

**FINAL  
FACILITY-WIDE GROUNDWATER MONITORING PROGRAM  
RVAAP-66 FACILITY-WIDE GROUNDWATER**

**ANNUAL REPORT FOR 2013**

**RAVENNA ARMY AMMUNITION PLANT,  
RAVENNA, OHIO**

**March 6, 2014**

**GSA Contract Number GS-10F-0293K  
Delivery Order W912QR-11-F-0266**

**Prepared for:**



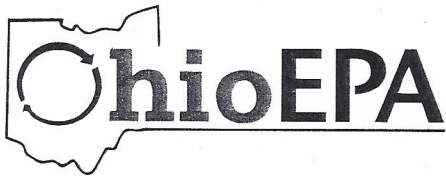
**U.S. Army Corps of Engineers  
600 Martin Luther King Jr. Place  
Louisville, Kentucky 40202**

**Prepared by:**



**Environmental Quality Management, Inc.  
1800 Carillon Boulevard  
Cincinnati, Ohio 45240**

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

June 3, 2014

**RE: RAVENNA ARMY AMMUNITION PLANT,  
PORTAGE/TRUMBULL COUNTIES, RE.  
APPROVAL, FWGWMP FINAL ANNUAL  
REPORT FOR 2013, DATED MARCH 6, 2014  
FOR RVAAP-66 FWGWMP, Ohio EPA # 267-  
000859-036**

Mr. Brett Merkel  
Army National Guard Directorate  
ARNGD-ILE Clean Up  
111 South George Mason Drive  
Arlington, VA 22203

Dear Mr. Merkel:

The Ohio Environmental Protection Agency (Ohio EPA) has received and reviewed the Response to Ohio EPA Comments, dated April 15, 2014, on the "Final Facility-Wide Groundwater Annual Report for 2013 originally dated March 6, 2014 in support of the Facility-Wide Groundwater Monitoring Program at the Ravenna Army Ammunition Plant, Ravenna, OH." This Final Report was received at Ohio EPA, Northeast District Office (NEDO), Division of Environmental Response and Revitalization (DERR), on March 10, 2014. Ohio EPA received the response to our final comments in a letter dated April 30, 2014, and received May 5, 2014. The document was prepared for the U.S. Army Corps of Engineers (USACE) – Louisville District, by Environmental Quality Management, Inc. (EQM), under contract no. W912QR-11-F-0266.

Pursuant to the CERCLA process, the property owner usually can provide the expected land uses to assist in ensuring that the investigation addresses all receptors for both current and future land uses. Be advised that due to land use uncertainty, Ohio EPA may require additional work in the future, to address data gaps. It is incumbent upon the Army to finalize land use at Camp Ravenna as soon as possible, otherwise additional work and schedule slippage may result.

These documents were reviewed by personnel from Ohio EPA, DERR. Ohio EPA has determined that all required changes have been made to the document and considers it to be final and approved, providing there are no additional comments from the Army National Guard Bureau or the Ohio Army National Guard.

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MR. BRETT MERKEL  
ARMY NATIONAL GUARD DIRECTORATE  
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If you have any questions, please call me at 330-963-1292.

Sincerely,



Kevin M. Palombo  
Environmental Specialist  
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KP/nvr

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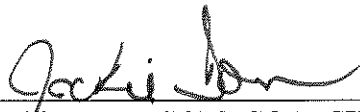
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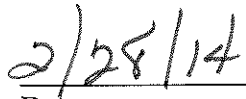
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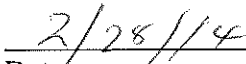
**CONTRACTOR'S STATEMENT OF INDEPENDENT TECHNICAL REVIEW**

Environmental Quality Management, Inc. (EQM) has completed the *Final Facility-Wide Groundwater Monitoring Program RVAAP-66 Facility-Wide Groundwater Annual Report for 2013*. Notice is hereby given that an independent technical review has been conducted that is appropriate to the level of risk and complexity inherent in this project. During the independent technical review, compliance with established policy principles and procedures, utilizing justified and valid assumptions, was verified. This included review of data quality objectives; technical assumptions, methods, procedures, and materials used; the appropriateness of data used and level of data obtained; and reasonableness of the results, including whether the product meets the customer's needs consistent with law and existing United States Corps of Engineers policy.

  
\_\_\_\_\_  
Jackie Doan, CQM, CQA, CHMM, CEAC  
Director of Quality

  
\_\_\_\_\_  
Date

  
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John M. Miller, CHMM  
Senior Project Manager

  
\_\_\_\_\_  
Date

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**Prepared by:**

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1800 Carillon Boulevard  
Cincinnati, Ohio 45240**

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Ravenna Army Ammunition Plant**

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RVAAP Facility Archivist, Gail Harris	2	2
USACE Technical Manager, Mark Nichter	2	3
EQM Project Manager, John Miller	1	1

ARNG – Army National Guard  
OHARNG – CRJTMCC-ENV – Ohio Army National Guard Camp Ravenna Joint Military  
Training Center – Environmental  
Ohio EPA - NEDO - Ohio Environmental Protection Agency – Northeast District Office  
RVAAP – Ravenna Army Ammunition Plant  
USACE – U.S. Army Corps of Engineers  
EQM – Environmental Quality Management, Inc.

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Plate 5	Potentiometric Surface of Sharon Conglomerate (August 2013)

## LIST OF GENERAL ACRONYMS

amsl	Above Mean Sea Level
AOC	Area of Concern
ARNG	Army National Guard
BEHP	Bis(2-ethylhexyl)phthalate
BRA	Baseline Risk Assessment
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CRJMTTC	Camp Ravenna Joint Military Training Center
COC	Chemical of Concern
COPC	Chemical of Potential Concern
DFFOs	Director's Final Findings and Orders
DNT	Dinitrotoluene
DoD	Department of Defense
EPA	Environmental Protection Agency
EQM	Environmental Quality Management, Inc.
FS	Feasibility Study
ft	feet
FWCUGs	Facility-wide Cleanup Goals
FWGWMP	Facility-wide Groundwater Monitoring Program
FWSAP	Facility-wide Sampling and Analysis Plan
GOCO	Government Owned, Contractor Operated
GSA	General Services Administration
GW	groundwater
HMX	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
ICPMS	inductively coupled plasma mass spectrometry
IRP	Installation Restoration Program
IDW	Investigation-Derived Waste
MCL	Maximum Contaminant Level
MDL	Method Detection Limit
µg/L	micrograms per liter
mg/L	milligrams per liter
MMRP	Military Munitions Response Program
mw	Monitoring Well
NTU	Nephelometric turbidity unit
OHARNG	Ohio Army National Guard
%	percent
PAHs	Polynuclear Aromatic Hydrocarbons
PBA	Performance Based Acquisition
PCBs	Polychlorinated biphenyls
pCi/L	picocuries per liter
PQL	Practical Quantitation Limit
PRG	Preliminary Remediation Goal
PVC	Polyvinyl chloride
QAPP	Quality Assurance Project Plan

**LIST OF GENERAL ACRONYMS**  
**(continued)**

RCRA	Resource Conservation and Recovery Act
RDX	Hexahydro-1,3,5-trinitro-1,3,5-triazine
RI	Remedial Investigation
RLs	Reporting Limits
ROD	Record of Decision
ROI	Radius of Influence
RSL	Regional Screening Level
RVAAP	Ravenna Army Ammunition Plant
SAIC	Science Applications International Corporation
SRC	Site Related Chemical
s.u.	standard units
SVOC	Semivolatile Organic Compound
TNT	Trinitrotoluene
U.S.	United States
USACE	United States Army Corps of Engineer
USEPA	United States Environmental Protection Agency
USP&FO	United States Property and Fiscal Officer
VOC	Volatile Organic Compound

## **LIST OF AREA OF CONCERN ACRONYMS**

ASY	Atlas Scrap Yard
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
FWG	Facility-Wide Groundwater
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
SCF	Sharon Conglomerate Formation
WBG	Winklepeck Burning Grounds

## EXECUTIVE SUMMARY

Past Department of Defense (DoD) activities at the Ravenna Army Ammunition Plant (RVAAP) in Ravenna, Ohio, date to 1940 and included the manufacturing, loading, handling, and storage of military explosives and ammunition. Residual contamination from these early activities at RVAAP has been identified in groundwater beneath the facility. Currently, the approximately 21,683-acre facility is primarily used for military training.

The United States (U.S.) Army Corps of Engineers (USACE) is performing Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) closure at the former RVAAP under the Installation Restoration Program (IRP) and the Military Munitions Response Program (MMRP). The overall goal is to remediate the RVAAP installation as all of the property has been transferred to the Army National Guard (ARNG) and is being used by the Ohio Army National Guard (OHARNG) as a military training site. One of the activities conducted under the IRP includes monitoring of an extensive network (now 281 wells) of groundwater monitoring wells at the RVAAP facility. To date, all 281 Facility-Wide Groundwater Monitoring Program (FWGWMP) wells at the facility have been sampled and analyzed a minimum of four quarters.

In 2004, the U.S. Army and the Ohio Environmental Protection Agency (EPA) finalized the FWGWMP Plan, which details the requirements of the program for the 281 existing wells. The FWGWMP was initiated in 2005 with three consecutive quarters of FWGWMP well sampling. Quarterly sampling has continued through the current October 2012 monitoring event. Beginning with the January 2013 sampling event the frequency of sampling was changed to semiannual (January and July) for all of the existing wells. In addition, five Resource Conservation and Recovery Act (RCRA) wells located at Ramsdell Quarry Landfill (RQLmw-007, RQLmw-008, and RQLmw-009) and Demolition Area 2 (DETMw-003 and DETmw-004) are sampled on a semiannual basis (i.e., twice per calendar year). By agreement with the U.S. Army and the Ohio EPA and in accordance with Amendment No. 1 to the FWGWMP Plan, this Annual Report for 2013 summarizes the October 2012, as well as the January, and August 2013 sampling events. Note that the quarterly monitoring event for the newly installed wells which did not have 4 completed quarters of sampling and analysis was not conducted in April 2013. The Army had scheduled the event however correspondence received by the Army from the Ohio EPA resulted in the quarterly event being delayed until August 2013. Appendix A presents the correspondence related to this issue.

The following activities were conducted by Environmental Quality Management, Inc. (EQM) during the 2013 annual reporting period:

- Performed groundwater sampling of select wells on a semiannual basis. The wells sampled are identified in Section 1.5.1 of this report. The wells were sampled by EQM. The RCRA wells at Ramsdell Quarry (RQLmw-007, RQLmw-008, and RQLmw-009) and at Demolition Area 2 (DETMw-003 and



DETMw-004) were also sampled during this timeframe (January, and August 2013). Note that per the FWGWMPP and the Director's Final Findings and Orders (DFFOs), the RCRA wells are sampled twice per calendar year.

- Continued groundwater sampling of 38 new remedial investigation (RI) wells on a quarterly basis through August 2013.
- Gauged depth-to-water at the 281 RVAAP monitoring wells immediately prior to the August 2013 sampling event. The water-level measurements were used to generate updated potentiometric maps.
- Performed laboratory analyses and data validation for the collected samples.
- Prepared the requisite Investigation-Derived Waste (IDW) characterization and disposal report.
- Prepared the 2013 Annual Report, including the overall program review requirement.
- Performed maintenance on selected groundwater monitoring wells.

During this 2013 reporting period, aluminum (12 wells), arsenic (33 wells), cobalt (10 wells), cyanide (3 wells), iron (50 wells), manganese (63 wells), and thallium (5 wells) were reported at concentrations exceeding their respective Maximum Contaminant Level (MCL) and/or U.S. EPA Risk Screening Level (RSL) during at least one sampling event from the 164 wells sampled. The following general observations were noted regarding the inorganic constituents: 1) the MCL for aluminum was exceeded in 12 wells, and the aluminum RSL was not exceeded during the sampling events; 2) all detected arsenic concentrations exceeded the RSL and 42% of the detected arsenic concentrations exceeded the MCL; 3) cobalt exceeded the RSL in 10 wells; there is no MCL for cobalt; 4) cyanide exceeded the RSL but not the MCL in three wells; 5) iron exceeded the MCL in 51 wells, and it exceeded the RSL in six wells on at least one occasion; 6) manganese exceeded the MCL in 64 wells, and it exceeded the RSL in 32 wells on at least one occasion; and 7) thallium exceeded the RSL in five wells on one occasion.

Carbon tetrachloride (one well), and chloroform (one well) were reported at concentrations exceeding their respective RSLs during two sampling events. The following general observations were noted regarding the volatile organic compounds (VOCs): 1) carbon tetrachloride exceeded the RSL but not the MCL in one well on two occasions; and 2) chloroform exceeded the RSL in one well on two occasions; there is no MCL for this VOC.

During this reporting period, 3,3'-dichlorobenzidine (one well), bis(2-ethylhexyl)phthalate (two wells), naphthalene (four wells), benzo(a)anthracene (one well), benzo(a)pyrene (one well), and benzo(b)fluoranthene (one well), were reported at concentrations exceeding their respective MCLs and/or RSLs during one sampling event. The following general observations were noted regarding the semivolatile organic compounds (SVOCs): 1) 3,3'-dichlorobenzidine exceeded the RSL in one well on one occasion; there is no MCL for this SVOC; 2) bis(2-ethylhexyl)phthalate was identified at

concentrations exceeding the RSL and MCL in two wells on one occasion; 3) naphthalene exceeded the RSL in four wells on one occasion; there is no MCL for this SVOC; 4) benzo(a)anthracene, benzo(a)pyrene and benzo(b)fluoranthene exceeded the RSL but not the MCL in one well on one occasion (DETMw-003). This is first reported detection of these SVOCs in this well.

beta-BHC (three wells) was reported at concentrations exceeding the RSL during at least one sampling event during the 2013 reporting period. There are no established MCLs for this pesticide/herbicide.

During this sampling period, 2,4-dinitrotoluene (five wells), 2,6-dinitrotoluene (five wells), 2,4,6- trinitrotoluene (five wells), 4-amino-2,6-dinitrotoluene (two wells), nitrate as nitrite (two wells), nitrobenzene (one well) and RDX (seven wells) were reported at concentrations exceeding their respective RSLs during at least one sampling event. In addition, nitrate as nitrite exceeded its MCL in two wells during two sampling events. There are no MCLs for the other explosives and propellants.

Hexavalent chromium was sampled in selected wells during all three monitoring events conducted during the 2013 reporting period. Hexavalent chromium was detected at levels above the reporting limit in one well of three wells sampled. The detections at LL3mw-244 were elevated above the RSL of 0.031 microgram per liter ( $\mu\text{g/L}$ ) (there is no MCL for hexavalent chromium). Note that these three wells will be resampled for hexavalent chromium semiannually.

The Army has proposed, with concurrence from the Ohio EPA and the OHARNG, to move from an area-specific approach to a facility-wide wide approach for the groundwater (RVAAP-66 facility-wide groundwater). This will provide a more focused approach for achieving the goals of the FWGWMP.

In order to accomplish the goal for a facility-wide approach for groundwater, the following activities are anticipated to be completed in support of a signed Record of Decision (ROD):

- The OHARNG would like to utilize groundwater in certain areas of the facility. Areas for groundwater use have not been specifically identified by the OHARNG. Ongoing activities in pursuit of the ROD for facility-wide groundwater will better determine contaminated areas (if any) and help identify where groundwater can or cannot be utilized at the facility.
- Prepare and submit the RI Work Plan. Note that the draft RI Work Plan has been submitted for review and comment. Certain elements of the RI Work Plan, such as installation of new monitoring wells and pump testing, were completed in 2012-2013.

- Prepare the RI Report, which will include groundwater modeling, refining the facility-wide groundwater conceptual site model, and conducting a human health baseline risk assessment for facility-wide groundwater exposure.
- Prepare and complete the Feasibility Study (FS).
- Preparation and completion of the Proposed Plan, including the public hearing and comment period.
- Prepare and complete the ROD.

## **SECTION 1**

### **INTRODUCTION**

#### **1.1 Facility Description**

Past Department of Defense (DoD) activities at the Ravenna Army Ammunition Plant (RVAAP) date to 1940 and included 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 2-year period from 2002 and 2003 and the actual total acreage of the property was found to be 21,683.289 acres. All of the former 21,683 acre RVAAP has been transferred to the United States Property and Fiscal Officer (USP&FO) for Ohio for use by the OHARNG. Administrative accountability for all property has been transferred to the Army National Guard (ARNG) with licensure to OHARNG for use 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 (CRJMTC). The RVAAP and CRJMTC are collocated on contiguous parcels of property and the CRJMTC perimeter fence completely encloses the remaining parcels of the RVAAP. The CRJMTC 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. The CRJMTC (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. Figures 1-1 and 1-2 present the RVAAP Site Location Map and RVAAP Facility Map. The CRJMTC 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 CRJMTC 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 CRJMTC and RVAAP, unless otherwise specifically stated.

#### **1.2 Project Description**

In 2004, the United States (U.S.) Army and the Ohio Environmental Protection Agency (EPA) finalized the Facility-Wide Groundwater Monitoring Program (FWGWMP) Plan, which details the requirements of the program. The FWGWMP was initiated in 2005

