A
076SD-0009-0001-SO	4-NITROPHENOL	81	UG/KG	330	81	U	076SD-0010-0001-SO	81	330	81	U	N/A	Yes
076SD-0009-0001-SO	ACENAPHTHENE	7.1	UG/KG	6.8	3.3		076SD-0010-0001-SO	5.6	6.7	3.3	J	N/A	Yes
076SD-0009-0001-SO	ACENAPHTHYLENE	13	UG/KG	6.8	3.3		076SD-0010-0001-SO	6.5	6.7	3.3	J	N/A	Yes
076SD-0009-0001-SO	ANTHRACENE	16	UG/KG	6.8	3.3		076SD-0010-0001-SO	11	6.7	3.3		N/A	Yes
076SD-0009-0001-SO	BENZO(A)ANTHRACENE	71	UG/KG	6.8	3.3		076SD-0010-0001-SO	46	6.7	3.3		43	N/A
076SD-0009-0001-SO	BENZO(A)PYRENE	69	UG/KG	6.8	3.3		076SD-0010-0001-SO	52	6.7	3.3		28	N/A
076SD-0009-0001-SO	BENZO(B)FLUORANTHENE	110	UG/KG	6.8	3.3		076SD-0010-0001-SO	71	6.7	3.3		43	N/A
076SD-0009-0001-SO	BENZO(G,H,I)PERYLENE	39	UG/KG	6.8	3.3	J	076SD-0010-0001-SO	31	6.7	3.3		N/A	No
076SD-0009-0001-SO	BENZO(K)FLUORANTHENE	38	UG/KG	6.8	3.3		076SD-0010-0001-SO	28	6.7	3.3		N/A	No
076SD-0009-0001-SO	BENZOIC ACID	340	UG/KG	670	340	UJ	076SD-0010-0001-SO	340	670	340	U	N/A	Yes
076SD-0009-0001-SO	BENZYL ALCOHOL	27	UG/KG	330	27	U	076SD-0010-0001-SO	27	330	27	U	N/A	Yes
076SD-0009-0001-SO	BENZYL BUTYL PHTHALATE	27	UG/KG	51	27	U	076SD-0010-0001-SO	27	51	27	U	N/A	Yes
076SD-0009-0001-SO	BIS(2-CHLOROETHOXY) METHANE	27	UG/KG	100	27	U	076SD-0010-0001-SO	27	100	27	U	N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
076SD-0009-0001-SO	BIS(2-CHLOROETHYL) ETHER	3.3	UG/KG	100	3.3	U	076SD-0010-0001-SO	3.3	100	3.3	U	N/A	Yes
076SD-0009-0001-SO	BIS(2-ETHYLHEXYL) PHTHALATE	89	UG/KG	51	27		076SD-0010-0001-SO	72	51	27		N/A	Yes
076SD-0009-0001-SO	CARBAZOLE	27	UG/KG	51	27	U	076SD-0010-0001-SO	27	51	27	U	N/A	Yes
076SD-0009-0001-SO	CHRYSENE	73	UG/KG	6.8	3.3		076SD-0010-0001-SO	55	6.7	3.3		28	N/A
076SD-0009-0001-SO	CRESOLS, M & P	81	UG/KG	410	81	U	076SD-0010-0001-SO	81	400	81	U	N/A	Yes
076SD-0009-0001-SO	DIBENZ(A,H)ANTHRACENE	3.3	UG/KG	6.8	3.3	U	076SD-0010-0001-SO	3.3	6.7	3.3	U	N/A	Yes
076SD-0009-0001-SO	DIBENZOFURAN	14	UG/KG	51	3.3	J	076SD-0010-0001-SO	17	51	3.3	J	N/A	Yes
076SD-0009-0001-SO	DIETHYL PHTHALATE	23	UG/KG	51	27	J	076SD-0010-0001-SO	27	51	27	U	N/A	Yes
076SD-0009-0001-SO	DIMETHYL PHTHALATE	27	UG/KG	51	27	U	076SD-0010-0001-SO	27	51	27	U	N/A	Yes
076SD-0009-0001-SO	DI-N-BUTYL PHTHALATE	27	UG/KG	51	27	U	076SD-0010-0001-SO	27	51	27	U	N/A	Yes
076SD-0009-0001-SO	DI-N-OCTYLPHTHALATE	27	UG/KG	51	27	U	076SD-0010-0001-SO	27	51	27	U	N/A	Yes
076SD-0009-0001-SO	FLUORANTHENE	120	UG/KG	6.8	3.3		076SD-0010-0001-SO	88	6.7	3.3		31	N/A
076SD-0009-0001-SO	FLUORENE	12	UG/KG	6.8	3.3		076SD-0010-0001-SO	7.8	6.7	3.3		N/A	Yes
076SD-0009-0001-SO	HEXACHLOROBENZENE	3.3	UG/KG	6.8	3.3	U	076SD-0010-0001-SO	3.3	6.7	3.3	U	N/A	Yes
076SD-0009-0001-SO	HEXACHLOROBUTADIENE	27	UG/KG	51	27	U	076SD-0010-0001-SO	27	51	27	U	N/A	Yes
076SD-0009-0001-SO	HEXACHLOROCYCLOPENTADIENE	27	UG/KG	330	27	U	076SD-0010-0001-SO	27	330	27	U	N/A	Yes
076SD-0009-0001-SO	HEXACHLOROETHANE	27	UG/KG	51	27	UJ	076SD-0010-0001-SO	27	51	27	U	N/A	Yes
076SD-0009-0001-SO	INDENO(1,2,3-C,D)PYRENE	33	UG/KG	6.8	3.3	J	076SD-0010-0001-SO	28	6.7	3.3		N/A	Yes
076SD-0009-0001-SO	ISOPHORONE	18	UG/KG	51	27	J	076SD-0010-0001-SO	27	51	27	U	N/A	Yes
076SD-0009-0001-SO	NAPHTHALENE	22	UG/KG	6.8	3.3		076SD-0010-0001-SO	14	6.7	3.3		N/A	No
076SD-0009-0001-SO	NITROBENZENE	3.3	UG/KG	100	3.3	U	076SD-0010-0001-SO	3.3	100	3.3	U	N/A	Yes
076SD-0009-0001-SO	N-NITROSODI-N-PROPYLAMINE	27	UG/KG	51	27	U	076SD-0010-0001-SO	27	51	27	U	N/A	Yes
076SD-0009-0001-SO	N-NITROSODIPHENYLAMINE	27	UG/KG	51	27	U	076SD-0010-0001-SO	27	51	27	U	N/A	Yes
076SD-0009-0001-SO	PENTACHLOROPHENOL	81	UG/KG	150	81	UJ	076SD-0010-0001-SO	81	150	81	U	N/A	Yes
076SD-0009-0001-SO	PHENANTHRENE	68	UG/KG	6.8	3.3		076SD-0010-0001-SO	51	6.7	3.3		29	N/A
076SD-0009-0001-SO	PHENOL	27	UG/KG	51	27	U	076SD-0010-0001-SO	27	51	27	U	N/A	Yes
076SD-0009-0001-SO	PYRENE	100	UG/KG	6.8	3.3		076SD-0010-0001-SO	69	6.7	3.3		37	N/A
076SS-0020M-0001-SO	NITROCELLULOSE	18	MG/KG	50	18	U	076SS-0021M-0001-SO	17	45	17	U	N/A	Yes
076SS-0020M-0001-SO	ALUMINUM	11000	MG/KG	9.3	3.7		076SS-0021M-0001-SO	10000	8.3	3.3		10	N/A
076SS-0020M-0001-SO	ANTIMONY	0.17	MG/KG	0.19	0.14	J-	076SS-0021M-0001-SO	0.17	0.17	0.13		N/A	Yes
076SS-0020M-0001-SO	ARSENIC	11	MG/KG	0.46	0.14	J-	076SS-0021M-0001-SO	11	0.42	0.13		0	N/A
076SS-0020M-0001-SO	BARIUM	100	MG/KG	0.46	0.28		076SS-0021M-0001-SO	88	0.42	0.25		13	N/A
076SS-0020M-0001-SO	BERYLLIUM	0.62	MG/KG	0.093	0.0093		076SS-0021M-0001-SO	0.54	0.083	0.0083		14	N/A
076SS-0020M-0001-SO	CADMIUM	0.2	MG/KG	0.19	0.0093		076SS-0021M-0001-SO	0.15	0.17	0.0083	J	N/A	Yes
076SS-0020M-0001-SO	CALCIUM	1100	MG/KG	190	93		076SS-0021M-0001-SO	1100	170	83		0	N/A
076SS-0020M-0001-SO	CHROMIUM	16	MG/KG	0.46	0.42		076SS-0021M-0001-SO	15	0.42	0.38		6	N/A

