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14. ABSTRACT

This document presents a summary of the facility-wide groundwater monitoring conducted in October 2010. Included in the report are:

- Summary of the groundwater elevations and water level measurements taken for each of the wells sampled.
- Analytical summary tables presenting the analytes detected above the method detection limit for this monitoring event.
- QA/QC and data verification reports for the event.

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FINAL
FACILITY-WIDE GROUNDWATER MONITORING PROGRAM

REPORT ON THE OCTOBER 2010 SAMPLING EVENT

RAVENNA ARMY AMMUNITION PLANT,
RAVENNA, OHIO

MARC Contract Number W912QR-04-D-0036
Delivery Order 0006

Prepared for

U.S. Army Corps of Engineers
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March 16, 2011

FWGWMP October 2010 Final Sampling Event Report
Distribution List

Organization	Number of Printed Copies	Number of Electronic Copies
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Ohio EPA – Ohio EPA Twinsburg Office
OHARNG – RTLS/ENV – Ohio Army National Guard Ravenna Training and Logistics Site/Environmental
RVAAP – Ravenna Army Ammunition Plant
USACE – U.S. Army Corps of Engineers
USAEC – U.S. Army Environmental Center
NGB – National Guard Bureau
EQM – Environmental Quality Management, Inc.

TABLE OF CONTENTS

Section Page

VOLUME 1

Table of Contents (cont.)

Section Page

List of Figures

List of Tables

Appendices

VOLUME 2

Appendix

Table of Contents (cont.)

Appendices

PLATES

LIST OF GENERAL ACRONYMS

ADR	Automatic Data Review
AOC	Area of Concern
BRAC	U.S. Army Base Realignment and Closure
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
CLP	Contract Laboratory Program
CUGs	Cleanup Goals
DOD	Department of Defense
EQM	Environmental Quality Management, Inc.
EPA	Environmental Protection Agency
FWGWMP	Facility-Wide Groundwater Monitoring Plan
FWGWMPP	Facility-Wide Groundwater Monitoring Program Plan
FWSAP	Facility-Wide Sampling and Analysis Plan
GOCO	Government Owned, Contractor Operated
HMX	Octogen
IDW	Investigative Derived Waste
IRP	Installation Restoration Program
LCS	Laboratory Control Sample
LCG	Louisville Chemistry Guidelines
MARC	Multiple Award Remediation Contract
MCL	Maximum Contaminant List
MDL	Method Detection Limit
MS/MSD	Matrix spike/matrix spike duplicate
NGB	National Guard Bureau
Ntu	Nephelometric turbidity unit
OHARNG	Ohio Army National Guard
PCB	Polychlorinated biphenyl
PQL	Practical Quantitation Limit
PRG	Preliminary Remediation Goal
QA	Quality Assurance
QAPP	Quality Assurance Project Plan
QC	Quality Control
RCRA	Resource Conservation and Recovery Act
RBC	Risk-Based Cleanup
RDX	Reasearch Department Explosive
RI	Remedial Investigation
RL	Reporting Limit
RSL	Regional Screening Level
RVAAP	Ravenna Army Ammunition Plant
SRC	Site Related Contaminant
SVOC	Semi-volatile Organic Compound
TAL	Target Analyte List
TOC	Top of Casing
USACE	U.S. Army Corps of Engineers
USP&FO	United States Property and Fiscal Officer
VOC	Volatile Organic Compound

LIST OF AREA OF CONCERN ACRONYMS

B12	Building 1200
BKG	Background
CBL	C-Block
CBP	Central Burn Pits
CP	Cobbs Pond
DA2	Demolition Area #2
EBG	Erie Burning Grounds
FBQ	Fuze and Booster Quarry
LNW	Landfill North of Winklepeck
LL	Load Line
MBS	Mustard Burial Site
NACA	National Advisory Committee for Aeronautics
NTA	NACA Test Area
RQL	Ramsdell Quarry Landfill
WBG	Winklepeck Burning Grounds

SECTION 1

INTRODUCTION

1.1 Facility Description

Past Department of Defense (DOD) activities at the Ravenna Army Ammunition Plant (RVAAP) date to 1940 and include the manufacturing, loading, handling and storage of military explosives and ammunition. Until 1999, the RVAAP was identified as a 21,419-acre installation. The property boundary was resurveyed by the Ohio Army National Guard (OHARNG) over a two year period from 2002 and 2003 and the actual total acreage of the property was found to be 21,683.289 acres. As of February 2006, a total of 20,403 acres of the former 21,683 acre RVAAP have been transferred to the United States Property and Fiscal Officer (USP&FO) for Ohio for use by the OHARNG as a military training site. The current RVAAP consists of 1,280 acres in several distinct parcels scattered throughout the confines of the OHARNG Camp Ravenna Joint Military Training Center (Camp Ravenna). The RVAAP and Camp Ravenna are collocated on contiguous parcels of property and the Camp Ravenna perimeter fence completely encloses the remaining parcels of the RVAAP. Camp Ravenna is in northeastern Ohio within Portage and Trumbull Counties, approximately 4.8 kilometers (3 miles) east-northeast of the city of Ravenna and approximately 1.6 kilometers (1 mile) northwest of the city of Newton Falls (Figure 1-1). The RVAAP portions of the property are solely located within Portage County. Camp Ravenna (inclusive of the RVAAP) is a parcel of property approximately 17.7 kilometers (11 miles) long and 5.6 kilometers (3.5 miles) wide bounded by State Route 5, the Michael J. Kirwan Reservoir, and the CSX System Railroad on the south; Garret, McCormick, and Berry roads on the west; the Norfolk Southern Railroad on the north; and State Route 534 on the east (see Figures 1-1 and 1-2). Camp Ravenna is surrounded by several communities: Windham on the north; Garrettsville 9.6 kilometers (6 miles) to the northwest; Newton Falls 1.6 kilometers (1 mile) to the southeast; Charlestown to the southwest; and Wayland 4.8 kilometers (3 miles) to the south. When the RVAAP was operational Camp Ravenna did not exist and the entire 21,683-acre parcel was a government-owned, contractor-operated (GOCO) industrial facility. The RVAAP Installation Restoration Program (IRP) encompasses investigation and cleanup of past activities over the entire 21,683 acres of the former RVAAP and therefore references to the RVAAP in this document are considered to be inclusive of the historical extent of the RVAAP, which is inclusive of the combined acreages of the current Camp Ravenna and RVAAP, unless otherwise specifically stated.

1.2 Project Description

1.2.1 Historical Monitoring

In 2004 the U.S. Army and the Ohio EPA finalized the Facility-Wide Groundwater

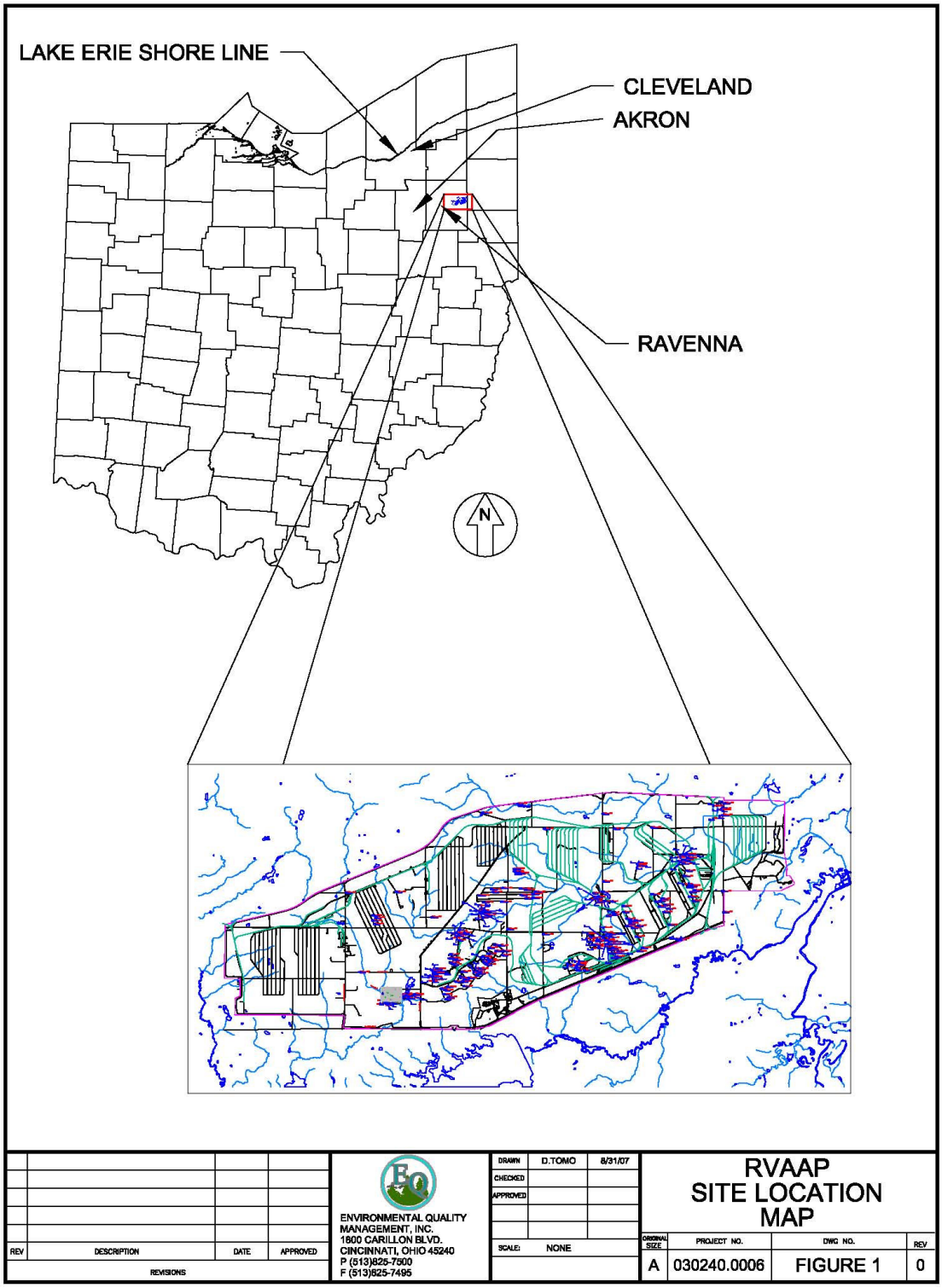
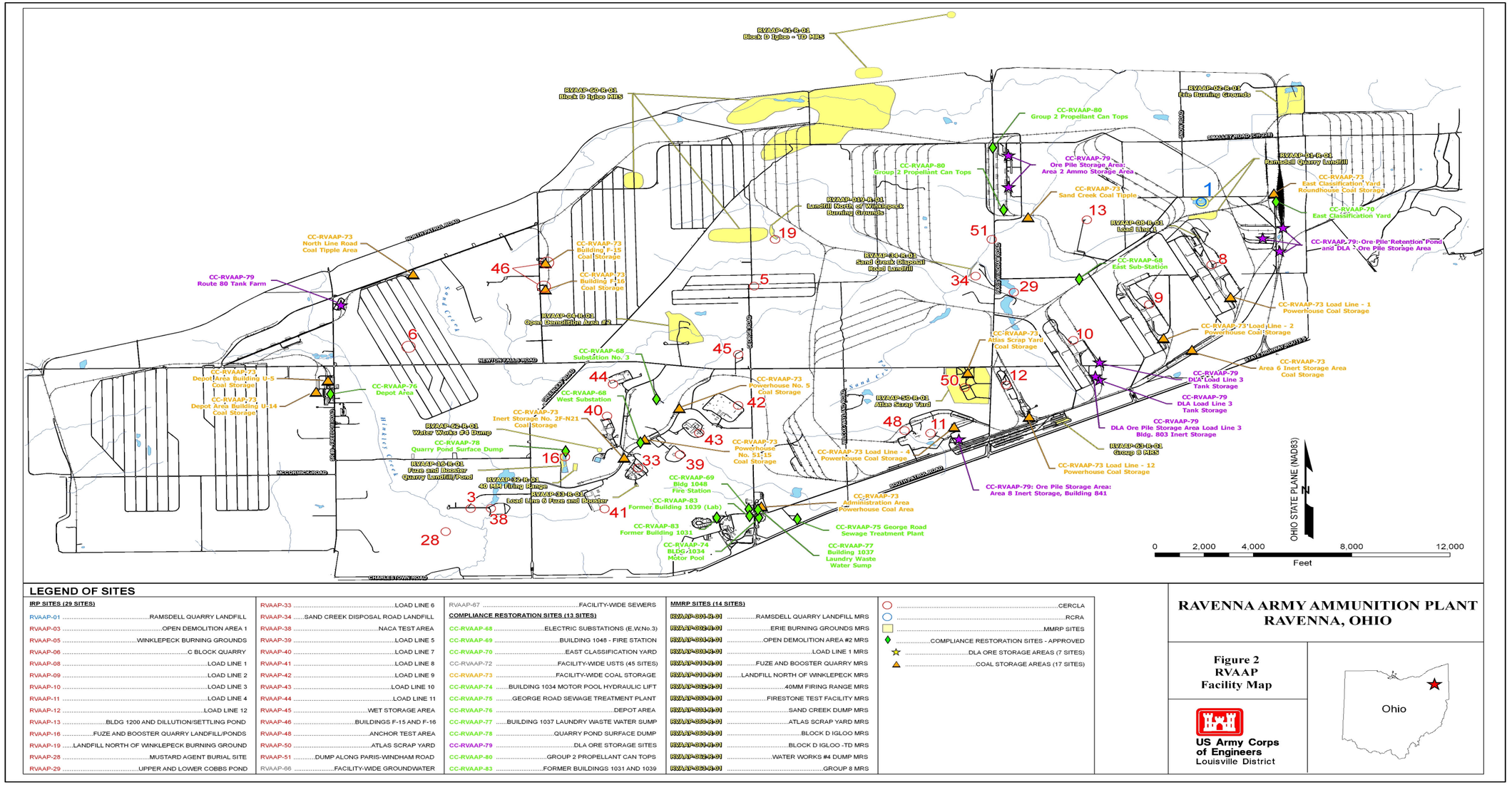


Figure 1-1. General Location Map



LEGEND OF SITES

IRP SITES (29 SITES)

- RVAAP-01 ..... RAMSDELL QUARRY LANDFILL
- RVAAP-03 ..... OPEN DEMOLITION AREA 1
- RVAAP-05 ..... WINKLEPECK BURNING GROUNDS
- RVAAP-06 ..... C BLOCK QUARRY
- RVAAP-08 ..... LOAD LINE 1
- RVAAP-09 ..... LOAD LINE 2
- RVAAP-10 ..... LOAD LINE 3
- RVAAP-11 ..... LOAD LINE 4
- RVAAP-12 ..... LOAD LINE 12
- RVAAP-13 ..... BLDG 1200 AND DILLUTION/SETTLING POND
- RVAAP-16 ..... FUZE AND BOOSTER QUARRY LANDFILL/PONDS
- RVAAP-19 ..... LANDFILL NORTH OF WINKLEPECK BURNING GROUND
- RVAAP-28 ..... MUSTARD AGENT BURIAL SITE
- RVAAP-29 ..... UPPER AND LOWER COBBS POND
- RVAAP-33 ..... LOAD LINE 6
- RVAAP-34 ..... SAND CREEK DISPOSAL ROAD LANDFILL
- RVAAP-38 ..... NACA TEST AREA
- RVAAP-39 ..... LOAD LINE 5
- RVAAP-40 ..... LOAD LINE 7
- RVAAP-41 ..... LOAD LINE 8
- RVAAP-42 ..... LOAD LINE 9
- RVAAP-43 ..... LOAD LINE 10
- RVAAP-44 ..... LOAD LINE 11
- RVAAP-45 ..... WET STORAGE AREA
- RVAAP-46 ..... BUILDINGS F-15 AND F-16
- RVAAP-48 ..... ANCHOR TEST AREA
- RVAAP-50 ..... ATLAS SCRAP YARD
- RVAAP-51 ..... DUMP ALONG PARIS-WINDHAM ROAD
- RVAAP-66 ..... FACILITY-WIDE GROUNDWATER
- RVAAP-67 ..... FACILITY-WIDE SEWERS

COMPLIANCE RESTORATION SITES (13 SITES)

- CC-RVAAP-68 ..... ELECTRIC SUBSTATIONS (E,W,No.3)
- CC-RVAAP-69 ..... BUILDING 1048 - FIRE STATION
- CC-RVAAP-70 ..... EAST CLASSIFICATION YARD
- CC-RVAAP-72 ..... FACILITY-WIDE USTS (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 PROPELLANT CAN TOPS
- CC-RVAAP-83 ..... FORMER BUILDINGS 1031 AND 1039

MMRP SITES (14 SITES)

- RVAAP-001-R-01 ..... RAMSDELL QUARRY LANDFILL MRS
- RVAAP-002-R-01 ..... ERIE BURNING GROUNDS MRS
- RVAAP-003-R-01 ..... OPEN DEMOLITION AREA #2 MRS
- RVAAP-004-R-01 ..... LOAD LINE 1 MRS
- RVAAP-013-R-01 ..... FUZE AND BOOSTER QUARRY MRS
- RVAAP-013-R-01 ..... LANDFILL NORTH OF WINKLEPECK MRS
- RVAAP-033-R-01 ..... 40MM 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-061-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 MRS

- ..... CERCLA
- ..... RCRA
- ..... MMRP SITES
- ..... COMPLIANCE RESTORATION SITES - APPROVED
- ..... DLA ORE STORAGE AREAS (7 SITES)
- ..... COAL STORAGE AREAS (17 SITES)

RAVENNA ARMY AMMUNITION PLANT
RAVENNA, OHIO

Figure 2
RVAAP
Facility Map

US Army Corps of Engineers
Louisville District

Ohio

Figure 1-2. RVAAP Facility Map

Monitoring Program (FWGWMP) Plan which details the requirements of the program. The FWGWMP was initiated in 2005 with three consecutive quarters of FWGWMP well sampling. Quarterly sampling has continued through the current monitoring event. The initial FWGWMP wells identified for monitoring were sampled once every quarter, with the exception of the 5 Resource Conservation and Recovery Act (RCRA) wells that include Ramsdell Quarry Landfill (RQL) wells RQLmw-007, -008, and -009, and two Demolition Area (DA) 2 wells, DA2mw-DETmw-003 and DETmw-004. The RQL and DA2 wells are sampled twice a year.

Details of the program design and requirements are contained in the *RVAAP Facility-Wide Groundwater Monitoring Program Plan* (Portage Environmental, September 2004). This document contains the Facility-Wide Sampling and Analysis Plan (FWSAP), Site Safety and Health Plan, and Quality Assurance Project Plan (QAPP) addenda that pertain to the proposed work. Additional details pertaining to performance of field and laboratory activities are contained in the *RVAAP Facility-Wide Sampling and Analysis Plan/Quality Assurance Project Plan* (SAIC, March 2001). As detailed in the FWGWMPP, the initial monitoring program consisted of the sampling of 36 wells specified in Table 4-1 of the FWGWMPP. Fourteen of these wells are "Background Wells"; the remainder are wells situated at various Areas of Concern (AOCs) at RVAAP. The first sampling event for this project was conducted in April 2005. The results of the previous FWGWMP sampling events are presented in Section 5 of this report. The final assessment monitoring event for the initial well sampling and analysis was completed in October 2007.

On October 22, 2007 the United States Army Corps of Engineers (USACE) submitted to the Ohio EPA the *Draft Proposal to Update the Facility-Wide Ground Water Monitoring Program* (USACE October 2007) at the Ravenna Army Ammunition Plant. This proposal presented recommendations for modifications to the FWGWMP, the Director's Final Findings and Orders, and the Conceptual Plan in Appendix F of the Findings and Orders as presented below.

Section 3.1.2.2 of the FWGWMP Plan establishes a protocol for adding and removing wells from the FWGWMP: "Future wells installed as part of individual AOC investigations conducted under the ongoing Comprehensive Environmental Response Compensation and Liability Act (CERCLA) process at RVAAP will be evaluated for incorporation into the FWGWMP upon completion of at least four quarterly groundwater sampling events to be conducted as part of the Remedial Investigation (RI) phase at each AOC. The frequency of the initial sampling events may be other than quarterly if agreed upon by the Army and Ohio EPA". Based on this protocol the USACE notified the Ohio EPA on December 12, 2007 that the wells to be sampled would be changed effective with the January 2008 monitoring event. The Ohio EPA provided concurrence with this change in an email dated January 8, 2008. The Ohio EPA was notified of an additional change on February 27, 2008 increasing the number of wells to be sampled for the April 2008 event. The Ohio EPA was notified on March 21, 2008 that the number of FWGWMP wells to be sampled in April 2008 (and the July 2008, October 2008, and

January 2009 events) would be increased to 132 plus the 5 RCRA wells sampled semi-annually (in order to complete 4 quarters of sampling for each of the 132 wells.

Beginning with the April 2009 sampling event the remaining wells on the list contained in the *Draft Proposal to Update the Facility-Wide Ground Water Monitoring Program* (USACE October 2007) were sampled.

1.2.2 Current Monitoring

A revised list of wells to be sampled during 2010-2011 was submitted to the Ohio EPA in early 2010. The lists of wells to be sampled, as well as scheduling issues, were discussed with the Ohio EPA in a telephone conference and verified in a subsequent email on 26 May 2010. A copy of the email and the well sampling schedule for 2010-2011 is presented in Appendix A. The list of FWGWMP wells monitored for the October 2010 event is presented in Appendix B.

1.3 Scope of Work for the October 2010 Sampling Event

Environmental Quality Management, Inc. (EQM) was contracted (MARC Contract Number W912QR-04-D-0036) by the Louisville District USACE to conduct the FWGWMP monitoring program beginning in April 2007. The objective of this project is to continue quarterly monitoring under the RVAAP Facility-Wide Groundwater Monitoring Program. The following tasks were performed during the October 2010 sampling event in accordance with specifications contained in the FWGWMPP, the FWSAP, and the Scope of Work written by the USACE:

- Performed groundwater sampling at the 41 wells identified in Appendix B (this includes the 6 deep Sharon Conglomerate wells).
- Performed laboratory analysis for the collected samples.
- Verified, validated and reduced the laboratory analytical data produced for the event (exclusive of the quality assurance samples analyzed by RTI).
- Prepared the Investigative Derived Waste (IDW) Characterization and Disposal Report for the IDW collected during monitoring activities.
- Prepared and submitted the quarterly monitoring report for the sampling event.

1.4 Report Presentation

This report presents the results of the October 2010 sampling event. The report is structured in the following way:

- Section 1.0 – Introduction.
- Section 2.0 – Description of Project Activities. This section describes project-specific details not contained in the FWSAP and FWGWMPP. Additionally, details are provided on how the tasks described above were performed.

- Section 3.0 – Results of Investigation. The results of the sampling event are summarized including groundwater elevation measurements, analytical results, and data verification/validation information.
- Section 4.0 – Summary of Results.
- Section 5.0 – References.

The appendices contain the following items:

- Appendix A - Correspondence Documenting the Current Monitoring Well Schedule.
- Appendix B – List of Wells Sampled During the October 2010 Event.
- Appendix C – Water Level Measurements/Field Log Book and Purge Records/Daily Quality Control Reports.
- Appendix D – Data Verification Reports/Laboratory Data Sheets.
- Appendix E – Investigation-Derived Waste Characterization and Disposal Plan.
- Appendix F – Reporting Limits that Currently Do Not Meet the RVAAP QAPP Practical Quantitation Limits (PQLs) and/or Region 9 Preliminary Remediation Goals (PRGs).
- Appendix G - Correspondence & Comment/Response Table

SECTION 2

PROJECT ACTIVITIES

2.1 Groundwater Level Monitoring

Depth to water from the top of the inner casing was measured in 237 FWGWMP wells and the 6 deep Sharon Conglomerate wells during October 4-6 2010 (note that due to access restrictions the Demolition Area 2 wells were not measured until October 15, 2010). Water level measurements were taken with a Herron Dipper-T or Enviro Inspector electronic water-level indicator. The depth to the bottom of the well from the top of the inner casing was also measured with the electronic water level indicator. The annual inspection of all the wells was also conducted at that time (the results of the inspections will be discussed in the 2011 Annual Report).

The results of the groundwater level monitoring for the FWGWMP wells sampled during this monitoring event are presented in Section 3.1 and Appendix C. The monitoring well location map, identified as Plate 1, is included with this report. Potentiometric maps created from groundwater measurements from the RVAAP monitoring wells in October 2010 are presented on Plates 2, 3, and 4. The potentiometric maps were generated from the October 2010 water level measurements taken from all 237 facility wells and the six deep Sharon Conglomerate wells. These maps are updated on a yearly basis. The water levels from the quarterly events are not included in these plates. Additionally, the groundwater elevations from the new Sharon Conglomerate wells were evaluated and determined not to be representative of either the Homewood aquifer or the upper portion of the Sharon aquifer. These wells were installed with their screened intervals positioned at the basal portion of the Sharon Conglomerate sandstone. Therefore the groundwater elevations collected from these wells were used to determine the potentiometric contours for a separate map (Plate 4) as described below.

To determine if groundwater elevations of Sharon Conglomerate wells are representative of the Sharon or Homewood Aquifers, the groundwater elevation data are compared as indicated on the attached table.

The groundwater elevation of water in the Homewood Aquifer (well LL10mw-003) is more than 78 feet higher than the Sharon Conglomerate well (well SCFmw-1). This demonstrates that the Homewood Aquifer and Sharon Conglomerate are not representative of the same hydraulic unit. If the aquifers were in the same hydraulic unit, the water levels would be expected to be much the same.

There are five Sharon Conglomerate wells that are located through the Sharon (Sandstone) Aquifer. The groundwater elevations of the five Sharon Aquifer wells are 1.28 to 24.57 feet higher than the Sharon Conglomerate groundwater elevations at the same locations. The average elevation difference is over 9 feet. Again this groundwater

elevation difference indicates that the Sharon Conglomerate and the Sharon Aquifer are not the same hydraulic unit.

It should be noted that the groundwater elevations from the deep wells are used for purging and sampling purposes and not necessarily for deep aquifer flow direction. However, a separate potentiometric map has been produced to show flow direction for the deep wells. This potentiometric map for the Sharon Conglomerate wells is included as Plate 4.

2.2 Groundwater Sampling

All identified quarterly monitoring wells were sampled between October 11-15, 2010. Wells were sampled using micropurge techniques in accordance with the specifications contained in the FWGWMPP and FWSAP. The wells were micropurged until certain groundwater parameters (i.e., temperature, specific conductivity, pH, and dissolved oxygen) had stabilized. The groundwater parameters were measured using a Horiba U-22 with flow cells or equivalent**.** Groundwater parameter measurements obtained during micropurging are presented in Appendix C.

High turbidity values (>550 ntu) were noted at 5 of the wells. These wells were:

LL4mw-196	LL6mw-005
LL6mw-001	LL6mw-001
LL11mw-007	LL6mw-004

None of these wells have exhibited elevated sediment levels during the sampling event. It should be noted that high turbidity readings are not necessarily an indicator of nonrepresentative (i.e., formation) groundwater as stated in the Ohio EPA Technical Guidance Manual for groundwater ***"Turbidity****, which is the visible presence of suspended mineral and organic particles in a ground water sample, also is not an indicator of ground water chemical stabilization and does not distinguish between stagnant casing water and formation water*." During the purging of these wells, EQM continued purging after the normal stabilization parameters have reached stabilization (turbidity is not a stabilization parameter). Purging was continued in an attempt to reach turbidity values that are within 10% of each other. Additionally, the groundwater samples are filtered as part of the FWGWMP sampling, thereby reducing the effect of suspended particles in the groundwater.

Groundwater samples were collected with bladder pump micropurge equipment with the exception of DETmw-004, LL11mw-002, LL1mw-067, LL1mw-085, and LL6mw-001 which were sampled using a Teflon bailer due to either low water volumes or well conditions. Equipment and sampling details are contained in Appendix C. Groundwater samples were collected in laboratory supplied containers and stored in iced coolers for shipment in accordance with FWSAP and FWGWMPP specifications. All coolers were received by the laboratory at temperatures within the prescribed limits of the FWGWMP.

Filtered metals samples collected through the bladder pump used an inline 0.45 micron filter emptying directly into sample bottles containing nitric acid. For the samples collected using a bailer the samples were poured from the bailer into a decontaminated holding vessel and then filtered using a hand-pump through a 0.45 micron filter into sample bottles containing nitric acid. All sampling procedures for the filtered metals were conducted in accordance with Section 4.3.5 of the March 2001 *Facility-Wide Sampling and Analysis Plan for Environmental Investigations at the Ravenna Army Ammunition Plant*.

2.3 Laboratory Analysis

Laboratory analyses on all primary samples and associated quality control samples were performed by TestAmerica Laboratories. Table 2-1 presents the analytical methods used to analyze the groundwater samples.

All quarterly groundwater samples were analyzed for the following parameters: explosives, propellants (nitrocellulose and nitroguanidine), cyanide, volatile organic compounds (VOCs), semi-volatile compounds (SVOCs), target analyte list (TAL) metals (filtered), pesticides, and polychlorinated biphenyls (PCBs). The Sharon Conglomerate Formation wells were also analyzed for nitrate/nitrites.