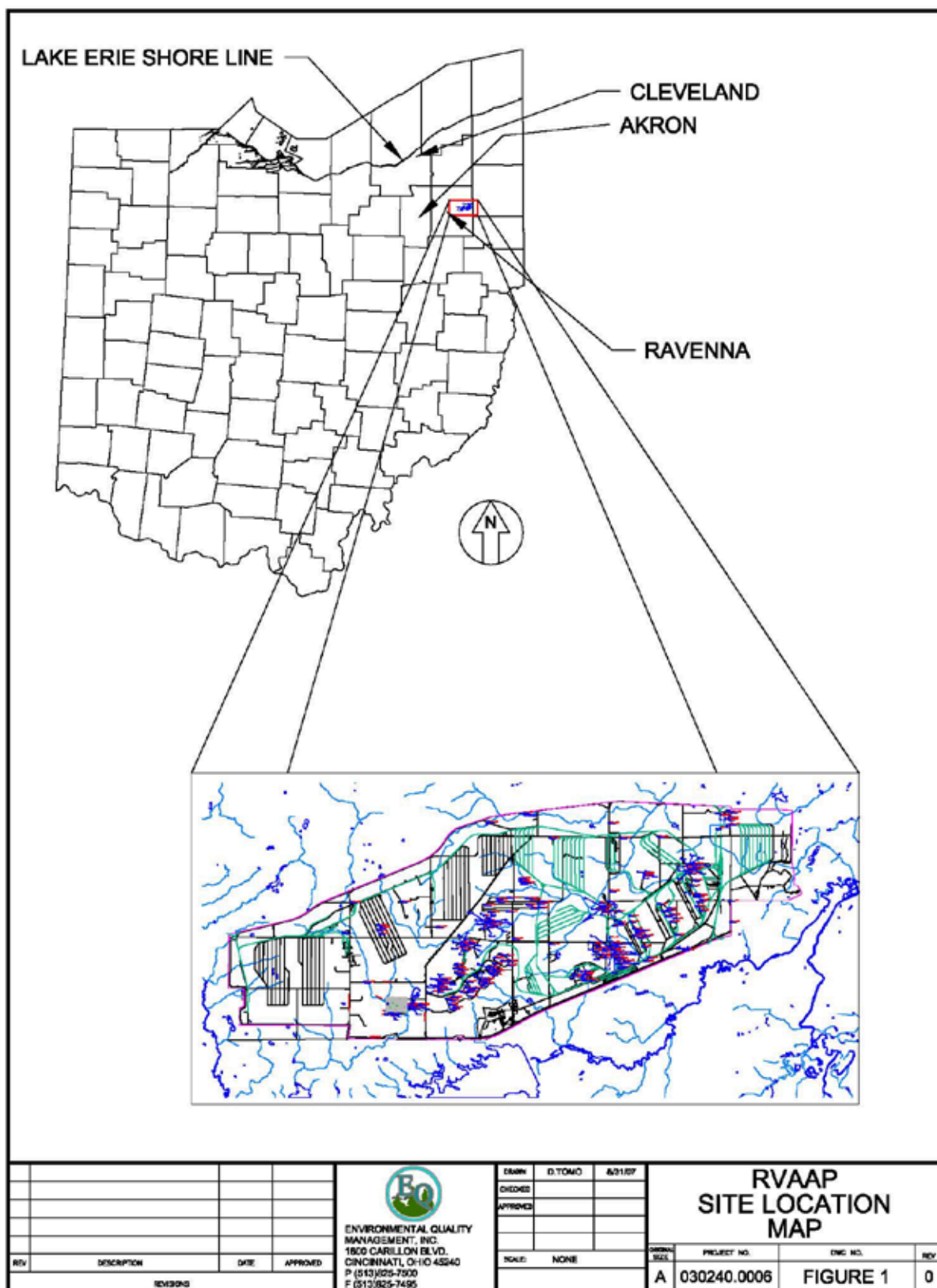


Figure 1-1. RVAAP General Location Map



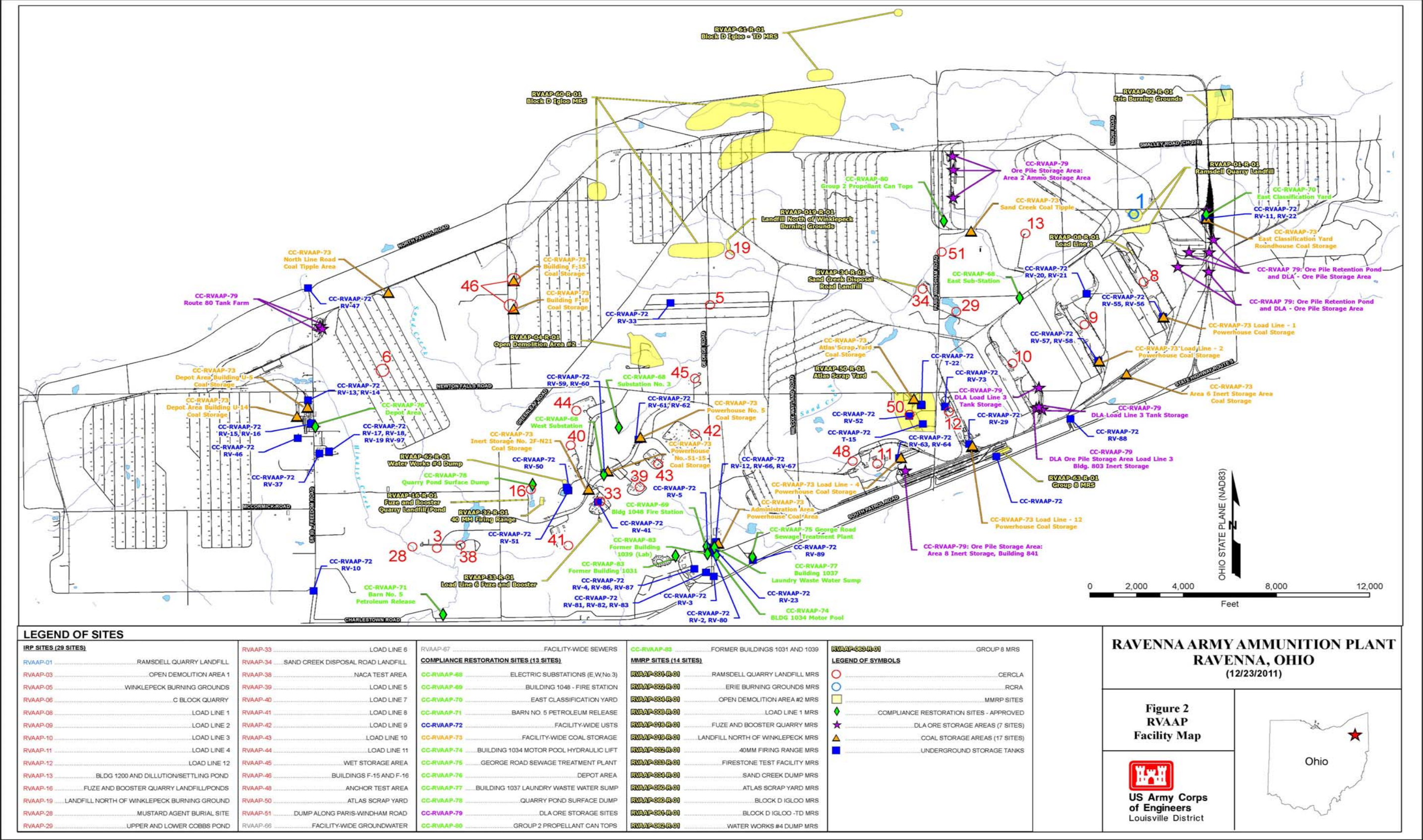


Figure 1-2. RVAAP Facility Map

with three consecutive quarters of FWGWMP well sampling. The initial FWGWMP wells identified for monitoring were sampled once every quarter, with the exception of the five Resource Conservation and Recovery Act (RCRA) wells, which include Ramsdell Quarry Landfill (RQL) wells RQLmw-007, RQLmw-008, and RQLmw-009 and Demolition Area 2 (DA2) wells 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 addenda that pertain to the proposed work. Additional details pertaining to performance of field and laboratory activities are contained in the *Facility-Wide Sampling and Analysis Plan for Environmental Investigations at the Ravenna Army Ammunition Plant, Ravenna, Ohio* (SAIC, February 2011). As detailed in the FWGWMP Plan, the initial monitoring program consisted of the sampling of 36 wells specified in Table 4-1 of the FWGWMP Plan. Fourteen of these wells were identified as “Background Wells,” and the remaining wells were situated at various Areas of Concern (AOCs) at RVAAP. The first sampling event for this project was conducted in April 2005. The final assessment monitoring event for the initial well sampling and analysis was completed in October 2007. Section 1.5.1 of this report presents the current groundwater monitoring activities

In 2011, the USACE, under a General Services Administration (GSA) Performance Based Acquisition (PBA) contract, retained Environmental Quality Management, Inc. (EQM) (Contract No. GS-10F-0293K – Delivery Order W912QR-11-F-0266) to obtain a signed Record of Decision (ROD) for the Facility-Wide groundwater (RVAAP-66) at the former RVAAP. In support of completion of a Remedial Investigation/Feasibility Study (RI/FS) necessary to supplement the ROD, EQM submitted the *Facility-Wide Groundwater Monitoring Program Plan RVAAP-66 Facility-Wide Groundwater Addendum* (EQM, January 2012) to install 38 additional monitoring wells to complete hydrogeologic system modeling and conduct contaminant fate-and-transport modeling for the Facility-Wide groundwater approach. The new wells were sampled quarterly until at least four quarters of data was obtained from each location.

As a supplement to the FWGWMP Groundwater Addendum, EQM also submitted the *Facility-Wide Groundwater Monitoring Program Plan RVAAP-66 Facility-Wide Groundwater Semiannual Monitoring Addendum* (EQM, January 2012), which proposed that the facility-wide groundwater monitoring schedule be modified from a quarterly to semiannual basis (January and July events only). Under this addendum, the facility-wide groundwater monitoring schedule was modified from a quarterly to semiannual basis (January and July events). The new RI wells were not included in the semiannual monitoring network, but these wells were monitored quarterly beginning in April 2012 and overlapped with the semiannual sampling events. The semiannual well network eliminated wells that provided redundancy or minimal information on groundwater quality or fate-and-transport migration. A subset of the well network was selected in association with or paired with several of the new RI wells to assess horizontal and/or



vertical contaminant distribution; provide up-gradient data for the various site-wide models; assess potential exit pathway wells that had no direct association with the new wells; and provide continued monitoring of the five RCRA wells at the site. A total of 42 wells (including three new wells to be installed), were selected as part of the semiannual well network. Besides fulfilling the selection criteria, the groundwater quality information obtained from the semiannual well network was designed for incorporation into the hydrogeologic system and contaminant fate-and-transport models under the RI.

EQM also submitted the *Facility-Wide Groundwater Monitoring Program Plan RVAAP-66 Facility-Wide Groundwater Semiannual Groundwater Monitoring Addendum* (EQM, August 2013), which proposed that the facility-wide groundwater monitoring wells schedule be modified. The approach used was to select wells that have exhibited chemicals of potential concern (COPCs) and eliminate wells that provide redundancy or provide minimal information on groundwater quality or fate-and-transport migration. To this end, forty-two (42) wells (including the five RCRA wells and the three new RI wells) have been selected for sampling during the semiannual events in 2013 and 2014. Sixteen (16) existing potential exit pathway wells were selected along the southern and eastern perimeter of RVAAP. Eighteen wells were selected for source evaluations or to monitor horizontal and/or vertical migration of contaminants from expected source areas.

### **1.3 Annual Report**

By agreement with the U.S. Army and the Ohio EPA and in accordance with Amendment No. 1 to the FWGWMP Plan, the Annual Report for 2013 summarizes the October 2012, as well as the January, and August 2013 sampling events. Note that the quarterly monitoring event for the newly installed wells which did not have 4 completed quarters of sampling and analysis was not conducted in April 2013. The Army had scheduled the event however correspondence received by the Army from the Ohio EPA resulted in the quarterly event being delayed until August 2013. Appendix A presents the correspondence related to this issue.

Amendment No. 1 changed the annual reporting period from January 1 – December 31 to October 1 – September 30. The change to the program was made so that the Annual Report for 2006 would include monitoring activities performed in the 4th quarter of 2005, and the 1st, 2nd, and 3rd quarters of 2006. Subsequent annual monitoring periods would also follow this pattern, such as the 2007 annual report, which covers the fourth quarter of 2006 and the first, second, and third quarters of 2007. This change was made because it was discovered that requiring the 4th quarter data to be included in the current years' Annual Report did not allow sufficient time to collect and analyze samples, verify and validate data, assess results, and still make the December deadline (Milestone date) for including these results in the Annual Report.

The results of the sampling events covered under this Annual Report are presented in the following documents:

- *Facility-Wide Groundwater Monitoring Program, Report on the October 2012 Sampling Event, Ravenna Army Ammunition Plant, Ravenna, Ohio* dated May 23, 2013.
- *Facility-Wide Groundwater Monitoring Program, Report on the January 2013 Sampling Event, Ravenna Army Ammunition Plant, Ravenna, Ohio* dated September 24, 2013.
- *Facility-Wide Groundwater Monitoring Program, Report on the August 2013 Sampling Event, Ravenna Army Ammunition Plant, Ravenna, Ohio* dated October 30, 2013.

#### **1.4 Summary of the Scope of Work for 2012-13**

As previously mentioned, the USACE, under a GSA PBA contract, retained EQM to obtain a signed ROD for RVAAP-66 at the former RVAAP. One objective of this project is to continue monitoring under the RVAAP Facility-Wide Groundwater Monitoring Program. The following tasks were performed in accordance with specifications contained in the Semiannual Addendum, the FWGWMP Plan Addendum, the FWSAP, and the Scope of Work written by the USACE:

- Performed groundwater sampling of select wells on a semiannual basis. The wells sampled are identified in Section 1.5.1 of this report. The wells were sampled by EQM. The RCRA wells at Ramsdell Quarry (RQLmw-007, RQLmw-008, and RQLmw-009) and at Demolition Area 2 (DETMw-003 and DETmw-004) were also sampled during this timeframe (January, and August 2013). Note that per the FWGWMP and the Director's Final Findings and Orders (DFFOs), the RCRA wells are sampled twice per calendar year.
- Continued groundwater sampling of 38 new remedial investigation (RI) wells on a quarterly basis through August 2013.
- Gauged depth-to-water at the 281 RVAAP monitoring wells immediately prior to the August 2013 sampling event. The water-level measurements were used to generate updated potentiometric maps.
- Performed laboratory analyses and data validation for the collected samples.
- Prepared the requisite Investigation-Derived Waste (IDW) characterization and disposal report.
- Prepared the 2013 Annual Report, including the overall program review requirement.
- Performed maintenance on selected groundwater monitoring wells.

## **1.5 Annual Report Requirements and Report Presentation**

This report presents the FWGWMP 2013 Annual Report. The report is structured in the following way:

- Section 1 – Introduction
- Section 2 – Summary of Monitoring Wells Installed or Abandoned in 2013
- Section 3 – Summary of Annual FWGWMP Events
- Section 4 – Summary and Assessment of Annual FWGWMP Analytical Results
- Section 5 – FWGWMP Annual Recommendations/Review
- Section 6 – References

The appendices contain the following items:

- Appendix A Correspondence Documenting the Delay in the April 2013 Sampling Event
- Appendix B List of Wells Sampled by Quarter
- Appendix C Water Level Measurement Field Sheets – August 2013
- Appendix D Well Inspection Sheets
- Appendix E Reporting Limits that Currently Do Not Meet the RVAAP QAPP Project Action Requirements, MCLs and/or RSLs
- Appendix F Time-Trend Graphs
- Appendix G Correspondence and Comments/Responses

The following lists the information required for the annual report as detailed in Section 5.2 of the FWGWMP Plan, as well as where this information is presented in this report:

- An evaluation of the current groundwater flow direction(s) based on water-level elevation data collected in August 2013 is discussed in Section 3.1.
- An evaluation of the trends of contamination detected in groundwater, as well as an assessment of the effectiveness of any groundwater remediation activities is presented in Section 4.0.
- The plots of concentration trends are presented in Appendix F and are discussed in Section 4.0.
- The facility map is presented in Section 1.0. The monitoring well network map and groundwater flow maps are presented in Plates 1, 2, 3, 4, and 5. The results of the monitoring well inspections are presented in Appendix D and summarized in Section 3.2.
- FWGWMP annual recommendations and review are presented in Section 5.0.



## 1.6 Changes to the FWGWMP in 2012-13

The following changes to the FWGWMP were made/discussed during sampling and analysis activities for the 2013 reporting period.

- As discussed in the September 12, 2013 meeting with the Ohio EPA an evaluation of the background data is being conducted using a subset of the existing background wells as well as incorporating some of the new facility-wide wells installed in 2012. The selection of the wells will be based upon the location of the wells in relation to historical facility operations and groundwater flow. This evaluation is ongoing at the time of the preparation of this report. Based on the results of this evaluation the background criteria may be changed.
- On March 28, 2013 the USACE (Louisville District) submitted a Technical Memorandum (Memo) to the Ohio EPA to address two Risk Assessment issues at RVAAP: Land Use and the Facility-wide Cleanup Goals (FWCUGs). The need for the Memo was identified during the 28 February 2013 "*Land Use and the Risk Assessment Process for Ravenna Army Ammunition Depot Technical Meeting*" held at Ravenna, Ohio. The Technical Meeting was held to present the Army's position on Land Use and several items related to the use of and updating the FWCUGs. The intent of the Memo was to discuss in detail Land Use and the FWCUGs and provide Ohio EPA a written version of the information presented at the Technical Meeting. Please note that since March 28, 2013, the Memo has been submitted several additional times by the Army to the Ohio EPA. The memo was sent to the Ohio EPA again on September 6, 2013, and on November 15, 2013. The evaluation of the Memo is ongoing at the time of the preparation of this report.
- EQM also submitted the *Facility-Wide Groundwater Monitoring Program Plan RVAAP-66 Facility-Wide Groundwater Semiannual Groundwater Monitoring Addendum* (EQM, August 2013), which proposed that the facility-wide groundwater monitoring wells schedule be modified. The approach used was to select wells that have exhibited COPCs and eliminate wells that provide redundancy or provide minimal information on groundwater quality or fate-and-transport migration. To this end, forty-two (42) wells (including the five RCRA wells and the three new RI wells) have been selected for sampling during the semiannual events in 2013 and 2014. Sixteen (16) existing potential exit pathway wells were selected along the southern and eastern perimeter of RVAAP. Eighteen wells were selected for source evaluations or to monitor horizontal and/or vertical migration of contaminants from expected source areas.

The Facility-Wide Groundwater Monitoring Program Plan RVAAP-66 Facility-Wide Groundwater Additional Well Installation Addendum was also submitted in 2013, however the well installation and monitoring will not take effect until the 2014 reporting period.

The current wells to be sampled and the analytes to be analyzed from each well were approved in the FWGWMP Plan Addendum. The lists of FWGWMP wells monitored for each of the four quarters (October 2012, January 2013, and August 2013) are presented in Appendix B.

No other changes to the FWGWMP were implemented during the 2013 reporting period.

### **1.7 Changes to the FWGWMP in 2013-14**

The well monitoring schedule as presented in Appendix B was followed going into the August 2013 monitoring event as described in Section 1.6. As presented in Section 5, the Army, in agreement with the Ohio EPA, has initiated moving from an area-specific approach to a facility-wide wide approach for RVAAP-66. In support of this approach, the Army initiated activities in the latter half of 2011 in support of an eventual ROD for the facility-wide groundwater. These activities included addendums to the FWGWMP Plan to install additional groundwater monitoring wells as well as proposing revisions to the overall groundwater monitoring schedule and analytes, installation of 38 new RI wells in 2012, quarterly sampling of the new RI wells, and semiannual sampling of existing site wells. Additional details concerning these changes are presented in Section 5.

The need for changes to the wells to be monitored will be evaluated after the January 2014 sampling event.

## **SECTION 2**

### **SUMMARY OF WELLS INSTALLED OR ABANDONED IN 2013**

No FWGWMP wells were installed or abandoned during the 2013 reporting period.

## SECTION 3

### SUMMARY OF 2012-13 FWGWMP EVENTS

#### 3.1 Groundwater Elevation Monitoring

Depth to water from the top of the inner casing was measured in 280 of the 281 FWGWMP wells during August 13-21, 2013. WBGmw-012 could not be located due to high vegetation. This well will be inspected and water level/depth measurements recorded during the January 2014 monitoring event. The monitoring well location map, identified as Plate 1, is included with this report. The water-level measurement field sheets are presented in Appendix C.

Water-level measurements were obtained in accordance with procedures in Section 4.3.3.1 of the *Facility-Wide Sampling and Analysis Plan for Environmental Investigations at the Ravenna Army Ammunition Plant, Ravenna, Ohio* (SAIC, February 2011). Water-level measurements were gauged from the top of the inner casing to the top of the groundwater surface using an electronic measuring tape. The depth to the bottom of the well from the top of the inner casing also was measured with the electronic measuring tape. Depth-to-water and groundwater elevations for the RVAAP wells are presented in Table 3-1. Well construction details and depth-to-well bottom measurements are presented in Table 3-2.

Each monitoring well was inspected at the time of water-level measurement and the results are discussed in Section 3.2. The monitoring well inspection sheets are presented in Appendix D. Additionally, groundwater elevation measurements are also obtained each time a groundwater sample is collected as part of the FWGWMP, although the measurements from the quarterly sampling events are not used to produce the potentiometric maps. Table 3-3 presents the water-level elevations taken during the October 2012, January 2013 and August 2013 sampling events for all wells that have been sampled as a part of the FWGWMP. Since the August 2013 measurements are the most current they are discussed in detail in the following text.

Since completion of the last annual report, facility-wide groundwater was evaluated for potential off-site migration, vertical communication between the “first water” and deeper water-bearing zones, and to better define conditions on the western side of RVAAP where AOCs are not located. Across RVAAP the first water was found in both unconsolidated glacial material and in bedrock (i.e., Homewood and Sharon Formations). At some AOCs (e.g., Atlas Scrap Yard, Load Lines 1, 4, 5, 6, and 12, Fuze and Booster Quarry, etc.), “first water” wells were completed in both unconsolidated material and in bedrock.

**Table 3-1. Depth to Water and Potentiometric Elevation (August 2013)**

RVAAP Area	Well ID	Monitored Zone	TOC Elevation (ft, amsl)	August 2013 Depth to Water (ft, BTOC)	Potentiometric Elevation August 2013 (ft, amsl)
Atlas Scrap Yard	ASYmw-001	Sharon	981.13	11.02	970.11
	ASYmw-002	Sharon	985.24	14.30	970.94
	ASYmw-003	Sharon	982.21	12.01	970.20
	ASYmw-004	Sharon	979.66	8.86	970.80
	ASYmw-005	Sharon	979.80	7.42	972.38
	ASYmw-006	Sharon	983.01	13.56	969.45
	ASYmw-007	Unconsolidated	984.16	14.91	969.25
	ASYmw-008	Unconsolidated	978.85	4.89	973.96
	ASYmw-009	Sharon	982.70	11.42	971.28
	ASYmw-010	Unconsolidated	981.05	11.90	969.15
Building 1200	B12mw-010	Sharon	1005.92	16.09	989.83
	B12mw-011	Sharon	1006.70	17.24	989.46
	B12mw-012	Sharon	1006.32	16.52	989.80
	B12mw-013	Sharon	1004.48	17.63	986.85
Background	BKGmw-004	Unconsolidated	967.66	13.38	954.28
	BKGmw-005	Unconsolidated	1151.94	12.65	1139.29
	BKGmw-006	Sharon	1028.88	22.98	1005.90
	BKGmw-008	Sharon	972.90	15.87	957.03
	BKGmw-010	Sharon	1006.18	15.45	990.73
	BKGmw-012	Sharon	1000.07	8.55	991.52
	BKGmw-013	Unconsolidated	989.09	12.09	977.00
	BKGmw-015	Sharon	1040.40	48.98	991.42
	BKGmw-016	Unconsolidated	1100.92	6.93	1093.99
	BKGmw-017	Unconsolidated	1135.30	18.36	1116.94
	BKGmw-018	Sharon	1045.56	16.18	1029.38
	BKGmw-019	Unconsolidated	1110.74	20.65	1090.09
	BKGmw-020	Unconsolidated	1067.50	8.82	1058.68
	BKGmw-021	Unconsolidated	974.66	15.30	959.36
C-Block Quarry	CBLmw-001	Homewood	1181.08	43.14	1137.94
	CBLmw-002	Homewood	1175.24	37.72	1137.52
	CBLmw-003	Homewood	1175.06	35.69	1139.37
	CBLmw-004	Homewood	1174.84	34.74	1140.10
	CBLmw-005	Homewood	1158.10	25.25	1132.85
Central Burn Pits	CBPmw-001	Unconsolidated	975.84	12.29	963.55
	CBPmw-002	Unconsolidated	970.04	7.36	962.68
	CBPmw-003	Unconsolidated	974.67	11.62	963.05
	CBPmw-004	Unconsolidated	971.13	10.39	960.74
	CBPmw-005	Unconsolidated	971.59	11.71	959.88
	CBPmw-006	Unconsolidated	967.64	7.43	960.21
	CBPmw-007	Unconsolidated	976.37	15.08	961.29
	CBPmw-008	Unconsolidated	973.19	16.63	956.56
	CBPmw-009	Sharon	972.48	9.91	962.57

**Table 3-1. Depth to Water and Potentiometric Elevation (August 2013)**

RVAAP Area	Well ID	Monitored Zone	TOC Elevation (ft, amsl)	August 2013 Depth to Water (ft, BTOC)	Potentiometric Elevation August 2013 (ft, amsl)
Cobbs Pond	CPmw-001	Unconsolidated	975.26	2.99	972.27
	CPmw-002	Unconsolidated	972.31	0.40	971.91
	CPmw-003	Unconsolidated	972.92	1.48	971.44
	CPmw-004	Unconsolidated	981.20	10.62	970.58
	CPmw-005	Unconsolidated	973.58	10.52	963.06
	CPmw-006	Unconsolidated	965.13	8.08	957.05
Demolition Area 2	DA2mw-104	Unconsolidated	1073.89	21.15	1052.74
	DA2mw-105	Unconsolidated	1045.34	3.54	1041.80
	DA2mw-106	Unconsolidated	1043.79	6.38	1037.41
	DA2mw-107	Unconsolidated	1041.63	8.95	1032.68
	DA2mw-108	Unconsolidated	1032.36	6.79	1025.57
	DA2mw-109	Unconsolidated	1071.29	14.65	1056.64
	DA2mw-110	Unconsolidated	1063.78	9.49	1054.29
	DA2mw-111	Unconsolidated	1042.12	7.92	1034.20
	DA2mw-112	Unconsolidated	1037.44	7.70	1029.74
	DA2mw-113	Unconsolidated	1037.11	7.92	1029.19
	DA2mw-114	Sharon Shale	1031.90	5.70	1026.20
	DA2mw-115	Sharon	1038.08	6.10	1031.98
	DETMw-001B	Unconsolidated	1065.85	22.50	1043.35
	DETMw-002	Unconsolidated	1061.24	32.69	1028.55
	DETMw-003	Unconsolidated	1036.81	9.63	1027.18
	DETMw-004	Unconsolidated	1038.68	10.88	1027.80
Erie Burning Grounds	EBGmw-123	Unconsolidated	947.82	9.24	938.58
	EBGmw-124	Unconsolidated	941.39	2.89	938.50
	EBGmw-125	Unconsolidated	949.89	11.44	938.45
	EBGmw-126	Unconsolidated	940.61	1.82	938.79
	EBGmw-127	Unconsolidated	943.07	4.05	939.02
	EBGmw-128	Unconsolidated	945.13	6.59	938.54
	EBGmw-129	Unconsolidated	944.36	5.69	938.67
	EBGmw-130	Unconsolidated	944.00	6.08	937.92
	EBGmw-131	Sharon	950.08	9.69	940.39
Fuze and Booster Quarry	FBQmw-166	Unconsolidated	1108.86	5.45	1103.41
	FBQmw-167	Unconsolidated	1115.90	4.81	1111.09
	FBQmw-168	Homewood	1133.91	10.74	1123.17
	FBQmw-169	Homewood	1120.58	6.85	1113.73
	FBQmw-170	Homewood	1142.26	16.62	1125.64
	FBQmw-171	Homewood	1143.55	16.88	1126.67
	FBQmw-172	Homewood	1150.09	27.16	1122.93
	FBQmw-173	Homewood	1165.94	43.87	1122.07
	FBQmw-174	Homewood	1139.97	15.40	1124.57
	FBQmw-175	Homewood	1140.73	17.05	1123.68
	FBQmw-176	Unconsolidated	1131.91	8.09	1123.82
	FBQmw-177	Homewood	1128.57	12.64	1115.93