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
076SS-0020M-0001-SO	COBALT	9.4	MG/KG	0.093	0.014		076SS-0021M-0001-SO	9.4	0.083	0.013		0	N/A
076SS-0020M-0001-SO	COPPER	12	MG/KG	0.37	0.28		076SS-0021M-0001-SO	12	0.33	0.25		0	N/A
076SS-0020M-0001-SO	IRON	19000	MG/KG	46	28		076SS-0021M-0001-SO	21000	42	25		10	N/A
076SS-0020M-0001-SO	LEAD	38	MG/KG	0.28	0.19		076SS-0021M-0001-SO	36	0.25	0.17		5	N/A
076SS-0020M-0001-SO	MAGNESIUM	2000	MG/KG	93	23		076SS-0021M-0001-SO	2100	83	21		5	N/A
076SS-0020M-0001-SO	MANGANESE	760	MG/KG	0.46	0.37	J	076SS-0021M-0001-SO	700	0.42	0.33		8	N/A
076SS-0020M-0001-SO	NICKEL	18	MG/KG	0.46	0.23		076SS-0021M-0001-SO	18	0.42	0.21		0	N/A
076SS-0020M-0001-SO	POTASSIUM	801	MG/KG	93	9.3		076SS-0021M-0001-SO	790	83	8.3		1	N/A
076SS-0020M-0001-SO	SELENIUM	0.6	MG/KG	0.46	0.056	J-	076SS-0021M-0001-SO	0.5	0.42	0.05		N/A	Yes
076SS-0020M-0001-SO	SILVER	0.073	MG/KG	0.093	0.046	J	076SS-0021M-0001-SO	0.13	0.083	0.042		N/A	Yes
076SS-0020M-0001-SO	SODIUM	37	MG/KG	93	37	U	076SS-0021M-0001-SO	26	83	33	J	N/A	Yes
076SS-0020M-0001-SO	THALLIUM	0.21	MG/KG	0.19	0.14	UJ	076SS-0021M-0001-SO	0.17	0.17	0.13		N/A	Yes
076SS-0020M-0001-SO	VANADIUM	18	MG/KG	0.46	0.093		076SS-0021M-0001-SO	18	0.42	0.083		0	N/A
076SS-0020M-0001-SO	ZINC	120	MG/KG	3.7	1.9		076SS-0021M-0001-SO	77	3.3	1.7		44	N/A
076SS-0020M-0001-SO	MERCURY	0.077	MG/KG	0.1	0.033	U	076SS-0021M-0001-SO	0.083	0.09	0.03	J	N/A	Yes
076SS-0020M-0001-SO	ALDRIN	6.7	UG/KG	20	6.7	U	076SS-0021M-0001-SO	1.3	4	1.3	U	N/A	Yes
076SS-0020M-0001-SO	ALPHA BHC	6.7	UG/KG	13	6.7	U	076SS-0021M-0001-SO	1.3	2.5	1.3	U	N/A	Yes
076SS-0020M-0001-SO	ALPHA ENDOSULFAN	3.4	UG/KG	8.6	3.4	U	076SS-0021M-0001-SO	0.67	1.7	0.67	U	N/A	Yes
076SS-0020M-0001-SO	ALPHA-CHLORDANE	6.7	UG/KG	15	6.7	U	076SS-0021M-0001-SO	1.3	3	1.3	U	N/A	Yes
076SS-0020M-0001-SO	BETA BHC	6.7	UG/KG	18	6.7	U	076SS-0021M-0001-SO	1.3	3.5	1.3	U	N/A	Yes
076SS-0020M-0001-SO	BETA ENDOSULFAN	6.7	UG/KG	13	6.7	U	076SS-0021M-0001-SO	1.3	2.5	1.3	U	N/A	Yes
076SS-0020M-0001-SO	DELTA BHC	6.7	UG/KG	20	6.7	U	076SS-0021M-0001-SO	1.3	4	1.3	U	N/A	Yes
076SS-0020M-0001-SO	DIELDRIN	3.4	UG/KG	8.6	3.4	U	076SS-0021M-0001-SO	0.67	1.7	0.67	U	N/A	Yes
076SS-0020M-0001-SO	ENDOSULFAN SULFATE	6.7	UG/KG	15	6.7	U	076SS-0021M-0001-SO	1.3	3	1.3	U	N/A	Yes
076SS-0020M-0001-SO	ENDRIN	3.4	UG/KG	8.6	3.4	U	076SS-0021M-0001-SO	0.67	1.7	0.67	U	N/A	Yes
076SS-0020M-0001-SO	ENDRIN ALDEHYDE	6.7	UG/KG	15	6.7	U	076SS-0021M-0001-SO	1.3	3	1.3	U	N/A	Yes
076SS-0020M-0001-SO	ENDRIN KETONE	3.4	UG/KG	10	3.4	U	076SS-0021M-0001-SO	0.67	2	0.67	U	N/A	Yes
076SS-0020M-0001-SO	GAMMA BHC (LINDANE)	6.7	UG/KG	13	6.7	U	076SS-0021M-0001-SO	1.3	2.5	1.3	U	N/A	Yes
076SS-0020M-0001-SO	GAMMA-CHLORDANE	3.4	UG/KG	8.6	3.4	U	076SS-0021M-0001-SO	0.67	1.7	0.67	U	N/A	Yes
076SS-0020M-0001-SO	HEPTACHLOR	6.7	UG/KG	18	6.7	U	076SS-0021M-0001-SO	1.3	3.5	1.3	U	N/A	Yes
076SS-0020M-0001-SO	HEPTACHLOR EPOXIDE	6.7	UG/KG	13	6.7	U	076SS-0021M-0001-SO	1.3	2.5	1.3	U	N/A	Yes
076SS-0020M-0001-SO	METHOXYCHLOR	17	UG/KG	25	17	U	076SS-0021M-0001-SO	1.3	5	3.3	U	N/A	Yes
076SS-0020M-0001-SO	P,P'-DDD	3.4	UG/KG	10	3.4	U	076SS-0021M-0001-SO	0.67	2	0.67	U	N/A	Yes
076SS-0020M-0001-SO	P,P'-DDE	3.4	UG/KG	8.6	3.4	U	076SS-0021M-0001-SO	0.67	1.7	0.67	U	N/A	Yes
076SS-0020M-0001-SO	P,P'-DDT	3.4	UG/KG	10	3.4	U	076SS-0021M-0001-SO	0.67	2	0.67	U	N/A	Yes
076SS-0020M-0001-SO	TOXAPHENE	100	UG/KG	340	100	UJ	076SS-0021M-0001-SO	20	67	20	U	N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
076SS-0020M-0001-SO	AROCLOR 1016	25	UG/KG	66	25	U	076SS-0021M-0001-SO	25	65	25	U	N/A	Yes
076SS-0020M-0001-SO	AROCLOR 1221	25	UG/KG	51	25	U	076SS-0021M-0001-SO	25	50	25	U	N/A	Yes
076SS-0020M-0001-SO	AROCLOR 1232	25	UG/KG	46	25	U	076SS-0021M-0001-SO	25	45	25	U	N/A	Yes
076SS-0020M-0001-SO	AROCLOR 1242	25	UG/KG	40	25	U	076SS-0021M-0001-SO	25	40	25	U	N/A	Yes
076SS-0020M-0001-SO	AROCLOR 1248	25	UG/KG	56	25	U	076SS-0021M-0001-SO	25	55	25	U	N/A	Yes
076SS-0020M-0001-SO	AROCLOR 1254	25	UG/KG	56	25	U	076SS-0021M-0001-SO	25	55	25	U	N/A	Yes
076SS-0020M-0001-SO	AROCLOR 1260	25	UG/KG	56	25	U	076SS-0021M-0001-SO	25	55	25	U	N/A	Yes
076SS-0020M-0001-SO	1,1,1-TRICHLOROETHANE	1.2	UG/KG	5.8	1.2	U	076SS-0021M-0001-SO	1.2	5.9	1.2	U	N/A	Yes
076SS-0020M-0001-SO	1,1,2,2-TETRACHLOROETHANE	0.58	UG/KG	5.8	0.58	U	076SS-0021M-0001-SO	0.59	5.9	0.59	U	N/A	Yes
076SS-0020M-0001-SO	1,1,2-TRICHLOROETHANE	0.58	UG/KG	5.8	0.58	U	076SS-0021M-0001-SO	0.59	5.9	0.59	U	N/A	Yes
076SS-0020M-0001-SO	1,1-DICHLOROETHANE	0.58	UG/KG	5.8	0.58	U	076SS-0021M-0001-SO	0.59	5.9	0.59	U	N/A	Yes
076SS-0020M-0001-SO	1,1-DICHLOROETHENE	1.2	UG/KG	5.8	1.2	U	076SS-0021M-0001-SO	1.2	5.9	1.2	U	N/A	Yes
076SS-0020M-0001-SO	1,2-DIBROMOETHANE	1.2	UG/KG	5.8	1.2	U	076SS-0021M-0001-SO	1.2	5.9	1.2	U	N/A	Yes
076SS-0020M-0001-SO	1,2-DICHLOROETHANE	0.58	UG/KG	5.8	0.58	U	076SS-0021M-0001-SO	0.59	5.9	0.59	U	N/A	Yes
076SS-0020M-0001-SO	1,2-DICHLOROPROPANE	1.2	UG/KG	5.8	1.2	U	076SS-0021M-0001-SO	1.2	5.9	1.2	U	N/A	Yes
076SS-0020M-0001-SO	2-HEXANONE	1.2	UG/KG	23	1.2	U	076SS-0021M-0001-SO	1.2	24	1.2	U	N/A	Yes
076SS-0020M-0001-SO	ACETONE	26	UG/KG	23	7.3	U	076SS-0021M-0001-SO	120	24	7.4		N/A	No
076SS-0020M-0001-SO	BENZENE	0.58	UG/KG	5.8	0.58	U	076SS-0021M-0001-SO	0.59	5.9	0.59	U	N/A	Yes
076SS-0020M-0001-SO	BROMOCHLOROMETHANE	1.2	UG/KG	5.8	1.2	U	076SS-0021M-0001-SO	1.2	5.9	1.2	U	N/A	Yes
076SS-0020M-0001-SO	BROMODICHLOROMETHANE	0.58	UG/KG	5.8	0.58	U	076SS-0021M-0001-SO	0.59	5.9	0.59	U	N/A	Yes
076SS-0020M-0001-SO	BROMOFORM	0.58	UG/KG	5.8	0.58	U	076SS-0021M-0001-SO	0.59	5.9	0.59	U	N/A	Yes
076SS-0020M-0001-SO	BROMOMETHANE	1.2	UG/KG	5.8	1.2	U	076SS-0021M-0001-SO	1.2	5.9	1.2	U	N/A	Yes
076SS-0020M-0001-SO	CARBON DISULFIDE	0.58	UG/KG	5.8	0.58	U	076SS-0021M-0001-SO	0.59	5.9	0.59	U	N/A	Yes
076SS-0020M-0001-SO	CARBON TETRACHLORIDE	0.58	UG/KG	5.8	0.58	U	076SS-0021M-0001-SO	0.59	5.9	0.59	U	N/A	Yes
076SS-0020M-0001-SO	CHLOROBENZENE	0.58	UG/KG	5.8	0.58	U	076SS-0021M-0001-SO	0.59	5.9	0.59	U	N/A	Yes
076SS-0020M-0001-SO	CHLOROETHANE	1.2	UG/KG	5.8	1.2	U	076SS-0021M-0001-SO	1.2	5.9	1.2	U	N/A	Yes
076SS-0020M-0001-SO	CHLOROFORM	0.58	UG/KG	5.8	0.58	U	076SS-0021M-0001-SO	0.59	5.9	0.59	U	N/A	Yes
076SS-0020M-0001-SO	CHLOROMETHANE	0.58	UG/KG	5.8	0.58	U	076SS-0021M-0001-SO	0.59	5.9	0.59	U	N/A	Yes
076SS-0020M-0001-SO	CIS-1,3-DICHLOROPROPENE	0.58	UG/KG	5.8	0.58	U	076SS-0021M-0001-SO	0.59	5.9	0.59	U	N/A	Yes
076SS-0020M-0001-SO	DIBROMOCHLOROMETHANE	1.2	UG/KG	5.8	1.2	U	076SS-0021M-0001-SO	1.2	5.9	1.2	U	N/A	Yes
076SS-0020M-0001-SO	ETHYLBENZENE	0.58	UG/KG	5.8	0.58	U	076SS-0021M-0001-SO	0.59	5.9	0.59	U	N/A	Yes
076SS-0020M-0001-SO	METHYL ETHYL KETONE	2.3	UG/KG	23	2.3	U	076SS-0021M-0001-SO	6.4	24	2.4	J	N/A	Yes
076SS-0020M-0001-SO	METHYL ISOBUTYL KETONE	1.2	UG/KG	23	1.2	U	076SS-0021M-0001-SO	1.2	24	1.2	U	N/A	Yes
076SS-0020M-0001-SO	METHYLENE CHLORIDE	1.2	UG/KG	5.8	1.2	U	076SS-0021M-0001-SO	1.2	5.9	1.2	U	N/A	Yes
076SS-0020M-0001-SO	STYRENE	0.58	UG/KG	5.8	0.58	U	076SS-0021M-0001-SO	0.59	5.9	0.59	U	N/A	Yes
076SS-0020M-0001-SO	TERT-BUTYL METHYL ETHER	0.58	UG/KG	5.8	0.58	U	076SS-0021M-0001-SO	0.59	5.9	0.59	U	N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
076SS-0020M-0001-SO	TETRACHLOROETHYLENE	1.2	UG/KG	5.8	1.2	U	076SS-0021M-0001-SO	1.2	5.9	1.2	U	N/A	Yes
076SS-0020M-0001-SO	TOLUENE	0.58	UG/KG	5.8	0.58	U	076SS-0021M-0001-SO	0.36	5.9	0.59	J	N/A	Yes
076SS-0020M-0001-SO	TOTAL 1,2-DICHLOROETHENE	1.2	UG/KG	12	1.2	U	076SS-0021M-0001-SO	1.2	12	1.2	U	N/A	Yes
076SS-0020M-0001-SO	TRANS-1,3-DICHLOROPROPENE	1.2	UG/KG	5.8	1.2	U	076SS-0021M-0001-SO	1.2	5.9	1.2	U	N/A	Yes
076SS-0020M-0001-SO	TRICHLOROETHYLENE	0.58	UG/KG	5.8	0.58	U	076SS-0021M-0001-SO	0.59	5.9	0.59	U	N/A	Yes
076SS-0020M-0001-SO	VINYL CHLORIDE	0.58	UG/KG	5.8	0.58	U	076SS-0021M-0001-SO	0.59	5.9	0.59	U	N/A	Yes
076SS-0020M-0001-SO	XYLENES, TOTAL	1.7	UG/KG	12	1.7	U	076SS-0021M-0001-SO	1.8	12	1.8	U	N/A	Yes
076SS-0020M-0001-SO	1,2,4-TRICHLOROBENZENE	27	UG/KG	49	27	U	076SS-0021M-0001-SO	27	50	27	U	N/A	Yes
076SS-0020M-0001-SO	1,2-DICHLOROBENZENE	27	UG/KG	49	27	U	076SS-0021M-0001-SO	27	50	27	U	N/A	Yes
076SS-0020M-0001-SO	1,3-DICHLOROBENZENE	27	UG/KG	49	27	U	076SS-0021M-0001-SO	27	50	27	U	N/A	Yes
076SS-0020M-0001-SO	1,4-DICHLOROBENZENE	33	UG/KG	49	27	J	076SS-0021M-0001-SO	26	50	27	J	N/A	Yes
076SS-0020M-0001-SO	2,2'-OXYBIS(1-CHLORO)PROPANE	27	UG/KG	98	27	U	076SS-0021M-0001-SO	27	100	27	U	N/A	Yes
076SS-0020M-0001-SO	2,4,5-TRICHLOROPHENOL	27	UG/KG	150	27	U	076SS-0021M-0001-SO	27	150	27	U	N/A	Yes
076SS-0020M-0001-SO	2,4,6-TRICHLOROPHENOL	79	UG/KG	150	79	U	076SS-0021M-0001-SO	81	150	81	U	N/A	Yes
076SS-0020M-0001-SO	2,4-DICHLOROPHENOL	27	UG/KG	150	27	U	076SS-0021M-0001-SO	27	150	27	U	N/A	Yes
076SS-0020M-0001-SO	2,4-DIMETHYLPHENOL	79	UG/KG	150	79	U	076SS-0021M-0001-SO	81	150	81	U	N/A	Yes
076SS-0020M-0001-SO	2,4-DINITROPHENOL	79	UG/KG	330	79	U	076SS-0021M-0001-SO	81	330	81	U	N/A	Yes
076SS-0020M-0001-SO	2,4-DINITROTOLUENE	27	UG/KG	200	27	U	076SS-0021M-0001-SO	27	200	27	U	N/A	Yes
076SS-0020M-0001-SO	2,6-DINITROTOLUENE	27	UG/KG	200	27	U	076SS-0021M-0001-SO	27	200	27	U	N/A	Yes
076SS-0020M-0001-SO	2-CHLORONAPHTHALENE	3.3	UG/KG	49	3.3	U	076SS-0021M-0001-SO	3.3	50	3.3	U	N/A	Yes
076SS-0020M-0001-SO	2-CHLOROPHENOL	27	UG/KG	49	27	U	076SS-0021M-0001-SO	27	50	27	U	N/A	Yes
076SS-0020M-0001-SO	2-METHYLNAPHTHALENE	18	UG/KG	6.6	3.3		076SS-0021M-0001-SO	15	6.7	3.3		N/A	Yes
076SS-0020M-0001-SO	2-METHYLPHENOL	79	UG/KG	200	79	U	076SS-0021M-0001-SO	81	200	81	U	N/A	Yes
076SS-0020M-0001-SO	2-NITROANILINE	27	UG/KG	200	27	U	076SS-0021M-0001-SO	27	200	27	U	N/A	Yes
076SS-0020M-0001-SO	2-NITROPHENOL	27	UG/KG	49	27	U	076SS-0021M-0001-SO	27	50	27	U	N/A	Yes
076SS-0020M-0001-SO	3,3'-DICHLOROBENZIDINE	79	UG/KG	98	79	R	076SS-0021M-0001-SO	81	100	81	U	N/A	N/A
076SS-0020M-0001-SO	3-NITROANILINE	79	UG/KG	200	79	R	076SS-0021M-0001-SO	81	200	81	U	N/A	N/A
076SS-0020M-0001-SO	4,6-DINITRO-2-METHYLPHENOL	79	UG/KG	150	79	U	076SS-0021M-0001-SO	81	150	81	U	N/A	Yes
076SS-0020M-0001-SO	4-BROMOPHENYL PHENYL ETHER	27	UG/KG	49	27	U	076SS-0021M-0001-SO	27	50	27	U	N/A	Yes
076SS-0020M-0001-SO	4-CHLORO-3-METHYLPHENOL	27	UG/KG	150	27	U	076SS-0021M-0001-SO	27	150	27	U	N/A	Yes
076SS-0020M-0001-SO	4-CHLOROANILINE	27	UG/KG	150	27	R	076SS-0021M-0001-SO	27	150	27	U	N/A	N/A
076SS-0020M-0001-SO	4-CHLOROPHENYL PHENYL ETHER	27	UG/KG	49	27	U	076SS-0021M-0001-SO	27	50	27	U	N/A	Yes
076SS-0020M-0001-SO	4-NITROANILINE	27	UG/KG	200	27	UJ	076SS-0021M-0001-SO	27	200	27	U	N/A	Yes
076SS-0020M-0001-SO	4-NITROPHENOL	79	UG/KG	330	79	U	076SS-0021M-0001-SO	81	330	81	U	N/A	Yes
076SS-0020M-0001-SO	ACENAPHTHENE	3.3	UG/KG	6.6	3.3	U	076SS-0021M-0001-SO	3.3	6.7	3.3	U	N/A	Yes
076SS-0020M-0001-SO	ACENAPHTHYLENE	3.3	UG/KG	6.6	3.3	U	076SS-0021M-0001-SO	3.3	6.7	3.3	U	N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
076SS-0020M-0001-SO	ANTHRACENE	3.3	UG/KG	6.6	3.3	U	076SS-0021M-0001-SO	3.3	6.7	3.3	U	N/A	Yes
076SS-0020M-0001-SO	BENZO(A)ANTHRACENE	3.3	UG/KG	6.6	3.3	U	076SS-0021M-0001-SO	8.6	6.7	3.3		N/A	Yes
076SS-0020M-0001-SO	BENZO(A)PYRENE	19	UG/KG	6.6	3.3		076SS-0021M-0001-SO	17	6.7	3.3		N/A	Yes
076SS-0020M-0001-SO	BENZO(B)FLUORANTHENE	19	UG/KG	6.6	3.3		076SS-0021M-0001-SO	18	6.7	3.3		N/A	Yes
076SS-0020M-0001-SO	BENZO(G,H,I)PERYLENE	10	UG/KG	6.6	3.3		076SS-0021M-0001-SO	7.3	6.7	3.3		N/A	Yes
076SS-0020M-0001-SO	BENZO(K)FLUORANTHENE	9.7	UG/KG	6.6	3.3		076SS-0021M-0001-SO	5.7	6.7	3.3	J	N/A	Yes
076SS-0020M-0001-SO	BENZOIC ACID	330	UG/KG	650	330	U	076SS-0021M-0001-SO	340	660	340	U	N/A	Yes
076SS-0020M-0001-SO	BENZYL ALCOHOL	27	UG/KG	330	27	U	076SS-0021M-0001-SO	27	330	27	U	N/A	Yes
076SS-0020M-0001-SO	BENZYL BUTYL PHTHALATE	27	UG/KG	49	27	U	076SS-0021M-0001-SO	27	50	27	U	N/A	Yes
076SS-0020M-0001-SO	BIS(2-CHLOROETHOXY) METHANE	27	UG/KG	98	27	U	076SS-0021M-0001-SO	27	100	27	U	N/A	Yes
076SS-0020M-0001-SO	BIS(2-CHLOROETHYL) ETHER	3.3	UG/KG	98	3.3	U	076SS-0021M-0001-SO	3.3	100	3.3	U	N/A	Yes
076SS-0020M-0001-SO	BIS(2-ETHYLHEXYL) PHTHALATE	36	UG/KG	49	27	U	076SS-0021M-0001-SO	41	50	27	J	N/A	Yes
076SS-0020M-0001-SO	CARBAZOLE	27	UG/KG	49	27	U	076SS-0021M-0001-SO	27	50	27	U	N/A	Yes
076SS-0020M-0001-SO	CHRYSENE	3.3	UG/KG	6.6	3.3	U	076SS-0021M-0001-SO	15	6.7	3.3		N/A	No
076SS-0020M-0001-SO	CRESOLS, M & P	79	UG/KG	390	79	U	076SS-0021M-0001-SO	81	400	81	U	N/A	Yes
076SS-0020M-0001-SO	DIBENZ(A,H)ANTHRACENE	3.3	UG/KG	6.6	3.3	U	076SS-0021M-0001-SO	3.3	6.7	3.3	U	N/A	Yes
076SS-0020M-0001-SO	DIBENZOFURAN	7	UG/KG	49	3.3	J	076SS-0021M-0001-SO	5.6	50	3.3	J	N/A	Yes
076SS-0020M-0001-SO	DIETHYL PHTHALATE	21	UG/KG	49	27	U	076SS-0021M-0001-SO	20	50	27	J	N/A	Yes
076SS-0020M-0001-SO	DIMETHYL PHTHALATE	27	UG/KG	49	27	U	076SS-0021M-0001-SO	27	50	27	U	N/A	Yes
076SS-0020M-0001-SO	DI-N-BUTYL PHTHALATE	16	UG/KG	49	27	J	076SS-0021M-0001-SO	19	50	27	J	N/A	Yes
076SS-0020M-0001-SO	DI-N-OCTYLPHTHALATE	27	UG/KG	49	27	U	076SS-0021M-0001-SO	27	50	27	U	N/A	Yes
076SS-0020M-0001-SO	FLUORANTHENE	28	UG/KG	6.6	3.3		076SS-0021M-0001-SO	21	6.7	3.3		N/A	No
076SS-0020M-0001-SO	FLUORENE	4.7	UG/KG	6.6	3.3	J	076SS-0021M-0001-SO	4	6.7	3.3	J	N/A	Yes
076SS-0020M-0001-SO	HEXACHLOROBENZENE	3.3	UG/KG	6.6	3.3	U	076SS-0021M-0001-SO	3.3	6.7	3.3	U	N/A	Yes
076SS-0020M-0001-SO	HEXACHLOROBUTADIENE	27	UG/KG	49	27	U	076SS-0021M-0001-SO	27	50	27	U	N/A	Yes
076SS-0020M-0001-SO	HEXACHLOROCYCLOPENTADIENE	27	UG/KG	330	27	U	076SS-0021M-0001-SO	27	330	27	U	N/A	Yes
076SS-0020M-0001-SO	HEXACHLOROETHANE	27	UG/KG	49	27	U	076SS-0021M-0001-SO	27	50	27	U	N/A	Yes
076SS-0020M-0001-SO	INDENO(1,2,3-C,D)PYRENE	13	UG/KG	6.6	3.3		076SS-0021M-0001-SO	12	6.7	3.3		N/A	Yes
076SS-0020M-0001-SO	ISOPHORONE	20	UG/KG	49	27	J	076SS-0021M-0001-SO	19	50	27	J	N/A	Yes
076SS-0020M-0001-SO	NAPHTHALENE	20	UG/KG	6.6	3.3		076SS-0021M-0001-SO	17	6.7	3.3		N/A	Yes
076SS-0020M-0001-SO	NITROBENZENE	3.3	UG/KG	98	3.3	U	076SS-0021M-0001-SO	3.3	100	3.3	U	N/A	Yes
076SS-0020M-0001-SO	N-NITROSODI-N-PROPYLAMINE	27	UG/KG	49	27	U	076SS-0021M-0001-SO	27	50	27	U	N/A	Yes
076SS-0020M-0001-SO	N-NITROSODIPHENYLAMINE	27	UG/KG	49	27	U	076SS-0021M-0001-SO	27	50	27	U	N/A	Yes
076SS-0020M-0001-SO	PENTACHLOROPHENOL	79	UG/KG	150	79	U	076SS-0021M-0001-SO	81	150	81	U	N/A	Yes
076SS-0020M-0001-SO	PHENANTHRENE	22	UG/KG	6.6	3.3		076SS-0021M-0001-SO	16	6.7	3.3		N/A	Yes
076SS-0020M-0001-SO	PHENOL	27	UG/KG	49	27	U	076SS-0021M-0001-SO	27	50	27	U	N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
076SS-0020M-0001-SO	PYRENE	19	UG/KG	6.6	3.3		076SS-0021M-0001-SO	15	6.7	3.3		N/A	Yes
076SS-0020M-0001-SO	1,3,5-TRINITROBENZENE	0.05	MG/KG	0.25	0.05	U	076SS-0021M-0001-SO	0.048	0.24	0.048	U	N/A	Yes
076SS-0020M-0001-SO	1,3-DINITROBENZENE	0.05	MG/KG	0.25	0.05	U	076SS-0021M-0001-SO	0.048	0.24	0.048	U	N/A	Yes
076SS-0020M-0001-SO	2,4,6-TRINITROTOLUENE	0.05	MG/KG	0.25	0.05	U	076SS-0021M-0001-SO	0.048	0.24	0.048	U	N/A	Yes
076SS-0020M-0001-SO	2,4-DINITROTOLUENE	0.05	MG/KG	0.25	0.05	R	076SS-0021M-0001-SO	0.048	0.24	0.048	U	N/A	N/A
076SS-0020M-0001-SO	2,6-DINITROTOLUENE	0.05	MG/KG	0.25	0.05	R	076SS-0021M-0001-SO	0.048	0.24	0.048	U	N/A	N/A
076SS-0020M-0001-SO	2-AMINO-4,6-DINITROTOLUENE	0.05	MG/KG	0.25	0.05	U	076SS-0021M-0001-SO	0.048	0.24	0.048	U	N/A	Yes
076SS-0020M-0001-SO	2-NITROTOLUENE	0.05	MG/KG	0.25	0.05	UJ	076SS-0021M-0001-SO	0.048	0.24	0.048	U	N/A	Yes
076SS-0020M-0001-SO	3-NITROTOLUENE	0.05	MG/KG	0.25	0.05	U	076SS-0021M-0001-SO	0.048	0.24	0.048	U	N/A	Yes
076SS-0020M-0001-SO	4-AMINO-2,6-DINITROTOLUENE	0.05	MG/KG	0.25	0.05	U	076SS-0021M-0001-SO	0.048	0.24	0.048	U	N/A	Yes
076SS-0020M-0001-SO	4-NITROTOLUENE	0.05	MG/KG	0.25	0.05	U	076SS-0021M-0001-SO	0.048	0.24	0.048	U	N/A	Yes
076SS-0020M-0001-SO	HMX	0.05	MG/KG	0.25	0.05	U	076SS-0021M-0001-SO	0.048	0.24	0.048	U	N/A	Yes
076SS-0020M-0001-SO	NITROBENZENE	0.05	MG/KG	0.25	0.05	R	076SS-0021M-0001-SO	0.048	0.24	0.048	U	N/A	N/A
076SS-0020M-0001-SO	NITROGLYCERIN	0.25	MG/KG	0.5	0.25	U	076SS-0021M-0001-SO	0.24	0.48	0.24	U	N/A	Yes
076SS-0020M-0001-SO	NITROGUANIDINE	0.04	MG/KG	0.25	0.04	U	076SS-0021M-0001-SO	0.04	0.25	0.04	U	N/A	Yes
076SS-0020M-0001-SO	PETN	0.25	MG/KG	0.5	0.25	U	076SS-0021M-0001-SO	0.24	0.48	0.24	U	N/A	Yes
076SS-0020M-0001-SO	RDX	0.05	MG/KG	0.25	0.05	UJ	076SS-0021M-0001-SO	0.048	0.24	0.048	U	N/A	Yes
076SS-0020M-0001-SO	TETRYL	0.041	MG/KG	0.25	0.05	NJ	076SS-0021M-0001-SO	0.03	0.24	0.048	J	N/A	Yes
076SW-0013-0001-SW	NITROCELLULOSE	1	MG/L	2	1	U	076SW-0014-0001-SW	1	2	1	U	N/A	Yes
076SW-0013-0001-SW	AROCLOR 1016	0.19	UG/L	0.48	0.19	U	076SW-0014-0001-SW	0.2	0.5	0.2	U	N/A	Yes
076SW-0013-0001-SW	AROCLOR 1221	0.19	UG/L	0.48	0.19	U	076SW-0014-0001-SW	0.2	0.5	0.2	U	N/A	Yes
076SW-0013-0001-SW	AROCLOR 1232	0.19	UG/L	0.48	0.19	U	076SW-0014-0001-SW	0.2	0.5	0.2	U	N/A	Yes
076SW-0013-0001-SW	AROCLOR 1242	0.38	UG/L	0.48	0.38	U	076SW-0014-0001-SW	0.4	0.5	0.4	U	N/A	Yes
076SW-0013-0001-SW	AROCLOR 1248	0.19	UG/L	0.48	0.19	U	076SW-0014-0001-SW	0.2	0.5	0.2	U	N/A	Yes
076SW-0013-0001-SW	AROCLOR 1254	0.19	UG/L	0.48	0.19	U	076SW-0014-0001-SW	0.2	0.5	0.2	U	N/A	Yes
076SW-0013-0001-SW	AROCLOR 1260	0.19	UG/L	0.48	0.19	U	076SW-0014-0001-SW	0.2	0.5	0.2	U	N/A	Yes
076SW-0013-0001-SW	1,3,5-TRINITROBENZENE	0.051	UG/L	0.1	0.051	U	076SW-0014-0001-SW	0.052	0.1	0.052	U	N/A	Yes
076SW-0013-0001-SW	1,3-DINITROBENZENE	0.1	UG/L	0.1	0.1	U	076SW-0014-0001-SW	0.1	0.1	0.1	U	N/A	Yes
076SW-0013-0001-SW	2,4,6-TRINITROTOLUENE	0.1	UG/L	0.1	0.1	U	076SW-0014-0001-SW	0.1	0.1	0.1	U	N/A	Yes
076SW-0013-0001-SW	2,4-DINITROTOLUENE	0.1	UG/L	0.1	0.1	U	076SW-0014-0001-SW	0.1	0.1	0.1	U	N/A	Yes
076SW-0013-0001-SW	2,6-DINITROTOLUENE	0.1	UG/L	0.1	0.1	U	076SW-0014-0001-SW	0.1	0.1	0.1	U	N/A	Yes
076SW-0013-0001-SW	2-AMINO-4,6-DINITROTOLUENE	0.1	UG/L	0.2	0.1	U	076SW-0014-0001-SW	0.1	0.21	0.1	U	N/A	Yes
076SW-0013-0001-SW	2-NITROTOLUENE	0.1	UG/L	0.51	0.1	U	076SW-0014-0001-SW	0.1	0.52	0.1	U	N/A	Yes
076SW-0013-0001-SW	3-NITROTOLUENE	0.1	UG/L	0.51	0.1	U	076SW-0014-0001-SW	0.1	0.52	0.1	U	N/A	Yes
076SW-0013-0001-SW	4-AMINO-2,6-DINITROTOLUENE	0.1	UG/L	0.1	0.1	U	076SW-0014-0001-SW	0.1	0.1	0.1	U	N/A	Yes
076SW-0013-0001-SW	4-NITROTOLUENE	0.1	UG/L	0.51	0.1	U	076SW-0014-0001-SW	0.1	0.52	0.1	U	N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	RPD	W/In LOQ
076SW-0013-0001-SW	HMX	0.051	UG/L	0.1	0.051	U	076SW-0014-0001-SW	0.052	0.1	0.052	U	N/A	Yes
076SW-0013-0001-SW	NITROBENZENE	0.1	UG/L	0.1	0.1	U	076SW-0014-0001-SW	0.1	0.1	0.1	U	N/A	Yes
076SW-0013-0001-SW	NITROGLYCERIN	0.51	UG/L	0.66	0.51	U	076SW-0014-0001-SW	0.52	0.67	0.52	U	N/A	Yes
076SW-0013-0001-SW	NITROGUANIDINE	6	UG/L	20	6	U	076SW-0014-0001-SW	6	20	6	U	N/A	Yes
076SW-0013-0001-SW	PETN	0.51	UG/L	0.66	0.51	U	076SW-0014-0001-SW	0.52	0.67	0.52	U	N/A	Yes
076SW-0013-0001-SW	RDX	0.051	UG/L	0.1	0.051	U	076SW-0014-0001-SW	0.052	0.1	0.052	U	N/A	Yes
076SW-0013-0001-SW	TETRYL	0.1	UG/L	0.1	0.1	U	076SW-0014-0001-SW	0.1	0.1	0.1	U	N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	Code	RPD	W/In LOQ
078SB-0009M-0001-SO	1,1,1-TRICHLOROETHANE	1.2	UG/KG	6.2	1.2	U	078SB-0056M-0001-SO	1.1	5.4	1.1	U		N/A	Yes
078SB-0009M-0001-SO	1,1,2,2-TETRACHLOROETHANE	0.62	UG/KG	6.2	0.62	U	078SB-0056M-0001-SO	0.54	5.4	0.54	U		N/A	Yes
078SB-0009M-0001-SO	1,1,2-TRICHLOROETHANE	0.62	UG/KG	6.2	0.62	U	078SB-0056M-0001-SO	0.54	5.4	0.54	U		N/A	Yes
078SB-0009M-0001-SO	1,1-DICHLOROETHANE	0.62	UG/KG	6.2	0.62	U	078SB-0056M-0001-SO	0.54	5.4	0.54	U		N/A	Yes
078SB-0009M-0001-SO	1,1-DICHLOROETHENE	1.2	UG/KG	6.2	1.2	U	078SB-0056M-0001-SO	1.1	5.4	1.1	U		N/A	Yes
078SB-0009M-0001-SO	1,2-DIBROMOETHANE	1.2	UG/KG	6.2	1.2	U	078SB-0056M-0001-SO	1.1	5.4	1.1	U		N/A	Yes
078SB-0009M-0001-SO	1,2-DICHLOROETHANE	0.62	UG/KG	6.2	0.62	U	078SB-0056M-0001-SO	0.54	5.4	0.54	U		N/A	Yes
078SB-0009M-0001-SO	1,2-DICHLOROPROPANE	1.2	UG/KG	6.2	1.2	U	078SB-0056M-0001-SO	1.1	5.4	1.1	U		N/A	Yes
078SB-0009M-0001-SO	2-HEXANONE	1.2	UG/KG	25	1.2	U	078SB-0056M-0001-SO	1.1	21	1.1	U		N/A	Yes
078SB-0009M-0001-SO	ACETONE	7.8	UG/KG	25	7.8	U	078SB-0056M-0001-SO	6.7	21	6.7	U		N/A	Yes
078SB-0009M-0001-SO	BENZENE	0.62	UG/KG	6.2	0.62	U	078SB-0056M-0001-SO	0.54	5.4	0.54	U		N/A	Yes
078SB-0009M-0001-SO	BROMOCHLOROMETHANE	1.2	UG/KG	6.2	1.2	U	078SB-0056M-0001-SO	1.1	5.4	1.1	U		N/A	Yes
078SB-0009M-0001-SO	BROMODICHLOROMETHANE	0.62	UG/KG	6.2	0.62	U	078SB-0056M-0001-SO	0.54	5.4	0.54	U		N/A	Yes
078SB-0009M-0001-SO	BROMOFORM	0.62	UG/KG	6.2	0.62	U	078SB-0056M-0001-SO	0.54	5.4	0.54	U		N/A	Yes
078SB-0009M-0001-SO	BROMOMETHANE	1.2	UG/KG	6.2	1.2	U	078SB-0056M-0001-SO	1.1	5.4	1.1	U		N/A	Yes
078SB-0009M-0001-SO	CARBON DISULFIDE	0.62	UG/KG	6.2	0.62	U	078SB-0056M-0001-SO	0.54	5.4	0.54	U		N/A	Yes
078SB-0009M-0001-SO	CARBON TETRACHLORIDE	0.62	UG/KG	6.2	0.62	U	078SB-0056M-0001-SO	0.54	5.4	0.54	U		N/A	Yes
078SB-0009M-0001-SO	CHLOROBENZENE	0.62	UG/KG	6.2	0.62	U	078SB-0056M-0001-SO	0.54	5.4	0.54	U		N/A	Yes
078SB-0009M-0001-SO	CHLOROETHANE	1.2	UG/KG	6.2	1.2	U	078SB-0056M-0001-SO	1.1	5.4	1.1	U		N/A	Yes
078SB-0009M-0001-SO	CHLOROFORM	0.62	UG/KG	6.2	0.62	U	078SB-0056M-0001-SO	0.54	5.4	0.54	U		N/A	Yes
078SB-0009M-0001-SO	CHLOROMETHANE	0.62	UG/KG	6.2	0.62	U	078SB-0056M-0001-SO	0.54	5.4	0.54	U		N/A	Yes
078SB-0009M-0001-SO	CIS-1,3-DICHLOROPROPENE	0.62	UG/KG	6.2	0.62	U	078SB-0056M-0001-SO	0.54	5.4	0.54	U		N/A	Yes
078SB-0009M-0001-SO	DIBROMOCHLOROMETHANE	1.2	UG/KG	6.2	1.2	U	078SB-0056M-0001-SO	1.1	5.4	1.1	U		N/A	Yes
078SB-0009M-0001-SO	ETHYLBENZENE	0.62	UG/KG	6.2	0.62	U	078SB-0056M-0001-SO	0.54	5.4	0.54	U		N/A	Yes
078SB-0009M-0001-SO	METHYL ETHYL KETONE	2.5	UG/KG	25	2.5	U	078SB-0056M-0001-SO	2.1	21	2.1	U		N/A	Yes
078SB-0009M-0001-SO	METHYL ISOBUTYL KETONE	1.2	UG/KG	25	1.2	U	078SB-0056M-0001-SO	1.1	21	1.1	U		N/A	Yes
078SB-0009M-0001-SO	METHYLENE CHLORIDE	1.2	UG/KG	6.2	1.2	J	078SB-0056M-0001-SO	1.1	5.4	1.1	J		N/A	Yes
078SB-0009M-0001-SO	STYRENE	0.62	UG/KG	6.2	0.62	U	078SB-0056M-0001-SO	0.54	5.4	0.54	U		N/A	Yes
078SB-0009M-0001-SO	TETRACHLOROETHYLENE	1.2	UG/KG	6.2	1.2	U	078SB-0056M-0001-SO	1.1	5.4	1.1	U		N/A	Yes
078SB-0009M-0001-SO	TOLUENE	0.62	UG/KG	6.2	0.62	U	078SB-0056M-0001-SO	0.54	5.4	0.54	U		N/A	Yes
078SB-0009M-0001-SO	TOTAL 1,2-DICHLOROETHENE	1.2	UG/KG	12	1.2	U	078SB-0056M-0001-SO	1.1	11	1.1	U		N/A	Yes
078SB-0009M-0001-SO	TRANS-1,3-DICHLOROPROPENE	1.2	UG/KG	6.2	1.2	U	078SB-0056M-0001-SO	1.1	5.4	1.1	U		N/A	Yes
078SB-0009M-0001-SO	TRICHLOROETHYLENE	0.62	UG/KG	6.2	0.62	U	078SB-0056M-0001-SO	0.54	5.4	0.54	U		N/A	Yes
078SB-0009M-0001-SO	VINYL CHLORIDE	0.62	UG/KG	6.2	0.62	U	078SB-0056M-0001-SO	0.54	5.4	0.54	U		N/A	Yes
078SB-0009M-0001-SO	XYLENES, TOTAL	1.9	UG/KG	12	1.9	U	078SB-0056M-0001-SO	1.6	11	1.6	U		N/A	Yes
078SB-0017M-0001-SO	NITROCELLULOSE	1.8	MG/KG	5	1.8		078SB-0018M-0001-SO	1.8	5	1.8	U		N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	Code	RPD	W/In LOQ
078SB-0017M-0001-SO	ALUMINUM	720	MG/KG	2.9	0.58		078SB-0018M-0001-SO	760	2.7	0.54			5	N/A
078SB-0017M-0001-SO	ANTIMONY	0.35	MG/KG	0.19	0.097		078SB-0018M-0001-SO	0.21	0.18	0.09			N/A	Yes
078SB-0017M-0001-SO	ARSENIC	0.62	MG/KG	0.1	0.049		078SB-0018M-0001-SO	0.74	0.09	0.045			18	N/A
078SB-0017M-0001-SO	BARIUM	16	MG/KG	0.97	0.019		078SB-0018M-0001-SO	16	0.9	0.018			0	N/A
078SB-0017M-0001-SO	BERYLLIUM	0.098	MG/KG	0.1	0.0097		078SB-0018M-0001-SO	0.11	0.09	0.009			N/A	Yes
078SB-0017M-0001-SO	CADMIUM	0.056	MG/KG	0.1	0.029	J	078SB-0018M-0001-SO	0.07	0.09	0.027			N/A	Yes
078SB-0017M-0001-SO	CALCIUM	95	MG/KG	9.7	2.4		078SB-0018M-0001-SO	95	9	2.3			0	N/A
078SB-0017M-0001-SO	CHROMIUM	1.6	MG/KG	0.19	0.039		078SB-0018M-0001-SO	2	0.18	0.036			22	N/A
078SB-0017M-0001-SO	COBALT	1.7	MG/KG	0.05	0.0097		078SB-0018M-0001-SO	1.5	0.05	0.009			13	N/A
078SB-0017M-0001-SO	COPPER	2.8	MG/KG	0.19	0.058		078SB-0018M-0001-SO	2.9	0.18	0.054			4	N/A
078SB-0017M-0001-SO	IRON	4600	MG/KG	4.9	1.9		078SB-0018M-0001-SO	6000	4.5	1.8			26	N/A
078SB-0017M-0001-SO	LEAD	6	MG/KG	0.1	0.029		078SB-0018M-0001-SO	7.4	0.09	0.027			21	N/A
078SB-0017M-0001-SO	MAGNESIUM	140	MG/KG	9.7	1.9		078SB-0018M-0001-SO	150	9	1.8			7	N/A
078SB-0017M-0001-SO	MANGANESE	130	MG/KG	0.49	0.029		078SB-0018M-0001-SO	120	0.45	0.027			8	N/A
078SB-0017M-0001-SO	NICKEL	2.4	MG/KG	0.1	0.029		078SB-0018M-0001-SO	2.5	0.09	0.027			4	N/A
078SB-0017M-0001-SO	POTASSIUM	260	MG/KG	9.7	5.8		078SB-0018M-0001-SO	240	9	5.4			8	N/A
078SB-0017M-0001-SO	SELENIUM	0.097	MG/KG	0.49	0.097	U	078SB-0018M-0001-SO	0.09	0.45	0.09	U		N/A	Yes
078SB-0017M-0001-SO	SILVER	0.029	MG/KG	0.1	0.029	U	078SB-0018M-0001-SO	0.03	0.09	0.027	U		N/A	Yes
078SB-0017M-0001-SO	SODIUM	14	MG/KG	9.7	4.9		078SB-0018M-0001-SO	13	9	4.5			N/A	Yes
078SB-0017M-0001-SO	THALLIUM	0.03	MG/KG	0.1	0.019	J	078SB-0018M-0001-SO	0.03	0.09	0.018	J		N/A	Yes
078SB-0017M-0001-SO	VANADIUM	1.7	MG/KG	0.1	0.058		078SB-0018M-0001-SO	2.1	0.09	0.054			21	N/A
078SB-0017M-0001-SO	ZINC	16	MG/KG	0.49	0.19		078SB-0018M-0001-SO	18	0.45	0.18			12	N/A
078SB-0017M-0001-SO	MERCURY	0.038	MG/KG	0.1	0.034	J	078SB-0018M-0001-SO	0.04	0.1	0.034	J		N/A	Yes
078SB-0017M-0001-SO	PCB-1016	25	UG/KG	66	25		078SB-0018M-0001-SO	25	65	25	U		N/A	Yes
078SB-0017M-0001-SO	PCB-1221	25	UG/KG	51	25		078SB-0018M-0001-SO	25	50	25	U		N/A	Yes
078SB-0017M-0001-SO	PCB-1232	25	UG/KG	45	25		078SB-0018M-0001-SO	25	45	25	U		N/A	Yes
078SB-0017M-0001-SO	PCB-1242	25	UG/KG	40	25		078SB-0018M-0001-SO	25	40	25	U		N/A	Yes
078SB-0017M-0001-SO	PCB-1248	25	UG/KG	56	25		078SB-0018M-0001-SO	25	55	25	U		N/A	Yes
078SB-0017M-0001-SO	PCB-1254	25	UG/KG	56	25		078SB-0018M-0001-SO	25	55	25	U		N/A	Yes
078SB-0017M-0001-SO	PCB-1260	25	UG/KG	56	25		078SB-0018M-0001-SO	25	55	25	U		N/A	Yes
078SB-0017M-0001-SO	1,1,1-TRICHLOROETHANE	1.1	UG/KG	5.6	1.1	U	078SB-0018M-0001-SO	1.1	5.4	1.1	U		N/A	Yes
078SB-0017M-0001-SO	1,1,2,2-TETRACHLOROETHANE	0.56	UG/KG	5.6	0.56	U	078SB-0018M-0001-SO	0.54	5.4	0.54	U		N/A	Yes
078SB-0017M-0001-SO	1,1,2-TRICHLOROETHANE	0.56	UG/KG	5.6	0.56	U	078SB-0018M-0001-SO	0.54	5.4	0.54	U		N/A	Yes
078SB-0017M-0001-SO	1,1-DICHLOROETHANE	0.56	UG/KG	5.6	0.56	U	078SB-0018M-0001-SO	0.54	5.4	0.54	U		N/A	Yes
078SB-0017M-0001-SO	1,1-DICHLOROETHENE	1.1	UG/KG	5.6	1.1	U	078SB-0018M-0001-SO	1.1	5.4	1.1	U		N/A	Yes
078SB-0017M-0001-SO	1,2-DIBROMOETHANE	1.1	UG/KG	5.6	1.1	U	078SB-0018M-0001-SO	1.1	5.4	1.1	U		N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	Code	RPD	W/In LOQ
078SB-0017M-0001-SO	1,2-DICHLOROETHANE	0.56	UG/KG	5.6	0.56	U	078SB-0018M-0001-SO	0.54	5.4	0.54	U		N/A	Yes
078SB-0017M-0001-SO	1,2-DICHLOROPROPANE	1.1	UG/KG	5.6	1.1	U	078SB-0018M-0001-SO	1.1	5.4	1.1	U		N/A	Yes
078SB-0017M-0001-SO	2-HEXANONE	1.1	UG/KG	22	1.1	U	078SB-0018M-0001-SO	1.1	22	1.1	U		N/A	Yes
078SB-0017M-0001-SO	ACETONE	7.8	UG/KG	22	7	J	078SB-0018M-0001-SO	6.8	22	6.8	U		N/A	Yes
078SB-0017M-0001-SO	BENZENE	0.56	UG/KG	5.6	0.56	U	078SB-0018M-0001-SO	0.54	5.4	0.54	U		N/A	Yes
078SB-0017M-0001-SO	BROMOCHLOROMETHANE	1.1	UG/KG	5.6	1.1	U	078SB-0018M-0001-SO	1.1	5.4	1.1	U		N/A	Yes
078SB-0017M-0001-SO	BROMODICHLOROMETHANE	0.56	UG/KG	5.6	0.56	U	078SB-0018M-0001-SO	0.54	5.4	0.54	U		N/A	Yes
078SB-0017M-0001-SO	BROMOFORM	0.56	UG/KG	5.6	0.56	U	078SB-0018M-0001-SO	0.54	5.4	0.54	U		N/A	Yes
078SB-0017M-0001-SO	BROMOMETHANE	1.1	UG/KG	5.6	1.1	U	078SB-0018M-0001-SO	1.1	5.4	1.1	U		N/A	Yes
078SB-0017M-0001-SO	CARBON DISULFIDE	3.4	UG/KG	5.6	0.56	J	078SB-0018M-0001-SO	0.54	5.4	0.54	U		N/A	Yes
078SB-0017M-0001-SO	CARBON TETRACHLORIDE	0.56	UG/KG	5.6	0.56	U	078SB-0018M-0001-SO	0.54	5.4	0.54	U		N/A	Yes
078SB-0017M-0001-SO	CHLOROBENZENE	0.56	UG/KG	5.6	0.56	U	078SB-0018M-0001-SO	0.54	5.4	0.54	U		N/A	Yes
078SB-0017M-0001-SO	CHLOROETHANE	1.1	UG/KG	5.6	1.1	U	078SB-0018M-0001-SO	1.1	5.4	1.1	U		N/A	Yes
078SB-0017M-0001-SO	CHLOROFORM	0.56	UG/KG	5.6	0.56	U	078SB-0018M-0001-SO	0.54	5.4	0.54	U		N/A	Yes
078SB-0017M-0001-SO	CHLOROMETHANE	0.56	UG/KG	5.6	0.56	U	078SB-0018M-0001-SO	0.54	5.4	0.54	U		N/A	Yes
078SB-0017M-0001-SO	CIS-1,3-DICHLOROPROPENE	0.56	UG/KG	5.6	0.56	U	078SB-0018M-0001-SO	0.54	5.4	0.54	U		N/A	Yes
078SB-0017M-0001-SO	DIBROMOCHLOROMETHANE	1.1	UG/KG	5.6	1.1	U	078SB-0018M-0001-SO	1.1	5.4	1.1	U		N/A	Yes
078SB-0017M-0001-SO	ETHYLBENZENE	0.56	UG/KG	5.6	0.56	U	078SB-0018M-0001-SO	0.54	5.4	0.54	U		N/A	Yes
078SB-0017M-0001-SO	METHYL ETHYL KETONE	2.2	UG/KG	22	2.2	U	078SB-0018M-0001-SO	2.2	22	2.2	U		N/A	Yes
078SB-0017M-0001-SO	METHYL ISOBUTYL KETONE	1.1	UG/KG	22	1.1	U	078SB-0018M-0001-SO	1.1	22	1.1	U		N/A	Yes
078SB-0017M-0001-SO	METHYLENE CHLORIDE	1.1	UG/KG	5.6	1.1	J	078SB-0018M-0001-SO	1.1	5.4	1.1	J		N/A	Yes
078SB-0017M-0001-SO	STYRENE	0.56	UG/KG	5.6	0.56	U	078SB-0018M-0001-SO	0.54	5.4	0.54	U		N/A	Yes
078SB-0017M-0001-SO	TETRACHLOROETHYLENE	1.1	UG/KG	5.6	1.1	U	078SB-0018M-0001-SO	1.1	5.4	1.1	U		N/A	Yes
078SB-0017M-0001-SO	TOLUENE	0.56	UG/KG	5.6	0.56	U	078SB-0018M-0001-SO	0.54	5.4	0.54	U		N/A	Yes
078SB-0017M-0001-SO	TOTAL 1,2-DICHLOROETHENE	1.1	UG/KG	11	1.1	U	078SB-0018M-0001-SO	1.1	11	1.1	U		N/A	Yes
078SB-0017M-0001-SO	TRANS-1,3-DICHLOROPROPENE	1.1	UG/KG	5.6	1.1	U	078SB-0018M-0001-SO	1.1	5.4	1.1	U		N/A	Yes
078SB-0017M-0001-SO	TRICHLOROETHYLENE	0.56	UG/KG	5.6	0.56	U	078SB-0018M-0001-SO	0.54	5.4	0.54	U		N/A	Yes
078SB-0017M-0001-SO	VINYL CHLORIDE	0.56	UG/KG	5.6	0.56	U	078SB-0018M-0001-SO	0.54	5.4	0.54	U		N/A	Yes
078SB-0017M-0001-SO	XYLENES, TOTAL	1.7	UG/KG	11	1.7	U	078SB-0018M-0001-SO	1.6	11	1.6	U		N/A	Yes
078SB-0017M-0001-SO	1,2,4-TRICHLOROBENZENE	27	UG/KG	50	27	U	078SB-0018M-0001-SO	27	51	27	U		N/A	Yes
078SB-0017M-0001-SO	1,2-DICHLOROBENZENE	27	UG/KG	50	27	U	078SB-0018M-0001-SO	27	51	27	U		N/A	Yes
078SB-0017M-0001-SO	1,3-DICHLOROBENZENE	27	UG/KG	50	27	U	078SB-0018M-0001-SO	27	51	27	U		N/A	Yes
078SB-0017M-0001-SO	1,4-DICHLOROBENZENE	27	UG/KG	50	27	U	078SB-0018M-0001-SO	27	51	27	U		N/A	Yes
078SB-0017M-0001-SO	2,4,5-TRICHLOROPHENOL	27	UG/KG	150	27	U	078SB-0018M-0001-SO	27	150	27	U		N/A	Yes
078SB-0017M-0001-SO	2,4,6-TRICHLOROPHENOL	81	UG/KG	150	81	U	078SB-0018M-0001-SO	81	150	81	U		N/A	Yes
078SB-0017M-0001-SO	2,4-DICHLOROPHENOL	27	UG/KG	150	27	U	078SB-0018M-0001-SO	27	150	27	U		N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	Code	RPD	W/In LOQ
078SB-0017M-0001-SO	2,4-DIMETHYLPHENOL	81	UG/KG	150	81	U	078SB-0018M-0001-SO	81	150	81	U		N/A	Yes
078SB-0017M-0001-SO	2,4-DINITROPHENOL	81	UG/KG	330	81	U	078SB-0018M-0001-SO	81	340	81	U		N/A	Yes
078SB-0017M-0001-SO	2,4-DINITROTOLUENE	27	UG/KG	200	27	U	078SB-0018M-0001-SO	27	200	27	U		N/A	Yes
078SB-0017M-0001-SO	2,6-DINITROTOLUENE	27	UG/KG	200	27	U	078SB-0018M-0001-SO	27	200	27	U		N/A	Yes
078SB-0017M-0001-SO	2-CHLORONAPHTHALENE	3.3	UG/KG	50	3.3	U	078SB-0018M-0001-SO	3.4	51	3.4	U		N/A	Yes
078SB-0017M-0001-SO	2-CHLOROPHENOL	27	UG/KG	50	27	U	078SB-0018M-0001-SO	27	51	27	U		N/A	Yes
078SB-0017M-0001-SO	2-METHYLNAPHTHALENE	3.3	UG/KG	6.7	3.3	U	078SB-0018M-0001-SO	3.4	6.8	3.4	U		N/A	Yes
078SB-0017M-0001-SO	2-METHYLPHENOL (O-CRESOL)	81	UG/KG	200	81	U	078SB-0018M-0001-SO	81	200	81	U		N/A	Yes
078SB-0017M-0001-SO	2-NITROANILINE	27	UG/KG	200	27	U	078SB-0018M-0001-SO	27	200	27	U		N/A	Yes
078SB-0017M-0001-SO	2-NITROPHENOL	27	UG/KG	50	27	U	078SB-0018M-0001-SO	27	51	27	U		N/A	Yes
078SB-0017M-0001-SO	3,3'-DICHLOROBENZIDINE	81	UG/KG	100	81	U	078SB-0018M-0001-SO	81	100	81	U		N/A	Yes
078SB-0017M-0001-SO	3-NITROANILINE	81	UG/KG	200	81	U	078SB-0018M-0001-SO	81	200	81	U		N/A	Yes
078SB-0017M-0001-SO	4,6-DINITRO-2-METHYLPHENOL	81	UG/KG	150	81	U	078SB-0018M-0001-SO	81	150	81	U		N/A	Yes
078SB-0017M-0001-SO	4-BROMOPHENYL PHENYL ETHER	27	UG/KG	50	27	U	078SB-0018M-0001-SO	27	51	27	U		N/A	Yes
078SB-0017M-0001-SO	4-CHLORO-3-METHYLPHENOL	27	UG/KG	150	27	U	078SB-0018M-0001-SO	27	150	27	U		N/A	Yes
078SB-0017M-0001-SO	4-CHLOROANILINE	27	UG/KG	150	27	U	078SB-0018M-0001-SO	27	150	27	U		N/A	Yes
078SB-0017M-0001-SO	4-CHLOROPHENYL PHENYL ETHER	27	UG/KG	50	27	U	078SB-0018M-0001-SO	27	51	27	U		N/A	Yes
078SB-0017M-0001-SO	4-NITROANILINE	27	UG/KG	200	27	U	078SB-0018M-0001-SO	27	200	27	U		N/A	Yes
078SB-0017M-0001-SO	4-NITROPHENOL	81	UG/KG	330	81	U	078SB-0018M-0001-SO	81	340	81	U		N/A	Yes
078SB-0017M-0001-SO	ACENAPHTHENE	3.3	UG/KG	6.7	3.3	U	078SB-0018M-0001-SO	3.4	6.8	3.4	U		N/A	Yes
078SB-0017M-0001-SO	ACENAPHTHYLENE	3.3	UG/KG	6.7	3.3	U	078SB-0018M-0001-SO	3.4	6.8	3.4	U		N/A	Yes
078SB-0017M-0001-SO	ANTHRACENE	3.3	UG/KG	6.7	3.3	U	078SB-0018M-0001-SO	3.4	6.8	3.4	U		N/A	Yes
078SB-0017M-0001-SO	BENZO(A)ANTHRACENE	3.3	UG/KG	6.7	3.3	U	078SB-0018M-0001-SO	3.4	6.8	3.4	U		N/A	Yes
078SB-0017M-0001-SO	BENZO(A)PYRENE	3.3	UG/KG	6.7	3.3	U	078SB-0018M-0001-SO	3.4	6.8	3.4	U		N/A	Yes
078SB-0017M-0001-SO	BENZO(B)FLUORANTHENE	3.3	UG/KG	6.7	3.3	U	078SB-0018M-0001-SO	3.4	6.8	3.4	U		N/A	Yes
078SB-0017M-0001-SO	BENZO(G,H,I)PERYLENE	3.3	UG/KG	6.7	3.3	U	078SB-0018M-0001-SO	3.4	6.8	3.4	U		N/A	Yes
078SB-0017M-0001-SO	BENZO(K)FLUORANTHENE	3.3	UG/KG	6.7	3.3	U	078SB-0018M-0001-SO	3.4	6.8	3.4	U		N/A	Yes
078SB-0017M-0001-SO	BENZOIC ACID	340	UG/KG	660	340	U	078SB-0018M-0001-SO	340	670	340	U		N/A	Yes
078SB-0017M-0001-SO	BENZYL ALCOHOL	27	UG/KG	330	27	U	078SB-0018M-0001-SO	27	340	27	U		N/A	Yes
078SB-0017M-0001-SO	BENZYL BUTYL PHTHALATE	27	UG/KG	50	27	U	078SB-0018M-0001-SO	27	51	27	U		N/A	Yes
078SB-0017M-0001-SO	BIS(2-CHLOROETHOXY) METHANE	27	UG/KG	100	27	U	078SB-0018M-0001-SO	27	100	27	U		N/A	Yes
078SB-0017M-0001-SO	BIS(2-CHLOROETHYL) ETHER	3.3	UG/KG	100	3.3	U	078SB-0018M-0001-SO	3.4	100	3.4	U		N/A	Yes
078SB-0017M-0001-SO	BIS(2-CHLOROISOPROPYL) ETHER	27	UG/KG	100	27	U	078SB-0018M-0001-SO	27	100	27	U		N/A	Yes
078SB-0017M-0001-SO	BIS(2-ETHYLHEXYL) PHTHALATE	35	UG/KG	50	27	J	078SB-0018M-0001-SO	41	51	27	J		N/A	Yes
078SB-0017M-0001-SO	CARBAZOLE	27	UG/KG	50	27	U	078SB-0018M-0001-SO	27	51	27	U		N/A	Yes
078SB-0017M-0001-SO	CHRYSENE	3.3	UG/KG	6.7	3.3	U	078SB-0018M-0001-SO	3.4	6.8	3.4	U		N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	Code	RPD	W/In LOQ
078SB-0017M-0001-SO	CRESOLS, M & P	81	UG/KG	400	81	U	078SB-0018M-0001-SO	81	410	81	U		N/A	Yes
078SB-0017M-0001-SO	DIBENZ(A,H)ANTHRACENE	3.3	UG/KG	6.7	3.3	U	078SB-0018M-0001-SO	3.4	6.8	3.4	U		N/A	Yes
078SB-0017M-0001-SO	DIBENZOFURAN	3.3	UG/KG	50	3.3	U	078SB-0018M-0001-SO	3.4	51	3.4	U		N/A	Yes
078SB-0017M-0001-SO	DIETHYL PHTHALATE	27	UG/KG	50	27	U	078SB-0018M-0001-SO	27	51	27	U		N/A	Yes
078SB-0017M-0001-SO	DIMETHYL PHTHALATE	27	UG/KG	50	27	U	078SB-0018M-0001-SO	27	51	27	U		N/A	Yes
078SB-0017M-0001-SO	DI-N-BUTYL PHTHALATE	27	UG/KG	50	27	U	078SB-0018M-0001-SO	27	51	27	U		N/A	Yes
078SB-0017M-0001-SO	DI-N-OCTYLPHTHALATE	27	UG/KG	50	27	U	078SB-0018M-0001-SO	27	51	27	U		N/A	Yes
078SB-0017M-0001-SO	FLUORANTHENE	3.3	UG/KG	6.7	3.3	U	078SB-0018M-0001-SO	3.4	6.8	3.4	U		N/A	Yes
078SB-0017M-0001-SO	FLUORENE	3.3	UG/KG	6.7	3.3	U	078SB-0018M-0001-SO	3.4	6.8	3.4	U		N/A	Yes
078SB-0017M-0001-SO	HEXACHLOROBENZENE	3.3	UG/KG	6.7	3.3	U	078SB-0018M-0001-SO	3.4	6.8	3.4	U		N/A	Yes
078SB-0017M-0001-SO	HEXACHLOROBUTADIENE	27	UG/KG	50	27	U	078SB-0018M-0001-SO	27	51	27	U		N/A	Yes
078SB-0017M-0001-SO	HEXACHLOROCYCLOPENTADIENE	27	UG/KG	330	27	U	078SB-0018M-0001-SO	27	340	27	U		N/A	Yes
078SB-0017M-0001-SO	HEXACHLOROETHANE	27	UG/KG	50	27	U	078SB-0018M-0001-SO	27	51	27	U		N/A	Yes
078SB-0017M-0001-SO	INDENO(1,2,3-C,D)PYRENE	3.3	UG/KG	6.7	3.3	U	078SB-0018M-0001-SO	3.4	6.8	3.4	U		N/A	Yes
078SB-0017M-0001-SO	ISOPHORONE	27	UG/KG	50	27	U	078SB-0018M-0001-SO	27	51	27	U		N/A	Yes
078SB-0017M-0001-SO	NAPHTHALENE	3.3	UG/KG	6.7	3.3	U	078SB-0018M-0001-SO	3.4	6.8	3.4	U		N/A	Yes
078SB-0017M-0001-SO	NITROBENZENE	3.3	UG/KG	100	3.3	U	078SB-0018M-0001-SO	3.4	100	3.4	U		N/A	Yes
078SB-0017M-0001-SO	N-NITROSODI-N-PROPYLAMINE	27	UG/KG	50	27	U	078SB-0018M-0001-SO	27	51	27	U		N/A	Yes
078SB-0017M-0001-SO	N-NITROSODIPHENYLAMINE	27	UG/KG	50	27	U	078SB-0018M-0001-SO	27	51	27	U		N/A	Yes
078SB-0017M-0001-SO	PENTACHLOROPHENOL	81	UG/KG	150	81	U	078SB-0018M-0001-SO	81	150	81	U		N/A	Yes
078SB-0017M-0001-SO	PHENANTHRENE	3.3	UG/KG	6.7	3.3	U	078SB-0018M-0001-SO	5.5	6.8	3.4	J		N/A	Yes
078SB-0017M-0001-SO	PHENOL	27	UG/KG	50	27	U	078SB-0018M-0001-SO	27	51	27	U		N/A	Yes
078SB-0017M-0001-SO	PYRENE	3.3	UG/KG	6.7	3.3	U	078SB-0018M-0001-SO	3.4	6.8	3.4	U		N/A	Yes
078SB-0017M-0001-SO	NITROGUANIDINE	0.038	MG/KG	0.24	0.038		078SB-0018M-0001-SO	0.04	0.25	0.04	U		N/A	Yes
078SB-0025M-0001-SO	NITROCELLULOSE	0.89	MG/KG	4.7	1.7		078SB-0026M-0001-SO	1.7	4.8	1.7	U		N/A	Yes
078SB-0025M-0001-SO	ALUMINUM	1800	MG/KG	2.9	0.57		078SB-0026M-0001-SO	3300	2.6	0.53			59	N/A
078SB-0025M-0001-SO	ANTIMONY	0.095	MG/KG	0.19	0.095	U	078SB-0026M-0001-SO	0.05	0.18	0.088	J		N/A	Yes
078SB-0025M-0001-SO	ARSENIC	0.94	MG/KG	0.1	0.048		078SB-0026M-0001-SO	1.8	0.09	0.044			63	N/A
078SB-0025M-0001-SO	BARIUM	13	MG/KG	0.95	0.019		078SB-0026M-0001-SO	19	0.88	0.018			38	N/A
078SB-0025M-0001-SO	BERYLLIUM	0.22	MG/KG	0.1	0.0095		078SB-0026M-0001-SO	0.45	0.09	0.009			69	N/A
078SB-0025M-0001-SO	CADMIUM	0.095	MG/KG	0.1	0.029		078SB-0026M-0001-SO	0.16	0.09	0.026			N/A	Yes
078SB-0025M-0001-SO	CALCIUM	100	MG/KG	9.5	2.4		078SB-0026M-0001-SO	180	8.8	2.2			57	N/A
078SB-0025M-0001-SO	CHROMIUM	4	MG/KG	0.19	0.038		078SB-0026M-0001-SO	7.3	0.18	0.035			58	N/A
078SB-0025M-0001-SO	COBALT	2.6	MG/KG	0.05	0.0095		078SB-0026M-0001-SO	5.5	0.04	0.009			72	N/A
078SB-0025M-0001-SO	COPPER	4.1	MG/KG	0.19	0.057		078SB-0026M-0001-SO	11	0.18	0.053			91	N/A
078SB-0025M-0001-SO	IRON	12000	MG/KG	4.8	1.9		078SB-0026M-0001-SO	#####	4.4	1.8			34	N/A