Table 2-1. Analytical Methods

CONSTITUENTS	METHOD[1]
Polychlorinated Biphenyls (PCBs)	GC Semivolatile Organics (8082)
Pesticides	GC Semivolatile Organics (8081A)
Base/Neutrals and Acids (SVOCs)	GC/MS Semivolatile Organic (8270C)
Volatile Organic (VOCs)	GC/MS Volatile Organics (8260B)
Nitroguanidine (Propellants)	Organic Compounds by UV/HPLC (8330 modified)
Nitroaromatics & Nitramines: (Explosives)	GC Semivolatile Organics Explosives (8330)
Nitrocellulose as N (Propellant)	General Chemistry (WS-WC-0050)
Nitrate/Nitrites	General Chemistry (353.2)[2]
Cyanide, (Total)	General Chemistry (9012A)
Metals (Magnesium, Manganese, Barium, Nickel, Potassium, Silver, Sodium, Vanadium, Chromium, Calcium, Cobalt, Copper, Arsenic, Lead, Selenium)	Inductively Coupled Plasma (6010B)
Metals (Antimony, Iron, Beryllium, Thallium, Zinc, Cadmium, Aluminum)	Inductively Coupled Plasma Mass Spectrometry (6020)
Metals (Mercury)	(7470A, Cold Vapor) - Liquid

1 = USEPA SW846
2 = EPA Methods for Chemical Analysis of Water and Waste

Quality control (QC) samples were collected from the following wells:

SCFmw-004 – Duplicate sample	SCFmw-003 – MS/MSD
LL1mw-084 – Duplicate Sample	LL1mw-081 – MS/MSD
LL2mw-267 – Duplicate Sample	LL2mw-269 – MS/MSD
RQLmw-011 – Duplicate Sample	RQLmw-008 – MS/MSD
LL11mw-002 – Duplicate Sample	LL11mw-009 – MS/MSD

All samples were picked up from the facility and delivered to the laboratory in iced coolers by a TestAmerica courier under proper chain-of-custody procedures (Appendix D). Laboratory analyses on all quality assurance (QA) samples were performed by RTI Laboratories in Livonia Michigan. Five QA samples were collected for this sampling event from the same wells where the duplicate samples were collected.

All QA samples were shipped in iced coolers via overnight delivery service under proper chain-of-custody procedures.

Table 2-2 presents the QA Table summary for all samples collected for the October 2010 monitoring event. This table presents in tabular form all analyses and associated QA/QC. The Daily Quality Control Reports are presented in Appendix C.

Laboratory results are summarized in Section 3.2. Laboratory data sheets, including QA/QC information are contained in Appendix D.

2.4 Data Verification/Validation

Data from TestAmerica were verified in accordance with project specifications by EQM chemists Angye Dragotta and Eric Corbin using the Automatic Data Review (ADR) program. Data validation/verification is summarized in Section 3.3. The Data Verification/Validation Summary Reports are presented in Appendix D.

2.5 Investigation Derived Waste

An Investigation Derived Waste Report was prepared for the sampling and water level measurement activities discussed in section 3. Purge water was collected at each well location in 5-gallon buckets and transferred to 55-gallon drums located inside Building 1036. No more than four gallons were purged from any well. Instruments and equipment were decontaminated after purging and sampling each monitoring well. Decontamination fluids were collected in a separate 55-gallon drum stored inside Building 1036. Pending analysis of the monitoring well samples, IDW fluids were stored in the 55-gallon drums until the IDW Report was approved by the Ohio EPA. The IDW was then disposed of in accordance with FWSAP requirements. The IDW Report is presented in Appendix E.

Table 2-2. QA Table for October 2010 Sampling Event

	Contractor Laboratory							Government Laboratory		Requested Laboratory Analysis					
Sample Locations	Primary Lab Sample ID	Date	Sample Type	Assoc. QC Dup Number	Assoc. QC Rinsate Number	Assoc. QC Trip Blank Number	MS / MSD	QA Lab Sample ID	Assoc. QC Trip Blank Number	VOCs	SVOCs	Explosive & Propellant	Pesticide / PCBs	Nitrate / Nitrite	Filtered Metals / Cyanide
DETmw-003	FWGDETmw-003C-1622-GW/GF	10/15/10	GW		EQUIPRinse5-1639	FWGTeam2-Trip				X	X	X	X		X
DETmw-004	FWGDETmw-004C-1623-GW/GF	10/14-15/10	GW		EQUIPRinse5-1639	FWGTeam2-Trip				X	X	X	X		X
LL10mw-002	FWGLL10mw-002C-1610-GW/GF	10/13/10	GW		EQUIPRinse3-1637	FWGTeam2-Trip				X	X	X	X		X
LL10mw-003	FWGLL10mw-003C-1611-GW/GF	10/13/10	GW		EQUIPRinse3-1637	FWGTeam2-Trip				X	X	X	X		X
LL11mw-001	FWGLL11mw-001C-1612-GW/GF	10/13/10	GW		EQUIPRinse3-1637	FWGTeam1-Trip				X	X	X	X		X
LL11mw-002	FWGLL11mw-002C-1613-GW/GF	10/13/10	GW	DUP4-1628	EQUIPRinse3-1637	FWGTeam1-Trip101310		FWGLL11mw-002C-1633s-GW/GF	TRIPBLANK	X	X	X	X		X
LL11mw-007	FWGLL11mw-007C-1614-GW/GF	10/13/10	GW		EQUIPRinse3-1637	FWGTeam2-Trip				X	X	X	X		X
LL11mw-009	FWGLL11mw-009C-1615-GW/GF	10/13/10	GW		EQUIPRinse3-1637	FWGTeam2-Trip	Yes			X	X	X	X		X
LL1mw-067	FWGLL1mw-067C-1589-GW/GF	10/11/10	GW		EQUIPRinse1-1635	FWGTeam3-Trip				X	X	X	X		X
LL1mw-081	FWGLL1mw-081C-1590-GW/GF	10/11/10	GW		EQUIPRinse1-1635	FWGTeam3-Trip	Yes			X	X	X	X		X
LL1mw-082	FWGLL1mw-082C-1591-GW/GF	10/11/10	GW		EQUIPRinse1-1635	FWGTeam3-Trip				X	X	X	X		X
LL1mw-084	FWGLL1mw-084C-1592-GW/GF	10/11/10	GW	DUP2-1625	EQUIPRinse1-1635	FWGTeam1-Trip		FWGLL1mw-084C-1631s-GW/GF	TRIPBLANK	X	X	X	X		X
LL1mw-085	FWGLL1mw-085C-1593-GW/GF	10/11/10	GW		EQUIPRinse1-1635	FWGTeam1-Trip				X	X	X	X		X
LL2mw-266	FWGLL2mw-266C-1594-GW/GF	10/11/10	GW		EQUIPRinse1-1635	FWGTeam1-Trip				X	X	X	X		X
LL2mw-267	FWGLL2mw-267C-1595-GW/GF	10/12/10	GW	DUP3-1627	EQUIPRinse2-1636	FWGTeam3-Trip		FWGLL2mw-267C-1632s-GW/GF	TRIPBLANK	X	X	X	X		X
LL2mw-269	FWGLL2mw-269C-1596-GW/GF	10/12/10	GW		EQUIPRinse2-1636	FWGTeam1-Trip	Yes			X	X	X	X		X
LL3mw-236	FWGLL3mw-236C-1597-GW/GF	10/12/10	GW		EQUIPRinse2-1636	FWGTeam3-Trip				X	X	X	X		X
LL3mw-239	FWGLL3mw-239C-1598-GW/GF	10/12/10	GW		EQUIPRinse2-1636	FWGTeam3-Trip				X	X	X	X		X
LL4mw-196	FWGLL4mw-196C-1599-GW/GF	10/12/10	GW		EQUIPRinse2-1636	FWGTeam1-Trip				X	X	X	X		X
LL4mw-197	FWGLL4mw-197C-1600-GW/GF	10/12/10	GW		EQUIPRinse2-1636	FWGTeam1-Trip				X	X	X	X		X
LL6mw-001	FWGLL6mw-001C-1601-GW/GF	10/12-13/10	GW		EQUIPRinse3-1637	FWGTeam1-Trip				X	X	X	X		X
LL6mw-004	FWGLL6mw-004C-1602-GW/GF	10/12/10	GW		EQUIPRinse2-1636	FWGTeam1-Trip				X	X	X	X		X
LL6mw-005	FWGLL6mw-005C-1603-GW/GF	10/12/10	GW		EQUIPRinse2-1636	FWGTeam1-Trip				X	X	X	X		X
LL7mw-001	FWGLL7mw-001C-1604-GW/GF	10/13/10	GW		EQUIPRinse3-1637	FWGTeam2-Trip				X	X	X	X		X
LL7mw-003	FWGLL7mw-003C-1605-GW/GF	10/13/10	GW		EQUIPRinse3-1637	FWGTeam2-Trip				X	X	X	X		X
LL7mw-005	FWGLL7mw-005C-1606-GW/GF	10/12/10	GW		EQUIPRinse2-1636	FWGTeam2-Trip				X	X	X	X		X
LL8mw-003	FWGLL8mw-003C-1607-GW/GF	10/13/10	GW		EQUIPRinse3-1637	FWGTeam2-Trip				X	X	X	X		X
LL9mw-002	FWGLL9mw-002C-1608-GW/GF	10/13/10	GW		EQUIPRinse3-1637	FWGTeam2-Trip				X	X	X	X		X
LL9MW-004	FWGLL9mw-004C-1609-GW/GF	10/13/10	GW		EQUIPRinse3-1637	FWGTeam2-Trip				X	X	X	X		X
RQLmw-006	FWGRQLmw-006C-1616-GW/GF	10/14/10	GW		EQUIPRinse4-1638	FWGTeam1-Trip101310				X	X	X	X		X
RQLmw-007	FWGRQLmw-007C-1617-GW/GF	10/14/10	GW		EQUIPRinse4-1638	FWGTeam3-Trip				X	X	X	X		X
RQLmw-008	FWGRQLmw-008C-1618-GW/GF	10/14/10	GW		EQUIPRinse4-1638	FWGTeam3-Trip	Yes			X	X	X	X		X
RQLmw-009	FWGRQLmw-009C-1619-GW/GF	10/14/10	GW		EQUIPRinse4-1638	FWGTeam2-Trip		FWGRQLmw-009C-1634s-GW/GF	TRIPBLANK	X	X	X	X		X
RQLmw-010	FWGRQLmw-010C-1620-GW/GF	10/14/10	GW		EQUIPRinse4-1638	FWGTeam1-Trip101310				X	X	X	X		X
RQLmw-011	FWGRQLmw-011C-1621-GW/GF	10/14/10	GW	DUP4-1629	EQUIPRinse4-1638	FWGTeam2-Trip				X	X	X	X		X
SCFmw-001	FWGSCFmw-001-1583-GW/GF	10/11/10	GW		EQUIPRinse1-1635	FWGTeam2-Trip				X	X	X	X	X	X
SCFmw-002	FWGSCFmw-002-1584-GW/GF	10/11/10	GW		EQUIPRinse1-1635	FWGTeam2-Trip				X	X	X	X	X	X
SCFmw-003	FWGSCFmw-003-1585-GW/GF	10/11/10	GW		EQUIPRinse1-1635	FWGTeam2-Trip	Yes			X	X	X	X	X	X
SCFmw-004	FWGSCFmw-004-1586-GW/GF	10/12/10	GW	DUP1-1624	EQUIPRinse2-1636	FWGTeam2-Trip		FWGSCFmw-004-1630s-GW/GF	TRIPBLANK	X	X	X	X	X	X
SCFmw-005	FWGSCFmw-005-1587-GW/GF	10/12/10	GW		EQUIPRinse2-1636	FWGTeam2-Trip				X	X	X	X	X	X
SCFmw-006	FWGSCFmw-006-1588-GW/GF	10/12/10	GW		EQUIPRinse2-1636	FWGTeam2-Trip				X	X	X	X	X	X

SECTION 3

RESULTS

3.1 Groundwater Elevations

Groundwater elevations for the 237 FWGWMP quarterly wells were obtained between October 4-6, 2010 as described in Section 2.1. The groundwater elevations for the FWGWMP wells sampled in October 2010 are presented in Table 3-1. The monitoring well location map, identified as Plate 1, is included with this report. Facility-wide groundwater potentiometric maps (Plates 2, 3, and 4) based on all RVAAP groundwater measurements taken during the October 2010 event are also included in this report.

3.2 Summary of Analytical Results

Summaries of laboratory analytical results are presented in Tables 3-2, 3-3, 3-5, 3-6, and 3-7. Appendix D presents the Laboratory Data Sheets**.** A brief summary of the detected compounds and elements are presented in the following sub-sections. The data presented in the tables are the validated and verified data. Data verification and validation is discussed in Section 3.3 and Appendix D. While reviewing the summary of analytical results please note the following:

- The screening levels referenced in the analytical summary tables are the 40 CFR Part 141 National Primary Drinking Water Regulations, Maximum Contaminant Levels (MCLs); and the Region 9 PRGs for tap water. MCLs are referenced as the screening criteria (for constituents not having an MCL, the Region 9 PRG is used). Also used as screening levels for metals are the RVAAP Facility-Wide Background Criteria referenced in Table 3-5.

- As discussed in Section 3.3, under the data validation process data are qualified by EQM's validator following the guidelines and qualifier requirements set forth by the FWSAP, QAPP and the current Louisville Chemistry Guidelines (LCG) (i.e., data are either accepted or requalified per the requirements of the LCG). This results in the flags designated by EQM sometimes differ from those in the laboratory data sheets. The flags designated by the validator override any laboratory flagging of the data by the laboratory. For a complete explanation of the data qualifiers used for each constituent refer to Section 3.3 and to the Data Verification Summary Reports found in Appendix D.

Table 3-1. October 2010 FWGMP Monitoring Well Measurements

Well	Monitoring Zone	Top of Casing (TOC) Elevation[a] (ft)	2010 Annual Groundwater Elevation (Jan/2010) (ft)	2010 Quarterly Groundwater Elevation (Jul/2010) (ft)	2010 Quarterly Groundwater Elevation (Oct/2010) (ft)	Depth to Water (ft below TOC) Oct/2010	Reported Construction Depth from TOC[a] (ft)	Oct/2010 Measured Depth from TOC (ft)	Oct/2010 Sediment Accumulation (ft)	Oct/2010 Description of Bottom
Loadline 1										
LL1mw-067	Sharon	980.36	958.01	960.66	959.01	21.35	25.6	25.81	-0.21	Hard
LL1mw-081	Sharon	998.92	965.26	968.48	965.06	33.86	41.9	41.92	-0.02	Hard
LL1mw-082	Sharon	1006.45	969.68	977.76	970.11	36.34	41.8	41.5	0.30	Hard
LL1mw-084	Sharon	998.73	966.17	969.30	965.58	33.15	39.3	39.19	0.11	Hard
LL1mw-085	Sharon	996.84	958.44	960.51	958.76	38.08	44.7	45.15	-0.45	Hard
Loadline 2										
LL2mw-266	Sharon	1016.28	1003.84	1,003.89	1,001.40	14.88	22.2	22.8	-0.60	Hard
LL2mw-267	Sharon	1014.81	1005.22	1,004.43	1,002.60	12.21	22.0	22.8	-0.80	Hard
LL2mw-269	Sharon	1011.62	994.73	994.07	992.31	19.31	29.4	30.39	-0.99	Hard
Loadline 3										
LL3mw-236	Sharon	1011.17	992.45	994.73	991.32	19.85	26.2	26.69	-0.49	Hard
LL3mw-239	Sharon	1003.5	976.89	978.28	975.63	27.87	36.8	36.94	-0.14	Hard
Loadline 4										
LL4mw-196	Unconsolidated	984.55	970.98	970.77	970.00	14.55	21.4	21.9	-0.50	Medium
LL4mw-197	Unconsolidated	985.46	970.60	970.72	970.03	15.43	22.7	23.71	-1.01	Medium
Loadline 6										
LL6mw-001	Unconsolidated	1124.16	1110.32	NM	1,107.37	16.79	17	17.56	-0.56	Hard
LL6mw-004	Homewood	1125.39	1107.91	NM	1,106.51	18.88	25.1	24.54	0.56	Hard
LL6mw-005	Homewood	1120.47	1108.22	NM	1,106.82	13.65	22.5	22.12	0.38	Medium
Loadline 7										
LL7mw-001	Homewood	1129.64	1108.36	NM	1,106.98	22.66	32.2	33.02	-0.82	Hard
LL7mw-003	Homewood	1120.84	1108.83	NM	1,107.14	13.7	33.6	33.63	-0.03	Hard
LL7mw-005	Homewood	1135.87	1113.39	NM	1,111.78	24.09	30.6	30.43	0.17	Hard
Loadline 8										
LL8mw-003	Unconsolidated	1119.05	1105.96	NM	1,103.23	15.82	23.3	22.96	0.34	Hard
Loadline 9										
LL9mw-002	Homewood	1127.3	1116.47	NM	1,110.71	16.59	22.4	22.81	-0.41	Hard
LL9mw-004	Homewood	1131.83	1110.08	NM	1,113.42	18.41	34.9	34.74	0.16	Hard
Loadline 10										
LL10mw-002	Homewood	1127.13	1108.83	NM	1,107.82	19.31	29.7	29.72	-0.02	Hard
LL10mw-003	Homewood	1130.28	1109.29	NM	1,108.56	21.72	28.9	28.5	0.40	Hard
Loadline 11										
LL11mw-001	Unconsolidated	1100.16	1091.73	NM	1,086.82	13.34	24.1	23.38	0.72	Hard
LL11mw-002	Unconsolidated	1080	1079.28	NM	1,074.51	5.49	16.0	16.51	-0.51	Hard
LL11mw-007	Unconsolidated	1082	1068.40	NM	1,065.86	16.14	25.2	25.41	-0.21	Hard
LL11mw-009	Unconsolidated	1091.54	1089.44	NM	1,085.20	6.34	16.6	19.48	-2.88	Hard
Demo 2 Area										
DETmw-003	Unconsolidated	1036.81	1027.66	NM	1,026.98	9.83	13.0	16.03	-3.03	Soft / Medium
DETmw-004	Unconsolidated	1038.68	1029.17	NM	1,026.99	11.69	12.0	13.81	-1.81	Hard
Ramsdell Quarry										

Table 3-1. October 2010 FWGMP Monitoring Well Measurements

Well	Monitoring Zone	Top of Casing (TOC) Elevation[a] (ft)	2010 Annual Groundwater Elevation (Jan/2010) (ft)	2010 Quarterly Groundwater Elevation (Jul/2010) (ft)	2010 Quarterly Groundwater Elevation (Oct/2010) (ft)	Depth to Water (ft below TOC) Oct/2010	Reported Construction Depth from TOC[a] (ft)	Oct/2010 Measured Depth from TOC (ft)	Oct/2010 Sediment Accumulation (ft)	Oct/2010 Description of Bottom
RQLmw-006	Sharon	995.39	957.27	NM	957.57	37.82	41.4	42.04	-0.64	Hard
RQLmw-007	Sharon	965.91	956.05	NM	955.01	10.9	18.2	18.64	-0.44	Hard
RQLmw-008	Sharon	966.08	956.66	NM	955.39	10.69	18.5	18.66	-0.16	Hard
RQLmw-009	Sharon	964.58	957.04	NM	954.93	9.65	18.4	18.82	-0.42	Hard
RQLmw-010	Sharon	982.14	953.13	NM	952.79	29.35	35.1	35.33	-0.23	Medium
RQLmw-011	Sharon	976.57	951.01	NM	951.11	25.46	34.6	35.37	-0.77	Hard
Sharon Congolemerate										
SCFmw-001	Sharon Congolmerate	1,120.71	1,030.94	1,031.65	1,029.43	91.28	213.61	214.50	-0.89	Hard
SCFmw-002	Sharon Congolmerate	984.56	964.17	965.39	963.50	21.06	149.65	149.76	-0.11	Hard
SCFmw-003	Sharon Congolmerate	958.47	948.98	949.68	948.53	9.94	139.65	139.65	0.00	Hard
SCFmw-004	Sharon Congolmerate	944.17	943.47	943.46	942.22	1.95	112.47	112.50	-0.03	Hard
SCFmw-005	Sharon Congolmerate	960.80	947.85	949.32	947.32	13.48	156.41	156.5	-0.09	Hard
SCFmw-006	Sharon Congolmerate	965.92	947.43	947.92	946.95	18.97	88.32	88.35	-0.03	Hard

a = Elevations are in feet above mean sea level (amsl)

NM = New wells added to the sampling schedule, not measured in all quarters

- Tables 3-2, 3-3, 3-5, 3-6, and 3-7 now contain a column comparing the analytical results to the USEPA Regional Screening Level (RSL) Summary Table (May 2010). This table was developed by the USEPA to replace the Region 9 PRGs and The Region 3 Risk Based Cleanup (RBC) table. At this time the RSLs are presented for informational purposes only; however, they should be adopted shortly. The Region 9 PRGs were used as the facility screening criteria as of the time of this publication.

- For purposes of consistency, all detected concentrations that are elevated above both the method detection limit (MDL) and the above referenced screening levels are called out in the following text. In the tables, the compounds and elements that were detected above the method detection limit are presented in bold numbers. This includes constituents flagged as estimated.

- Several analytical methods used to analyze a number of explosives, VOCs, metals, SVOCs, and pesticides currently do not meet the RVAAP QAPP reporting limits or Region 9 preliminary remediation goals (PRGs). Tables listing the reporting limits that currently do not meet the RVAAP QAPP PQLs and/or Region 9 PRG levels are presented in Appendix F.

3.2.1 Explosives and Propellants

Explosive and propellant compound analytical results are summarized in Table 3-2. The following compounds were detected at concentrations above the method detection limits:

- 1,3,5-Trinitrobenzene – LL1mw-084 (4.8 µg/L J), LL2mw-267 (0.071 µg/L J B), LL3mw-239 (0.13 µg/L B), RQLmw-006 (0.04 µg/L J). There is no MCL for 1,3,5-Trinitrobenzene. The Region 9 PRG is 1,100 µg/L.

- 1,3-Dinitrobenzene – LL1mw-084 (0.63 µg/L J), LL11mw-002 (0.073 µg/L J). There is no MCL for 1,3-Dinitrobenezene. The Region 3 PRG is 3.6 µg/L.

- 2,4,6-Trinitotoluene – LL1mw-084 (10 µg/L J), LL2mw-267 (0.16 µg/L), LL3mw-236 (0.17 µg/L J), LL3mw-239 (0.19 µg/L J). There is no MCL for 2,6-Trinitrotoluene. The Region 9 PRG is 2.2 µg/L.

- 2,4-Dinitotoluene – LL1mw-084 (2.9 µg/L J), LL2mw-267 (0.12 µg/L), LL3mw-239 (0.11 µg/L). There is no MCL for 2,4-Dinitrotoluene. The Region 9 PRG is 73 µg/L.

- 2-Amino-4,6-dintirotoluene – LL1mw-081 (0.37 µg/L), LL1mw-084 (15 µg/L J), LL2mw-267 (0.39 µg/L), LL3mw-239 (0.60 µg/L). There is no MCL or Region 9 PRG for 2-Amino-4,6-dintirotoluene.

- 4-Amino-2,6-dintirotoluene – LL1mw-084 (32 µg/L J), LL2mw-267 (0.69 µg/L), LL3mw-236 (0.14 µg/L), LL3mw-239 (0.81 µg/L). There is no MCL or Region 9 PRG for 4-Amino-2,6-dintirotoluene.

- 2,6-Dinitotoluene – LL1mw-084 (1.1 µg/L J). There is no MCL for 2,6-Dinitrotoluene. The Region 9 PRG is 36 µg/L.

- Nitrobenzene – LL11mw-007 (0.089 µg/L J), RQLmw-011 (0.064 µg/L J). There is no MCL for nitrobenzene. The Region 9 PRG is 3.4 µg/L.

- 2-Nitrotoluene – LL1mw-084 (0.31 µg/L J), LL3mw-239 (0.092 µg/L J). There is no MCL for 2-Nitrotoluene. The Region 9 PRG is 0.049 µg/L.

- 4-Nitrotoluene – LL10mw-003 (0.14 µg/L J). There is no MCL for 4-Nitrooluene. The Region 9 PRG is 0.66 µg/L.

- HMX – DETmw-004 (1.5 µg/L), LL1mw-081 (0.25 µg/L), LL1mw-084 (0.58 µg/L J), LL2mw-267 (1.1 µg/L), LL3mw-239 (0.22 µg/L), LL11mw-002 (0.044 µg/L J), RQLmw-007 (0.044 µg/L J). There is no MCL for HMX. The Region 9 PRG is 1,800 µg/L.

- RDX – DETmw-004 (0.43 µg/L J), LL1mw-081 (0.35 µg/L J), LL2mw-267 (0.93 µg/L), LL3mw-239 (1.6 µg/L), LL6mw-005 (0.092 µg/L). There is no MCL for RDX. The Region 9 PRG is 0.61 µg/L.

- Nitroguanidine – LL3mw-0236 (2.4 µg/L J). There is no MCL or Region 9 PRG for nitroguanidine.

As shown in Table 3-2, the following explosives or propellants were detected at levels above the MCL or Region 9 PRGs during the October 2010 sampling:

- 2-Nitrotoluene at a concentration exceeding the Region 9 PRG of 0.049 at LL1mw-084 (0.31 µg/L J) and LL3mw-239 (0.092 µg/L J).

- RDX at a concentration exceeding the Region 9 PRG of 0.61 µg/L at LL2mw-267 (0.93 µg/L) and LL3mw-239 (1.6 µg/L).

- 2,4,6-Trinitotoluene at a concentration exceeding the Region 9 PRG of 2.2 µg/L at LL1mw-084 (10 µg/L J).

Table 3-2. FWGWMP October 2010 Explosive and Propellant Analytical Results

Station ID					DETmw-003	DETmw-004	LL1mw-067	LL1mw-081	LL1mw-082	LL1mw-084
Sample ID		MCL	Region 9 PRG	USEPA RSL	FWGDETmw-003C-1622-GW	FWGDETmw-004C-1623-GW	FWGLL1mw-067C-1589-GW	FWGLL1mw-081C-1590-GW	FWGLL1mw-082C-1591-GW	FWGLL1mw-084C-1592-GW
Date Collected					10/15/2010	10/14-15/2010	10/11/2010	10/11/2010	10/11/2010	10/11/2010
Sample Type					Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units									
1,3,5-Trinitrobenzene	µg/L	NS	1100	1100	0.11 U	0.11 U	0.11 U	0.10 U	0.10 U	**4.8 J**
1,3-Dinitrobenzene	µg/L	NS	3.6	3.7	0.11 U	0.11 U	0.11 U	0.10 U	0.10 U	**0.63 J**
2,4,6-Trinitrolouene	µg/L	NS	2.2	2.2	0.11 U	0.11 U	0.11 U	0.10 U	0.10 U	**10 J**
2,4-Dinitrotoluene	µg/L	NS	73	0.22	0.11 U	0.11 U	0.11 UJ	0.10 UJ	0.10 UJ	**2.9 J**
2,6-Dinitrotoluene	µg/L	NS	36	37	0.11 U	0.11 U	0.11 U	0.10 U	0.10 U	**1.1 J**
2-Amino-4,6-dinitrotoluene	µg/L	NS	NS	73	0.11 U	0.11 U	0.11 U	**0.37**	0.10 U	**15 J**
2-Nitrotoluene	µg/L	NS	0.049	0.31	0.53 U	0.54 U	0.54 U	0.50 U	0.52 U	**0.31 J**
3-Nitrotoluene	µg/L	NS	120	3.7	0.53 U	0.54 U	0.54 U	0.50 U	0.52 U	0.50 U
4-Amino-2,6-Dinitrotoluene	µg/L	NS	NS	73	0.11 U	0.11 U	0.11 U	0.38	0.10 U	**32 J**
4-Nitrotoluene	µg/L	NS	0.66	4.2	0.53 U	0.54 U	0.54 U	0.50 U	0.52 U	0.50 U
HMX	µg/L	NS	1800	1800	0.11 U	**1.5**	0.11 U	**0.25**	0.10 U	**0.58 J**
Nitrate-Nitrite	mg/L	1	1	3	N/A	N/A	N/A	N/A	N/A	N/A
Nitrobenzene	µg/L	NS	3.4	0.12	0.11 U	0.11 U	0.11 U	0.10 U	0.10 U	0.10 U
Nitrocellulose	mg/L	NS	NS	110000	0.50 UJ	0.50 UJ	0.50 U	0.50 U	0.50 U	0.50 U
Nitroglycerin	µg/L	NS	4.8	3.7	0.69 U	0.70 U	0.71 U	0.65 U	0.68 U	0.65 U
Nitroguanidine	µg/L	NS	NS	3700	20 U	20 U	20 U	20 U	20 U	20 U
PETN	µg/L	NS	NS	NS	0.69 U	0.70 U	0.71 U	0.65 U	0.68 U	0.65 U
RDX	µg/L	NS	0.61	0.61	0.11 U	0.43 J	0.11 U	**0.35 J**	0.10 U	0.10 U
Tetryl	µg/L	NS	360	150	0.11 U	0.11 U	0.11 U	0.10 U	0.10 U	0.10 U

Notes:
NS = no standard
Bold = detected compound above the MDL
N/A = Not Analyzed
Due to excessive particulates, samples FWGLL6mw-004c-1602-GW, FWGLL6mw-005c-1603-GW, FWGLL2mw-267c-1595-GW, FWGLL2mw-DUP3-1627-GW, and FWGLL3mw-239c-1598-GW required filtration in the laboratory.