**Table 3-1. Depth to Water and Potentiometric Elevation (August 2013)**

RVAAP Area	Well ID	Monitored Zone	TOC Elevation (ft, amsl)	August 2013 Depth to Water (ft, BTOC)	Potentiometric Elevation August 2013 (ft, amsl)
Facilitywide	FWGmw-001	Unconsolidated	956.62	8.48	948.14
	FWGmw-002	Unconsolidated	973.10	23.29	949.81
	FWGmw-003	Unconsolidated	1131.96	5.49	1126.47
	FWGmw-004	Unconsolidated	1037.15	13.09	1024.06
	FWGmw-005	Homewood	1170.10	21.98	1148.12
	FWGmw-006	Unconsolidated	1184.33	6.31	1178.02
	FWGmw-007	Unconsolidated	1075.41	23.72	1051.69
	FWGmw-008	Unconsolidated	1111.61	6.30	1105.31
	FWGmw-009	Unconsolidated	1102.14	2.84	1099.30
	FWGmw-010	Unconsolidated	962.15	10.80	951.35
	FWGmw-011	Unconsolidated	941.61	2.84	938.77
	FWGmw-012	Sharon Shale	941.39	1.24	940.15
	FWGmw-013	Sharon	1059.51	18.77	1040.74
	FWGmw-014	Unconsolidated	1137.57	4.38	1133.19
	FWGmw-015	Unconsolidated	1014.51	5.04	1009.47
	FWGmw-016	Sharon	1014.39	16.27	998.12
Load Line 1	LL1mw-063	Sharon	994.84	22.53	972.31
	LL1mw-064	Unconsolidated	935.10	1.21	933.89
	LL1mw-065	Unconsolidated	944.41	10.76	933.65
	LL1mw-067	Sharon	980.36	16.77	963.59
	LL1mw-078	Sharon	995.84	30.07	965.77
	LL1mw-079	Sharon	997.87	30.12	967.75
	LL1mw-080	Sharon	996.27	9.40	986.87
	LL1mw-081	Sharon	998.92	27.46	971.46
	LL1mw-082	Sharon	1006.45	26.38	980.07
	LL1mw-083	Sharon	995.20	31.05	964.15
	LL1mw-084	Sharon	998.73	27.11	971.62
	LL1mw-085	Sharon	996.84	33.96	962.88
	LL1mw-086	Unconsolidated	940.63	7.07	933.56
	LL1mw-087	Unconsolidated	944.32	5.23	939.09
Load Line 2	LL2mw-059	Sharon	966.67	12.83	953.84
	LL2mw-060	Sharon	961.57	9.55	952.02
	LL2mw-261	Sharon	1011.40	6.82	1004.58
	LL2mw-262	Sharon	1012.62	6.96	1005.66
	LL2mw-263	Sharon	1011.47	7.05	1004.42
	LL2mw-264	Sharon	1011.88	5.17	1006.71
	LL2mw-265	Sharon	961.24	9.31	951.93
	LL2mw-266	Sharon	1016.28	10.60	1005.68
	LL2mw-267	Sharon	1014.81	8.94	1005.87
	LL2mw-268	Sharon	1017.28	14.37	1002.91
	LL2mw-269	Sharon	1011.62	15.88	995.74
	LL2mw-270	Sharon	1010.18	7.12	1003.06

**Table 3-1. Depth to Water and Potentiometric Elevation (August 2013)**

RVAAP Area	Well ID	Monitored Zone	TOC Elevation (ft, amsl)	August 2013 Depth to Water (ft, BTOC)	Potentiometric Elevation August 2013 (ft, amsl)
Load Line 3	LL3mw-232	Sharon	1000.41	17.88	982.53
	LL3mw-233	Sharon	1004.36	24.63	979.73
	LL3mw-234	Sharon	1006.56	9.89	996.67
	LL3mw-235	Sharon	1009.94	16.43	993.51
	LL3mw-236	Sharon	1011.17	14.89	996.28
	LL3mw-237	Sharon	1005.57	14.30	991.27
	LL3mw-238	Sharon	1006.91	15.14	991.77
	LL3mw-239	Sharon	1003.50	22.82	980.68
	LL3mw-240	Sharon	1007.52	28.00	979.52
	LL3mw-241	Sharon	994.65	9.11	985.54
	LL3mw-242	Sharon	999.32	13.90	985.42
	LL3mw-243	Sharon	991.16	12.46	978.70
	LL3mw-244	Sharon	988.78	10.23	978.55
	LL3mw-245	Sharon	981.24	12.05	969.19
Load Line 4	LL4mw-193	Unconsolidated	982.92	6.10	976.82
	LL4mw-194	Unconsolidated	983.76	7.49	976.27
	LL4mw-195	Unconsolidated	982.59	10.42	972.17
	LL4mw-196	Unconsolidated	984.55	13.24	971.31
	LL4mw-197	Unconsolidated	985.46	14.35	971.11
	LL4mw-198	Unconsolidated	983.42	6.39	977.03
	LL4mw-199	Unconsolidated	977.28	7.16	970.12
	LL4mw-200	Unconsolidated	987.93	17.35	970.58
	LL4mw-201	Sharon	978.02	9.40	968.62
Load Line 5	LL5mw-001	Homewood	1127.92	19.09	1108.83
	LL5mw-002	Homewood	1128.68	19.55	1109.13
	LL5mw-003	Unconsolidated	1127.70	18.21	1109.49
	LL5mw-004	Homewood	1125.81	17.00	1108.81
	LL5mw-005	Homewood	1129.42	20.59	1108.83
	LL5mw-006	Homewood	1128.00	19.13	1108.87
Load Line 6	LL6mw-001	Unconsolidated	1124.16	12.05	1112.11
	LL6mw-002	Unconsolidated	1129.36	20.68	1108.68
	LL6mw-003	Homewood	1125.38	15.32	1110.06
	LL6mw-004	Homewood	1125.39	16.21	1109.18
	LL6mw-005	Homewood	1120.47	11.72	1108.75
	LL6mw-006	Unconsolidated	1124.37	13.39	1110.98
	LL6mw-007	Homewood	1115.62	4.90	1110.72
	LL6mw-008	Unconsolidated	1124.15	14.19	1109.96
	LL6mw-009	Homewood	1123.75	13.84	1109.91
Load Line 7	LL7mw-001	Homewood	1129.64	19.79	1109.85
	LL7mw-002	Homewood	1129.55	15.00	1114.55
	LL7mw-003	Homewood	1120.84	10.79	1110.05
	LL7mw-004	Homewood	1126.32	14.26	1112.06
	LL7mw-005	Homewood	1135.87	20.64	1115.23
	LL7mw-006	Homewood	1123.56	10.03	1113.53



**Table 3-1. Depth to Water and Potentiometric Elevation (August 2013)**

RVAAP Area	Well ID	Monitored Zone	TOC Elevation (ft, amsl)	August 2013 Depth to Water (ft, BTOC)	Potentiometric Elevation August 2013 (ft, amsl)
Load Line 8	LL8mw-001	Unconsolidated	1121.46	10.33	1111.13
	LL8mw-002	Unconsolidated	1124.51	17.14	1107.37
	LL8mw-003	Unconsolidated	1119.05	11.62	1107.43
	LL8mw-004	Unconsolidated	1115.75	10.01	1105.74
	LL8mw-005	Homewood	1115.73	11.65	1104.08
	LL8mw-006	Homewood	1117.17	19.45	1097.72
Load Line 9	LL9mw-001	Homewood	1134.62	14.68	1119.94
	LL9mw-002	Homewood	1127.30	7.90	1119.40
	LL9mw-003	Homewood	1135.76	11.21	1124.55
	LL9mw-004	Homewood	1131.83	18.97	1112.86
	LL9mw-005	Homewood	1130.93	14.66	1116.27
	LL9mw-006	Homewood	1129.88	16.94	1112.94
	LL9mw-007	Homewood	1119.99	7.76	1112.23
Load Line 10	LL10mw-001	Homewood	1132.77	23.39	1109.38
	LL10mw-002	Homewood	1127.13	16.68	1110.45
	LL10mw-003	Homewood	1130.28	19.86	1110.42
	LL10mw-004	Homewood	1122.39	12.09	1110.30
	LL10mw-005	Homewood	1125.67	14.18	1111.49
	LL10mw-006	Unconsolidated	1123.83	11.20	1112.63
Load Line 11	LL11mw-001	Unconsolidated	1100.16	8.98	1091.18
	LL11mw-002	Unconsolidated	1080.00	1.14	1078.86
	LL11mw-003	Unconsolidated	1088.48	1.30	1087.18
	LL11mw-004	Unconsolidated	1084.72	0.92	1083.80
	LL11mw-005	Unconsolidated	1079.40	5.02	1074.38
	LL11mw-006	Unconsolidated	1086.50	3.41	1083.09
	LL11mw-007	Unconsolidated	1082.00	13.72	1068.28
	LL11mw-008	Unconsolidated	1087.74	1.58	1086.16
	LL11mw-009	Unconsolidated	1091.54	2.29	1089.25
	LL11mw-010	Unconsolidated	1082.68	3.99	1078.69
	LL11mw-011	Unconsolidated	1080.20	7.95	1072.25
	LL11mw-012	Sharon Shale	1080.36	19.83	1060.53
Load Line 12	LL12mw-088	Unconsolidated	981.06	5.84	975.22
	LL12mw-107	Unconsolidated	980.15	8.10	972.05
	LL12mw-113	Sharon Shale	980.18	5.26	974.92
	LL12mw-128	Unconsolidated	978.24	8.79	969.45
	LL12mw-153	Unconsolidated	977.85	5.43	972.42
	LL12mw-154	Unconsolidated	979.06	7.94	971.12
	LL12mw-182	Unconsolidated	984.42	8.96	975.46
	LL12mw-182ss	Unconsolidated	985.02	8.96	976.06
	LL12mw-183	Sharon Shale	982.98	11.45	971.53
	LL12mw-184	Unconsolidated	983.16	11.65	971.51

**Table 3-1. Depth to Water and Potentiometric Elevation (August 2013)**

RVAAP Area	Well ID	Monitored Zone	TOC Elevation (ft, amsl)	August 2013 Depth to Water (ft, BTOC)	Potentiometric Elevation August 2013 (ft, amsl)
Load Line 12 continued	LL12mw-185	Unconsolidated	981.31	6.35	974.96
	LL12mw-186	Sharon Shale	978.31	5.22	973.09
	LL12mw-187	Unconsolidated	979.94	8.45	971.49
	LL12mw-188	Unconsolidated	980.63	4.34	976.29
	LL12mw-189	Sharon Shale	978.04	3.65	974.39
	LL12mw-242	Unconsolidated	981.20	7.83	973.37
	LL12mw-243	Unconsolidated	980.79	8.22	972.57
	LL12mw-244	Unconsolidated	980.65	8.89	971.76
	LL12mw-245	Unconsolidated	980.04	7.01	973.03
	LL12mw-246	Unconsolidated	984.83	15.41	969.42
	LL12mw-247	Unconsolidated	984.25	4.49	979.76
Landfill North of Winklepeck	LNWmw-024	Unconsolidated	1038.00	12.17	1025.83
	LNWmw-025	Unconsolidated	1029.13	4.82	1024.31
	LNWmw-026	Unconsolidated	1027.80	5.42	1022.38
	LNWmw-027	Unconsolidated	1027.13	7.05	1020.08
Suspected Mustard Agent Burial Site	MBSmw-001	Unconsolidated	1082.20	17.30	1064.90
	MBSmw-002	Unconsolidated	1083.22	17.85	1065.37
	MBSmw-003	Unconsolidated	1084.45	18.02	1066.43
	MBSmw-004	Unconsolidated	1081.80	16.11	1065.69
	MBSmw-005	Unconsolidated	1082.42	17.54	1064.88
	MBSmw-006	Unconsolidated	1081.83	17.02	1064.81
NACA Test Area	NTAmw-107	Unconsolidated	1080.30	12.35	1067.95
	NTAmw-108	Unconsolidated	1085.62	17.41	1068.21
	NTAmw-109	Unconsolidated	1079.84	11.79	1068.05
	NTAmw-110	Unconsolidated	1082.62	13.90	1068.72
	NTAmw-111	Unconsolidated	1080.94	4.69	1076.25
	NTAmw-112	Unconsolidated	1078.33	8.69	1069.64
	NTAmw-113	Unconsolidated	1075.68	6.71	1068.97
	NTAmw-114	Unconsolidated	1078.71	6.23	1072.48
	NTAmw-115	Unconsolidated	1089.65	13.19	1076.46
	NTAmw-116	Unconsolidated	1094.33	6.19	1088.14
	NTAmw-117	Unconsolidated	1094.54	13.69	1080.85
	NTAmw-118	Unconsolidated	1081.44	8.72	1072.72
	NTAmw-119	Unconsolidated	1080.07	12.30	1067.77
Ramsdell Quarry Landfill	RQLmw-006	Sharon	995.39	33.48	961.91
	RQLmw-007	Sharon	965.91	5.05	960.86
	RQLmw-008	Sharon	966.08	5.50	960.58
	RQLmw-009	Sharon	964.58	4.40	960.18
	RQLmw-010	Sharon	982.14	24.06	958.08
	RQLmw-011	Sharon	976.57	20.60	955.97
	RQLmw-012	Sharon	977.65	20.50	957.15
	RQLmw-013	Sharon	980.71	24.07	956.64
	RQLmw-014	Sharon	973.49	19.65	953.84
	RQLmw-015	Sharon	991.26	30.13	961.13
	RQLmw-016	Sharon	996.60	34.32	962.28
	RQLmw-017	Sharon	991.23	28.85	962.38

**Table 3-1. Depth to Water and Potentiometric Elevation (August 2013)**

RVAAP Area	Well ID	Monitored Zone	TOC Elevation (ft, amsl)	August 2013 Depth to Water (ft, BTOC)	Potentiometric Elevation August 2013 (ft, amsl)
Sharon Conglomerate	SCFmw-001	Sharon Conglomerate	1120.71	88.48	1032.23
	SCFmw-002	Sharon Conglomerate	984.56	18.62	965.94
	SCFmw-003	Sharon Conglomerate	958.47	7.64	950.83
	SCFmw-004	Sharon Conglomerate	944.17	-0.20	944.37
	SCFmw-005	Sharon Conglomerate	960.80	9.80	951.00
	SCFmw-006	Sharon Conglomerate	965.92	17.88	948.04
Winklepeck Burning Grounds	WBGmw-005	Unconsolidated	1054.70	5.98	1048.72
	WBGmw-006	Unconsolidated	1014.66	7.63	1007.03
	WBGmw-007	Unconsolidated	1000.59	17.04	983.55
	WBGmw-008	Unconsolidated	1008.21	14.75	993.46
	WBGmw-009	Unconsolidated	1047.53	13.08	1034.45
	WBGmw-010	Unconsolidated	1069.85	7.70	1062.15
	WBGmw-011	Unconsolidated	1072.38	10.33	1062.05
	WBGmw-012	Unconsolidated	1079.11	NM	NM
	WBGmw-013	Unconsolidated	1071.70	11.04	1060.66
	WBGmw-014	Unconsolidated	996.78	16.12	980.66
	WBGmw-015	Unconsolidated	1011.60	12.09	999.51
	WBGmw-016	Unconsolidated	997.03	17.79	979.24
	WBGmw-017	Unconsolidated	1006.62	8.46	998.16
	WBGmw-018	Unconsolidated	991.45	17.45	974.00
	WBGmw-019	Sharon	990.25	16.87	973.38
	WBGmw-020	Sharon	1044.31	12.62	1031.69
	WBGmw-021	Sharon	1010.92	9.42	1001.50

*ft = feet*

*TOC = top of casing*

*amsl = above mean sea level*

*NM = not measured*

*BTOC = below top of casing*

Table 3-2. Well Construction Details, Including August 2013 Depth to Bottom Measurements

RVAAP Area	Well ID	Ohio State Plane Easting	Ohio State Plane Northing	Ground Level Elevation <sup>a</sup>	Total Drilled Depth <sup>b</sup>	TOC Elevation <sup>a</sup>	Well Head Type <sup>c</sup>	Monitored Zone	Top of Screen (ft, BGS)	Bottom of Screen (ft, BGS)	Bottom of Inner Casing Plug or End Cap (ft, BGS)	Stickup height (ft, AGS)	Reported Bottom of Inner Casing (ft, BTOC)	Aug 2013 Measured Bottom of Inner Casing (ft, BTOC)	Sediment Accumulation (ft)	Description of Bottom
Atlas Scrap Yard	ASYmw-001	2366260.85	558404.04	978.40	22.0	981.13	A	Sharon	11.0	21.0	21.0	2.73	23.7	23.20	0.50	hard
	ASYmw-002	2366170.86	557887.86	982.00	20.0	985.24	A	Sharon	10.0	19.5	19.5	3.24	22.7	22.95	-0.25	hard
	ASYmw-003	2366651.49	558015.94	979.70	21.5	982.21	A	Sharon	11.0	21.0	21.0	2.51	23.5	23.55	-0.05	hard
	ASYmw-004	2367166.04	557640.81	977.10	27.8	979.66	A	Sharon	17.0	27.0	27.0	2.56	29.6	29.86	-0.26	hard
	ASYmw-005	2367448.16	557783.01	977.60	25.0	979.80	A	Sharon	14.0	24.0	24.0	2.20	26.2	27.25	-1.05	soft
	ASYmw-006	2366746.73	557257.72	980.20	27.0	983.01	A	Sharon	16.0	26.0	26.0	2.81	28.8	28.76	0.04	hard
	ASYmw-007	2366834.49	556818.08	981.40	28.0	984.16	A	Unconsolidated	16.0	26.0	26.0	2.76	28.8	28.99	-0.19	soft
	ASYmw-008	2367475.07	557087.66	976.20	26.0	978.85	A	Unconsolidated	15.0	25.0	25.0	2.65	27.7	27.28	0.42	medium
	ASYmw-009	2366631.94	557603.68	979.90	22.0	982.70	A	Sharon	11.5	21.5	21.5	2.80	24.3	24.35	-0.05	soft
	ASYmw-010	2366985.37	557270.61	978.20	28.0	981.05	A	Unconsolidated	17.0	27.0	27.0	2.85	29.8	31.00	-1.20	hard
Building 1200	B12mw-010	2371292.81	565827.43	1,002.72	21.0	1,005.92	A	Sharon	10.0	20.0	20.0	3.20	23.2	22.82	0.38	hard
	B12mw-011	2371416.15	565687.82	1,003.76	24.7	1,006.70	A	Sharon	14.0	24.0	24.0	2.94	26.9	26.69	0.21	hard
	B12mw-012	2371430.41	565828.01	1,003.43	22.3	1,006.32	A	Sharon	12.0	22.0	22.0	2.89	24.9	24.82	0.08	hard
	B12mw-013	2371221.00	565904.00	1,001.80	22	1,004.48	A	Sharon	11.5	21.5	21.8	2.68	24.25	24.16	0.09	hard
Background	BKGmw-004	2368852.97	569464.76	965.16	19.5	967.66	A	Unconsolidated	9.2	19.2	19.5	2.50	22.0	22.23	-0.23	hard
	BKGmw-005	2340835.86	562288.45	1,149.44	19.0	1,151.94	A	Unconsolidated	8.2	18.2	18.5	2.50	21.0	20.89	0.11	hard
	BKGmw-006	2358643.96	571910.47	1,026.38	35.1	1,028.88	A	Sharon	24.7	34.7	35.1	2.50	37.6	37.52	0.08	hard
	BKGmw-008	2372741.08	569654.23	970.40	25.0	972.90	A	Sharon	14.7	24.7	25.0	2.50	27.5	27.39	0.11	hard
	BKGmw-010	2371372.86	565540.54	1,003.80	22.0	1,006.18	A	Sharon	8.9	18.9	19.2	2.38	21.6	21.98	-0.38	hard
	BKGmw-012	2367795.23	563918.86	997.57	59.8	1,000.07	A	Sharon	38.6	59.6	59.8	2.50	62.3	62.09	0.21	hard
	BKGmw-013	2361627.39	558269.16	986.59	25.5	989.09	A	Unconsolidated	15.2	25.2	25.5	2.50	28.0	27.96	0.04	hard
	BKGmw-015	2361482.22	569339.87	1,037.90	51.0	1,040.40	A	Sharon	30.1	50.1	50.4	2.50	52.9	53.00	-0.10	hard
	BKGmw-016	2342407.08	553983.50	1,098.42	19.0	1,100.92	A	Unconsolidated	8.4	18.5	18.6	2.50	21.1	21.12	-0.02	medium
	BKGmw-017	2346115.35	562452.04	1,132.80	34.8	1,135.30	A	Unconsolidated	23.2	33.3	33.6	2.50	36.1	35.90	0.20	hard
	BKGmw-018	2354993.91	570873.35	1,043.06	24.7	1,045.56	A	Sharon	14.5	24.5	24.7	2.50	27.2	27.51	-0.31	hard
	BKGmw-019	2349882.14	559864.55	1,108.24	34.0	1,110.74	A	Unconsolidated	23.0	33.0	33.2	2.50	35.7	35.59	0.11	hard
	BKGmw-020	2357856.24	558756.24	1,065.00	30.7	1,067.50	A	Unconsolidated	20.5	30.5	30.7	2.50	33.2	33.22	-0.02	hard
	BKGmw-021	2367622.95	571016.75	972.16	19.0	974.66	A	Unconsolidated	7.7	17.8	18.1	2.50	20.6	21.42	-0.82	hard
C-Block Quarry	CBLmw-001	2343657.08	559403.12	1,178.50	50.0	1,181.08	A	Homewood	39.0	49.0	49.0	2.58	51.6	50.43	1.17	hard
	CBLmw-002	2343845.22	559044.48	1,172.50	45.3	1,175.24	A	Homewood	34.5	44.5	44.5	2.74	47.2	47.34	-0.14	hard
	CBLmw-003	2343970.00	559695.52	1,172.22	44.0	1,175.06	A	Homewood	33.0	43.0	43.0	2.84	45.8	44.72	1.08	hard
	CBLmw-004	2343688.76	559951.58	1,172.08	45.0	1,174.84	A	Homewood	34.0	44.0	44.0	2.76	46.8	46.95	-0.15	hard
	CBLmw-005	2344572.00	558686.00	1,155.60	31.0	1,158.10	A	Homewood	22.0	30.0	30.3	2.50	32.42	32.40	0.02	hard
Central Burn Pits	CBPmw-001	2367095.37	561616.01	972.71	32.3	975.84	A	Unconsolidated	21.8	31.8	31.8	3.13	34.9	34.24	0.66	soft
	CBPmw-002	2367295.66	561865.83	967.33	30.0	970.04	A	Unconsolidated	19.5	29.5	29.5	2.71	32.2	31.68	0.52	medium
	CBPmw-003	2366768.68	561944.14	972.04	25.0	974.67	A	Unconsolidated	14.5	24.5	24.5	2.63	27.1	30.26	-3.16	medium
	CBPmw-004	2366978.80	562123.80	968.58	27.5	971.13	A	Unconsolidated	17.0	27.0	27.0	2.55	29.5	29.69	-0.19	medium
	CBPmw-005	2366919.66	562311.88	968.83	25.0	971.59	A	Unconsolidated	14.5	24.5	24.5	2.76	27.3	27.48	-0.18	hard
	CBPmw-006	2367243.68	562311.87	965.01	23.0	967.64	A	Unconsolidated	12.5	22.5	22.5	2.63	25.1	25.20	-0.10	hard
	CBPmw-007	2366512.62	562006.41	973.47	30.0	976.37	A	Unconsolidated	19.5	29.5	29.5	2.90	32.4	31.95	0.45	medium
	CBPmw-008	2366757.21	562668.84	970.57	25.5	973.19	A	Unconsolidated	15.0	25.0	25.0	2.62	27.6	27.92	-0.32	hard
	CBPmw-009	2367174.00	561797.00	969.90	65	972.48	A	Sharon	54.0	64.0	64.3	2.58	66.55	66.71	-0.16	hard