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	Code	RPD	W/In LOQ
078SB-0025M-0001-SO	LEAD	6	MG/KG	0.1	0.029		078SB-0026M-0001-SO	9.2	0.09	0.026			42	N/A
078SB-0025M-0001-SO	MAGNESIUM	930	MG/KG	9.5	1.9		078SB-0026M-0001-SO	1700	8.8	1.8			59	N/A
078SB-0025M-0001-SO	MANGANESE	290	MG/KG	0.48	0.029		078SB-0026M-0001-SO	390	0.44	0.026			29	N/A
078SB-0025M-0001-SO	NICKEL	6.7	MG/KG	0.1	0.029		078SB-0026M-0001-SO	11	0.09	0.026			49	N/A
078SB-0025M-0001-SO	POTASSIUM	400	MG/KG	9.5	5.7		078SB-0026M-0001-SO	580	8.8	5.3			37	N/A
078SB-0025M-0001-SO	SELENIUM	0.08	MG/KG	0.48	0.095	J	078SB-0026M-0001-SO	0.13	0.44	0.088	J		N/A	Yes
078SB-0025M-0001-SO	SILVER	0.029	MG/KG	0.1	0.029	U	078SB-0026M-0001-SO	0.02	0.09	0.026	J		N/A	Yes
078SB-0025M-0001-SO	SODIUM	16	MG/KG	9.5	4.8		078SB-0026M-0001-SO	18	8.8	4.4			N/A	Yes
078SB-0025M-0001-SO	THALLIUM	0.026	MG/KG	0.1	0.019	J	078SB-0026M-0001-SO	0.07	0.09	0.018	J		N/A	Yes
078SB-0025M-0001-SO	VANADIUM	4.5	MG/KG	0.1	0.057		078SB-0026M-0001-SO	7.6	0.09	0.053			51	N/A
078SB-0025M-0001-SO	ZINC	40	MG/KG	0.48	0.19		078SB-0026M-0001-SO	48	0.44	0.18			18	N/A
078SB-0025M-0001-SO	MERCURY	0.02	MG/KG	0.1	0.034	J	078SB-0026M-0001-SO	0.02	0.11	0.037	J		N/A	Yes
078SB-0025M-0001-SO	PCB-1016	25	UG/KG	66	25		078SB-0026M-0001-SO	25	66	25	U		N/A	Yes
078SB-0025M-0001-SO	PCB-1221	25	UG/KG	51	25		078SB-0026M-0001-SO	25	50	25	U		N/A	Yes
078SB-0025M-0001-SO	PCB-1232	25	UG/KG	46	25		078SB-0026M-0001-SO	25	45	25	U		N/A	Yes
078SB-0025M-0001-SO	PCB-1242	25	UG/KG	41	25		078SB-0026M-0001-SO	25	40	25	U		N/A	Yes
078SB-0025M-0001-SO	PCB-1248	25	UG/KG	56	25		078SB-0026M-0001-SO	25	55	25	U		N/A	Yes
078SB-0025M-0001-SO	PCB-1254	25	UG/KG	56	25		078SB-0026M-0001-SO	25	55	25	U		N/A	Yes
078SB-0025M-0001-SO	PCB-1260	25	UG/KG	56	25		078SB-0026M-0001-SO	25	55	25	U		N/A	Yes
078SB-0025M-0001-SO	1,1,1-TRICHLOROETHANE	1	UG/KG	5	1	U	078SB-0026M-0001-SO	1.9	9.5	1.9	U		N/A	Yes
078SB-0025M-0001-SO	1,1,2,2-TETRACHLOROETHANE	0.5	UG/KG	5	0.5	U	078SB-0026M-0001-SO	0.95	9.5	0.95	U		N/A	Yes
078SB-0025M-0001-SO	1,1,2-TRICHLOROETHANE	0.5	UG/KG	5	0.5	U	078SB-0026M-0001-SO	0.95	9.5	0.95	U		N/A	Yes
078SB-0025M-0001-SO	1,1-DICHLOROETHANE	0.5	UG/KG	5	0.5	U	078SB-0026M-0001-SO	0.95	9.5	0.95	U		N/A	Yes
078SB-0025M-0001-SO	1,1-DICHLOROETHENE	1	UG/KG	5	1	U	078SB-0026M-0001-SO	1.9	9.5	1.9	U		N/A	Yes
078SB-0025M-0001-SO	1,2-DIBROMOETHANE	1	UG/KG	5	1	U	078SB-0026M-0001-SO	1.9	9.5	1.9	U		N/A	Yes
078SB-0025M-0001-SO	1,2-DICHLOROETHANE	0.5	UG/KG	5	0.5	U	078SB-0026M-0001-SO	0.95	9.5	0.95	U		N/A	Yes
078SB-0025M-0001-SO	1,2-DICHLOROPROPANE	1	UG/KG	5	1	U	078SB-0026M-0001-SO	1.9	9.5	1.9	U		N/A	Yes
078SB-0025M-0001-SO	2-HEXANONE	1	UG/KG	20	1	U	078SB-0026M-0001-SO	1.9	38	1.9	U		N/A	Yes
078SB-0025M-0001-SO	ACETONE	6.3	UG/KG	20	6.3	U	078SB-0026M-0001-SO	12	38	12	U		N/A	Yes
078SB-0025M-0001-SO	BENZENE	0.5	UG/KG	5	0.5	U	078SB-0026M-0001-SO	0.95	9.5	0.95	U		N/A	Yes
078SB-0025M-0001-SO	BROMOCHLOROMETHANE	1	UG/KG	5	1	U	078SB-0026M-0001-SO	1.9	9.5	1.9	U		N/A	Yes
078SB-0025M-0001-SO	BROMODICHLOROMETHANE	0.5	UG/KG	5	0.5	U	078SB-0026M-0001-SO	0.95	9.5	0.95	U		N/A	Yes
078SB-0025M-0001-SO	BROMOFORM	0.5	UG/KG	5	0.5	U	078SB-0026M-0001-SO	0.95	9.5	0.95	U		N/A	Yes
078SB-0025M-0001-SO	BROMOMETHANE	1	UG/KG	5	1	U	078SB-0026M-0001-SO	1.9	9.5	1.9	U		N/A	Yes
078SB-0025M-0001-SO	CARBON DISULFIDE	0.5	UG/KG	5	0.5	U	078SB-0026M-0001-SO	0.95	9.5	0.95	U		N/A	Yes
078SB-0025M-0001-SO	CARBON TETRACHLORIDE	0.5	UG/KG	5	0.5	U	078SB-0026M-0001-SO	0.95	9.5	0.95	U		N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	Code	RPD	W/In LOQ
078SB-0025M-0001-SO	CHLOROBENZENE	0.5	UG/KG	5	0.5	U	078SB-0026M-0001-SO	0.95	9.5	0.95	U		N/A	Yes
078SB-0025M-0001-SO	CHLOROETHANE	1	UG/KG	5	1	U	078SB-0026M-0001-SO	1.9	9.5	1.9	U		N/A	Yes
078SB-0025M-0001-SO	CHLOROFORM	0.5	UG/KG	5	0.5	U	078SB-0026M-0001-SO	0.95	9.5	0.95	U		N/A	Yes
078SB-0025M-0001-SO	CHLOROMETHANE	0.5	UG/KG	5	0.5	U	078SB-0026M-0001-SO	0.95	9.5	0.95	U		N/A	Yes
078SB-0025M-0001-SO	CIS-1,3-DICHLOROPROPENE	0.5	UG/KG	5	0.5	U	078SB-0026M-0001-SO	0.95	9.5	0.95	U		N/A	Yes
078SB-0025M-0001-SO	DIBROMOCHLOROMETHANE	1	UG/KG	5	1	U	078SB-0026M-0001-SO	1.9	9.5	1.9	U		N/A	Yes
078SB-0025M-0001-SO	ETHYLBENZENE	0.5	UG/KG	5	0.5	U	078SB-0026M-0001-SO	0.95	9.5	0.95	U		N/A	Yes
078SB-0025M-0001-SO	METHYL ETHYL KETONE	2	UG/KG	20	2	U	078SB-0026M-0001-SO	3.8	38	3.8	U		N/A	Yes
078SB-0025M-0001-SO	METHYL ISOBUTYL KETONE	1	UG/KG	20	1	U	078SB-0026M-0001-SO	1.9	38	1.9	U		N/A	Yes
078SB-0025M-0001-SO	METHYLENE CHLORIDE	1	UG/KG	5	1	J	078SB-0026M-0001-SO	1.9	9.5	1.9	J		N/A	Yes
078SB-0025M-0001-SO	STYRENE	0.5	UG/KG	5	0.5	U	078SB-0026M-0001-SO	0.95	9.5	0.95	U		N/A	Yes
078SB-0025M-0001-SO	TETRACHLOROETHYLENE	1	UG/KG	5	1	U	078SB-0026M-0001-SO	1.9	9.5	1.9	U		N/A	Yes
078SB-0025M-0001-SO	TOLUENE	0.5	UG/KG	5	0.5	U	078SB-0026M-0001-SO	0.95	9.5	0.95	U		N/A	Yes
078SB-0025M-0001-SO	TOTAL 1,2-DICHLOROETHENE	1	UG/KG	10	1	U	078SB-0026M-0001-SO	1.9	19	1.9	U		N/A	Yes
078SB-0025M-0001-SO	TRANS-1,3-DICHLOROPROPENE	1	UG/KG	5	1	U	078SB-0026M-0001-SO	1.9	9.5	1.9	U		N/A	Yes
078SB-0025M-0001-SO	TRICHLOROETHYLENE	0.5	UG/KG	5	0.5	U	078SB-0026M-0001-SO	0.95	9.5	0.95	U		N/A	Yes
078SB-0025M-0001-SO	VINYL CHLORIDE	0.5	UG/KG	5	0.5	U	078SB-0026M-0001-SO	0.95	9.5	0.95	U		N/A	Yes
078SB-0025M-0001-SO	XYLENES, TOTAL	1.5	UG/KG	10	1.5	U	078SB-0026M-0001-SO	2.9	19	2.9	U		N/A	Yes
078SB-0025M-0001-SO	1,2,4-TRICHLOROBENZENE	140	UG/KG	250	140	U	078SB-0026M-0001-SO	140	250	140	U		N/A	Yes
078SB-0025M-0001-SO	1,2-DICHLOROBENZENE	140	UG/KG	250	140	U	078SB-0026M-0001-SO	140	250	140	U		N/A	Yes
078SB-0025M-0001-SO	1,3-DICHLOROBENZENE	140	UG/KG	250	140	U	078SB-0026M-0001-SO	140	250	140	U		N/A	Yes
078SB-0025M-0001-SO	1,4-DICHLOROBENZENE	140	UG/KG	250	140	U	078SB-0026M-0001-SO	140	250	140	U		N/A	Yes
078SB-0025M-0001-SO	2,4,5-TRICHLOROPHENOL	140	UG/KG	750	140	U	078SB-0026M-0001-SO	140	760	140	U		N/A	Yes
078SB-0025M-0001-SO	2,4,6-TRICHLOROPHENOL	400	UG/KG	750	400	U	078SB-0026M-0001-SO	410	760	410	U		N/A	Yes
078SB-0025M-0001-SO	2,4-DICHLOROPHENOL	140	UG/KG	750	140	U	078SB-0026M-0001-SO	140	760	140	U		N/A	Yes
078SB-0025M-0001-SO	2,4-DIMETHYLPHENOL	400	UG/KG	750	400	U	078SB-0026M-0001-SO	410	760	410	U		N/A	Yes
078SB-0025M-0001-SO	2,4-DINITROPHENOL	400	UG/KG	1700	400	U	078SB-0026M-0001-SO	410	1700	410	U		N/A	Yes
078SB-0025M-0001-SO	2,4-DINITROTOLUENE	140	UG/KG	1000	140	U	078SB-0026M-0001-SO	140	1000	140	U		N/A	Yes
078SB-0025M-0001-SO	2,6-DINITROTOLUENE	140	UG/KG	1000	140	U	078SB-0026M-0001-SO	140	1000	140	U		N/A	Yes
078SB-0025M-0001-SO	2-CHLORONAPHTHALENE	17	UG/KG	250	17	U	078SB-0026M-0001-SO	17	250	17	U		N/A	Yes
078SB-0025M-0001-SO	2-CHLOROPHENOL	140	UG/KG	250	140	U	078SB-0026M-0001-SO	140	250	140	U		N/A	Yes
078SB-0025M-0001-SO	2-METHYLNAPHTHALENE	17	UG/KG	33	17	U	078SB-0026M-0001-SO	17	34	17	U		N/A	Yes
078SB-0025M-0001-SO	2-METHYLPHENOL (O-CRESOL)	400	UG/KG	1000	400	U	078SB-0026M-0001-SO	410	1000	410	U		N/A	Yes
078SB-0025M-0001-SO	2-NITROANILINE	140	UG/KG	1000	140	U	078SB-0026M-0001-SO	140	1000	140	U		N/A	Yes
078SB-0025M-0001-SO	2-NITROPHENOL	140	UG/KG	250	140	U	078SB-0026M-0001-SO	140	250	140	U		N/A	Yes
078SB-0025M-0001-SO	3,3'-DICHLOROBENZIDINE	400	UG/KG	500	400	U	078SB-0026M-0001-SO	410	510	410	U		N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	Code	RPD	W/In LOQ
078SB-0025M-0001-SO	3-NITROANILINE	400	UG/KG	1000	400	U	078SB-0026M-0001-SO	410	1000	410	U		N/A	Yes
078SB-0025M-0001-SO	4,6-DINITRO-2-METHYLPHENOL	400	UG/KG	750	400	U	078SB-0026M-0001-SO	410	760	410	U		N/A	Yes
078SB-0025M-0001-SO	4-BROMOPHENYL PHENYL ETHER	140	UG/KG	250	140	U	078SB-0026M-0001-SO	140	250	140	U		N/A	Yes
078SB-0025M-0001-SO	4-CHLORO-3-METHYLPHENOL	140	UG/KG	750	140	U	078SB-0026M-0001-SO	140	760	140	U		N/A	Yes
078SB-0025M-0001-SO	4-CHLOROANILINE	140	UG/KG	750	140	U	078SB-0026M-0001-SO	140	760	140	U		N/A	Yes
078SB-0025M-0001-SO	4-CHLOROPHENYL PHENYL ETHER	140	UG/KG	250	140	U	078SB-0026M-0001-SO	140	250	140	U		N/A	Yes
078SB-0025M-0001-SO	4-NITROANILINE	140	UG/KG	1000	140	U	078SB-0026M-0001-SO	140	1000	140	U		N/A	Yes
078SB-0025M-0001-SO	4-NITROPHENOL	400	UG/KG	1700	400	U	078SB-0026M-0001-SO	410	1700	410	U		N/A	Yes
078SB-0025M-0001-SO	ACENAPHTHENE	17	UG/KG	33	17	U	078SB-0026M-0001-SO	17	34	17	U		N/A	Yes
078SB-0025M-0001-SO	ACENAPHTHYLENE	17	UG/KG	33	17	U	078SB-0026M-0001-SO	17	34	17	U		N/A	Yes
078SB-0025M-0001-SO	ANTHRACENE	17	UG/KG	33	17	U	078SB-0026M-0001-SO	17	34	17	U		N/A	Yes
078SB-0025M-0001-SO	BENZO(A)ANTHRACENE	17	UG/KG	33	17	U	078SB-0026M-0001-SO	17	34	17	U		N/A	Yes
078SB-0025M-0001-SO	BENZO(A)PYRENE	17	UG/KG	33	17	U	078SB-0026M-0001-SO	17	34	17	U		N/A	Yes
078SB-0025M-0001-SO	BENZO(B)FLUORANTHENE	17	UG/KG	33	17	U	078SB-0026M-0001-SO	17	34	17	U		N/A	Yes
078SB-0025M-0001-SO	BENZO(G,H,I)PERYLENE	17	UG/KG	33	17	U	078SB-0026M-0001-SO	17	34	17	U		N/A	Yes
078SB-0025M-0001-SO	BENZO(K)FLUORANTHENE	17	UG/KG	33	17	U	078SB-0026M-0001-SO	17	34	17	U		N/A	Yes
078SB-0025M-0001-SO	BENZOIC ACID	1700	UG/KG	3300	1700	U	078SB-0026M-0001-SO	1700	3300	1700	U		N/A	Yes
078SB-0025M-0001-SO	BENZYL ALCOHOL	140	UG/KG	1700	140	U	078SB-0026M-0001-SO	140	1700	140	U		N/A	Yes
078SB-0025M-0001-SO	BENZYL BUTYL PHTHALATE	140	UG/KG	250	140	U	078SB-0026M-0001-SO	140	250	140	U		N/A	Yes
078SB-0025M-0001-SO	BIS(2-CHLOROETHOXY) METHANE	140	UG/KG	500	140	U	078SB-0026M-0001-SO	140	510	140	U		N/A	Yes
078SB-0025M-0001-SO	BIS(2-CHLOROETHYL) ETHER	17	UG/KG	500	17	U	078SB-0026M-0001-SO	17	510	17	U		N/A	Yes
078SB-0025M-0001-SO	BIS(2-CHLOROISOPROPYL) ETHER	140	UG/KG	500	140	U	078SB-0026M-0001-SO	140	510	140	U		N/A	Yes
078SB-0025M-0001-SO	BIS(2-ETHYLHEXYL) PHTHALATE	140	UG/KG	250	140	U	078SB-0026M-0001-SO	140	250	140	U		N/A	Yes
078SB-0025M-0001-SO	CARBAZOLE	140	UG/KG	250	140	U	078SB-0026M-0001-SO	140	250	140	U		N/A	Yes
078SB-0025M-0001-SO	CHRYSENE	17	UG/KG	33	17	U	078SB-0026M-0001-SO	17	34	17	U		N/A	Yes
078SB-0025M-0001-SO	CRESOLS, M & P	400	UG/KG	2000	400	U	078SB-0026M-0001-SO	410	2000	410	U		N/A	Yes
078SB-0025M-0001-SO	DIBENZ(A,H)ANTHRACENE	17	UG/KG	33	17	U	078SB-0026M-0001-SO	17	34	17	U		N/A	Yes
078SB-0025M-0001-SO	DIBENZOFURAN	17	UG/KG	250	17	U	078SB-0026M-0001-SO	17	250	17	U		N/A	Yes
078SB-0025M-0001-SO	DIETHYL PHTHALATE	140	UG/KG	250	140	U	078SB-0026M-0001-SO	140	250	140	U		N/A	Yes
078SB-0025M-0001-SO	DIMETHYL PHTHALATE	140	UG/KG	250	140	U	078SB-0026M-0001-SO	140	250	140	U		N/A	Yes
078SB-0025M-0001-SO	DI-N-BUTYL PHTHALATE	140	UG/KG	250	140	U	078SB-0026M-0001-SO	140	250	140	U		N/A	Yes
078SB-0025M-0001-SO	DI-N-OCTYLPHTHALATE	140	UG/KG	250	140	U	078SB-0026M-0001-SO	140	250	140	U		N/A	Yes
078SB-0025M-0001-SO	FLUORANTHENE	17	UG/KG	33	17	U	078SB-0026M-0001-SO	17	34	17	U		N/A	Yes
078SB-0025M-0001-SO	FLUORENE	17	UG/KG	33	17	U	078SB-0026M-0001-SO	17	34	17	U		N/A	Yes
078SB-0025M-0001-SO	HEXACHLOROBENZENE	17	UG/KG	33	17	U	078SB-0026M-0001-SO	17	34	17	U		N/A	Yes
078SB-0025M-0001-SO	HEXACHLOROBUTADIENE	140	UG/KG	250	140	U	078SB-0026M-0001-SO	140	250	140	U		N/A	Yes

Sample	Analyte	Result	Units	LOQ	LOD	Qual	Sample	Result	LOQ	LOD	Qual	Code	RPD	W/In LOQ
078SB-0025M-0001-SO	HEXACHLOROCYCLOPENTADIENE	140	UG/KG	1700	140	U	078SB-0026M-0001-SO	140	1700	140	U		N/A	Yes
078SB-0025M-0001-SO	HEXACHLOROETHANE	140	UG/KG	250	140	U	078SB-0026M-0001-SO	140	250	140	U		N/A	Yes
078SB-0025M-0001-SO	INDENO(1,2,3-C,D)PYRENE	17	UG/KG	33	17	U	078SB-0026M-0001-SO	17	34	17	U		N/A	Yes
078SB-0025M-0001-SO	ISOPHORONE	140	UG/KG	250	140	U	078SB-0026M-0001-SO	140	250	140	U		N/A	Yes
078SB-0025M-0001-SO	NAPHTHALENE	17	UG/KG	33	17	U	078SB-0026M-0001-SO	17	34	17	U		N/A	Yes
078SB-0025M-0001-SO	NITROBENZENE	17	UG/KG	500	17	U	078SB-0026M-0001-SO	17	510	17	U		N/A	Yes
078SB-0025M-0001-SO	N-NITROSODI-N-PROPYLAMINE	140	UG/KG	250	140	U	078SB-0026M-0001-SO	140	250	140	U		N/A	Yes
078SB-0025M-0001-SO	N-NITROSODIPHENYLAMINE	140	UG/KG	250	140	U	078SB-0026M-0001-SO	140	250	140	U		N/A	Yes
078SB-0025M-0001-SO	PENTACHLOROPHENOL	400	UG/KG	750	400	U	078SB-0026M-0001-SO	410	760	410	U		N/A	Yes
078SB-0025M-0001-SO	PHENANTHRENE	17	UG/KG	33	17	U	078SB-0026M-0001-SO	17	34	17	U		N/A	Yes
078SB-0025M-0001-SO	PHENOL	140	UG/KG	250	140	U	078SB-0026M-0001-SO	140	250	140	U		N/A	Yes
078SB-0025M-0001-SO	PYRENE	17	UG/KG	33	17	U	078SB-0026M-0001-SO	17	34	17	U		N/A	Yes
078SB-0025M-0001-SO	NITROGUANIDINE	0.04	MG/KG	0.25	0.04		078SB-0026M-0001-SO	0.04	0.24	0.039	U		N/A	Yes

Sample	Analyte	Result	Units	DL	LOQ	Qual	Sample	Result	LOQ	LOD	Qual	Code	RPD	W/In LOQ
079SB-0150M-0001-SO	ALUMINUM	12000	MG/KG	0.28	3		079SB-0234M-0001-SO	12000	3	0.59			0	N/A
079SB-0150M-0001-SO	ANTIMONY	0.1	MG/KG	0.046	0.2	U	079SB-0234M-0001-SO	0.099	0.2	0.099	R	Q	N/A	N/A
079SB-0150M-0001-SO	ARSENIC	9.8	MG/KG	0.018	0.1		079SB-0234M-0001-SO	9.9	0.099	0.05	J-	Q	1	N/A
079SB-0150M-0001-SO	BARIUM	88	MG/KG	0.011	1		079SB-0234M-0001-SO	81	0.99	0.02	J-	E, Q	8	N/A
079SB-0150M-0001-SO	BERYLLIUM	0.7	MG/KG	0.0075	0.1		079SB-0234M-0001-SO	0.65	0.099	0.0099			7	N/A
079SB-0150M-0001-SO	CADMIUM	0.15	MG/KG	0.013	0.1		079SB-0234M-0001-SO	0.15	0.099	0.03			0	N/A
079SB-0150M-0001-SO	CALCIUM	770	MG/KG	1.3	10		079SB-0234M-0001-SO	750	9.9	2.5			3	N/A
079SB-0150M-0001-SO	CHROMIUM	20	MG/KG	0.022	0.2		079SB-0234M-0001-SO	19	0.2	0.04			5	N/A
079SB-0150M-0001-SO	COBALT	12	MG/KG	0.0024	0.05		079SB-0234M-0001-SO	13	0.05	0.0099			8	N/A
079SB-0150M-0001-SO	COPPER	18	MG/KG	0.033	0.2		079SB-0234M-0001-SO	17	0.2	0.059	J-	Q	6	N/A
079SB-0150M-0001-SO	IRON	26000	MG/KG	1.1	5		079SB-0234M-0001-SO	24000	5	2			8	N/A
079SB-0150M-0001-SO	LEAD	14	MG/KG	0.015	0.1		079SB-0234M-0001-SO	14	0.099	0.03	J	E	0	N/A
079SB-0150M-0001-SO	MAGNESIUM	4000	MG/KG	1.1	10		079SB-0234M-0001-SO	3800	9.9	2			5	N/A
079SB-0150M-0001-SO	MANGANESE	370	MG/KG	0.016	0.5		079SB-0234M-0001-SO	490	0.5	0.03	J	E	28	N/A
079SB-0150M-0001-SO	NICKEL	32	MG/KG	0.011	0.1		079SB-0234M-0001-SO	28	0.099	0.03	J-	Q	13	N/A
079SB-0150M-0001-SO	POTASSIUM	1100	MG/KG	3.2	10		079SB-0234M-0001-SO	1100	9.9	5.9			0	N/A
079SB-0150M-0001-SO	SELENIUM	0.25	MG/KG	0.051	0.5	J	079SB-0234M-0001-SO	0.23	0.5	0.099	J-	Q	8	N/A
079SB-0150M-0001-SO	SILVER	0.022	MG/KG	0.011	0.1	J	079SB-0234M-0001-SO	0.023	0.099	0.03	J		4	N/A
079SB-0150M-0001-SO	SODIUM	140	MG/KG	2.7	10		079SB-0234M-0001-SO	120	9.9	5	J	E	15	N/A
079SB-0150M-0001-SO	THALLIUM	0.15	MG/KG	0.01	0.1		079SB-0234M-0001-SO	0.15	0.099	0.02	J	E	0	N/A
079SB-0150M-0001-SO	VANADIUM	19	MG/KG	0.03	0.1		079SB-0234M-0001-SO	18	0.099	0.059			5	N/A
079SB-0150M-0001-SO	ZINC	54	MG/KG	0.065	0.5		079SB-0234M-0001-SO	53	0.5	0.2	J-	Q	2	N/A
079SB-0150M-0001-SO	MERCURY	0.018	MG/KG	0.016	0.11	J	079SB-0234M-0001-SO	0.025	0.09	0.03	J		33	N/A
079SB-0165M-0001-SO	ALUMINUM	2900	MG/KG	0.28	2.9		079SB-0236M-0001-SO	4000	3	0.6			32	N/A
079SB-0165M-0001-SO	ANTIMONY	0.098	MG/KG	0.045	0.2	U	079SB-0236M-0001-SO	0.1	0.2	0.1	R	Q	N/A	N/A
079SB-0165M-0001-SO	ARSENIC	9.2	MG/KG	0.018	0.098		079SB-0236M-0001-SO	11	0.1	0.05	J-	Q	18	N/A
079SB-0165M-0001-SO	BARIUM	260	MG/KG	0.01	0.98		079SB-0236M-0001-SO	100	1	0.02	J-	E, Q	89	N/A
079SB-0165M-0001-SO	BERYLLIUM	0.24	MG/KG	0.0074	0.098		079SB-0236M-0001-SO	0.25	0.1	0.01			4	N/A
079SB-0165M-0001-SO	CADMIUM	0.07	MG/KG	0.013	0.098	J	079SB-0236M-0001-SO	0.059	0.1	0.03	J		17	N/A
079SB-0165M-0001-SO	CALCIUM	230	MG/KG	1.3	9.8		079SB-0236M-0001-SO	310	10	2.5			30	N/A
079SB-0165M-0001-SO	CHROMIUM	8.5	MG/KG	0.022	0.2		079SB-0236M-0001-SO	17	0.2	0.04			67	N/A
079SB-0165M-0001-SO	COBALT	5.2	MG/KG	0.0024	0.049		079SB-0236M-0001-SO	5.2	0.05	0.01			0	N/A
079SB-0165M-0001-SO	COPPER	5.5	MG/KG	0.032	0.2		079SB-0236M-0001-SO	7.2	0.2	0.06	J-	Q	27	N/A
079SB-0165M-0001-SO	IRON	8300	MG/KG	1.1	4.9		079SB-0236M-0001-SO	12000	5	2			36	N/A
079SB-0165M-0001-SO	LEAD	5.9	MG/KG	0.015	0.098		079SB-0236M-0001-SO	6.4	0.1	0.03	J	E	8	N/A
079SB-0165M-0001-SO	MAGNESIUM	970	MG/KG	1.1	9.8		079SB-0236M-0001-SO	1200	10	2			21	N/A

Sample	Analyte	Result	Units	DL	LOQ	Qual	Sample	Result	LOQ	LOD	Qual	Code	RPD	W/In LOQ
079SB-0165M-0001-SO	MANGANESE	1900	MG/KG	0.016	0.49		079SB-0236M-0001-SO	2500	5	0.3	J	E	27	N/A
079SB-0165M-0001-SO	NICKEL	16	MG/KG	0.011	0.098		079SB-0236M-0001-SO	14	0.1	0.03	J-	Q	13	N/A
079SB-0165M-0001-SO	POTASSIUM	430	MG/KG	3.1	9.8		079SB-0236M-0001-SO	620	10	6			36	N/A
079SB-0165M-0001-SO	SELENIUM	0.06	MG/KG	0.05	0.49	J	079SB-0236M-0001-SO	0.12	0.5	0.1	J-	Q	67	N/A
079SB-0165M-0001-SO	SILVER	0.012	MG/KG	0.011	0.098	J	079SB-0236M-0001-SO	0.014	0.1	0.03	J		15	N/A
079SB-0165M-0001-SO	SODIUM	34	MG/KG	2.6	9.8		079SB-0236M-0001-SO	48	10	5	J	E	34	N/A
079SB-0165M-0001-SO	THALLIUM	0.15	MG/KG	0.01	0.098		079SB-0236M-0001-SO	0.18	0.1	0.02	J	E	18	N/A
079SB-0165M-0001-SO	VANADIUM	5.3	MG/KG	0.029	0.098		079SB-0236M-0001-SO	7.6	0.1	0.06			36	N/A
079SB-0165M-0001-SO	ZINC	21	MG/KG	0.064	0.49		079SB-0236M-0001-SO	24	0.5	0.2	J-	Q	13	N/A
079SB-0165M-0001-SO	MERCURY	0.018	MG/KG	0.014	0.098	J	079SB-0236M-0001-SO	0.038	0.12	0.038	U		71	N/A
079SB-0217M-0001-SO	ALUMINUM	6100	MG/KG	0.27	2.8		079SB-0319M-0001-SO	6100	2.9	0.58			0	N/A
079SB-0217M-0001-SO	ANTIMONY	0.053	MG/KG	0.043	0.19	J-	079SB-0319M-0001-SO	0.049	0.19	0.097	J		8	N/A
079SB-0217M-0001-SO	ARSENIC	6.6	MG/KG	0.017	0.094	J-	079SB-0319M-0001-SO	7.1	0.097	0.049			7	N/A
079SB-0217M-0001-SO	BARIUM	36	MG/KG	0.01	0.94	J-	079SB-0319M-0001-SO	45	0.97	0.019			22	N/A
079SB-0217M-0001-SO	BERYLLIUM	0.36	MG/KG	0.0071	0.094		079SB-0319M-0001-SO	0.41	0.097	0.0097			13	N/A
079SB-0217M-0001-SO	CADMIUM	0.13	MG/KG	0.012	0.094		079SB-0319M-0001-SO	0.32	0.097	0.029			84	N/A
079SB-0217M-0001-SO	CALCIUM	330	MG/KG	1.3	9.4		079SB-0319M-0001-SO	360	9.7	2.4			9	N/A
079SB-0217M-0001-SO	CHROMIUM	8.2	MG/KG	0.021	0.19		079SB-0319M-0001-SO	8.7	0.19	0.039			6	N/A
079SB-0217M-0001-SO	COBALT	6.9	MG/KG	0.0023	0.047		079SB-0319M-0001-SO	8.6	0.049	0.0097			22	N/A
079SB-0217M-0001-SO	COPPER	11	MG/KG	0.031	0.19	J-	079SB-0319M-0001-SO	11	0.19	0.058			0	N/A
079SB-0217M-0001-SO	IRON	15000	MG/KG	1	4.7		079SB-0319M-0001-SO	18000	4.9	1.9			18	N/A
079SB-0217M-0001-SO	LEAD	8.6	MG/KG	0.015	0.094	J	079SB-0319M-0001-SO	8.8	0.097	0.029			2	N/A
079SB-0217M-0001-SO	MAGNESIUM	1700	MG/KG	1	9.4		079SB-0319M-0001-SO	1800	9.7	1.9			6	N/A
079SB-0217M-0001-SO	MANGANESE	490	MG/KG	0.015	0.47	J	079SB-0319M-0001-SO	880	0.49	0.029			57	N/A
079SB-0217M-0001-SO	NICKEL	15	MG/KG	0.011	0.094	J-	079SB-0319M-0001-SO	20	0.097	0.029			29	N/A
079SB-0217M-0001-SO	POTASSIUM	690	MG/KG	3	9.4		079SB-0319M-0001-SO	730	9.7	5.8			6	N/A
079SB-0217M-0001-SO	SELENIUM	0.21	MG/KG	0.048	0.47	J-	079SB-0319M-0001-SO	0.18	0.49	0.097	J		15	N/A
079SB-0217M-0001-SO	SILVER	0.02	MG/KG	0.011	0.094	J	079SB-0319M-0001-SO	0.029	0.097	0.029	J		37	N/A
079SB-0217M-0001-SO	SODIUM	32	MG/KG	2.5	9.4	J	079SB-0319M-0001-SO	34	9.7	4.9			6	N/A
079SB-0217M-0001-SO	THALLIUM	0.12	MG/KG	0.0096	0.094	J	079SB-0319M-0001-SO	0.13	0.097	0.019			8	N/A
079SB-0217M-0001-SO	VANADIUM	9.8	MG/KG	0.028	0.094		079SB-0319M-0001-SO	9.9	0.097	0.058			1	N/A
079SB-0217M-0001-SO	ZINC	46	MG/KG	0.061	0.47	J-	079SB-0319M-0001-SO	67	0.49	0.19			37	N/A
079SB-0217M-0001-SO	MERCURY	0.034	MG/KG	0.016	0.12	J	079SB-0319M-0001-SO	0.037	0.1	0.034	J		8	N/A
079SB-0247M-0001-SO	ALUMINUM	2100	MG/KG	0.28	2.9		079SB-0325M-0001-SO	1900	2.9	0.58			10	N/A
079SB-0247M-0001-SO	ANTIMONY	0.19	MG/KG	0.045	0.2	J-	079SB-0325M-0001-SO	0.074	0.19	0.097	J		88	N/A
079SB-0247M-0001-SO	ARSENIC	4.7	MG/KG	0.018	0.098	J-	079SB-0325M-0001-SO	4.3	0.097	0.049			9	N/A