Table 3-2. FWGWMP October 2010 Explosive and Propellant Analytical Results

Station ID					LL1mw-085	LL2mw-266	LL2mw-267	LL2mw-269	LL3mw-236	LL3mw-239
Sample ID		MCL	Region 9 PRG	USEPA RSL	FWGLL1mw-085C-1593-GW	FWGLL2mw-266C-1594-GW	FWGLL2mw-267C-1595-GW	FWGLL2mw-269C-1596-GW	FWGLL3mw-236C-1597-GW	FWGLL3mw-239C-1598-GW
Date Collected					10/11/2010	10/11/2010	10/12/2010	10/12/2010	10/12/2010	10/12/2010
Sample Type					Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units									
1,3,5-Trinitrobenzene	µg/L	NS	1100	1100	0.10 U	0.099 U	**0.071 JB**	0.096 U	0.11 U	**0.13 B**
1,3-Dinitrobenzene	µg/L	NS	3.6	3.7	0.10 U	0.099 U	0.10 U	0.096 U	0.11 U	0.10 U
2,4,6-Trinitrolouene	µg/L	NS	2.2	2.2	0.10 U	0.099 U	**0.16**	0.096 U	**0.17**	**0.19**
2,4-Dinitrotoluene	µg/L	NS	73	0.22	0.10 UJ	0.099 UJ	**0.12**	0.096 U	0.11 U	**0.11**
2,6-Dinitrotoluene	µg/L	NS	36	37	0.10 U	0.099 U	0.10 UJ	0.096 UJ	0.11 UJ	0.10 UJ
2-Amino-4,6-dinitrotoluene	µg/L	NS	NS	73	0.10 U	0.099 U	**0.73**	0.096 U	0.11 U	**0.60**
2-Nitrotoluene	µg/L	NS	0.049	0.31	0.52 U	0.50 U	0.52 U	0.48 U	0.54 U	**0.092 J**
3-Nitrotoluene	µg/L	NS	120	3.7	0.52 U	0.50 U	0.52 U	0.48 U	0.54 U	0.52 U
4-Amino-2,6-Dinitrotoluene	µg/L	NS	NS	73	0.10 U	0.099 U	**0.69**	0.096 U	**0.14**	**0.81**
4-Nitrotoluene	µg/L	NS	0.66	4.2	0.52 U	0.50 U	0.52 U	0.48 U	0.54 U	0.52 U
HMX	µg/L	NS	1800	1800	0.10 U	0.099 U	**1.1**	0.096 U	0.11 U	**0.22**
Nitrate-Nitrite	mg/L	1	1	3	N/A	N/A	N/A	N/A	N/A	N/A
Nitrobenzene	µg/L	NS	3.4	0.12	0.10 U	0.099 U	0.10 U	0.096 U	0.11 U	0.10 U
Nitrocellulose	mg/L	NS	NS	110000	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Nitroglycerin	µg/L	NS	4.8	3.7	0.68 U	0.64 U	0.68 U	0.62 U	0.71 U	0.68 U
Nitroguanidine	µg/L	NS	NS	3700	20 U	20 U	20 U	20 U	**2.4 J**	20 U
PETN	µg/L	NS	NS	NS	0.68 U	0.64 U	0.68 U	0.62 U	0.71 U	0.68 U
RDX	µg/L	NS	0.61	0.61	0.10 U	0.099 U	**0.93**	0.096 U	0.11 U	**1.6**
Tetryl	µg/L	NS	360	150	0.10 U	0.099 U	0.10 U	0.096 U	0.11 U	0.10 U

Notes:
NS = no standard
Bold = detected compound above the MDL
N/A = Not Analyzed
Due to excessive particulates, samples FWGLL6mw-004c-1602-GW, F
and FWGLL3mw-239c-1598-GW required filtration in the laboratory.

Table 3-2. FWGWMP October 2010 Explosive and Propellant Analytical Results

Station ID					LL4mw-196	LL4mw-197	LL6mw-001	LL6mw-004	LL6mw-005	LL7mw-001
Sample ID		MCL	Region 9 PRG	USEPA RSL	FWGLL4mw-196C-1599-GW	FWGLL4mw-197C-1600-GW	FWGLL6mw-001C-1601-GW	FWGLL6mw-004C-1602-GW	FWGLL6mw-005C-1603-GW	FWGLL7mw-001C-1604-GW
Date Collected					10/12/2010	10/12/2010	10/12-13/2010	10/12/2010	10/12/2010	10/13/2010
Sample Type					Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units									
1,3,5-Trinitrobenzene	µg/L	NS	1100	1100	0.096 U	0.096 U	0.10 U	0.098 U	0.097 U	0.10 U
1,3-Dinitrobenzene	µg/L	NS	3.6	3.7	0.096 U	0.096 U	0.10 U	0.098 U	0.097 U	0.10 U
2,4,6-Trinitrolouene	µg/L	NS	2.2	2.2	0.096 U	0.096 U	0.10 U	0.098 U	0.097 U	0.10 U
2,4-Dinitrotoluene	µg/L	NS	73	0.22	0.096 U	0.096 U	0.10 U	0.098 U	0.097 U	0.10 U
2,6-Dinitrotoluene	µg/L	NS	36	37	0.096 UJ	0.096 UJ	0.10 U	0.098 UJ	0.097 UJ	0.10 U
2-Amino-4,6-dinitrotoluene	µg/L	NS	NS	73	0.096 U	0.096 U	0.10 U	0.098 U	0.097 U	0.10 U
2-Nitrotoluene	µg/L	NS	0.049	0.31	0.48 U	0.48 U	0.52 U	0.49 U	0.48 U	0.51 U
3-Nitrotoluene	µg/L	NS	120	3.7	0.48 U	0.48 U	0.52 U	0.49 U	0.48 U	0.51 U
4-Amino-2,6-Dinitrotoluene	µg/L	NS	NS	73	0.096 U	0.096 U	0.10 U	0.098 U	0.097 U	0.10 U
4-Nitrotoluene	µg/L	NS	0.66	4.2	0.48 U	0.48 U	0.52 U	0.49 U	0.48 U	0.51 U
HMX	µg/L	NS	1800	1800	0.096 U	0.096 U	0.10 U	0.098 U	0.097 U	0.10 U
Nitrate-Nitrite	mg/L	1	1	3	N/A	N/A	N/A	N/A	N/A	N/A
Nitrobenzene	µg/L	NS	3.4	0.12	0.096 U	0.096 U	0.10 U	0.098 U	0.097 U	0.10 U
Nitrocellulose	mg/L	NS	NS	110000	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Nitroglycerin	µg/L	NS	4.8	3.7	0.62 U	0.62 U	0.68 U	0.64 U	0.63 U	0.66 U
Nitroguanidine	µg/L	NS	NS	3700	20 U	20 U	20 U	20 U	20 U	20 U
PETN	µg/L	NS	NS	NS	0.62 U	0.62 U	0.68 U	0.64 U	0.63 U	0.66 U
RDX	µg/L	NS	0.61	0.61	0.096 U	0.096 U	0.10 U	0.098 U	**0.092 J**	0.10 U
Tetryl	µg/L	NS	360	150	0.096 U	0.096 U	0.10 U	0.098 U	0.097 U	0.10 U

Notes:
NS = no standard
Bold = detected compound above the MDL
N/A = Not Analyzed
Due to excessive particulates, samples FWGLL6mw-004c-1602-GW, FW
and FWGLL3mw-239c-1598-GW required filtration in the laboratory.

Table 3-2. FWGWMP October 2010 Explosive and Propellant Analytical Results

Station ID					LL7mw-003	LL7mw-005	LL8mw-003	LL9mw-002	LL9mw-004	LL10mw-002
Sample ID		MCL	Region 9 PRG	USEPA RSL	FWGLL7mw-003C-1605-GW	FWGLL7mw-005C-1606-GW	FWGLL8mw-003C-1607-GW	FWGLL9mw-002C-1608-GW	FWGLL9mw-004C-1609-GW	FWGLL10mw-002C-1610-GW
Date Collected					10/13/2010	10/12/2010	10/13/2010	10/13/2010	10/13/2010	10/13/2010
Sample Type					Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units									
1,3,5-Trinitrobenzene	µg/L	NS	1100	1100	0.096 U	0.099 U	0.096 U	0.10 U	0.10 U	0.096 U
1,3-Dinitrobenzene	µg/L	NS	3.6	3.7	0.096 U	0.099 U	0.096 U	0.10 U	0.10 U	0.096 U
2,4,6-Trinitrolouene	µg/L	NS	2.2	2.2	0.096 U	0.099 U	0.096 U	0.10 U	0.10 U	0.096 U
2,4-Dinitrotoluene	µg/L	NS	73	0.22	0.096 U	0.099 U	0.096 U	0.10 U	0.10 U	0.096 U
2,6-Dinitrotoluene	µg/L	NS	36	37	0.096 U	0.099 UJ	0.096 U	0.10 U	0.10 U	0.096 U
2-Amino-4,6-dinitrotoluene	µg/L	NS	NS	73	0.096 U	0.099 U	0.096 U	0.10 U	0.10 U	0.096 U
2-Nitrotoluene	µg/L	NS	0.049	0.31	0.48 U	0.50 U	0.48 U	0.52 U	0.52 U	0.48 U
3-Nitrotoluene	µg/L	NS	120	3.7	0.48 U	0.50 U	0.48 U	0.52 U	0.52 U	0.48 U
4-Amino-2,6-Dinitrotoluene	µg/L	NS	NS	73	0.096 U	0.099 U	0.096 U	0.10 U	0.10 U	0.096 U
4-Nitrotoluene	µg/L	NS	0.66	4.2	0.48 U	0.50 U	0.48 U	0.52 U	0.52 U	0.48 U
HMX	µg/L	NS	1800	1800	0.096 U	0.099 U	0.096 U	0.10 U	0.10 U	0.096 U
Nitrate-Nitrite	mg/L	1	1	3	N/A	N/A	N/A	N/A	N/A	N/A
Nitrobenzene	µg/L	NS	3.4	0.12	0.096 U	0.099 U	0.096 U	0.10 U	0.10 U	0.096 U
Nitrocellulose	mg/L	NS	NS	110000	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Nitroglycerin	µg/L	NS	4.8	3.7	0.62 U	0.64 U	0.62 U	0.68 U	0.67 U	0.62 U
Nitroguanidine	µg/L	NS	NS	3700	20 U	20 U	20 U	20 U	20 U	20 U
PETN	µg/L	NS	NS	NS	0.62 U	0.64 U	0.62 U	0.68 U	0.67 U	0.62 U
RDX	µg/L	NS	0.61	0.61	0.096 U	0.099 U	0.096 U	0.10 U	0.10 U	0.096 U
Tetryl	µg/L	NS	360	150	0.096 U	0.099 U	0.096 U	0.10 U	0.10 U	0.096 U

Notes:
NS = no standard
Bold = detected compound above the MDL
N/A = Not Analyzed
Due to excessive particulates, samples FWGLL6mw-004c-1602-GW, F
and FWGLL3mw-239c-1598-GW required filtration in the laboratory.

Table 3-2. FWGWMP October 2010 Explosive and Propellant Analytical Results

Station ID					LL10mw-003	LL11mw-001	LL11mw-002	LL11mw-007	LL11mw-009	RQLmw-006
Sample ID		MCL	Region 9 PRG	USEPA RSL	FWGLL10mw-003C-1611-GW	FWGLL11mw-001C-1612-GW	FWGLL11mw-002C-1613-GW	FWGLL11mw-007C-1614-GW	FWGLL11mw-009C-1615-GW	FWGRQLmw-006C-1616-GW
Date Collected					10/13/2010	10/13/2010	10/13/2010	10/13/2010	10/13/2010	10/14/2010
Sample Type					Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units									
1,3,5-Trinitrobenzene	µg/L	NS	1100	1100	0.097 U	0.096 U	0.097 U	0.098 U	0.098 U	**0.040 J**
1,3-Dinitrobenzene	µg/L	NS	3.6	3.7	0.097 U	0.096 U	**0.073 J**	0.098 U	0.098 U	0.096 U
2,4,6-Trinitrolouene	µg/L	NS	2.2	2.2	0.097 U	0.096 U	0.097 U	0.098 U	0.098 U	0.096 U
2,4-Dinitrotoluene	µg/L	NS	73	0.22	0.097 U	0.096 U	0.097 U	0.098 U	0.098 U	0.096 U
2,6-Dinitrotoluene	µg/L	NS	36	37	0.097 U	0.096 U	0.097 U	0.098 U	0.098 U	0.096 U
2-Amino-4,6-dinitrotoluene	µg/L	NS	NS	73	0.097 U	0.096 U	0.097 U	0.098 U	0.098 U	0.096 U
2-Nitrotoluene	µg/L	NS	0.049	0.31	0.48 U	0.48 U	0.48 U	0.49 U	0.49 U	0.48 U
3-Nitrotoluene	µg/L	NS	120	3.7	0.48 U	0.48 U	0.48 U	0.49 U	0.49 U	0.48 U
4-Amino-2,6-Dinitrotoluene	µg/L	NS	NS	73	0.097 U	0.096 U	0.097 U	0.098 U	0.098 U	0.096 U
4-Nitrotoluene	µg/L	NS	0.66	4.2	**0.14 J**	0.48 U	0.48 U	0.49 U	0.49 U	0.48 U
HMX	µg/L	NS	1800	1800	0.097 U	0.096 U	**0.044 J**	0.098 U	0.098 U	0.096 U
Nitrate-Nitrite	mg/L	1	1	3	N/A	N/A	N/A	N/A	N/A	N/A
Nitrobenzene	µg/L	NS	3.4	0.12	0.097 U	0.096 U	0.097 U	**0.089 J**	0.098 U	0.096 U
Nitrocellulose	mg/L	NS	NS	110000	0.50 U	0.50 U	0.50 UJ	0.50 U	0.50 U	0.50 UJ
Nitroglycerin	µg/L	NS	4.8	3.7	0.63 U	0.62 U	0.63 U	0.64 U	0.64 U	0.62 U
Nitroguanidine	µg/L	NS	NS	3700	20 U	20 U	20 U	20 U	20 U	20 U
PETN	µg/L	NS	NS	NS	0.63 U	0.62 U	0.63 U	0.64 U	0.64 U	0.62 U
RDX	µg/L	NS	0.61	0.61	0.097 U	0.096 U	0.097 U	0.098 U	0.098 U	0.096 U
Tetryl	µg/L	NS	360	150	0.097 U	0.096 U	0.097 U	0.098 U	0.098 U	0.096 U

Notes:
NS = no standard
Bold = detected compound above the MDL
N/A = Not Analyzed
Due to excessive particulates, samples FWGLL6mw-004c-1602-GW, F
and FWGLL3mw-239c-1598-GW required filtration in the laboratory.

Table 3-2. FWGWMP October 2010 Explosive and Propellant Analytical Results

Station ID					RQLmw-007	RQLmw-008	RQLmw-009	RQLmw-010	RQLmw-011	SCFmw-001
Sample ID		MCL	Region 9 PRG	USEPA RSL	FWGRQLmw-007C-1617-GW	FWGRQLmw-008C-1618-GW	FWGRQLmw-009C-1619-GW	FWGRQLmw-010C-1610-GW	FWGRQLmw-011C-1621-GW	FWGSCFmw-001-1583-GW
Date Collected					10/14/2010	10/14/2010	10/14/2010	10/14/2010	10/14/2010	10/11/2010
Sample Type					Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units									
1,3,5-Trinitrobenzene	µg/L	NS	1100	1100	0.11 U	0.11 U	0.10 U	0.098 U	0.11 U	0.10 U
1,3-Dinitrobenzene	µg/L	NS	3.6	3.7	0.11 U	0.11 U	0.10 U	0.098 U	0.11 U	0.10 U
2,4,6-Trinitrolouene	µg/L	NS	2.2	2.2	0.11 U	0.11 U	0.10 U	0.098 U	0.11 U	0.10 U
2,4-Dinitrotoluene	µg/L	NS	73	0.22	0.11 U	0.11 U	0.10 U	0.098 U	0.11 U	0.10 UJ
2,6-Dinitrotoluene	µg/L	NS	36	37	0.11 U	0.11 U	0.10 U	0.098 U	0.11 U	0.10 U
2-Amino-4,6-dinitrotoluene	µg/L	NS	NS	73	0.11 U	0.11 U	0.10 U	0.098 U	0.11 U	0.10 U
2-Nitrotoluene	µg/L	NS	0.049	0.31	0.54 U	0.53 U	0.52 U	0.49 U	0.54 U	0.52 U
3-Nitrotoluene	µg/L	NS	120	3.7	0.54 U	0.53 U	0.52 U	0.49 U	0.54 U	0.52 U
4-Amino-2,6-Dinitrotoluene	µg/L	NS	NS	73	0.11 U	0.11 U	0.10 U	0.098 U	0.11 U	0.10 U
4-Nitrotoluene	µg/L	NS	0.66	4.2	0.54 U	0.53 U	0.52 U	0.49 U	0.54 U	0.52 U
HMX	µg/L	NS	1800	1800	**0.044 J**	0.11 U	0.10 U	0.098 U	0.11 U	0.10 U
Nitrate-Nitrite	mg/L	1	1	3	N/A	N/A	N/A	N/A	N/A	0.1 U
Nitrobenzene	µg/L	NS	3.4	0.12	0.11 U	0.11 U	0.10 U	0.098 U	**0.064 J**	0.10 U
Nitrocellulose	mg/L	NS	NS	110000	0.50 UJ	0.50 UJ	0.50 UJ	0.50 UJ	0.50 UJ	0.50 U
Nitroglycerin	µg/L	NS	4.8	3.7	0.71 U	0.69 U	0.68 U	0.64 U	0.70 U	0.68 U
Nitroguanidine	µg/L	NS	NS	3700	20 U	20 U	20 U	20 U	20 U	20 U
PETN	µg/L	NS	NS	NS	0.71 U	0.69 U	0.68 U	0.64 U	0.70 U	0.68 U
RDX	µg/L	NS	0.61	0.61	0.11 U	0.11 U	0.10 U	0.098 U	0.11 U	0.10 U
Tetryl	µg/L	NS	360	150	0.11 U	0.11 U	0.10 U	0.098 U	0.11 U	0.10 U

Notes:
NS = no standard
Bold = detected compound above the MDL
N/A = Not Analyzed
Due to excessive particulates, samples FWGLL6mw-004c-1602-GW, F
and FWGLL3mw-239c-1598-GW required filtration in the laboratory.

Table 3-2. FWGWMP October 2010 Explosive and Propellant Analytical Results

Station ID					SCFmw-002	SCFmw-003	SCFmw-004	SCFmw-005	SCFmw-006
Sample ID		MCL	Region 9 PRG	USEPA RSL	FWGSCFmw-002-1584-GW	FWGSCFmw-003-1585-GW	FWGSCFmw-004-1586-GW	FWGSCFmw-005-1587-GW	FWGSCFmw-006-1588-GW
Date Collected					10/11/2010	10/11/2010	10/12/2010	10/12/2010	10/12/2010
Sample Type					Grab	Grab	Grab	Grab	Grab
Analyte	Units								
1,3,5-Trinitrobenzene	µg/L	NS	1100	1100	0.097 U	0.10 U	0.10 U	0.097 U	0.095 U
1,3-Dinitrobenzene	µg/L	NS	3.6	3.7	0.097 U	0.10 U	0.10 U	0.097 U	0.095 U
2,4,6-Trinitrolouene	µg/L	NS	2.2	2.2	0.097 U	0.10 U	0.10 U	0.097 U	0.095 U
2,4-Dinitrotoluene	µg/L	NS	73	0.22	0.097 UJ	0.10 UJ	0.10 U	0.097 U	0.095 U
2,6-Dinitrotoluene	µg/L	NS	36	37	0.097 U	0.10 U	0.10 UJ	0.097 UJ	0.095 UJ
2-Amino-4,6-dinitrotoluene	µg/L	NS	NS	73	0.097 U	0.10 U	0.10 U	0.097 U	0.095 U
2-Nitrotoluene	µg/L	NS	0.049	0.31	0.48 U	0.52 U	0.50 U	0.48 U	0.48 U
3-Nitrotoluene	µg/L	NS	120	3.7	0.48 U	0.52 U	0.50 U	0.48 U	0.48 U
4-Amino-2,6-Dinitrotoluene	µg/L	NS	NS	73	0.097 U	0.10 U	0.10 U	0.097 U	0.095 U
4-Nitrotoluene	µg/L	NS	0.66	4.2	0.48 U	0.52 U	0.50 U	0.48 U	0.48 U
HMX	µg/L	NS	1800	1800	0.097 U	0.10 U	0.10 U	0.097 U	0.095 U
Nitrate-Nitrite	mg/L	1	1	3	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Nitrobenzene	µg/L	NS	3.4	0.12	0.097 U	0.10 U	0.10 U	0.097 U	0.095 U
Nitrocellulose	mg/L	NS	NS	110000	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Nitroglycerin	µg/L	NS	4.8	3.7	0.63 U	0.67 U	0.65 U	0.63 U	0.62 U
Nitroguanidine	µg/L	NS	NS	3700	20 U	20 U	20 U	20 U	20 U
PETN	µg/L	NS	NS	NS	0.63 U	0.67 U	0.65 U	0.63 U	0.62 U
RDX	µg/L	NS	0.61	0.61	0.097 U	0.10 U	0.10 U	0.097 U	0.095 U
Tetryl	µg/L	NS	360	150	0.097 U	0.10 U	0.10 U	0.097 U	0.095 U

Notes:
NS = no standard
Bold = detected compound above the MDL
N/A = Not Analyzed
Due to excessive particulates, samples FWGLL6mw-004c-1602-GW, F
and FWGLL3mw-239c-1598-GW required filtration in the laboratory.

Table 3-2. FWGWMP October 2010 Explosive and Propellant Analytical Results

Data Qualifiers

Data qualifier flags are used in an effort to describe the quality of each piece of data for each constituent. These flags are letter codes appended to the numerical data. The following data qualifiers are specified in the USACE Louisville Chemistry Guidelines. For a complete explanation of qualifiers used for each constituent please refer to the Data Verification Summaries in Appendix D.

U The analyte was analyzed for but not detected. The numerical value preceding the U is the associated reporting limit.

J 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 (i.e., the quantitative value is estimated). Examples include:

- Results detected above the laboratory MDL but less than the laboratory reporting limit.
- MS/MSD percent recoveries outside the acceptance criteria.
- Laboratory control sample (LCS) percent recoveries outside acceptance criteria.

R Data are considered to be rejected and shall not be used. This flag denotes the failure of quality control criteria such that it cannot be determined if the analyte is present or absent from the sample [e.g., the method reporting limit (MRL) verification standard was below quality control guidelines; associated sample results that were non-detect are unusable].

UJ This flag is a combination of the U and J qualifiers which indicate that the analyte is not present. The reported value is considered to be an estimated reporting limit (RL).

B The B flag is used for both organic and inorganic analyses when the analyte is found in the method blank or any of the field blanks. This designation overrides the Contract Laboratory Program (CLP) “B” designation when used by the laboratory as an estimated value for inorganics.

3.2.2 Inorganic Elements

Inorganic elements analytical results are presented in Table 3-3. The inorganics detected in the samples included: aluminum, arsenic, barium, beryllium, cadmium, calcium, chromium, cobalt, copper, cyanide, iron, lead, magnesium, manganese, nickel, potassium, selenium, silver, sodium, thallium, vanadium, and zinc. The inorganic elements that were detected were compared to facility-wide background levels, and against elements that are considered as essential nutrients to determine if they are to be considered as Site Related Contaminants (SRCs). Calcium, magnesium, iron, potassium, and sodium were eliminated as potential SRCs because they are considered as essential nutrients. Site-specific background levels for inorganic elements are presented in Table 3-4. The inorganic elements that were detected were compared to the appropriate background criteria to determine if they were SRCs. The following inorganic elements were detected above the method detection limits and the background levels reported in Table 3-4:

Aluminum

- Bedrock Zone: – LL1mw-084 (515 µg/L), LL2mw-266 (56.7 µg/L), LL2mw-269 (51300 µg/L), LL4mw-196 (35.8 µg/L J), LL9mw002 (46.6 µg/LJ), LL11mw-009 (20.6 µg/L J), RQLmw-009 (19 µg/L J B). The Groundwater Bedrock Zone Background Criteria (filtered) is 0 µg/L.
- Unconsolidated Zone: – LL4mw-196 (35.8 µg/L J), LL11mw-009 (20.6 µg/L J). The Groundwater Unconsolidated Zone Background Criteria (filtered) is 0 µg/L. The MCL for aluminum is 200 µg/L. The Region 9 PRG is 36,000 µg/L.

Antimony

- Bedrock Zone: – LL2mw-267 (0.60 µg/L J). The Groundwater Bedrock Zone Background Criteria (filtered) is 0 µg/L.
- Unconsolidated Zone: – DETmw-004 (0.26 µg/L J). The Groundwater Unconsolidated Zone Background Criteria (filtered) is 0 µg/L. The MCL for antimony is 6 µg/L. The Region 9 PRG is 15 µg/L.

Arsenic

- Bedrock Zone: – SCFmw-001 (16.4 µg/L), SCFmw-002 (18.1 µg/L), SCFmw-005 (5.4 µg/L), SCFmw-006 (13.7 µg/L), LL1mw-085 (5.7 µg/L), LL2mw-266 (4.2 µg/L), LL2mw-267 (137 µg/L), LL3mw-239 (3.9 µg/L J), LL6mw-005 (15.3 µg/L), LL9mw-002 (3.5 µg/L J), LL9mw-004 (3.8 µg/L J). The Groundwater Bedrock Zone Background Criteria (filtered) is 0 µg/L.
- Unconsolidated Zone: – DETmw-003 (13.1 µg/L), LL11mw-007 (18.6 µg/L), RQLmw-006 (55.9 µg/L), RQLmw-007 (70.2 µg/L), RQLmw-008 (68.7 µg/L), RQLmw-009 (27.4 µg/L). The Groundwater Unconsolidated Zone Background Criteria (filtered) is 11.7 µg/L.
  The MCL for arsenic is 10 µg /L. The Region 9 PRG is 0.045 µg/L.

Barium

- Bedrock Zone: – LL2mw-267 (274 µg/L). The Groundwater Bedrock Zone Background Criteria (filtered) is 256 µg/L.
- Unconsolidated Zone – None. The Groundwater Unconsolidated Zone Background Criteria (filtered) is 82.1 µg/L.
  The MCL for barium is 2000 µg /L. The Region 9 PRG is 2600 µg/L.

Beryllium

- Bedrock Zone: – LL1mw-084 (0.20 µg/L J), LL2mw-267 (3.7 µg/L). The Groundwater Bedrock Zone Background Criteria (filtered) is 0 µg/L.
- Unconsolidated Zone: – None. The Groundwater Unconsolidated Zone Background Criteria (filtered) is 0 µg/L.
  The MCL for beryllium is 4 µg /L. The Region 9 PRG is 75 µg/L.

Cadmium

- Bedrock Zone: - LL1mw-082 (0.19 µg/L J), LL1mw-084 (2.0 µg/L), LL2mw-266 (0.14 µg/L J), LL2mw-267 (0.97 µg/L). The Groundwater Bedrock Zone Background Criteria (filtered) is 0 µg/L.
- Unconsolidated Zone: - LL11mw-002 (2.3 µg/). The Groundwater Unconsolidated Zone Background Criteria (filtered) is 0 µg/L.
  The MCL for cadmium is 5 µg/L. The Region 9 PRG is 18 µg/L.

Chromium

- Bedrock Zone: - LL2mw-267 (228 µg/L**),** LL9mw-004 (2.6 µg/L J). The Groundwater Bedrock Zone Background Criteria (filtered) is 0 µg/L.
- Unconsolidated Zone: - None. The Groundwater Unconsolidated Zone Background Criteria (filtered) is 7.3 µg/L.
  The MCL is 100 µg/L. The Region 9 PRG is 110 µg/L.

Cobalt

- Bedrock Zone: - LL1mw-081 (6.0 µg/L J), LL1mw-084 (17.5 µg/L J), LL1mw-085 (2.0 µg/L J), LL2mw-266 (13.4 µg/L J), LL2mw-267 (170 µg/L J), LL3mw-236 (1.6 µg/L J), LL3mw-239 (2.9 µg/L J), LL7mw-001 (6.3 µg/L), LL7mw-003 (5.2 µg/L), LL7mw-005 (8.0 µg/L), LL9mw-004 (5.3 µg/L), RQLmw-009 (15.7 µg/L), RQLmw-009 (5.6µg/L B), RQLmw-011 (15.2 µg/L). The Groundwater Bedrock Zone Background Criteria (filtered) is 0 µg/L.
- Unconsolidated Zone: - None. The Groundwater Unconsolidated Zone Background Criteria (filtered) is 0 µg/L.
  There is no MCL for cobalt. The Region 9 PRG is 730 µg/L.

Copper

- Bedrock Zone: - LL1mw-84 (10 µg/L), LL2mw-267 (101 µg/L). The Groundwater Bedrock Zone Background Criteria (filtered) is 0 µg/L.
  The Groundwater Bedrock Zone Background Criteria is 0 µg/L.

- Unconsolidated Zone: - None. The Groundwater Unconsolidated Zone Background Criteria (filtered) is 0 µg/L.
  The MCL is 1,300 µg/L. The Region 9 PRG is 1,500 µg/L.