Table 3-2. Well Construction Details, Including August 2013 Depth to Bottom Measurements

RVAAP Area	Well ID	Ohio State Plane Easting	Ohio State Plane Northing	Ground Level Elevation <sup>a</sup>	Total Drilled Depth <sup>b</sup>	TOC Elevation <sup>a</sup>	Well Head Type <sup>c</sup>	Monitored Zone	Top of Screen (ft, BGS)	Bottom of Screen (ft, BGS)	Bottom of Inner Casing Plug or End Cap (ft, BGS)	Stickup height (ft, AGS)	Reported Bottom of Inner Casing (ft, BTOC)	Aug 2013 Measured Bottom of Inner Casing (ft, BTOC)	Sediment Accumulation (ft)	Description of Bottom
Cobbs Pond	CPmw-001	2368948.81	560440.91	975.46	16.0	975.26	F	Unconsolidated	5.5	15.5	15.5	-0.20	15.3	14.71	0.59	hard
	CPmw-002	2368239.23	560311.26	972.72	16.0	972.31	F	Unconsolidated	5.5	15.5	15.5	-0.41	15.1	14.98	0.12	hard
	CPmw-003	2368796.49	560676.30	973.27	18.5	972.92	F	Unconsolidated	8.0	18.0	18.0	-0.35	17.6	17.72	-0.12	hard
	CPmw-004	2368674.31	561843.46	978.51	20.0	981.20	A	Unconsolidated	9.5	19.5	19.5	2.69	22.2	22.54	-0.34	hard
	CPmw-005	2367900.41	561846.78	970.71	40.0	973.58	A	Unconsolidated	29.5	39.5	39.5	2.87	42.4	43.15	-0.75	hard
	CPmw-006	2367727.13	562830.13	962.97	18.5	965.13	A	Unconsolidated	8.0	18.0	18.0	2.16	20.2	20.69	-0.49	hard
Demolition Area 2	DA2mw-104	2354773.79	561129.59	1,070.82	27.0	1,073.89	A	Unconsolidated	16.3	26.3	26.5	3.07	29.6	29.19	0.41	hard
	DA2mw-105	2354557.62	560572.58	1,042.66	14.0	1,045.34	A	Unconsolidated	8.3	13.3	13.5	2.68	16.2	16.22	-0.02	hard
	DA2mw-106	2354848.85	560560.49	1,041.19	16.0	1,043.79	A	Unconsolidated	8.3	15.3	15.5	2.60	18.1	16.78	1.32	hard
	DA2mw-107	2354924.29	560480.05	1,039.18	15.0	1,041.63	A	Unconsolidated	8.8	13.8	14.0	2.45	16.5	16.84	-0.34	hard
	DA2mw-108	2355604.43	560181.78	1,029.92	15.0	1,032.36	A	Unconsolidated	9.3	14.3	14.5	2.44	16.9	17.15	-0.25	hard
	DA2mw-109	2354793.14	559897.89	1,068.66	24.0	1,071.29	A	Unconsolidated	11.3	21.3	21.5	2.63	24.1	24.25	-0.15	soft
	DA2mw-110	2355195.91	559927.02	1,061.39	20.0	1,063.78	A	Unconsolidated	9.3	19.3	19.5	2.39	21.9	22.35	-0.45	hard
	DA2mw-111	2354728.33	560222.94	1,039.63	12.6	1,042.12	A	Unconsolidated	7.1	12.1	12.3	2.49	14.8	14.79	0.01	hard
	DA2mw-112	2355018.98	560378.36	1,034.87	15.0	1,037.44	A	Unconsolidated	8.8	13.8	14.0	2.57	16.6	17.04	-0.44	hard
	DA2mw-113	2355153.13	560394.81	1,034.51	14.0	1,037.11	A	Unconsolidated	8.3	13.3	13.5	2.60	16.1	16.29	-0.19	hard
	DA2mw-114	2355785.00	560109.00	1,029.50	19.5	1,031.90	A	Sharon Shale	9.16	19.16	19.46	2.40	21.8	21.75	0.05	medium
	DA2mw-115	2355269.00	560459.00	1,035.40	44.0	1,038.08	A	Sharon	33.75	43.75	44.05	2.68	46.8	46.79	0.01	medium
	DET-001B	2354959.47	560820.03	1,064.35	39.0	1,065.85	A	Unconsolidated	34.0	39.0	39.0	1.50	40.5	38.88	1.62	medium
	DET-002	2355360.33	560664.71	1,060.24	39.0	1,061.24	A	Unconsolidated	34.0	39.0	39.0	1.00	40.0	41.99	-1.99	medium
	DET-003	2355204.94	560456.10	1,035.81	15.0	1,036.81	A	Unconsolidated	7.0	12.0	12.0	1.00	13.0	15.99	-2.99	hard
	DET-004	2355072.36	560454.22	1,037.68	11.0	1,038.68	A	Unconsolidated	6.0	11.0	11.0	1.00	12.0	13.80	-1.80	hard
Erie Burning Grounds	EBGmw-123	2380049.21	571747.04	945.59	32.0	947.82	A	Unconsolidated	21.0	31.0	31.5	2.23	33.7	34.74	-1.04	hard
	EBGmw-124	2380030.24	571618.07	939.02	32.0	941.39	A	Unconsolidated	20.0	30.0	30.5	2.37	32.9	32.65	0.25	medium
	EBGmw-125	2379679.20	571655.63	947.55	25.0	949.89	A	Unconsolidated	14.0	24.0	24.5	2.34	26.8	27.43	-0.63	hard
	EBGmw-126	2380307.31	572348.81	938.20	28.0	940.61	A	Unconsolidated	15.2	25.2	25.5	2.41	27.9	27.75	0.15	hard
	EBGmw-127	2380172.16	571083.61	940.21	30.0	943.07	A	Unconsolidated	19.0	29.0	29.5	2.86	32.4	32.82	-0.42	hard
	EBGmw-128	2379892.79	570970.32	942.47	28.0	945.13	A	Unconsolidated	15.0	25.0	25.3	2.66	28.0	28.24	-0.24	hard
	EBGmw-129	2379240.52	572035.68	941.97	29.0	944.36	A	Unconsolidated	16.0	26.0	26.0	2.39	28.4	30.94	-2.54	hard
	EBGmw-130	2379220.69	570695.61	941.18	26.0	944.00	A	Unconsolidated	15.2	25.2	25.5	2.82	28.3	28.39	-0.09	hard
Fuze and Booster Quarry	EBGmw-131	2379666.00	571655.00	947.50	71.0	950.08	A	Sharon	60.5	70.5	70.8	2.58	73.10	73.40	-0.30	hard
	FBQmw-166	2349584.33	553123.86	1,104.87	16.0	1,108.86	A	Unconsolidated	5.5	15.5	15.5	3.99	19.5	19.83	-0.33	hard
	FBQmw-167	2349675.45	553556.12	1,112.05	18.0	1,115.90	A	Unconsolidated	5.0	15.0	15.0	3.85	18.9	18.90	0.00	hard
	FBQmw-168	2350066.87	553620.85	1,131.27	19.5	1,133.91	A	Homewood	9.0	19.0	19.0	2.64	21.6	21.28	0.32	medium
	FBQmw-169	2349730.90	553681.21	1,117.36	16.0	1,120.58	A	Homewood	5.0	15.0	15.0	3.22	18.2	18.18	0.02	hard
	FBQmw-170	2350102.41	553975.40	1,139.67	30.5	1,142.26	A	Homewood	20.0	30.0	30.0	2.59	32.6	32.80	-0.20	hard
	FBQmw-171	2350072.44	554230.93	1,140.49	30.0	1,143.55	A	Homewood	18.0	28.0	28.0	3.06	31.1	31.54	-0.44	hard
	FBQmw-172	2349907.37	554322.17	1,145.71	33.0	1,150.09	A	Homewood	20.0	30.0	30.0	4.38	34.4	34.51	-0.11	hard
	FBQmw-173	2350449.01	554491.35	1,162.43	50.0	1,165.94	A	Homewood	29.5	49.5	49.5	3.51	53.0	53.08	-0.08	hard
	FBQmw-174	2350289.81	554142.44	1,135.78	22.5	1,139.97	A	Homewood	12.0	22.0	22.0	4.19	26.2	23.14	3.06	hard
	FBQmw-175	2350297.98	553989.24	1,137.16	22.5	1,140.73	A	Homewood	12.0	22.0	22.0	3.57	25.6	25.84	-0.24	hard
	FBQmw-176	2350219.45	553273.33	1,129.57	21.5	1,131.91	A	Unconsolidated	11.0	21.0	21.0	2.34	23.3	23.74	-0.44	soft
	FBQmw-177	2350112.18	553321.94	1,125.73	22.5	1,128.57	A	Homewood	12.0	22.0	22.0	2.84	24.8	24.78	0.02	soft

Table 3-2. Well Construction Details, Including August 2013 Depth to Bottom Measurements

RVAAP Area	Well ID	Ohio State Plane Easting	Ohio State Plane Northing	Ground Level Elevation <sup>a</sup>	Total Drilled Depth <sup>b</sup>	TOC Elevation <sup>a</sup>	Well Head Type <sup>c</sup>	Monitored Zone	Top of Screen (ft, BGS)	Bottom of Screen (ft, BGS)	Bottom of Inner Casing Plug or End Cap (ft, BGS)	Stickup height (ft, AGS)	Reported Bottom of Inner Casing (ft, BTOC)	Aug 2013 Measured Bottom of Inner Casing (ft, BTOC)	Sediment Accumulation (ft)	Description of Bottom
Facility-Wide	FWGmw-001	2368321.00	565739.00	953.60	17.5	956.62	A	Unconsolidated	7	17	17.3	3.02	20.05	20.00	0.05	hard
	FWGmw-002	2367606.00	571015.00	970.60	71.0	973.10	A	Unconsolidated	57	67	67.3	2.50	70.05	69.80	0.25	hard
	FWGmw-003	2344042.00	563118.00	1,129.40	19.0	1,131.96	A	Unconsolidated	8.5	18.5	18.8	2.56	21.1	21.04	0.06	medium
	FWGmw-004	2356970.00	549319.00	1,034.50	20.0	1,037.15	A	Unconsolidated	9.5	19.5	19.8	2.65	22.6	22.45	0.15	hard
	FWGmw-005	2338973.00	558510.00	1,167.50	29.5	1,170.10	A	Homewood	19.25	29.25	29.55	2.60	31.9	31.80	0.10	soft
	FWGmw-006	2335421.00	553142.00	1,181.90	18.0	1,184.33	A	Unconsolidated	7.5	17.5	17.8	2.43	19.25	19.24	0.01	hard
	FWGmw-007	2344785.00	548356.00	1,072.80	30.0	1,075.41	A	Unconsolidated	19.5	29.5	29.8	2.61	32.35	32.16	0.19	hard
	FWGmw-008	2341569.00	555735.00	1,109.00	21.0	1,111.61	A	Unconsolidated	10	20	20.3	2.61	22.1	21.84	0.26	soft
	FWGmw-009	2341998.00	556784.00	1,099.50	18.5	1,102.14	A	Unconsolidated	8	18	18.3	2.64	20.4	20.32	0.08	medium
	FWGmw-010	2379060.00	565077.00	959.50	17.3	962.15	A	Unconsolidated	6	16	16.3	2.65	19.1	19.10	0.00	hard
	FWGmw-011	2380390.00	566801.00	939.00	17.5	941.61	A	Unconsolidated	6	16	16.3	2.61	17.8	17.69	0.11	hard
	FWGmw-012	2380389.00	566790.00	938.90	40.0	941.39	A	Sharon Shale	29.5	39.5	39.8	2.49	42.45	42.41	0.04	hard
	FWGmw-013	2357460.00	559483.00	1,057.10	34.5	1,059.51	A	Sharon	24	34	34.3	2.41	36.7	36.65	0.05	hard
	FWGmw-014	2341064.00	560957.00	1,135.00	18.5	1,137.57	A	Unconsolidated	8.25	18.25	18.55	2.57	21.15	21.08	0.07	hard
	FWGmw-015	2358353.00	550179.00	1,012.10	26.0	1,014.51	A	Unconsolidated	13.5	23.5	23.8	2.41	26.35	26.21	0.14	hard
	FWGmw-016	2358364.00	550171.00	1,011.90	65.0	1,014.39	A	Sharon	54.5	64.5	64.8	2.49	67.5	67.45	0.05	hard
Load Line 1	LL1mw-063	2376841.36	563650.53	992.20	27.4	994.84	A	Sharon	17.1	27.1	27.4	2.64	30.0	30.13	-0.13	hard
	LL1mw-064	2380286.97	563118.74	932.32	18.4	935.10	A	Unconsolidated	8.0	18.0	18.4	2.78	21.1	21.07	0.03	hard
	LL1mw-065	2380452.00	560916.92	941.53	20.5	944.41	A	Unconsolidated	10.2	20.2	20.5	2.88	23.4	22.96	0.44	hard
	LL1mw-067	2376545.30	565201.14	977.55	22.8	980.36	A	Sharon	12.8	22.5	22.8	2.81	25.6	25.74	-0.14	hard
	LL1mw-078	2376275.85	564623.87	993.40	38.7	995.84	A	Sharon	28.7	38.2	38.7	2.44	41.1	41.13	-0.03	soft
	LL1mw-079	2376228.31	563739.63	995.30	29.5	997.87	A	Sharon	29.5	38.9	39.5	2.57	42.0	41.78	0.22	hard
	LL1mw-080	2376845.07	562479.73	993.70	19.5	996.27	A	Sharon	9.5	19.0	19.5	2.57	22.0	22.41	-0.41	hard
	LL1mw-081	2376672.66	563462.73	996.40	39.4	998.92	A	Sharon	29.4	38.9	39.4	2.52	41.9	42.10	-0.20	soft
	LL1mw-082	2376977.38	562956.86	1,003.70	39.0	1,006.45	A	Sharon	28.9	38.5	39.0	2.75	41.8	41.42	0.38	hard
	LL1mw-083	2377074.80	563612.75	992.80	39.3	995.20	A	Sharon	29.1	38.6	39.3	2.40	41.7	41.41	0.29	hard
	LL1mw-084	2377316.02	563160.44	996.40	37.0	998.73	A	Sharon	26.7	36.3	37.0	2.33	39.3	38.93	0.37	hard
	LL1mw-085	2377246.94	562046.25	994.30	42.1	996.84	A	Sharon	32.2	41.6	42.1	2.54	44.7	44.95	-0.25	hard
	LL1mw-086	2380437.00	561714.00	938.00	75.0	940.63	A	Unconsolidated	64.5	74.5	74.8	2.63	77.38	77.82	-0.44	soft
	LL1mw-087	2378732.00	560375.00	941.80	17.5	944.32	A	Unconsolidated	7	17	17.3	2.52	18.55	18.09	0.46	medium
Load Line 2	LL2mw-059	2375453.00	558020.00	964.33	19.5	966.67	A	Sharon	9.3	19.1	19.5	2.34	21.8	21.84	-0.04	hard
	LL2mw-060	2375978.00	558022.00	958.93	18.3	961.57	A	Sharon	8.1	17.9	18.3	2.64	20.9	21.88	-0.98	hard
	LL2mw-261	2373317.81	561898.25	1,009.55	22.5	1,011.40	A	Sharon	9.8	19.8	20.0	1.85	21.9	22.55	-0.65	hard
	LL2mw-262	2373970.79	562219.87	1,011.12	21.2	1,012.62	A	Sharon	10.6	20.6	20.8	1.50	22.3	22.68	-0.38	hard
	LL2mw-263	2374289.51	561591.19	1,009.42	22.2	1,011.47	A	Sharon	10.8	20.8	21.0	2.05	23.0	23.53	-0.53	hard
	LL2mw-264	2374532.00	561173.60	1,010.10	20.5	1,011.88	A	Sharon	9.8	19.8	20.0	1.78	21.7	22.46	-0.76	hard
	LL2mw-265	2375594.06	557972.91	959.47	22.5	961.24	A	Sharon	11.8	21.8	22.0	1.77	23.8	24.52	-0.72	hard
	LL2mw-266	2373744.03	561981.86	1,014.09	20.5	1,016.28	A	Sharon	9.8	19.8	20.0	2.19	22.2	22.81	-0.61	hard
	LL2mw-267	2373715.04	561393.22	1,012.81	20.5	1,014.81	A	Sharon	9.8	19.8	20.0	2.00	22.0	22.12	-0.12	hard
	LL2mw-268	2374157.30	560831.04	1,015.47	28.8	1,017.28	A	Sharon	17.3	27.3	27.5	1.81	29.3	29.96	-0.66	soft
	LL2mw-269	2374756.07	559484.12	1,009.49	28.0	1,011.62	A	Sharon	17.1	27.1	27.3	2.13	29.4	30.33	-0.93	soft
	LL2mw-270	2372858.41	562655.93	1,009.93	20.5	1,010.18	A	Sharon	9.8	19.8	20.0	0.25	20.3	22.49	-2.19	hard

Table 3-2. Well Construction Details, Including August 2013 Depth to Bottom Measurements