Sample	Analyte	Result	Units	DL	LOQ	Qual	Sample	Result	LOQ	LOD	Qual	Code	RPD	W/In LOQ
079SB-0247M-0001-SO	BARIUM	45	MG/KG	0.01	0.98		079SB-0325M-0001-SO	29	0.97	0.019			43	N/A
079SB-0247M-0001-SO	BERYLLIUM	0.14	MG/KG	0.0074	0.098		079SB-0325M-0001-SO	0.12	0.097	0.0097			15	N/A
079SB-0247M-0001-SO	CADMIUM	0.055	MG/KG	0.013	0.098	J	079SB-0325M-0001-SO	0.06	0.097	0.029	J		9	N/A
079SB-0247M-0001-SO	CALCIUM	210	MG/KG	1.3	9.8		079SB-0325M-0001-SO	480	9.7	2.4			78	N/A
079SB-0247M-0001-SO	CHROMIUM	7.8	MG/KG	0.022	0.2		079SB-0325M-0001-SO	7.4	0.19	0.039			5	N/A
079SB-0247M-0001-SO	COBALT	4.5	MG/KG	0.0024	0.049		079SB-0325M-0001-SO	4.7	0.049	0.0097			4	N/A
079SB-0247M-0001-SO	COPPER	3.6	MG/KG	0.032	0.2		079SB-0325M-0001-SO	3.8	0.19	0.058			5	N/A
079SB-0247M-0001-SO	IRON	6800	MG/KG	1.1	4.9		079SB-0325M-0001-SO	6000	4.9	1.9			13	N/A
079SB-0247M-0001-SO	LEAD	3.6	MG/KG	0.015	0.098		079SB-0325M-0001-SO	3.4	0.097	0.029			6	N/A
079SB-0247M-0001-SO	MAGNESIUM	450	MG/KG	1.1	9.8		079SB-0325M-0001-SO	480	9.7	1.9			6	N/A
079SB-0247M-0001-SO	MANGANESE	950	MG/KG	0.016	0.49		079SB-0325M-0001-SO	2300	4.9	0.29			83	N/A
079SB-0247M-0001-SO	NICKEL	11	MG/KG	0.011	0.098		079SB-0325M-0001-SO	12	0.097	0.029			9	N/A
079SB-0247M-0001-SO	POTASSIUM	350	MG/KG	3.1	9.8		079SB-0325M-0001-SO	320	9.7	5.8			9	N/A
079SB-0247M-0001-SO	SELENIUM	0.098	MG/KG	0.05	0.49	UJ	079SB-0325M-0001-SO	0.097	0.49	0.097	U		1	N/A
079SB-0247M-0001-SO	SILVER	0.029	MG/KG	0.011	0.098	U	079SB-0325M-0001-SO	0.029	0.097	0.029	U		0	N/A
079SB-0247M-0001-SO	SODIUM	24	MG/KG	2.6	9.8		079SB-0325M-0001-SO	20	9.7	4.9			18	N/A
079SB-0247M-0001-SO	THALLIUM	0.061	MG/KG	0.01	0.098	J	079SB-0325M-0001-SO	0.061	0.097	0.019	J		0	N/A
079SB-0247M-0001-SO	VANADIUM	4.2	MG/KG	0.029	0.098		079SB-0325M-0001-SO	4.7	0.097	0.058			11	N/A
079SB-0247M-0001-SO	ZINC	21	MG/KG	0.064	0.49	J-	079SB-0325M-0001-SO	19	0.49	0.19			10	N/A
079SB-0247M-0001-SO	MERCURY	0.031	MG/KG	0.013	0.095	U	079SB-0325M-0001-SO	0.017	0.11	0.035	J		58	N/A
079SB-0267M-0001-SO	ALUMINUM	8400	MG/KG	0.28	3		079SB-0322M-0001-SO	7200	3	0.59			15	N/A
079SB-0267M-0001-SO	ANTIMONY	0.099	MG/KG	0.045	0.2	UJ	079SB-0322M-0001-SO	0.099	0.2	0.099	U		0	N/A
079SB-0267M-0001-SO	ARSENIC	51	MG/KG	0.018	0.099	J-	079SB-0322M-0001-SO	36	0.099	0.05			34	N/A
079SB-0267M-0001-SO	BARIUM	58	MG/KG	0.011	0.99		079SB-0322M-0001-SO	48	0.99	0.02			19	N/A
079SB-0267M-0001-SO	BERYLLIUM	0.57	MG/KG	0.0074	0.099		079SB-0322M-0001-SO	0.48	0.099	0.0099			17	N/A
079SB-0267M-0001-SO	CADMIUM	0.1	MG/KG	0.013	0.099		079SB-0322M-0001-SO	0.084	0.099	0.03	J		17	N/A
079SB-0267M-0001-SO	CALCIUM	3800	MG/KG	1.3	9.9		079SB-0322M-0001-SO	1900	9.9	2.5			67	N/A
079SB-0267M-0001-SO	CHROMIUM	12	MG/KG	0.022	0.2		079SB-0322M-0001-SO	10	0.2	0.04			18	N/A
079SB-0267M-0001-SO	COBALT	7.3	MG/KG	0.0024	0.05		079SB-0322M-0001-SO	6.3	0.05	0.0099			15	N/A
079SB-0267M-0001-SO	COPPER	12	MG/KG	0.033	0.2		079SB-0322M-0001-SO	12	0.2	0.059			0	N/A
079SB-0267M-0001-SO	IRON	18000	MG/KG	1.1	5		079SB-0322M-0001-SO	17000	5	2			6	N/A
079SB-0267M-0001-SO	LEAD	12	MG/KG	0.015	0.099		079SB-0322M-0001-SO	9.6	0.099	0.03			22	N/A
079SB-0267M-0001-SO	MAGNESIUM	2900	MG/KG	1.1	9.9		079SB-0322M-0001-SO	2300	9.9	2			23	N/A
079SB-0267M-0001-SO	MANGANESE	390	MG/KG	0.016	0.5		079SB-0322M-0001-SO	280	0.5	0.03			33	N/A
079SB-0267M-0001-SO	NICKEL	17	MG/KG	0.011	0.099		079SB-0322M-0001-SO	16	0.099	0.03			6	N/A
079SB-0267M-0001-SO	POTASSIUM	1300	MG/KG	3.1	9.9		079SB-0322M-0001-SO	1100	9.9	5.9			17	N/A

Sample	Analyte	Result	Units	DL	LOQ	Qual	Sample	Result	LOQ	LOD	Qual	Code	RPD	W/In LOQ
079SB-0267M-0001-SO	SELENIUM	0.22	MG/KG	0.05	0.5	J-	079SB-0322M-0001-SO	0.11	0.5	0.099	J		67	N/A
079SB-0267M-0001-SO	SILVER	0.018	MG/KG	0.011	0.099	J	079SB-0322M-0001-SO	0.015	0.099	0.03	J		18	N/A
079SB-0267M-0001-SO	SODIUM	240	MG/KG	2.6	9.9		079SB-0322M-0001-SO	240	9.9	5			0	N/A
079SB-0267M-0001-SO	THALLIUM	0.12	MG/KG	0.01	0.099		079SB-0322M-0001-SO	0.11	0.099	0.02			9	N/A
079SB-0267M-0001-SO	VANADIUM	13	MG/KG	0.03	0.099		079SB-0322M-0001-SO	11	0.099	0.059			17	N/A
079SB-0267M-0001-SO	ZINC	36	MG/KG	0.064	0.5	J-	079SB-0322M-0001-SO	39	0.5	0.2			8	N/A
079SB-0267M-0001-SO	MERCURY	0.023	MG/KG	0.015	0.11	J	079SB-0322M-0001-SO	0.017	0.12	0.039	J		30	N/A
079SB-0269M-0001-SO	ALUMINUM	2300	MG/KG	0.28	3		079SB-0323M-0001-SO	3800	3	0.59			49	N/A
079SB-0269M-0001-SO	ANTIMONY	0.099	MG/KG	0.045	0.2	UJ	079SB-0323M-0001-SO	0.099	0.2	0.099	U		0	N/A
079SB-0269M-0001-SO	ARSENIC	27	MG/KG	0.018	0.099	J-	079SB-0323M-0001-SO	43	0.099	0.05			46	N/A
079SB-0269M-0001-SO	BARIUM	39	MG/KG	0.011	0.99		079SB-0323M-0001-SO	48	0.99	0.02			21	N/A
079SB-0269M-0001-SO	BERYLLIUM	0.19	MG/KG	0.0074	0.099		079SB-0323M-0001-SO	0.3	0.099	0.0099			45	N/A
079SB-0269M-0001-SO	CADMIUM	0.035	MG/KG	0.013	0.099	J	079SB-0323M-0001-SO	0.06	0.099	0.03	J		53	N/A
079SB-0269M-0001-SO	CALCIUM	1400	MG/KG	1.3	9.9		079SB-0323M-0001-SO	2900	9.9	2.5			70	N/A
079SB-0269M-0001-SO	CHROMIUM	4.6	MG/KG	0.022	0.2		079SB-0323M-0001-SO	7.3	0.2	0.04			45	N/A
079SB-0269M-0001-SO	COBALT	2.7	MG/KG	0.0024	0.05		079SB-0323M-0001-SO	3.1	0.05	0.0099			14	N/A
079SB-0269M-0001-SO	COPPER	18	MG/KG	0.033	0.2		079SB-0323M-0001-SO	18	0.2	0.059			0	N/A
079SB-0269M-0001-SO	IRON	6400	MG/KG	1.1	5		079SB-0323M-0001-SO	8000	5	2			22	N/A
079SB-0269M-0001-SO	LEAD	160	MG/KG	0.015	0.099		079SB-0323M-0001-SO	210	0.099	0.03			27	N/A
079SB-0269M-0001-SO	MAGNESIUM	980	MG/KG	1.1	9.9		079SB-0323M-0001-SO	1700	9.9	2			54	N/A
079SB-0269M-0001-SO	MANGANESE	5000	MG/KG	0.16	5		079SB-0323M-0001-SO	5000	5	0.3			0	N/A
079SB-0269M-0001-SO	NICKEL	6.8	MG/KG	0.011	0.099		079SB-0323M-0001-SO	8.9	0.099	0.03			27	N/A
079SB-0269M-0001-SO	POTASSIUM	490	MG/KG	3.1	9.9		079SB-0323M-0001-SO	780	9.9	5.9			46	N/A
079SB-0269M-0001-SO	SELENIUM	0.099	MG/KG	0.05	0.5	UJ	079SB-0323M-0001-SO	0.061	0.5	0.099	J		48	N/A
079SB-0269M-0001-SO	SILVER	0.03	MG/KG	0.011	0.099	U	079SB-0323M-0001-SO	0.012	0.099	0.03	J		86	N/A
079SB-0269M-0001-SO	SODIUM	130	MG/KG	2.6	9.9		079SB-0323M-0001-SO	180	9.9	5			32	N/A
079SB-0269M-0001-SO	THALLIUM	0.049	MG/KG	0.01	0.099	J	079SB-0323M-0001-SO	0.073	0.099	0.02	J		39	N/A
079SB-0269M-0001-SO	VANADIUM	5	MG/KG	0.03	0.099		079SB-0323M-0001-SO	7.1	0.099	0.059			35	N/A
079SB-0269M-0001-SO	ZINC	17	MG/KG	0.064	0.5	J-	079SB-0323M-0001-SO	22	0.5	0.2			26	N/A
079SB-0269M-0001-SO	MERCURY	0.034	MG/KG	0.014	0.1	U	079SB-0323M-0001-SO	0.036	0.11	0.036	U		6	N/A
079SD-0305-0001-SD	ALUMINUM	12000	MG/KG	0.47	5		079SD-0306-0001-SD	13000	5.5	1.1			8	N/A
079SD-0305-0001-SD	ANTIMONY	0.14	MG/KG	0.076	0.33	J-	079SD-0306-0001-SD	0.13	0.36	0.18	J		7	N/A
079SD-0305-0001-SD	ARSENIC	240	MG/KG	0.03	0.17		079SD-0306-0001-SD	180	0.18	0.091			29	N/A
079SD-0305-0001-SD	BARIUM	71	MG/KG	0.018	1.7	J	079SD-0306-0001-SD	74	1.8	0.036			4	N/A
079SD-0305-0001-SD	BERYLLIUM	0.65	MG/KG	0.012	0.17		079SD-0306-0001-SD	0.68	0.18	0.018			5	N/A
079SD-0305-0001-SD	CADMIUM	0.35	MG/KG	0.022	0.17		079SD-0306-0001-SD	0.37	0.18	0.055			6	N/A

Sample	Analyte	Result	Units	DL	LOQ	Qual	Sample	Result	LOQ	LOD	Qual	Code	RPD	W/In LOQ
079SD-0305-0001-SD	CALCIUM	2400	MG/KG	2.2	17	J	079SD-0306-0001-SD	2100	18	4.6			13	N/A
079SD-0305-0001-SD	CHROMIUM	28	MG/KG	0.037	0.33		079SD-0306-0001-SD	29	0.36	0.073			4	N/A
079SD-0305-0001-SD	COBALT	8.6	MG/KG	0.004	0.083		079SD-0306-0001-SD	8.6	0.091	0.018			0	N/A
079SD-0305-0001-SD	COPPER	21	MG/KG	0.055	0.33		079SD-0306-0001-SD	24	0.36	0.11			13	N/A
079SD-0305-0001-SD	IRON	21000	MG/KG	1.8	8.3		079SD-0306-0001-SD	20000	9.1	3.6			5	N/A
079SD-0305-0001-SD	LEAD	51	MG/KG	0.025	0.17		079SD-0306-0001-SD	50	0.18	0.055			2	N/A
079SD-0305-0001-SD	MAGNESIUM	2800	MG/KG	1.8	17		079SD-0306-0001-SD	2700	18	3.6			4	N/A
079SD-0305-0001-SD	MANGANESE	710	MG/KG	0.026	0.83		079SD-0306-0001-SD	470	0.91	0.055			41	N/A
079SD-0305-0001-SD	NICKEL	29	MG/KG	0.019	0.17		079SD-0306-0001-SD	29	0.18	0.055			0	N/A
079SD-0305-0001-SD	POTASSIUM	1500	MG/KG	5.2	17		079SD-0306-0001-SD	1900	18	11			24	N/A
079SD-0305-0001-SD	SELENIUM	0.61	MG/KG	0.084	0.83	J-	079SD-0306-0001-SD	1	0.91	0.18	J		48	N/A
079SD-0305-0001-SD	SILVER	0.08	MG/KG	0.019	0.17	J	079SD-0306-0001-SD	0.092	0.18	0.055	J		14	N/A
079SD-0305-0001-SD	SODIUM	67	MG/KG	4.4	17		079SD-0306-0001-SD	100	18	9.1			40	N/A
079SD-0305-0001-SD	THALLIUM	0.17	MG/KG	0.017	0.17		079SD-0306-0001-SD	0.21	0.18	0.036			21	N/A
079SD-0305-0001-SD	VANADIUM	27	MG/KG	0.049	0.17		079SD-0306-0001-SD	30	0.18	0.11			11	N/A
079SD-0305-0001-SD	ZINC	80	MG/KG	0.11	0.83		079SD-0306-0001-SD	81	0.91	0.36			1	N/A
079SD-0305-0001-SD	MERCURY	0.046	MG/KG	0.027	0.19	J	079SD-0306-0001-SD	0.045	0.21	0.07	J		2	N/A
079SW-0311-0001-SW	ALUMINUM	40	UG/L	2.6	30		079SW-0312-0001-SW	36	30	5			11	N/A
079SW-0311-0001-SW	ANTIMONY	0.9	UG/L	0.46	2	U	079SW-0312-0001-SW	1	2	0.9	J		11	N/A
079SW-0311-0001-SW	ARSENIC	15	UG/L	0.29	1		079SW-0312-0001-SW	16	1	0.5			6	N/A
079SW-0311-0001-SW	BARIUM	12	UG/L	0.098	10		079SW-0312-0001-SW	13	10	0.15			8	N/A
079SW-0311-0001-SW	BERYLLIUM	0.09	UG/L	0.045	1	U	079SW-0312-0001-SW	0.09	1	0.09	U		0	N/A
079SW-0311-0001-SW	CADMIUM	0.3	UG/L	0.13	1	U	079SW-0312-0001-SW	0.3	1	0.3	U		0	N/A
079SW-0311-0001-SW	CALCIUM	14000	UG/L	9.4	100		079SW-0312-0001-SW	15000	100	20			7	N/A
079SW-0311-0001-SW	CHROMIUM	1.6	UG/L	0.54	2	J	079SW-0312-0001-SW	1.7	2	1	J		6	N/A
079SW-0311-0001-SW	COBALT	0.044	UG/L	0.026	0.5	J	079SW-0312-0001-SW	0.054	0.5	0.05	J		20	N/A
079SW-0311-0001-SW	COPPER	1.4	UG/L	0.24	2	J	079SW-0312-0001-SW	1.5	2	0.5	J		7	N/A
079SW-0311-0001-SW	IRON	220	UG/L	11	50		079SW-0312-0001-SW	220	50	20			0	N/A
079SW-0311-0001-SW	LEAD	0.3	UG/L	0.15	1	U	079SW-0312-0001-SW	0.3	1	0.3	J		0	N/A
079SW-0311-0001-SW	MAGNESIUM	3000	UG/L	11	100		079SW-0312-0001-SW	3200	100	22			6	N/A
079SW-0311-0001-SW	MANGANESE	12	UG/L	0.16	5		079SW-0312-0001-SW	12	5	0.3			0	N/A
079SW-0311-0001-SW	NICKEL	0.57	UG/L	0.17	1	J	079SW-0312-0001-SW	0.56	1	0.35	J		2	N/A
079SW-0311-0001-SW	POTASSIUM	5000	UG/L	32	100		079SW-0312-0001-SW	5300	100	60			6	N/A
079SW-0311-0001-SW	SELENIUM	1	UG/L	0.51	5	U	079SW-0312-0001-SW	1	5	1	U		0	N/A
079SW-0311-0001-SW	SILVER	0.2	UG/L	0.11	1	U	079SW-0312-0001-SW	0.2	1	0.2	U		0	N/A
079SW-0311-0001-SW	SODIUM	2900	UG/L	27	100		079SW-0312-0001-SW	3100	100	55			7	N/A

Sample	Analyte	Result	Units	DL	LOQ	Qual	Sample	Result	LOQ	LOD	Qual	Code	RPD	W/In LOQ
079SW-0311-0001-SW	THALLIUM	0.2	UG/L	0.1	1	U	079SW-0312-0001-SW	0.2	1	0.2	U		0	N/A
079SW-0311-0001-SW	VANADIUM	0.6	UG/L	0.3	1	U	079SW-0312-0001-SW	0.6	1	0.6	U		0	N/A
079SW-0311-0001-SW	ZINC	1.8	UG/L	0.96	5	J	079SW-0312-0001-SW	2.3	5	2	J		24	N/A
079SW-0311-0001-SW	MERCURY	0.2	UG/L	0.12	0.2	U	079SW-0312-0001-SW	0.2	0.2	0.2	U		0	N/A

APPENDIX D

Validator Checklists

NITROAROMATICS & NITRAMINE DATA ANALYSIS (EXPLOSIVE RESIDUES) CHECKLIST

0685S-0003m-0001-So Extprep

Project Name: CR Sites - Site 68

Laboratory: TA - N Canton

Batch Number(s): _____

Sample Delivery Group: 17317

	Yes	No
1. Holding Time: Were samples analyzed within holding time?	[X]	[ ]
2. Initial Calibration:		
• Did the initial calibration consist of five standards?	[X]	[ ]
• Did the RSD meet the criteria ≤ 20% for each individual Calibration Compound or r ≥ 0.99?	[ ]	[X]
• Was manual integration "M" performed? If the answer is "Yes", check for supporting documents.	[X]	[ ]
• Was the manual integration necessary?	[X]	[ ]
If the answer is "no", contact the laboratory inquiring about the reasons behind the manual integration, and **inform the District Chemist immediately if there were no valid reasons.**		
3. QCMDL:		
• Was MDL Check performed?	[ ]	[X]
4. QCMRL:		
• Were QC/MRL run at the beginning and end of every daily sequence or every 12 hours??	[X]	[ ]
• Was the percentage "D" for QC/MRL ≤ 30%?	[X]	[ ]
5. Initial Calibration Verification (ICV):	[X]	[ ]

1.696

	Yes	No
• Was the ICV made of a 2nd source?	[ ]	[ ]
• Was the mid level (2nd source) recovery within 85 - 115%?		
6. Continuing Calibration Verification (CCV): {Daily calibration}		
• Was midpoint calibration standard conducted at the beginning of the day?	[ ]	[ ]
• Was midpoint calibration standard conducted every ten samples or every twelve hours?	[ ]	[ ]
• Was midpoint calibration standard conducted after the last sample of the day?	[ ]	[ ]
• Did the CCV meet the minimum requirements (D ≤ 15% with a maximum D ≤ 20% for a specific compound if the mean D ≤ 15%)?	[ ]	[ ]
7. Sample Analysis:		
• Was the RRT of an identified component within the retention time window created as SW-846 requires?	[ ]	[ ]
• Were all identified hits, above the initial calibration curve, diluted and reanalyzed? N/A	[ ]	[ ]
• Were all identified hits confirmed on a second column? N/A	[ ]	[ ]
• Was RPD of target analyte confirmation ≤ 40?	[ ]	[ ]
• Was there a shoulder on the 2,4,6-TNT peak?	[ ]	[ ]
If the answer is "Yes", then tetryl decomposition is suspected. Peak height rather than peak area should be used for calculating TNT concentration. If teryl was identified in aqueous samples, was pH adjusted to <3? If the answer is "No", then check for tetryl decomposition, and qualify hits with **"J"** accordingly.	[ ]	[ ]
8. Sample Quality Control:		
• Method Blanks: Were target analytes ≤ 1/2 MRL?	[ ]	[ ]
• LCS: Were the percent recoveries for LCS within the limits?	[ ]	[ ]

	Yes	No
• MS/MSD: Were the percent recoveries within limits?	[ ]	[ ]
Were the RPDs within control limits?		
• System Monitoring Compounds (Surrogates): Were surrogate recoveries within QC limits?	[ ]	[N]

9. Comments (attach additional sheets if necessary):

conf surr 258% J tetryl — no detect
MS/D on 06855-0003M -OK NG+EX NC 32% each J/Q
tetryl in conf MB @ 0.0189 mg/kg U/B

RDX 20% RSD
2NT 16%

Validated/Reviewed by:

Signature: Patti Meeks Date: 5/28/14

Name: Patti Meeks

NITROAROMATICS & NITRAMINE DATA ANALYSIS (EXPLOSIVE RESIDUES) CHECKLIST

06955-0001M-0001-SO -1

Project Name: RVAAP CR site 369

Laboratory: TA-N Canton

Batch Number(s): _____

Sample Delivery Group: 240-17525

	Yes	No	
1. Holding Time: Were samples analyzed within holding time?	[X]	[ ]	
2. Initial Calibration:			
• Did the initial calibration consist of five standards?	[X]	[ ]	
• Did the RSD meet the criteria ≤ 20% for each individual Calibration Compound or r ≥ 0.99?	[X]	[X]	
• Was manual integration "M" performed? If the answer is "Yes", check for supporting documents.	[X]	[ ]	
• Was the manual integration necessary?	[X]	[ ]	
If the answer is "no", contact the laboratory inquiring about the reasons behind the manual integration, and **inform the District Chemist immediately if there were no valid reasons.**			
3. QCMDL:			
• Was MDL Check performed?	[ ]	[X]	
4. QCMRL:			
• Were QC/MRL run at the beginning and end of every daily sequence or every 12 hours??	[X]	[ ]	
• Was the percentage "D" for QC/MRL ≤ 30%?	[ ]	[X]	Some ↑ but Sample NJ
5. Initial Calibration Verification (ICV):	[X]	[ ]	

	Yes	No
• Was the ICV made of a 2nd source?	[ ]	[ ]
• Was the mid level (2nd source) recovery within 85 - 115%?		
6. Continuing Calibration Verification (CCV): {Daily calibration}		
• Was midpoint calibration standard conducted at the beginning of the day?	[ ]	[ ]
• Was midpoint calibration standard conducted every ten samples or every twelve hours?	[ ]	[ ]
• Was midpoint calibration standard conducted after the last sample of the day?	[ ]	[ ]
• Did the CCV meet the minimum requirements (D ≤ 15% with a maximum D ≤ 20% for a specific compound if the mean D ≤ 15%)?	[ ]	[ ]
7. Sample Analysis:		
• Was the RRT of an identified component within the retention time window created as SW-846 requires?	[ ]	[ ]
• Were all identified hits, above the initial calibration curve, diluted and reanalyzed?	[ ]	[ ]
• Were all identified hits confirmed on a second column?	[ ] no confirm	[ ]
• Was RPD of target analyte confirmation ≤ 40? N/A	[ ]	[ ]
• Was there a shoulder on the 2,4,6-TNT peak? N/A	[ ]	[ ]
If the answer is "Yes", then tetryl decomposition is suspected. Peak height rather than peak area should be used for calculating TNT concentration. If teryl was identified in aqueous samples, was pH adjusted to <3? If the answer is "No", then check for tetryl decomposition, and qualify hits with **"J"** accordingly.	[ ]	[ ]
8. Sample Quality Control:	[ ]	[ ]
• Method Blanks: Were target analytes ≤ 1/2 MRL?	[ ]	[ ]
• LCS: Were the percent recoveries for LCS within the limits?		

	Yes	No
• MS/MSD: Were the percent recoveries within limits?	[ ]	[ ]
Were the RPDs within control limits?		
• System Monitoring Compounds (Surrogates): Were surrogate recoveries within QC limits?	[ ]	[ ]

9. Comments (attach additional sheets if necessary):

%RSDs 20% RPD
16% 2ND

NC ICV text for 187%R
NC ↑MRL opening - ND sample
closing MRL 64% OS F/C
↳ reanalyzed @ 88%

Validated/Reviewed by:

Signature: Patti Meeks Date: 6/3/14

Name: P. Meeks

Conf surr ↑ 121% all ND

MS/D NG, EX & NC - OK
↳ RPD ≤ 71%

NITROAROMATICS & NITRAMINE DATA ANALYSIS (EXPLOSIVE RESIDUES) CHECKLIST

,S

Project Name: RVAAP OB Site 73 07355-0002M-0001-SO Ext prep

Laboratory: TA-W Canton

Batch Number(s): _____

Sample Delivery Group: 240-17422-1

	Yes	No
1. Holding Time: Were samples analyzed within holding time?	[N]	[ ]
2. Initial Calibration:		
• Did the initial calibration consist of five standards?	[ ]	[ ]
• Did the RSD meet the criteria ≤ 20% for each individual Calibration Compound or r ≥ 0.99?	[ ]	[N]
• Was manual integration "M" performed? If the answer is "Yes", check for supporting documents.	[N]	[ ]
• Was the manual integration necessary?	[ ]	[ ]
If the answer is "no", contact the laboratory inquiring about the reasons behind the manual integration, and **inform the District Chemist immediately if there were no valid reasons.**		
3. QCMDL:		
• Was MDL Check performed?	[ ]	[N]
4. QCMRL:		
• Were QC/MRL run at the beginning and end of every daily sequence or every 12 hours??	[N]	[ ]
• Was the percentage "D" for QC/MRL ≤ 30%?	[N]	[ ]
5. Initial Calibration Verification (ICV):	[N]	[ ]

	Yes	No
• Was the ICV made of a 2nd source?	[ ]	[ ]
• Was the mid level (2nd source) recovery within 85 - 115%?		
6. Continuing Calibration Verification (CCV): {Daily calibration}		
• Was midpoint calibration standard conducted at the beginning of the day?	[ ]	[ ]
• Was midpoint calibration standard conducted every ten samples or every twelve hours?	[ ]	[ ]
• Was midpoint calibration standard conducted after the last sample of the day?	[ ]	[ ]
• Did the CCV meet the minimum requirements (D ≤ 15% with a maximum D ≤ 20% for a specific compound if the mean D ≤ 15%)?	[ ]	[ ]
7. Sample Analysis:		
• Was the RRT of an identified component within the retention time window created as SW-846 requires?	[ ]	[ ]
• Were all identified hits, above the initial calibration curve, diluted and reanalyzed?	[ ]	[ ]
• Were all identified hits confirmed on a second column?	[ ]	[ ]
• Was RPD of target analyte confirmation ≤ 40? No but N/A	[ ]	[ ]
• Was there a shoulder on the 2,4,6-TNT peak?	[ ]	[ ]
If the answer is "Yes", then tetryl decomposition is suspected. Peak height rather than peak area should be used for calculating TNT concentration. If teryl was identified in aqueous samples, was pH adjusted to <3? If the answer is "No", then check for tetryl decomposition, and qualify hits with **"J"** accordingly.	[ ]	[ ]
8. Sample Quality Control:	[ ]	[ ]
• Method Blanks: Were target analytes ≤ 1/2 MRL?	[ ]	[ ]
• LCS: Were the percent recoveries for LCS within the limits?		

	Yes	No
• MS/MSD: Were the percent recoveries within limits? n/a	[ ]	[ ]
Were the RPDs within control limits?		
• System Monitoring Compounds (Surrogates): Were surrogate recoveries within QC limits?	[ ]	N

9. Comments (attach additional sheets if necessary):

% RSDs RDX = 20
2NT = 16

2° surr ↑ 121% but no detects

Validated/Reviewed by:

Signature: Patti Meeks Date: 6/2/14

Name: P. Meeks

Tetryl 0.0189 MB 326-6026 U/P

NITROAROMATICS & NITRAMINE DATA ANALYSIS (EXPLOSIVE RESIDUES) CHECKLIST

Project Name: RVAAP CR Site 74 0745B-0010-0001-SO

Laboratory: TA-N Canton

Batch Number(s): _____

Sample Delivery Group: 240-22804-1

	Yes	No
1. Holding Time: Were samples analyzed within holding time?	[X]	[ ]
2. Initial Calibration:		
• Did the initial calibration consist of five standards?	[X]	[ ]
• Did the RSD meet the criteria ≤ 20% for each individual Calibration Compound or r ≥ 0.99?	[X]	[ ]
• Was manual integration "M" performed? If the answer is "Yes", check for supporting documents.	[X]	[ ]
• Was the manual integration necessary?	[X]	[ ]
If the answer is "no", contact the laboratory inquiring about the reasons behind the manual integration, and **inform the District Chemist immediately if there were no valid reasons.**		
3. QCMDL:		
• Was MDL Check performed?	[ ]	[X]
4. QCMRL:		
• Were QC/MRL run at the beginning and end of every daily sequence or every 12 hours??	[X]	[ ]
• Was the percentage "D" for QC/MRL ≤ 30%?	[X]	[ ]
5. Initial Calibration Verification (ICV):	[ ]	[ ]

	Yes	No
• Was the ICV made of a 2nd source?	[N]	[ ]
• Was the mid level (2nd source) recovery within 85 - 115%?		
6. Continuing Calibration Verification (CCV): {Daily calibration}		
• Was midpoint calibration standard conducted at the beginning of the day?	[ ]	[ ]
• Was midpoint calibration standard conducted every ten samples or every twelve hours?	[N]	[ ]
• Was midpoint calibration standard conducted after the last sample of the day?	[N]	[ ]
• Did the CCV meet the minimum requirements (D ≤ 15% with a maximum D ≤ 20% for a specific compound if the mean D ≤ 15%)?	[N]	[ ]
7. Sample Analysis:		
• Was the RRT of an identified component within the retention time window created as SW-846 requires?	[ ] N/A	[ ]
• Were all identified hits, above the initial calibration curve, diluted and reanalyzed?	[ ]	[ ]
• Were all identified hits confirmed on a second column?	[ ]	[ ]
• Was RPD of target analyte confirmation ≤ 40?	[ ]	[ ]
• Was there a shoulder on the 2,4,6-TNT peak?	[ ]	[ ]
If the answer is "Yes", then tetryl decomposition is suspected. Peak height rather than peak area should be used for calculating TNT concentration. If teryl was identified in aqueous samples, was pH adjusted to <3? If the answer is "No", then check for tetryl decomposition, and qualify hits with **"J"** accordingly.	[ ]	[ ]
8. Sample Quality Control:	[N]	[ ]
• Method Blanks: Were target analytes ≤ 1/2 MRL?	[N]	[ ]
• LCS: Were the percent recoveries for LCS within the limits?		

	Yes	No
• MS/MSD: Were the percent recoveries within limits? Were the RPDs within control limits?	[ ]	[ ]
• System Monitoring Compounds (Surrogates): Were surrogate recoveries within QC limits?	[N]	[ ]

9. Comments (attach additional sheets if necessary):

RSDs RDX-1L = conf column - not reported on 1°

Validated/Reviewed by:

Signature: P. Meeks Date: 6/8/14

Name: P. Meeks

NITROAROMATICS & NITRAMINE DATA ANALYSIS (EXPLOSIVE RESIDUES) CHECKLIST

0765S-0020M 11/21 11:11
0765B-0102M 12/20 13:49
0765B-0114M 21:13

Project Name: RVAAP -76 CR Sites R1

Laboratory: TA-Sac

Batch Number(s): _____

Sample Delivery Group: 18544-1 ~~17317~~ 17422-1

	Yes	No
1. Holding Time: Were samples analyzed within holding time?	[N]	[ ]
2. Initial Calibration:		
• Did the initial calibration consist of five standards?	[N]	[ ]
• Did the RSD meet the criteria ≤ 20% for each individual Calibration Compound or r ≥ 0.99?	[ ]	[N]
• Was manual integration "M" performed? If the answer is "Yes", check for supporting documents.	[N]	[ ]
• Was the manual integration necessary?	[N]	[ ]
If the answer is "no", contact the laboratory inquiring about the reasons behind the manual integration, and **inform the District Chemist immediately if there were no valid reasons.**		
3. QCMDL:		
• Was MDL Check performed?	[ ]	[N]
4. QCMRL:		
• Were QC/MRL run at the beginning and end of every daily sequence or every 12 hours??	[N]	[ ]
• Was the percentage "D" for QC/MRL ≤ 30%?	[N]	[ ]
5. Initial Calibration Verification (ICV):	[N]	[ ]

	Yes	No
• Was the ICV made of a 2nd source?	[X]	[ ]
• Was the mid level (2nd source) recovery within 85 - 115%?		
6. Continuing Calibration Verification (CCV): {Daily calibration}		
• Was midpoint calibration standard conducted at the beginning of the day?	[X]	[ ]
• Was midpoint calibration standard conducted every ten samples or every twelve hours?	[X]	[ ]
• Was midpoint calibration standard conducted after the last sample of the day?	[X]	[ ]
• Did the CCV meet the minimum requirements (D ≤ 15% with a maximum D ≤ 20% for a specific compound if the mean D ≤ 15%)?	[X]	[ ]
7. Sample Analysis:		
• Was the RRT of an identified component within the retention time window created as SW-846 requires?	[X]	[ ]
• Were all identified hits, above the initial calibration curve, diluted and reanalyzed? N/A	[ ]	[ ]
• Were all identified hits confirmed on a second column?	[X]	[ ]
• Was RPD of target analyte confirmation ≤ 40?	[ ]	[X]
• Was there a shoulder on the 2,4,6-TNT peak? N/A	[ ]	[ ]
If the answer is "Yes", then tetryl decomposition is suspected. Peak height rather than peak area should be used for calculating TNT concentration. If teryl was identified in aqueous samples, was pH adjusted to <3? If the answer is "No", then check for tetryl decomposition, and qualify hits with **"J"** accordingly.	[ ]	[ ]
8. Sample Quality Control:		
• Method Blanks: Were target analytes ≤ 1/2 MRL?	[X]	[ ]
• LCS: Were the percent recoveries for LCS within the limits?	[X]	[ ]

	Yes	No
• MS/MSD: Were the percent recoveries within limits?	[N]	[ ]
Were the RPDs within control limits?		
• System Monitoring Compounds (Surrogates): Were surrogate recoveries within QC limits?	[N]	[ ]

9. Comments (attach additional sheets if necessary):

Validated/Reviewed by:

Signature: _____ Date: _____

Name: _____

07655 MS/MSD - OK + propellants
07655 tetryl interference = 109%
ICAL RDX %RSD 20% } all samples
2,NT 16% }

tetryl = 0.0189 mg/kg 320-6026/1-A on CN

NITROAROMATICS & NITRAMINE DATA ANALYSIS (EXPLOSIVE RESIDUES) CHECKLIST

,14

Project Name: RVAAP CR Site 78 0785B-0016M-0001- SO EXTprep

Laboratory: TA- N. Canton

Batch Number(s): _____

Sample Delivery Group: 240-22559

	Yes	No
1. Holding Time: Were samples analyzed within holding time?	[X]	[ ]
2. Initial Calibration:		
• Did the initial calibration consist of five standards?	[X]	[ ]
• Did the RSD meet the criteria ≤ 20% for each individual Calibration Compound or r ≥ 0.99?	[N]	[ ]
• Was manual integration "M" performed? If the answer is "Yes", check for supporting documents.	[N]	[ ]
• Was the manual integration necessary?	[N]	[ ]
If the answer is "no", contact the laboratory inquiring about the reasons behind the manual integration, and **inform the District Chemist immediately if there were no valid reasons.**		
3. QCMDL:		
• Was MDL Check performed?	[ ]	[X]
4. QCMRL:		
• Were QC/MRL run at the beginning and end of every daily sequence or every 12 hours??	[N]	[ ]
• Was the percentage "D" for QC/MRL ≤ 30%?	[X]	[ ]
5. Initial Calibration Verification (ICV):	[X]	[ ]

	Yes	No
• Was the ICV made of a 2nd source?	[ ]	[ ]
• Was the mid level (2nd source) recovery within 85 - 115%?		
6. Continuing Calibration Verification (CCV): {Daily calibration}		
• Was midpoint calibration standard conducted at the beginning of the day?	[ ]	[ ]
• Was midpoint calibration standard conducted every ten samples or every twelve hours?	[ ]	[ ]
• Was midpoint calibration standard conducted after the last sample of the day?	[ ]	[ ]
• Did the CCV meet the minimum requirements (D ≤ 15% with a maximum D ≤ 20% for a specific compound if the mean D ≤ 15%)?	[ ]	[ ]
7. Sample Analysis:		
• Was the RRT of an identified component within the retention time window created as SW-846 requires?	[ ]	[ ]
• Were all identified hits, above the initial calibration curve, diluted and reanalyzed?	[ ]	[ ]
• Were all identified hits confirmed on a second column?	[ ]	[ ]
• Was RPD of target analyte confirmation ≤ 40?	[ ]	[ ]
• Was there a shoulder on the 2,4,6-TNT peak?	[ ]	[ ]
If the answer is "Yes", then tetryl decomposition is suspected. Peak height rather than peak area should be used for calculating TNT concentration. If teryl was identified in aqueous samples, was pH adjusted to <3? If the answer is "No", then check for tetryl decomposition, and qualify hits with **"J"** accordingly.	[ ]	[ ]
8. Sample Quality Control:		
• Method Blanks: Were target analytes ≤ 1/2 MRL?	[ ]	[ ]
• LCS: Were the percent recoveries for LCS within the limits?	[ ]	[ ]

	Yes	No
• MS/MSD: Were the percent recoveries within limits? none	[ ]	[ ]
Were the RPDs within control limits?		
• System Monitoring Compounds (Surrogates): Were surrogate recoveries within QC limits?	[~~-~~]	[ ]

9. Comments (attach additional sheets if necessary):

Validated/Reviewed by:

Signature: PMM MS Date: 6/2/14

Name: PMM MS

NITROAROMATICS & NITRAMINE DATA ANALYSIS (EXPLOSIVE RESIDUES) CHECKLIST

079SW-0311-0001-SW

Project Name: RVAAP CR Site 79

Laboratory: TA-North Canton

Batch Number(s): _____

Sample Delivery Group: 240-22662

	Yes	No
1. Holding Time: Were samples analyzed within holding time?	[/]	[ ]
2. Initial Calibration:		
• Did the initial calibration consist of five standards?	[/]	[ ]
• Did the RSD meet the criteria ≤ 20% for each individual Calibration Compound or r ≥ 0.99?	[/]	[ ]
• Was manual integration "M" performed? If the answer is "Yes", check for supporting documents.	[/]	[ ]
• Was the manual integration necessary?	[/]	[ ]
If the answer is "no", contact the laboratory inquiring about the reasons behind the manual integration, and **inform the District Chemist immediately if there were no valid reasons.**		
3. QCMDL:		
• Was MDL Check performed?	[ ]	[/]
4. QCMRL:		
• Were QC/MRL run at the beginning and end of every daily sequence or every 12 hours??	[/]	[ ]
• Was the percentage "D" for QC/MRL ≤ 30%?	[/]	[ ]
5. Initial Calibration Verification (ICV):	[/]	[ ]