Cyanide

- Bedrock Zone: – LL7mw005 (0.025 mg/L J), RQLmw-007 (0.005 mg/L J B), SCFmw-004 (0.013 mg/L J). The Groundwater Bedrock Zone Background Criteria (filtered) is 0 µg/L.
- Unconsolidated Zone: - None. The Groundwater Unconsolidated Zone Background Criteria (filtered) is 0 µg/L
  The MCL is 0.2 mg/L. The Region 9 PRG is 0.73 mg/L.

Lead

- Bedrock Zone: - LL2mw-267 (69.0 µg/L J). The Groundwater Bedrock Zone Background Criteria (filtered) is 0 µg/L.
- Unconsolidated Zone: - None. The Groundwater Unconsolidated Zone Background Criteria (filtered) is 0 µg/L.
  The MCL is 15 µg/L. The Region 9 PRG is 880 µg/L.

Manganese

- Bedrock Zone: - SCFmw-005 (1790 µg/L), LL1mw-081 (1950 µg/L), LL2mw-266 (1250 µg/L), LL2mw-266 (2850 µg/L) LL7mw-003 (1370 µg/L), LL7mw-005 (1630 µg/L), LL9mw-004 (2220 µg/L), RQLmw-006 (5360 µg/L), RQLmw-007 (1380 µg/L), RQLmw-011 (4050 µg/L). The Groundwater Bedrock Zone Background Criteria (filtered) is 1,340 µg/L.
- Unconsolidated Zone: - None. The Groundwater Unconsolidated Zone Background Criteria (filtered) is 1,020 µg/L.
  The MCL for Manganese is 50 µg/L. The Region 9 PRG is 880 µg/L.

Nickel

- Bedrock Zone: - LL2mw-267 (169 µg/L J), RQLmw-006 (181 µg/L). The Groundwater Bedrock Zone Background Criteria (filtered) is 83.4 µg/L.
- Unconsolidated Zone: - None. The Groundwater Unconsolidated Zone Background Criteria (filtered) is 0 µg/L.
  There is no MCL for Nickel. The Region 9 PRG is 730 µg/L.

Selenium

- Bedrock Zone: – LL2mw-267 (9.9 µg/L). The Groundwater Bedrock Zone Background Criteria (filtered) is 0 µg/L.
- Unconsolidated Zone: – LL4mw-196 (4.4 µg/L J), LL8mw-003 (4.8 µg/L J). The Groundwater Unconsolidated Zone Background Criteria (filtered) is 0 µg/L.
  The MCL for Selenium is 50 µg/L. The Region 9 PRG s 180 µg/L.

Silver

- Bedrock Zone: – RQLmw-009 (2.8 µg/L J). The Groundwater Bedrock Zone Background Criteria (filtered) is 0 µg/L.
- Unconsolidated Zone: – None. The Groundwater Unconsolidated Zone Background Criteria (filtered) is 0 µg/L.
  The MCL for Silver is 100 µg/L. The Region 9 PRG is 180 µg/L.

Thallium

- Bedrock Zone: – None. The Groundwater Bedrock Zone Background Criteria (filtered) is 0 µg/L.
- Unconsolidated Zone: – LL11mw-002 (0.49 µg/L J B). The Groundwater Unconsolidated Zone Background Criteria (filtered) is 0 µg/L.
  The MCL for Thallium is 2 µg/L. The Region 9 PRG is 2.4 µg/L.

Vanadium

- Bedrock Zone: - LL2mw-267 (94.6 µg/L). The Groundwater Bedrock Zone Background Criteria (filtered) is 83.4 µg/L.). The Groundwater Bedrock Zone Background Criteria (filtered) is 0 µg/L.
- Unconsolidated Zone: -None. The Groundwater Unconsolidated Zone Background Criteria (filtered) is 0 µg/L. There is no MCL for Vanadium. The Region 9 PRG is 36 µg/L.

Zinc

- Bedrock Zone: - LL1mw-084 (70.1 µg/L J), LL2mw-267 (371 µg/L J), LL7mw-001 (55.6 µg/L). The Groundwater Bedrock Zone Background Criteria (filtered) is 52.3 µg/L.
- Unconsolidated Zone: - None. The Groundwater Unconsolidated Zone Background Criteria (filtered) is 60.9 µg/L.
  The MCL for zinc is 5,000 µg/L. The Region 9 PRG is 11,000 µg/L.

Several inorganic compounds were detected at levels exceeding the MCLs and/or Region 9 PRGs. These included aluminum, manganese, arsenic, and iron for wells from all areas sampled. These compounds were also detected at concentrations exceeding the Facility-Wide Background Criteria for many of the wells. Table 4-1 in Section 4 presents a summary of all inorganic compounds and the associated wells that had detections exceeding MCLs or Region 9 PRGs.

The facility-wide groundwater conditions are still being evaluated, including background levels for all inorganic compounds. This will also include an evaluation of arsenic, iron, and manganese related to exceedances of the MCLs. The elevated concentrations of the subject parameters will be evaluated with respect to Ravenna's Draft Facility-Wide Clean-Up Goals (CUGs). To date there have been no elevated concentrations of the subject parameters found in the groundwater which would pose an immediate threat to human health or the environment. The evaluation of elevated concentrations of Chemicals of Concern (COCs) is ongoing and includes a geochemical study to better

characterize the groundwater quality as it pertains to metals at the site. Additionally, further sampling at various facility wells will be conducted in 2011 to further gauge the extent of any contamination in the groundwater.

3.2.3 Volatile Organic Compounds (VOCs)

VOC analytical results are summarized in Table 3-5. The following VOCs were detected above the MDL for this sampling event.

- Carbon Disulfide – LL2mw-267 (0.22 µg/L J), SCFmw-001 (1.5 µg/L J), SCFmw-002 (1.1 µg/L J), SCFmw-003 (0.46 µg/L J), SCFmw-005 (1.5 µg/L J). There is no MCL for Carbon Disulfide. The Region 9 PRG is 1000 µg/L.

- Carbon Tetrachloride – LL10mw-003 (2.8 µg/L J). The MCL for Carbon tetrachloride is 5 µg/L. The Region 9 PRG is 0.17 µg/L.

- Chloroform – LL3mw-239 (0.40 µg/L J B). There is no MCL for Chloroform. The Region 9 PRG is 0.17 µg/L.

- 1,1-Dichlrorethane – LL7mw-001 (2.7 µg/L). There is no MCL for 1,1-dichloroethane. The Region 9 PRG is 810 µg/L.

- 1,1-Dichloroethene (total) – LL7mw-001 (6.4 µg/L). The MCL for 1,1-dichloroethene is 7 µg/L. The Region 9 PRG is 340 µg/L.

- Tetrachloroethene – LL11mw-009 (4.1 µg/L). The MCL for tetrachloroethene is 5 µg/L. The Region 9 PRG is 0.1 µg/L.

- 1,1,1-Trichloroethane – LL7mw-001 (7.7 µg/L). There is no MCL for 1,1,1-trichloroethane. The Region 9 PRG is 3,200 µg/L.

As shown in Table 3-5, the following VOCs were detected at levels above the MCLs or Region 9 PRGs during the October 2010 sampling event:

- Carbon Tetrachloride at a concentration exceeding the Region 9 PRG of 0.17 µg/L at LL10mw-003 (2.8 µg/L).

- Chloroform at a concentration exceeding the Region 9 PRG of 0.17 µg/L at LL3mw-239 (0.40 (µg/L J B).

- Tetrachloroethene at a concentration exceeding the Region 9 PRG of 0.1 µg/L at LL11mw-009 (4.1 µg/L).

Table 3-3. FWGWMP October 2010 Inorganics Analytical Results

Station ID					DETmw-003	DETmw-004	LL1mw-067	LL1mw-081	LL1mw-082	LL1mw-084
Sample ID		MCL	Region 9 PRG	USEPA RSL	FWGDETmw-003C-1622-GF	FWGDETmw-004C-1623-GF	FWGLL1mw-067C-1589-GF	FWGLL1mw-081C-1590-GF	FWGLL1mw-082C-1591-GF	FWGLL1mw-084C-1592-GF
Date Collected					10/15/2010	10/14-15/10	10/11/2010	10/11/2010	10/11/2010	10/11/2010
Sample Type					Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units									
Aluminum	µg/L	200	36000	37000	50.0 U	62.7 B	50.0 U	50.0 U	50.0 U	**515**
Antimony	µg/L	6	15	15	2.0 U	**0.26 J**	2.0 U	2.0 U	2.0 U	2.0 U
Arsenic	µg/L	10	0.045	0.045	**13.1**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Barium	µg/L	2000	2600	7300	**53.7**	**71.9**	**15.0**	**19.5**	**9.6 J**	**16.1**
Beryllium	µg/L	4	73	73	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**0.20 J**
Cadmium	µg/L	5	18	18	0.50 U	0.50 U	0.50 U	0.50 U	**0.19 J**	**2.0**
Calcium	µg/L	NS	NS	NS	**85800**	**146000**	**32500**	**52600**	**34400**	**41200**
Chromium	µg/L	100	110	55000*	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Cobalt	µg/L	NS	730	11	5.0 U	5.0 U	5.0 U	**6.0 J**	5.0 U	**17.5 J**
Copper	µg/L	1300	1500	1500	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	**10.0**
Cyanide	mg/L	0.2	0.73	0.73	0.010 UJ	0.010 UJ	0.010 UJ	0.010 UJ	0.010 UJ	0.010 UJ
Iron	µg/L	300	11000	26000	**1590**	50.0 U	50.0 U	**728**	50.0 U	50.0 U
Lead	µg/L	15	NS	NS	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Magnesium	µg/L	NS	NS	NS	**31100**	**29900**	**15300**	**11900**	**15400**	**2960**
Manganese	µg/L	50	880	880	**280**	**33.7**	**11.9**	**1950**	**456**	**164**
Mercury	µg/L	2	11	0.57	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Nickel	µg/L	NS	730	730	10.0 U	10.0 U	**20.4 J**	**10.2 J**	**10.5 J**	**32.9 J**
Potassium	µg/L	NS	NS	NS	**1780**	**2940**	722 UJ	**2130**	**1550**	**2560**
Selenium	µg/L	50	180	180	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Silver	µg/L	100	180	180	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Sodium	µg/L	NS	NS	NS	**12800**	**28500**	**2680 J**	**2400 J**	**1470 J**	**3940 J**
Thallium	µg/L	2	2.4	NS	1.0 U	0.14 UJB	0.21 UJB	0.32 UJB	0.19 UJB	0.77 UJB
Vanadium	µg/L	NS	36	180	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Zinc	µg/L	5000	11000	11000	10.0 U	14.5 B	10.0 U	**32.4 J**	**24.6 J**	**70.1 J**

Notes:

NS = no standard

Bold = detected compound above the MDL

N/A = Not Analyzed

Table 3-3. FWGWMP October 2010 Inorganics Analytical Results

Station ID					LL1mw-085	LL2mw-266	LL2mw-267	LL2mw-269	LL3mw-236	LL3mw-239
Sample ID		MCL	Region 9 PRG	USEPA RSL	FWGLL1mw-085C-1593-GF	FWGLL2mw-266C-1594-GF	FWGLL2mw-267C-1595-GF	FWGLL2mw-269C-1596-GF	FWGLL3mw-236C-1597-GF	FWGLL3mw-239C-1598-GF
Date Collected					10/11/2010	10/11/2010	10/12/2010	10/12/2010	10/12/2010	10/12/2010
Sample Type					Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units									
Aluminum	µg/L	200	36000	37000	50.0 U	**56.7**	**51300**	50.0 U	50.0 U	50.0 U
Antimony	µg/L	6	15	15	2.0 U	2.0 U	**0.60 J**	2.0 U	2.0 U	2.0 U
Arsenic	µg/L	10	0.045	0.045	**5.7**	**4.2 J**	**137**	5.0 U	5.0 U	**3.9 J**
Barium	µg/L	2000	2600	7300	**17.6**	**15.5**	**274**	**216**	10.0 U	**14.7**
Beryllium	µg/L	4	73	73	1.0 U	1.0 U	**3.7**	1.0 U	1.0 U	1.0 U
Cadmium	µg/L	5	18	18	0.50 U	**0.14 J**	**0.97**	0.50 U	0.50 U	0.50 U
Calcium	µg/L	NS	NS	NS	**65700**	**22100**	**34800**	**29000**	**22800**	**8670**
Chromium	µg/L	100	110	55000*	5.0 U	5.0 U	**228**	5.0 U	5.0 U	5.0 U
Cobalt	µg/L	NS	730	11	**2.0 J**	**13.4 J**	**170**	5.0 U	**1.6 J**	**2.9 J**
Copper	µg/L	1300	1500	1500	5.0 U	5.0 U	**101**	5.0 U	5.0 U	5.0 U
Cyanide	mg/L	0.2	0.73	0.73	0.010 UJ	0.010 UJ	0.010 UJ	0.010 UJ	0.010 UJ	0.010 UJ
Iron	µg/L	300	11000	26000	**50.0 U**	**4320**	**164000**	**6840**	50.0 U	50.0 U
Lead	µg/L	15	NS	NS	3.0 U	3.0 U	**69.0 J**	3.0 U	3.0 U	3.0 U
Magnesium	µg/L	NS	NS	NS	**18200**	**10900**	**26700**	**14200**	**14200**	**4770**
Manganese	µg/L	50	880	880	**638**	**1250**	**2850**	**1520**	**240**	**175**
Mercury	µg/L	2	11	0.57	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Nickel	µg/L	NS	730	730	**9.1 J**	**10.3 J**	**169 J**	10.0 U	**3.0 J**	**5.5 J**
Potassium	µg/L	NS	NS	NS	**1830**	**1450**	**10900**	**3180**	**1360**	**1040**
Selenium	µg/L	50	180	180	5.0 U	5.0 U	**9.9**	5.0 U	5.0 U	5.0 U
Silver	µg/L	100	180	180	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Sodium	µg/L	NS	NS	NS	**1730 J**	**11100 J**	**9490 J**	**6650 J**	**4510 J**	**20500 J**
Thallium	µg/L	2	2.4	NS	0.16 UJB	0.22 UJB	0.98 UJB	0.45 UJB	1.0 U	0.16 JB
Vanadium	µg/L	NS	36	180	10.0 U	10.0 U	**94.6**	10.0 U	10.0 U	10.0 U
Zinc	µg/L	5000	11000	11000	**10.0 U**	7.7 UJ	**371 J**	10.0 U	**5.1 JB**	10.0 U

Notes:

NS = no standard

Bold = detected compound above the MDL

N/A = Not Analyzed

Table 3-3. FWGWMP October 2010 Inorganics Analytical Results

Station ID					LL4mw-196	LL4mw-197	LL6mw-001	LL6mw-004	LL6mw-005	LL7mw-001
Sample ID		MCL	Region 9 PRG	USEPA RSL	FWGLL4mw-196C-1599-GF	FWGLL4mw-197C-1600-GF	FWGLL6mw-001C-1601-GF	FWGLL6mw-004C-1602-GF	FWGLL6mw-005C-1603-GF	FWGLL7mw-001C-1604-GF
Date Collected					10/12/2010	10/12/2010	10/12-13/10	10/12/2010	10/12/2010	10/13/2010
Sample Type					Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units									
Aluminum	µg/L	200	36000	37000	**35.8 J**	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U
Antimony	µg/L	6	15	15	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Arsenic	µg/L	10	0.045	0.045	**4.6 J**	5.0 U	5.0 U	5.0 U	**15.3**	5.0 U
Barium	µg/L	2000	2600	7300	**49.7**	**29.8**	**16.7**	**29.7**	**63.3**	**25.2**
Beryllium	µg/L	4	73	73	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cadmium	µg/L	5	18	18	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Calcium	µg/L	NS	NS	NS	**55100**	**123000**	**73200**	**74900**	**73500**	**29800**
Chromium	µg/L	100	110	55000*	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Cobalt	µg/L	NS	730	11	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	**6.3**
Copper	µg/L	1300	1500	1500	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Cyanide	mg/L	0.2	0.73	0.73	0.010 UJ	0.010 UJ	0.010 U	0.010 UJ	0.010 UJ	0.010 U
Iron	µg/L	300	11000	26000	**1120**	50.0 U	50.0 U	**127**	**859**	**8940**
Lead	µg/L	15	NS	NS	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Magnesium	µg/L	NS	NS	NS	**16100**	**20000**	**38300**	**37200**	**22900**	**10500**
Manganese	µg/L	50	880	880	**136**	10.0 U	10.0 U	**3.2 J**	**483**	**487**
Mercury	µg/L	2	11	0.57	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Nickel	µg/L	NS	730	730	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	**8.6 J**
Potassium	µg/L	NS	NS	NS	686 UJ	**1150**	**1460**	**1130**	**1050**	**1020**
Selenium	µg/L	50	180	180	**4.4 J**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Silver	µg/L	100	180	180	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Sodium	µg/L	NS	NS	NS	**2000 J**	**2170 J**	**7990**	**12700 J**	**9340 J**	**5850**
Thallium	µg/L	2	2.4	NS	0.22 UJB	0.28 UJB	0.38 UJB	0.16 UJB	0.16 UJB	0.26 UJB
Vanadium	µg/L	NS	36	180	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Zinc	µg/L	5000	11000	11000	10.0 U	10.0 U	**3.3 J**	**2.8 JB**	10.0 U	**55.6**

Notes:

NS = no standard

Bold = detected compound above the MDL

N/A = Not Analyzed

Table 3-3. FWGWMP October 2010 Inorganics Analytical Results

Station ID					LL7mw-003	LL7mw-005	LL8mw-003	LL9mw-002	LL9mw-004	LL10mw-002
Sample ID		MCL	Region 9 PRG	USEPA RSL	FWGLL7mw-003C-1605-GF	FWGLL7mw-005C-1606-GF	FWGLL8mw-003C-1607-GF	FWGLL9mw-002C-1608-GF	FWGLL9mw-004C-1609-GF	FWGLL10mw-002C-1610-GF
Date Collected					10/13/2010	10/12/2010	10/13/2010	10/13/2010	10/13/2010	10/13/2010
Sample Type					Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units									
Aluminum	µg/L	200	36000	37000	50.0 U	50.0 U	50.0 U	**46.6 J**	50.0 U	50.0 U
Antimony	µg/L	6	15	15	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Arsenic	µg/L	10	0.045	0.045	5.0 U	5.0 U	**7.1**	**3.5 J**	**3.8 J**	5.0 U
Barium	µg/L	2000	2600	7300	**47.3**	**155**	**25.2**	**3.6 J**	**33.9**	**20.0**
Beryllium	µg/L	4	73	73	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cadmium	µg/L	5	18	18	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Calcium	µg/L	NS	NS	NS	**14800**	**6530**	**119000**	**18100**	**11700**	**39900**
Chromium	µg/L	100	110	55000*	5.0 U	5.0 U	5.0 U	5.0 U	**2.6 J**	5.0 U
Cobalt	µg/L	NS	730	11	**5.2**	**8.0**	5.0 U	5.0 U	**5.3**	5.0 U
Copper	µg/L	1300	1500	1500	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Cyanide	mg/L	0.2	0.73	0.73	0.010 U	**0.025 J**	0.010 U	0.010 U	0.010 U	0.010 U
Iron	µg/L	300	11000	26000	**19500**	**1290**	**775**	50.0 U	**10800**	50.0 U
Lead	µg/L	15	NS	NS	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Magnesium	µg/L	NS	NS	NS	**5220**	**3510**	**41900**	**7510**	**9380**	**12000**
Manganese	µg/L	50	880	880	**1370**	**1630**	**639**	**11.0**	**2220**	**4.7 J**
Mercury	µg/L	2	11	0.57	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Nickel	µg/L	NS	730	730	**5.1 J**	**7.7 J**	10.0 U	**6.5 J**	**6.2 J**	10.0 U
Potassium	µg/L	NS	NS	NS	**1230**	**1120**	**2430**	**1290**	**820 UJ**	**887 J**
Selenium	µg/L	50	180	180	5.0 U	5.0 U	**4.8 J**	5.0 U	5.0 U	5.0 U
Silver	µg/L	100	180	180	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Sodium	µg/L	NS	NS	NS	**6140**	**2520 J**	**42800**	**2280**	**5130**	**7920**
Thallium	µg/L	2	2.4	NS	0.15 UJB	1.0 U	1.0 U	0.20 UJB	1.0 U	1.0 U
Vanadium	µg/L	NS	36	180	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Zinc	µg/L	5000	11000	11000	**13.3**	**6.8 JB**	10.0 U	**3.0 J**	12.2	10.0 U

Notes:

NS = no standard

Bold = detected compound above the MDL

N/A = Not Analyzed

Table 3-3. FWGWMP October 2010 Inorganics Analytical Results

Station ID					LL10mw-003	LL11mw-001	LL11mw-002	LL11mw-007	LL11mw-009	RQLmw-006
Sample ID		MCL	Region 9 PRG	USEPA RSL	FWGLL10mw-003C-1611-GF	FWGLL11mw-001C-1612-GF	FWGLL11mw-002C-1613-GF	FWGLL11mw-007C-1614-GF	FWGLL11mw-009C-1615-GF	FWGRQLmw-006C-1616-GF
Date Collected					10/13/2010	10/13/2010	10/13/2010	10/13/2010	10/13/2010	10/14/2010
Sample Type					Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units									
Aluminum	µg/L	200	36000	37000	50.0 U	50.0 U	94.6 B	50.0 U	**20.6 J**	50.0 U
Antimony	µg/L	6	15	15	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Arsenic	µg/L	10	0.045	0.045	5.0 U	5.0 U	5.0 U	**18.6**	5.0 U	**55.9**
Barium	µg/L	2000	2600	7300	10.0 U	**69.1**	**29.9**	**77.8**	**71.9**	**7.5 J**
Beryllium	µg/L	4	73	73	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cadmium	µg/L	5	18	18	0.50 U	0.50 U	**2.3**	0.50 U	0.50 U	0.50 U
Calcium	µg/L	NS	NS	NS	**46500**	**85900**	**88100**	**79500**	**80100**	**57800**
Chromium	µg/L	100	110	55000*	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Cobalt	µg/L	NS	730	11	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	**15.7**
Copper	µg/L	1300	1500	1500	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Cyanide	mg/L	0.2	0.73	0.73	0.010 U	0.010 U	0.010 UJ	0.010 U	0.010 U	0.010 UJ
Iron	µg/L	300	11000	26000	50.0 U	50.0 U	50.0 U	**333**	50.0 U	**39500**
Lead	µg/L	15	NS	NS	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Magnesium	µg/L	NS	NS	NS	**13100**	**27500**	**27700**	**28200**	**26700**	**22300**
Manganese	µg/L	50	880	880	10.0 U	**960**	**623**	**183**	**751**	**5360**
Mercury	µg/L	2	11	0.57	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Nickel	µg/L	NS	730	730	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	**181**
Potassium	µg/L	NS	NS	NS	685 UJ	**962 J**	**1710**	**1300**	**916 J**	**959 J**
Selenium	µg/L	50	180	180	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Silver	µg/L	100	180	180	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Sodium	µg/L	NS	NS	NS	**9790**	**13800**	**11000**	**13100**	**11600**	**1430**
Thallium	µg/L	2	2.4	NS	1.0 U	0.25 UJB	**0.49 JB**	1.0 U	1.0 U	0.21 UJB
Vanadium	µg/L	NS	36	180	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Zinc	µg/L	5000	11000	11000	**4.7 J**	10.0 U	**17.9 J**	10.0 U	10.0 U	**15.2 J**

Notes:

NS = no standard

Bold = detected compound above the MDL

N/A = Not Analyzed

Table 3-3. FWGWMP October 2010 Inorganics Analytical Results

Station ID					RQLmw-007	RQLmw-008	RQLmw-009	RQLmw-010	RQLmw-011	SCFmw-001
Sample ID		MCL	Region 9 PRG	USEPA RSL	FWGRQLmw-007C-1617-GF	FWGRQLmw-008C-1618-GF	FWGLL11mw-009C-1615-GF	FWGLL11mw-009C-1615-GF	FWGLL11mw-009C-1615-GF	FWGSCFmw-001-1583-GF
Date Collected					10/14/2010	10/14/2010	10/14/2010	10/14/2010	10/14/2010	10/11/2010
Sample Type					Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units									
Aluminum	µg/L	200	36000	37000	50.0 U	50.0 U	**19.0 JB**	50.0 U	50.0 U	50.0 U
Antimony	µg/L	6	15	15	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Arsenic	µg/L	10	0.045	0.045	**70.2**	**68.7**	**27.4**	5.0 U	5.0 U	**16.4**
Barium	µg/L	2000	2600	7300	**49.4**	**86.9**	**36.8**	**10.0 U**	**13.9**	**37.9**
Beryllium	µg/L	4	73	73	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cadmium	µg/L	5	18	18	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Calcium	µg/L	NS	NS	NS	**134000**	**60700**	**21500**	**63100**	**51700**	**104000**
Chromium	µg/L	100	110	55000*	5.0 U	5.0 U	5.0	5.0 U	5.0 U	5.0 U
Cobalt	µg/L	NS	730	11	5.3 U	5.0 U	**5.6 B**	5.0 U	**15.2**	5.0 U
Copper	µg/L	1300	1500	1500	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Cyanide	mg/L	0.2	0.73	0.73	**0.0050 JB**	0.010 UJ	0.010 UJ	0.010 UJ	0.010 UJ	0.010 UJ
Iron	µg/L	300	11000	26000	**20100**	**94400**	**3880**	**50.0 U**	**1550**	**888**
Lead	µg/L	15	NS	NS	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Magnesium	µg/L	NS	NS	NS	**106000**	**48200**	**23300**	**35000**	**19700**	**28800**
Manganese	µg/L	50	880	880	**1380**	**680**	**946**	**1280**	**4050**	**195**
Mercury	µg/L	2	11	0.57	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Nickel	µg/L	NS	730	730	**8.9 J**	**2.2 J**	**6.8 J**	**3.8 J**	**34.9**	**2.7 J**
Potassium	µg/L	NS	NS	NS	**7490**	**4790**	**3930**	**3220**	**2810**	**1740**
Selenium	µg/L	50	180	180	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Silver	µg/L	100	180	180	5.0 U	5.0 U	**2.8 J**	5.0 U	5.0 U	5.0 U
Sodium	µg/L	NS	NS	NS	**7210**	**6830**	**1910**	**4940**	**3440**	**13800 J**
Thallium	µg/L	2	2.4	NS	0.27 UJB	1.0 U	0.21 UJB	0.16 UJB	0.21 UJB	1.0 U
Vanadium	µg/L	NS	36	180	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Zinc	µg/L	5000	11000	11000	**8.1 JB**	**4.1 JB**	10.0 U	**9.3 JB**	**16.1 J**	10.0 U

Notes:

NS = no standard

Bold = detected compound above the MDL

N/A = Not Analyzed

Table 3-3. FWGWMP October 2010 Inorganics Analytical Results

Station ID					SCFmw-002	SCFmw-003	SCFmw-004	SCFmw-005	SCFmw-006
Sample ID		MCL	Region 9 PRG	USEPA RSL	FWGSCFmw-002-1584-GF	FWGSCFmw-003-1585-GF	FWGSCFmw-004-1586-GF	FWGSCFmw-005-1587-GF	FWGSCFmw-006-1588-GF
Date Collected					10/11/2010	10/11/2010	10/12/2010	10/12/2010	10/12/2010
Sample Type					Grab	Grab	Grab	Grab	Grab
Analyte	Units								
Aluminum	µg/L	200	36000	37000	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U
Antimony	µg/L	6	15	15	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Arsenic	µg/L	10	0.045	0.045	**18.1**	5.0 U	5.0 U	**5.4**	**13.7**
Barium	µg/L	2000	2600	7300	**40.9**	**74.6**	**93.9**	**20.3**	**118**
Beryllium	µg/L	4	73	73	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cadmium	µg/L	5	18	18	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Calcium	µg/L	NS	NS	NS	**85100**	**68000**	**137000**	**84200**	**63000**
Chromium	µg/L	100	110	55000*	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Cobalt	µg/L	NS	730	11	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Copper	µg/L	1300	1500	1500	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Cyanide	mg/L	0.2	0.73	0.73	0.010 UJ	0.010 UJ	**0.013 J**	0.010 UJ	0.010 UJ
Iron	µg/L	300	11000	26000	**348**	**521**	50.0 U	**5320**	**518**
Lead	µg/L	15	NS	NS	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Magnesium	µg/L	NS	NS	NS	**27400**	**27100**	**54600**	**40300**	**16300**
Manganese	µg/L	50	880	880	**77.9**	**237**	**658**	**1790**	**172**
Mercury	µg/L	2	11	0.57	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Nickel	µg/L	NS	730	730	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Potassium	µg/L	NS	NS	NS	**2130**	**1410**	**2430**	**2330**	**1420**
Selenium	µg/L	50	180	180	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Silver	µg/L	100	180	180	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Sodium	µg/L	NS	NS	NS	**22700 J**	**7670 J**	**13800 J**	**7920 J**	**10600 J**
Thallium	µg/L	2	2.4	NS	0.38 UJB	1.0 U	1.0 U	1.0 U	1.0 U
Vanadium	µg/L	NS	36	180	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Zinc	µg/L	5000	11000	11000	10.0 U	10.0 U	10.0 U	**4.2 JB**	10.0 U

Notes:

NS = no standard

Bold = detected compound above the MDL

N/A = Not Analyzed

Table 3-3. FWGWMP October 2010 Inorganics Analytical Results

Data Qualifiers

Data qualifier flags are used in an effort to describe the quality of each piece of data for each constituent. These flags are letter codes appended to the numerical data. The following data qualifiers are specified in the USACE Louisville Chemistry Guidelines. For a complete explanation of qualifiers used for each constituent please refer to the Data Verification Summaries in Appendix D.