RVAAP Area	Well ID	Ohio State Plane Easting	Ohio State Plane Northing	Ground Level Elevation <sup>a</sup>	Total Drilled Depth <sup>b</sup>	TOC Elevation <sup>a</sup>	Well Head Type <sup>c</sup>	Monitored Zone	Top of Screen (ft, BGS)	Bottom of Screen (ft, BGS)	Bottom of Inner Casing Plug or End Cap (ft, BGS)	Stickup height (ft, AGS)	Reported Bottom of Inner Casing (ft, BTOC)	Aug 2013 Measured Bottom of Inner Casing (ft, BTOC)	Sediment Accumulation (ft)	Description of Bottom
Load Line 3	LL3mw-232	2369862.96	561365.91	998.59	37.8	1,000.41	A	Sharon	26.8	36.8	37.0	1.82	38.8	39.90	-1.10	medium
	LL3mw-233	2369934.52	560750.41	1,002.47	31.1	1,004.36	A	Sharon	20.1	30.1	30.3	1.89	32.2	31.54	0.66	soft
	LL3mw-234	2370297.47	560058.89	1,004.47	20.5	1,006.56	A	Sharon	9.8	19.8	20.0	2.09	22.1	22.74	-0.64	hard
	LL3mw-235	2370642.47	559812.63	1,008.05	21.2	1,009.94	A	Sharon	10.1	20.1	20.3	1.89	22.2	23.04	-0.84	hard
	LL3mw-236	2371178.58	559866.75	1,008.94	25.5	1,011.17	A	Sharon	13.8	23.8	24.0	2.23	26.2	26.70	-0.50	hard
	LL3mw-237	2371475.00	559328.09	1,003.57	23.9	1,005.57	A	Sharon	12.7	22.7	22.9	2.00	24.9	25.63	-0.73	medium
	LL3mw-238	2370625.34	559569.06	1,004.75	20.7	1,006.91	A	Sharon	10.5	20.5	20.7	2.16	22.9	23.44	-0.54	hard
	LL3mw-239	2370895.01	559101.39	1,001.70	35.7	1,003.50	A	Sharon	24.9	34.9	35.0	1.80	36.8	37.00	-0.20	soft
	LL3mw-240	2371309.57	558204.34	1,005.60	35.5	1,007.52	A	Sharon	24.4	34.4	34.6	1.92	36.5	36.72	-0.22	medium
	LL3mw-241	2370332.80	559298.09	992.41	23.8	994.65	A	Sharon	12.7	22.7	22.9	2.24	25.1	25.67	-0.57	hard
	LL3mw-242	2371993.30	557034.21	997.39	20.5	999.32	A	Sharon	9.8	19.8	20.0	1.93	21.9	22.60	-0.70	hard
	LL3mw-243	2371532.61	556688.92	989.36	24.5	991.16	A	Sharon	13.8	23.8	24.0	1.80	25.8	26.43	-0.63	hard
	LL3mw-244	2371456.00	556033.00	986.20	45	988.78	A	Sharon	34.5	44.5	44.8	2.58	47.25	46.94	0.31	hard
	LL3mw-245	2369249.00	558573.00	978.70	47	981.24	A	Sharon	36.5	46.5	46.8	2.54	48.9	48.75	0.15	hard
Load Line 4	LL4mw-193	2364237.44	554959.74	980.88	21.9	982.92	A	Unconsolidated	11.3	21.3	21.5	2.04	23.5	24.14	-0.64	hard
	LL4mw-194	2364584.76	555088.18	981.87	22.0	983.76	A	Unconsolidated	11.3	21.3	21.5	1.89	23.4	23.49	-0.09	hard
	LL4mw-195	2365198.84	555045.69	980.83	21.0	982.59	A	Unconsolidated	10.3	20.3	20.5	1.76	22.3	22.72	-0.42	hard
	LL4mw-196	2365297.28	555212.59	982.56	20.0	984.55	A	Unconsolidated	9.2	19.2	19.4	1.99	21.4	21.75	-0.35	hard
	LL4mw-197	2365385.95	555396.55	983.79	21.7	985.46	A	Unconsolidated	10.8	20.8	21.0	1.67	22.7	23.58	-0.88	hard
	LL4mw-198	2364991.12	555440.99	981.61	22.0	983.42	A	Unconsolidated	10.3	20.3	20.5	1.81	22.3	22.34	-0.04	hard
	LL4mw-199	2365421.66	554621.06	975.20	22.0	977.28	A	Unconsolidated	10.3	20.3	20.5	2.08	22.6	23.12	-0.52	hard
	LL4mw-200	2365904.12	554579.72	985.97	23.5	987.93	A	Unconsolidated	12.6	22.6	23.0	1.96	25.0	25.10	-0.10	hard
	LL4mw-201	2365417.00	554607.00	975.90	67	978.02	A	Sharon	56.5	66.5	66.8		70.15	69.95	0.20	hard
Load Line 5	LL5mw-001	2354625.07	554319.25	1,125.00	24.0	1,127.92	A	Homewood	14.0	24.0	24.0	2.92	26.9	27.06	-0.16	medium
	LL5mw-002	2354571.52	554604.01	1,125.80	25.0	1,128.68	A	Homewood	15.0	25.0	25.0	2.88	27.9	27.52	0.38	hard
	LL5mw-003	2354964.47	554535.41	1,124.70	21.0	1,127.70	A	Unconsolidated	11.0	21.0	21.0	3.00	24.0	23.98	0.02	hard
	LL5mw-004	2355006.44	554073.73	1,122.90	22.4	1,125.81	A	Homewood	12.0	22.0	22.0	2.91	24.9	25.33	-0.43	hard
	LL5mw-005	2354422.02	554152.73	1,126.50	27.8	1,129.42	A	Homewood	17.0	27.0	27.0	2.92	29.9	29.67	0.23	soft
	LL5mw-006	2354730.78	553984.82	1,125.10	24.5	1,128.00	A	Homewood	14.0	24.0	24.0	2.90	26.9	27.10	-0.20	medium
Load Line 6	LL6mw-001	2353153.23	554214.84	NA	18.0	1,124.16	F	Unconsolidated	7.0	17.0	17.0	0.00	17.0	17.60	-0.60	hard
	LL6mw-002	2353820.09	553589.88	NA	23.0	1,129.36	F	Unconsolidated	12.5	22.5	22.5	0.00	22.5	24.48	-1.98	hard
	LL6mw-003	2353048.68	553544.34	NA	23.4	1,125.38	A	Homewood	12.5	22.5	22.5	3.35	25.9	25.62	0.28	medium
	LL6mw-004	2353368.79	553431.82	NA	23.0	1,125.39	A	Homewood	12.5	22.5	22.5	2.58	25.1	24.48	0.62	hard
	LL6mw-005	2353194.52	553170.76	NA	19.9	1,120.47	A	Homewood	9.5	19.5	19.5	2.96	22.5	21.95	0.55	soft
	LL6mw-006	2352419.15	553165.28	NA	20.0	1,124.37	A	Unconsolidated	7.0	17.0	17.0	0.00	17.0	17.75	-0.75	hard
	LL6mw-007	2353354.89	552677.17	NA	20.0	1,115.62	F	Homewood	9.5	19.5	19.5	0.00	19.5	19.30	0.20	hard
	LL6mw-008	2353616.00	553154.00	1,121.30	17.8	1,124.15	A	Unconsolidated	7.2	17.2	17.5	2.85	20.20	20.04	0.16	hard
	LL6mw-009	2353604.00	553149.00	1,121.40	39.5	1,123.75	A	Homewood	29	39	39.3	2.35	41.40	41.32	0.08	hard

Table 3-2. Well Construction Details, Including August 2013 Depth to Bottom Measurements

RVAAP Area	Well ID	Ohio State Plane Easting	Ohio State Plane Northing	Ground Level Elevation <sup>a</sup>	Total Drilled Depth <sup>b</sup>	TOC Elevation <sup>a</sup>	Well Head Type <sup>c</sup>	Monitored Zone	Top of Screen (ft, BGS)	Bottom of Screen (ft, BGS)	Bottom of Inner Casing Plug or End Cap (ft, BGS)	Stickup height (ft, AGS)	Reported Bottom of Inner Casing (ft, BTOC)	Aug 2013 Measured Bottom of Inner Casing (ft, BTOC)	Sediment Accumulation (ft)	Description of Bottom
Load Line 7	LL7mw-001	2352192.91	554925.77	1,126.90	30.0	1,129.64	A	Homewood	19.5	29.5	29.5	2.74	32.2	33.14	-0.94	hard
	LL7mw-002	2351918.23	555126.55	1,126.70	26.5	1,129.55	A	Homewood	15.0	25.0	25.0	2.85	27.8	27.27	0.53	hard
	LL7mw-003	2352351.04	555417.04	1,118.23	31.5	1,120.84	A	Homewood	21.0	31.0	31.0	2.61	33.6	33.63	-0.03	hard
	LL7mw-004	2352035.20	555581.14	1,123.30	29.5	1,126.32	A	Homewood	19.5	29.5	29.5	3.02	32.5	32.81	-0.31	hard
	LL7mw-005	2351741.47	555581.80	1,133.30	28.2	1,135.87	A	Homewood	18.0	28.0	28.0	2.57	30.6	30.43	0.17	hard
	LL7mw-006	2351879.92	555990.59	1,120.70	28.0	1,123.56	A	Homewood	17.5	27.5	27.5	2.86	30.4	30.04	0.36	hard
Load Line 8	LL8mw-001	2351666.10	552607.06	1,118.69	24.0	1,121.46	A	Unconsolidated	14.0	24.0	24.0	2.77	26.8	27.17	-0.37	soft
	LL8mw-002	2351010.33	552408.18	1,121.67	30.4	1,124.51	A	Unconsolidated	20.0	30.0	30.0	2.84	32.8	32.68	0.12	hard
	LL8mw-003	2351359.25	552231.14	1,116.30	21.0	1,119.05	A	Unconsolidated	10.5	20.5	20.5	2.75	23.3	23.09	0.21	hard
	LL8mw-004	2351261.83	551807.58	1,112.73	20.5	1,115.75	A	Unconsolidated	10.0	20.0	20.0	3.02	23.0	22.80	0.20	hard
	LL8mw-005	2351748.32	551522.48	1,112.51	24.0	1,115.73	A	Homewood	14.0	24.0	24.0	3.22	27.2	26.95	0.25	soft
	LL8mw-006	2351483.58	551296.77	1,114.33	24.2	1,117.17	A	Homewood	14.0	24.0	24.0	2.84	26.8	27.14	-0.34	hard
Load Line 9	LL9mw-001	2355817.04	556125.81	NA	21.6	1,134.62	A	Homewood	10.5	20.5	20.5	2.78	23.3	23.35	-0.05	hard
	LL9mw-002	2355907.76	556755.11	NA	21.0	1,127.30	A	Homewood	10.0	20.0	20.0	2.42	22.4	22.74	-0.34	hard
	LL9mw-003	2356635.21	556445.31	NA	22.0	1,135.76	A	Homewood	11.5	21.5	21.5	2.30	23.8	24.20	-0.40	hard
	LL9mw-004	2357338.76	556002.00	NA	33.0	1,131.83	A	Homewood	22.0	32.0	32.0	2.91	34.9	34.89	0.01	hard
	LL9mw-005	2356505.95	557063.36	NA	20.6	1,130.93	A	Homewood	10.0	20.0	20.0	3.30	23.3	23.50	-0.20	hard
	LL9mw-006	2357446.67	556434.79	NA	26.8	1,129.88	A	Homewood	16.0	26.0	26.0	2.90	28.9	28.82	0.08	hard
	LL9mw-007	2357024.34	557000.56	NA	19.0	1,119.99	F	Homewood	8.5	18.5	18.5	0.00	18.5	18.20	0.30	hard
Load Line 10	LL10mw-001	2355272.22	555816.25	1,130.00	28.0	1,132.77	A	Homewood	17.0	27.0	27.0	2.77	29.8	29.58	0.22	hard
	LL10mw-002	2355710.51	555523.36	1,124.40	28.0	1,127.13	A	Homewood	17.0	27.0	27.0	2.73	29.7	29.80	-0.10	hard
	LL10mw-003	2355389.92	555494.71	1,127.40	26.4	1,130.28	A	Homewood	16.0	26.0	26.0	2.88	28.9	28.55	0.35	hard
	LL10mw-004	2355438.20	555236.59	1,119.60	31.2	1,122.39	A	Homewood	21.0	31.0	31.0	2.79	33.8	33.53	0.27	hard
	LL10mw-005	2355943.55	555380.53	1,122.90	27.0	1,125.67	A	Homewood	16.5	26.5	26.5	2.77	29.3	29.24	0.06	hard
	LL10mw-006	2355654.80	554995.25	1,121.20	24.0	1,123.83	A	Unconsolidated	13.5	23.5	23.5	2.63	26.1	26.48	-0.38	medium
Load Line 11	LL11mw-001	2352778.89	557505.03	1,097.46	23.0	1,100.16	A	Unconsolidated	11.4	21.4	21.4	2.70	24.1	23.64	0.46	hard
	LL11mw-002	2353354.28	558310.52	1,080.29	20.0	1,080.00	F	Unconsolidated	6.3	16.3	16.3	-0.29	16.0	16.39	-0.39	hard
	LL11mw-003	2352737.87	557999.62	1,088.45	17.0	1,088.48	F	Unconsolidated	5.9	15.9	15.9	0.03	15.9	16.02	-0.12	hard
	LL11mw-004	2352737.24	558164.36	1,084.60	17.0	1,084.72	F	Unconsolidated	6.1	16.1	16.1	0.12	16.2	16.13	0.07	hard
	LL11mw-005	2352847.56	558501.02	1,079.60	17.0	1,079.40	F	Unconsolidated	6.2	16.2	16.2	-0.20	16.0	16.38	-0.38	hard
	LL11mw-006	2352521.36	558263.28	1,086.61	17.0	1,086.50	F	Unconsolidated	5.6	15.6	15.6	-0.11	15.5	15.68	-0.18	hard
	LL11mw-007	2352094.81	558189.71	1,079.22	23.0	1,082.00	A	Unconsolidated	12.4	22.4	22.4	2.78	25.2	25.25	-0.05	hard
	LL11mw-008	2352388.60	557981.17	1,087.90	17.0	1,087.74	F	Unconsolidated	5.6	15.6	15.6	-0.16	15.4	15.68	-0.28	hard
	LL11mw-009	2352577.18	557901.18	1,088.38	17.0	1,091.54	F	Unconsolidated	6.7	16.7	16.7	-0.10	16.6	19.49	-2.89	hard
	LL11mw-010	2352039.00	557675.43	1,080.22	22.0	1,082.68	A	Unconsolidated	10.9	20.9	20.9	2.46	23.4	23.42	-0.02	hard
	LL11mw-011	2351119.00	558680.00	1,077.40	18.5	1,080.20	A	Unconsolidated	7.8	17.8	18.1	2.80	20.45	20.31	0.14	hard
	LL11mw-012	2351125.00	558691.00	1,077.90	115.0	1,080.36	A	Sharon Shale	104.5	114.5	114.8	2.46	119.45	119.45	0.00	medium
Load Line 12	LL12mw-088	2368667.75	556393.79	978.94	29.0	981.06	A	Unconsolidated	14.8	24.8	25.0	2.12	27.1	27.35	-0.25	medium
	LL12mw-107	2368595.67	556759.02	978.03	33.0	980.15	A	Unconsolidated	20.7	30.7	31.0	2.12	33.1	33.65	-0.55	hard
	LL12mw-113	2368223.73	558345.37	977.67	23.0	980.18	A	Sharon Shale	12.3	22.3	22.5	2.51	25.0	25.72	-0.72	soft
	LL12mw-128	2368293.20	557371.54	976.21	34.0	978.24	A	Unconsolidated	21.1	31.1	31.3	2.03	33.3	33.91	-0.61	hard
	LL12mw-153	2368138.87	557823.23	975.34	26.0	977.85	A	Unconsolidated	12.3	22.3	22.5	2.51	25.0	25.06	-0.06	hard
	LL12mw-154	2368183.88	557754.56	977.00	29.0	979.06	A	Unconsolidated	16.4	26.4	26.6	2.06	28.7	28.67	0.03	hard



Table 3-2. Well Construction Details, Including August 2013 Depth to Bottom Measurements

RVAAP Area	Well ID	Ohio State Plane Easting	Ohio State Plane Northing	Ground Level Elevation <sup>a</sup>	Total Drilled Depth <sup>b</sup>	TOC Elevation <sup>a</sup>	Well Head Type <sup>c</sup>	Monitored Zone	Top of Screen (ft, BGS)	Bottom of Screen (ft, BGS)	Bottom of Inner Casing Plug or End Cap (ft, BGS)	Stickup height (ft, AGS)	Reported Bottom of Inner Casing (ft, BTOC)	Aug 2013 Measured Bottom of Inner Casing (ft, BTOC)	Sediment Accumulation (ft)	Description of Bottom
Load Line 12	LL12mw-182	2368853.20	555890.35	982.20	36.1	984.42	A	Unconsolidated	25.2	35.2	35.5	2.22	37.7	37.95	-0.25	hard
	LL12mw-182ss	2368867.00	555897.00	982.30	36	985.02	A	Unconsolidated	25.25	35.25	35.55	2.72	38.5	38.40	0.10	hard
	LL12mw-183	2369224.36	556068.15	980.59	36.0	982.98	A	Sharon Shale	23.3	33.3	33.6	2.39	36.0	36.28	-0.28	hard
	LL12mw-184	2368997.48	556399.46	980.96	29.5	983.16	A	Unconsolidated	18.8	28.8	29.0	2.20	31.2	31.34	-0.14	hard
	LL12mw-185	2368829.86	556946.75	979.09	24.0	981.31	A	Unconsolidated	10.8	20.8	21.0	2.22	23.2	23.23	-0.03	hard
	LL12mw-186	2367912.39	559065.95	976.34	23.0	978.31	A	Sharon Shale	8.8	18.8	19.0	1.97	21.0	21.00	0.00	hard
	LL12mw-187	2368524.14	557633.10	977.90	29.0	979.94	A	Unconsolidated	17.2	27.2	27.4	2.04	29.4	29.85	-0.45	hard
	LL12mw-188	2367908.82	558132.59	978.46	20.5	980.63	A	Unconsolidated	9.8	19.8	20.0	2.17	22.2	22.04	0.16	hard
	LL12mw-189	2367945.92	558569.27	976.17	18.5	978.04	A	Sharon Shale	7.5	17.5	17.7	1.87	19.6	19.55	0.05	hard
	LL12mw-242	2368545.29	558020.51	978.40	26.3	981.20	A	Unconsolidated	15.5	25.5	25.5	2.80	28.3	28.64	-0.34	hard
	LL12mw-243	2368190.04	557376.32	978.10	24.0	980.79	A	Unconsolidated	13.0	23.0	23.0	2.69	25.7	24.30	1.40	hard
	LL12mw-244	2368751.42	557377.17	978.10	30.0	980.65	A	Unconsolidated	19.5	29.5	29.5	2.55	32.1	30.59	1.51	hard
	LL12mw-245	2368370.74	557044.55	977.50	29.0	980.04	A	Unconsolidated	18.0	28.0	28.0	2.54	30.5	30.00	0.50	soft
	LL12mw-246	2369432.17	556658.89	982.00	32.0	984.83	A	Unconsolidated	21.5	31.5	31.5	2.83	34.3	34.97	-0.67	hard
	LL12mw-247	2368932.00	555141.00	981.30	20.5	984.25	A	Unconsolidated	10	20	20.3	2.95	22.6	22.60	0.00	hard
Landfill North of Winklepeck	LNWmw-024	2358403.21	564825.89	1,035.30	24.0	1,038.00	A	Unconsolidated	10.0	20.0	20.0	2.70	22.7	22.51	0.19	medium
	LNWmw-025	2358417.06	565071.92	1,027.20	19.0	1,029.13	A	Unconsolidated	8.0	18.0	18.0	1.93	19.9	20.29	-0.39	hard
	LNWmw-026	2358952.24	564658.16	1,025.00	24.0	1,027.80	A	Unconsolidated	13.0	23.0	23.0	2.80	25.8	25.97	-0.17	hard
	LNWmw-027	2358628.75	564517.41	1,024.40	25.0	1,027.13	A	Unconsolidated	14.0	24.0	24.0	2.73	26.7	26.85	-0.15	hard
Suspected Mustard Agent Burial Site	MBS-001	2345323.00	550759.50	1,079.68	30.0	1,082.20	A	Unconsolidated	19	28.7	29	2.52	31.5	30.99	0.51	hard
	MBS-002	2345322.30	550886.20	1,080.50	30.0	1,083.22	A	Unconsolidated	18	27.3	28	2.72	30.7	31.14	-0.44	soft
	MBS-003	2345172.40	550922.80	1,082.45	30.0	1,084.45	A	Unconsolidated	18.5	28.2	28.5	2.00	30.5	30.70	-0.20	hard
	MBS-004	2345134.20	550767.90	1,079.55	26.0	1,081.80	A	Unconsolidated	14.7	24.4	24.7	2.25	27.0	27.18	-0.18	hard
	MBS-005	2345354.10	550800.70	1,080.50	30.0	1,082.42	A	Unconsolidated	18	28	28.08	1.92	30.2	29.95	0.25	soft
	MBS-006	2345282.30	550726.10	1,080.29	28.0	1,081.83	A	Unconsolidated	16.5	26.5	26.56	1.54	28.2	28.00	0.20	hard
NACA Test Area	NTAmw-107	2345433.40	551697.29	1,077.65	23.0	1,080.30	A	Unconsolidated	12.0	22.0	22.0	2.65	24.6	24.09	0.51	soft
	NTAmw-108	2345781.60	551916.22	1,083.22	23.0	1,085.62	A	Unconsolidated	12.0	22.0	22.0	2.40	24.4	24.41	-0.01	medium
	NTAmw-109	2345997.72	551293.25	1,076.89	19.0	1,079.84	A	Unconsolidated	8.0	18.0	18.0	2.95	20.9	20.89	0.01	soft
	NTAmw-110	2346438.94	551351.46	1,080.03	28.0	1,082.62	A	Unconsolidated	17.0	27.0	27.0	2.59	29.6	29.75	-0.15	hard
	NTAmw-111	2346638.01	551538.60	1,078.07	20.0	1,080.94	A	Unconsolidated	9.5	19.5	19.5	2.87	22.4	22.08	0.32	hard
	NTAmw-112	2346889.48	551712.14	1,075.36	23.9	1,078.33	A	Unconsolidated	13.9	23.9	23.9	2.97	26.9	26.58	0.32	soft
	NTAmw-113	2347082.83	551488.52	1,072.61	27.5	1,075.68	A	Unconsolidated	17.0	27.0	27.5	3.07	30.6	29.64	0.96	hard
	NTAmw-114	2347301.57	551592.94	1,075.61	20.0	1,078.71	A	Unconsolidated	9.5	19.5	19.5	3.10	22.6	22.78	-0.18	hard
	NTAmw-115	2347581.16	551791.78	1,086.91	24.0	1,089.65	A	Unconsolidated	12.5	22.5	22.5	2.74	25.2	25.30	-0.10	hard
	NTAmw-116	2348196.39	551748.00	1,091.68	22.0	1,094.33	A	Unconsolidated	10.0	20.0	20.0	2.65	22.6	22.53	0.07	hard
	NTAmw-117	2347994.83	551584.57	1,091.67	25.0	1,094.54	A	Unconsolidated	14.5	24.5	24.5	2.87	27.4	27.49	-0.09	hard
	NTAmw-118	2347609.41	551335.04	1,078.86	22.5	1,081.44	A	Unconsolidated	12.0	22.0	22.0	2.58	24.6	24.66	-0.06	hard
	NTAmw-119	2346013.00	551286.00	1,077.40	130	1,080.07	A	Unconsolidated	90.0	100.0	100.3	2.67	104.6	104.65	-0.05	hard

Table 3-2. Well Construction Details, Including August 2013 Depth to Bottom Measurements