	Yes	No
• Was the ICV made of a 2nd source?	[N]	[ ]
• Was the mid level (2nd source) recovery within 85 - 115%?		
6. Continuing Calibration Verification (CCV): {Daily calibration}		
• Was midpoint calibration standard conducted at the beginning of the day?	[N]	[ ]
• Was midpoint calibration standard conducted every ten samples or every twelve hours?	[N]	[ ]
• Was midpoint calibration standard conducted after the last sample of the day?	[N]	[ ]
• Did the CCV meet the minimum requirements (D ≤ 15% with a maximum D ≤ 20% for a specific compound if the mean D ≤ 15%)?	[N]	[ ]
7. Sample Analysis:		
• Was the RRT of an identified component within the retention time window created as SW-846 requires?	N/A [ ]	[ ]
• Were all identified hits, above the initial calibration curve, diluted and reanalyzed?	[ ]	[ ]
• Were all identified hits confirmed on a second column?	[ ]	[ ]
• Was RPD of target analyte confirmation ≤ 40?	[ ]	[ ]
• Was there a shoulder on the 2,4,6-TNT peak?	[ ]	[ ]
If the answer is "Yes", then tetryl decomposition is suspected. Peak height rather than peak area should be used for calculating TNT concentration. If teryl was identified in aqueous samples, was pH adjusted to <3? If the answer is "No", then check for tetryl decomposition, and qualify hits with **"J"** accordingly.	[ ]	[ ]
8. Sample Quality Control:		
• Method Blanks: Were target analytes ≤ 1/2 MRL?	[N]	[ ]
• LCS: Were the percent recoveries for LCS within the limits?	[N]	[ ]

	Yes	No
• MS/MSD: Were the percent recoveries within limits?	[N]	[ ]
Were the RPDs within control limits?		
• System Monitoring Compounds (Surrogates): Were surrogate recoveries within QC limits?	[N]	[ ]

9. Comments (attach additional sheets if necessary):

Validated/Reviewed by:

Signature: R. Meeks Date: 6/3/14

Name: R. Meeks

MS/D: NG, EX - OK

Report Date: 22-Apr-2013 15:47:18 Chrom Revision: 2.1 07-Apr-2013 20:36:54

TestAmerica Sacramento

Data File: \\SACChrom\ChromData\LC11\20130416-3912.b\P-000091.D

Injection Date: 20-Apr-2013 01:03:20 Limit Group: LC 8330B ICAL

Client ID: 079SW-0311-0001,0002-SW Instrument ID: LC11

Lims Batch ID: 14412 Lims Sample ID: 90

Operator ID: KR/RN Injection Vol: 500.0 ul

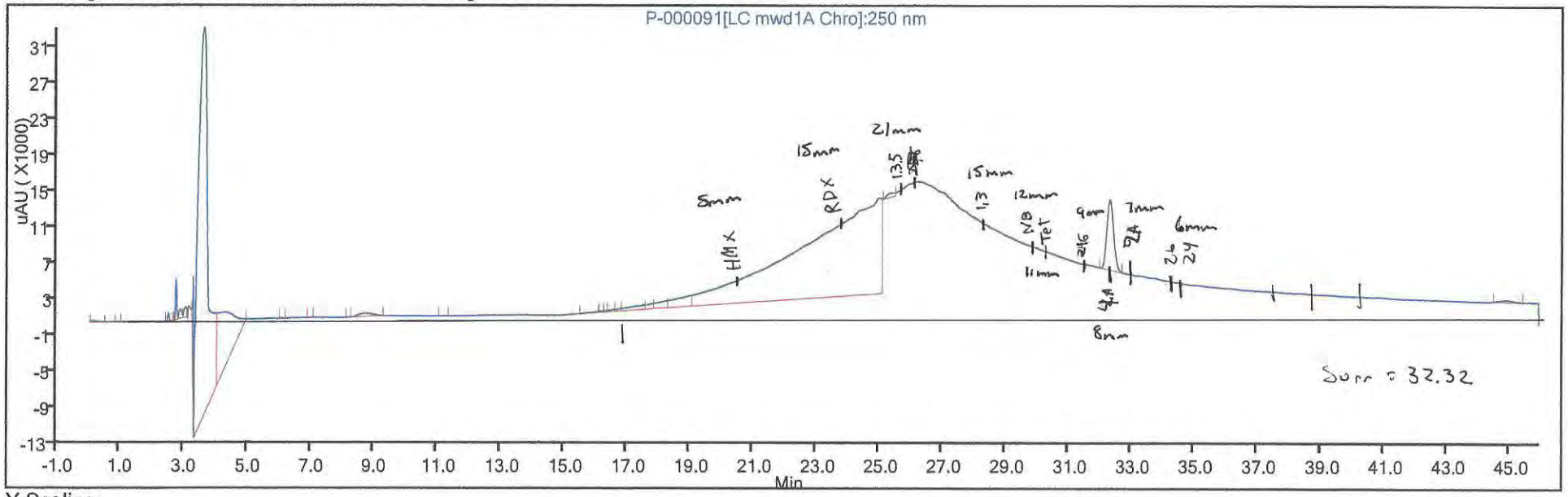
Column Type: Synergi Hydro-RP C18 Column Dia: 4.60 mm

1.5 = 1

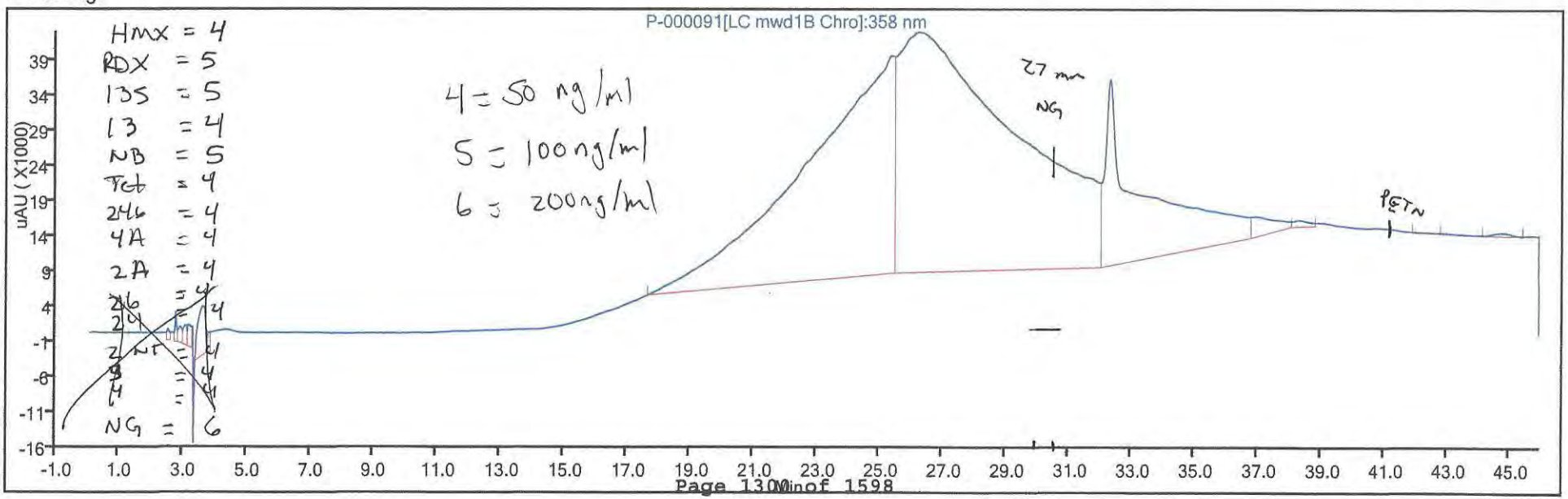
6m = 4

$\frac{4}{6m} = \frac{x}{5mm}$

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Y Scaling:



POLY CHLORINATED BIPHENYLS (PCB/AROCLORS) CHECKLIST

Project Name: RVAAP-76 CR Sits R1 0765-002M-0001 0765B-0102M-0001

Laboratory: TA - N. Canton

Batch Number(s): _____

Sample Delivery Group: 17422-1, 18544-1

	Yes	No
1. Holding Time:		
(a) Were samples extracted within holding time?	[N]	[ ]
(b) Were samples analyzed within holding time?	[N]	[ ]
2. Initial Calibration:		
• Did the initial calibration consist of five standards?	[ ]	[ ]
• Did Aroclors 1016 and 1260 meet the RSD ≤ 20% or the r ≥ 0.99?	[N]	[ ]
• Was manual integration "M" performed? If the answer is "Yes", check for supporting documents.	[N]	[ ]
• Was the manual integration necessary?	[ ]	[ ]
If the answer is "no", contact the laboratory inquiring about the reasons behind the manual integration, and **inform the District Chemist immediately if there were no valid reasons.**		
3. QCMDL:		
• Was MDL Check performed?	[ ]	[N]
4. QCMRL:		
• Were QC/MRL run at the beginning and end of every daily sequence or every 12 hours??	[N]	[ ]
• Was the QC/MRL between 70-130% R	[ ]	[ ]
5. Initial Calibration Verification (ICV):		
Is the mid level (2nd source) recovery within 85 - 115%?	[N]	[ ]

	Yes	No
6. Continuing Calibration Verification (CCV):		
• Was CCV conducted every 12 hours?	[ ]	[ ]
• Was Drift or D ≤ 15% from the initial calibration with a maximum %D < 20% for a specific compound?	[ ]	[ ]
7. Sample Analysis:		
• Was the RRT of an identified component within the retention time window created as SW-846 requires?	N/A [ ]	[ ]
• Were samples with levels higher than the calibration range (E), diluted and re-analyzed?	[ ]	[ ]
• Were identified Aroclors confirmed on a second GC column?	[ ]	[ ]
• Were individual Aroclor standards used to determine the pattern of the peaks? (Individual Aroclors are 1221, 1232, 1242, 1248, and 1254. Both Aroclor 1016, and 1260 can be used from the mixed calibration standards.)	[ ]	[ ]
• Was RPD of target analyte conformation ≤ 40?	N/A [ ]	[ ]
8. Sample Quality Control:		
• Method Blanks: Were target analytes ≤ 1/2 MRL?	[ ]	[ ]
• LCS: Were the percent recoveries for LCS within the limits?	[ ]	[ ]
• MS/MSD: Were the percent recoveries within limits? — 0020M	[ ]	[ ]
Were the RPDs within control limits?	[ ]	[ ]
• System Monitoring Compounds (Surrogates): are surrogate recoveries within QC limits?	[ ]	[ ]

9. Comments (attach additional sheets if necessary):

Validated/Reviewed by:

Signature: Patt Meeks Date: 4/22/14

Name: Patt. Meeks

POLY CHLORINATED BIPHENYLS (PCB/AROCLORS) CHECKLIST

Project Name: RVAAP CR Sites 68, 69, 73, 74, 78, 79

Laboratory: TA-North Canton

Batch Number(s): 65400, 499, 64779, 65153, 80730, -548, 81544, -730

Sample Delivery Group: 240-17317, -17422, -17477, -17525, -22559, -22648, -22662, -22804

	Yes	No
1. Holding Time:		
(a) Were samples extracted within holding time?	[✓]	[ ]
(b) Were samples analyzed within holding time?	[✓]	[ ]
2. Initial Calibration:		
• Did the initial calibration consist of five standards?	[✓]	[ ]
• Did Aroclors 1016 and 1260 meet the RSD ≤ 20% or the r ≥ 0.99? All Aroclors	[✓]	[ ]
• Was manual integration "M" performed? If the answer is "Yes", check for supporting documents. baseline/split peaks	[✓]	[ ]
• Was the manual integration necessary? If the answer is "no", contact the laboratory inquiring about the reasons behind the manual integration, and **inform the District Chemist immediately if there were no valid reasons.**	[✓]	[ ]
3. QCMDL:		
• Was MDL Check performed?	[ ]	[✓]
4. QCMRL:		
• Were QC/MRL run at the beginning and end of every daily sequence or every 12 hours??	[✓]	[ ]
• Was the QC/MRL between 70-130% R	[✓]	[ ]
5. Initial Calibration Verification (ICV):		
Is the mid level (2nd source) recovery within ~~85 - 115%~~? QSM 80-120 see comments MC	[✓]	[✓]

	Yes	No
6. Continuing Calibration Verification (CCV):		
• Was CCV conducted every 12 hours?	[✓]	[ ]
• Was Drift or D ≤ ~~15%~~ QSM 20% from the initial calibration with a maximum %D < 20% for a specific compound?	[✓]	[ ]
7. Sample Analysis:		
• Was the RRT of an identified component within the retention time window created as SW-846 requires?	[✓]	[ ]
• Were samples with levels higher than the calibration range (E), diluted and re-analyzed? QC only — no sample detects N/A	[ ]	[ ]
• Were identified Aroclors confirmed on a second GC column? QC	[✓]	[ ]
• Were individual Aroclor standards used to determine the pattern of the peaks? (Individual Aroclors are 1221, 1232, 1242, 1248, and 1254. Both Aroclor 1016, and 1260 can be used from the mixed calibration standards.)	[✓]	[ ]
• Was RPD of target analyte conformation ≤ 40?	[✓]	[ ]
8. Sample Quality Control:		
• Method Blanks: Were target analytes ≤ 1/2 MRL? ND	[✓]	[ ]
• LCS: Were the percent recoveries for LCS within the limits?	[✓]	[ ]
• MS/MSD: Were the percent recoveries within limits?	[✓]	[ ]
Were the RPDs within control limits?	[✓]	[ ]
• System Monitoring Compounds (Surrogates): are surrogate recoveries within QC limits?	[✓]	[ ]

9. MC

10. Comments (attach additional sheets if necessary):

ICAL #P12 4.1.
ICV - Aroclor 1221: one of 3 peaks missed on primary column / secondary acceptable
- Samples qualified UJ/C: 0785B-0008M-0001-SO
0785B-0016M-0001-SO
0785B-0053M-0001-SO
079W-03M-0001-SW

Validated/Reviewed by:

Signature: MA Calvin

Date: 6.3.2014

Name: L.S. Calvin

ORGANOCHLORINE PESTICIDES ANALYSIS CHECKLIST

Project Name: RVAAP-76 CR Sites RI 07655-0020M-0001-SO

Laboratory: TA-W Canton 4/28 10:32

Batch Number(s): — 5X

Sample Delivery Group: 19422-1

	Yes	No
1. Holding Time:		
(a) Were samples extracted within holding time?	[N]	[ ]
(b) Were samples analyzed within holding time?	[N]	[ ]
2. DDT/Endrin Breakdown:		
• Was breakdown ≤ 15%?	[N]	[ ]
3. Initial Calibration:		
• Did the initial calibration consist of five standards?	[N]	[ ]
• Did all compounds meet the RSD ≤ 20% or r ≥ 0.99?	[N]	[ ]
• Was manual integration "M" performed? If the answer is "Yes", check for supporting documents.	[N]	[ ]
• Was the manual integration necessary?	[N]	[ ]
If the answer is "no", contact the laboratory inquiring about the reasons behind the manual integration, and **inform the District Chemist immediately if there were no valid reasons.**		
4. QCMDL:		
• Was MDL Check performed?	[ ]	[ ]
5. QCMRL:		
• Were QC/MRL run at the beginning and end of every daily sequence or every 12 hours??	[N]	[ ]
• Was the QC/MRL between 70-130% R	[N]	[ ]

	Yes	No
6. Initial Calibration Verification (ICV):		
• Is the mid level (2nd source) recovery within 85 - 115%?	[ ]	[N]
7. Continuing Calibration Verification (CCV):		
• Was CCV conducted every 12 hours?	[N]	[ ]
• Was Drift or D ≤ 15% from the initial calibration with a maximum D ≤ 20% for a specific compound? affecting result	[N]	[ ]
8. Sample Analysis:		
• Was the RRT of an identified component within the retention time window created as SW-846 requires? N/A	[ ]	[ ]
• Were samples with levels higher than the calibration range (E), diluted and re-analyzed?	[ ]	[ ]
• Were identified compounds confirmed on a second GC column?	[ ]	[ ]
• Was RPD of target analyte confirmation ≤ 40?	[ ]	[ ]
9. Sample Quality Control:		
• Method Blanks: Were target analytes ≤ 1/2 MRL?	[N]	[ ]
• LCS: Were the percent recoveries for LCS within the limits?	[ ]	[ ]
• MS/MSD: Were the percent recoveries within limits? 0020M	[N]	[ ]
Were the RPD within control limits?	[N]	[ ]
• System Monitoring Compounds (Surrogates): are surrogate recoveries within QC limits?	[N]	[ ]

10. Comments (attach additional sheets if necessary):

Validated/Reviewed by:

Signature: Patti Meeks Date: 4/22/14

Name: Patti Meeks

Tox peak ↓ ~~-20.9%~~ -34.0 %R in ICV

ORGANOCHLORINE PESTICIDES ANALYSIS CHECKLIST

Project Name: RVAAP CR Sites 73, 78, 79

Laboratory: TA-North Canton

Batch Number(s): 65500, 80549, 80736

Sample Delivery Group: 240-17422, -20559, -22462

	Yes	No
1. Holding Time:		
(a) Were samples extracted within holding time?	[✓]	[ ]
(b) Were samples analyzed within holding time?	[✓]	[ ]
2. DDT/Endrin Breakdown:		
• Was breakdown ≤ 15%?	[✓]	[ ]
3. Initial Calibration:		
• Did the initial calibration consist of five standards?	[✓]	[ ]
• Did all compounds meet the RSD ≤ 20% or r ≥ 0.99?	[✓]	[ ]
• Was manual integration "M" performed? If the answer is "Yes", check for supporting documents.	[✓]	[ ]
• Was the manual integration necessary? If the answer is "no", contact the laboratory inquiring about the reasons behind the manual integration, and **inform the District Chemist immediately if there were no valid reasons.**	[✓]	[ ]
4. QCMDL:		
• Was MDL Check performed?	[ ]	[✓]
5. QCMRL:		
• Were QC/MRL run at the beginning and end of every daily sequence or every 12 hours??	[✓]	[ ]
• Was the QC/MRL between 70-130% R see comments	[ ]	[✓]

	Yes	No
6. Initial Calibration Verification (ICV):		
• Is the mid level (2nd source) recovery within ~~85 - 115%~~? QSM 80-120 see comments MC	[X]	[ ]
7. Continuing Calibration Verification (CCV):		
• Was CCV conducted every 12 hours?	[X]	[ ]
• Was Drift or D ≤ ~~15%~~ from the initial calibration with a maximum D ≤ 20% for a specific compound? QSM 20%	[X]	[ ]
8. Sample Analysis:		
• Was the RRT of an identified component within the retention time window created as SW-846 requires?	[X]	[ ]
• Were samples with levels higher than the calibration range (E), diluted and re-analyzed? N/A	[ ]	[ ]
• Were identified compounds confirmed on a second GC column?	[X]	[ ]
• Was RPD of target analyte confirmation ≤ 40?	[X]	[ ]
9. Sample Quality Control:		
• Method Blanks: Were target analytes ≤ 1/2 MRL? ND	[X]	[ ]
• LCS: Were the percent recoveries for LCS within the limits?	[X]	[ ]
• MS/MSD: Were the percent recoveries within limits? N/A	[ ]	[ ]
Were the RPD within control limits? ↓	[ ]	[ ]
• System Monitoring Compounds (Surrogates): are surrogate recoveries within QC limits?	[X]	[ ]

10. MC

9. Comments (attach additional sheets if necessary):

- 3 ICVs had toxaphene peak outliers:

HP9 11.28	HP9 4.3	HP3 3.14
1° -20.9, 53.7	-26.2, 40.5	↑ (N/A - ND)
2° -34.0, 88.2	-33.9, -39.1, 60.1	-32.8, -36.4, -33.3, 72.2
↓	↓	↓
07355-0002M-0001-50	07855-0016M-0001-50	079W-0311-0001-SW

- Samples qualified UJ/C

MRL assoc. w/ 07855-0016M-0001-50 4,4'-DDD 68% UJ/C

Validated/Reviewed by:

Signature: L A Calvin Date: 6.4.2014

Name: L.S. Calvin

MC

SEMIVOLATILE ORGANIC ANALYSIS CHECKLIST

Project Name: LVAAP Site 68

Laboratory: TA - N. Canton

Batch Number(s): 06855-0003M (17317-7) 11/21 1338
06850-0009 (17422-9) 11/26 13:12
06850-0046 (17477-4) 11/16 14:08
06850-0053M (+7 22648-58) ~~3/22 11:18~~ 4/18 2215

Sample Delivery Group: 17317, 17422, 17477, 22648

	Yes	No
1. Sample Holding Time:		
(a) Were samples extracted within holding time?	[X]	[ ]
(b) Were samples analyzed within holding time?	[ ]	[ ]
2. Instrument Tuning:		
Was the DFTPP tune performed at the beginning of each 12-hour period during which samples were analyzed?	[X]	[ ]
3. Ion Mass Assignments:		
Was mass assignment based on m/z 198?	[X]	[ ]
4. Ion Abundance:		
Indicate if DFTPP ions abundance relative to m/z 198 base peak met the ions abundance criteria:		
m/z — Acceptance Criteria		
51 — 30.0 - 60.0 %	[X]	[ ]
68 — < 2% of mass 69	[X]	[ ]
70 — < 2% of mass 69	[X]	[ ]
127 — 40-60%	[X]	[ ]
197 — < 1%	[X]	[ ]
198 — 100%, Base peak	[X]	[ ]
199 — 5-9%	[X]	[ ]
275 — 10 - 30%	[X]	[ ]
365 — > 1%	[X]	[ ]
441 — present but < mass 443	[X]	[ ]
442 — > 40%	[X]	[ ]
443 — 17-23% of mass 442	[X]	[ ]

	Yes	No
5.0 Initial Calibration:		
• Did the initial calibration consist of five or more standards?	5-stds [ ] more [ ]	[ ] [ ]
If the calibration curve consists of 5-standards, check validity of the calibration model.		
Was the linear model applied?	[ ]	[ ]
• Did the followings System Performance Check Compounds (SPCC) meet the minimum mean response factor (RF)?		
RF		
N-nitroso-di-n-propylamine 0.05	[ ]	[ ]
Hexachlorocyclopentadiene 0.05	[ ]	[ ]
2,4-dinitrophenol 0.05	[ ]	[ ]
4-nitrophenol 0.05	[ ]	[ ]
• Did the RSD meet the criteria ≤ 30% for the followings each individual Calibration Check Compound (CCC)?		
Base/Neutral Fraction:		
Acenaphthene	[ ]	[ ]
1,4-Dichlorobenzene	[ ]	[ ]
Hexachlorobutadiene	[ ]	[ ]
Diphenylamine	[ ]	[ ]
Di-n-octylphthalate	[ ]	[ ]
Fluoranthene	[ ]	[ ]
Benzo(a)pyrene	[ ]	[ ]
Acid Fraction:		
4-Chloro-3-methylphenol	[ ]	[ ]
2,4-Dichlorophenol	[ ]	[ ]
2-Nitrophenol	[ ]	[ ]
Phenol	[ ]	[ ]
Pentachlorophenol	[ ]	[ ]
2,4,6-Trichlorophenol	[ ]	[ ]
• Are the RSDs for the remaining target analytes ≤ 15%?	[ ]	[ ]
• If the answer is "No", are the mean RSDs ≤ 15% or r ≥ 0.99 with a mean RSD ≤ 15% with a maximum RSD ≤ 30%?	[ ] [ ]	[ ] [ ]

	Yes	No
• Was manual integration "M" performed?	[ ]	[ ]
If the answer is "Yes", check for supporting documents.		
• Was the manual integration necessary?	[ ]	[ ]
If the answer is "No", contact the laboratory inquiring about the reasons behind the manual integration, and **inform the District Chemist immediately if there were no valid reasons.**		

6. QCMDL:

• Was MDL Check performed?	[ ]	[ ]

7. QCMRL:

• Were QC/MRL run at the beginning and end of every daily sequence or every 12 hours?	[ ]	[ ]
• Was the QC/MRL between 70-130% R	[ ]	[ ]
• For the non-contaminants of concern was the QC/MRL between 50-150% (Sporadic Marginal Failure)? N/A	[ ]	[ ]

8. Initial Calibration Verification (ICV):

• Is the mid level (2nd source) recovery within 70-130% for contaminants of concern ?	[ ]	[ ]
• Is the mid level (2nd source) recovery within 50-150% for non-contaminants of concern (Sporadic Marginal Failure)? N/A	[ ]	[ ]

9. Continuing Calibration Verification (CCV):

• Was CCV conducted every 12 hours?	[ ]	[ ]
• Did any of SPCC meet the minimum RF values?	[ ]	[ ]

		Yes	No
N-nitroso-di-n-propylamine	0.05	[ ]	[ ]
Hexachlorocyclopentadiene	0.05	[ ]	[ ]
2,4-dinitrophenol	0.05	[ ]	[ ]
4-nitrophenol	0.05	[ ]	[ ]

- Did the CCC meet the minimum requirements (D ≤ 20%) for the followings?

Base/Neutral Fraction:

Acenaphthene	[ ]	[ ]
1,4-Dichlorobenzene	[ ]	[ ]
Hexachlorobutadiene	[ ]	[ ]
Diphenylamine	[ ]	[ ]
Di-n-octylphthalate	[ ]	[ ]
Fluoranthene	[ ]	[ ]
Benzo(a)pyrene	[ ]	[ ]

Acid Fraction:

4-Chloro-3-methylphenol	[ ]	[ ]
2,4-Dichlorophenol	[ ]	[ ]
2-Nitrophenol	[ ]	[ ]
Phenol	[ ]	[ ]
Pentachlorophenol	[ ]	[ ]
2,4,6-Trichlorophenol	[ ]	[ ]

- Primary Evaluation: Was Drift or D ≤ 20% calculated from the initial calibration? [ ] [ ]
- Alternative Evaluation: Maximum allowable Drift/D for each target analyte is ≤ 30%. [ ] [ ]

10. Sample Analysis:

- Was the RRT of an identified component within ± 0.06 RRT units of the RRT of the standard component? [ ] [ ]
- Did the abundance of ions in the sample spectra agree within 30% of the major ions (> 10% of the base ion) in the standard spectra? [ ] [ ]
- Were the internal standard areas within the QC limits (from -50% to +200%)? [ ] [ ]

11. Sample Quality Control:

	Yes	No
• Method Blanks: Were target analytes ≤ 1/2 MRL?	[ ]	[ ]
• LCS: Were the percent recoveries for LCS within the limits?	[ ]	[ ]
• MS/MSD: Were the percent recoveries within limits?	[ ]	[ ]
Were the RPD within control limits?	[ ]	[ ]
• System Monitoring Compounds (Surrogates): are surrogate recoveries within QC limits?	[ ]	[ ]

12. Comments (attach additional sheets if necessary):

MS/D on 3M: BaP ↓ MSD (46%, 50-110%)
~~benzoic acid~~ 0+0, keep 0-110%) R/Q
4-CA MS ↓ (8%, 10-95%)
3,3' 4/6%, 10-130% R/Q

MRL 46DN-2MP 59% + 24DNP 50% 3M, ghi 62%, n-ndpa } 3M
hexachloroethane 69%, a,h 240%
0685S ← g,h,i (58%), a,h (65%), 24DNP (68%), indeno (66%) ~~hexachloropentadiene~~ (10%)
LCS - 0685D benzoic acid U
MS/D on 0685D benzoic acid 0/0% (0-110)
4-chloroaniline RPD 74% due to low MS (9/21, 10-95)
3,3' (0/0, 10-130%)
Validated/Reviewed by: 3-nitroaniline (9/17, 25-110%) RPD 64%
4-NA (21/23, 35-115%)
MRL 24DNP MRL 61% - 0685B

Signature: P. Meels Date: 6/5/14

Name: P. Meels

bis MB = 20.5 ug/kg U/B @ Level 0685S
= 22.1 ug/kg U/B @ level 0685D
22.4 U/B @ level 0685SB

M/SD on 3,3' 0,2%, 14DCB (33% RPD), 13DCB (33% RPD), 12DCB (34% RPD) ah (36% RPD
2chloroisoprop (32% RPD) 2 chloroethyl (35% RPD), ghi (31% RPD)
n-octyl (38% RPD), hexabuta (32), hexaeth (31%), indeno (34%)
124 TCB (31)

NO ICAL ~~HPW~~ 11/7/12

SEMIVOLATILE ORGANIC ANALYSIS CHECKLIST

17525-1 0695S-00QM 11/28 1009
17602-9 0695B-00QBM 11/29 1736

Project Name: CR Site 69

Laboratory: TA-N Canton

Batch Number(s): _____

Sample Delivery Group: 17525, 17602

	Yes	No
1. Sample Holding Time:		
(a) Were samples extracted within holding time?	[X]	[ ]
(b) Were samples analyzed within holding time?	[X]	[ ]
2. Instrument Tuning: Was the DFTPP tune performed at the beginning of each 12-hour period during which samples were analyzed?	[X]	[ ]
3. Ion Mass Assignments: Was mass assignment based on m/z 198?	[X]	[ ]
4. Ion Abundance: Indicate if DFTPP ions abundance relative to m/z 198 base peak met the ions abundance criteria:		

m/z	Acceptance Criteria		
51	30.0 - 60.0 %	[X]	[ ]
68	< 2% of mass 69	[X]	[ ]
70	< 2% of mass 69	[X]	[ ]
127	40-60%	[X]	[ ]
197	< 1%	[X]	[ ]
198	**100%, Base peak**	[X]	[ ]
199	5-9%	[X]	[ ]
275	10 - 30%	[X]	[ ]
365	> 1%	[X]	[ ]
441	present but < mass 443	[X]	[ ]
442	> 40%	[X]	[ ]
443	17-23% of mass 442	[X]	[ ]

	Yes	No
5.0 Initial Calibration:		
• Did the initial calibration consist of five or more standards?	5-stds [ ] more [ ]	[ ] [ ]
If the calibration curve consists of 5-standards, check validity of the calibration model.		
Was the linear model applied?	[ ]	[ ]
• Did the followings System Performance Check Compounds (SPCC) meet the minimum mean response factor (RF)?		
RF		
N-nitroso-di-n-propylamine 0.05	[ ]	[ ]
Hexachlorocyclopentadiene 0.05	[ ]	[ ]
2,4-dinitrophenol 0.05	[ ]	[ ]
4-nitrophenol 0.05	[ ]	[ ]
• Did the RSD meet the criteria ≤ 30% for the followings each individual Calibration Check Compound (CCC)?		
Base/Neutral Fraction:		
Acenaphthene	[ ]	[ ]
1,4-Dichlorobenzene	[ ]	[ ]
Hexachlorobutadiene	[ ]	[ ]
Diphenylamine	[ ]	[ ]
Di-n-octylphthalate	[ ]	[ ]
Fluoranthene	[ ]	[ ]
Benzo(a)pyrene	[ ]	[ ]
Acid Fraction:		
4-Chloro-3-methylphenol	[ ]	[ ]
2,4-Dichlorophenol	[ ]	[ ]
2-Nitrophenol	[ ]	[ ]
Phenol	[ ]	[ ]
Pentachlorophenol	[ ]	[ ]
2,4,6-Trichlorophenol	[ ]	[ ]
• Are the RSDs for the remaining target analytes ≤ 15%?	[ ]	[ ]
• If the answer is "No", are the mean RSDs ≤ 15% or r ≥ 0.99 with a mean RSD ≤ 15% with a maximum RSD ≤ 30%?	[ ] [ ]	[ ] [ ]

	Yes	No
• Was manual integration "M" performed?	[ ]	[ ]
If the answer is "Yes", check for supporting documents.		
• Was the manual integration necessary?	[ ]	[ ]
If the answer is "No", contact the laboratory inquiring about the reasons behind the manual integration, and **inform the District Chemist immediately if there were no valid reasons.**		
6. QCMDL:		
• Was MDL Check performed?	[ ]	[ ]
7. QCMRL:		
• Were QC/MRL run at the beginning and end of every daily sequence or every 12 hours?	[ ]	[ ]
• Was the QC/MRL between 70-130% R	[ ]	[ ]
• For the non-contaminants of concern was the QC/MRL between 50-150% (Sporadic Marginal Failure)?	[ ]	[ ]
8. Initial Calibration Verification (ICV):		
• Is the mid level (2^{nd} source) recovery within 70-130% for contaminants of concern ?	[ ]	[ ]
• Is the mid level (2^{nd} source) recovery within 50-150% for non-contaminants of concern (Sporadic Marginal Failure)?	[ ]	[ ]
9. Continuing Calibration Verification (CCV):		
• Was CCV conducted every 12 hours?	[ ]	[ ]
• Did any of SPCC meet the minimum RF values?	[ ]	[ ]

		Yes	No
N-nitroso-di-n-propylamine	0.05	[ ]	[ ]
Hexachlorocyclopentadiene	0.05	[ ]	[ ]
2,4-dinitrophenol	0.05	[ ]	[ ]
4-nitrophenol	0.05	[ ]	[ ]

- Did the CCC meet the minimum requirements (D ≤ 20%) for the followings?

Base/Neutral Fraction:		
Acenaphthene	[ ]	[ ]
1,4-Dichlorobenzene	[ ]	[ ]
Hexachlorobutadiene	[ ]	[ ]
Diphenylamine	[ ]	[ ]
Di-n-octylphthalate	[ ]	[ ]
Fluoranthene	[ ]	[ ]
Benzo(a)pyrene	[ ]	[ ]
Acid Fraction:		
4-Chloro-3-methylphenol	[ ]	[ ]
2,4-Dichlorophenol	[ ]	[ ]
2-Nitrophenol	[ ]	[ ]
Phenol	[ ]	[ ]
Pentachlorophenol	[ ]	[ ]
2,4,6-Trichlorophenol	[ ]	[ ]

- Primary Evaluation: Was Drift or D ≤ 20% calculated from the initial calibration? [ ] [ ]
- Alternative Evaluation: Maximum allowable Drift/D for each target analyte is ≤ 30%. [ ] [ ]

10. Sample Analysis:

- Was the RRT of an identified component within ± 0.06 RRT units of the RRT of the standard component? [ ] [ ]
- Did the abundance of ions in the sample spectra agree within 30% of the major ions (> 10% of the base ion) in the standard spectra? [ ] [ ]
- Were the internal standard areas within the QC limits (from -50% to +200%)? [ ] [ ]

11. Sample Quality Control:

	Yes	No
• Method Blanks: Were target analytes ≤ 1/2 MRL?	[ ]	[ ]
• LCS: Were the percent recoveries for LCS within the limits?	[ ]	[ ]
• MS/MSD: Were the percent recoveries within limits?	[ ]	[ ]
Were the RPD within control limits?	[ ]	[ ]
• System Monitoring Compounds (Surrogates): are surrogate recoveries within QC limits?	[ ]	[ ]

12. Comments (attach additional sheets if necessary):

LCS 0001M Benzoic acid U - R/L — raw data shows OK
MS/D 0001M " " " R/Q & 3,3' U R/Q
46 DN 2 MP OK/0, 200 30-135 (10-130)
4 NP OK, 0, 200 15-146
MRL 0001M ND phenol 0%
~~LCV 0001M 3,3' 21.1% yes → 0013M~~
MB- b/s 19.8 U/B 0078M

Validated/Reviewed by:

Signature: P. Meek Date: 6/6/14

Name: P. Meek

SEMIVOLATILE ORGANIC ANALYSIS CHECKLIST

07355-0002m (17422-5) 11/26 1508
07358-0016m (22648-1) 4/16 1315
07350-0047 (22648-11) 4/16 1714
07358-0009m (18441-23) 12/18 1922
07353-0038m (22663-14) ~~5/5 0057~~ 5/3 1648

Project Name: RVAAP CR Site 73

Laboratory: TA-N. Canton

Batch Number(s): _____

Sample Delivery Group: 17422, 18441, 22648, 22663

	Yes	No	
1. Sample Holding Time:			
(a) Were samples extracted within holding time?	[ ]	[✓]	0038m 11d past
(b) Were samples analyzed within holding time?	[✓]	[ ]	
2. Instrument Tuning: Was the DFTPP tune performed at the beginning of each 12-hour period during which samples were analyzed?	[✓]	[ ]	
3. Ion Mass Assignments: Was mass assignment based on m/z 198?	[✓]	[ ]	
4. Ion Abundance: Indicate if DFTPP ions abundance relative to m/z 198 base peak met the ions abundance criteria:			
m/z — Acceptance Criteria			
51 — 30.0 - 60.0 %	[✓]	[ ]	
68 — < 2% of mass 69	[✓]	[ ]	
70 — < 2% of mass 69	[✓]	[ ]	
127 — 40-60%	[✓]	[ ]	
197 — < 1%	[✓]	[ ]	
198 — 100%, Base peak	[✓]	[ ]	
199 — 5-9%	[✓]	[ ]	
275 — 10 - 30%	[✓]	[ ]	
365 — > 1%	[✓]	[ ]	
441 — present but < mass 443	[✓]	[ ]	
442 — > 40%	[✓]	[ ]	
443 — 17-23% of mass 442	[✓]	[ ]	

	Yes	No
5.0 Initial Calibration:		
• Did the initial calibration consist of five or more standards?	5-stds [X] more [ ]	[ ]
If the calibration curve consists of 5-standards, check validity of the calibration model.		
Was the linear model applied?	[X]	[ ]
• Did the followings System Performance Check Compounds (SPCC) meet the minimum mean response factor (RF)?		
RF		
N-nitroso-di-n-propylamine 0.05	[X]	[ ]
Hexachlorocyclopentadiene 0.05	[X]	[ ]
2,4-dinitrophenol 0.05	[X]	[ ]
4-nitrophenol 0.05	[X]	[ ]
• Did the RSD meet the criteria ≤ 30% for the followings each individual Calibration Check Compound (CCC)?		
Base/Neutral Fraction:		
Acenaphthene	[X]	[ ]
1,4-Dichlorobenzene	[X]	[ ]
Hexachlorobutadiene	[X]	[ ]
Diphenylamine	[X]	[ ]
Di-n-octylphthalate	[X]	[ ]
Fluoranthene	[X]	[ ]
Benzo(a)pyrene	[X]	[ ]
Acid Fraction:		
4-Chloro-3-methylphenol	[X]	[ ]
2,4-Dichlorophenol	[X]	[ ]
2-Nitrophenol	[X]	[ ]
Phenol	[X]	[ ]
Pentachlorophenol	[X]	[ ]
2,4,6-Trichlorophenol	[X]	[ ]
• Are the RSDs for the remaining target analytes ≤ 15%?	[X]	[ ]
• If the answer is "No", are the mean RSDs ≤ 15% or r ≥ 0.99 with a mean RSD ≤ 15% with a maximum RSD ≤ 30%?	[ ] [ ]	[ ] [ ]

	Yes	No
• Was manual integration "M" performed?	[N]	[ ]
If the answer is "Yes", check for supporting documents.		
• Was the manual integration necessary?	[ ]	[ ]
If the answer is "No", contact the laboratory inquiring about the reasons behind the manual integration, and **inform the District Chemist immediately if there were no valid reasons.**		

6. QCMDL:

• Was MDL Check performed?	[ ]	[N]

7. QCMRL:

• Were QC/MRL run at the beginning and end of every daily sequence or every 12 hours?	[N]	[ ]
• Was the QC/MRL between 70-130% R	[ ]	[N]
• For the non-contaminants of concern was the QC/MRL between 50-150% (Sporadic Marginal Failure)? N/A	[ ]	[ ]

8. Initial Calibration Verification (ICV):

• Is the mid level (2nd source) recovery within ~~70-130%~~ ±20 for contaminants of concern ?	[ ]	[N]
• Is the mid level (2nd source) recovery within 50-150% for non-contaminants of concern (Sporadic Marginal Failure)? N/A	[ ]	[ ]

9. Continuing Calibration Verification (CCV):

• Was CCV conducted every 12 hours?	[N]	[ ]
• Did any of SPCC meet the minimum RF values?	[N]	[ ]

		Yes	No
N-nitroso-di-n-propylamine	0.05	[X]	[ ]
Hexachlorocyclopentadiene	0.05	[X]	[ ]
2,4-dinitrophenol	0.05	[X]	[ ]
4-nitrophenol	0.05	[X]	[ ]

- Did the CCC meet the minimum requirements (D ≤ 20%) for the followings?