U The analyte was analyzed for but not detected. The numerical value preceding the U is the associated reporting limit.

J 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 (i.e., the quantitative value is estimated). Examples include:

- Results detected above the laboratory MDL but less than the laboratory reporting limit.
- MS/MSD percent recoveries outside the acceptance criteria.
- Laboratory control sample (LCS) percent recoveries outside acceptance criteria.

R Data are considered to be rejected and shall not be used. This flag denotes the failure of quality control criteria such that it cannot be determined if the analyte is present or absent from the sample [e.g., the method reporting limit (MRL) verification standard was below quality control guidelines; associated sample results that were non-detect are unusable].

UJ This flag is a combination of the U and J qualifiers which indicate that the analyte is not present. The reported value is considered to be an estimated reporting limit (RL).

B The B flag is used for both organic and inorganic analyses when the analyte is found in the method blank or any of the field blanks. This designation overrides the Contract Laboratory Program (CLP) "B" designation when used by the laboratory as an estimated value for inorganics.

Table 3-4. RVAAP Facility-Wide Background Criteria, (SAIC, 2001b)

Media Units	Surface Soil mg/kg	Subsurface Soil mg/kg	Sediment mg/kg	Surface Water ug/L	Groundwater Bedrock Zone Filtered ug/L	Groundwater Bedrock Zone Unfiltered ug/L	Groundwater Unconsolidated Zone Filtered ug/L	Groundwater Unconsolidated Unfiltered ug/L
Analyte								
Cyanide	0	0	0	0	0	0	0	0
Aluminum	17700	19500	13900	3370	0	9410	0	0
Antimony	0.96	0.96	0	0	0	0	0	0
Arsenic	15.4	19.8	19.5	3.2	0	19.1	11.7	11.7
Barium	88.4	124	123	47.5	256	241	82.1	82.1
Beryllium	0.88	0.88	0.38	0	0	0	0	0
Cadmium	0	0	0	0	0	0	0	0
Calcium	15800	35500	5510	41400	53100	48200	115000	115000
Chromium	17.4	27.2	18.1	0	0	19.5	7.3	7.3
Cobalt	10.4	23.2	9.1	0	0	0	0	0
Copper	17.7	32.3	27.6	7.9	0	17	0	0
Iron	23100	35200	28200	2560	1430	21500	279	279
Lead	26.1	19.1	27.4	0	0	23	0	0
Magnesium	3030	8790	2760	10800	15000	13700	43300	43300
Manganese	1450	3030	1950	391	1340	1260	1020	1020
Mercury	0.036	0.044	0.059	0	0	0	0	0
Nickel	21.1	60.7	17.7	0	83.4	85.3	0	0
Potassium	927	3350	1950	3170	5770	6060	2890	2890
Selenium	104	105	107	0	0	0	0	0
Silver	0	0	0	0	0	0	0	0
Sodium	123	145	112	21300	51400	49700	45700	45700
Thallium	0	0.91	0.89	0	0	0	0	0
Vanadium	31.1	37.6	26.1	0	0	15.5	0	0
Zinc	61.8	93.3	532	42	52.3	193	60.9	60.9

Table 3-5. FWGWMP October 2010 VOCs Analytical Results

Station ID					DETmw-003	DETmw-004	LL1mw-067	LL1mw-081	LL1mw-082	LL1mw-084	LL1mw-085
Sample ID		MCL	Region 9 PRG	USEPA RSL	FWGDETmw-003C-1622-GW	FWGDETmw-004C-1623-GW	FWGLL1mw-067C-1589-GW	FWGLL1mw-081C-1590-GW	FWGLL1mw-082C-1591-GW	FWGLL1mw-084C-1592-GW	FWGLL1mw-085C-1593-GW
Date Collected					10/15/2010	10/14-15/2010	10/11/2010	10/11/2010	10/11/2010	10/11/2010	10/11/2010
Sample Type					Grab	Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units										
1,1,1-Trichloroethane	µg/L	NS	3200	9100	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	µg/L	NS	0.052	0.067	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	µg/L	NS	0.2	0.24	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	NS	810	2.4	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene (total)	µg/L	7	340	340	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	µg/L	NS	0.0056	0.0065	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	5	0.12	0.15	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethene (total)	µg/L	NS	NS	330	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	5	0.16	0.39	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	µg/L	NS	7000	7100	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	µg/L	NS	NS	47	10 UJ	10 UJ	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	µg/L	NS	NS	2000	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	µg/L	NS	5500	22000	10 UJ	10 UJ	10 U	10 U	10 U	10 U	10 U
Benzene	µg/L	5	0.35	0.41	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromochloromethane	µg/L	NS	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	NS	0.18	0.12	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	NS	8.5	8.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	µg/L	NS	8.7	8.7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	NS	1000	1000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	µg/L	5	0.17	0.44	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	NS	110	91	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	NS	4.6	21000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	µg/L	NS	0.17	0.19	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	µg/L	NS	160	190	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-dichloroethene	µg/L	70	61	370	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	µg/L	NS	0.4	0.43	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	µg/L	NS	0.13	0.15	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	700	1300	1.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
m&p-xylenes	µg/L	NS	NS	1200	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methylene chloride	µg/L	NS	4.3	4.8	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
o-xylene	µg/L	NS	NS	1200	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	µg/L	100	1600	1600	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	5	0.1	0.11	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	µg/L	1000	720	2300	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total Xylenes	µg/L	10000	210	200	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
trans-1,2-dichloroethene	µg/L	100	120	110	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	µg/L	NS	0.4	0.43	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	5	0.028	2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	µg/L	2	0.02	0.016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Notes:

NS = no standard

Bold = detected compound above the MDL

Table 3-5. FWGWMP October 2010 VOCs Analytical Results

Station ID					LL2mw-266	LL2mw-267	LL2mw-269	LL3mw-236	LL3mw-239	LL4mw-196	LL4mw-197
Sample ID		MCL	Region 9 PRG	USEPA RSL	FWGLL2mw-266C-1594-GW	FWGLL2mw-267C-1595-GW	FWGLL2mw-269C-1596-GW	FWGLL3mw-236C-1597-GW	FWGLL3mw-239C-1598-GW	FWGLL4mw-196C-1599-GW	FWGLL4mw-197C-1600-GW
Date Collected					10/11/2010	10/12/2010	10/12/2010	10/12/2010	10/12/2010	10/12/2010	10/12/2010
Sample Type					Grab	Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units										
1,1,1-Trichloroethane	µg/L	NS	3200	9100	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	µg/L	NS	0.052	0.067	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	µg/L	NS	0.2	0.24	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	NS	810	2.4	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene (total)	µg/L	7	340	340	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	µg/L	NS	0.0056	0.0065	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	5	0.12	0.15	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethene (total)	µg/L	NS	NS	330	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	5	0.16	0.39	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	µg/L	NS	7000	7100	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	µg/L	NS	NS	47	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	µg/L	NS	NS	2000	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	µg/L	NS	5500	22000	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	µg/L	5	0.35	0.41	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromochloromethane	µg/L	NS	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	NS	0.18	0.12	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	NS	8.5	8.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	µg/L	NS	8.7	8.7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	NS	1000	1000	1.0 U	**0.22 J**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	µg/L	5	0.17	0.44	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	NS	110	91	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	NS	4.6	21000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	µg/L	NS	0.17	0.19	1.0 U	1.0 U	1.0 U	1.0 U	**0.40 JB**	1.0 U	1.0 U
Chloromethane	µg/L	NS	160	190	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-dichloroethene	µg/L	70	61	370	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	µg/L	NS	0.4	0.43	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	µg/L	NS	0.13	0.15	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	700	1300	1.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
m&p-xylenes	µg/L	NS	NS	1200	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methylene chloride	µg/L	NS	4.3	4.8	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
o-xylene	µg/L	NS	NS	1200	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	µg/L	100	1600	1600	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	5	0.1	0.11	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	µg/L	1000	720	2300	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total Xylenes	µg/L	10000	210	200	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
trans-1,2-dichloroethene	µg/L	100	120	110	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	µg/L	NS	0.4	0.43	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	5	0.028	2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	µg/L	2	0.02	0.016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Notes:

NS = no standard

Bold = detected compound above the MDL

Table 3-5. FWGWMP October 2010 VOCs Analytical Results

Station ID					LL6mw-001	LL6mw-004	LL6mw-005	LL7mw-001	LL7mw-003	LL7mw-005	LL8mw-003
Sample ID		MCL	Region 9 PRG	USEPA RSL	FWGLL6mw-001C-1601-GW	FWGLL6mw-004C-1602-GW	FWGLL6mw-005C-1603-GW	FWGLL7mw-001C-1604-GW	FWGLL7mw-003C-1605-GW	FWGLL7mw-005C-1606-GW	FWGLL8mw-003C-1607-GW
Date Collected					10/12-13/2010	10/12/2010	10/12/2010	10/13/2010	10/13/2010	10/12/2010	10/13/2010
Sample Type					Grab	Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units										
1,1,1-Trichloroethane	µg/L	NS	3200	9100	1.0 U	1.0 U	1.0 U	**7.7**	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	NS	0.052	0.067	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	µg/L	NS	0.2	0.24	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	NS	810	2.4	1.0 U	1.0 U	1.0 U	**2.7**	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene (total)	µg/L	7	340	340	1.0 U	1.0 U	1.0 U	**6.4**	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	µg/L	NS	0.0056	0.0065	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	5	0.12	0.15	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethene (total)	µg/L	NS	NS	330	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	5	0.16	0.39	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	µg/L	NS	7000	7100	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	µg/L	NS	NS	47	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	µg/L	NS	NS	2000	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	µg/L	NS	5500	22000	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	µg/L	5	0.35	0.41	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromochloromethane	µg/L	NS	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	NS	0.18	0.12	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	NS	8.5	8.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	µg/L	NS	8.7	8.7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	NS	1000	1000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	µg/L	5	0.17	0.44	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	NS	110	91	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	NS	4.6	21000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	µg/L	NS	0.17	0.19	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	µg/L	NS	160	190	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-dichloroethene	µg/L	70	61	370	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	µg/L	NS	0.4	0.43	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	µg/L	NS	0.13	0.15	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	700	1300	1.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
m&p-xylenes	µg/L	NS	NS	1200	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methylene chloride	µg/L	NS	4.3	4.8	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
o-xylene	µg/L	NS	NS	1200	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	µg/L	100	1600	1600	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	5	0.1	0.11	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	µg/L	1000	720	2300	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total Xylenes	µg/L	10000	210	200	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
trans-1,2-dichloroethene	µg/L	100	120	110	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	µg/L	NS	0.4	0.43	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	5	0.028	2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	µg/L	2	0.02	0.016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Notes:

NS = no standard

Bold = detected compound above the MDL

Table 3-5. FWGWMP October 2010 VOCs Analytical Results

Station ID					LL9mw-002	LL9mw-004	LL10mw-002	LL10mw-003	LL11mw-001	LL11mw-002	LL11mw-007
Sample ID		MCL	Region 9 PRG	USEPA RSL	FWGLL9mw-002C-1608-GW	FWGLL9mw-004C-1609-GW	FWGLL10mw-002C-1610-GW	FWGLL10mw-003C-1611-GW	FWGLL11mw-001C-1612-GW	FWGLL11mw-002C-1613-GW	FWGLL11mw-007C-1614-GW
Date Collected					10/13/2010	10/13/2010	10/13/2010	10/13/2010	10/13/2010	10/13/2010	10/13/2010
Sample Type					Grab	Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units										
1,1,1-Trichloroethane	µg/L	NS	3200	9100	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	µg/L	NS	0.052	0.067	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	µg/L	NS	0.2	0.24	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	NS	810	2.4	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene (total)	µg/L	7	340	340	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	µg/L	NS	0.0056	0.0065	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	5	0.12	0.15	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethene (total)	µg/L	NS	NS	330	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	5	0.16	0.39	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	µg/L	NS	7000	7100	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	µg/L	NS	NS	47	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	µg/L	NS	NS	2000	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	µg/L	NS	5500	22000	10 U	10 U	10 U	10 U	10 U	10 UJ	10 U
Benzene	µg/L	5	0.35	0.41	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromochloromethane	µg/L	NS	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	NS	0.18	0.12	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	NS	8.5	8.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	µg/L	NS	8.7	8.7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	NS	1000	1000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	µg/L	5	0.17	0.44	1.0 U	1.0 U	1.0 U	**2.8**	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	NS	110	91	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	NS	4.6	21000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	µg/L	NS	0.17	0.19	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	µg/L	NS	160	190	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-dichloroethene	µg/L	70	61	370	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	µg/L	NS	0.4	0.43	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	µg/L	NS	0.13	0.15	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	700	1300	1.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
m&p-xylenes	µg/L	NS	NS	1200	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methylene chloride	µg/L	NS	4.3	4.8	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
o-xylene	µg/L	NS	NS	1200	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	µg/L	100	1600	1600	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	5	0.1	0.11	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	µg/L	1000	720	2300	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total Xylenes	µg/L	10000	210	200	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
trans-1,2-dichloroethene	µg/L	100	120	110	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	µg/L	NS	0.4	0.43	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	5	0.028	2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	µg/L	2	0.02	0.016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Notes:

NS = no standard

Bold = detected compound above the MDL

Table 3-5. FWGWMP October 2010 VOCs Analytical Results

Station ID					LL11mw-009	RQLmw-006	RQLmw-007	RQLmw-008	RQLmw-009	RQLmw-010	RQLmw-011
Sample ID		MCL	Region 9 PRG	USEPA RSL	FWGLL11mw-009C-1615-GW	FWGRQLmw-006C-1616-GW	FWGRQLmw-007C-1617-GW	FWGRQLmw-008C-1618-GW	FWGRQLmw-009C-1619-GW	FWGRQLmw-010C-1610-GW	FWGRQLmw-011C-1621-GW
Date Collected					10/13/2010	10/14/2010	10/14/2010	10/14/2010	10/14/2010	10/14/2010	10/14/2010
Sample Type					Grab	Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units										
1,1,1-Trichloroethane	µg/L	NS	3200	9100	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	µg/L	NS	0.052	0.067	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	µg/L	NS	0.2	0.24	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	NS	810	2.4	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene (total)	µg/L	7	340	340	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	µg/L	NS	0.0056	0.0065	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	5	0.12	0.15	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethene (total)	µg/L	NS	NS	330	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	5	0.16	0.39	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	µg/L	NS	7000	7100	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	µg/L	NS	NS	47	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	µg/L	NS	NS	2000	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	µg/L	NS	5500	22000	10 U	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Benzene	µg/L	5	0.35	0.41	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromochloromethane	µg/L	NS	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	NS	0.18	0.12	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	NS	8.5	8.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	µg/L	NS	8.7	8.7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	NS	1000	1000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	µg/L	5	0.17	0.44	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	NS	110	91	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	NS	4.6	21000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	µg/L	NS	0.17	0.19	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	µg/L	NS	160	190	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-dichloroethene	µg/L	70	61	370	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	µg/L	NS	0.4	0.43	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	µg/L	NS	0.13	0.15	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	700	1300	1.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
m&p-xylenes	µg/L	NS	NS	1200	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methylene chloride	µg/L	NS	4.3	4.8	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
o-xylene	µg/L	NS	NS	1200	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	µg/L	100	1600	1600	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	5	0.1	0.11	**4.1**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	µg/L	1000	720	2300	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total Xylenes	µg/L	10000	210	200	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
trans-1,2-dichloroethene	µg/L	100	120	110	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	µg/L	NS	0.4	0.43	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	5	0.028	2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	µg/L	2	0.02	0.016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Notes:

NS = no standard

Bold = detected compound above the MDL

Table 3-5. FWGWMP October 2010 VOCs Analytical Results

Station ID					SCFmw-001	SCFmw-002	SCFmw-003	SCFmw-004	SCFmw-005	SCFmw-006
Sample ID		MCL	Region 9 PRG	USEPA RSL	FWGSCFmw-001-1583-GW	FWGSCFmw-002-1584-GW	FWGSCFmw-003-1585-GW	FWGSCFmw-004-1586-GW	FWGSCFmw-005-1587-GW	FWGSCFmw-006-1588-GW
Date Collected					10/11/2010	10/11/2010	10/11/2010	10/12/2010	10/12/2010	10/12/2010
Sample Type					Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units									
1,1,1-Trichloroethane	µg/L	NS	3200	9100	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	NS	0.052	0.067	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	NS	0.2	0.24	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	NS	810	2.4	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene (total)	µg/L	7	340	340	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	µg/L	NS	0.0056	0.0065	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	5	0.12	0.15	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethene (total)	µg/L	NS	NS	330	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	5	0.16	0.39	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	µg/L	NS	7000	7100	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	µg/L	NS	NS	47	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	µg/L	NS	NS	2000	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	µg/L	NS	5500	22000	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	µg/L	5	0.35	0.41	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromochloromethane	µg/L	NS	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	NS	0.18	0.12	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	NS	8.5	8.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	µg/L	NS	8.7	8.7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	NS	1000	1000	**1.5 J**	**1.1 J**	**0.46 J**	1.0 U	**1.5**	1.0 U
Carbon tetrachloride	µg/L	5	0.17	0.44	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	NS	110	91	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	NS	4.6	21000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	µg/L	NS	0.17	0.19	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	µg/L	NS	160	190	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-dichloroethene	µg/L	70	61	370	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	µg/L	NS	0.4	0.43	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	µg/L	NS	0.13	0.15	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	700	1300	1.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
m&p-xylenes	µg/L	NS	NS	1200	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methylene chloride	µg/L	NS	4.3	4.8	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
o-xylene	µg/L	NS	NS	1200	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	µg/L	100	1600	1600	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	5	0.1	0.11	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	µg/L	1000	720	2300	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total Xylenes	µg/L	10000	210	200	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
trans-1,2-dichloroethene	µg/L	100	120	110	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	µg/L	NS	0.4	0.43	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	5	0.028	2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	µg/L	2	0.02	0.016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Notes:

NS = no standard

Bold = detected compound above the MDL

Table 3-5. FWGWMP October 2010 VOCs Analytical Results

Data Qualifiers

Data qualifier flags are used in an effort to describe the quality of each piece of data for each constituent. These flags are letter codes appended to the numerical data. The following data qualifiers are specified in the USACE Louisville Chemistry Guidelines. For a complete explanation of qualifiers used for each constituent please refer to the Data Verification Summaries in Appendix D.

U The analyte was analyzed for but not detected. The numerical value preceding the U is the associated reporting limit.

J 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 (i.e., the quantitative value is estimated). Examples include:

- Results detected above the laboratory MDL but less than the laboratory reporting limit.
- MS/MSD percent recoveries outside the acceptance criteria.
- Laboratory control sample (LCS) percent recoveries outside acceptance criteria.

R Data are considered to be rejected and shall not be used. This flag denotes the failure of quality control criteria such that it cannot be determined if the analyte is present or absent from the sample [e.g., the method reporting limit (MRL) verification standard was below quality control guidelines; associated sample results that were non-detect are unusable].

UJ This flag is a combination of the U and J qualifiers which indicate that the analyte is not present. The reported value is considered to be an estimated reporting limit (RL).

B The B flag is used for both organic and inorganic analyses when the analyte is found in the method blank or any of the field blanks. This designation overrides the Contract Laboratory Program (CLP) "B" designation when used by the laboratory as an estimated value for inorganics.

3.2.4 Semivolatile Organic Compounds (SVOCs)

SVOC analytical results are summarized in Table 3-6. The following SVOCs were detected above the MDL for this sampling event. Note that 2,4-Dinitrotoluene and 2,6-Dinitrotoluene are analyzed and reported under both SW-846 Methods 8330 (explosives and propellants) and 8270 (SVOCs).

- Bis(2-Ethylhexyl)phthalate – DETmw-004 (1.0 µg/L J), SCFmw-001 (2.3 µg/L J), LL1mw-084 (6.1µg/L J), LL2mw-267 (1.3 µg/L J B), LL2mw-269 (1.4 µg/L J B), LL6mw-004 (2.0 µg/L J), LL7mw-001 (3.7 µg/L J), LL7mw-005 (2.1 µg/L J), LL11mw-002 (2.8 µg/L J), RQLmw-010 (0.92 µg/L J). There is no MCL for Bis(2-Ethylhexyl)phthalate. The Region 9 PRG is 4.8 µg/L.

- Butyl Benzyl Phthalate –RQLmw-006 (0.95 µg/L J). There is no MCL for Butyl Benzyl Phthalate. The Region 9 PRG is 7300 µg/L.

- Naphthalene – DETmw-003 (0.28 µg/L). There is no MCL for Naphthalene. The Region 9 PRG is 6.2 µg/L.

As shown in Table 3-6 the following SVOCs were detected at a level exceeding either the MCL or the Region 9 PRGs:

- Bis(2-Ethylhexyl)phthalate at a concentration exceeding the Region 9 PRG of 4.8 µg/L at LL1mw-084 (6.1µg/L J).

3.2.5 Pesticides and Polychlorinated Biphenyls (PCBs)

Pesticides and PCBs analytical results are summarized in Table 3-7. The following pesticides and PCBs were detected above the MDL for this sampling event.

- alpha BHC – RQLmw-008 (0.015 µg/L J). There is no MCL for alpha BHC. The Region 9 PRG is 0.011 µg/L.

- delta-BHC – RQLmw-008 (0.0098 µg/L J). There is no MCL or Region 9 PRG for delta-BHC.

- gamma BHC – SCFmw-005 (0.015 µg/L J). The MCL for gamma BHC is 0.2 µg/L. The Region 9 PRG is 0.052 µg/L.

- Endrin Aldehyde – LL1mw-085 (0.011 µg/L J), LL2mw-266 (0.029 µg/L J). There is no MCL or Region 9 PRG for endrin aldehyde.

- Endrin Ketone – LL2mw-266 (0.013 µg/L J). There is no MCL or Region 9 PRG for Endrin Ketone.

Table 3-6. FWGWMP October 2010 SVOCs Analytical Results

Station ID					DETmw-003	DETmw-004	LL1mw-067	LL1mw-081	LL1mw-082	LL1mw-084
Sample ID		MCL	Region 9 PRG	USEPA RSL	FWGDETmw-003C-1622-GW	FWGDETmw-004C-1623-GW	FWGLL1mw-067C-1589-GW	FWGLL1mw-081C-1590-GW	FWGLL1mw-082C-1591-GW	FWGLL1mw-084C-1592-GW
Date Collected					10/15/2010	10/14-15/2010	10/11/2010	10/11/2010	10/11/2010	10/11/2010
Sample Type					Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units									
1,2,4-Trichlorobenzene	µg/L	NS	7.2	2.3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	NS	370	370	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	NS	180	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	NS	0.5	0.043	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2,2-oxybis (1-chloropropane)	µg/L	NS	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2,4,5-Trichlorophenol	µg/L	NS	3600	3700	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4,6-Trichlorophenol	µg/L	NS	3.6	6.1	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dichlorophenol	µg/L	NS	110	110	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
2,4-Dimethylphenol	µg/L	NS	730	730	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
2,4-Dinitrophenol	µg/L	NS	73	73	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dinitrotoluene	µg/L	NS	73	0.22	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.91 J
2,6-Dinitrotoluene	µg/L	NS	36	37	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Chloronaphthalene	µg/L	NS	490	2900	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Chlorophenol	µg/L	NS	30	180	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Methylnaphthalene	µg/L	NS	NS	150	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
2-Methylphenol	µg/L	NS	1800	1800	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Nitroaniline	µg/L	NS	110	370	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
2-Nitrophenol	µg/L	NS	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
3,3'-Dichlorobenzidine	µg/L	NS	0.15	0.15	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
3-Nitroaniline	µg/L	NS	3.2	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
4,6-Dinitro-2-methylphenol	µg/L	NS	NS	NS	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Bromophenyl phenyl ether	µg/L	NS	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
4-Chloro-3-methylphenol	µg/L	NS	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
4-Chloroaniline	µg/L	NS	150	0.34	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
4-Chlorophenyl phenyl ether	µg/L	NS	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
4-Methylphenol	µg/L	NS	180	180	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
4-Nitroanaline	µg/L	NS	3.2	3.4	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
4-Nitrophenol	µg/L	NS	NS	NS	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acenaphthene	µg/L	NS	370	2200	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Acenaphthylene	µg/L	NS	NS	NS	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Anthracene	µg/L	NS	1800	11000	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Benzo(a)anthracene	µg/L	NS	0.092	0.029	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Benzo(a)pyrene	µg/L	0.2	0.0092	0.0029	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Benzo(b)fluoranthene	µg/L	NS	0.092	0.056	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Benzo(g,h,i)perylene	µg/L	NS	NS	NS	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Benzo(k)fluoranthene	µg/L	NS	0.92	0.029	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Benzoic acid	µg/L	NS	150000	150000	10 U	10 U	10 U	10 U	10 U	10 U
Benzyl alcohol	µg/L	NS	11000	3700	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Table 3-6. FWGWMP October 2010 SVOCs Analytical Results

Station ID					DETmw-003	DETmw-004	LL1mw-067	LL1mw-081	LL1mw-082	LL1mw-084
Sample ID		MCL	Region 9 PRG	USEPA RSL	FWGDETmw-003C-1622-GW	FWGDETmw-004C-1623-GW	FWGLL1mw-067C-1589-GW	FWGLL1mw-081C-1590-GW	FWGLL1mw-082C-1591-GW	FWGLL1mw-084C-1592-GW
Date Collected					10/15/2010	10/14-15/2010	10/11/2010	10/11/2010	10/11/2010	10/11/2010
Sample Type					Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units									
bis(2-Chloroethoxy)methane	µg/L	NS	NS	110	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
bis(2-Chloroethyl) ether	µg/L	NS	0.001	0.012	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
bis(2-Ethylhexyl) phthalate	µg/L	NS	4.8	4.8	10 U	**1.0 J**	10 U	10 U	10 U	**6.1 J**
Butyl benzyl phthalate	µg/L	NS	7300	35	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbazole	µg/L	NS	3.4	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chrysene	µg/L	NS	9.2	2.9	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Dibenzo(a,h)anthracene	µg/L	NS	0.0093	0.0029	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Dibenzofuran	µg/L	NS	12	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Diethyl phthalate	µg/L	NS	29000	29000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dimethyl phthalate	µg/L	NS	360000	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Di-n-butyl phthalate	µg/L	NS	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Di-n-octyl phthalate	µg/L	NS	1500	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Fluoranthene	µg/L	NS	NS	1500	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Fluorene	µg/L	NS	NS	1500	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Hexachlorobenzene	µg/L	1	0.042	0.042	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Hexachlorobutadiene	µg/L	NS	0.86	0.86	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorocyclopentadiene	µg/L	50	220	220	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	µg/L	NS	4.8	4.8	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Indeno(1,2,3-cd)pyrene	µg/L	NS	0.092	0.029	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Isophorone	µg/L	NS	71	71	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Naphthalene	µg/L	NS	6.2	0.14	**0.28**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Nitrobenzene	µg/L	NS	3.4	0.12	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
N-Nitroso-di-n-propylamine	µg/L	NS	9600	9600	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
N-Nitrosodiphenylamine	µg/L	NS	14	14	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Pentachlorophenol	µg/L	1	0.56	0.56	5.0 R	5.0 R	5.0 U	5.0 U	5.0 U	5.0 U
Phenanthrene	µg/L	NS	NS	NS	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Phenol	µg/L	NS	11000	11000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Pyrene	µg/L	NS	NS	1100	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U

Notes:

NS = no standard

Bold = detected compound above the MDL

N/A = Not Analyzed

Table 3-6. FWGWMP October 2010 SVOCs Analytical Results

Station ID					LL1mw-085	LL2mw-266	LL2mw-267	LL2mw-269	LL3mw-236	LL3mw-239
Sample ID		MCL	Region 9 PRG	USEPA RSL	FWGLL1mw-085C-1593-GW	FWGLL2mw-266C-1594-GW	FWGLL2mw-267C-1595-GW	FWGLL2mw-269C-1596-GW	FWGLL3mw-236C-1597-GW	FWGLL3mw-239C-1598-GW
Date Collected					10/11/2010	10/11/2010	10/12/2010	10/12/2010	10/12/2010	10/12/2010
Sample Type					Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units									
1,2,4-Trichlorobenzene	µg/L	NS	7.2	2.3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	NS	370	370	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	NS	180	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	NS	0.5	0.043	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2,2-oxybis (1-chloropropane)	µg/L	NS	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2,4,5-Trichlorophenol	µg/L	NS	3600	3700	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4,6-Trichlorophenol	µg/L	NS	3.6	6.1	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dichlorophenol	µg/L	NS	110	110	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
2,4-Dimethylphenol	µg/L	NS	730	730	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
2,4-Dinitrophenol	µg/L	NS	73	73	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dinitrotoluene	µg/L	NS	73	0.22	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,6-Dinitrotoluene	µg/L	NS	36	37	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Chloronaphthalene	µg/L	NS	490	2900	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Chlorophenol	µg/L	NS	30	180	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Methylnaphthalene	µg/L	NS	NS	150	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
2-Methylphenol	µg/L	NS	1800	1800	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Nitroaniline	µg/L	NS	110	370	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
2-Nitrophenol	µg/L	NS	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
3,3'-Dichlorobenzidine	µg/L	NS	0.15	0.15	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
3-Nitroaniline	µg/L	NS	3.2	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
4,6-Dinitro-2-methylphenol	µg/L	NS	NS	NS	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Bromophenyl phenyl ether	µg/L	NS	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
4-Chloro-3-methylphenol	µg/L	NS	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
4-Chloroaniline	µg/L	NS	150	0.34	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
4-Chlorophenyl phenyl ether	µg/L	NS	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
4-Methylphenol	µg/L	NS	180	180	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
4-Nitroanaline	µg/L	NS	3.2	3.4	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
4-Nitrophenol	µg/L	NS	NS	NS	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acenaphthene	µg/L	NS	370	2200	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Acenaphthylene	µg/L	NS	NS	NS	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Anthracene	µg/L	NS	1800	11000	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Benzo(a)anthracene	µg/L	NS	0.092	0.029	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Benzo(a)pyrene	µg/L	0.2	0.0092	0.0029	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Benzo(b)fluoranthene	µg/L	NS	0.092	0.056	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Benzo(g,h,i)perylene	µg/L	NS	NS	NS	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Benzo(k)fluoranthene	µg/L	NS	0.92	0.029	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Benzoic acid	µg/L	NS	150000	150000	10 U	10 U	10 U	10 U	10 U	10 U
Benzyl alcohol	µg/L	NS	11000	3700	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Table 3-6. FWGWMP October 2010 SVOCs Analytical Results