RVAAP Area	Well ID	Ohio State Plane Easting	Ohio State Plane Northing	Ground Level Elevation <sup>a</sup>	Total Drilled Depth <sup>b</sup>	TOC Elevation <sup>a</sup>	Well Head Type <sup>c</sup>	Monitored Zone	Top of Screen (ft, BGS)	Bottom of Screen (ft, BGS)	Bottom of Inner Casing Plug or End Cap (ft, BGS)	Stickup height (ft, AGS)	Reported Bottom of Inner Casing (ft, BTOC)	Aug 2013 Measured Bottom of Inner Casing (ft, BTOC)	Sediment Accumulation (ft)	Description of Bottom
Ramsdell Quarry Landfill	RQLmw-006	2375927.71	566091.26	993.52	42.1	995.39	A	Sharon	19.4	39.4	39.6	1.87	41.4	42.03	-0.63	hard
	RQLmw-007	2375872.56	566544.36	963.86	18.7	965.91	A	Sharon	6.0	16.0	16.2	2.05	18.2	18.48	-0.28	hard
	RQLmw-008	2376011.08	566327.94	963.82	18.7	966.08	A	Sharon	6.0	16.0	16.2	2.26	18.5	18.67	-0.17	hard
	RQLmw-009	2376253.65	566351.20	962.60	18.8	964.58	A	Sharon	5.9	15.9	16.4	1.98	18.4	18.80	-0.40	hard
	RQLmw-010	2376048.58	566857.39	980.04	35.4	982.14	A	Sharon	12.5	32.5	33.0	2.10	35.1	35.34	-0.24	hard
	RQLmw-011	2376398.19	566819.66	974.60	35.4	976.57	A	Sharon	12.4	32.4	32.6	1.97	34.6	35.36	-0.76	hard
	RQLmw-012	2376558.19	566551.95	975.12	30.5	977.65	A	Sharon	19.8	29.8	30.0	2.53	32.5	32.69	-0.19	hard
	RQLmw-013	2376204.93	566928.09	978.04	34.4	980.71	A	Sharon	23.7	33.7	33.9	2.67	36.6	35.90	0.70	soft
	RQLmw-014	2376519.38	566941.29	970.83	29.4	973.49	A	Sharon	18.6	28.6	28.9	2.66	31.6	31.55	0.05	hard
	RQLmw-015	2375490.96	566560.90	989.19	40.1	991.26	A	Sharon	29.2	39.2	39.5	2.07	41.6	41.87	-0.27	medium
	RQLmw-016	2375649.55	566177.68	994.02	39.5	996.60	A	Sharon	28.5	38.5	39.0	2.58	41.6	41.67	-0.07	medium
	RQLmw-017	2376124.18	565931.38	988.69	30.5	991.23	A	Sharon	19.8	29.8	30.0	2.54	32.5	32.70	-0.20	hard
Sharon Conglomerate	SCFmw-001	2353178.98	554768.62	1,118.53	230	1,120.71	A	Sharon Cong.	201	211	NA	2.18	213.61	214.30	-0.69	medium
	SCFmw-002	2368927.36	555152.38	982.28	153	984.56	A	Sharon Cong.	137	147	NA	2.28	149.65	150.10	-0.45	medium
	SCFmw-003	2375843.20	557957.67	956.14	140	958.47	A	Sharon Cong.	125.5	135.5	NA	2.33	139.65	139.65	0.00	medium
	SCFmw-004	2378730.23	560361.03	941.87	120	944.17	A	Sharon Cong.	100	110	NA	2.30	112.47	112.50	-0.03	hard
	SCFmw-005	2377014.05	567302.35	958.43	160	960.80	A	Sharon Cong.	139	154	NA	2.37	156.41	156.10	0.31	medium
	SCFmw-006	2369394.54	569583.41	963.69	90	965.92	A	Sharon Cong.	76	86	NA	2.23	88.32	87.91	0.41	medium
Winklepeck Burning Grounds	WBGmw-005	2357163.55	563037.18	1,052.20	19.0	1,054.70	A	Unconsolidated	8.3	18.3	18.6	2.50	21.1	21.12	-0.02	hard
	WBGmw-006	2359087.79	563008.87	1,012.16	19.0	1,014.66	A	Unconsolidated	7.6	17.6	17.9	2.50	20.4	20.14	0.26	hard
	WBGmw-007	2360420.44	562479.87	998.09	24.0	1,000.59	A	Unconsolidated	13.5	23.5	23.8	2.50	26.3	26.38	-0.08	hard
	WBGmw-008	2359700.57	562010.35	1,005.71	18.5	1,008.21	A	Unconsolidated	8.1	18.2	18.5	2.50	21.0	20.80	0.20	hard
	WBGmw-009	2357159.20	561603.54	1,045.03	24.0	1,047.53	A	Unconsolidated	11.4	21.4	21.5	2.50	24.0	24.27	-0.27	medium
	WBGmw-010	2356051.96	562893.20	1,067.10	21.0	1,069.85	A	Unconsolidated	10.5	20.5	20.8	2.75	23.6	23.29	0.31	hard
	WBGmw-011	2356187.29	562609.18	1,069.70	22.0	1,072.38	A	Unconsolidated	11.0	21.0	21.3	2.68	24.0	23.75	0.25	medium
	WBGmw-012	2354810.65	562240.90	1,076.50	30.0	1,079.11	A	Unconsolidated	19.0	29.0	29.4	2.61	32.0	NA	NA	NA
	WBGmw-013	2355223.25	561518.27	1,069.10	22.0	1,071.70	A	Unconsolidated	11.0	21.0	21.3	2.60	23.9	24.04	-0.14	hard
	WBGmw-014	2360439.22	562061.26	994.10	23.0	996.78	A	Unconsolidated	12.0	22.0	22.3	2.68	25.0	24.93	0.07	hard
	WBGmw-015	2359182.41	562340.12	1,009.10	22.0	1,011.60	A	Unconsolidated	11.0	21.0	21.3	2.50	23.8	23.43	0.37	hard
	WBGmw-016	2360645.88	562709.13	994.90	24.0	997.03	A	Unconsolidated	13.0	23.0	23.3	2.13	25.4	25.05	0.35	hard
	WBGmw-017	2359603.84	562913.24	1,004.00	22.0	1,006.62	A	Unconsolidated	11.0	21.0	21.3	2.62	23.9	23.33	0.57	hard
	WBGmw-018	2361302.00	562659.00	990.50	24.0	991.45	A	Unconsolidated	13.5	23.5	23.8	0.95	24.8	24.77	0.03	hard
	WBGmw-019	2361304.00	562645.00	989.30	50.0	990.25	A	Sharon	39.55	49.55	49.85	0.95	50.5	50.48	0.02	medium
	WBGmw-020	2357161.00	561623.00	1,043.40	43.3	1,044.31	A	Sharon	32.9	42.9	43.2	0.91	43.8	43.59	0.21	medium
	WBGmw-021	2359106.00	563009.00	1,010.00	42.5	1,010.92	A	Sharon	32	42	42.3	0.92	43.1	43.08	0.02	hard

<sup>a</sup> elevations are in feet above mean sea level (amsl)

<sup>b</sup> total drilled well borehole depth relative to ground surface.

<sup>c</sup> A = above grade completion; F = flush-mount completion

ft = feet

NA = Not available

AGS = above ground surface

BGS = below ground surface

BTOC = below top of casing

Table 3-3. Groundwater Elevations

Well	Monitoring Zone	Top of Casing (TOC) Elevation <sup>a</sup> (ft)	2012 Quarterly Groundwater Elevation (Oct/2012) (ft)	2013 Semi- Annual Groundwater Elevation (Jan/2013) (ft)	2013 Semi- Annual Groundwater Elevation (Aug/2013) (ft)
<b>Building 1200</b>					
B12mw-012	Sharon	1006.32	NM	984.06	989.8
B12mw-013	Sharon	1004.48	982.74	982.03	986.85
<b>Background</b>					
BKGmw-005	Unconsolidated	1151.94	NM	1140.33	1139.29
BKGmw-010	Sharon	1006.18	NM	NM	990.73
BKGmw-021	Unconsolidated	974.66	NM	957.27	959.36
<b>C Block</b>					
CBLmw-002	Homewood	1175.24	NM	1134.42	1137.52
CBLmw-005	Homewood	1158.1	1132.51	1131.95	1132.85
<b>Central Burn Pit</b>					
CBPmw-002	Unconsolidated	970.04	NM	960.32	962.68
CBPmw-009	Sharon	972.48	960.48	962.32	962.57
<b>Detonation Area 2</b>					
DA2mw-108	Unconsolidated	1032.36	NM	1025.94	1025.57
DA2mw-114	Sharon Shale	1031.9	1026.17	1026.61	1026.2
DA2mw-115	Sharon	1038.08	1030.96	1031.54	1031.98
DET-001B	Unconsolidated	1065.85	NM	NM	1043.35
DET-002	Unconsolidated	1061.24	NM	NM	1028.55
DET-003	Unconsolidated	1036.81	NM	1027.38	1027.18
DET-004	Unconsolidated	1038.68	NM	1028.39	1027.8
<b>Erie Burning Grounds</b>					
EBGmw-125	Unconsolidated	949.89	NM	937.95	938.45
EBGmw-131	Sharon	950.08	938.58	940.72	940.39
FBQmw-174	Homewood	1139.97	NM	NM	1124.57
<b>Facility-Wide</b>					
FWGmw-001	Unconsolidated	956.62	946.87	948.31	948.14
FWGmw-002	Unconsolidated	973.1	948.91	949.96	949.81
FWGmw-003	Unconsolidated	1131.96	1126.71	1126.9	1126.47
FWGmw-004	Unconsolidated	1037.15	1020.4	1023.81	1024.06
FWGmw-005	Homewood	1170.1	1147.15	1148.28	1148.12
FWGmw-006	Unconsolidated	1184.33	1172.64	1178.21	1178.02
FWGmw-007	Unconsolidated	1075.41	1050.57	1050.89	1051.69
FWGmw-008	Unconsolidated	1111.61	1105.12	1105.98	1105.31
FWGmw-009	Unconsolidated	1102.14	1099.84	NM	1099.3
FWGmw-010	Unconsolidated	962.15	948.93	955.39	951.35
FWGmw-011	Unconsolidated	941.61	938.99	940.88	938.77
FWGmw-012	Sharon Shale	941.39	938.75	940.55	940.15
FWGmw-013	Sharon	1059.51	1036.71	1040.57	1040.74
FWGmw-014	Unconsolidated	1137.57	1132.16	1133.53	1133.19
FWGmw-015	Unconsolidated	1014.51	1005.5	1009.89	1009.47
FWGmw-016	Sharon	1014.39	995.67	997.5	998.12
<b>Load Line 1</b>					
LL1mw-064	Unconsolidated	935.1	NM	933.88	933.89
LL1mw-065	Unconsolidated	944.41	NM	937.32	933.65
LL1mw-083	Sharon	995.2	NM	NM	964.15
LL1mw-084	Sharon	998.73	NM	NM	971.62
LL1mw-086	Unconsolidated	940.63	930.73	933.28	933.56
LL1mw-087	Unconsolidated	944.32	936.9	939.48	939.09
<b>Load Line 2</b>					
LL2mw-059	Sharon	966.67	NM	952.98	953.84
LL2mw-265	Sharon	961.24	NM	951.18	951.93
LL2mw-267	Sharon	1014.81	NM	NM	1005.87

Table 3-3. Groundwater Elevations

Well	Monitoring Zone	Top of Casing (TOC) Elevation <sup>a</sup> (ft)	2012 Quarterly Groundwater Elevation (Oct/2012) (ft)	2013 Semi- Annual Groundwater Elevation (Jan/2013) (ft)	2013 Semi- Annual Groundwater Elevation (Aug/2013) (ft)
<b>Load Line 3</b>					
LL3mw-238	Sharon	1006.91	NM	NM	991.77
LL3mw-239	Sharon	1003.5	NM	NM	980.68
LL3mw-241	Sharon	994.65	NM	986	985.54
LL3mw-242	Sharon	999.32	NM	985.07	985.42
LL3mw-244	Sharon	988.78	972.36	979.89	978.55
LL3mw-245	Sharon	981.24	966.29	967.86	969.19
<b>Load Line 4</b>					
LL4mw-199	Unconsolidated	977.28	NM	969.49	970.12
LL4mw-201	Sharon	978.02	967.34	967.74	968.62
<b>Load Line 6</b>					
LL6mw-002	Unconsolidated	1129.36	NM	1108.69	1108.68
LL6mw-005	Homewood	1120.47	NM	1108.36	1108.75
LL6mw-008	Unconsolidated	1124.15	1106.11	1109.11	1109.96
LL6mw-009	Homewood	1123.75	1106.07	1109.03	1109.91
<b>Load Line 10</b>					
LL10mw-003	Homewood	1130.28	NM	1109.65	1110.42
<b>Load Line 11</b>					
LL11mw-007	Unconsolidated	1082	NM	1068.06	1068.28
LL11mw-011	Unconsolidated	1080.2	1070.86	1072	1072.25
LL11mw-012	Sharon Shale	1080.36	1058.64	1060.36	1060.53
<b>Load Line 12</b>					
LL12mw-182	Unconsolidated	984.42	971.18	974.28	976.06
LL12mw-182ss	Unconsolidated	985.02	971.73	974.94	971.53
LL12mw-185	Unconsolidated	981.31	NM	973.18	974.96
LL12mw-187	Unconsolidated	979.94	NM	970.51	971.49
LL12mw-242	Unconsolidated	981.2	NM	972.76	973.37
LL12mw-245	Unconsolidated	980.04	NM	971.16	973.03
LL12mw-246	Unconsolidated	984.83	NM	967.87	979.76
LL12mw-247	Unconsolidated	984.25	978.24	979.79	979.76
<b>NACA Test Area</b>					
NTAmw-119	Unconsolidated	1080.07	1066.29	1067.32	1067.77
<b>Ramsdell Quarry Landfill</b>					
RQLmw-006	Sharon	995.39	NM	NM	961.91
RQLmw-007	Sharon	965.91	NM	958.95	960.86
RQLmw-008	Sharon	966.08	NM	959.24	960.58
RQLmw-009	Sharon	964.58	NM	958.92	960.18
RQLmw-010	Sharon	982.14	NM	NM	958.08
RQLmw-011	Sharon	976.57	NM	NM	955.97
<b>Sharon Conglomerate</b>					
SCFmw-002	Sharon Cong.	984.56	963.78	965.24	965.94
SCFmw-004	Sharon Cong.	944.17	NM	944.17	944.37
<b>Winklepeck Burning Grounds</b>					
WBGmw-006	Unconsolidated	1014.66	NM	1007.22	1007.03
WBGmw-009	Unconsolidated	1047.53	NM	1033.68	1034.45
WBGmw-018	Unconsolidated	991.45	966.65	973.91	974
WBGmw-019	Sharon	990.25	971.51	973.02	973.38
WBGmw-020	Sharon	1044.31	1029.47	1031.16	1031.69
WBGmw-021	Sharon	1010.92	1000.04	1001.69	1001.5

<sup>a</sup> = Elevations are in feet above mean sea level

ft = feet

NM = not measured

Potentiometric maps created from groundwater measurements from the RVAAP monitoring wells in August 2013 are presented on Plates 2, 3, 4, and 5. The potentiometric maps were generated from the August 2013 water-level measurements taken from the 274 existing facility wells and the six deep Sharon Conglomerate wells. These maps are updated on a yearly basis. The water levels from the individual events are not included in these plates. Additionally, the groundwater elevations from the 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. Therefore, the groundwater elevations collected from the basal Sharon Conglomerate wells were used to determine the potentiometric contours for these deep wells as presented in Plate 4. The potentiometric map for the basal Sharon Conglomerate wells is included as Plate 5.

Plate 2 shows the potentiometric surface of the unconsolidated aquifer at the facility from the August 2013 event. Groundwater in the unconsolidated aquifer predominantly flows in an eastward direction; however, the unconsolidated zone shows numerous local flow variations influenced by topography and drainage patterns. The local variations in flow direction suggest: (1) groundwater in the unconsolidated deposits is generally in direct hydraulic communication with surface water; and (2) surface water drainage ways may also act as groundwater discharge locations. In addition, topographic ridges between surface water drainage features act as groundwater divides in the unconsolidated deposits. A groundwater mound is evident in the south-central portion of RVAAP, thereby creating localized radial flow. This feature is the result of a bedrock high associated with the underlying Homewood. Hydraulic gradients were calculated for the unconsolidated aquifer along three flow pathways across RVAAP as shown on Plate 2. The hydraulic gradients ranged from 0.010 to 0.047. (Hydraulic gradients are unit-less measurements.) Using average porosity values from Shelby tube samples collected during the facility-wide groundwater RI and average hydraulic conductivity values derived from rising head/falling head tests conducted on 10 new RI wells in November 2012, groundwater velocities were calculated along the three gradients at rates of 4.42E-04 ft/day to 2.08E-03 ft/day. Table 3-4 summarizes the hydraulic gradient and groundwater velocity data for the various aquifers using the August 2013 groundwater flow data.

Plate 3 shows the potentiometric surface of the Homewood formation at the facility from the August 2013 event. The Homewood is only found in the western portion of RVAAP and generally occurs as cap rock. It appears from the limited number of wells that have penetrated this formation that the general flow is to the east-southeast. However, a groundwater mound is present in the vicinity of the Fuze and Booster wells, which produces a localized radial flow pattern in this area of RVAAP that is at least partially influenced by a buried valley to the north and west. Hydraulic gradients were calculated for the Homewood formation along three flow pathways across RVAAP as shown on Plate 3. The hydraulic gradients ranged from 0.012 to 0.026. Using average porosity values from core samples collected during the facility-wide groundwater RI and average hydraulic conductivity values derived from rising head/falling head tests conducted on two new Homewood RI wells in November 2012, groundwater velocities were calculated

along the three gradients at rates of  $6.88\text{E-}03$  ft/day to  $1.49\text{E-}02$  ft/day. Table 3-4 summarizes the hydraulic gradient and groundwater velocity data for the various aquifers using the August 2013 groundwater flow data.

Plate 4 shows the potentiometric surface of the upper Sharon formation at the facility from the August 2013 event. The bedrock potentiometric map shows a regional eastward flow direction. However, a groundwater mound is evident in the vicinity of Load Line 2 on Plate 4, thereby creating localized radial flow. In addition, the upper portion of the Sharon is in direct communication with surface water at Sand Creek in the vicinity of Demolition Area #2. Hydraulic gradients were calculated for the upper Sharon formation along three flow pathways across RVAAP as shown on Plate 4. The hydraulic gradients ranged from 0.015 to 0.026. Using average porosity values from core samples collected during the facility-wide groundwater RI and average hydraulic conductivity values derived from rising head/falling head tests conducted on two new Sharon RI wells in November 2012, groundwater velocities were calculated along the three gradients at rates of  $1.81\text{E-}02$  ft/day to  $3.13\text{E-}02$  ft/day. Table 3-4 summarizes the hydraulic gradient and groundwater velocity data for the various aquifers using the August 2013 groundwater flow data.

Plate 5 shows the potentiometric surface of the basal Sharon formation from the August 2013 event. Groundwater flow in the conglomeratic sandstone facies is to the east beneath RVAAP. The groundwater elevations from the deep Sharon Conglomerate wells were evaluated and determined not to be representative of the water table aquifer. These wells were installed with their screened intervals positioned at the basal portion of the Sharon Conglomerate sandstone. The hydraulic gradient for the Sharon Conglomerate wells was calculated for the easterly flow pathway at 0.0023. An estimated groundwater velocity of  $6.21\text{E-}05$  ft/day was calculated for the Sharon Conglomerate using the porosity values obtained from cores in the upper Sharon and hydraulic conductivity values obtained from literary sources for sandstone formations. However, it is likely that the hydraulic conductivity values for the Sharon Conglomerate may be higher than those presented in the literature, and therefore the groundwater velocity would also be somewhat higher than what was calculated.

To determine if groundwater elevations of basal Sharon Conglomerate wells (as determined in August 2013) are representative of the Sharon or Homewood Aquifers, the groundwater elevation data are compared as indicated on Table 3-5. As the table indicates the groundwater elevation of water in the Homewood Aquifer (well LL10mw-003) is more than 78 feet higher than the nearest basal Sharon Conglomerate well (well SCFmw-001). This demonstrates that the Homewood aquifer and Sharon Conglomerate are not representative of the same hydraulic unit. If they were in the same hydraulic unit, the water levels would be expected to be much the same.

**Table 3-4. Hydraulic Gradient and Groundwater Velocity in the Various Aquifers beneath RVAAP August 2013**

Formation	Plate No. <sup>a</sup>	Hydraulic Gradient <sup>b</sup>	Predominant Vector Flow Direction <sup>c</sup>	Porosity, % <sup>d</sup>	Hydraulic Conductivity, cm/sec <sup>f</sup>	Groundwater Velocity, ft/day <sup>g</sup>
Unconsolidated	2	$i_1 = 0.015$	South	27.4	4.27E-04	6.63E-04
Unconsolidated	2	$i_2 = 0.047$	East	27.4	4.27E-04	2.08E-03
Unconsolidated	2	$i_3 = 0.010$	East	27.4	4.27E-04	4.42E-04
Homewood	3	$i_1 = 0.012$	South	13.9	2.81E-03	6.88E-03
Homewood	3	$i_2 = 0.020$	South	13.9	2.81E-03	1.15E-02
Homewood	3	$i_3 = 0.026$	North	13.9	2.81E-03	1.49E-02
Upper Sharon	4	$i_1 = 0.026$	East-southeast	10.5	4.46E-03	3.13E-02
Upper Sharon	4	$i_2 = 0.017$	South-southeast	10.5	4.46E-03	2.05E-02
Upper Sharon	4	$i_3 = 0.015$	Northeast	10.5	4.46E-03	1.81E-02
Sharon Conglomerate	5	$i = 0.0023$	East	10.5	1.0E-04 <sup>e</sup>	6.21E-05

<sup>a</sup> The vector lines and calculations for determining the hydraulic gradient for each formation are presented on the Plates showing groundwater flow from August 2013.

<sup>b</sup> Hydraulic gradient is  $h_1 - h_2/L$ , where  $h_1$  is the hydraulic head at point A,  $h_2$  is the hydraulic head at point B, and L is the distance between A and B. Hydraulic gradient is a unit-less measurement.

<sup>c</sup> The vector flow direction is the predominant flow path between points  $h_1$  and  $h_2$ .

<sup>d</sup> Percent porosity is the average of the values derived from geotechnical testing of Shelby tubes and rock cores during the recent remedial investigation of facility-wide groundwater. Refer to Table 2-3 of the Facility-Wide Groundwater Monitoring Program RVAAP-66 Facility-Wide Groundwater Monitoring Well Installation Report (EQM, December 2012).