Base/Neutral Fraction:

Acenaphthene	[X]	[ ]
1,4-Dichlorobenzene	[X]	[ ]
Hexachlorobutadiene	[X]	[ ]
Diphenylamine	[X]	[ ]
Di-n-octylphthalate	[X]	[ ]
Fluoranthene	[X]	[ ]
Benzo(a)pyrene	[X]	[ ]

Acid Fraction:

4-Chloro-3-methylphenol	[X]	[ ]
2,4-Dichlorophenol	[X]	[ ]
2-Nitrophenol	[X]	[ ]
Phenol	[X]	[ ]
Pentachlorophenol	[X]	[ ]
2,4,6-Trichlorophenol	[X]	[ ]

- Primary Evaluation: Was Drift or D ≤ 20% calculated from the initial calibration? [X] [ ]
- Alternative Evaluation: Maximum allowable Drift/D for each target analyte is ≤ 30%. [ ] [ ]

10. Sample Analysis:

- Was the RRT of an identified component within ± 0.06 RRT units of the RRT of the standard component? [X] [ ]
- Did the abundance of ions in the sample spectra agree within 30% of the major ions (> 10% of the base ion) in the standard spectra? [X] [ ]
- Were the internal standard areas within the QC limits (from -50% to +200%)? [X] [ ]

11. Sample Quality Control:

	Yes	No
• Method Blanks: Were target analytes ≤ 1/2 MRL?	[ ]	[ ]
• LCS: Were the percent recoveries for LCS within the limits?	[ ]	[ ]
• MS/MSD: Were the percent recoveries within limits?	[ ]	[ ]
Were the RPD within control limits?	[ ]	[ ]
• System Monitoring Compounds (Surrogates): are surrogate recoveries within QC limits?	[ ]	[ ]

12. Comments (attach additional sheets if necessary):

07355-0002M MB bis :22.1 but ND, LCS benz acid ∅
MRL : ghi (58), gh (65), 24DNP (68), indeno (66), hexa
07358-0016M, 07358 MRL : hexachloroethane 44%
LCS benzoic acid U - R/L 0009M (68752), 0038M (664)
ICV 3,3' -21.1% 0009M, 0047
MRL 0038M 24DNP 39% 46DN2MP 58%

Validated/Reviewed by:

Signature: P. Meeks Date: 6/6/14

Name: P Meeks

MB bis = 28.2 : 16M + 0047
bi-n-butyl 15.5 : 0016M

SEMIVOLATILE ORGANIC ANALYSIS CHECKLIST

Project Name: RVAAP CR Site 74

Laboratory: TA - N Canton

Batch Number(s):

Sample Delivery Group: 22756, 22804

0745B-0002 (-2) 4/19 1855
0745B-0010 (-4) 4/28 1905
0745B-0027 (-10) 4/23 1553

		Yes	No	
1.	Sample Holding Time:			-10 8d past
	(a) Were samples extracted within holding time?	[ ]	[X]	
	(b) Were samples analyzed within holding time?	[X]	[ ]	
2.	Instrument Tuning:			
	Was the DFTPP tune performed at the beginning of each 12-hour period during which samples were analyzed?	[X]	[ ]	
3.	Ion Mass Assignments:			
	Was mass assignment based on m/z 198?	[X]	[ ]	
4.	Ion Abundance:			
	Indicate if DFTPP ions abundance relative to m/z 198 base peak met the ions abundance criteria:			

m/z	Acceptance Criteria		
51	30.0 - 60.0 %	[X]	[ ]
68	< 2% of mass 69	[X]	[ ]
70	< 2% of mass 69	[X]	[ ]
127	40-60%	[X]	[ ]
197	< 1%	[X]	[ ]
198	**100%, Base peak**	[X]	[ ]
199	5-9%	[X]	[ ]
275	10 - 30%	[X]	[ ]
365	> 1%	[X]	[ ]
441	present but < mass 443	[X]	[ ]
442	> 40%	[X]	[ ]
443	17-23% of mass 442	[X]	[ ]

	Yes	No
5.0 Initial Calibration:		
• Did the initial calibration consist of five or more standards?	5-stds [ ] more [ ]	[ ] [ ]
If the calibration curve consists of 5-standards, check validity of the calibration model.		
Was the linear model applied?	[ ]	[ ]
• Did the followings System Performance Check Compounds (SPCC) meet the minimum mean response factor (RF)?		
RF		
N-nitroso-di-n-propylamine 0.05	[ ]	[ ]
Hexachlorocyclopentadiene 0.05	[ ]	[ ]
2,4-dinitrophenol 0.05	[ ]	[ ]
4-nitrophenol 0.05	[ ]	[ ]
• Did the RSD meet the criteria ≤ 30% for the followings each individual Calibration Check Compound (CCC)?		
Base/Neutral Fraction:		
Acenaphthene	[ ]	[ ]
1,4-Dichlorobenzene	[ ]	[ ]
Hexachlorobutadiene	[ ]	[ ]
Diphenylamine	[ ]	[ ]
Di-n-octylphthalate	[ ]	[ ]
Fluoranthene	[ ]	[ ]
Benzo(a)pyrene	[ ]	[ ]
Acid Fraction:		
4-Chloro-3-methylphenol	[ ]	[ ]
2,4-Dichlorophenol	[ ]	[ ]
2-Nitrophenol	[ ]	[ ]
Phenol	[ ]	[ ]
Pentachlorophenol	[ ]	[ ]
2,4,6-Trichlorophenol	[ ]	[ ]
• Are the RSDs for the remaining target analytes ≤ 15%?	[ ]	[ ]
• If the answer is "No", are the mean RSDs ≤ 15% or r ≥ 0.99 with a mean RSD ≤ 15% with a maximum RSD ≤ 30%?	[ ] [ ]	[ ] [ ]

	Yes	No
• Was manual integration "M" performed?	[X]	[ ]
If the answer is "Yes", check for supporting documents.		
• Was the manual integration necessary?	[X]	[ ]
If the answer is "No", contact the laboratory inquiring about the reasons behind the manual integration, and **inform the District Chemist immediately if there were no valid reasons.**		
6. QCMDL:		
• Was MDL Check performed?	[ ]	[X]
7. QCMRL:		
• Were QC/MRL run at the beginning and end of every daily sequence or every 12 hours?	[X]	[ ]
• Was the QC/MRL between 70-130% R	[ ]	[X]
• For the non-contaminants of concern was the QC/MRL between 50-150% (Sporadic Marginal Failure)?	[ ]	[ ]
8. Initial Calibration Verification (ICV):		
• Is the mid level (2^{nd} source) recovery within 70-130% for contaminants of concern ?	[X]	[ ]
• Is the mid level (2^{nd} source) recovery within 50-150% for non-contaminants of concern (Sporadic Marginal Failure)?	[X]	[ ]
9. Continuing Calibration Verification (CCV):		
• Was CCV conducted every 12 hours?	[X]	[ ]
• Did any of SPCC meet the minimum RF values?	[ ]	[ ]

		Yes	No
N-nitroso-di-n-propylamine	0.05	[ ]	[ ]
Hexachlorocyclopentadiene	0.05	[ ]	[ ]
2,4-dinitrophenol	0.05	[ ]	[ ]
4-nitrophenol	0.05	[ ]	[ ]

- Did the CCC meet the minimum requirements (D ≤ 20%) for the followings?

Base/Neutral Fraction:

Acenaphthene	[ ]	[ ]
1,4-Dichlorobenzene	[ ]	[ ]
Hexachlorobutadiene	[ ]	[ ]
Diphenylamine	[ ]	[ ]
Di-n-octylphthalate	[ ]	[ ]
Fluoranthene	[ ]	[ ]
Benzo(a)pyrene	[ ]	[ ]

Acid Fraction:

4-Chloro-3-methylphenol	[ ]	[ ]
2,4-Dichlorophenol	[ ]	[ ]
2-Nitrophenol	[ ]	[ ]
Phenol	[ ]	[ ]
Pentachlorophenol	[ ]	[ ]
2,4,6-Trichlorophenol	[ ]	[ ]

- Primary Evaluation: Was Drift or D ≤ 20% calculated from the initial calibration? [ ] [ ]
- Alternative Evaluation: Maximum allowable Drift/D for each target analyte is ≤ 30%. [ ] [ ]

10. Sample Analysis:

- Was the RRT of an identified component within ± 0.06 RRT units of the RRT of the standard component? [ ] [ ]
- Did the abundance of ions in the sample spectra agree within 30% of the major ions (> 10% of the base ion) in the standard spectra? [ ] [ ]
- Were the internal standard areas within the QC limits (from -50% to +200%)? [ ] [ ]

11. Sample Quality Control:

	Yes	No
• Method Blanks: Were target analytes ≤ 1/2 MRL?	[ ]	[ ]
• LCS: Were the percent recoveries for LCS within the limits?	[ ]	[ ]
• MS/MSD: Were the percent recoveries within limits? n/a	[ ]	[ ]
Were the RPD within control limits?	[ ]	[ ]
• System Monitoring Compounds (Surrogates): are surrogate recoveries within QC limits?	[ ]	[ ]

12. Comments (attach additional sheets if necessary):

MB bis = 19.9 U 0002 / Di-n-butyl 24.5 w/ 0027
benzoic acid LCS U but ok For all but -0010 -
MRL 46 52% 24DNP 40% -0002
24 DNP 49 - ~~0010~~ 0027
benzoic acid 65% w/ 0010

Validated/Reviewed by:

Signature: P. Meeks Date: 6/6/14

Name: P. Meeks

SEMIVOLATILE ORGANIC ANALYSIS CHECKLIST

Project Name: RVAAP Site 76 (CR)

Laboratory: TA - North Canton

Batch Number(s): MC 65171, 65503, 69176, 69185

Sample Delivery Group: 17422, 18544

		Yes	No
1.	Sample Holding Time:		
	(a) Were samples extracted within holding time?	[✓]	[ ]
	(b) Were samples analyzed within holding time?	[✓]	[ ]
2.	Instrument Tuning:		
	Was the DFTPP tune performed at the beginning of each 12-hour period during which samples were analyzed?	[✓]	[ ]
3.	Ion Mass Assignments:		
	Was mass assignment based on m/z 198?	[✓]	[ ]
4.	Ion Abundance:		
	Indicate if DFTPP ions abundance relative to m/z 198 base peak met the ions abundance criteria:		
	m/z — Acceptance Criteria		
	51 — 30.0 - 60.0 %	[✓]	[ ]
	68 — < 2% of mass 69	[✓]	[ ]
	70 — < 2% of mass 69	[✓]	[ ]
	127 — 40-60%	[✓]	[ ]
	197 — < 1%	[✓]	[ ]
	198 — 100%, Base peak	[✓]	[ ]
	199 — 5-9%	[✓]	[ ]
	275 — 10 - 30%	[✓]	[ ]
	365 — > 1%	[✓]	[ ]
	441 — present but < mass 443	[✓]	[ ]
	442 — > 40%	[✓]	[ ]
	443 — 17-23% of mass 442	[✓]	[ ]

		Yes	No
5.0 Initial Calibration:			
• Did the initial calibration consist of five or more standards?	5-stds	[✓]	[ ]
	more	[✓]	[ ]
If the calibration curve consists of 5-standards, check validity of the calibration model.			
Was the linear model applied?		[✓]	[ ]
• Did the followings System Performance Check Compounds (SPCC) meet the minimum mean response factor (RF)?			
	RF		
N-nitroso-di-n-propylamine	0.05	[✓]	[ ]
Hexachlorocyclopentadiene	0.05	[✓]	[ ]
2,4-dinitrophenol	0.05	[✓]	[ ]
4-nitrophenol	0.05	[✓]	[ ]
• Did the RSD meet the criteria ≤ 30% for the followings each individual Calibration Check Compound (CCC)?			
Base/Neutral Fraction:			
Acenaphthene		[✓]	[ ]
1,4-Dichlorobenzene		[✓]	[ ]
Hexachlorobutadiene		[✓]	[ ]
Diphenylamine		[✓]	[ ]
Di-n-octylphthalate		[✓]	[ ]
Fluoranthene		[✓]	[ ]
Benzo(a)pyrene		[✓]	[ ]
Acid Fraction:			
4-Chloro-3-methylphenol		[✓]	[ ]
2,4-Dichlorophenol		[✓]	[ ]
2-Nitrophenol		[✓]	[ ]
Phenol		[✓]	[ ]
Pentachlorophenol		[✓]	[ ]
2,4,6-Trichlorophenol		[✓]	[ ]
• Are the RSDs for the remaining target analytes ≤ 15%?		[✓]	[ ]
• If the answer is "No", are the mean RSDs ≤ 15% or r ≥ 0.99 with a mean RSD ≤ 15% with a maximum RSD ≤ 30%?		[ ]	[ ]
		[ ]	[ ]

	Yes	No
• Was manual integration "M" performed?	[✓]	[ ]
If the answer is "Yes", check for supporting documents.		
• Was the manual integration necessary?	[✓]	[ ]
If the answer is "No", contact the laboratory inquiring about the reasons behind the manual integration, and **inform the District Chemist immediately if there were no valid reasons**.		

6. QCMDL:

• Was MDL Check performed?	[✓]	[ ]

7. QCMRL:

• Were QC/MRL run at the beginning and end of every daily sequence or every 12 hours?	[✓]	[ ]
• Was the QC/MRL between 70-130% R see attached	[ ]	[✓]
• For the non-contaminants of concern was the QC/MRL between 50-150% (Sporadic Marginal Failure)? N/A	[ ]	[ ]

8. Initial Calibration Verification (ICV):

• Is the mid level (2nd source) recovery within ~~70-130%~~ 80-120 for contaminants of concern ?	[ ]	[✓]
• Is the mid level (2nd source) recovery within 50-150% for non-contaminants of concern (Sporadic Marginal Failure)? N/A	[ ]	[ ]

4-bromophenyl phenyl ether 79.5%
WT/C in 0705D-0009-0001-SO

9. Continuing Calibration Verification (CCV):

• Was CCV conducted every 12 hours?	[✓]	[ ]
• Did any of SPCC meet the minimum RF values?	[ ]	[ ]

		Yes	No
N-nitroso-di-n-propylamine	0.05	[✓]	[ ]
Hexachlorocyclopentadiene	0.05	[✓]	[ ]
2,4-dinitrophenol	0.05	[✓]	[ ]
4-nitrophenol	0.05	[✓]	[ ]

- Did the CCC meet the minimum requirements (D ≤ 20%) for the followings?

Base/Neutral Fraction:

Acenaphthene	[✓]	[ ]
1,4-Dichlorobenzene	[✓]	[ ]
Hexachlorobutadiene	[✓]	[ ]
Diphenylamine	[✓]	[ ]
Di-n-octylphthalate	[✓]	[ ]
Fluoranthene	[✓]	[ ]
Benzo(a)pyrene	[✓]	[ ]

Acid Fraction:

4-Chloro-3-methylphenol	[✓]	[ ]
2,4-Dichlorophenol	[✓]	[ ]
2-Nitrophenol	[✓]	[ ]
Phenol	[✓]	[ ]
Pentachlorophenol	[✓]	[ ]
2,4,6-Trichlorophenol	[✓]	[ ]

- Primary Evaluation: Was Drift or D ≤ 20% calculated from the initial calibration? [✓] [ ]
- Alternative Evaluation: Maximum allowable Drift/D for each target analyte is ≤ 30%. N/A [ ] [ ]

10. Sample Analysis:

- Was the RRT of an identified component within ± 0.06 RRT units of the RRT of the standard component? [✓] [ ]
- Did the abundance of ions in the sample spectra agree within 30% of the major ions (> 10% of the base ion) in the standard spectra? [✓] [ ]
- Were the internal standard areas within the QC limits (from -50% to +200%)? [✓] [ ]

11. Sample Quality Control:

	Yes	No
• Method Blanks: Were target analytes ≤ 1/2 MRL? see comments	[✓]	[ ]
• LCS: Were the percent recoveries for LCS within the limits?	[✓]	[ ]
• MS/MSD: Were the percent recoveries within limits? see attached	[ ]	[✓]
Were the RPD within control limits?	[✓]	[ ]
• System Monitoring Compounds (Surrogates): are surrogate recoveries within QC limits?	[✓]	[ ]

12. Comments (attach additional sheets if necessary):

MBs bis } U/B at level of contamination in diethyl phth. / 07605-0020M-0001-SO

bis } all others except 0009 - detects U/B

Validated/Reviewed by:

Signature: M Calvin Date: 4.19.2014

Name: L.S. Calvin

- MRL standard recoveries were within the reasonable control limit of ±30%, with exceptions affecting sample data noted in the table below. The nondetected results for n-nitrosodiphenylamine were rejected, "R," in the affected samples and the remaining results listed in the table below, all nondetects, were qualified as estimated, "UJ." All qualified results were coded with a "C" qualification code.

Samples qualified for MRL %R outliers		
Analyte	**%R**	**Qualified Samples**
2,4-dinitrophenol	53%	076SD-0009-0001-SO
benzoic acid	63%	
hexachloroethane	58%	
pentachlorophenol	61%	
n-nitrosodiphenylamine	**0%**	076SD-0102M-0001-SO 076SD-0114M-0001-SO

- Bolded results listed in the table below were rejected, "R," for recoveries <10%. Remaining results were qualified as estimated, "J," for detects, or "UJ," for nondetects in the parent sample. All qualified results were coded with a "Q" qualification code. All RPDs were within the control limit of ≤30% listed in DoD QSM Table F-4.

Samples Qualified for MS/MSD Recovery Outliers			
Analyte	**% Recoveries**	**Limits**	**Qualified Parent Sample**
3,3'-dichlorobenzidine	**0% / 0%**	10-130%	076SD-0009-0001-SO
3-nitroaniline	**0% / 0%**	25-110%	
4-chloroaniline	**3% / 3%**	10-95%	
4-nitroaniline	**0% / 0%**	35-115%	
benzo(g,h,i)perylene	32% / 35%	40-125%	
hexachloroethane	19% / 21%	35-110%	
3,3'-dichlorobenzidine	**0% / 0%**	10-130%	076SS-0020M-0001-SO
3-nitroaniline	**8% / 12%**	25-110%	
4-chloroaniline	**5% / 7%**	10-95%	
4-nitroaniline	**19% / 23%**	35-115%	

SEMIVOLATILE ORGANIC ANALYSIS CHECKLIST

Project Name: RVAAP ER Site 78

Laboratory: TA- N. Canton

Batch Number(s): 0785B-0008M (22559-8) 4/12 1910
0785B-0016M (22559-14) 4/12 1822

Sample Delivery Group: 22559

	Yes	No
1. Sample Holding Time:		
(a) Were samples extracted within holding time?	[X]	[ ]
(b) Were samples analyzed within holding time?	[ ]	[ ]
2. Instrument Tuning: Was the DFTPP tune performed at the beginning of each 12-hour period during which samples were analyzed?	[X]	[ ]
3. Ion Mass Assignments: Was mass assignment based on m/z 198?	[X]	[ ]
4. Ion Abundance: Indicate if DFTPP ions abundance relative to m/z 198 base peak met the ions abundance criteria:		
m/z Acceptance Criteria		
51 30.0 - 60.0 %	[X]	[ ]
68 < 2% of mass 69	[X]	[ ]
70 < 2% of mass 69	[X]	[ ]
127 40-60%	[X]	[ ]
197 < 1%	[X]	[ ]
198 100%, Base peak	[X]	[ ]
199 5-9%	[X]	[ ]
275 10 - 30%	[X]	[ ]
365 > 1%	[X]	[ ]
441 present but < mass 443	[X]	[ ]
442 > 40%	[X]	[ ]
443 17-23% of mass 442	[X]	[ ]

	Yes	No
5.0 Initial Calibration:		
• Did the initial calibration consist of five or more standards?	5-stds [ ] more [ ]	[ ] [ ]
If the calibration curve consists of 5-standards, check validity of the calibration model.		
Was the linear model applied?	[ ]	[ ]
• Did the followings System Performance Check Compounds (SPCC) meet the minimum mean response factor (RF)?		
RF		
N-nitroso-di-n-propylamine 0.05	[ ]	[ ]
Hexachlorocyclopentadiene 0.05	[ ]	[ ]
2,4-dinitrophenol 0.05	[ ]	[ ]
4-nitrophenol 0.05	[ ]	[ ]
• Did the RSD meet the criteria ≤ 30% for the followings each individual Calibration Check Compound (CCC)?		
Base/Neutral Fraction:		
Acenaphthene	[ ]	[ ]
1,4-Dichlorobenzene	[ ]	[ ]
Hexachlorobutadiene	[ ]	[ ]
Diphenylamine	[ ]	[ ]
Di-n-octylphthalate	[ ]	[ ]
Fluoranthene	[ ]	[ ]
Benzo(a)pyrene	[ ]	[ ]
Acid Fraction:		
4-Chloro-3-methylphenol	[ ]	[ ]
2,4-Dichlorophenol	[ ]	[ ]
2-Nitrophenol	[ ]	[ ]
Phenol	[ ]	[ ]
Pentachlorophenol	[ ]	[ ]
2,4,6-Trichlorophenol	[ ]	[ ]
• Are the RSDs for the remaining target analytes ≤ 15%?	[ ]	[ ]
• If the answer is "No", are the mean RSDs ≤ 15% or r ≥ 0.99 with a mean RSD ≤ 15% with a maximum RSD ≤ 30%?	[ ] [ ]	[ ] [ ]

	Yes	No
• Was manual integration "M" performed?	[ ]	[ ]
If the answer is "Yes", check for supporting documents.		
• Was the manual integration necessary?	[ ]	[ ]
If the answer is "No", contact the laboratory inquiring about the reasons behind the manual integration, and **inform the District Chemist immediately if there were no valid reasons.**		

6. QCMDL:

• Was MDL Check performed?	[ ]	[ ]

7. QCMRL:

• Were QC/MRL run at the beginning and end of every daily sequence or every 12 hours?	[ ]	[ ]
• Was the QC/MRL between 70-130% R	[ ]	[ ]
• For the non-contaminants of concern was the QC/MRL between 50-150% (Sporadic Marginal Failure)?	[ ]	[ ]

8. Initial Calibration Verification (ICV):

• Is the mid level (2^{nd} source) recovery within 70-130% for contaminants of concern ?	[ ]	[ ]
• Is the mid level (2^{nd} source) recovery within 50-150% for non-contaminants of concern (Sporadic Marginal Failure)?	[ ]	[ ]

9. Continuing Calibration Verification (CCV):

• Was CCV conducted every 12 hours?	[ ]	[ ]
• Did any of SPCC meet the minimum RF values?	[ ]	[ ]

		Yes	No
N-nitroso-di-n-propylamine	0.05	[ ]	[ ]
Hexachlorocyclopentadiene	0.05	[ ]	[ ]
2,4-dinitrophenol	0.05	[ ]	[ ]
4-nitrophenol	0.05	[ ]	[ ]

- Did the CCC meet the minimum requirements (D ≤ 20%) for the followings?

Base/Neutral Fraction:

Acenaphthene	[ ]	[ ]
1,4-Dichlorobenzene	[ ]	[ ]
Hexachlorobutadiene	[ ]	[ ]
Diphenylamine	[ ]	[ ]
Di-n-octylphthalate	[ ]	[ ]
Fluoranthene	[ ]	[ ]
Benzo(a)pyrene	[ ]	[ ]

Acid Fraction:

4-Chloro-3-methylphenol	[ ]	[ ]
2,4-Dichlorophenol	[ ]	[ ]
2-Nitrophenol	[ ]	[ ]
Phenol	[ ]	[ ]
Pentachlorophenol	[ ]	[ ]
2,4,6-Trichlorophenol	[ ]	[ ]

- Primary Evaluation: Was Drift or D ≤ 20% calculated from the initial calibration? [ ] [ ]
- Alternative Evaluation: Maximum allowable Drift/D for each target analyte is ≤ 30%. [ ] [ ]

10. Sample Analysis:

- Was the RRT of an identified component within ± 0.06 RRT units of the RRT of the standard component? [ ] [ ]
- Did the abundance of ions in the sample spectra agree within 30% of the major ions (> 10% of the base ion) in the standard spectra? [ ] [ ]
- Were the internal standard areas within the QC limits (from -50% to +200%)? [ ] [ ]

11. Sample Quality Control:

	Yes	No
• Method Blanks: Were target analytes ≤ 1/2 MRL?	[ ]	[ ]
• LCS: Were the percent recoveries for LCS within the limits?	[ ]	[ ]
• MS/MSD: Were the percent recoveries within limits? N/A	[ ]	[ ]
Were the RPD within control limits?	[ ]	[ ]
• System Monitoring Compounds (Surrogates): are surrogate recoveries within QC limits?	[ ]	[ ]

12. Comments (attach additional sheets if necessary):

benz acid reported ND in LCS

MRL ghi 62% J/UJ both
46 13, 24 DNP 15, hexachlor 63%

Validated/Reviewed by:

Signature: P. Meeks Date: 6/6/14

Name: P. Meeks

SEMIVOLATILE ORGANIC ANALYSIS CHECKLIST

0795W-0311-0001-SW 4/11/1957

Project Name: RVAAP CR Site 79

Laboratory: TA-W Canton

Batch Number(s): _____

Sample Delivery Group: 22662

		Yes	No
1.	Sample Holding Time:		
	(a) Were samples extracted within holding time?	[Y]	[ ]
	(b) Were samples analyzed within holding time?	[Y]	[ ]
2.	Instrument Tuning:		
	Was the DFTPP tune performed at the beginning of each 12-hour period during which samples were analyzed?	[Y]	[ ]
3.	Ion Mass Assignments:		
	Was mass assignment based on m/z 198?	[Y]	[ ]
4.	Ion Abundance:		
	Indicate if DFTPP ions abundance relative to m/z 198 base peak met the ions abundance criteria:		
	m/z — Acceptance Criteria		
	51 — 30.0 - 60.0 %	[Y]	[ ]
	68 — < 2% of mass 69	[Y]	[ ]
	70 — < 2% of mass 69	[Y]	[ ]
	127 — 40-60%	[Y]	[ ]
	197 — < 1%	[Y]	[ ]
	198 — 100%, Base peak	[Y]	[ ]
	199 — 5-9%	[Y]	[ ]
	275 — 10 - 30%	[Y]	[ ]
	365 — > 1%	[Y]	[ ]
	441 — present but < mass 443	[Y]	[ ]
	442 — > 40%	[Y]	[ ]
	443 — 17-23% of mass 442	[Y]	[ ]

	Yes	No
5.0 Initial Calibration:		
• Did the initial calibration consist of five or more standards?	5-stds [✓] more [ ]	[ ] [ ]
If the calibration curve consists of 5-standards, check validity of the calibration model.		
Was the linear model applied?	[✓]	[ ]
• Did the followings System Performance Check Compounds (SPCC) meet the minimum mean response factor (RF)?		
RF		
N-nitroso-di-n-propylamine 0.05	[✓]	[ ]
Hexachlorocyclopentadiene 0.05	[✓]	[ ]
2,4-dinitrophenol 0.05	[✓]	[ ]
4-nitrophenol 0.05	[ ]	[ ]
• Did the RSD meet the criteria ≤ 30% for the followings each individual Calibration Check Compound (CCC)?		
Base/Neutral Fraction:		
Acenaphthene	[✓]	[ ]
1,4-Dichlorobenzene	[✓]	[ ]
Hexachlorobutadiene	[✓]	[ ]
Diphenylamine	[✓]	[ ]
Di-n-octylphthalate	[✓]	[ ]
Fluoranthene	[✓]	[ ]
Benzo(a)pyrene	[ ]	[ ]
Acid Fraction:		
4-Chloro-3-methylphenol	[✓]	[ ]
2,4-Dichlorophenol	[✓]	[ ]
2-Nitrophenol	[✓]	[ ]
Phenol	[✓]	[ ]
Pentachlorophenol	[✓]	[ ]
2,4,6-Trichlorophenol	[✓]	[ ]
• Are the RSDs for the remaining target analytes ≤ 15%?	[✓]	[ ]
• If the answer is "No", are the mean RSDs ≤ 15% or r ≥ 0.99 with a mean RSD ≤ 15% with a maximum RSD ≤ 30%?	[ ] [ ]	[ ] [ ]

	Yes	No
• Was manual integration "M" performed?	[ ]	[ ]
If the answer is "Yes", check for supporting documents.		
• Was the manual integration necessary?	[ ]	[ ]
If the answer is "No", contact the laboratory inquiring about the reasons behind the manual integration, and **inform the District Chemist immediately if there were no valid reasons.**		

6. QCMDL:

• Was MDL Check performed?	[ ]	[ ]

7. QCMRL:

• Were QC/MRL run at the beginning and end of every daily sequence or every 12 hours?	[ ]	[ ]
• Was the QC/MRL between 70-130% R	[ ]	[ ]
• For the non-contaminants of concern was the QC/MRL between 50-150% (Sporadic Marginal Failure)?	[ ]	[ ]

8. Initial Calibration Verification (ICV):

• Is the mid level (2nd source) recovery within 70-130% for contaminants of concern ?	[ ]	[ ]
• Is the mid level (2nd source) recovery within 50-150% for non-contaminants of concern (Sporadic Marginal Failure)?	[ ]	[ ]

9. Continuing Calibration Verification (CCV):

• Was CCV conducted every 12 hours?	[ ]	[ ]
• Did any of SPCC meet the minimum RF values?	[ ]	[ ]

		Yes	No
N-nitroso-di-n-propylamine	0.05	[X]	[ ]
Hexachlorocyclopentadiene	0.05	[X]	[ ]
2,4-dinitrophenol	0.05	[X]	[ ]
4-nitrophenol	0.05	[X]	[ ]

- Did the CCC meet the minimum requirements (D ≤ 20%) for the followings?

Base/Neutral Fraction:

Acenaphthene	[X]	[ ]
1,4-Dichlorobenzene	[X]	[ ]
Hexachlorobutadiene	[X]	[ ]
Diphenylamine	[X]	[ ]
Di-n-octylphthalate	[X]	[ ]
Fluoranthene	[X]	[ ]
Benzo(a)pyrene	[X]	[ ]

Acid Fraction:

4-Chloro-3-methylphenol	[X]	[ ]
2,4-Dichlorophenol	[X]	[ ]
2-Nitrophenol	[X]	[ ]
Phenol	[X]	[ ]
Pentachlorophenol	[X]	[ ]
2,4,6-Trichlorophenol	[X]	[ ]

- Primary Evaluation: Was Drift or D ≤ 20% calculated from the initial calibration? [X] [ ]
- Alternative Evaluation: Maximum allowable Drift/D for each target analyte is ≤ 30%. [ ] [ ]

10. Sample Analysis:

- Was the RRT of an identified component within ± 0.06 RRT units of the RRT of the standard component? [X] [ ]
- Did the abundance of ions in the sample spectra agree within 30% of the major ions (> 10% of the base ion) in the standard spectra? [X] [ ]
- Were the internal standard areas within the QC limits (from -50% to +200%)? [X] [ ]

11. Sample Quality Control:

	Yes	No
• Method Blanks: Were target analytes ≤ 1/2 MRL?	[ ]	[N]
• LCS: Were the percent recoveries for LCS within the limits?	[N]	[ ]
• MS/MSD: Were the percent recoveries within limits? now	[ ]	[ ]
Were the RPD within control limits?	[ ]	[ ]
• System Monitoring Compounds (Surrogates): are surrogate recoveries within QC limits?	[N]	[ ]

12. Comments (attach additional sheets if necessary):
benz acid U in LCS but OK
many J detects in MB but sample ND

Validated/Reviewed by:

Signature: P. Meeks Date: 6/6/14

Name: P. Meeks

Total Petroleum Hydrocarbons (TPH)
~~POLY CHLORINATED BIPHENYLS~~ ~~(PCB/AROCLORS)~~ CHECKLIST

Project Name: RVAAP CR Site 74

Laboratory: TA - North Canton

Batch Number(s): 82317, 82097

Sample Delivery Group: 240-22756, -22804

	Yes	No
1. Holding Time:		
(a) Were samples extracted within holding time?	[✓]	[ ]
(b) Were samples analyzed within holding time?	[✓]	[ ]
2. Initial Calibration:		
• Did the initial calibration consist of five standards?	[✓]	[ ]
• Did ~~Aroclors 1016 and 1260~~ meet the RSD ≤ 20% or the r ≥ 0.99? DRO C10-C28	[ ]	[ ]
• Was manual integration "M" performed? If the answer is "Yes", check for supporting documents.	[ ]	[✓]
• Was the manual integration necessary? N/A	[ ]	[ ]
If the answer is "no", contact the laboratory inquiring about the reasons behind the manual integration, and **inform the District Chemist immediately if there were no valid reasons.**		
3. QCMDL:		
• Was MDL Check performed?	[ ]	[✓]
4. QCMRL:		
• Were QC/MRL run at the beginning and end of every daily sequence or every 12 hours??	[✓]	[ ]
• Was the QC/MRL between 70-130% R	[✓]	[ ]
5. Initial Calibration Verification (ICV):		
Is the mid level (2nd source) recovery within ~~85 - 115%~~ QSM 80-120?	[✓]	[ ]

	Yes	No
6. Continuing Calibration Verification (CCV):		
• Was CCV conducted every 12 hours?	[✓]	[ ]
• Was Drift or D ≤ ~~15%~~ QSM 20% from the initial calibration with a maximum %D < 20% for a specific compound? (those affecting sample data)	[✓]	[ ]
7. Sample Analysis:		
• Was the RRT of an identified component within the retention time window created as SW-846 requires?	[✓]	[ ]
• Were samples with levels higher than the calibration range (E), diluted and re-analyzed? QC (samples ND) N/A	[ ]	[ ]
• Were identified Aroclors confirmed on a second GC column? N/A	[ ]	[ ]
• Were individual Aroclor standards used to determine the pattern of the peaks? (Individual Aroclors are 1221, 1232, 1242, 1248, and 1254. Both Aroclor 1016, and 1260 can be used from the mixed calibration standards.)	[ ]	[ ]
• Was RPD of target analyte conformation ≤ 40? N/A	[ ]	[ ]
8. Sample Quality Control:		
• Method Blanks: Were target analytes ≤ 1/2 MRL? ND	[✓]	[ ]
• LCS: Were the percent recoveries for LCS within the limits?	[✓]	[ ]
• MS/MSD: Were the percent recoveries within limits?	[✓]	[ ]
Were the RPDs within control limits?	[✓]	[ ]
• System Monitoring Compounds (Surrogates): are surrogate recoveries within QC limits?	[✓]	[ ]

9. Comments (attach additional sheets if necessary):

QC and standards C10-C28 (diesel)
samples C10-C20, C20-C34

Validated/Reviewed by:

Signature: D.S. Calvin

Date: 6.4.2014

Name: D.S. Calvin

VOLATILE ORGANIC ANALYSIS CHECKLIST

Project Name: RVAAP - Site 16 (CR)

Laboratory: TA-North Canton

Batch Number(s): 65171, 68830

Sample Delivery Group (SDG): 17422, 18544

	Yes	No
1. Holding Time:		
(a) Were samples preserved?	[✓]	[ ]
(b) Were samples analyzed within holding time?	[✓]	[ ]
2. Was the BFB tune performed at the beginning of each 12-hour period during which samples were analyzed?	[✓]	[ ]
3. Was mass assignment based on m/z 95?	[✓]	[ ]
4. Indicate if BFB ions abundance relative to m/z 95 base peak met the ions abundance criteria:		

m/z	Acceptance Criteria		
50	15.0 - 40.0 %	[✓]	[ ]
75	30.0 - 66.0 %	[✓]	[ ]
95	**100%, Base Peak**	[✓]	[ ]
96	5.0 - 9.0%	[✓]	[ ]
173	<2.0% of m/z 174	[✓]	[ ]
174	>50%	[✓]	[ ]
175	5.0 - 9.0% of mass 174	[✓]	[ ]
176	95.0 - 101.0% of m/z 174	[✓]	[ ]
177	5.0 - 9.0% of m/z 176	[✓]	[ ]

The relative ion abundance of m/z 95/96, m/z 174/176, and 176/177 are of critical importance.

The relative ion abundance of m/z 50 and 75 are of lower importance.