Station ID					LL1mw-085	LL2mw-266	LL2mw-267	LL2mw-269	LL3mw-236	LL3mw-239
Sample ID		MCL	Region 9 PRG	USEPA RSL	FWGLL1mw-085C-1593-GW	FWGLL2mw-266C-1594-GW	FWGLL2mw-267C-1595-GW	FWGLL2mw-269C-1596-GW	FWGLL3mw-236C-1597-GW	FWGLL3mw-239C-1598-GW
Date Collected					10/11/2010	10/11/2010	10/12/2010	10/12/2010	10/12/2010	10/12/2010
Sample Type					Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units									
bis(2-Chloroethoxy)methane	µg/L	NS	NS	110	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
bis(2-Chloroethyl) ether	µg/L	NS	0.001	0.012	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
bis(2-Ethylhexyl) phthalate	µg/L	NS	4.8	4.8	10 U	10 U	**1.3 J**	**1.4 J**	10 U	10 U
Butyl benzyl phthalate	µg/L	NS	7300	35	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbazole	µg/L	NS	3.4	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chrysene	µg/L	NS	9.2	2.9	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Dibenzo(a,h)anthracene	µg/L	NS	0.0093	0.0029	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Dibenzofuran	µg/L	NS	12	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Diethyl phthalate	µg/L	NS	29000	29000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dimethyl phthalate	µg/L	NS	360000	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Di-n-butyl phthalate	µg/L	NS	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Di-n-octyl phthalate	µg/L	NS	1500	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Fluoranthene	µg/L	NS	NS	1500	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Fluorene	µg/L	NS	NS	1500	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Hexachlorobenzene	µg/L	1	0.042	0.042	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Hexachlorobutadiene	µg/L	NS	0.86	0.86	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorocyclopentadiene	µg/L	50	220	220	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	µg/L	NS	4.8	4.8	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Indeno(1,2,3-cd)pyrene	µg/L	NS	0.092	0.029	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Isophorone	µg/L	NS	71	71	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Naphthalene	µg/L	NS	6.2	0.14	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Nitrobenzene	µg/L	NS	3.4	0.12	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
N-Nitroso-di-n-propylamine	µg/L	NS	9600	9600	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
N-Nitrosodiphenylamine	µg/L	NS	14	14	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Pentachlorophenol	µg/L	1	0.56	0.56	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Phenanthrene	µg/L	NS	NS	NS	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Phenol	µg/L	NS	11000	11000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Pyrene	µg/L	NS	NS	1100	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U

Notes:

NS = no standard

Bold = detected compound above the MDL

N/A = Not Analyzed

Table 3-6. FWGWMP October 2010 SVOCs Analytical Results

Station ID					LL4mw-196	LL4mw-197	LL6mw-001	LL6mw-004	LL6mw-005	LL7mw-001
Sample ID		MCL	Region 9 PRG	USEPA RSL	FWGLL4mw-196C-1599-GW	FWGLL4mw-197C-1600-GW	FWGLL6mw-001C-1601-GW	FWGLL6mw-004C-1602-GW	FWGLL6mw-005C-1603-GW	FWGLL7mw-001C-1604-GW
Date Collected					10/12/2010	10/12/2010	10/12-13/2010	10/12/2010	10/12/2010	10/13/2010
Sample Type					Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units									
1,2,4-Trichlorobenzene	µg/L	NS	7.2	2.3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	NS	370	370	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	NS	180	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	NS	0.5	0.043	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2,2-oxybis (1-chloropropane)	µg/L	NS	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2,4,5-Trichlorophenol	µg/L	NS	3600	3700	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4,6-Trichlorophenol	µg/L	NS	3.6	6.1	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dichlorophenol	µg/L	NS	110	110	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
2,4-Dimethylphenol	µg/L	NS	730	730	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
2,4-Dinitrophenol	µg/L	NS	73	73	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dinitrotoluene	µg/L	NS	73	0.22	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,6-Dinitrotoluene	µg/L	NS	36	37	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Chloronaphthalene	µg/L	NS	490	2900	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Chlorophenol	µg/L	NS	30	180	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Methylnaphthalene	µg/L	NS	NS	150	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
2-Methylphenol	µg/L	NS	1800	1800	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Nitroaniline	µg/L	NS	110	370	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
2-Nitrophenol	µg/L	NS	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
3,3'-Dichlorobenzidine	µg/L	NS	0.15	0.15	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
3-Nitroaniline	µg/L	NS	3.2	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
4,6-Dinitro-2-methylphenol	µg/L	NS	NS	NS	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Bromophenyl phenyl ether	µg/L	NS	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
4-Chloro-3-methylphenol	µg/L	NS	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
4-Chloroaniline	µg/L	NS	150	0.34	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
4-Chlorophenyl phenyl ether	µg/L	NS	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
4-Methylphenol	µg/L	NS	180	180	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
4-Nitroanaline	µg/L	NS	3.2	3.4	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
4-Nitrophenol	µg/L	NS	NS	NS	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acenaphthene	µg/L	NS	370	2200	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Acenaphthylene	µg/L	NS	NS	NS	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Anthracene	µg/L	NS	1800	11000	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Benzo(a)anthracene	µg/L	NS	0.092	0.029	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Benzo(a)pyrene	µg/L	0.2	0.0092	0.0029	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Benzo(b)fluoranthene	µg/L	NS	0.092	0.056	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Benzo(g,h,i)perylene	µg/L	NS	NS	NS	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Benzo(k)fluoranthene	µg/L	NS	0.92	0.029	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Benzoic acid	µg/L	NS	150000	150000	10 U	10 U	10 U	10 U	10 U	10 U
Benzyl alcohol	µg/L	NS	11000	3700	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Table 3-6. FWGWMP October 2010 SVOCs Analytical Results

Station ID					LL4mw-196	LL4mw-197	LL6mw-001	LL6mw-004	LL6mw-005	LL7mw-001
Sample ID		MCL	Region 9 PRG	USEPA RSL	FWGLL4mw-196C-1599-GW	FWGLL4mw-197C-1600-GW	FWGLL6mw-001C-1601-GW	FWGLL6mw-004C-1602-GW	FWGLL6mw-005C-1603-GW	FWGLL7mw-001C-1604-GW
Date Collected					10/12/2010	10/12/2010	10/12-13/2010	10/12/2010	10/12/2010	10/13/2010
Sample Type					Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units									
bis(2-Chloroethoxy)methane	µg/L	NS	NS	110	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
bis(2-Chloroethyl) ether	µg/L	NS	0.001	0.012	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
bis(2-Ethylhexyl) phthalate	µg/L	NS	4.8	4.8	10 U	10 U	10 U	**2.0 J**	10 U	**3.7 J**
Butyl benzyl phthalate	µg/L	NS	7300	35	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbazole	µg/L	NS	3.4	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chrysene	µg/L	NS	9.2	2.9	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Dibenzo(a,h)anthracene	µg/L	NS	0.0093	0.0029	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Dibenzofuran	µg/L	NS	12	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Diethyl phthalate	µg/L	NS	29000	29000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dimethyl phthalate	µg/L	NS	360000	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Di-n-butyl phthalate	µg/L	NS	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Di-n-octyl phthalate	µg/L	NS	1500	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Fluoranthene	µg/L	NS	NS	1500	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Fluorene	µg/L	NS	NS	1500	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Hexachlorobenzene	µg/L	1	0.042	0.042	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Hexachlorobutadiene	µg/L	NS	0.86	0.86	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorocyclopentadiene	µg/L	50	220	220	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	µg/L	NS	4.8	4.8	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Indeno(1,2,3-cd)pyrene	µg/L	NS	0.092	0.029	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Isophorone	µg/L	NS	71	71	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Naphthalene	µg/L	NS	6.2	0.14	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Nitrobenzene	µg/L	NS	3.4	0.12	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
N-Nitroso-di-n-propylamine	µg/L	NS	9600	9600	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
N-Nitrosodiphenylamine	µg/L	NS	14	14	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Pentachlorophenol	µg/L	1	0.56	0.56	5.0 U	5.0 U	5.0 R	5.0 U	5.0 U	5.0 R
Phenanthrene	µg/L	NS	NS	NS	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Phenol	µg/L	NS	11000	11000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Pyrene	µg/L	NS	NS	1100	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U

Notes:

NS = no standard

Bold = detected compound above the MDL

N/A = Not Analyzed

Table 3-6. FWGWMP October 2010 SVOCs Analytical Results

Station ID					LL7mw-003	LL7mw-005	LL8mw-003	LL9mw-002	LL9mw-004	LL10mw-002
Sample ID		MCL	Region 9 PRG	USEPA RSL	FWGLL7mw-003C-1605-GW	FWGLL7mw-005C-1606-GW	FWGLL8mw-003C-1607-GW	FWGLL9mw-002C-1608-GW	FWGLL9mw-004C-1609-GW	FWGLL10mw-002C-1610-GW
Date Collected					10/13/2010	10/12/2010	10/13/2010	10/13/2010	10/13/2010	10/13/2010
Sample Type					Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units									
1,2,4-Trichlorobenzene	µg/L	NS	7.2	2.3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	NS	370	370	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	NS	180	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	NS	0.5	0.043	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2,2-oxybis (1-chloropropane)	µg/L	NS	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2,4,5-Trichlorophenol	µg/L	NS	3600	3700	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4,6-Trichlorophenol	µg/L	NS	3.6	6.1	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dichlorophenol	µg/L	NS	110	110	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
2,4-Dimethylphenol	µg/L	NS	730	730	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
2,4-Dinitrophenol	µg/L	NS	73	73	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dinitrotoluene	µg/L	NS	73	0.22	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,6-Dinitrotoluene	µg/L	NS	36	37	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Chloronaphthalene	µg/L	NS	490	2900	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Chlorophenol	µg/L	NS	30	180	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Methylnaphthalene	µg/L	NS	NS	150	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
2-Methylphenol	µg/L	NS	1800	1800	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Nitroaniline	µg/L	NS	110	370	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
2-Nitrophenol	µg/L	NS	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
3,3'-Dichlorobenzidine	µg/L	NS	0.15	0.15	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
3-Nitroaniline	µg/L	NS	3.2	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
4,6-Dinitro-2-methylphenol	µg/L	NS	NS	NS	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Bromophenyl phenyl ether	µg/L	NS	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
4-Chloro-3-methylphenol	µg/L	NS	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
4-Chloroaniline	µg/L	NS	150	0.34	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
4-Chlorophenyl phenyl ether	µg/L	NS	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
4-Methylphenol	µg/L	NS	180	180	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
4-Nitroanaline	µg/L	NS	3.2	3.4	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
4-Nitrophenol	µg/L	NS	NS	NS	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acenaphthene	µg/L	NS	370	2200	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Acenaphthylene	µg/L	NS	NS	NS	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Anthracene	µg/L	NS	1800	11000	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Benzo(a)anthracene	µg/L	NS	0.092	0.029	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Benzo(a)pyrene	µg/L	0.2	0.0092	0.0029	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Benzo(b)fluoranthene	µg/L	NS	0.092	0.056	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Benzo(g,h,i)perylene	µg/L	NS	NS	NS	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Benzo(k)fluoranthene	µg/L	NS	0.92	0.029	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Benzoic acid	µg/L	NS	150000	150000	10 U	10 U	10 U	10 U	10 U	10 U
Benzyl alcohol	µg/L	NS	11000	3700	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Table 3-6. FWGWMP October 2010 SVOCs Analytical Results

Station ID					LL7mw-003	LL7mw-005	LL8mw-003	LL9mw-002	LL9mw-004	LL10mw-002
Sample ID		MCL	Region 9 PRG	USEPA RSL	FWGLL7mw-003C-1605-GW	FWGLL7mw-005C-1606-GW	FWGLL8mw-003C-1607-GW	FWGLL9mw-002C-1608-GW	FWGLL9mw-004C-1609-GW	FWGLL10mw-002C-1610-GW
Date Collected					10/13/2010	10/12/2010	10/13/2010	10/13/2010	10/13/2010	10/13/2010
Sample Type					Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units									
bis(2-Chloroethoxy)methane	µg/L	NS	NS	110	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
bis(2-Chloroethyl) ether	µg/L	NS	0.001	0.012	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
bis(2-Ethylhexyl) phthalate	µg/L	NS	4.8	4.8	10 U	**2.1 J**	10 U	10 U	10 U	10 U
Butyl benzyl phthalate	µg/L	NS	7300	35	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbazole	µg/L	NS	3.4	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chrysene	µg/L	NS	9.2	2.9	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Dibenzo(a,h)anthracene	µg/L	NS	0.0093	0.0029	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Dibenzofuran	µg/L	NS	12	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Diethyl phthalate	µg/L	NS	29000	29000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dimethyl phthalate	µg/L	NS	360000	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Di-n-butyl phthalate	µg/L	NS	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Di-n-octyl phthalate	µg/L	NS	1500	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Fluoranthene	µg/L	NS	NS	1500	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Fluorene	µg/L	NS	NS	1500	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Hexachlorobenzene	µg/L	1	0.042	0.042	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Hexachlorobutadiene	µg/L	NS	0.86	0.86	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorocyclopentadiene	µg/L	50	220	220	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	µg/L	NS	4.8	4.8	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Indeno(1,2,3-cd)pyrene	µg/L	NS	0.092	0.029	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Isophorone	µg/L	NS	71	71	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Naphthalene	µg/L	NS	6.2	0.14	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Nitrobenzene	µg/L	NS	3.4	0.12	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
N-Nitroso-di-n-propylamine	µg/L	NS	9600	9600	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
N-Nitrosodiphenylamine	µg/L	NS	14	14	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Pentachlorophenol	µg/L	1	0.56	0.56	5.0 R	5.0 U	5.0 R	5.0 R	5.0 R	5.0 R
Phenanthrene	µg/L	NS	NS	NS	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Phenol	µg/L	NS	11000	11000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Pyrene	µg/L	NS	NS	1100	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U

Notes:

NS = no standard

Bold = detected compound above the MDL

N/A = Not Analyzed

Table 3-6. FWGWMP October 2010 SVOCs Analytical Results

Station ID					LL10mw-003	LL11mw-001	LL11mw-002	LL11mw-007	LL11mw-009	RQLmw-006
Sample ID		MCL	Region 9 PRG	USEPA RSL	FWGLL10mw-003C-1611-GW	FWGLL11mw-001C-1612-GW	FWGLL11mw-002C-1613-GW	FWGLL11mw-007C-1614-GW	FWGLL11mw-009C-1615-GW	FWGRQLmw-006C-1616-GW
Date Collected					10/13/2010	10/13/2010	10/13/2010	10/13/2010	10/13/2010	10/14/2010
Sample Type					Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units									
1,2,4-Trichlorobenzene	µg/L	NS	7.2	2.3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	NS	370	370	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	NS	180	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	NS	0.5	0.043	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2,2-oxybis (1-chloropropane)	µg/L	NS	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2,4,5-Trichlorophenol	µg/L	NS	3600	3700	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4,6-Trichlorophenol	µg/L	NS	3.6	6.1	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dichlorophenol	µg/L	NS	110	110	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
2,4-Dimethylphenol	µg/L	NS	730	730	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
2,4-Dinitrophenol	µg/L	NS	73	73	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dinitrotoluene	µg/L	NS	73	0.22	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,6-Dinitrotoluene	µg/L	NS	36	37	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Chloronaphthalene	µg/L	NS	490	2900	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Chlorophenol	µg/L	NS	30	180	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Methylnaphthalene	µg/L	NS	NS	150	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
2-Methylphenol	µg/L	NS	1800	1800	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Nitroaniline	µg/L	NS	110	370	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
2-Nitrophenol	µg/L	NS	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
3,3'-Dichlorobenzidine	µg/L	NS	0.15	0.15	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
3-Nitroaniline	µg/L	NS	3.2	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
4,6-Dinitro-2-methylphenol	µg/L	NS	NS	NS	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Bromophenyl phenyl ether	µg/L	NS	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
4-Chloro-3-methylphenol	µg/L	NS	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
4-Chloroaniline	µg/L	NS	150	0.34	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
4-Chlorophenyl phenyl ether	µg/L	NS	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
4-Methylphenol	µg/L	NS	180	180	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
4-Nitroanaline	µg/L	NS	3.2	3.4	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
4-Nitrophenol	µg/L	NS	NS	NS	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acenaphthene	µg/L	NS	370	2200	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Acenaphthylene	µg/L	NS	NS	NS	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Anthracene	µg/L	NS	1800	11000	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Benzo(a)anthracene	µg/L	NS	0.092	0.029	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Benzo(a)pyrene	µg/L	0.2	0.0092	0.0029	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Benzo(b)fluoranthene	µg/L	NS	0.092	0.056	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Benzo(g,h,i)perylene	µg/L	NS	NS	NS	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Benzo(k)fluoranthene	µg/L	NS	0.92	0.029	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Benzoic acid	µg/L	NS	150000	150000	10 U	10 U	10 U	10 U	10 U	10 U
Benzyl alcohol	µg/L	NS	11000	3700	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Table 3-6. FWGWMP October 2010 SVOCs Analytical Results

Station ID					LL10mw-003	LL11mw-001	LL11mw-002	LL11mw-007	LL11mw-009	RQLmw-006
Sample ID		MCL	Region 9 PRG	USEPA RSL	FWGLL10mw-003C-1611-GW	FWGLL11mw-001C-1612-GW	FWGLL11mw-002C-1613-GW	FWGLL11mw-007C-1614-GW	FWGLL11mw-009C-1615-GW	FWGRQLmw-006C-1616-GW
Date Collected					10/13/2010	10/13/2010	10/13/2010	10/13/2010	10/13/2010	10/14/2010
Sample Type					Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units									
bis(2-Chloroethoxy)methane	µg/L	NS	NS	110	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
bis(2-Chloroethyl) ether	µg/L	NS	0.001	0.012	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
bis(2-Ethylhexyl) phthalate	µg/L	NS	4.8	4.8	10 U	10 U	**2.8 J**	10 U	10 U	10 U
Butyl benzyl phthalate	µg/L	NS	7300	35	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**0.95 J**
Carbazole	µg/L	NS	3.4	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chrysene	µg/L	NS	9.2	2.9	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Dibenzo(a,h)anthracene	µg/L	NS	0.0093	0.0029	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Dibenzofuran	µg/L	NS	12	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Diethyl phthalate	µg/L	NS	29000	29000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dimethyl phthalate	µg/L	NS	360000	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Di-n-butyl phthalate	µg/L	NS	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Di-n-octyl phthalate	µg/L	NS	1500	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Fluoranthene	µg/L	NS	NS	1500	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Fluorene	µg/L	NS	NS	1500	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Hexachlorobenzene	µg/L	1	0.042	0.042	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Hexachlorobutadiene	µg/L	NS	0.86	0.86	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorocyclopentadiene	µg/L	50	220	220	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	µg/L	NS	4.8	4.8	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Indeno(1,2,3-cd)pyrene	µg/L	NS	0.092	0.029	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Isophorone	µg/L	NS	71	71	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Naphthalene	µg/L	NS	6.2	0.14	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Nitrobenzene	µg/L	NS	3.4	0.12	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
N-Nitroso-di-n-propylamine	µg/L	NS	9600	9600	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
N-Nitrosodiphenylamine	µg/L	NS	14	14	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Pentachlorophenol	µg/L	1	0.56	0.56	5.0 R	5.0 R	5.0 R	5.0 R	5.0 R	5.0 R
Phenanthrene	µg/L	NS	NS	NS	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Phenol	µg/L	NS	11000	11000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Pyrene	µg/L	NS	NS	1100	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U

Notes:

NS = no standard

Bold = detected compound above the MDL

N/A = Not Analyzed

Table 3-6. FWGWMP October 2010 SVOCs Analytical Results

Station ID					RQLmw-007	RQLmw-008	RQLmw-009	RQLmw-010	RQLmw-011	SCFmw-001
Sample ID		MCL	Region 9 PRG	USEPA RSL	FWGRQLmw-007C-1617-GW	FWGRQLmw-008C-1618-GW	FWGRQLmw-009C-1619-GW	FWGRQLmw-010C-1610-GW	FWGRQLmw-011C-1621-GW	FWGSCFmw-001-1583-GW
Date Collected					10/14/2010	10/14/2010	10/14/2010	10/14/2010	10/14/2010	10/11/2010
Sample Type					Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units									
1,2,4-Trichlorobenzene	µg/L	NS	7.2	2.3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	NS	370	370	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	NS	180	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	NS	0.5	0.043	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2,2-oxybis (1-chloropropane)	µg/L	NS	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2,4,5-Trichlorophenol	µg/L	NS	3600	3700	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4,6-Trichlorophenol	µg/L	NS	3.6	6.1	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dichlorophenol	µg/L	NS	110	110	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
2,4-Dimethylphenol	µg/L	NS	730	730	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
2,4-Dinitrophenol	µg/L	NS	73	73	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dinitrotoluene	µg/L	NS	73	0.22	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,6-Dinitrotoluene	µg/L	NS	36	37	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Chloronaphthalene	µg/L	NS	490	2900	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Chlorophenol	µg/L	NS	30	180	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Methylnaphthalene	µg/L	NS	NS	150	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
2-Methylphenol	µg/L	NS	1800	1800	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Nitroaniline	µg/L	NS	110	370	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
2-Nitrophenol	µg/L	NS	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
3,3'-Dichlorobenzidine	µg/L	NS	0.15	0.15	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
3-Nitroaniline	µg/L	NS	3.2	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
4,6-Dinitro-2-methylphenol	µg/L	NS	NS	NS	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Bromophenyl phenyl ether	µg/L	NS	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
4-Chloro-3-methylphenol	µg/L	NS	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
4-Chloroaniline	µg/L	NS	150	0.34	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
4-Chlorophenyl phenyl ether	µg/L	NS	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
4-Methylphenol	µg/L	NS	180	180	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
4-Nitroanaline	µg/L	NS	3.2	3.4	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
4-Nitrophenol	µg/L	NS	NS	NS	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acenaphthene	µg/L	NS	370	2200	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Acenaphthylene	µg/L	NS	NS	NS	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Anthracene	µg/L	NS	1800	11000	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Benzo(a)anthracene	µg/L	NS	0.092	0.029	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Benzo(a)pyrene	µg/L	0.2	0.0092	0.0029	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Benzo(b)fluoranthene	µg/L	NS	0.092	0.056	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Benzo(g,h,i)perylene	µg/L	NS	NS	NS	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Benzo(k)fluoranthene	µg/L	NS	0.92	0.029	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Benzoic acid	µg/L	NS	150000	150000	10 U	10 U	10 U	10 U	10 U	10 U
Benzyl alcohol	µg/L	NS	11000	3700	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Table 3-6. FWGWMP October 2010 SVOCs Analytical Results

Station ID					RQLmw-007	RQLmw-008	RQLmw-009	RQLmw-010	RQLmw-011	SCFmw-001
Sample ID		MCL	Region 9 PRG	USEPA RSL	FWGRQLmw-007C-1617-GW	FWGRQLmw-008C-1618-GW	FWGRQLmw-009C-1619-GW	FWGRQLmw-010C-1610-GW	FWGRQLmw-011C-1621-GW	FWGSCFmw-001-1583-GW
Date Collected					10/14/2010	10/14/2010	10/14/2010	10/14/2010	10/14/2010	10/11/2010
Sample Type					Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units									
bis(2-Chloroethoxy)methane	µg/L	NS	NS	110	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
bis(2-Chloroethyl) ether	µg/L	NS	0.001	0.012	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
bis(2-Ethylhexyl) phthalate	µg/L	NS	4.8	4.8	10 U	10 U	10 U	**0.92 J**	10 U	**2.3 J**
Butyl benzyl phthalate	µg/L	NS	7300	35	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbazole	µg/L	NS	3.4	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chrysene	µg/L	NS	9.2	2.9	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Dibenzo(a,h)anthracene	µg/L	NS	0.0093	0.0029	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Dibenzofuran	µg/L	NS	12	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Diethyl phthalate	µg/L	NS	29000	29000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dimethyl phthalate	µg/L	NS	360000	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Di-n-butyl phthalate	µg/L	NS	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Di-n-octyl phthalate	µg/L	NS	1500	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Fluoranthene	µg/L	NS	NS	1500	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Fluorene	µg/L	NS	NS	1500	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Hexachlorobenzene	µg/L	1	0.042	0.042	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Hexachlorobutadiene	µg/L	NS	0.86	0.86	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorocyclopentadiene	µg/L	50	220	220	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	µg/L	NS	4.8	4.8	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Indeno(1,2,3-cd)pyrene	µg/L	NS	0.092	0.029	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Isophorone	µg/L	NS	71	71	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Naphthalene	µg/L	NS	6.2	0.14	0.20 U	0.20 U	0.20 UJ	0.20 U	0.20 U	0.20 U
Nitrobenzene	µg/L	NS	3.4	0.12	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
N-Nitroso-di-n-propylamine	µg/L	NS	9600	9600	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
N-Nitrosodiphenylamine	µg/L	NS	14	14	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Pentachlorophenol	µg/L	1	0.56	0.56	5.0 R	5.0 R	5.0 R	5.0 R	5.0 R	5.0 U
Phenanthrene	µg/L	NS	NS	NS	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Phenol	µg/L	NS	11000	11000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Pyrene	µg/L	NS	NS	1100	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U

Notes:

NS = no standard

Bold = detected compound above the MDL

N/A = Not Analyzed

Table 3-6. FWGWMP October 2010 SVOCs Analytical Results

Station ID					SCFmw-002	SCFmw-003	SCFmw-004	SCFmw-005	SCFmw-006
Sample ID		MCL	Region 9 PRG	USEPA RSL	FWGSCFmw-002-1584-GW	FWGSCFmw-003-1585-GW	FWGSCFmw-004-1586-GW	FWGSCFmw-005-1587-GW	FWGSCFmw-006-1588-GW
Date Collected					10/11/2010	10/11/2010	10/12/2010	10/12/2010	10/12/2010
Sample Type					Grab	Grab	Grab	Grab	Grab
Analyte	Units								
1,2,4-Trichlorobenzene	µg/L	NS	7.2	2.3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	NS	370	370	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	NS	180	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	NS	0.5	0.043	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2,2-oxybis (1-chloropropane)	µg/L	NS	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2,4,5-Trichlorophenol	µg/L	NS	3600	3700	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4,6-Trichlorophenol	µg/L	NS	3.6	6.1	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dichlorophenol	µg/L	NS	110	110	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
2,4-Dimethylphenol	µg/L	NS	730	730	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
2,4-Dinitrophenol	µg/L	NS	73	73	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dinitrotoluene	µg/L	NS	73	0.22	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,6-Dinitrotoluene	µg/L	NS	36	37	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Chloronaphthalene	µg/L	NS	490	2900	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Chlorophenol	µg/L	NS	30	180	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Methylnaphthalene	µg/L	NS	NS	150	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
2-Methylphenol	µg/L	NS	1800	1800	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Nitroaniline	µg/L	NS	110	370	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
2-Nitrophenol	µg/L	NS	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
3,3'-Dichlorobenzidine	µg/L	NS	0.15	0.15	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
3-Nitroaniline	µg/L	NS	3.2	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
4,6-Dinitro-2-methylphenol	µg/L	NS	NS	NS	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Bromophenyl phenyl ether	µg/L	NS	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
4-Chloro-3-methylphenol	µg/L	NS	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
4-Chloroaniline	µg/L	NS	150	0.34	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
4-Chlorophenyl phenyl ether	µg/L	NS	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
4-Methylphenol	µg/L	NS	180	180	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
4-Nitroanaline	µg/L	NS	3.2	3.4	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
4-Nitrophenol	µg/L	NS	NS	NS	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acenaphthene	µg/L	NS	370	2200	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Acenaphthylene	µg/L	NS	NS	NS	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Anthracene	µg/L	NS	1800	11000	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Benzo(a)anthracene	µg/L	NS	0.092	0.029	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Benzo(a)pyrene	µg/L	0.2	0.0092	0.0029	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Benzo(b)fluoranthene	µg/L	NS	0.092	0.056	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Benzo(g,h,i)perylene	µg/L	NS	NS	NS	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Benzo(k)fluoranthene	µg/L	NS	0.92	0.029	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Benzoic acid	µg/L	NS	150000	150000	10 U	10 U	10 U	10 U	10 U
Benzyl alcohol	µg/L	NS	11000	3700	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Table 3-6. FWGWMP October 2010 SVOCs Analytical Results

Station ID					SCFmw-002	SCFmw-003	SCFmw-004	SCFmw-005	SCFmw-006
Sample ID		MCL	Region 9 PRG	USEPA RSL	FWGSCFmw-002-1584-GW	FWGSCFmw-003-1585-GW	FWGSCFmw-004-1586-GW	FWGSCFmw-005-1587-GW	FWGSCFmw-006-1588-GW
Date Collected					10/11/2010	10/11/2010	10/12/2010	10/12/2010	10/12/2010
Sample Type					Grab	Grab	Grab	Grab	Grab
Analyte	Units								
bis(2-Chloroethoxy)methane	µg/L	NS	NS	110	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
bis(2-Chloroethyl) ether	µg/L	NS	0.001	0.012	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
bis(2-Ethylhexyl) phthalate	µg/L	NS	4.8	4.8	10 U	10 U	10 U	10 U	10 U
Butyl benzyl phthalate	µg/L	NS	7300	35	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbazole	µg/L	NS	3.4	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chrysene	µg/L	NS	9.2	2.9	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Dibenzo(a,h)anthracene	µg/L	NS	0.0093	0.0029	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Dibenzofuran	µg/L	NS	12	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Diethyl phthalate	µg/L	NS	29000	29000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dimethyl phthalate	µg/L	NS	360000	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Di-n-butyl phthalate	µg/L	NS	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Di-n-octyl phthalate	µg/L	NS	1500	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Fluoranthene	µg/L	NS	NS	1500	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Fluorene	µg/L	NS	NS	1500	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Hexachlorobenzene	µg/L	1	0.042	0.042	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Hexachlorobutadiene	µg/L	NS	0.86	0.86	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorocyclopentadiene	µg/L	50	220	220	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	µg/L	NS	4.8	4.8	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Indeno(1,2,3-cd)pyrene	µg/L	NS	0.092	0.029	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Isophorone	µg/L	NS	71	71	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Naphthalene	µg/L	NS	6.2	0.14	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Nitrobenzene	µg/L	NS	3.4	0.12	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
N-Nitroso-di-n-propylamine	µg/L	NS	9600	9600	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
N-Nitrosodiphenylamine	µg/L	NS	14	14	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Pentachlorophenol	µg/L	1	0.56	0.56	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Phenanthrene	µg/L	NS	NS	NS	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Phenol	µg/L	NS	11000	11000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Pyrene	µg/L	NS	NS	1100	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U

Notes:

NS = no standard

Bold = detected compound above the MDL

N/A = Not Analyzed

Table 3-6. FWGWMP October 2010 SVOCs Analytical Results

Data Qualifiers

Data qualifier flags are used in an effort to describe the quality of each piece of data for each constituent. These flags are letter codes appended to the numerical data. The following data qualifiers are specified in the USACE Louisville Chemistry Guidelines. For a complete explanation of qualifiers used for each constituent please refer to the Data Verification Summaries in Appendix D.