<sup>e</sup> Modified from Bear, J. (1972). *Dynamics of Fluids in Porous Media*. [Dover Publications](#). ISBN 0-486-65675-6.

<sup>f</sup> Hydraulic conductivity is the average of the values derived from falling head/rising head tests performed on several new RI wells in November 2012. The slug test results from November 2012 will be included in the Remedial Investigation Report for Facility-Wide Groundwater.

<sup>g</sup> Groundwater velocity is determined from the following equation:  $V = Ki/n$ , where “K” is the hydraulic conductivity, “i” is the hydraulic gradient, and “n” is the porosity.

**Table 3-5. Comparison of Groundwater Elevation  
Basal Sharon Conglomerate Wells**

Well ID	Monitored Zone Groundwater Elevation (ft amsl)			Difference (ft)
	Sharon Conglomerate (basal)	Sharon (upper portion)	Homewood	
SCFmw-001	1032.23	-	1110.42	+ 78.19
SCFmw-002	965.94	978.55	-	+ 12.61
SCFmw-003	950.83	952.02	-	+ 1.19
SCFmw-004	944.37	962.88	-	+ 18.51
SCFmw-005	951.00	953.84	-	+ 2.84
SCFmw-006	948.04	957.03	-	+ 8.99

All water-level elevations (ft. amsl) are from August 2013. Sharon (upper portion) and Homewood water-level elevations were taken from the nearest well to the basal Sharon Conglomerate well. Elevation is from potentiometric map (Plate 3).

" + " indicates that Sharon (upper portion) or Homewood elevation is higher and thus a separate hydraulic unit.

The groundwater elevations of the five wells from the upper portion of the Sharon Aquifer are 1.19 to 18.51 feet higher than the five basal Sharon Conglomerate groundwater elevations at the same locations. The average elevation difference is nearly 9 feet. Again, this groundwater elevation difference indicates that the basal Sharon Conglomerate and the upper portion of the Sharon are separate hydraulic units.

## 3.2 Monitoring Well Inspection/Repair Results

### 3.2.1 Inspection Results – August 2013

During the period of August 13-21, 2013 280 of the 281 FWGWMP monitoring wells at RVAAP were inspected. WBGmw-012 could not be located due to high vegetation. This well will be inspected and water level/depth measurements recorded during the January 2014 monitoring event. Inspection of the physical condition of all existing facility monitoring wells was conducted at the same time potentiometric surface measurements were collected. The well inspection survey consisted of the following elements:

- Following collection of water-level measurements at each well, the total depth of each monitoring well was sounded using the water-level indicator. This data allows a determination of the degree of siltation and comparison of the constructed depths recorded in the well construction logs.
- Visual examination of the condition of the above-ground components of each well was performed. The examination included the condition of access roads to the well, well identification tags or markings, protective casing condition, traffic guard posts, protective covers and locks, protective pads, weep holes, and watertight inner casing caps.



- Well inspection data and any maintenance needs were recorded using a well inspection/maintenance checklist.

The well inspections did not reveal irreparable damage to any specific monitoring wells. General well conditions include:

- Many of the outer well casings and guard posts are showing signs of rust and peeling paint. The following areas had a majority of the wells in need of painting:
  - Background Wells (BKGMw-005, BKGMw-013, BKGMw-016, and BKGMw-017)
  - Load Line 1 (LL1mw-064 and LL1mw-065)
  - Load Line 6 (LL6mw-001 through LL6mw-004, LL6mw-006, and LL6mw-007)
  - Load Line 7 (LL7mw-001 through LL7mw-006)
  - Load Line 8 (LL8mw-001 through LL8mw-006)
  - Load Line 9 (LL9mw-001, LL9mw-004, LL9mw-005, and LL9mw-006)
  - Load Line 10 (LL10mw-001)
  - Load Line 12 (LL12mw-242 through and LL12mw-246)
  - Atlas Scrap Yard (ASYmw-001 through ASYmw-010)
  - Building 812 (B12mw-010, B12mw-011, and B12mw-012)
  - C-Block (CBLmw-001 through CBLmw-004)
  - Landfill North of Winklepeck (LNMw-024 and LNMw-026)
  - NACA Test Area (NTAmw-107 through NTAmw-118)
  - Winklepeck Burning Grounds (WBGmw-016)
- All of the FWGWMP wells (with the exception of the new RI wells) should be considered for repainting. However, while a majority of the wells require repainting, the most recent inspection (August 2013) revealed no issues related to the paint that would affect the integrity of the wells (i.e., excessive rusting of the outer casing). Consequently, we suggest that repainting of the wells be delayed until the Record of Decision is completed. At that time it is anticipated that decisions may be made to close certain wells that will not be used for long-term monitoring. Only wells used for continued monitoring would then be repainted. The condition of the paint at several of the wells was in good condition; however, the painted well identification number was fading (e.g., wells in LL6, LL8, and LL11). These wells should have the well identification repainted in 2013.
- The vegetation around the wells was cleared in July of 2013. Access roads were passable from a vegetation standpoint during the inspection. At many of the wells (e.g., BKGMw-020, Central Burn Pits wells, Building 1200 wells, and Winklepeck Burning Grounds wells) the guard posts were missing the concrete plugs at the top of the post. This does not appear to affect the integrity or life of the posts. Additionally, as presented in Table 3-6, several well posts were loose but stable.
- Overall, the locks associated with the wells were in good condition with the few exceptions noted on Table 3-6. Lock caps on some of the wells were missing.

The lock cap is the small rubber covering at the bottom of the lock over the locking mechanism where the key is inserted. Over time some of these covers have broken off. There is no way to replace the cover without replacing the lock. There is no structural or operating damage to the locks without covers. Since there is no damage to the lock as a result of the missing lock caps, no action is planned at this time to replace the lock. The working condition of all locks at the facility is closely monitored and any locks not in good working condition will be replaced.

- As detailed in Table 3-6, several wells had pads that were either cracked or had stability issues (wobbling). The integrity of the wells did not appear to be compromised and will be monitored during future inspections.
- Several wells have outer casing tops that need to be replaced. As detailed in Table 3-6 it has been recommended to replace the outer casing tops for these wells.

Table 3-6 presents a list of specific wells identified during the August 2013 inspection that had conditions potentially requiring attention. Note that any required repairs to the wells will be completed in the spring of 2014.

### **3.2.2 Well Repair and Maintenance – 2013**

The following well maintenance/repair activities were conducted in 2013:

- Locks for several wells were replaced because they were becoming difficult to open.
- Well caps for several of the wells were replaced.
- Trees or brush was cleared from near or around several wells.
- The painted well identification numbers were repainted for wells in NACA and Fuze & Booster Quarry.

The pads at three wells have been noted as being consistently under water. These wells (EBGmw-126, MBSmw-001, and MBSmw-002) are monitored for signs of deterioration. The pads for the wells that are underwater will be visually inspected during sampling/well inspection events to confirm that they are still intact and that the integrity of the wells is not compromised. Additionally, the water levels in the wells will be closely monitored. If the water level is found to be at ground surface it may be indicative of water entering the casing. Currently, the water levels in these wells range between 1.8 and 18 feet below top of casing. It should also be noted that none of these wells are flush-mounts, and the risers are well above the water level.

**Table 3-6. Well Inspection Summary (August 2013)**

<b>Area</b>	<b>Well Number</b>	<b>Well Condition/Issue</b>	<b>Recommendation</b>
Background	BKGmw-004	Lock cap is missing.	Lock is in good working condition. No action at this time.
	BKGmw-008	Outer casing cap is rusted and hard to close.	Replace outer casing lid.
	BKGmw-010	1. Well number on casing has worn away. 2. Guard post is leaning.	1. Repaint well number on the well casing. 2. Monitor post during subsequent inspections.
	BKGmw-011	1. Well number on casing has worn away. 2. Guard Post is rusting.	1. Repaint well number on the well casing. 2. Monitor post during subsequent inspections.
	BKGmw-012	1. Well number on casing has worn away. 2. Guard Post is rusting.	1. Repaint well number on the well casing. 2. Monitor post during subsequent inspections.
	BKGmw-015	1. Well number on casing has worn away. 2. Guard Post and protective casing are rusting.	1. Repaint well number on the well casing. 2. Monitor post and casing during subsequent inspections.
	BKGmw-018	Outer casing cap is rusted and hard to close.	Replace outer casing lid.
	BKGmw-019	Guard post is rusty and leaning.	Monitor post during subsequent inspections.
	BKGmw-021	Outer casing cap is rusted and hard to close.	Replace outer casing lid.
Load Line 1	LL1mw-080	Lock cap is missing.	Lock is in good working condition. No action at this time.
	LL1mw-082	Lock cap is missing.	Lock is in good working condition. No action at this time.
	LL1mw-083	Lock cap is missing.	Lock is in good working condition. No action at this time.
	LL1mw-084	Lock cap is missing.	Lock is in good working condition. No action at this time.
	LL1mw-085	Lock cap is missing.	Lock is in good working condition. No action at this time.
Load Line 2	LL2mw-059	Lock cap is missing.	Lock is in good working condition. No action at this time.
	LL2mw-265	Lock cap is missing.	Lock is in good working condition. No action at this time.
	LL2mw-269	Lock cap is missing.	Lock is in good working condition. No action at this time.
	LL3mw-232	Lock cap is missing.	Lock is in good working condition. No action at this time.
Load Line 3	LL3mw-233	Lock cap is missing.	Lock is in good working condition. No action at this time.
	LL3mw-234	Lock cap is missing.	Lock is in good working condition. No action at this time.
	LL3mw-237	Lock cap is missing.	Lock is in good working condition. No action at this time.
	LL3mw-238	Lock cap is missing.	Lock is in good working condition. No action at this time.
	LL3mw-240	Lock cap is missing.	Lock is in good working condition. No action at this time.

**Table 3-6. Well Inspection Summary (August 2013)**

<b>Area</b>	<b>Well Number</b>	<b>Well Condition/Issue</b>	<b>Recommendation</b>
Load Line 4	LL4mw-196	Lock cap is missing.	Lock is in good working condition. No action at this time.
	LL4mw-197	Concrete around one of the guard posts is broken. Post is leaning but stable.	Monitor post during subsequent inspections.
Load Line 5	LL5mw-001	Lock cap is missing.	Lock is in good working condition. No action at this time.
	LL5mw-003	Lock cap is missing.	Lock is in good working condition. No action at this time.
	LL5mw-006	Lock cap is missing.	Lock is in good working condition. No action at this time.
Load Line 6	LL6mw-001	Well number on casing has worn away.	Repaint well number on the well casing.
	LL6mw-002	Well number on casing has worn away.	Repaint well number on the well casing.
	LL6mw-003	1. Lock cap is missing. 2. Well number on casing has worn away	1. Lock is in good working condition. No action at this time. 2. Repaint well number on the well casing.
	LL6mw-004	Lock cap is missing.	Lock is in good working condition. No action at this time.
	LL6mw-005	Well number on casing has worn away.	Repaint well number on the well casing.
	LL6mw-006	Well number on casing has worn away.	Repaint well number on the well casing.
	LL6mw-007	1. Well number on casing has worn away. 2. Slight erosion under the pad.	1. Repaint well number on the well casing. 2. Monitor during subsequent inspections.
Load Line 7	LL7mw-004	Lock cap is missing.	Lock is in good working condition. No action at this time.
	LL7mw-005	Lock cap is missing.	Lock is in good working condition. No action at this time.
	LL7mw-006	Lock cap is missing.	Lock is in good working condition. No action at this time.
Load Line 8	LL8mw-003	1. Well number on casing has worn away. 2. Lock cap is missing	1. Repaint well number on the well casing. 2. Lock is in good working condition. No action at this time.
	LL8mw-005	Concrete around one of the guard posts is broken. Post is stable.	Monitor post during subsequent inspections.
	LL8mw-006	1. Cracks in concrete pad. 2. Lock cap is missing.	1. Crack was repaired in October 2010. Pad is secure. Pad will be reevaluated annually. 2. Lock is in good working condition. No Action at this time.

**Table 3-6. Well Inspection Summary (August 2013)**

<b>Area</b>	<b>Well Number</b>	<b>Well Condition/Issue</b>	<b>Recommendation</b>
Load Line 9	LL9mw-001	Insufficient packing (sand) between inner and outer casings.	Replace the packing.
	LL9mw-003	Guard post is leaning	Monitor post during subsequent inspections.
	LL9mw-004	Insufficient packing (sand) between inner and outer casings.	Replace the packing.
	LL9mw-005	1. Guard post is leaning. 2. Insufficient packing (sand) between inner and outer casings.	1. Monitor post during subsequent inspections. 2. Replace the packing.
Load Line 10	LL10mw-003	Lock cap is missing.	Lock is in good working condition. No action at this time.
	LL10mw-004	Lock cap is missing.	Lock is in good working condition. No action at this time.
	LL10mw-006	Concrete pad cracked.	Crack was repaired in October 2010. Pad is secure. Pad will
Load Line 11	LL11mw-002	Well number on casing has worn away.	Repaint well number on the well casing.
	LL11mw-005	Well number on casing has worn away.	Repaint well number on the well casing.
	LL11mw-007	1. Lock cap is missing. 2. Surficial crack in concrete pad.	1. Lock is in good working condition. No action at this time. 2. Pad is stable, monitor during subsequent inspections.
	LL11mw-010	Lock cap is missing.	Lock is in good working condition. No action at this time.
Load Line 12	LL12mw-186	Lock cap is missing.	Lock is in good working condition. No action at this time.
	LL12mw-187	Lock cap is missing.	Lock is in good working condition. No action at this time.
	LL12mw-189	Lock cap is missing.	Lock is in good working condition. No action at this time.
	LL12mw-246	Lock cap is missing.	Lock is in good working condition. No action at this time.
Atlas Scrap Yard	ASYmw-004	Lock cap is missing.	Lock is in good working condition. No action at this time.
Central Burn Pits	CBPmw-002	Lock cap is missing.	Lock is in good working condition. No action at this time.
	CBPmw-003	Needs 2.5 to 3-feet of sand between casings.	Add sand beteen inner and outer casings.
	CBPmw-005	Lock cap is missing.	Lock is in good working condition. No action at this time.
Cobbs Ponds	CPmw-006	Lock cap is missing.	Lock is in good working condition. No action at this time.
Demolition Area 2	DETmw-001	Pad is wobbly.	Pad secure. Monitor during future inspections.
	DA2mw-111	Erosion under the pad.	Pad secure. Monitor during future inspections.

**Table 3-6. Well Inspection Summary (August 2013)**

<b>Area</b>	<b>Well Number</b>	<b>Well Condition/Issue</b>	<b>Recommendation</b>
Erie Burning Grounds	EBGmw-126	This well is consistently under water due to low topography and marshy conditions. The integrity of the pad and casing do not appear to be compromised.	Monitor the water during subsequent inspections for signs of deterioration of the pad. Additionally, monitor water levels inside the casing for evidence of infiltration of surface water.
NACA Test Area	NTAmw-107	Well number on casing has worn away.	Repaint well number on the well casing.
	NTAmw-118	Lock cap is missing.	Lock is in good working condition. No action at this time.
	NTAmw-119	Surficial crack in concrete pad.	Pad appears to be secure. Monitor during subsequent
Ramsdell Quarry Landfill	RQLmw-006	Lock cap is missing.	Lock is in good working condition. No action at this time.
	RQLmw-007	Lock cap is missing.	Lock is in good working condition. No action at this time.
	RQLmw-008	Lock cap is missing.	Lock is in good working condition. No action at this time.
	RQLmw-009	Lock cap is missing.	Lock is in good working condition. No action at this time.
Mustard Agent Burial Site	MBSmw-001	This well is consistently under water due to low topography and marshy conditions. The integrity of the pad and casing do not appear to be compromised.	Monitor the water during subsequent inspections for signs of deterioration of the pad. Additionally, monitor water levels inside the casing for evidence of infiltration of surface water.
	MBSmw-005	Lock cap is missing.	Lock is in good working condition. No action at this time.
	MBSmw-006	Well number on casing has worn away.	Repaint well number on the well casing.

### 3.3 Sedimentation/Turbidity and pH

#### 3.3.1 Sedimentation/Turbidity

EQM has reviewed the historical sediment accumulation footages and the description of well bottoms for the wells currently being sampled. Most wells have less than 0.20 feet of accumulated sediment and have a hard well bottom. However, some wells were found to have greater than 0.20 feet of sediment accumulation and/or soft well bottoms. Several wells (e.g., LL12mw-245) have been identified as wells that the depth of the well will be monitored during future monitoring events if added to the semiannual sampling schedule. Redevelopment of these wells will be conducted as necessary.

During the 2013 annual reporting period, only 20% of the 163 sampled locations had turbidity levels below 10 nephelometric turbidity units (NTU). In addition, high turbidity values (>700 NTU) were noted at some of the wells during the quarterly sampling events as follows:

**October 2012:** High turbidity values (i.e., >700 NTU) were noted at three of the wells (FWGmw-002, FWGmw-007 and LL11mw-011) in October 2012. None of these wells exhibited significant elevated sediment levels (>0.5 ft.) during this sampling event.

**January 2013:** High turbidity values (i.e., >700 NTU) were noted at two of the wells FWGmw-006 (750 NTU), and LL12mw-242 (994 NTU). Neither of these wells exhibited significant elevated sediment levels (>0.5 ft.) during this sampling event.

**August 2013:** High turbidity values (i.e., >700 NTU) were noted at two of the wells (FWGmw-011 (999 NTU), and LL1mw-087 (742 NTU) in August 2013. Neither of these wells exhibited significant elevated sediment levels (>0.5 ft.) during this sampling event.

In order to minimize turbid samples, low-flow purging and sampling techniques are used. Additionally, wells purged with high turbidity readings are purged for additional volume to attempt to lower or stabilize the turbidity of the sample. The pumps are suspended at least 1 foot above the bottom of the well to avoid agitation of the sediment potentially accumulating in the well sump. EQM will continue to monitor any high turbidity readings and make a determination for future redevelopment and other evaluation of any affected wells.

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 stabilized (turbidity is not a stabilization parameter). Purging was continued in an attempt to reach turbidity values that are within

10 percent of each other. Additionally, the groundwater samples for metals analysis are filtered as part of the FWGWMP sampling, thereby reducing the effect of suspended particles in the groundwater.

The Ohio EPA's general recommendations on whether and how to filter are as follows:

- The samples are collected from monitoring wells that are properly designed, installed, and developed.
- The samples are collected using procedures that minimize disturbance.
- Turbidity is demonstrated to stabilize above 10 NTU, trying to reach +/-10%.
- Professional judgment indicates that the formations sampled do not exhibit a high degree of particle mobility, making it reasonable to assume that a portion of the sediment in the samples may be attributable to immobile particles. Note that professional judgment is exercised when applying this approach since deviations may be necessary if the practices would cause undesirable problems in data interpretation. Additionally, if the historical data for metals has been based on analyses of filtered samples, filtration could be continued to ensure data consistency and comparability. Recommendations state "if a single zone is monitored both by wells that are capable of providing samples that meet the turbidity criterion and wells that are not capable of meeting it, it may be prudent to filter all of the samples to ensure spatial consistency and valid statistical comparisons."

Based on the February 4, 2013 and September 12, 2013 meeting between the Army and the Ohio EPA the use of filtered metals has been approved for use in future risk evaluations.

### 3.3.2 pH

**pH > 9:** A groundwater pH value of more than 9 standard units (s.u.) has been noted at LL1mw-086. Based on a comparison of the 2012 pH values, this well was redeveloped prior to the October 2012 event. As a result, the pH readings dropped from a high of 10.06 to 7.31 s.u. The well's pH reading has increased since redevelopment to sampling [6.91 s.u. (October 2012), 7.59 s.u. (January 2013), 9.40 s.u. (August 2013),]. EQM will monitor the pH at this well in the future.

Additionally, during the January 2013 event, a groundwater pH value of greater than 9 s.u. was noted at FWGmw-002. EQM has reviewed the historical purge records for this well. The higher pH in the well could be indicative of groundwater contamination; however, the historical trend of 7.62 to 8.95 s.u. indicates that this reading is potentially an anomaly or equipment error. FWGmw-002 is currently scheduled to be purged in May and July 2014 and sampled for field pH. If pH values continue to be elevated over these next two monitoring periods this well will be placed on the semiannual sampling schedule.

**pH < 4:** During the August 2013 event, a groundwater pH value of less than 4 s.u. was noted at RQLmw-011 and LL1mw-083. EQM has reviewed the historical purge records for these wells. The low pH in the wells could be indicative of groundwater



contamination. The historical trend of LL1mw-083 (4.51 to 3.87 s.u.) indicates that this reading is not an anomaly or equipment error, the low pH levels are consistent with historical levels. This well is part of the current semiannual sampling set. The pH trends in this well will be evaluated as part of the ongoing RI. Historical pH levels in RQLmw-011 (5-6 s. u.) indicate that this reading appears to be an anomaly or equipment error. This well is not part of the current semiannual well sampling set. EQM will monitor the pH at this well in the future, if it is sampled as part of the FWGWMP network.

### **3.4 Summary of Groundwater Sampling Results**

Section 1.5.1 of this report addresses the wells sampled during this reporting period. The list of FWGWMP wells monitored for the October 2012 through August 2013 events are presented in Appendix B.

#### **3.4.1 October 2012**

The October 2012 FWGWMP sampling event was performed on October 15-17, 2012. Forty wells were sampled for this event. The results of this sampling event are reported in the Final *Facility-Wide Groundwater Monitoring Program, Report on the October 2012 Sampling Event, Ravenna Army Ammunition Plant, Ravenna, Ohio*, dated May 23, 2013 (EQM). The results of this sampling event are summarized in Section 4.0 of this report.

#### **3.4.2 January 2013**

The January 2013 FWGWMP sampling event was performed on January 21-25, 2013. Seventy-one wells, including the five RCRA wells, were sampled for this event. The results of this sampling event are reported in the Final *Facility-Wide Groundwater Monitoring Program, Report on the January 2013 Sampling Event, Ravenna Army Ammunition Plant, Ravenna, Ohio*, dated September 24, 2013 (EQM). The results of this sampling event are summarized in Section 4.0 of this report.