	Yes	No
5. Initial Calibration:		
• Did the initial calibration consist of five standards?	[1	[ ]
• Did the System Performance Check Compounds (SPCC) meet the minimum mean response factor (RF)?		
RF		
Chloromethane 0.1	[1	[ ]
1,1-Dichloroethane 0.1	[1	[ ]
Bromoform 0.1	[1	[ ]
Chlorobenzene 0.3	[1	[ ]
1,1,2,2-Tetrachloroethane 0.3	[1	[ ]
• Did the RSD meet the criteria ≤ 30% for each individual Calibration Check Compound (CCC)?		
1,1-Dichloroethene	[1	[ ]
Chloroform	[1	[ ]
1,2-Dichloropropane	[1	[ ]
Toluene	[1	[ ]
Ethylbenzene	[1	[ ]
Vinyl chloride	[1	[ ]
• Are the RSDs for the remaining target analytes ≤ 15% or r ≥ 0.99 with a mean RSD ≤ 15% with a maximum RSD ≤ 20%?	[1	[ ]
If the answer is "No", are the mean RSDs ≤ 15%? N/A	[ ]	[ ]
• Was manual integration "M" performed?	[ ]	[1
If the answer is "Yes", check for supporting documents. N/A	[ ]	[ ]
• Was the manual integration necessary?	[ ]	[ ]
If the answer is "No", contact the laboratory inquiring about the reasons behind the manual integration, and **inform the District Chemist immediately if there were no valid reasons.**		
6. QCMDL:	[1	[ ]
• Was MDL Check performed?		
7. QCMRL:	[1	[ ]

	Yes	No
• Were QC/MRL run at the beginning and end of every daily sequence or every 12 hours?	[✓]	[ ]
• Was the QC/MRL between 70-130% R see comments	[ ]	[✓]
• For the non-contaminants of concern was the QC/MRL between 60-140% (Sporadic Marginal Failure) N/A	[ ]	[ ]

8. Initial Calibration Verification (ICV):

	[✓]	[ ]

• Is the mid level (2nd source) recovery within 80 - 120% for contaminants of concern ?
• Is the mid level (2nd source) recovery within 60-140% for non-contaminants of concern (Sporadic Marginal Failure)? N/A

9. Continuing Calibration Verification (CCV):

• Was CCV conducted every 12 hours?	[✓]	[ ]
• Did SPCC meet the RF values?	[✓]	[ ]

RF

Chloromethane	0.1	[✓]	[ ]
1,1-Dichloroethane	0.1	[✓]	[ ]
Bromoform	0.1	[✓]	[ ]
Chlorobenzene	0.3	[✓]	[ ]
1,1,2,2-Tetrachloroethane	0.3	[✓]	[ ]

• Did the CCC meet the minimum requirements (D ≤ 20%)?	[✓]	[ ]

1,1-Dichloroethene	[✓]	[ ]
Chloroform	[✓]	[ ]
1,2-Dichloropropane	[✓]	[ ]
Toluene	[✓]	[ ]
Ethylbenzene	[✓]	[ ]
Vinyl chloride	[✓]	[ ]

• Primary Evaluation: Was the mean, Drift or D ≤ 20% from the initial calibration?	[✓]	[ ]

• Alternative Evaluation: Maximum allowable Drift/D for

	Yes	No
each target analyte is ≤ 30% when mean D ≤ 20%? N/A	[ ]	[ ]

10. Sample Analysis:

	Yes	No
• Was the RRT of an identified component within ± 0.06 RRT units of the RRT of the standard component?	[✓]	[ ]
• Did the abundance of ions in the sample spectra agree within 30% of the major ions (> 10% of the base ion) in the standard spectra?	[✓]	[ ]
• Were the internal standard areas within the QC limits (from -50% to +200%)?	[ ]	[ ]

11. Sample Quality Control:

	Yes	No
• Method Blanks: Were target analytes ≤ 1/2 MRL? Acetone 0.4J / U/B @ level of contamination in 0765S-0020M-0001-SO	[✓]	[ ]
• LCS: Were the percent recoveries for LCS within the limits?	[✓]	[ ]
• MS/MSD: Were the percent recoveries within limits? low in MSD only - no qualifications	[ ]	[✓]
Were the RPD within control limits?	[✓]	[ ]
System Monitoring Compounds (Surrogates): are surrogate recoveries within QC limits ~~(50-150%)~~? Table G-3 see comments	[ ]	[✓]

12. Comments (attach additional sheets if necessary):

- MRL/2 hexanone 43%, 4-methyl-2-pentanone 49% UJ/C in 0765B-0094M-0001-SO and 0765B-0102M-0001-SO
- BFB 81% (85-120) 0765B-0094M-0001-SO all J/UJ's

Validated/Reviewed by:
Signature: L.S. Calvin

Date: 4.17.2014

Name: L.S. Calvin

VOLATILE ORGANIC ANALYSIS CHECKLIST

Project Name: RVAAP CR Sites 68, 69, 73, 74, 78, 79

Laboratory: TA-North Canton

Batch Number(s): ~~64980~~, ~~66014/20~~, ~~80954~~, 81930, 81013, 80388, -593

Sample Delivery Group (SDG): ~~240-17317-17422~~, -17525, -17602, -22559, -22662, -22804

	Yes	No
1. Holding Time:		
(a) Were samples preserved?	[✓]	[ ]
(b) Were samples analyzed within holding time?	[✓]	[ ]
2. Was the BFB tune performed at the beginning of each 12-hour period during which samples were analyzed?	[✓]	[ ]
3. Was mass assignment based on m/z 95?	[✓]	[ ]
4. Indicate if BFB ions abundance relative to m/z 95 base peak met the ions abundance criteria:		

m/z	Acceptance Criteria		
50	15.0 - 40.0 %	[✓]	[ ]
75	30.0 - 66.0 %	[✓]	[ ]
95	**100%, Base Peak**	[✓]	[ ]
96	5.0 - 9.0%	[✓]	[ ]
173	<2.0% of m/z 174	[✓]	[ ]
174	>50%	[✓]	[ ]
175	5.0 - 9.0% of mass 174	[✓]	[ ]
176	95.0 - 101.0% of m/z 174	[✓]	[ ]
177	5.0 - 9.0% of m/z 176	[✓]	[ ]

The relative ion abundance of m/z 95/96, m/z 174/176, and 176/177 are of critical importance.

The relative ion abundance of m/z 50 and 75 are of lower importance.

	Yes	No
5. Initial Calibration:		
• Did the initial calibration consist of five standards?	[✓]	[ ]
• Did the System Performance Check Compounds (SPCC) meet the minimum mean response factor (RF)?		
RF		
Chloromethane 0.1	[✓]	[ ]
1,1-Dichloroethane 0.1	[✓]	[ ]
Bromoform 0.1	[✓]	[ ]
Chlorobenzene 0.3	[✓]	[ ]
1,1,2,2-Tetrachloroethane 0.3	[✓]	[ ]
• Did the RSD meet the criteria ≤ 30% for each individual Calibration Check Compound (CCC)?		
1,1-Dichloroethene	[✓]	[ ]
Chloroform	[✓]	[ ]
1,2-Dichloropropane	[✓]	[ ]
Toluene	[✓]	[ ]
Ethylbenzene	[✓]	[ ]
Vinyl chloride	[ ]	[ ]
• Are the RSDs for the remaining target analytes ≤ 15% or r ≥ 0.99 with a mean RSD ≤ 15% with a maximum RSD ≤ 20%?	[✓]	[ ]
If the answer is "No", are the mean RSDs ≤ 15%?	[✓]	[✗ MC]
• Was manual integration "M" performed?	[ ]	[✓]
If the answer is "Yes", check for supporting documents.	N/A [ ]	[ ]
• Was the manual integration necessary?		
If the answer is "No", contact the laboratory inquiring about the reasons behind the manual integration, and **inform the District Chemist immediately if there were no valid reasons**.	[ ]	[ ]
6. QCMDL:	[ ]	[✓]
• Was MDL Check performed?		
7. QCMRL:	[✓]	[ ]

	Yes	No
• Were QC/MRL run at the beginning and end of every daily sequence or every 12 hours?	[✓]	[ ]
• Was the QC/MRL between 70-130% R see comments Site 79	[ ]	[✓]
• For the non-contaminants of concern was the QC/MRL between 60-140% (Sporadic Marginal Failure) N/A	[ ]	[ ]

8. Initial Calibration Verification (ICV):

• Is the mid level (2nd source) recovery within 80 - 120% for contaminants of concern ?	[✓]	[ ]
• Is the mid level (2nd source) recovery within 60-140% for non-contaminants of concern (Sporadic Marginal Failure)? N/A		

9. Continuing Calibration Verification (CCV):

• Was CCV conducted every 12 hours?		[✓]	[ ]
• Did SPCC meet the RF values?		[✓]	[ ]
RF			
Chloromethane	0.1	[✓]	[ ]
1,1-Dichloroethane	0.1	[✓]	[ ]
Bromoform	0.1	[✓]	[ ]
Chlorobenzene	0.3	[✓]	[ ]
1,1,2,2-Tetrachloroethane	0.3	[✓]	[ ]
• Did the CCC meet the minimum requirements (D ≤ 20%)?		[✓]	[ ]
1,1-Dichloroethene		[✓]	[ ]
Chloroform		[✓]	[ ]
1,2-Dichloropropane		[✓]	[ ]
Toluene		[✓]	[ ]
Ethylbenzene		[✓]	[ ]
Vinyl chloride		[✓]	[ ]
• Primary Evaluation: Was the mean, Drift or D ≤ 20% from the initial calibration? see comments Site 69		[ ]	[✓]
• Alternative Evaluation: Maximum allowable Drift/D for			

	Yes	No
each target analyte is ≤ 30% when mean D ≤ 20%? N/A	[ ]	[ ]

10. Sample Analysis:

	Yes	No
• Was the RRT of an identified component within ± 0.06 RRT units of the RRT of the standard component?	[✓]	[ ]
• Did the abundance of ions in the sample spectra agree within 30% of the major ions (> 10% of the base ion) in the standard spectra?	[✓]	[ ]
• Were the internal standard areas within the QC limits (from -50% to +200%)? see comments Site 73	[ ]	[✓]

11. Sample Quality Control:

	Yes	No
• Method Blanks: Were target analytes ≤ 1/2 MRL? see comments Site 78	[✓]	[ ]
• LCS: Were the percent recoveries for LCS within the limits?	[✓]	[ ]
• MS/MSD: Were the percent recoveries within limits? see comments Site 68	[ ]	[✓]
Were the RPD within control limits?	[✓]	[ ]
System Monitoring Compounds (Surrogates): are surrogate recoveries within QC limits (50-150%)?	[ ]	[✓]

12. Comments (attach additional sheets if necessary):

see comments Sites 74 and 78

Validated/Reviewed by:
Signature: L.S. Calvin

Date: 6·5·2014 → 6·10·2014

Name: L.S. Calvin

VO Fraction Comments:

Site 68
068SS-0003M-0001-SO, MS/MSD (limits 75-125%) chlorobenzene 57% and 67%, ethylbenzene 53% and 66%, styrene 54% and 66%, and total xylenes 52% and 64%. "UJ"/"Q"

Site 69
069SS-0001M-0001-SO and 069SB-0013M-0001-SO, CCV %D for carbon disulfide -30.2% , "UJ"/"C"

Site 73
073SS-0002M-0001-SO, IS 1,4-dichlorobenzene-d4 recovered at 33%, 1,1,2,2-tetrachloroethane "UJ"/"I"
073SS-0002M-0001-SO, toluene "U"/ "F" for field blank contamination

Site 74
074SB-0010-0001-SO, BFB 35% (85-120%) and toluene-d8 54% (85-115%) 2-butanone (methyl ethyl ketone), 2-hexanone, and 4-methyl-2-pentanone (methyl isobutyl ketone) "UJ/"S"

Site 78
078SB-0008M-0001-SO and sample 078SB-0016M-0001-SO, methylene chloride "U"/"B" for method blank contamination
078SB-0008M-0001-SO, BFB 84% (85-120%) all results "J"/"S" or "UJ"/"S"

Site 79
079W-0311-0001-SW, MRL acetone 68% (70-130) "J"/"C"

ICP METALS ANALYSIS (~~6010~~) CHECKLIST 6020 + 7471A

Project Name: RVAAP CR Site 68

Laboratory: TA - North Canton

Batch Number(s): _____

Sample Delivery Group: -17317-1, -17422-1, -17477-1, -22648-1

	Yes	No
1. Holding Time:		
• Were samples analyzed within holding time (6-Months)?	[✓]	[ ]
2. Initial Calibration:		
• Did the initial calibration consist of		
One calibration standard and a blank?	[✓]	[ ]
three calibration standards and a blank?	[✓]	[ ]
• Was R ≥ 0.995	[✓]	[ ]
3. QCMDL:		
• Was MDL Check performed?	[ ]	[✓]
QCMRL:		
• Were QC/MRL run at the beginning and end of every daily sequence or every 12 hours??	[✓]	[ ]
	[ ]	[✓]
• Was the QC/MRL between 70-130% R? Common Elements can be between the MRL and 2X MRL level (Fe, Al, Mg and Ca)	[✓]	[ ]
4. Initial Calibration Verification (ICV):		
• Is the mid level (2nd source) recovery within 90 - 110%?		
5. Initial Calibration Blank (ICP):		

	Yes	No
• Were analytes in the blank ≤ 1/2 MRL?	[✓]	[ ]

6. Interelement Check Standard:

• Was ICS-A (interferents only) conducted at the beginning of analytical sequence?	[✓]	[ ]
• Was ICS-AB results within QC limits (80-120)?	[✓]	[ ]

7. Continuing calibration Blank (CCB):

• Was CCB conducted every 10 samples?	[✓]	[ ]
• Was CCB conducted at end of the analytical sequence?	[✓]	[ ]
• Were analytes ≤ 1/2 MRL?	[✓]	[ ]

8. Continuing Calibration Verification (CCV):

• Was CCV conducted every 10 samples?	[✓]	[ ]
• Was CCV conducted at end of the analytical sequence?	[✓]	[ ]
• Was the %R between 90-110?	[✓]	[ ]

9. Sample Analysis:

• Were samples with levels higher than the calibration range (E), diluted and re-analyzed?	[✓]	[ ]

10. Sample Quality Control:

• Method Blanks: Were target analytes ≤ 1/2 MRL?	[ ]	[✓]
• LCS: Were the percent recoveries for LCS within the limits?	[✓]	[ ]
• MS: Were the percent recoveries within limits?	[ ]	[✓]
• MD: Were the RPDs within control limits?	[ ] N/A	[ ]

11. Serial Dilution:

• Was serial dilution (1:4) conducted when needed?	[✓]	[ ]

	Yes	No
• Was there an agreement between diluted and undiluted results (<10%)?	[ ]	[✓]

12. Method of Standard Addition (MSA):

• Was MSA performed on samples suspected of matrix effect (R ≥ 0.995)?	[ ]	N/A	[ ]

13. Comments (attach additional sheets if necessary): MT Hg

068SS-0003M-0001-SO 100mL, 1.17g, 0.61g
068SD-0009-0001-SO " , 1.04g, 0.63g
068SW-0016-0001-SW " , 1.12g, 0.70g
068SB-0053M-0001-SO " , 1.1g, 0.59g

Tune outliers
^{78}Se (20.427%) → -0003M-
" (11.586%) → -0009-
" (8.0299%) → -0016-
^{137}Ba ratio (5.3440%) → "
^{137}Ba (91.287%) → -0053M-
^{138}Ba (19.999%) → "

CRI outliers
Tl (121%) → -0009-
Fe (121%) → -0016-
Hg (72%) → "

SD outliers
Zn (11%), (11%), (12%)
↳ 0053M

MB detects
Hg 0.0245 mg/Kg → -0003M-
" 0.0276 " → -0009-
Tl 0.348 ng/L → -0016-
Zn 10.4 " → "

Dilutions
20x for Mn → -0009-
5x for Sb, Ba, Fe, Pb, Mn, Tl
↳ -0003M-

see next page →

Validated/Reviewed by:

Signature: [signature]

Date: 6/11/14

Name: Michael Cherny

Duplicate Outliers

-0009- → Mn (29%)
-0003M- → " (33%)
-0053N- → Al (24%), As (32%), Ba (29%), Ca (26%), Cr (25%), Co (28%), Cu (27%), Fe (28%), Mg (25%), Mn (43%), Na (22%), Ni (27%), Pb (25%), V (26%), Zn (27%), K (25%), Ca (24%), Ca (21%)

MS Outliers

-0009- → Sb (25%), As (70%), Se (71%), Sb (25%), Se (72%), Sb (23%), As (59%), Ca (73%), Pb (73%), Se (71%)

-0003M- → Sb (25%), Sb (30%)
.0053M → Sb (41%), As (66%), Sb (27%), Ca (73%), Se (60%), Sb (30%), Ca (140%), Se (71%), Sb (30%), As (62%), Ca (49%), Se (66%), Zn (68%)

Field blank detects
070-0057-0001 Source Water
Na @ 1600 ng/L
↳ -0003M- ND

ICP METALS ANALYSIS ~~(6010)~~ 6020 + 7471A CHECKLIST

Project Name: RVAAP CR Site 69

Laboratory: TA- North Canton

Batch Number(s): _____

Sample Delivery Group: -17525-1/2, -17602-1/2

	Yes	No
1. Holding Time:		
• Were samples analyzed within holding time (6-Months)?	[✓]	[ ]
2. Initial Calibration:		
• Did the initial calibration consist of		
One calibration standard and a blank?	[✓]	[ ]
three calibration standards and a blank?	[✓]	[ ]
• Was $R \geq 0.995$	[✓]	[ ]
3. QCMDL:		
• Was MDL Check performed?	[ ]	[✓]
QCMRL:		
• Were QC/MRL run at the beginning and end of every daily sequence or every 12 hours??	[✓]	[ ]
	[✓]	[ ]
• Was the QC/MRL between 70-130% R? Common Elements can be between the MRL and 2X MRL level (Fe, Al, Mg and Ca)	[✓]	[ ]
4. Initial Calibration Verification (ICV):		
• Is the mid level (2nd source) recovery within 90 - 110%?		
5. Initial Calibration Blank (ICP):		

	Yes	No
• Were analytes in the blank ≤ 1/2 MRL?	[✓]	[ ]

6. Interelement Check Standard:

• Was ICS-A (interferents only) conducted at the beginning of analytical sequence?	[✓]	[ ]
• Was ICS-AB results within QC limits (80-120)?	[✓]	[ ]

7. Continuing calibration Blank (CCB):

• Was CCB conducted every 10 samples?	[✓]	[ ]
• Was CCB conducted at end of the analytical sequence?	[✓]	[ ]
• Were analytes ≤ 1/2 MRL?	[✓]	[ ]

8. Continuing Calibration Verification (CCV):

• Was CCV conducted every 10 samples?	[✓]	[ ]
• Was CCV conducted at end of the analytical sequence?	[✓]	[ ]
• Was the %R between 90-110?	[✓]	[ ]

9. Sample Analysis:

• Were samples with levels higher than the calibration range (E), diluted and re-analyzed?	[ ] N/A	[ ]

10. Sample Quality Control:

• Method Blanks: Were target analytes ≤ 1/2 MRL?	[✓]	[ ]
• LCS: Were the percent recoveries for LCS within the limits?	[✓]	[ ]
• MS: Were the percent recoveries within limits?	[ ]	[✓]
• MD: Were the RPDs within control limits?	[ ] N/A	[ ]

11. Serial Dilution:

• Was serial dilution (1:4) conducted when needed?	[✓]	[ ]

	Yes	No
• Was there an agreement between diluted and undiluted results (<10%)?	[ ]	[✓]

12. Method of Standard Addition (MSA):

• Was MSA performed on samples suspected of matrix effect (R ≥ 0.995)?	[ ]	N/A	[ ]

13. Comments (attach additional sheets if necessary): MT Hg
0695S-0001M-0001-SO → 100mL, 1.12g, 0.56g
0695B-0013M-0001-SO → " / 1.1g / "

Tune Outliers
(3) Ba (15.469%)
→ -0001M- and -0013M-

Duplicate Outliers
Ca (21%) x2 → -0001M-

ICSH Detects
Sb 0.259 µg/L → -0001M-
Ag 0.095 " → "
Sb 0.259 " → -0013M-
Cd 0.249 " → "
Ag 0.095 " → "

MS Outliers
-0001M- Sb (22%), As (72%), Cd (79%), Cu (75%), Sc (64%), Sb (21%), As (78%), Cd (79%), Cu (31%), Sc (72%)
-0013N- Sb (21%), Ca (69%) Sc (71%)

SD outliers
Ca (11%) (12%) → -0001M-

Field blank detect
070-0057-0001 Source Water
Na 1600 µg/L → -0001M-
076-0067-001ER "
Tl 0.75 µg/L →

Validated/Reviewed by:

Signature: [signature]

Date: 6/11/14

Name: Michael Cherny

ICP METALS ANALYSIS (6010) CHECKLIST

07355 - 0002m
0735B - 0009m
0735B - 0016m
0735B - 0038m

Project Name: RVAAP OR Site 73

Laboratory: _____

Batch Number(s): _____

Sample Delivery Group: 17422, 18441, 22648, 22663

	Yes	No
1. Holding Time:		
• Were samples analyzed within holding time (6-Months)?	[N]	[ ]
2. Initial Calibration:		
• Did the initial calibration consist of		
One calibration standard and a blank?	[N]	[ ]
three calibration standards and a blank?	[N]	[ ]
• Was R ≥ 0.995	[N]	[ ]
3. QCMDL:		
• Was MDL Check performed?	[ ]	[N]
QCMRL:		
• Were QC/MRL run at the beginning and end of every daily sequence or every 12 hours??	[N]	[ ]
• Was the QC/MRL between 70-130% R? Common Elements can be between the MRL and 2X MRL level (Fe, Al, Mg and Ca)	[N]	[ ]
4. Initial Calibration Verification (ICV):		
• Is the mid level (2nd source) recovery within 90 - 110%?	[N]	[ ]
5. Initial Calibration Blank (ICP):		

	Yes	No
• Were analytes in the blank ≤ 1/2 MRL?	[Y]	[ ]
6. Interelement Check Standard:		
• Was ICS-A (interferents only) conducted at the beginning of analytical sequence?	[Y]	[ ]
• Was ICS-AB results within QC limits (80-120)?	[N]	[ ]
7. Continuing calibration Blank (CCB):		
• Was CCB conducted every 10 samples?	[Y]	[ ]
• Was CCB conducted at end of the analytical sequence?	[Y]	[ ]
• Were analytes ≤ 1/2 MRL?	[ ]	[N]
8. Continuing Calibration Verification (CCV):		
• Was CCV conducted every 10 samples?	[Y]	[ ]
• Was CCV conducted at end of the analytical sequence?	[Y]	[ ]
• Was the %R between 90-110?	[N]	[ ]
9. Sample Analysis:		
• Were samples with levels higher than the calibration range (E), diluted and re-analyzed? N/A	[ ]	[ ]
10. Sample Quality Control:		
• Method Blanks: Were target analytes ≤ 1/2 MRL?	[ ]	[N]
• LCS: Were the percent recoveries for LCS within the limits?	[N]	[ ]
• MS: Were the percent recoveries within limits?	[ ]	[N]
• MD: Were the RPDs within control limits?	[N]	[ ]
11. Serial Dilution:		
• Was serial dilution (1:4) conducted when needed?	[N]	[ ]

	Yes	No
• Was there an agreement between diluted and undiluted results (<10%)?	~~Yes~~	~~No~~

12. Method of Standard Addition (MSA):

• Was MSA performed on samples suspected of matrix effect (R ≥ 0.995)?	W/A [ ]	[ ]

13. Comments (attach additional sheets if necessary):

CCB Sb = 0.342 @ 0002M @ LOD
Tl = 0.448 " " "
Hg = 0.0276 mg/kg " " level

0038M
- 0795B-0024M Sb (21), Zn (71), Se (57) — Dup, SD
- 0735B-0040M As (63), Sb (46), Zn (68), Se (75) — Dup, SD
- MS 0795B-0015M Sb (25) Zn (74), Se (70) — Dup

0016 DUP, PDS SD
- ~~MS 0~~
- MS 0795B-0072M } As (62), Be (78), Ca (49), Cu (77), Sb (30), Zn (68), Se (66)
- 0795B-0070M } ~~Hg~~ ICPMS As (78), Be (79), Sb (30), Zn (75), Se (71)
- MS 0795B-0061M } +ICPMS Ca (73) Sb (27), Se (60)

0009M
- MS 0735B-0026 As (69), Ca (74), Cu (75), Sb (20), Tl (75), Se (73) — PDS, dup, SD
- 0735B-0007 Cr (125), Sb (21), V (137), Ic (150) — Dup
- MS/ 0765S-0020M Sb (25), As (70), Se (71) } 0002M PDS, DUP, SD
- 0735S-0003M Sb (25), Se (72) } DUP (Hg)

ICSA Cd = 0.315 mg/L 0009M ~~Se = 0.385~~ ~~Se = 0.972~~
ICSA ~~Sb = 0.535 Be = 0.11~~, Cd = 0.49, ~~Cu = 1.6~~, Tl = 0.177 — 0016M

Validated/Reviewed by:

Signature: P. Meeks Date: 6/1/14

Name: P. Meeks

→ 0061M Dup Ca(29)
0061M SD Be (18), Zn (11)
0072M SD Zn (12)
0070M SD Be (20)

ICP METALS ANALYSIS (6010) CHECKLIST

07458-0010-0001

Project Name: RVAAP CR site 74

Laboratory: TA N. Canton

Batch Number(s): _____

Sample Delivery Group: 22804

	Yes	No
1. Holding Time:		
• Were samples analyzed within holding time (6-Months)?	[N]	[ ]
2. Initial Calibration:		
• Did the initial calibration consist of		
One calibration standard and a blank?	[N]	[ ]
three calibration standards and a blank?	[ ]	[ ]
• Was R ≥ 0.995	[N]	[ ]
3. QCMDL:		
• Was MDL Check performed?	[ ]	[N]
QCMRL:		
• Were QC/MRL run at the beginning and end of every daily sequence or every 12 hours??	[ ]	[ ]
	[ ]	[N]
• Was the QC/MRL between 70-130% R? Common Elements can be between the MRL and 2X MRL level (Fe, Al, Mg and Ca)	[N]	[ ]
4. Initial Calibration Verification (ICV):		
• Is the mid level (2nd source) recovery within 90 - 110%?		
5. Initial Calibration Blank (ICP):		

	Yes	No
• Were analytes in the blank ≤ 1/2 MRL?	[ ]	[ ]

6. Interelement Check Standard:

• Was ICS-A (interferents only) conducted at the beginning of analytical sequence?	[ ]	[ ]
• Was ICS-AB results within QC limits (80-120)?	[ ]	[ ]

7. Continuing calibration Blank (CCB):

• Was CCB conducted every 10 samples?	[ ]	[ ]
• Was CCB conducted at end of the analytical sequence?	[ ]	[ ]
• Were analytes ≤ 1/2 MRL?	[ ]	[ ]

8. Continuing Calibration Verification (CCV):

• Was CCV conducted every 10 samples?	[ ]	[ ]
• Was CCV conducted at end of the analytical sequence?	[ ]	[ ]
• Was the %R between 90-110?	[ ]	[ ]

9. Sample Analysis:

• Were samples with levels higher than the calibration range (E), diluted and re-analyzed? N/A	[ ]	[ ]

10. Sample Quality Control:

• Method Blanks: Were target analytes ≤ 1/2 MRL?	[ ]	[ ]
• LCS: Were the percent recoveries for LCS within the limits?	[ ]	[ ]
• MS: Were the percent recoveries within limits? none	[ ]	[ ]
• MD: Were the RPDs within control limits? ↓	[ ]	[ ]

11. Serial Dilution:

• Was serial dilution (1:4) conducted when needed? none	[ ]	[ ]

	Yes	No
• Was there an agreement between diluted and undiluted results (<10%)?	None [ ]	[ ]

12. Method of Standard Addition (MSA):

• Was MSA performed on samples suspected of matrix effect ($R \geq 0.995$)?	[ ] N/A	[ ]

13. Comments (attach additional sheets if necessary):

ICSA Cd = 0.271, Se = 0.553, Ag = 0.195, ~~BA = 5.37~~

MS ~~0719RN-0317-0001-RN~~ none

~~Hg~~ CRI = 65% VJ

Validated/Reviewed by:

Signature: P. Mks Date: 6/11/14

Name: P. Meeks

0.60 10:27 4/19
1.00 13:29 5/7

ICP METALS ANALYSIS (~~6010~~) CHECKLIST 6020 + 7471

Project Name: RVAAP CR Site 76

Laboratory: TA North Canton

Batch Number(s): _____

Sample Delivery Group: 240-17317-1, 240-17422-1, 240-18544-1

	Yes	No
1. Holding Time:		
• Were samples analyzed within holding time (6-Months)?	[✓]	[ ]
2. Initial Calibration:		
• Did the initial calibration consist of		
One calibration standard and a blank?	[✓]	[ ]
three calibration standards and a blank?	[ ]	[ ]
• ~~Was R ≥ 0.995~~	[✓]	[ ]
3. QCMDL:		
• Was MDL Check performed?	[ ]	[✓]
~~QCMRL~~:		
• Were QC/MRL run at the beginning and end of every daily sequence or every 12 hours??	[✓]	[ ]
• Was the QC/MRL between ~~70-130%~~ 80-120% R? Common Elements can be between the MRL and 2X MRL level (Fe, Al, Mg and Ca)	[ ]	[✓]
4. Initial Calibration Verification (ICV):	[✓]	[ ]
• ~~Is the mid level (2nd source) recovery within 90 - 110%?~~		
5. Initial Calibration Blank (ICP):		

	Yes	No
• Were analytes in the blank ≤ 1/2 MRL?	[✓]	[ ]

6. Interelement Check Standard:

• Was ICS-A (interferents only) conducted at the beginning of analytical sequence?	[✓]	[ ]
• Was ICS-AB results within QC limits (80-120)?	[✓]	[ ]

7. Continuing calibration Blank (CCB):

• Was CCB conducted every 10 samples?	[✓]	[ ]
• Was CCB conducted at end of the analytical sequence?	[✓]	[ ]
• Were analytes ≤ 1/2 MRL?	[ ]	[✓] but okay

8. Continuing Calibration Verification (CCV):

• Was CCV conducted every 10 samples?	[✓]	[ ]
• Was CCV conducted at end of the analytical sequence?	[✓]	[ ]
• Was the %R between 90-110?	[✓]	[ ]

9. Sample Analysis:

• Were samples with levels higher than the calibration range (E), diluted and re-analyzed? 5x	[✓]	[ ]

10. Sample Quality Control:

• Method Blanks: Were target analytes ≤ 1/2 MRL?	[ ]	[✓]
• LCS: Were the percent recoveries for LCS within the limits?	[✓]	[ ]
• MS: Were the percent recoveries within limits?	[ ]	[✓]
• MD: Were the RPDs within control limits?	[ ] N/A	[ ]

11. Serial Dilution:

• Was serial dilution (1:4) conducted when needed?	[✓]	[ ]

	Yes	No
• Was there an agreement between diluted and undiluted results (<10%)?	[ ]	[✓]

12. Method of Standard Addition (MSA):

• Was MSA performed on samples suspected of matrix effect (R ≥ 0.995)?	[ ] N/A	[ ]

13. Comments (attach additional sheets if necessary):

(1) SDG: 240-17317-1 : 0765D-0009-0001-SD → 1.04g : 1L : .63g
(2) 240-17422-1 : 0765S-0020M-0001-SO → 1.08g : 1L : .66g
(3) 240-18544H : 0765B-0094-0001-SO → 1.12g : 1L : .59g
(4) 076-SB-0096-0001-SO → 1.42g : 1L : .61g
(5) 076-SB-0102M-0001-SO → 1.32g : 1L : .65g
(6) 076-SB-0114H-0001-SO → 1.1g : 1L : .62g

Tune outliers:
78Se : 20.39% (1)
: 11.59% (2)
137Ba : 19.32% (3),(4),(5)
19.30% (6)
138Ba : 7.81% (3),(4),(5)
6.88% (6)

MRL outlier:
Tl at 121% (2)

Method blank detects:
0.027 mg/kg → (1)
0.0276 mg/kg → (2)

Duplicate outliers:
-0765D-0009-0001
Cr 23% (1)
-072SB-0063-0001-SO
Mn 36% (3),(4),(5),(6)
-0765B-0090M-0001-SO
Pb 24% (3),(4),(5),(6)

Validated/Reviewed by:

Signature: [signature] Date: 4/27/14

Name: Michael Cherny

Matrix spike outliers:

0685S-0003M-0001-SO (1)
(Sb, 25%), (Ni, 134%)

0765D-0009-0001-SO (1)
(Sb, 30%), (Ca, 143%), (Ni, 71%)
(K, 128%), (V, 122%)

0765S-0020M-0001-SO (2)
(Sb, 25%), (As, 70%), (Se, 71%)

0735S-0003M-0001-SO (2)
(Sb, 25%), (Se, 72%)

0685D-0009-0001-SO (2)
(Sb, 23%), (As, 59%), (Se, 71%)

0725B-0063-0001-SO (3), (4), (5), (6)
(Ag, 39%), (As, 0%), (Ca, 193%)
(Cd, 60%), (Cr, 79%), (Co, 52%)
(Cu, 16%), (Ni, 39%), (Sb, 28%)
(K, 70%), (Se, 25%)

0765B-0090M-0001-SO (3), (4), (5), (6)
(As, 78%), (Sb, 25%), (Se, 71%)

0765B-0091M-0001-SO (3), (4), (5), (6)
(Sb, 26%), (Se, 7%)

0765B-0100M-0001-SO (3), (4), (5), (6)
(Be, 7%), (Sb, 19%), (K, 74%)
(Se, 72%)

Serial Dilution Outliers:
(3), (4), (5), (6)
LD (Zn, 11%)

89Y not spiked
in (3), (4), (5), (6)

Sb, Ba, Pb and Tl
from 5x in (1)

Field QC outliers
070-0057-0001
source water
- Na 1600 µg/L

076-0067-0001-ER
- Tl 0.75 ng/L

ICP METALS ANALYSIS (6010) CHECKLIST

Project Name: RVAAP CR Site 78 0785B-0008M (-8) 0785B-0016M (-14)

Laboratory: TA - N Canton

Batch Number(s): _____

Sample Delivery Group: 22559

	Yes	No
1. Holding Time:		
• Were samples analyzed within holding time (6-Months)?	[Y]	[ ]
2. Initial Calibration:		
• Did the initial calibration consist of		
One calibration standard and a blank?	[Y]	[ ]
three calibration standards and a blank?	[ ]	[ ]
• Was $R \geq 0.995$	[ ]	[ ]
3. QCMDL:		
• Was MDL Check performed?	[ ]	[N]
QCMRL:		
• Were QC/MRL run at the beginning and end of every daily sequence or every 12 hours??	[Y]	[ ]
	[Y]	[ ]
• Was the QC/MRL between 70-130% R? Common Elements can be between the MRL and 2X MRL level (Fe, Al, Mg and Ca)	[Y]	[ ]
4. Initial Calibration Verification (ICV):		
• Is the mid level (2nd source) recovery within 90 - 110%?		
5. Initial Calibration Blank (ICP):		

	Yes	No
• Were analytes in the blank ≤ 1/2 MRL?	[N]	[ ]
6. Interelement Check Standard:		
• Was ICS-A (interferents only) conducted at the beginning of analytical sequence?	[N]	[ ]
• Was ICS-AB results within QC limits (80-120)?	[N]	[ ]
7. Continuing calibration Blank (CCB):		
• Was CCB conducted every 10 samples?	[N]	[ ]
• Was CCB conducted at end of the analytical sequence?	[N]	[ ]
• Were analytes ≤ 1/2 MRL?	[ ]	[N]
8. Continuing Calibration Verification (CCV):		
• Was CCV conducted every 10 samples?	[N]	[ ]
• Was CCV conducted at end of the analytical sequence?	[N]	[ ]
• Was the %R between 90-110?	[N]	[ ]
9. Sample Analysis:		
• Were samples with levels higher than the calibration range (E), diluted and re-analyzed? N/A	[ ]	[ ]
10. Sample Quality Control:		
• Method Blanks: Were target analytes ≤ 1/2 MRL?	[N]	[ ]
• LCS: Were the percent recoveries for LCS within the limits?	[N]	[ ]
• MS: Were the percent recoveries within limits?	[ ]	[N]
• MD: Were the RPDs within control limits?	[N]	[ ]
11. Serial Dilution:		
• Was serial dilution (1:4) conducted when needed?	[N]	[ ]

	Yes	No
• Was there an agreement between diluted and undiluted results (<10%)?	[ ]	[ ]

12. Method of Standard Addition (MSA):

• Was MSA performed on samples suspected of matrix effect ($R \geq 0.995$)?	[ ] N/A	[ ]

13. Comments (attach additional sheets if necessary):

MS 6M | 15 M all 31M Hg 6M: As(72), Mn(122) Sb(68), Se(38)
Dup | SD " " OK 15m As(67), Sb(69), Se(51)

ICSA ~~Cd = 0.27 w/ 8m~~ only Fe ↑ errors

MB | CCB none sutf

Validated/Reviewed by:

Signature: P. M

Date: 6/9/17

Name: P. Meeks

-8 4/29 12:21
-14 4/29 05:02

ICP METALS ANALYSIS (6010) CHECKLIST

0795B-0247M -19 68866
0234M -25 68477
0236M -27 68777
0245M -1 68111
0247M -4 68111
0252M -10 68111
0267M -20 68111
0269M -22 68111
0272M -26 68272

Project Name: RVAAP CR Sik 79

Laboratory: TA-N Canton

Batch Number(s): _____ 0795W-0311

Sample Delivery Group: 22381 22281, 22274, 22662 0795D-0305

	Yes	No
1. Holding Time:		
• Were samples analyzed within holding time (6-Months)?	[ ]	[ ]
2. Initial Calibration:		
• Did the initial calibration consist of		
One calibration standard and a blank?	[ ]	[ ]
three calibration standards and a blank?	[ ]	[ ]
• Was R ≥ 0.995	[ ]	[ ]
3. QCMDL:		
• Was MDL Check performed?	[ ]	[ ]
QCMRL:		
• Were QC/MRL run at the beginning and end of every daily sequence or every 12 hours??	[ ]	[ ]
• Was the QC/MRL between 70-130% R? Common Elements can be between the MRL and 2X MRL level (Fe, Al, Mg and Ca)	[ ]	[ ]
4. Initial Calibration Verification (ICV):		
• Is the mid level (2nd source) recovery within 90 - 110%?		
5. Initial Calibration Blank (ICP):		

	Yes	No
• Were analytes in the blank ≤ 1/2 MRL?	[ ]	[ ]
6. Interelement Check Standard:		
• Was ICS-A (interferents only) conducted at the beginning of analytical sequence?	[ ]	[ ]
• Was ICS-AB results within QC limits (80-120)?	[ ]	[ ]
7. Continuing calibration Blank (CCB):		
• Was CCB conducted every 10 samples?	[ ]	[ ]
• Was CCB conducted at end of the analytical sequence?	[ ]	[ ]
• Were analytes ≤ 1/2 MRL?	[ ]	[ ]
8. Continuing Calibration Verification (CCV):		
• Was CCV conducted every 10 samples?	[ ]	[ ]
• Was CCV conducted at end of the analytical sequence?	[ ]	[ ]
• Was the %R between 90-110?	[ ]	[ ]
9. Sample Analysis:		
• Were samples with levels higher than the calibration range (E), diluted and re-analyzed?	[ ]	[ ]
10. Sample Quality Control:		
• Method Blanks: Were target analytes ≤ 1/2 MRL?	[ ]	[ ]
• LCS: Were the percent recoveries for LCS within the limits?	[ ]	[ ]
• MS: Were the percent recoveries within limits?	[ ]	[ ]
• MD: Were the RPDs within control limits?	[ ]	[ ]
11. Serial Dilution:		
• Was serial dilution (1:4) conducted when needed?	[ ]	[ ]

	Yes	No
• Was there an agreement between diluted and undiluted results (<10%)?	[ ]	[ ]

12. Method of Standard Addition (MSA):

• Was MSA performed on samples suspected of matrix effect (R ≥ 0.995)? NA	[ ]	[ ]

13. Comments (attach additional sheets if necessary):

Keep → ~~0.11 mg/kg~~ ~~all but -26~~ 281 -1.8

MB Na = 4.67 mg/kg U/B 252M @ level, ~~Se = 1.1 ug/L~~ + CCB Se = ~~2.05 ug/L~~ 272M

~~MB~~ CCB Na = 34.0 ug/L

MS/D 0795B - 0218M Hg > Dups
0214M

MS/D 0151M Ni (79,-), Sb (28,33) Zn (77,-) Se (57,64)

dups < 220M Ba (79,79) Ni (77,-), Sb (26,26), Se (64,64), As (-,77), Cu (-,79)
171M Sb (23,24), Se (70,69)

Dup 220M: Ba (128), Mn (142), Na (70), Pb (66), Tl (> ± RL)

SD: 151M - 01C, 220M ~~Ba (111)~~, 171M ~~Ba (116)~~ Zn (12)

Hg MS 0795D - 0305, 0795B - 0264M

ICPMS MS 0795D-0305 Sb (49,) PDS 01C Dup - 01C SD - 01C
0795B-0264M (Sb (27,) " " Dup - Ca (82%) SD - 01C

MB Se = -2.8 w/ SD

Tune Ba138 = 6.52 w/ SD

CCB ~~MB~~ Pb = 0.232 ug/L w/ SW U @ LOD

MS 0311 SW Hg + ICPMS + PDS + DUP/SD

Validated/Reviewed by:

Signature: P. Meeks Date: 6/18/14

Name: P. Meeks

~~Hg = 0.050 mg/kg in 0795D-0305 change result~~

.6
1.17
8.17

APPENDIX I

Human Health Risk Assessment Tables

This page intentionally left blank.