U The analyte was analyzed for but not detected. The numerical value preceding the U is the associated reporting limit.

J 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 (i.e., the quantitative value is estimated). Examples include:
- Results detected above the laboratory MDL but less than the laboratory reporting limit.
- MS/MSD percent recoveries outside the acceptance criteria.
- Laboratory control sample (LCS) percent recoveries outside acceptance criteria.

R Data are considered to be rejected and shall not be used. This flag denotes the failure of quality control criteria such that it cannot be determined if the analyte is present or absent from the sample [e.g., the method reporting limit (MRL) verification standard was below quality control guidelines; associated sample results that were non-detect are unusable].

UJ This flag is a combination of the U and J qualifiers which indicate that the analyte is not present. The reported value is considered to be an estimated reporting limit (RL).

B The B flag is used for both organic and inorganic analyses when the analyte is found in the method blank or any of the field blanks. This designation overrides the Contract Laboratory Program (CLP) "B" designation when used by the laboratory as an estimated value for inorganics.

Table 3-7. FWGWMP October 2010 Pesticides and PCBs Analytical Results

Station ID					DETmw-003	DETmw-004	LL1mw-067	LL1mw-081	LL1mw-082	LL1mw-084
Sample ID		MCL	Region 9 PRG	USEPA RSL	FWGDETmw-003C-1622-GW	FWGDETmw-004C-1623-GW	FWGLL1mw-067C-1589-GW	FWGLL1mw-081C-1590-GW	FWGLL1mw-082C-1591-GW	FWGLL1mw-084C-1592-GW
Date Collected					10/15/2010	10/14-15/2010	10/11/2010	10/11/2010	10/11/2010	10/11/2010
Sample Type					Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units									
4,4'-DDD	µg/L	NS	0.28	0.28	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.60 UJ
4,4'-DDE	µg/L	NS	0.2	0.2	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.60 UJ
4,4'-DDT	µg/L	NS	0.2	0.2	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.60 UJ
Aldrin	µg/L	NS	0.004	0.004	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.60 UJ
alpha-BHC	µg/L	NS	0.011	0.011	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.60 UJ
alpha-Chordane	µg/L	NS	NS	NS	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.60 UJ
beta-BHC	µg/L	NS	0.037	0.037	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.60 UJ
delta-BHC	µg/L	NS	NS	NS	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.60 UJ
Dieldrin	µg/L	NS	0.0042	0.0042	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.60 UJ
Endosulfan I	µg/L	NS	0.022	0.022	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.50 UJ
Endosulfan II	µg/L	NS	0.022	0.022	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.50 UJ
Endosulfan sulfate	µg/L	NS	NS	NS	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.60 UJ
Endrin	µg/L	2	11	11	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.60 UJ
Endrin aldehyde	µg/L	NS	NS	NS	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.60 UJ
Endrin ketone	µg/L	NS	NS	NS	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.60 UJ
Gamma-BHC	µg/L	0.2	0.052	0.061	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.60 UJ
gamma-Chlordane	µg/L	NS	NS	NS	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.60 UJ
Heptachlor	µg/L	0.4	0.015	0.015	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.60 UJ
Heptachlor epoxide	µg/L	0.2	0.0074	0.0074	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.60 UJ
Methoxychlor	µg/L	40	180	180	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	2.0 UJ
Toxaphene	µg/L	3	0.061	0.061	2.0 UJ	2.0 UJ	2.0 UJ	2.0 UJ	2.0 UJ	40 UJ
PCB- 1016	µg/L	0.5	0.96	0.96	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 UJ
PCB- 1221	µg/L	0.5	0.034	0.0068	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 UJ
PCB- 1232	µg/L	0.5	0.034	0.0068	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 UJ
PCB- 1242	µg/L	0.5	0.034	0.034	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 UJ
PCB- 1248	µg/L	0.5	0.034	0.034	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 UJ
PCB- 1254	µg/L	0.5	0.034	0.034	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 UJ
PCB- 1260	µg/L	0.5	0.034	0.034	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 UJ

Notes:

NS = no standard

Bold = detected compound above the MDL

N/A = Not Analyzed

Table 3-7. FWGWMP October 2010 Pesticides and PCBs Analytical Results

Station ID					LL1mw-085	LL2mw-266	LL2mw-267	LL2mw-269	LL3mw-236	LL3mw-239
Sample ID		MCL	Region 9 PRG	USEPA RSL	FWGLL1mw-085C-1593-GW	FWGLL2mw-266C-1594-GW	FWGLL2mw-267C-1595-GW	FWGLL2mw-269C-1596-GW	FWGLL3mw-236C-1597-GW	FWGLL3mw-239C-1598-GW
Date Collected					10/11/2010	10/11/2010	10/12/2010	10/12/2010	10/12/2010	10/12/2010
Sample Type					Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units									
4,4'-DDD	µg/L	NS	0.28	0.28	0.030 U	0.030 UJ	0.030 UJ	0.030 U	0.030 U	0.030 U
4,4'-DDE	µg/L	NS	0.2	0.2	0.030 U	0.030 UJ	0.030 UJ	0.030 U	0.030 U	0.030 U
4,4'-DDT	µg/L	NS	0.2	0.2	0.030 U	0.030 UJ	0.030 UJ	0.030 U	0.030 U	0.030 U
Aldrin	µg/L	NS	0.004	0.004	0.030 U	0.030 UJ	0.030 UJ	0.030 U	0.030 U	0.030 U
alpha-BHC	µg/L	NS	0.011	0.011	0.030 U	0.030 UJ	0.030 UJ	0.030 U	0.030 U	0.030 U
alpha-Chordane	µg/L	NS	NS	NS	0.030 U	0.030 UJ	0.030 UJ	0.030 U	0.030 U	0.030 U
beta-BHC	µg/L	NS	0.037	0.037	0.030 U	0.030 UJ	0.030 UJ	0.030 U	0.030 U	0.030 U
delta-BHC	µg/L	NS	NS	NS	0.030 U	0.030 UJ	0.030 UJ	0.030 U	0.030 U	0.030 U
Dieldrin	µg/L	NS	0.0042	0.0042	0.030 U	0.030 UJ	0.030 UJ	0.030 U	0.030 U	0.030 U
Endosulfan I	µg/L	NS	0.022	0.022	0.025 U	0.025 UJ	0.025 UJ	0.025 U	0.025 U	0.025 U
Endosulfan II	µg/L	NS	0.022	0.022	0.025 U	0.025 UJ	0.025 UJ	0.025 U	0.025 U	0.025 U
Endosulfan sulfate	µg/L	NS	NS	NS	0.030 U	0.030 UJ	0.030 UJ	0.030 U	0.030 U	0.030 U
Endrin	µg/L	2	11	11	0.030 U	0.030 UJ	0.030 UJ	0.030 U	0.030 U	0.030 U
Endrin aldehyde	µg/L	NS	NS	NS	**0.011 J**	**0.029 J**	0.030 UJ	0.030 U	0.030 U	0.030 U
Endrin ketone	µg/L	NS	NS	NS	0.030 U	**0.013 J**	0.030 UJ	0.030 U	0.030 U	0.030 U
Gamma-BHC	µg/L	0.2	0.052	0.061	0.030 U	0.030 UJ	0.030 UJ	0.030 U	0.030 U	0.030 U
gamma-Chlordane	µg/L	NS	NS	NS	0.030 U	0.030 UJ	0.030 UJ	0.030 U	0.030 U	0.030 U
Heptachlor	µg/L	0.4	0.015	0.015	0.030 U	0.030 UJ	0.030 UJ	0.030 U	0.030 U	0.030 U
Heptachlor epoxide	µg/L	0.2	0.0074	0.0074	0.030 U	0.030 UJ	0.030 UJ	0.030 U	0.030 U	0.030 U
Methoxychlor	µg/L	40	180	180	0.10 U	0.10 UJ	0.10 UJ	0.10 U	0.10 U	0.10 U
Toxaphene	µg/L	3	0.061	0.061	2.0 UJ	2.0 UJ	2.0 UJ	2.0 UJ	2.0 UJ	2.0 UJ
PCB- 1016	µg/L	0.5	0.96	0.96	0.50 U	0.50 UJ	0.50 UJ	0.50 U	0.50 U	0.50 U
PCB- 1221	µg/L	0.5	0.034	0.0068	0.50 U	0.50 UJ	0.50 UJ	0.50 U	0.50 U	0.50 U
PCB- 1232	µg/L	0.5	0.034	0.0068	0.50 U	0.50 UJ	0.50 UJ	0.50 U	0.50 U	0.50 U
PCB- 1242	µg/L	0.5	0.034	0.034	0.50 U	0.50 UJ	0.50 UJ	0.50 U	0.50 U	0.50 U
PCB- 1248	µg/L	0.5	0.034	0.034	0.50 U	0.50 UJ	0.50 UJ	0.50 U	0.50 U	0.50 U
PCB- 1254	µg/L	0.5	0.034	0.034	0.50 U	0.50 UJ	0.50 UJ	0.50 U	0.50 U	0.50 U
PCB- 1260	µg/L	0.5	0.034	0.034	0.50 U	0.50 UJ	0.50 UJ	0.50 U	0.50 U	0.50 U

Notes:

NS = no standard

Bold = detected compound above the MDL

N/A = Not Analyzed

Table 3-7. FWGWMP October 2010 Pesticides and PCBs Analytical Results

Station ID					LL4mw-196	LL4mw-197	LL6mw-001	LL6mw-004	LL6mw-005	LL7mw-001
Sample ID		MCL	Region 9 PRG	USEPA RSL	FWGLL4mw-196C-1599-GW	FWGLL4mw-197C-1600-GW	FWGLL6mw-001C-1601-GW	FWGLL6mw-004C-1602-GW	FWGLL6mw-005C-1603-GW	FWGLL7mw-001C-1604-GW
Date Collected					10/12/2010	10/12/2010	10/12-13/2010	10/12/2010	10/12/2010	10/13/2010
Sample Type					Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units									
4,4'-DDD	µg/L	NS	0.28	0.28	0.030 U	0.030 U	0.030 U	0.030 UJ	0.030 UJ	0.030 U
4,4'-DDE	µg/L	NS	0.2	0.2	0.030 U	0.030 U	0.030 U	0.030 UJ	0.030 UJ	0.030 U
4,4'-DDT	µg/L	NS	0.2	0.2	0.030 U	0.030 U	0.030 U	0.030 UJ	0.030 UJ	0.030 U
Aldrin	µg/L	NS	0.004	0.004	0.030 U	0.030 U	0.030 U	0.030 UJ	0.030 UJ	0.030 U
alpha-BHC	µg/L	NS	0.011	0.011	0.030 U	0.030 U	0.030 U	0.030 UJ	0.030 UJ	0.030 U
alpha-Chordane	µg/L	NS	NS	NS	0.030 U	0.030 U	0.030 U	0.030 UJ	0.030 UJ	0.030 U
beta-BHC	µg/L	NS	0.037	0.037	0.030 U	0.030 U	0.030 U	0.030 UJ	0.030 UJ	0.030 U
delta-BHC	µg/L	NS	NS	NS	0.030 U	0.030 U	0.030 U	0.030 UJ	0.030 UJ	0.030 U
Dieldrin	µg/L	NS	0.0042	0.0042	0.030 U	0.030 U	0.030 U	0.030 UJ	0.030 UJ	0.030 U
Endosulfan I	µg/L	NS	0.022	0.022	0.025 U	0.025 U	0.025 U	0.025 UJ	0.025 UJ	0.025 U
Endosulfan II	µg/L	NS	0.022	0.022	0.025 U	0.025 U	0.025 U	0.025 UJ	0.025 UJ	0.025 U
Endosulfan sulfate	µg/L	NS	NS	NS	0.030 U	0.030 U	0.030 U	0.030 UJ	0.030 UJ	0.030 U
Endrin	µg/L	2	11	11	0.030 U	0.030 U	0.030 U	0.030 UJ	0.030 UJ	0.030 U
Endrin aldehyde	µg/L	NS	NS	NS	0.030 U	0.030 U	0.030 U	0.030 UJ	0.030 UJ	0.030 U
Endrin ketone	µg/L	NS	NS	NS	0.030 U	0.030 U	0.030 U	0.030 UJ	0.030 UJ	0.030 U
Gamma-BHC	µg/L	0.2	0.052	0.061	0.030 U	0.030 U	0.030 U	0.030 UJ	0.030 UJ	0.030 U
gamma-Chlordane	µg/L	NS	NS	NS	0.030 U	0.030 U	0.030 U	0.030 UJ	0.030 UJ	0.030 U
Heptachlor	µg/L	0.4	0.015	0.015	0.030 U	0.030 U	0.030 U	0.030 UJ	0.030 UJ	0.030 U
Heptachlor epoxide	µg/L	0.2	0.0074	0.0074	0.030 U	0.030 U	0.030 U	0.030 UJ	0.030 UJ	0.030 U
Methoxychlor	µg/L	40	180	180	0.10 U	0.10 U	0.10 U	0.10 UJ	0.10 UJ	0.10 U
Toxaphene	µg/L	3	0.061	0.061	2.0 UJ	2.0 UJ	2.0 UJ	2.0 UJ	2.0 UJ	2.0 UJ
PCB- 1016	µg/L	0.5	0.96	0.96	0.50 UJ	0.50 UJ	0.50 U	0.50 UJ	0.50 UJ	0.50 U
PCB- 1221	µg/L	0.5	0.034	0.0068	0.50 UJ	0.50 UJ	0.50 U	0.50 UJ	0.50 UJ	0.50 U
PCB- 1232	µg/L	0.5	0.034	0.0068	0.50 UJ	0.50 UJ	0.50 U	0.50 UJ	0.50 UJ	0.50 U
PCB- 1242	µg/L	0.5	0.034	0.034	0.50 UJ	0.50 UJ	0.50 U	0.50 UJ	0.50 UJ	0.50 U
PCB- 1248	µg/L	0.5	0.034	0.034	0.50 UJ	0.50 UJ	0.50 U	0.50 UJ	0.50 UJ	0.50 U
PCB- 1254	µg/L	0.5	0.034	0.034	0.50 UJ	0.50 UJ	0.50 U	0.50 UJ	0.50 UJ	0.50 U
PCB- 1260	µg/L	0.5	0.034	0.034	0.50 UJ	0.50 UJ	0.50 U	0.50 UJ	0.50 UJ	0.50 U

Notes:

NS = no standard

Bold = detected compound above the MDL

N/A = Not Analyzed

Table 3-7. FWGWMP October 2010 Pesticides and PCBs Analytical Results

Station ID					LL7mw-003	LL7mw-005	LL8mw-003	LL9mw-002	LL9mw-004	LL10mw-002
Sample ID		MCL	Region 9 PRG	USEPA RSL	FWGLL7mw-003C-1605-GW	FWGLL7mw-005C-1606-GW	FWGLL8mw-003C-1607-GW	FWGLL9mw-002C-1608-GW	FWGLL9mw-004C-1609-GW	FWGLL10mw-002C-1610-GW
Date Collected					10/13/2010	10/12/2010	10/13/2010	10/13/2010	10/13/2010	10/13/2010
Sample Type					Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units									
4,4'-DDD	µg/L	NS	0.28	0.28	0.030 UJ	0.030 U	0.030 U	0.030 U	0.030 UJ	0.030 U
4,4'-DDE	µg/L	NS	0.2	0.2	0.030 UJ	0.030 U	0.030 U	0.030 U	0.030 UJ	0.030 U
4,4'-DDT	µg/L	NS	0.2	0.2	0.030 UJ	0.030 U	0.030 U	0.030 U	0.030 UJ	0.030 U
Aldrin	µg/L	NS	0.004	0.004	0.030 UJ	0.030 U	0.030 U	0.030 U	0.030 UJ	0.030 U
alpha-BHC	µg/L	NS	0.011	0.011	0.030 UJ	0.030 U	0.030 U	0.030 U	0.030 UJ	0.030 U
alpha-Chordane	µg/L	NS	NS	NS	0.030 UJ	0.030 U	0.030 U	0.030 U	0.030 UJ	0.030 U
beta-BHC	µg/L	NS	0.037	0.037	0.030 UJ	0.030 U	0.030 U	0.030 U	0.030 UJ	0.030 U
delta-BHC	µg/L	NS	NS	NS	0.030 UJ	0.030 U	0.030 U	0.030 U	0.030 UJ	0.030 U
Dieldrin	µg/L	NS	0.0042	0.0042	0.030 UJ	0.030 U	0.030 U	0.030 U	0.030 UJ	0.030 U
Endosulfan I	µg/L	NS	0.022	0.022	0.025 UJ	0.025 U	0.025 U	0.025 U	0.025 UJ	0.025 U
Endosulfan II	µg/L	NS	0.022	0.022	0.025 UJ	0.025 U	0.025 U	0.025 U	0.025 UJ	0.025 U
Endosulfan sulfate	µg/L	NS	NS	NS	0.030 UJ	0.030 U	0.030 U	0.030 U	0.030 UJ	0.030 U
Endrin	µg/L	2	11	11	0.030 UJ	0.030 U	0.030 U	0.030 U	0.030 UJ	0.030 U
Endrin aldehyde	µg/L	NS	NS	NS	0.030 UJ	0.030 U	0.030 U	0.030 U	0.030 UJ	0.030 U
Endrin ketone	µg/L	NS	NS	NS	0.030 UJ	0.030 U	0.030 U	0.030 U	0.030 UJ	0.030 U
Gamma-BHC	µg/L	0.2	0.052	0.061	0.030 UJ	0.030 U	0.030 U	0.030 U	0.030 UJ	0.030 U
gamma-Chlordane	µg/L	NS	NS	NS	0.030 UJ	0.030 U	0.030 U	0.030 U	0.030 UJ	0.030 U
Heptachlor	µg/L	0.4	0.015	0.015	0.030 UJ	0.030 U	0.030 U	0.030 U	0.030 UJ	0.030 U
Heptachlor epoxide	µg/L	0.2	0.0074	0.0074	0.030 UJ	0.030 U	0.030 U	0.030 U	0.030 UJ	0.030 U
Methoxychlor	µg/L	40	180	180	0.10 UJ	0.10 U	0.10 U	0.10 U	0.10 UJ	0.10 U
Toxaphene	µg/L	3	0.061	0.061	2.0 UJ	2.0 UJ	2.0 UJ	2.0 UJ	2.0 UJ	2.0 UJ
PCB- 1016	µg/L	0.5	0.96	0.96	0.50 UJ	0.50 U	0.50 U	0.50 U	0.50 UJ	0.50 U
PCB- 1221	µg/L	0.5	0.034	0.0068	0.50 UJ	0.50 U	0.50 U	0.50 U	0.50 UJ	0.50 U
PCB- 1232	µg/L	0.5	0.034	0.0068	0.50 UJ	0.50 U	0.50 U	0.50 U	0.50 UJ	0.50 U
PCB- 1242	µg/L	0.5	0.034	0.034	0.50 UJ	0.50 U	0.50 U	0.50 U	0.50 UJ	0.50 U
PCB- 1248	µg/L	0.5	0.034	0.034	0.50 UJ	0.50 U	0.50 U	0.50 U	0.50 UJ	0.50 U
PCB- 1254	µg/L	0.5	0.034	0.034	0.50 UJ	0.50 U	0.50 U	0.50 U	0.50 UJ	0.50 U
PCB- 1260	µg/L	0.5	0.034	0.034	0.50 UJ	0.50 U	0.50 U	0.50 U	0.50 UJ	0.50 U

Notes:

NS = no standard

Bold = detected compound above the MDL

N/A = Not Analyzed

Table 3-7. FWGWMP October 2010 Pesticides and PCBs Analytical Results

Station ID					LL10mw-003	LL11mw-001	LL11mw-002	LL11mw-007	LL11mw-009	RQLmw-006
Sample ID		MCL	Region 9 PRG	USEPA RSL	FWGLL10mw-003C-1611-GW	FWGLL11mw-001C-1612-GW	FWGLL11mw-002C-1613-GW	FWGLL11mw-007C-1614-GW	FWGLL11mw-009C-1615-GW	FWGRQLmw-006C-1616-GW
Date Collected					10/13/2010	10/13/2010	10/13/2010	10/13/2010	10/13/2010	10/14/2010
Sample Type					Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units									
4,4'-DDD	µg/L	NS	0.28	0.28	0.030 U	0.030 U	0.030 UJ	0.030 UJ	0.030 UJ	0.030 U
4,4'-DDE	µg/L	NS	0.2	0.2	0.030 U	0.030 U	0.030 UJ	0.030 UJ	0.030 UJ	0.030 U
4,4'-DDT	µg/L	NS	0.2	0.2	0.030 U	0.030 U	0.030 UJ	0.030 UJ	0.030 UJ	0.030 U
Aldrin	µg/L	NS	0.004	0.004	0.030 U	0.030 U	0.030 UJ	0.030 UJ	0.030 UJ	0.030 U
alpha-BHC	µg/L	NS	0.011	0.011	0.030 U	0.030 U	0.030 UJ	0.030 UJ	0.030 UJ	0.030 U
alpha-Chordane	µg/L	NS	NS	NS	0.030 U	0.030 U	0.030 UJ	0.030 UJ	0.030 UJ	0.030 U
beta-BHC	µg/L	NS	0.037	0.037	0.030 U	0.030 U	0.030 UJ	0.030 UJ	0.030 UJ	0.030 U
delta-BHC	µg/L	NS	NS	NS	0.030 U	0.030 U	0.030 UJ	0.030 UJ	0.030 UJ	0.030 U
Dieldrin	µg/L	NS	0.0042	0.0042	0.030 U	0.030 U	0.030 UJ	0.030 UJ	0.030 UJ	0.030 U
Endosulfan I	µg/L	NS	0.022	0.022	0.025 U	0.025 U	0.025 UJ	0.025 UJ	0.025 UJ	0.025 U
Endosulfan II	µg/L	NS	0.022	0.022	0.025 U	0.025 U	0.025 UJ	0.025 UJ	0.025 UJ	0.025 U
Endosulfan sulfate	µg/L	NS	NS	NS	0.030 U	0.030 U	0.030 UJ	0.030 UJ	0.030 UJ	0.030 U
Endrin	µg/L	2	11	11	0.030 U	0.030 U	0.030 UJ	0.030 UJ	0.030 UJ	0.030 U
Endrin aldehyde	µg/L	NS	NS	NS	0.030 U	0.030 U	0.030 UJ	0.030 UJ	0.030 UJ	0.030 U
Endrin ketone	µg/L	NS	NS	NS	0.030 U	0.030 U	0.030 UJ	0.030 UJ	0.030 UJ	0.030 U
Gamma-BHC	µg/L	0.2	0.052	0.061	0.030 U	0.030 U	0.030 UJ	0.030 UJ	0.030 UJ	0.030 U
gamma-Chlordane	µg/L	NS	NS	NS	0.030 U	0.030 U	0.030 UJ	0.030 UJ	0.030 UJ	0.030 U
Heptachlor	µg/L	0.4	0.015	0.015	0.030 U	0.030 U	0.030 UJ	0.030 UJ	0.030 UJ	0.030 U
Heptachlor epoxide	µg/L	0.2	0.0074	0.0074	0.030 U	0.030 U	0.030 UJ	0.030 UJ	0.030 UJ	0.030 U
Methoxychlor	µg/L	40	180	180	0.10 U	0.10 U	0.10 UJ	0.10 UJ	0.10 UJ	0.10 U
Toxaphene	µg/L	3	0.061	0.061	2.0 UJ	2.0 UJ	2.0 UJ	2.0 UJ	2.0 UJ	2.0 UJ
PCB- 1016	µg/L	0.5	0.96	0.96	0.50 U	0.50 U	0.50 UJ	0.50 UJ	0.50 UJ	0.50 UJ
PCB- 1221	µg/L	0.5	0.034	0.0068	0.50 U	0.50 U	0.50 UJ	0.50 UJ	0.50 UJ	0.50 UJ
PCB- 1232	µg/L	0.5	0.034	0.0068	0.50 U	0.50 U	0.50 UJ	0.50 UJ	0.50 UJ	0.50 UJ
PCB- 1242	µg/L	0.5	0.034	0.034	0.50 U	0.50 U	0.50 UJ	0.50 UJ	0.50 UJ	0.50 UJ
PCB- 1248	µg/L	0.5	0.034	0.034	0.50 U	0.50 U	0.50 UJ	0.50 UJ	0.50 UJ	0.50 UJ
PCB- 1254	µg/L	0.5	0.034	0.034	0.50 U	0.50 U	0.50 UJ	0.50 UJ	0.50 UJ	0.50 UJ
PCB- 1260	µg/L	0.5	0.034	0.034	0.50 U	0.50 U	0.50 UJ	0.50 UJ	0.50 UJ	0.50 UJ

Notes:

NS = no standard

Bold = detected compound above the MDL

N/A = Not Analyzed

Table 3-7. FWGWMP October 2010 Pesticides and PCBs Analytical Results

Station ID					RQLmw-007	RQLmw-008	RQLmw-009	RQLmw-010	RQLmw-011	SCFmw-001
Sample ID		MCL	Region 9 PRG	USEPA RSL	FWGRQLmw-007C-1617-GW	FWGRQLmw-008C-1618-GW	FWGRQLmw-009C-1619-GW	FWGRQLmw-010C-1610-GW	FWGRQLmw-011C-1621-GW	FWGSCFmw-001 1583-GW
Date Collected					10/14/2010	10/14/2010	10/14/2010	10/14/2010	10/14/2010	10/11/2010
Sample Type					Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units									
4,4'-DDD	µg/L	NS	0.28	0.28	0.030 UJ	0.030 UJ	0.030 UJ	0.030 U	0.030 U	0.30 UJ
4,4'-DDE	µg/L	NS	0.2	0.2	0.030 UJ	0.030 UJ	0.030 UJ	0.030 U	0.030 U	0.30 UJ
4,4'-DDT	µg/L	NS	0.2	0.2	0.030 UJ	0.030 UJ	0.030 UJ	0.030 U	0.030 U	0.30 UJ
Aldrin	µg/L	NS	0.004	0.004	0.030 UJ	0.030 UJ	0.030 UJ	0.030 U	0.030 U	0.30 UJ
alpha-BHC	µg/L	NS	0.011	0.011	0.030 UJ	**0.015 J**	0.030 UJ	0.030 U	0.030 U	0.30 UJ
alpha-Chordane	µg/L	NS	NS	NS	0.030 UJ	0.030 UJ	0.030 UJ	0.030 U	0.030 U	0.30 UJ
beta-BHC	µg/L	NS	0.037	0.037	0.030 UJ	0.030 UJ	0.030 UJ	0.030 U	0.030 U	0.30 UJ
delta-BHC	µg/L	NS	NS	NS	0.030 UJ	**0.0098 J**	0.030 UJ	0.030 U	0.030 U	0.30 UJ
Dieldrin	µg/L	NS	0.0042	0.0042	0.030 UJ	0.030 UJ	0.030 UJ	0.030 U	0.030 U	0.30 UJ
Endosulfan I	µg/L	NS	0.022	0.022	0.025 UJ	0.025 UJ	0.025 UJ	0.025 U	0.025 U	0.25 UJ
Endosulfan II	µg/L	NS	0.022	0.022	0.025 UJ	0.025 UJ	0.025 UJ	0.025 U	0.025 U	0.25 UJ
Endosulfan sulfate	µg/L	NS	NS	NS	0.030 UJ	0.030 UJ	0.030 UJ	0.030 U	0.030 U	0.30 UJ
Endrin	µg/L	2	11	11	0.030 UJ	0.030 UJ	0.030 UJ	0.030 U	0.030 U	0.30 UJ
Endrin aldehyde	µg/L	NS	NS	NS	0.030 UJ	0.030 UJ	0.030 UJ	0.030 U	0.030 U	0.30 UJ
Endrin ketone	µg/L	NS	NS	NS	0.030 UJ	0.030 UJ	0.030 UJ	0.030 U	0.030 U	0.30 UJ
Gamma-BHC	µg/L	0.2	0.052	0.061	0.030 UJ	0.030 UJ	0.030 UJ	0.030 U	0.030 U	0.30 UJ
gamma-Chlordane	µg/L	NS	NS	NS	0.030 UJ	0.030 UJ	0.030 UJ	0.030 U	0.030 U	0.30 UJ
Heptachlor	µg/L	0.4	0.015	0.015	0.030 UJ	0.030 UJ	0.030 UJ	0.030 U	0.030 U	0.30 UJ
Heptachlor epoxide	µg/L	0.2	0.0074	0.0074	0.030 UJ	0.030 UJ	0.030 UJ	0.030 U	0.030 U	0.30 UJ
Methoxychlor	µg/L	40	180	180	0.10 UJ	0.10 UJ	0.10 UJ	0.10 U	0.10 U	1.0 UJ
Toxaphene	µg/L	3	0.061	0.061	2.0 UJ	2.0 UJ	2.0 UJ	2.0 UJ	2.0 UJ	20 UJ
PCB- 1016	µg/L	0.5	0.96	0.96	0.50 UJ	0.50 UJ	0.50 UJ	0.50 U	0.50 U	0.50 UJ
PCB- 1221	µg/L	0.5	0.034	0.0068	0.50 UJ	0.50 UJ	0.50 UJ	0.50 U	0.50 U	0.50 UJ
PCB- 1232	µg/L	0.5	0.034	0.0068	0.50 UJ	0.50 UJ	0.50 UJ	0.50 U	0.50 U	0.50 UJ
PCB- 1242	µg/L	0.5	0.034	0.034	0.50 UJ	0.50 UJ	0.50 UJ	0.50 U	0.50 U	0.50 UJ
PCB- 1248	µg/L	0.5	0.034	0.034	0.50 UJ	0.50 UJ	0.50 UJ	0.50 U	0.50 U	0.50 UJ
PCB- 1254	µg/L	0.5	0.034	0.034	0.50 UJ	0.50 UJ	0.50 UJ	0.50 U	0.50 U	0.50 UJ
PCB- 1260	µg/L	0.5	0.034	0.034	0.50 UJ	0.50 UJ	0.50 UJ	0.50 U	0.50 U	0.50 UJ

Notes:

NS = no standard

Bold = detected compound above the MDL

N/A = Not Analyzed

Table 3-7. FWGWMP October 2010 Pesticides and PCBs Analytical Results

Station ID					SCFmw-002	SCFmw-003	SCFmw-004	SCFmw-005	SCFmw-006
Sample ID		MCL	Region 9 PRG	USEPA RSL	FWGSCFmw-002 1584-GW	FWGSCFmw-003 1585-GW	FWGSCFmw-004 1586-GW	FWGSCFmw-005 1587-GW	FWGSCFmw-006 1588-GW
Date Collected					10/11/2010	10/11/2010	10/12/2010	10/12/2010	10/12/2010
Sample Type					Grab	Grab	Grab	Grab	Grab
Analyte	Units								
4,4'-DDD	µg/L	NS	0.28	0.28	0.030 U	0.15 U	0.030 U	0.030 UJ	0.030 U
4,4'-DDE	µg/L	NS	0.2	0.2	0.030 U	0.15 U	0.030 U	0.030 UJ	0.030 U
4,4'-DDT	µg/L	NS	0.2	0.2	0.030 U	0.15 U	0.030 U	0.030 UJ	0.030 U
Aldrin	µg/L	NS	0.004	0.004	0.030 U	0.15 U	0.030 U	0.030 UJ	0.030 U
alpha-BHC	µg/L	NS	0.011	0.011	0.030 U	0.15 U	0.030 U	0.030 UJ	0.030 U
alpha-Chordane	µg/L	NS	NS	NS	0.030 U	0.15 U	0.030 U	0.030 UJ	0.030 U
beta-BHC	µg/L	NS	0.037	0.037	0.030 U	0.15 U	0.030 U	0.030 UJ	0.030 U
delta-BHC	µg/L	NS	NS	NS	0.030 U	0.15 U	0.030 U	0.030 UJ	0.030 U
Dieldrin	µg/L	NS	0.0042	0.0042	0.030 U	0.15 U	0.030 U	0.030 UJ	0.030 U
Endosulfan I	µg/L	NS	0.022	0.022	0.025 U	0.12 U	0.025 U	0.025 UJ	0.025 U
Endosulfan II	µg/L	NS	0.022	0.022	0.025 U	0.12 U	0.025 U	0.025 UJ	0.025 U
Endosulfan sulfate	µg/L	NS	NS	NS	0.030 U	0.15 U	0.030 U	0.030 UJ	0.030 U
Endrin	µg/L	2	11	11	0.030 U	0.15 U	0.030 U	0.030 UJ	0.030 U
Endrin aldehyde	µg/L	NS	NS	NS	0.030 U	0.15 U	0.030 U	0.030 UJ	0.030 U
Endrin ketone	µg/L	NS	NS	NS	0.030 U	0.15 U	0.030 U	0.030 UJ	0.030 U
Gamma-BHC	µg/L	0.2	0.052	0.061	0.030 U	0.15 U	0.030 U	**0.015 J**	0.030 U
gamma-Chlordane	µg/L	NS	NS	NS	0.030 U	0.15 U	0.030 U	0.030 UJ	0.030 U
Heptachlor	µg/L	0.4	0.015	0.015	0.030 U	0.15 U	0.030 U	0.030 UJ	0.030 U
Heptachlor epoxide	µg/L	0.2	0.0074	0.0074	0.030 U	0.15 U	0.030 U	0.030 UJ	0.030 U
Methoxychlor	µg/L	40	180	180	0.10 U	0.50 U	0.10 U	0.10 UJ	0.10 U
Toxaphene	µg/L	3	0.061	0.061	2.0 UJ	10 UJ	2.0 UJ	2.0 UJ	2.0 UJ
PCB- 1016	µg/L	0.5	0.96	0.96	0.50 U	0.50 UJ	0.50 U	0.50 UJ	0.50 U
PCB- 1221	µg/L	0.5	0.034	0.0068	0.50 U	0.50 UJ	0.50 U	0.50 UJ	0.50 U
PCB- 1232	µg/L	0.5	0.034	0.0068	0.50 U	0.50 UJ	0.50 U	0.50 UJ	0.50 U
PCB- 1242	µg/L	0.5	0.034	0.034	0.50 U	0.50 UJ	0.50 U	0.50 UJ	0.50 U
PCB- 1248	µg/L	0.5	0.034	0.034	0.50 U	0.50 UJ	0.50 U	0.50 UJ	0.50 U
PCB- 1254	µg/L	0.5	0.034	0.034	0.50 U	0.50 UJ	0.50 U	0.50 UJ	0.50 U
PCB- 1260	µg/L	0.5	0.034	0.034	0.50 U	0.50 UJ	0.50 U	0.50 UJ	0.50 U

Notes:

NS = no standard

Bold = detected compound above the MDL

N/A = Not Analyzed

Table 3-7. FWGWMP October 2010 Pesticide and PCBs Analytical Results

Data Qualifiers

Data qualifier flags are used in an effort to describe the quality of each piece of data for each constituent. These flags are letter codes appended to the numerical data. The following data qualifiers are specified in the USACE Louisville Chemistry Guidelines. For a complete explanation of qualifiers used for each constituent please refer to the Data Verification Summaries in Appendix D.

U The analyte was analyzed for but not detected. The numerical value preceding the U is the associated reporting limit.

J 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 (i.e., the quantitative value is estimated). Examples include:

- Results detected above the laboratory MDL but less than the laboratory reporting limit.
- MS/MSD percent recoveries outside the acceptance criteria.
- Laboratory control sample (LCS) percent recoveries outside acceptance criteria.

R Data are considered to be rejected and shall not be used. This flag denotes the failure of quality control criteria such that it cannot be determined if the analyte is present or absent from the sample [e.g., the method reporting limit (MRL) verification standard was below quality control guidelines; associated sample results that were non-detect are unusable].

UJ This flag is a combination of the U and J qualifiers which indicate that the analyte is not present. The reported value is considered to be an estimated reporting limit (RL).

B The B flag is used for both organic and inorganic analyses when the analyte is found in the method blank or any of the field blanks. This designation overrides the Contract Laboratory Program (CLP) "B" designation when used by the laboratory as an estimated value for inorganics.

As shown in Table 3-7 the only pesticide detected at a level exceeding either the MCL or the Region 9 PRG was alpha-BHC at a concentration of 0.015 µg/L at RQLmw-008 (the Region 9 PRG is 0.011 µg/L).

3.3 Data Verification/Validation

As discussed in Sections 2.3 and 3.2, all primary chemical data were generated by TestAmerica. RTI conducted the independent QC analysis (EQM does not however verify RTI data). A three step process is then conducted which involves the lab, the ADR data program, and a data validator performing the data verification and validation of the data. The First Step is where each lab analyzes the data and assigns a qualifier as necessary in full accordance with USEPA and LCG guidelines.

The data verification and validation process is continued with Step Two; when the data validator verifies all data received from TestAmerica, and validates greater than 10% of the data by running the lab data through the ADR program. The USACE-supplied ADR program assigned qualifiers to the data as necessary consistent with the programmed criteria of the ADR software. The Third step is when the data validator then uses professional judgment to check the validity of the qualified data and either accepts, rejects, or re-qualifies the ADR results following strict LCG and USEPA guidelines.

After this three-step process has been completed, the resulting final ADR qualifiers may not match the original lab qualifiers which are presented on the laboratory data sheets. As a result of the data validation process, one or more of four possibilities listed occurs:

1. The lab assigns a B, J, or E to the data, and ADR and/or the data validator changes the qualifier to a J, UJ, U, B, or R.
2. The lab assigns no qualifier to the data, and ADR and/or the data validator assigns a J, UJ, U, B, or R to the data.
3. The lab assigns a B, J, or E to the data, and ADR and/or the data validator assigns no qualifier to the data.
4. The lab may assign a J qualifier or use no qualifier, and ADR and/or the data validator accepts the lab designation.

For the October 2010 Sampling Event Report, the laboratory data with laboratory derived qualifiers following USEPA and LGC criteria are presented in Appendix D. The verification reports for the data are also presented in Appendix D, which includes the definitions of the ADR qualifiers. The data presented in Tables 3-2, 3-3, 3-5, 3-6, and 3-7 are the result of the data that has been subjected to the Three Step Process of verification and validation. These Tables display the final assigned data qualifier in accordance with ADR and LCG criteria.

Data qualifier flags are used in an effort to describe the quality of each piece of data for each constituent. These flags are letter codes appended to the numerical data. The following data qualifiers are specified in the USACE Louisville Chemistry Guidelines

(LCG). For a complete explanation of qualifiers used for each constituent please refer to the Data Verification Summaries in Appendix D.

- U - The analyte was analyzed for but not detected. The numerical value preceding the U is the associated reporting limit.

- J - 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 (i.e., the quantitative value is estimated). Examples include:
  - Results detected above the laboratory MDL but less than the laboratory reporting limit.
  - MS/MSD percent recoveries outside the acceptance criteria.
  - Laboratory control sample (LCS) percent recoveries outside acceptance criteria.

- R - Data are considered to be rejected and shall not be used. This flag denotes the failure of quality control criteria such that it cannot be determined if the analyte is present or absent from the sample [e.g.MRL verification standard was below quality control guidelines; associated sample results that were non-detect are unusable].

- UJ - This flag is a combination of the U and J qualifiers which indicate that the analyte is not present. The reported value is considered to be an estimated reporting limit.

- B - The B flag is used for both organic and inorganic analyses when the analyte is found in the method blank or any of the field blanks. This designation overrides the CLP) "B" designation when used by the laboratory as an estimated value for inorganics.

Forty-one wells were sampled during a five-day quarterly sampling event from October 11-15, 2010. During the quarterly event, 13 trip blanks were submitted for volatile organic analysis to TestAmerica.

Five field duplicates were collected during the sampling event in order to assess the quality and consistency of sample collection. Project requirements of 10% field duplicates were met for this sampling event. In addition, five laboratory splits were collected and analyzed in order to assess the quality and consistency of the laboratory analysis. The project requirements of taking 10% laboratory splits were met for this sampling event. An equipment rinse blank was collected during each day of the sampling event.

For the October 2010 sampling event the following laboratory or field contamination at detections greater than ½ MRL was reported for the field QA/QC samples.

A0J120413/ A0J120408

FWGEQUIPRinse1-1635-GW

- Acetone was detected in FWGEQUIPRinse1-1635-GW at 13ug/L and 2-butanone at 8ug/L. As there was no detected acetone or 2-butanone concentrations in the associated field samples, no qualifications were made.

- FWGEQUIPRinse1-1635-GW had detected benzyl alcohol at 1.4ug/L. No qualifications were made as there were no detected benzyl alcohol concentrations in the associated field samples.

- Thallium was detected in the equipment rinse, FWGEQUIPRinse1-1635-GW**,** at 0.17ug/L. The thallium results for samples FWGLL1mw-084c-1592-GF, FWGLL1mw-Dup2-1625-GF, FWGLL1mw-085c-1593-GF, FWGLL1mw-266c-1594-GF, FWGSCFmw-002-1584-GF, FWGLL1mw-067c-1589-GF, FWGLL1mw-082c-1591-GF and FWGLL1mw-081c-1590-GF were <5x the blank contamination and were qualified, "B".

Method Blank

The method blank had detected concentrations of sodium at 93.7ug/L and zinc at 3.9ug/L. The zinc result for sample FWGLL2mw-266c-1594-GF were qualified "B" as the detected sample concentrations were less than 5x method blank contamination. No sodium qualifications were required as the detected sodium results were >5x contamination.

A0J130408/ A0J130403

Filter Blank

Due to excessive particulates, samples FWGLL6mw-004c-1602-GW, FWGLL6mw-005c-1603-GW, FWGLL2mw-267c-1595-GW, FWGLL2mw-DUP3-1627-GW, and FWGLL3mw-239c-1598-GW required filtration in the laboratory. A filter blank was prepared and analyzed. 1,3,5-Trinitrobenzene was detected in the filter blank at 0.040 ug/L. The 1,3,5-Trinitrobenzene results for samples FWGLL2mw-267c-1595-GW, FWGLL2mw-DUP3-1627-GW, and FWGLL3mw-239c-1598-GW were qualified, "B" as the results were <5x the filter blank contamination.

FWGEQUIPRinse2-1636-GW

Chloroform was detected in FWGEQUIPRinse2-1636-GW at 2.8ug/L and methylene chloride at 0.56ug/L. The chloroform result for sample FWGLL3mw-239c-1598-GW was qualified "B" as the result was <5x trip blank contamination. As there were no detected concentrations of methylene chloride in the associated field samples no additional qualifications were made.

Method Blank

The method blank had detected concentrations of thallium at 0.37ug/L, sodium at 85.1ug/L and zinc at 3.1ug/L. Thallium samples FWGLL2mw-269c-1596-GF, FWGLL2mw-267c-1595-GF, FWGLL2mw-Dup3-1627-GF, FWGLL4mw-197c-1600-GF, FWGLL4mw-196c-1599-GF, FWGLL6mw-004c-1602-GF, FWGLL6mw-005c-

1603-GF and FWGLL3mw-239c-1598-GF were qualified "B" as the detected sample concentrations were less than 5x method blank contamination. The zinc results for samples FWGLL3mw-236c-1597-GF, FWGLL6mw-004c-1602-GF, FWGLL7mw-005c-1606-GF and FWGSCFmw-005-1587-GF were qualified "B" as the detected sample concentrations were less than 5x method blank contamination.

A0J140406/ A0J140402

FWGEQUIPRinse3-1637-GW

Chloroform was detected in FWGEQUIPRinse3-1637-GW at 1.9ug/L, acetone at 1.5ug/L, 2-butanone at 1.2ug/L and methylene chloride at 0.36ug/L. As there were no detected concentrations of the contaminants in the associated field samples no qualifications were made.

Trip Blank

FWGTeam1-Trip had detected concentrations of methylene chloride at 0.79ug/L, acetone at 1.6ug/L and carbon disulfide at 0.14ug/L. As there were no detected concentrations of the contaminants in the associated field samples no qualifications were made.

A0J150406/ A0J150401

FWGEQUIPRinse4-1638-GW

- Chloroform was detected in FWGEQUIPRinse4-1638-GW at 2.1ug/L and methylene chloride at 0.56ug/L. As there were no detected chloroform or methylene chloride concentrations in the associated field samples, no qualifications were made.

- Sodium was detected in the equipment rinse at 12.7ug/L and thallium at 0.18ug/L. The thallium results for samples FWGLL11mw-002c-1613-GF, FWGLL11mw-Dup4-1628-GF, FWGRQLmw-006c-1616-GF, FWGRQLmw-010c-1610-GF, FWGRQLmw-009c-1619-GF, FWGRQLmw-Dup4-1629-GF, FWGRQLmw-011c-1621-GF and FWGRQLmw-007c-16176-GF were <5x the rinseate concentration contamination and were qualified, "B" as the detected sample concentrations were less than 5x equipment blank contamination. No qualifications were made for the sodium contamination as there were no detected field sample concentrations <5x contamination.

- Cyanide was detected in FWGEQUIPRinse4-1638-GW at 0.02 mg/L. The cyanide result for sample FWGRQLmw-007c-1617-GW was qualified, "B" as the reported concentration was less than 5x the blank contamination.

Method Blanks

The method blank had detected concentrations of aluminum at 21.6ug/L, thallium at 0.37ug/L and zinc at 3.0ug/L.

- The aluminum result for samples FWGLL11mw-002c-1613-GF, FWGRQLmw-009c-1619-GF and FWGRQLmw-Dup4-1629-GF were qualified "B" as the detected sample concentrations were less than 5x method blank contamination.

- The thallium results for samples FWGLL11mw-002c-1613-GF, FWGLL11mw-Dup4-1628-GF, FWGRQLmw-006c-1616-GF, FWGRQLmw-010c-1610-GF, FWGRQLmw-009c-1619-GF, FWGRQLmw-Dup4-1629-GF, FWGRQLmw-011c-1621-GF, FWGRQLmw-007c-16176-GF and FWGEQUIPRinse-1638-GW were <5x the ICB contamination and were qualified, "B" as the detected sample concentrations were less than 5x method blank contamination.

- The zinc results for samples FWGRQLmw-010c-1610-GF, FWGRQLmw-009c-1619-GF, FWGRQLmw-Dup4-1629-GF and FWGRQLmw-007c-16176-GF were <5x the ICB contamination and were qualified, "B" as the detected sample concentrations were less than 5x method blank contamination.

A0J150604/ A0J150600

FWGEQUIPRinse5-1639-GW

Chloroform was detected in FWGEQUIPRinse5-1639-GW at 1.5ug/L. As there were no detected chloroform concentrations in the associated field samples, no qualifications were made.

For a discussion of method blank contamination please reference the Data Verification Reports and the Laboratory Case Narrative.

Laboratory analyses were performed in analytical batches of ≤ 20 in order to maximize efficiency and group quality control requirements. Method blanks and laboratory control samples were analyzed at a frequency of 1:20 (5%) samples, or in each analytical batch whichever was greater. Sufficient volume was provided to the laboratory in order to assess matrix spike analysis on project samples at a frequency of 1:10 (10%) samples. Matrix spike/matrix spike duplicate analysis was performed by the laboratory as batch quality control at a frequency of 1:10 (10%).

Field quality control and laboratory quality control results were evaluated as part of the verification assessment provided in Appendix D. Project requirements were met for the frequency and quality of these samples.

Table 3-8 presents the percent, by analytical method, of data that was acceptable (based on data not rejected) for use. For SDG A0J140402, A0J150401, and A0J150600 pentachlorophenol recovered below LCG control limits at 14%, 18%, and 18% in the LCS, respectively. Pentachlorophenol results were qualified as unusable, "R". This does not, however, have any negative effect on the usability of other parameters analyzed under the same method. Rejected data do call into question the interpretation of that particular data for a given monitoring event and it is important to correct any problems to prevent a reoccurrence for future sampling events. All methods met the 90% completion requirement.

All qualified data has been discussed in the Data Verification Reports contained in Appendix D. All other data meet the requirements specified in the USACE Louisville Guidance Document and the QAPP associated with this site. All qualified data

performed by the data validator is further discussed in the Data Verification Reports contained in Appendix D.

Table 3-8. Percent of Acceptable Data

Analytical Method	Total Number of Analytes	Number of Rejects	Percent Completeness
353.2 Modified	9	0	100
6010B	714	0	100
6020	408	0	100
7470A	51	0	100
8081A	1071	0	100
8082	357	0	100
8260B	2496	0	100
8270C	3366	25	99.3
8330	816	0	100
9012A	51	0	100
8330 Modified	51	0	100
WS-WC-0050	52	0	100
TOTAL	**9442**	**0**	**99.7**

SECTION 4

SUMMARY OF RESULTS

Explosive and Propellant Compounds
As shown in Table 3-2, the following explosives or propellants were detected at levels above the MCL or Region 9 PRGs during the July 2010 sampling:

- 2-Nitrotoluene at a concentration exceeding the Region 9 PRG of 0.049 at LL1mw-084 (0.31 µg/L J) and LL3mw-239 (0.092 µg/L J).
- RDX at a concentration exceeding the Region 9 PRG of 0.61 µg/L at LL2mw-267 (0.93 µg/L) and LL3mw-239 (1.6 µg/L).
- 2,4,6-Trinitotoluene at a concentration exceeding the Region 9 PRG of 2.2 µg/L at LL1mw-084 (10 µg/L J).

Inorganic Elements
Several inorganic compounds were detected at levels exceeding the MCLs and/or Region 9 PRGs. These included manganese, aluminum, arsenic, and iron for wells from all areas sampled. These compounds were also detected at concentrations exceeding the Facility-Wide Background Criteria for many of the wells. Table 4-1 presents a summary of all inorganic compounds and the associated wells that had detections exceeding MCLs or Region 9 PRGs.

Volatile Organic Compounds
As shown in Table 3-5, the following VOCs were detected at levels above the MCLs or Region 9 PRGs during the July 2009 sampling event:

- Carbon Tetrachloride at a concentration exceeding the Region 9 PRG of 0.17 µg/L at LL10mw-003 (2.8 µg/L).
- Chloroform at a concentration exceeding the Region 9 PRG of 0.17 µg/L at LL3mw-239 (0.40 (µg/L J B).
- Tetrachloroethene at a concentration exceeding the Region 9 PRG of 0.1 µg/L at LL11mw-009 (4.1 µg/L).

Semivolatile Organic Compounds
As shown in Table 3-6 the following SVOC was detected at a level exceeding either the MCL or the Region 9 PRGs:

- Bis(2-Ethylhexyl)phthalate at a concentration exceeding the Region 9 PRG of 4.8

µg/L at LL1mw-084 (6.1µg/L J).

Pesticides and Polychlorinated Biphenyls (PCBs)

As shown in Table 3-7 the only pesticide detected at a level exceeding either the MCL or the Region 9 PRGs was:

- alpha-BHC at a concentration exceeding the Region 9 PRG of 0.011 µg/L at RQLmw-008 (0.015 µg/L).

Table 4-1. Inorganic Elements Detected at Concentrations Exceeding the MCLs or Region 9 PRGs

Area	Well Number	Compound or Element Detected	Oct-10 Level (ug/L)		MCL (ug/L)	Region 9 PRG (ug/L)	Facility-Wide Background Criteria (ug/L)
Sharon Conglomerate Wells	SCFmw-001	Arsenic	**16.4**		10	0.045	0
		Iron	**888**		300	11,000	1,430
		Manganese	**195**		50	880	1,340
	SCFmw-002	Arsenic	**18.1**		10	0.045	0
		Iron	**348**		300	11,000	1,430
		Manganese	**77.9**		50	880	1,340
	SCFmw-003	Iron	**521**		300	11,000	1,430
		Manganese	**237**		50	880	1,340
	SCFmw-004	Manganese	**658**		50	880	1,340
	SCFmw-005	Arsenic	**5.4**		10	0.045	0
		Iron	**5320**		300	11,000	1,430
		Manganese	**1790**		50	880	1,340
	SCFmw-006	Arsenic	**13.7**		10	0.045	0
		Iron	**518**		300	11,000	1,430
		Manganese	**172**		50	880	1,340
Load Line 1	LL1mw-081	Iron	**728**		300	11,000	1,430
		Manganese	**1950**		50	880	1,340
	LL1mw-082	Manganese	**456**		50	880	1,340
	LL1mw-084	Aluminum	**515**		200	36,000	0
		Manganese	**164**		50	880	1,340
	Ll1mw-085	Arsenic	**5.7**	**J**	10	0.045	0
		Manganese	**638**		50	880	1,340
Load Line 2	LL2mw-266	Arsenic	**4.2**	**J**	10	0.045	0
		Manganese	**1250**		50	880	1,340
		Iron	**4320**		300	11,000	1,430
	LL2mw-267	Aluminum	**51300**		200	36,000	0
		Arsenic	**137**		10	0.045	0
		Manganese	**2850**		50	880	1,340
		Iron	**16400**		300	11,000	1,430
	LL2mw-269	Manganese	**1520**		50	880	1,340
		Iron	**6840**		300	11,000	1,430
Load Line 3	LL3mw-236	Manganese	**240**		50	880	1,340
	LL3mw-239	Arsenic	**3.9**	**J**	10	0.045	0
		Manganese	**175**		50	880	1,020
Load Line 4	LL4mw-196	Arsenic	**4.6**	**J**	10	0.045	0
		Manganese	**136**		50	880	1,020
		Iron	**1120**		300	11,000	279
Open Demolition Area 2	DETmw-003	Arsenic	**13.1**		10	0.045	11.7
		Iron	**1590**		300	11,000	279
		Manganese	**280**		50	880	1,020
Load Line 6	LL6mw-005	Arsenic	**15.3**		10	0.045	0
		Iron	**859**		300	11,000	279
		Manganese	**483**		50	880	1,020
Load Line 7	LL7mw-001	Iron	**8940**		300	11,000	1,430
		Manganese	**487**		50	880	1,340
	LL7mw-003	Iron	**19500**		300	11,000	279
		Manganese	**1370**		50	880	1,020
	LL7mw-005	Iron	**1290**		300	11,000	279
		Manganese	**1630**		50	880	1,020

Table 4-1. Inorganic Elements Detected at Concentrations Exceeding the MCLs or Region 9 PRGs

Area	Well Number	Compound or Element Detected	Oct-10 Level (ug/L)		MCL (ug/L)	Region 9 PRG (ug/L)	Facility-Wide Background Criteria (ug/L)
Load Line 8	LL8mw-003	Arsenic	**7.1**		10	0.045	11.7
		Iron	**775**		300	11,000	279
		Manganese	**639**		50	880	1,020
Load Line 9	LL9mw-002	Arsenic	**3.5**	**J**	10	0.045	11.7
	LL9mw-004	Arsenic	**3.8**	**J**	10	0.045	0
		Iron	**10800**		300	11,000	279
Load Line 11	LL11mw-007	Iron	**333**		300	11,000	279
		Arsenic	**18.6**		10	0.045	0
		Manganese	**183**		50	880	1,340
	LL11mw-009	Manganese	**751**		50	880	1,020
Ramsdale Quarry Landfill	RQLmw-006	Arsenic	**55.9**		10	0.045	11.7
		Iron	**39500**		300	11,000	279
		Manganese	**5360**		50	880	1,020
	RQLmw-007	Arsenic	**70.2**		10	0.045	0
		Iron	**20100**		300	11,000	279
		Manganese	**1380**		50	880	1,020
	RQLmw-008	Arsenic	**68.7**		10	0.045	11.7
		Iron	**94400**		300	11,000	279
		Manganese	**680**		50	880	1,020
	RQLmw-009	Arsenic	**27.4**		10	0.045	0
		Iron	**3880**		300	11,000	279
		Manganese	**946**		50	880	1,020
	RQLmw-010	Manganese	**1280**		50	880	1,020
	RQLmw-011	Iron	**1550**		300	11,000	279
		Manganese	**4050**		50	880	1,020

Notes:
J = estimated result. Results have been qualified "J" For more details refer to Data Verification/Validation Reports in Appendix D

SECTION 5

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