Table I-1: Data Aggregation Exposure Point Concentrations for Chemicals of Potential Concern
East Substation Soil

Location ID	Date	Start Depth (ft bgs)	End Depth (ft bgs)	Units	Benzo(a) anthracene	Benzo(a) pyrene	Benzo(b) fluoranthene	Chromium	Dibenz (a,h) anthracene
68-2527-DU2-SS	11/6/2012	0	1	MG/KG	0.041	0.03	0.044	17	0.0033 U
68-FCP-DU1-SS	11/6/2012	0	1	MG/KG	0.013	0.012	0.016	18	0.0033 U
68-RRDD-DU3-SS	11/6/2012	0	1	MG/KG	0.27	0.3	0.47	21	0.045
68-ESSE-DU1-SB	3/29/2013	1	4	MG/KG	0.00335 U	0.00335 U	0.00335 U	15	0.00335 U
68-ESSE-DU2-SB	3/29/2013	1	4	MG/KG	0.0034 U	0.0034 U	0.0034 U	16	0.0034 U
68-ESSE-DU1-SB1	3/29/2013	1	7	MG/KG	0.0033 U	0.0033 U	0.0033 U	16	0.0033 U
68-ESSE-DU1-SB2	3/29/2013	1	7	MG/KG	0.0033 U	0.0033 U	0.0033 U	13	0.0033 U
68-ESSE-DU1-SB3	3/29/2013	1	7	MG/KG	0.0033 U	0.0033 U	0.0033 U	16	0.0033 U
68-ESSE-DU1-SB4	3/29/2013	1	7	MG/KG	0.00335 U	0.039	0.00335 U	14	0.00335 U
68-ESSE-DU1-SB5	3/29/2013	1	7	MG/KG	0.00335 U	0.00335 U	0.00335 U	15	0.00335 U
68-ESSE-DU2-SB1	3/29/2013	1	7	MG/KG	0.0033 U	0.0033 U	0.0033 U	15	0.0033 U
68-ESSE-DU2-SB2	3/29/2013	1	7	MG/KG	0.0033 U	0.0033 U	0.0033 U	16	0.0033 U
68-ESSE-DU2-SB4	3/29/2013	1	7	MG/KG	0.00335 U	0.00335 U	0.00335 U	16	0.00335 U
68-ESSE-DU1-SB	3/29/2013	4	7	MG/KG	0.0033 U	0.0033 U	0.0033 U	15	0.0033 U
68-ESSE-DU2-SB	3/29/2013	4	7	MG/KG	0.00335 U	0.00335 U	0.00335 U	16	0.00335 U
68-ESSE-DU1-SB1	3/29/2013	7	13	MG/KG	0.00335 U	0.00335 U	0.0051 J	15	0.00335 U
Surface Soils 0-1 ft bgs									
Frequency of Detection					100	100	100	100	33
Minimum Detected Concentration	0-1				0.013	0.012	0.016	17	0.045
Maximum Detected Concentration	0-1				0.270	0.300	0.470	21	0.045
Average	0-1				0.11	0.11	0.18	18.7	0.017
Deep Surface Soils 0-4 ft bgs									
Frequency of Detection					23	9	18	100	9
Minimum Detected Concentration	0-4				0.013	0.039	0.016	13	0.045
Maximum Detected Concentration	0-4				0.270	0.039	0.470	21	0.045
Average	0-4				0.0275	0.0316	0.0433	16	0.0065
Subsurface Soils 4-7 ft bgs									
Frequency of Detection					NA	10	NA	NA	NA
Minimum Detected Concentration	4-7				NA	0.0033	NA	NA	NA
Maximum Detected Concentration	4-7				NA	0.039	NA	NA	NA
Average	4-7				NA	0.0069	NA	NA	NA
Subsurface Soils 1-13 ft bgs									
Frequency of Detection					NA	8	NA	NA	NA
Minimum Detected Concentration	1-13				NA	0.0033	NA	NA	NA
Maximum Detected Concentration	1-13				NA	0.039	NA	NA	NA
Average	1-13				NA	0.0061	NA	NA	NA

Notes:

Results are in milligrams per kilogram (mg/kg)

J = Estimated: The analyte was positively identified; the quantitation is an estimation

U = Analyte was not detected. Value presented represents 1/2 the laboratory reporting limit.

ft bgs = Feet below ground surface

NA = Not applicable, not selected as a COPC.

Prepared by: LCG 4/22/2014

Checked by: BJR 4/29/2014

Table I-2: Data Aggregation Exposure Point Concentrations for Chemicals of Potential Concern
West Substation Soil

Location ID	Date	Start Depth (ft bgs)	End Depth (ft bgs)	Units	Benzo(a) anthracene	Benzo(a) pyrene	Benzo(b) fluoranthene	Chromium	Cobalt	Dibenz(a,h) anthracene
68-FTP-DU1-SS	11/6/2012	0	1	MG/KG	0.17	0.15	0.3	21	7.8	0.032
68-2828-DU2-SS	11/6/2012	0	1	MG/KG	0.16	0.16	0.41	18	7.4	0.037
68-FBDD-DU3-SS	11/6/2012	0	1	MG/KG	0.27	0.33 J	0.52	22	13	0.057
68-FCP-DU1-SS	11/6/2012	0	1	MG/KG	0.013	0.012	0.016	18	9.7	0.0033 U
68-RRDD-DU3-SS	11/6/2012	0	1	MG/KG	0.27	0.3	0.47	21	9.9	0.045
68-ESSW-DU1-SB	3/29/2013	1	4	MG/KG	0.065	0.044	0.11	15	9.9	0.0165 U
68-ESSW-DU1-SB3	3/29/2013	1	4	MG/KG	0.08	0.07	0.14	16	10	0.0165 U
68-ESSW-DU2-SB	3/29/2013	1	4	MG/KG	0.00335 U	0.00335 U	0.00335 U	19	13	0.00335 U
68-ESSW-DU1-SB1	3/29/2013	1	7	MG/KG	0.0165 U	0.0165 U	0.0165 U	18	12	0.0165 U
68-ESSW-DU1-SB2	3/29/2013	1	7	MG/KG	0.0165 U	0.0165 U	0.0165 U	16	11	0.0165 U
68-ESSW-DU1-SB4	3/29/2013	1	7	MG/KG	0.11	0.094	0.2	14	11	0.0165 U
68-ESSW-DU1-SB5	3/29/2013	1	7	MG/KG	0.12	0.083	0.14	12	9.1	0.017 U
68-ESSW-DU2-SB3	3/29/2013	1	7	MG/KG	0.0084	0.0079	0.02	15	10	0.00335 U
68-ESSW-DU2-SB5	3/29/2013	1	7	MG/KG	0.0165 U	0.0165 U	0.021 J	14	8.8	0.0165 U
68-ESSW-DU2-SB1	4/4/2013	1	7	MG/KG	0.0165 U	0.0165 U	0.0165 U	18	12	0.0165 U
68-ESSW-DU1-SB	3/29/2013	4	7	MG/KG	0.017 U	0.017 U	0.021 J	14	10	0.017 U
68-ESSW-DU2-SB	3/29/2013	4	7	MG/KG	0.0055 J	0.0043 J	0.014	11	8.8	0.00335 U
68-ESSW-DU1-SB1	3/29/2013	7	13	MG/KG	0.00385 U	0.00385 U	0.00385 U	13	12	0.00385 U
Surface Soils 0-1 ft bgs										
Frequency of Detection					100	100	100	100	100	80
Minimum Detected Concentration	0-1				0.013	0.012	0.016	18	7	0.003
Maximum Detected Concentration	0-1				0.27	0.33	0.52	22	13	0.057
Average	0-1				0.18	0.19	0.34	20	10	0.035
Deep Surface Soils 0-4 ft bgs										
Frequency of Detection					67	67	73	100	100	27
Minimum Detected Concentration	0-4				0.0084	0.0079	0.016	12	7	0.032
Maximum Detected Concentration	0-4				0.27	0.33	0.52	22	13	0.06
Average	0-4				0.089	0.088	0.160	17	10	0.021
Subsurface Soils 4-7 ft bgs										
Frequency of Detection					NA	44	NA	NA	NA	NA
Minimum Detected Concentration	4-7				NA	0.0043	NA	NA	NA	NA
Maximum Detected Concentration	4-7				NA	0.09	NA	NA	NA	NA
Average	4-7				NA	0.030	NA	NA	NA	NA
Subsurface Soils 1-13 ft bgs										
Frequency of Detection					NA	46	NA	NA	NA	NA
Minimum Detected Concentration	1-13				NA	0.0079	NA	NA	NA	NA
Maximum Detected Concentration	1-13				NA	0.094	NA	NA	NA	NA
Average	1-13				NA	0.030	NA	NA	NA	NA

Notes:

Prepared by: LCG 4/22/2014

Checked by: BJR 4/29/2014

Results are in milligrams per kilogram (mg/kg)

J = Estimated: The analyte was positively identified; the quantitation is an estimation

U = Analyte was not detected. Value presented represents 1/2 the laboratory reporting limit.

ft bgs = Feet below ground surface

NA = Not applicable, not selected as a COPC.

Table I-3: Data Aggregation Exposure Point Concentrations for Chemicals of Potential Concern
Substation No. 3 Soil

Location ID	Date	Start Depth (ft bgs)	End Depth (ft bgs)	Units	Arsenic	Chromium
68-SS3-DU1-SS	11/6/2012	0	1	MG/KG	16	18
68-SS3-DU1-SB	3/29/2013	1	4	MG/KG	8	12
68-SS3-DU1-SB1	3/29/2013	1	7	MG/KG	12	9.5
68-SS3-DU1-SB2	3/29/2013	1	7	MG/KG	11	12
68-SS3-DU1-SB3	3/29/2013	1	7	MG/KG	14	11
68-SS3-DU1-SB4	3/29/2013	1	7	MG/KG	9.5	11
68-SS3-DU1-SB5	3/29/2013	1	7	MG/KG	12	12
68-SS3-DU1-SB	3/29/2013	4	7	MG/KG	7.8	8.5
Surface Soils 0-1 ft bgs						
Frequency of Detection					100	100
Minimum Detected Concentration			0-1		16	18
Maximum Detected Concentration			0-1		16	18
Average			0-1		16	18
Deep Surface Soils 0-4 ft bgs						
Frequency of Detection					100	100
Minimum Detected Concentration			0-4		8.0	9.5
Maximum Detected Concentration			0-4		16	18
Average			0-4		12	12.2
Subsurface Soils 4-7 ft bgs						
Frequency of Detection					NA	NA
Minimum Detected Concentration			4-7		NA	NA
Maximum Detected Concentration			4-7		NA	NA
Average			4-7		NA	NA
Subsurface Soils 1-13 ft bgs						
Frequency of Detection					NA	NA
Minimum Detected Concentration			1-13		NA	NA
Maximum Detected Concentration			1-13		NA	NA
Average			1-13		NA	NA

Notes:

Prepared by: LCG 4/22/2014

Checked by: BJR 4/29/2014

Results are in milligrams per kilogram (mg/kg)

J = Estimated: The analyte was positively identified; the quantitation is an estimation

U = Analyte was not detected. Value presented represents 1/2 the laboratory reporting limit.

ft bgs = Feet below ground surface

NA = Not applicable, not selected as a COPC.

Table I-4: Data Aggregation Exposure Point Concentrations for Chemicals of Potential Concern
Substation No. 3 Sediment

Location ID	Date	Start Depth (ft bgs)	End Depth (ft bgs)	Units	Benzo(a) pyrene	Chromium
68-SS3-SD2	11/8/2012	0	1	MG/KG	0.022	12
68-SS3-SD3	11/8/2012	0	1	MG/KG	0.02	20
68-SS3-SD	11/8/2012	0	1	MG/KG	0.026	21
Surface Soils 0-1 ft bgs						
				Frequency of Detection	100	100
				Minimum Detected Concentration 0-1	0.020	12
				Maximum Detected Concentration 0-1	0.026	21
				Average 0-1	0.023	18

Notes:

Prepared by: LCG 4/22/2014

Results are in milligrams per kilogram (mg/kg)

Checked by: BJR 4/29/2014

J = Estimated: The analyte was positively identified; the quantitation is an estimation

U = Analyte was not detected. Value presented represents 1/2 the laboratory reporting limit.

ft bgs = Feet below ground surface

NA = Not applicable, not selected as a COPC.

Table I-5: COC Selection for the Resident Receptor
Surface Soils
East Substation

ESSE Surface Soils Residential Scenario COPC		Facility-Wide Clean Up Goals (FWCUGs)[1]	Exposure Point Concentration	Ratio of EPC to FWCUG	Carcinogenic?	Non-Cancer Target Organ	Retain as COC	Justification
Benzo(a)anthracene	mg/kg	2.21	0.108	0.049	Yes	NA	No	Ratio <1.0
Benzo(a)pyrene	mg/kg	0.22	0.114	0.52	Yes	NA	No	Ratio <1.0
Benzo(b)fluoranthene	mg/kg	2.21	0.177	0.08	Yes	NA	No	Ratio <1.0
Chromium (as CrVI)	mg/kg	81,473	19	0.00023	No	NOAEL	No	Ratio <1.0
Dibenz(a,h)anthracene	mg/kg	0.22	0.017	0.08	Yes	NA	No	Ratio <1.0
Total Sum of Ratios [2]				NA				

1. FWCUG using a cancer risk factor of 10-5 or Non Cancer Hazard Index of 1.0 using the Resident Scenario.
2. Sum of Ratios calculated for any target organ with an individual ratio of EPC to FWCUG >1 or where the sum of ratios for the EPC to FWCUG >1.

NA = Not applicable; cannot sum ratios of non cancer effects to different target organs.

COC = Chemical of Concern

Prepard by: LCG 4/16/2014
Checked by: BJR 4/29/2014

Table I-6: COC Selection for the Resident Receptor
Subsurface Soils
East Substation

ESSE Subsurface Soils Residential Scenario COPC		Facility-Wide Clean Up Goals (FWCUGs)[1]	Exposure Point Concentration	Ratio of EPC to FWCUG	Carcinogenic?	Non-Cancer Target Organ	Retain as COC	Justification
Benzo(a)pyrene	mg/kg	0.2	0.006	0.03	Yes	NA	No	Ratio <1.0
Total Sum of Ratios [2]				NA				

1. FWCUG using a cancer risk factor of 10-5 or Non Cancer Hazard Index of 1.0 using the Resident Scenario.
2. Sum of Ratios calculated for any target organ with an individual ratio of EPC to FWCUG >1 or where the sum of ratios for the EPC to FWCUG >1.

NA = Not applicable; cannot sum ratios of non cancer effects to different target organs.

COC = Chemical of Concern

Prepard by: LCG 4/16/2014
Checked by: BJR 4/29/2014

Table I-7: COC Selection for the Resident Receptor
Surface Soils
West Substation

ESSW Surface Soils Residential Scenario COPC		Facility-Wide Clean Up Goals (FWCUGs)[1]	Exposure Point Concentration	Ratio of EPC to FWCUG	% Contribution to Total Sum	Carcinogenic?	Non-Cancer Target Organ	Retain as COC	Justification
COPC									
Benzo(a)anthracene	mg/kg	2.2	0.20	0.09	6	Yes	NA	No	Ratio <1.0
Benzo(a)pyrene	mg/kg	0.22	0.21	0.97	67	Yes	NA	Yes	Ratio >1.0
Benzo(b)fluoranthene	mg/kg	2.2	0.41	0.19	13	Yes	NA	Yes	Ratio >1.0
Chromium	mg/kg	81,473	20.33	0.00025		No	NOAEL	No	Ratio <1.0
Cobalt	mg/kg	1,310	9.40	0.007		No	Blood	No	Ratio <1.0
Dibenz(a,h)anthracene	mg/kg	0.22	0.042	0.19	13	Yes	NA	Yes	Ratio >1.0
								No	
Total Sum of Ratios (ELCR) [2]				1.4					

1. FWCUG using a cancer risk factor of 10-5 or Non Cancer Hazard Index of 1.0 using the Resident Scenario.
2. Sum of Ratios calculated for any target organ with an individual ratio of EPC to FWCUG >1 or where the sum of ratios for the EPC to FWCUG >1.

NOAEL = No Observable Adverse Effect Level

NA = Not applicable; cannot sum ratios of non cancer effects to different target organs.

COC = Chemical of Concern

Prepard by: LCG 4/16/2014
Checked by: BJR 4/29/2014

Table I-8: COC Selection for the Resident Receptor
Subsurface Soils
West Substation

ESSW Subsurface Soils Residential Scenario COPC		Facility-Wide Clean Up Goals (FWCUGs)[1]	Exposure Point Concentration	Ratio of EPC to FWCUG	Carcinogenic?	Non-Cancer Target Organ	Retain as COC	Justification
COPC								
Benzo(a)pyrene	mg/kg	0.22	0.03	0.14	Yes	NA	No	Ratio <1.0
4,6-Dinitro-2-Methylphenol	mg/kg	4.9	0.31	0.0636	No	NA	No	Ratio <1.0
Total Sum of Ratios [2]				NA				

1. FWCUG using a cancer risk factor of 10-5 or Non Cancer Hazard Index of 1.0 using the Resident Scenario.
2. Sum of Ratios calculated for any target organ with an individual ratio of EPC to FWCUG >1 or where the sum of ratios for the EPC to FWCUG >1.

Prepard by: LCG 4/16/2014
Checked by: BJR 4/29/2014

Table I-9: COC Selection for the Resident Receptor
Surface Soils
Substation No.3

SS3 Surface Soils Residential Scenario COPC		Facility-Wide Clean Up Goals (FWCUGs)[1]	Exposure Point Concentration	Ratio of EPC to FWCUG	% Contribution to Total Sum	Carcinogenic?	Non-Cancer Target Organ	Retain as COC	Justification
COPC									
Arsenic	mg/kg	4.3	16	3.76	100	No	Skin	Yes	Ratio >1.0
Chromium	mg/kg	81,473	18	0.00022		No	NOAEL	No	Ratio <1.0
Total Sum of Ratios (ELCR) [2]				3.76					

1. FWCUG using a cancer risk factor of 10-5 or Non Cancer Hazard Index of 1.0 using the Resident Scenario.
2. Sum of Ratios calculated for any target organ with an individual ratio of EPC to FWCUG >1 or where the sum of ratios for the EPC to FWCUG >1.

NOAEL = No Observable Adverse Effect Level

NA = Not applicable; cannot sum ratios of non cancer effects to different target organs.

ELCR = excess lifetime cancer risk

COC = Chemical of Concern

Prepard by: LCG 4/16/2014
Checked by: BJR 4/29/2014

Table I-10: COC Selection for the Resident Receptor
Sediment
Substation No.3

SS3 Sediment Residential Scenario COPC		Facility-Wide Clean Up Goals (FWCUGs)[1]	Exposure Point Concentration	Ratio of EPC to FWCUG	Carcinogenic?	Non-Cancer Target Organ	Retain as COC	Justification
Benzo(a)pyrene	mg/kg	0.22	0.026	0.12	Yes	NA	No	Ratio <1.0
Chromium, trivalent	mg/kg	81,473	21	0.000258	No	NOAEL	No	Ratio <1.0
Cobalt	mg/kg	1310	12	0.009	No	Blood	No	Ratio <1.0
Total Sum of Ratios [2]				NA				

1. FWCUG using a cancer risk factor of 10-5 or Non Cancer Hazard Index of 1.0 using the Resident Scenario.
2. Sum of Ratios calculated for any target organ with an individual ratio of EPC to FWCUG >1 or where the sum of ratios for the EPC to FWCUG >1.

COC = Chemical of Concern

Prepard by: LCG 4/16/2014
Checked by: BJR 4/29/2014

Table I-11: COC Selection for the National Guard Trainee Receptor
Surface Soils
East Substation

ESSE Surface Soils National Guard Trainee COPC		Facility-Wide Clean Up Goals (FWCUGs)[1]	Exposure Point Concentration	Ratio of EPC to FWCUG	Carcinogenic?	Non-Cancer Target Organ	Retain as COC	Justification
Benzo(a)anthracene	mg/kg	47.7	0.027	0.00058	Yes	NA	No	Ratio <1.0
Benzo(a)pyrene	mg/kg	4.77	0.032	0.0066	Yes	NA	No	Ratio <1.0
Benzo(b)fluoranthene	mg/kg	47.7	0.043	0.0009	Yes	NA	No	Ratio <1.0
Chromium (as CrVI)	mg/kg	1,000,000	16	0.000016	No	NOAEL	No	Ratio <1.0
Dibenz(a,h)anthracene	mg/kg	4.77	0.007	0.0014	Yes	NA	No	Ratio <1.0
Total Sum of Ratios [2]				NA				

1. FWCUG using a cancer risk factor of 10-5 or Non Cancer Hazard Index of 1.0 using the National Guard Trainee Scenario. Commercial/Industrial RSLs are presented when FWCUGs are not available.

2. Sum of Ratios calculated for any target organ with an individual ratio of EPC to FWCUG >1 or where the sum of ratios for the EPC to FWCUG >1.

NA = Not applicable; cannot sum ratios of non cancer effects to different target organs.

ECLR = excess lifetime cancer risk

COC = Chemical of Concern

Prepared by: LCG 4/16/2014
Checked by: BJR 4/29/2014

Table I-12: COC Selection for the National Guard Trainee Receptor
Subsurface Soils
East Substation

ESSE Subsurface Soils National Guard Trainee COPC		Facility-Wide Clean Up Goals (FWCUGs)[1]	Exposure Point Concentration	Ratio of EPC to FWCUG	Carcinogenic?	Non-Cancer Target Organ	Retain as COC	Justification
Benzo(a)pyrene	mg/kg	4.77	0.007	0.0014	Yes	NA	No	Ratio <1.0
Total Sum of Ratios [2]				NA				

Prepared by: LCG 4/16/2014
Checked by: BJR 4/29/2014

1. FWCUG using a cancer risk factor of 10-5 or Non Cancer Hazard Index of 1.0 using the National Guard Trainee Scenario.
2. Sum of Ratios calculated for any target organ with an individual ratio of EPC to FWCUG >1 or where the sum of ratios for the EPC to FWCUG >1.

NA = Not applicable; cannot sum ratios of non cancer effects to different target organs.

ECLR = excess lifetime cance

COC = Chemical of Concern

Table I-13: COC Selection for the National Guard Trainee Receptor
Surface Soils
West Substation

ESSW Surface Soils National Guard Trainee COPC		Facility-Wide Clean Up Goals (FWCUGs)[1]	Exposure Point Concentration	Ratio of EPC to FWCUG	Carcinogenic?	Non-Cancer Target Organ	Retain as COC	Justification
COPC								
Benzo(a)anthracene	mg/kg	47.7	0.081	0.0017	Yes	NA	No	Ratio <1.0
Benzo(a)pyrene	mg/kg	4.77	0.078	0.016	Yes	NA	No	Ratio <1.0
Benzo(b)fluoranthene	mg/kg	47.7	0.15	0.0031	Yes	NA	No	Ratio <1.0
Chromium	mg/kg	1,000,000	16.8	0.000017	No	NOAEL	No	Ratio <1.0
Cobalt	mg/kg	70	10.4	0.15	Yes	Blood	No	Ratio <1.0
Dibenz(a,h)anthracene	mg/kg	4.77	0.020	0.0043	Yes	NA	No	Ratio <1.0
							No	
Total Sum of Ratios [2]				NA				

1. FWCUG using a cancer risk factor of 10-5 or Non Cancer Hazard Index of 1.0 using the National Guard Trainee Scenario.
2. Sum of Ratios calculated for any target organ with an individual ratio of EPC to FWCUG >1 or where the sum of ratios for the EPC to FWCUG >1.

NOAEL = No Observable Adverse Effect Level

NA = Not applicable; cannot sum ratios of non cancer effects to different target organs.

Prepared by: LCG 4/16/2014
Checked by: BJR 4/29/2014

Table I-14: COC Selection for the National Guard Trainee Receptor
Subsurface Soils
West Substation

ESSW Subsurface Soils National Guard Trainee COPC		Facility-Wide Clean Up Goals (FWCUGs)[1]	Exposure Point Concentration	Ratio of EPC to FWCUG	Carcinogenic?	Non-Cancer Target Organ	Retain as COC	Justification
COPC								
Benzo(a)pyrene	mg/kg	4.77	0.030	0.006	Yes	NA	No	Ratio <1.0
4,6-Dinitro-2-Methylphenol	mg/kg	49	0.35	0.0071	No	NA	No	Ratio <1.0
Total Sum of Ratios [2]				NA				

1. FWCUG using a cancer risk factor of 10-5 or Non Cancer Hazard Index of 1.0 using the National Guard Trainee Scenario.
2. Sum of Ratios calculated for any target organ with an individual ratio of EPC to FWCUG >1 or where the sum of ratios for the EPC to FWCUG >1.

COC = Chemical of Concern

Prepared by: LCG 4/16/2014
Checked by: BJR 4/29/2014

Table I-15: COC Selection for the National Guard Trainee Receptor
Surface Soils
Substation No. 3

SS3 Surface Soils National Guard Trainee COPC		Facility-Wide Clean Up Goals (FWCUGs)[1]	Exposure Point Concentration	Ratio of EPC to FWCUG	Carcinogenic?	Non-Cancer Target Organ	Retain as COC	Justification
COPC								
Arsenic	mg/kg	28	12	0.42	Yes	Skin	No	Ratio <1.0
Chromium	mg/kg	1,000,000	12	0.000012	No	NOAEL	No	Ratio <1.0
Total Sum of Ratios [2]				NA				

1. FWCUG using a cancer risk factor of 10-5 or Non Cancer Hazard Index of 1.0 using the National Guard Trainee Scenario.
2. Sum of Ratios calculated for any target organ with an individual ratio of EPC to FWCUG >1 or where the sum of ratios for the EPC to FWCUG >1.

NOAEL = No Observable Adverse Effect Level

NA = Not applicable; cannot sum ratios of non cancer effects to different target organs.

COC = Chemical of Concern

Prepared by: LCG 4/16/2014
Checked by: BJR 4/29/2014

Table I-16: COC Selection for the National Guard Trainee Receptor
Sediment
Substation No. 3

SS3 Sediment National Guard Trainee COPC		Facility-Wide Clean Up Goals (FWCUGs)[1]	Exposure Point Concentration	Ratio of EPC to FWCUG	Carcinogenic?	Non-Cancer Target Organ	Retain as COC	Justification
Benzo(a)pyrene	mg/kg	4.77	0.026	0.01	Yes	NA	No	Ratio <1.0
Chromium, trivalent	mg/kg	1,000,000	21	0.000021	No	NOAEL	No	Ratio <1.0
Total Sum of Ratios [2]				NA				

1. FWCUG using a cancer risk factor of 10-5 or Non Cancer Hazard Index of 1.0 using the National Guard Trainee Scenario.
2. Sum of Ratios calculated for any target organ with an individual ratio of EPC to FWCUG >1 or where the sum of ratios for the EPC to FWCUG >1.

NOAEL = No Observable Adverse Effect Level

NA = Not applicable; cannot sum ratios of non cancer effects to different target organs.

COC = Chemical of Concern

Max Detected concentration used for EPC.

Prepared by: LCG 4/16/2014

Checked by: BJR 4/29/2014

APPENDIX J

Regulatory Correspondence and Comment Response Table

This page intentionally left blank.

OhioEPA

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Craig W. Butler, Director

June 16, 2015

Re: US Army Ravenna Ammunition Plt RVAAP Assessment
Remedial Response
Portage County
267000859221

Mr. Mark Leeper, P.G., MBA
Restoration/Cleanup Program Manager
ARNG Directorate
111 S. George Mason Dr.
Arlington, VA 22204

Subject: Ohio EPA's Review of Draft Remedial Investigation Report, CC-RVAAP-68, Electrical Substations (East, West, No. 3), Project No. 267-000859-221; Notice of Deficiency

Dear Mr. Leeper:

The Ohio Environmental Protection Agency (Ohio EPA), Northeast District Office has reviewed the Draft Site Inspection Report for CC-RVAAP-68, Electrical Substations (East, West, No. 3), dated April 2, 1013. The document was prepared by ECC, under contract no. W912QR-04-D-0039.

Ohio EPA has the following comments. Ohio EPA will review either a response to comments letter or Response to Comments (RTC) table. However, a revised report will need to be completed, prior to final approval of the document:

Comments:

1. It is not clear why the Dilution Attenuation factors, listed in Table 6-4, are not consistent with those listed in the untitled table on line 4338 of the report. In order for the Agency to evaluate the screening process utilized, this needs to be explained.
2. Ohio EPA agrees that naphthalene impact in the vicinity of Substation No. 3 be further investigated as part of RVAAP-66 Facility Wide Ground Water.

If you have any questions or concerns related to this review or would like to schedule a meeting or conference call, please free feel to contact me at (330) 963-1170.

Sincerely,

Edward D'Amato, Project Coordinator
Ohio EPA - Division of Emergency and Remedial Response

ED/nvr

ec: Bob Princic, Supervisor, DERR-NEDO
Justin Burke, DERR-CO
Kevin Sedlak, ARNG
Mark Nichter, USACE
Al Muller, DDAGW, NEDO
Rod Beals, Manager, DERR-NEDO
Katie Tait, OHARNG RTLS
Gregory F. Moore, USACE
Rebecca Haney/Gail Harris, Vista Sciences

This page intentionally left blank.

NATIONAL GUARD BUREAU
111 SOUTH GEORGE MASON DRIVE
ARLINGTON VA 22204-1373

July 6, 2015

Ohio Environmental Protection Agency
DERR-NEDO
Attn: Ed D'Amato
2110 East Aurora Road
Twinsburg, OH 44087-1924

Subject: Former Ravenna Army Ammunition Plant (RVAAP) Restoration Program
Portage/Trumbull Counties, CC RVAAP-68 Electric Substations (East, West, No. 3)
Draft Remedial Investigation Report, Response to Comments, Ohio EPA ID # 267-000-859-221

Dear Mr. D'Amato:

Enclosed, for your review are the responses to the Ohio EPA comments on the *Draft Remedial Investigation Report* in support of the Environmental Remediation Services (ERS) project at Electric Substations (East, West, No 3) of the former Ravenna Army Ammunition Plant (RVAAP) in Portage and Trumbull counties, Ohio. This document was prepared for the US Army Corps of Engineers (USACE) - Louisville District, by ECC under Contract No. W912QR-04-D-0039.

The Army requests Ohio EPA review these comment responses. Upon approval of these responses, the Army will proceed with the formulation of the Final Remedial Investigation Report for CC RVAAP-68.

Please contact the undersigned at (703) 607-7955 or mark.s.leeper.civ@mail.mil if there are issues or concerns with this submission.

Sincerely,

Mark Leeper
RVAAP Restoration Program Manager
Army National Guard Directorate

Attachment

cc: Justin Burke, Ohio EPA, DERR-CO
Rod Beals, Ohio EPA, DERR-NEDO
Bob Princic, Ohio EPA, DERR-NEDO
Katie Tait, OHARNG Camp Ravenna
Kevin Sedlak, ARNG, Camp Ravenna
Greg Moore, USACE Louisville
Eric Cheng, USACE Louisville
Gail Harris, Vista Sciences

This page intentionally left blank.

DRAFT REMEDIAL INVESTIGATION REPORT, REVISION 0
CC RVAAP-68 ELECTRIC SUBSTATIONS (EAST, WEST, NO. 3)
FORMER RAVENNA ARMY AMMUNITION PLANT, PORTAGE AND TRUMBULL COUNTIES, OHIO
COMMENT RESPONSE TABLE
Remedial Investigation Report Issued – 02 April 2015
Ohio EPA Comments Received – 16 June 2015
Response to Comments Issued – 02 July 2015

Comment Number	Page No. / Line No.	New Page or Sheet	Comment	Recommendation	Response
Ohio EPA (Ed D'Amato)					
1	Chapter 6.0 Table 6-4 and 6-5 (line 4338)		It is not clear why the Dilution Attenuation factors, listed in Table 6-4, are not consistent with those listed in the untitled table on line 4338 of the report. In order for the Agency to evaluate the screening process utilized, this needs to be explained.		The Dilution Attenuation Factors (DAFs) in Table 6-4 were incorrect and have been replaced, see attached Table 6-4. Table 6-4 now matches the bottom of Table 6-5 where the AOC-specific DAFs are calculated.
2	General		Ohio EPA agrees that naphthalene impact in the vicinity of Substation No. 3 be further investigated as part of RVAAP-66 Facility Wide Ground Water.		Naphthalene will be investigated as part of RVAAP-66 Facility-Wide Ground Water.
End of Comments					

This page intentionally left blank.

Table 6-4: Initial Contaminant Migration Chemicals of Potential Concern Based on Comparison of Maximum Concentrations of Site-Related Chemicals to Site Soil Screening Levels

SRCs	Maximum Concentration (mg/kg)	Generic SSL (mg/kg)	DAF	Site SSL (DAF*Generic SSL) (mg/kg)	Contaminant Migration COPC? (Max Conc.>Site SSL)	Contaminant Migration COPC Justification
Semivolatile Organic Compounds (SVOCs)						
Benzo(a)anthracene	**0.12**	**0.01**	**1.3**	**0.01**	**Yes**	**Exceeds Site SSL**
Benzo(a)pyrene	**0.09**	**0.024**	**1.3**	**0.03**	**Yes**	**Exceeds Site SSL**
Benzo(b)fluoranthene	**0.20**	**0.035**	**1.3**	**0.05**	**Yes**	**Exceeds Site SSL**
Naphthalene	**0.017**	**0.00047**	**1.3**	**0.0006**	**Yes**	**Exceeds Site SSL**

BOLD - Initial Contmainant Migration COPC that exceeds Site SSL
SSL - Soil Screening Level
RSL - Regional Screening Level
mg/kg - milligrams per kilogram
SRC - Site-Related Chemical
DAF - Dilution Attenuation Factor (Calculated on Table 6-5)
COPC - Chemical of potential concern
> = greater than

This page intentionally left blank.

OhioEPA

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Craig W. Butler, Director

July 13, 2015

Re: US Army Ravenna Ammunition Plt RVAAP Assessment
Remedial Response
Portage County
267000859221

Mr. Mark Leeper, P.G., MBA
Restoration/Cleanup Program Manager
ARNG Directorate
111 S. George Mason Dr.
Arlington, VA 22204

Subject: Ohio EPA's Review of Draft Remedial Investigation Report, CC-RVAAP-68, Electrical Substations (East, West, No. 3), Project No. 267000859221

Dear Mr. Leeper:

The Ohio Environmental Protection Agency (Ohio EPA), Northeast District Office has reviewed the Army's response to Ohio EPA comments on the Draft Site Inspection Report for CC-RVAAP-68, Electrical Substations (East, West, No. 3), dated April 2, 1013. The response was received on July 7, 2015.

Ohio EPA's comments have been adequately addressed. Please submit the document for final approval.

If you have any questions or concerns related to this review or would like to schedule a meeting or conference call, please free feel to contact me at (330) 963-1170.

Sincerely,

Edward D'Amato
Project Coordinator
Ohio EPA - Division of Emergency and Remedial Response

ED/nvr

ec: Bob Princic, Supervisor, DERRNEDO
Rod Beals, Manager, DERR, NEDO
Al Muller, DDAGW, NEDO
Justin Burke, DERR-CO
Katie Tait, OHARNG RTLS
Kevin Sedlak, ARNG
Gregory F. Moore, USACE
Mark Nichter, USACE
Rebecca Haney/Gail Harris, Vista Sciences Corp.

This page intentionally left blank.