#### **3.4.3 August 2013**

The August 2013 FWGWMP sampling event was performed on August 19-21, 2013. Fifty-three wells, including the five RCRA wells, were sampled for this event. The results of this sampling event are reported in the Preliminary Draft *Facility-Wide Groundwater Monitoring Program, Report on the August 2013 Sampling Event, Ravenna Army Ammunition Plant, Ravenna, Ohio*, dated October 30, 2013 (EQM). The results of this sampling event are summarized in Section 4.0 of this report.

Additionally, depth to water from the top of the inner casing was measured in the 280 FWGWMP wells during August 13-21, 2013. 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 results of the well inspections and the associated potentiometric map are included in this report as discussed in Section 3.2.

## SECTION 4

### SUMMARY/ASSESSMENT OF ANNUAL FWGWMP ANALYTICAL RESULTS

#### 4.1 Introduction

A summary of the constituents detected above background levels or above reporting limits (RLs) at each of the FWGWMP wells during the 2012-13 monitoring period is discussed in the following subsections. Table 4-1 presents the COPCs at the RVAAP Facility as presented in the *Facility-Wide Human Health Cleanup Goals for the Ravenna Army Ammunition Plant, Ravenna, Ohio* (SAIC, March 2010) and updated based on the results of the sampling conducted over the past year.

As part of the ongoing RI for the facility-wide groundwater, detected and validated analytes from the monitoring wells will be subjected to a risk screening process that will be detailed in the *FWGWMP Remedial Investigation/Feasibility Study Work Plan*. Note that negotiations concerning the risk assessment methodologies including the existing background criteria are ongoing and the results of the negotiations will result in revisions to the risk process. As a result reference to the background criteria has been removed from this document.

Samples were collected on the following dates:

- October 15 through 17, 2012
- January 21 through 25, 2013
- August 19 through 21, 2013

A summary of all compounds detected in 2012 and 2013 are presented in Table 4-2. The Maximum Contaminant Level (MCLs) are provided, where applicable, in the following sections. MCLs and U.S. EPA Risk Screening Levels (RSLs) are also provided where applicable in Table 4-2.

Table 4-3 presents those constituents detected in any of the October 2012, January 2013, or August 2013 sampling events that exceeded RSLs, primary MCLs, or secondary MCLs. Section 4.2 presents a summary discussion of the MCL and RSL exceedances.

Several analytical methods used to analyze a number of polychlorinated biphenyls (PCBs), volatile organic compounds (VOCs), inorganics, semivolatile organic compounds (SVOCs), and pesticides currently do not meet the RVAAP QAPP reporting limits or RSLs. The laboratory did not meet the requirements due to the following: 1) The detection limit is a statistically derived number that varies based on analytical method and instrumentation. 2) The RSL is independent from analytical method detection limits and is calculated from EPA toxicity values and exposure information. The RSL is not based on instrument capabilities but is risk driven. Tables listing the

reporting limits that currently do not meet the RVAAP QAPP PQLs and/or RSLs are presented in Appendix E.

Sections 4.1 through 4.19 present a discussion of the time trends for COPCs identified in groundwater samples collected during this reporting period. The wells are located at the following areas: Background, Building 1200, C Block, Central Burn Pits, Demolition Area 2, Erie Burning Grounds, Fuze and Booster, Load Line 1, Load Line 2, Load Line 3, Load Line 4, Load Line 6, Load Line 10, Load Line 11, Load Line 12, NACA Test Area, Ramsdell Quarry Landfill, and Winklepeck Burning Grounds, and the basal Sharon Conglomerate wells under the FWGWMP.

To facilitate the discussion of concentration changes over time, concentration versus time graphs (i.e., time-trend graphs) were prepared. The following guidelines were applied to produce the graphs:

1. Only wells sampled during this reporting period with at least one detection of an organic, explosive, or inorganic above the MCL or RSL and that have been sampled a minimum of three times since 2006 were graphed. However, if the detected compound was not previously identified in the well (i.e., concentrations were not detected above the reporting limit or estimated below the reporting limit), the compound was not graphed since there was insufficient information to evaluate the concentration trend.
2. Values reported as “non-detect” are shown as one-half the reporting limit.
3. Essential nutrients (i.e., calcium, magnesium, potassium, and sodium) were not graphed with the exception of iron, which has MCL and RSL standards.

Time-trend graphs for the COPCs are presented in Appendix F. The graphs are organized by AOC (maps showing each of the AOC areas are presented in Appendix F). The background wells are grouped after the AOCs.

**Table 4-1. Facility-Wide Chemicals of Potential Concern in Groundwater**

<b>Metals</b>	<b>Pesticides/Herbicides</b>	<b>Explosives/Propellants</b>
Aluminum	4,4'-DDD	1,3-Dinitrobenzene
Antimony	4,4'-DDE	2,4,6-Trinitrotoluene
Arsenic	4,4'-DDT	2,4-Dinitrotoluene
Barium	Aldrin	2,6-Dinitrotoluene
Beryllium	Dieldrin	2-Amino-4,6-Dinitrotoluene
Cadmium	Heptachlor	2-Nitrotoluene
Calcium	Heptachlor epoxide	4-Amino-2,6-Dinitrotoluene
Chromium	Lindane	4-Nitrotoluene
Cobalt	Toxaphene	Nitrobenzene
Hexavalent Chromium	alpha-BHC	Nitrocellulose
Iron	beta-BHC	Nitroglycerin
Lead	delta-BHC	Nitrate/Nitrite
Manganese	<b>Semivolatile Organic Compounds</b>	PETN
Mercury	2,4-Dinitrotoluene	RDX
Thallium	2,6-Dinitrotoluene	<b>Volatile Organic Compounds</b>
Vanadium	4-Nitrobenzenamine	1,1,2,2-Tetrachloroethane
Zinc	Benzo(a)anthracene	1,2-Dichloroethane
<b>Polychlorinated Biphenyls</b>	Benzo(a)pyrene	Benzene
Aroclor 1242	Benzo(b)fluoranthene	Carbon Tetrachloride
Aroclor 1254	Benzo(g,h,i)perylene	Chloroform
Aroclor 1260	Bis(2-ethylhexyl)phthalate	Methylene Chloride
	Dibenzo(a,h)anthracene	Tetrachloroethene
	Indeno(1,2,3-cd)pyrene	Trichloroethene
	Pentachlorophenol	
	Phenanthrene	
	Phenols	

**Notes:**

- 1) The original *Facility-Wide Groundwater Monitoring Program Plan* (2004) (Table 3-1) identified HMX as a COPC. The new *Facility-Wide Sampling and Analysis Plan for Environmental Investigations* (2011) also identifies HMX as a COPC. The Facility-Wide Human Health Cleanup Goals for the RVVAP (2010) does not identify HMX as a COPC and there have been no detections for HMX elevated above the identified clean levels (e.g., RSLs), which was why it has not been included as a COPC on Table 4-1.
- 2) Perchlorates have been analyzed for in all 281 facility-wide wells but never detected at concentrations elevated above the identified clean levels.

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Table 4-2. Summary of Constituents Detected

Area	Well Number	Monitored Zone	Analyte	Oct-12 Level (µg/L)	Jan-13 Level (µg/L)	Aug-13 Level (µg/L)	MCL (µg/L)	USEPA RSLs (µg/L)
Building 1200	B12mw-012	Bedrock	BARIUM	NT	8.0	NT	2000	2900
			BIS(2-ETHYLHEXYL)PHTHALATE	NT	1.1 B	NT	6.0	4.8
			CALCIUM	NT	39000	NT	NS	NS
			MAGNESIUM	NT	27000	NT	NS	NS
			MANGANESE	NT	0.90 B	NT	50	320
			POTASSIUM	NT	1800	NT	NS	NS
			SODIUM	NT	17000	NT	NS	NS
			ZINC	NT	6.0 JB	NT	5000	4700
	B12mw-013	Bedrock	ALUMINUM	60 U	7.0	NT	200	16000
			BARIUM	6.3	9.2	NT	2000	2900
			BIS(2-ETHYLHEXYL)PHTHALATE	2.9	0.82 U	NT	6.0	4.8
			CALCIUM	34000	34000	NT	NS	NS
			COBALT	1.9 J	2.5 U	NT	NS	4.7
			DIMETHYLPHTHALATE	1.3	0.82 U	NT	NS	NS
			FLUORANTHENE	0.099 U	0.11	NT	NS	630
			IRON	100 U	16 J	NT	300	11000
			MAGNESIUM	25000	25000	NT	NS	NS
			MANGANESE	780	22	NT	50	320
			NICKEL	7.1	3.6	NT	NS	300
			PHENANTHRENE	0.099 U	0.15	NT	NS	NS
			POTASSIUM	2500	2100	NT	NS	NS
			SODIUM	7900	7200	NT	NS	NS
			VANADIUM	2.96 U	3.2 J	NT	NS	63
			ZINC	20 U	7.3 J	NT	5000	4700
Background	BK Gmw-005	Unconsolidated	BARIUM	NT	15	NT	2000	2900
			BIS(2-ETHYLHEXYL)PHTHALATE	NT	0.99	NT	6.0	4.8
			CALCIUM	NT	95000	NT	NS	NS
			GROSS BETA <sup>2</sup>	NT	2.98	NT	NS	NS
			MAGNESIUM	NT	22000	NT	NS	NS
			RADIUM (Total) <sup>2</sup>	NT	0.585	NT	5.0	NS
			SODIUM	NT	3300	NT	NS	NS
			URANIUM	NT	0.46 J	NT	30	47
			ZINC	NT	1.6 JB	NT	5000	4700
	BK Gmw-010	Bedrock	PERCHLORATE	NT	NT	0.018 B	15	11
	BK Gmw-021	Unconsolidated	ALUMINUM	NT	15 J	NT	200	16000
			BARIUM	NT	40	NT	2000	2900
			CALCIUM	NT	89000	NT	NS	NS
			CHROMIUM	NT	1.1 J	NT	100	16000
			IRON	NT	65	NT	300	11000
			MAGNESIUM	NT	38000	NT	NS	NS
			MANGANESE	NT	1.7 J	NT	50	320
			POTASSIUM	NT	870 J	NT	NS	NS
			SODIUM	NT	7500	NT	NS	NS
			VANADIUM	NT	4.1 J	NT	NS	63
C Block	CBLmw-002	Bedrock	BIS(2-ETHYLHEXYL)PHTHALATE	NT	1.1 B	NT	6.0	4.8
	CBLmw-005	Bedrock	ACETONE	1.1 JB	1.1 U	NT	NS	12000
			ALUMINUM	85	40	NT	200	16000
			BARIUM	48	64	NT	2000	2900
			BIS(2-ETHYLHEXYL)PHTHALATE	0.76 U	2.8 JB	NT	6.0	4.8
			CALCIUM	10000	7700	NT	NS	NS
			MAGNESIUM	4700	4100	NT	NS	NS
			MANGANESE	10	7.2	NT	50	320
			NICKEL	7.2	9.9	NT	NS	300
			PERCHLORATE	NT	0.045	NT	15	11
			POTASSIUM	940	990 J	NT	NS	NS
			SODIUM	2800	2700	NT	NS	NS
			ZINC	9.1 B	9.8 J	NT	5000	4700
Central Burn Pits	CBPmw-002	Unconsolidated	ALUMINUM	NT	150 J	NT	200	16000
			ARSENIC	NT	21	NT	10	0.045
			BARIUM	NT	11	NT	2000	2900

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Table 4-2. Summary of Constituents Detected

Area	Well Number	Monitored Zone	Analyte	Oct-12 Level (µg/L)	Jan-13 Level (µg/L)	Aug-13 Level (µg/L)	MCL (µg/L)	USEPA RSLs (µg/L)
Central Burn Pits	CBPmw-002	Unconsolidated	CALCIUM	NT	170000	NT	NS	NS
			COBALT	NT	0.87 J	NT	NS	4.7
			DIMETHYLPHTHALATE	NT	0.99	NT	NS	NS
			IRON	NT	1700	NT	300	11000
			MAGNESIUM	NT	100000	NT	NS	NS
			MANGANESE	NT	75	NT	50	320
			NICKEL	NT	2.4 J	NT	NS	300
			POTASSIUM	NT	3200	NT	NS	NS
			SODIUM	NT	53000	NT	NS	NS
			VANADIUM	NT	5.0 J	NT	NS	63
			ZINC	NT	3.6 JB	NT	5000	4700
	CBPmw-009	Bedrock	ACETONE	1.5 JB	1.1 UJ	NT	NS	12000
			ALUMINUM	60 U	3.6 J	NT	200	16000
			ARSENIC	3.4 J	5.0 U	NT	10	0.045
			BARIUM	73	73	NT	2000	2900
			BIS(2-ETHYLHEXYL)PHTHALATE	1.6 B	1.0 J	NT	6.0	4.8
			CALCIUM	75000	72000	NT	NS	NS
			CARBON DISULFIDE	0.24 J	0.17 J	NT	NS	720
			IRON	650	820	NT	300	11000
			MAGNESIUM	25000	23000	NT	NS	NS
			MANGANESE	98	93	NT	50	320
Demolition Area # 2	DA2mw-108	Unconsolidated	POTASSIUM	1800	1800	NT	NS	NS
			SODIUM	13000	14000	NT	NS	NS
			ZINC	NT	1.6 JB	NT	5000	4700
			ANTIMONY	NT	0.87 J	NT	6.0	6.0
			BARIUM	NT	22	NT	2000	2900
			CALCIUM	NT	37000	NT	NS	NS
			IRON	NT	2100	NT	300	11000
			MAGNESIUM	NT	15000	NT	NS	NS
	DA2mw-114	Bedrock	MANGANESE	NT	390	NT	50	320
			POTASSIUM	NT	1900	NT	NS	NS
			SODIUM	NT	8100	NT	NS	NS
			ZINC	NT	1.8 J	NT	5000	4700
			ALUMINUM	NT	38	60 U	200	16000
			BARIUM	29	26	30	2000	2900
			BIS(2-ETHYLHEXYL)PHTHALATE	0.81 U	0.76 U	0.35 B	6.0	4.8
			CALCIUM	110000	97000	110000	NS	NS
	DA2mw-115	Bedrock	IRON	1000	540	920	300	11000
			MAGNESIUM	37000	32000	37000	NS	NS
			MANGANESE	82	76	82	50	320
			POTASSIUM	4200	3200	4100	NS	NS
			SODIUM	12000	10000	13000	NS	NS
			ZINC	20 U	1.8 J	50 U	5000	4700
			ACETONE	2.3 JB	1.1 UJ	1.1 U	NS	12000
			ALUMINUM	60 U	4.6 J	60 U	200	16000
			BARIUM	21	21	21	2000	2900
			BETA-BHC	0.0081 JB	0.0095 U	0.015 J	NS	0.022
			BIS(2-ETHYLHEXYL)PHTHALATE	2.2 J	0.77 U	0.56 B	6.0	4.8
			CALCIUM	100000	100000	100000	NS	NS
			CARBON DISULFIDE	0.26	0.25 U	0.14 B	NS	720
			DI-N-BUTYL PHTHALATE	0.83 U	0.77 U	0.64 J	NS	670
	DETmw-001	Unconsolidated	IRON	570	680	720	300	11000
			MAGNESIUM	29000	29000	29000	NS	NS
			MANGANESE	110	110	110	50	320
			MERCURY	0.2 U	0.065 J	0.20 U	2.0	0.63
			POTASSIUM	3600	3000	3400	NS	NS
			SODIUM	11000	10000	12000	NS	NS
			ZINC	NT	5.4 J	50 U	5000	4700
			ARSENIC	NT	NT	26	10	0.045
			BARIUM	NT	NT	22	2000	2900
			BIS(2-ETHYLHEXYL)PHTHALATE	NT	NT	3.4 B	6.0	4.8
			CALCIUM	NT	NT	78000	NS	NS

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Table 4-2. Summary of Constituents Detected

Area	Well Number	Monitored Zone	Analyte	Oct-12 Level (µg/L)	Jan-13 Level (µg/L)	Aug-13 Level (µg/L)	MCL (µg/L)	USEPA RSLs (µg/L)
Demolition Area # 2	DEtmw-001	Unconsolidated	DI-N-BUTYL PHTHALATE	NT	NT	0.70 J	NS	670
			ENDRIN KETONE	NT	NT	0.012 J	NS	NS
			IRON	NT	NT	900	300	11000
			MAGNESIUM	NT	NT	32000	NS	NS
			MANGANESE	NT	NT	390	50	320
			POTASSIUM	NT	NT	1900	NS	NS
			SODIUM	NT	NT	10000	NS	NS
	DEtmw-002	Unconsolidated	BARIUM	NT	NT	37	2000	2900
			BETA-BHC	NT	NT	0.011 J	NS	0.022
			BIS(2-ETHYLHEXYL)PHTHALATE	NT	NT	0.35 B	6.0	4.8
			CALCIUM	NT	NT	89000	NS	NS
			IRON	NT	NT	93 J	300	11000
			MAGNESIUM	NT	NT	32000	NS	NS
			MANGANESE	NT	NT	56	50	320
			PERCHLORATE	NT	NT	0.012 J	15	11
			POTASSIUM	NT	NT	3100	NS	NS
			SODIUM	NT	NT	17000	NS	NS
	DEtmw-003	Unconsolidated	ALUMINUM	NT	3.1 J	60 U	200	16000
			ANTHRACENE	NT	0.095 U	0.097	NS	1300
			ARSENIC	NT	10	12	10	0.045
			BARIUM	NT	47	48	2000	2900
			BENZO(A)ANTHRACENE	NT	0.095 U	0.15	NS	0.029
			BENZO(A)PYRENE	NT	0.095 U	0.12	0.20	0.0029
			BENZO(B)FLUORANTHENE	NT	0.095 U	0.12	NS	0.029
			BENZO(K)FLUORANTHENE	NT	0.095 U	0.13	NS	0.29
			BETA-BHC	NT	0.0095 U	0.015 J	NS	0.022
			BIS(2-ETHYLHEXYL)PHTHALATE	NT	0.76 U	0.78 B	6.0	4.8
			CALCIUM	NT	85000	84000	NS	NS
			CHRYSENE	NT	0.76 U	0.11	NS	2.9
			DI-N-BUTYL PHTHALATE	NT	0.76 U	0.99	NS	670
			FLUORANTHENE	NT	0.095 U	0.13	NS	630
			IRON	NT	1300	1400	300	11000
			MAGNESIUM	NT	31000	30000	NS	NS
			MANGANESE	NT	250	250	50	320
			PHENANTHRENE	NT	0.095 U	0.12	NS	NS
			POTASSIUM	NT	1600	1800	NS	NS
			PYRENE	NT	0.095 U	0.13	NS	87
			SODIUM	NT	11000	11000	NS	NS
			ZINC	NT	2.2 J	50 U	5000	4700
	DEtmw-004	Unconsolidated	4-AMINO-2,6-DINITROTOLUENE	NT	0.064 J	0.12 U	NS	30
			ALUMINUM	NT	3.4 J	60 U	200	16000
			ANTIMONY	NT	0.90 U	0.38 J	6.0	6.0
			BARIUM	NT	49	80	2000	2900
			BIS(2-ETHYLHEXYL)PHTHALATE	NT	1.1 B	1.4 B	6.0	4.8
			CALCIUM	NT	120000	160000	NS	NS
			DI-N-BUTYL PHTHALATE	NT	0.76 U	0.85 B	NS	670
			HMX	NT	3.2	3.5	NS	780
			IRON	NT	18 J	100 U	300	11000
			MAGNESIUM	NT	25000	31000	NS	NS
			MANGANESE	NT	2.0 U	5.7 B	50	320
			POTASSIUM	NT	1000 J	1700	NS	NS
			RDX	NT	6.1	2.3	NS	0.61
			SODIUM	NT	1900	2900	NS	NS
			VANADIUM	NT	2.4 J	1.5 U	NS	63
			ZINC	NT	13 J	50 U	5000	4700
Erie Burning Grounds	EBGmw-125	Unconsolidated	ALUMINUM	NT	2.8 J	NT	200	16000
			ARSENIC	NT	13	NT	10	0.045
			BARIUM	NT	64	NT	2000	2900
			BIS(2-ETHYLHEXYL)PHTHALATE	NT	1.7	NT	6.0	4.8
			CALCIUM	NT	56000	NT	NS	NS
			COBALT	NT	1.0 J	NT	NS	4.7
			IRON	NT	5100 J	NT	300	11000

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Table 4-2. Summary of Constituents Detected

Area	Well Number	Monitored Zone	Analyte	Oct-12 Level (µg/L)	Jan-13 Level (µg/L)	Aug-13 Level (µg/L)	MCL (µg/L)	USEPA RSLs (µg/L)
Erie Burning Grounds	EBGmw-125	Unconsolidated	MAGNESIUM	NT	8700	NT	NS	NS
			MANGANESE	NT	540	NT	50	320
			POTASSIUM	NT	950 J	NT	NS	NS
			SODIUM	NT	5200	NT	NS	NS
			ZINC	NT	3.8 J	NT	5000	4700
	EBGmw-131	Bedrock	BARIUM	99	100	110	2000	2900
			BIS(2-ETHYLHEXYL)PHTHALATE	0.76 U	1.8	0.38 J	6.0	4.8
			CALCIUM	73000	74000	72000	NS	NS
			DIMETHYLPHTHALATE	0.76 U	0.29 J	0.48 U	NS	NS
			IRON	650	710 J	730	300	11000
			MAGNESIUM	28000	29000	29000	NS	NS
			MANGANESE	130	140	150	50	320
			POTASSIUM	1400	1400 J	1400	NS	NS
			SODIUM	2600	2700	2900	NS	NS
			ZINC	20 U	2.4 J	50 U	5000	4700
			2,4,6-TRINITROTOLUENE	NT	NT	18	NS	2.2
			2,4-DINITROTOLUENE	NT	NT	0.45	NS	0.20
			2-AMINO-4,6-DINITROTOLUENE	NT	NT	16	NS	30
			4-AMINO-2,6-DINITROTOLUENE	NT	NT	26	NS	30
Fuze & Booster Quarry	FBQmw-174	Bedrock	BARIUM	NT	NT	14	2000	2900
			BIS(2-ETHYLHEXYL)PHTHALATE	NT	NT	0.82 B	6.0	4.8
			CALCIUM	NT	NT	5700	NS	NS
			DELTA-BHC	NT	NT	0.019 J	NS	NS
			DI-N-BUTYL PHTHALATE	NT	NT	1.1 B	NS	670
			GAMMA-CHLORDANE	NT	NT	0.037	NS	NS
			MAGNESIUM	NT	NT	2000	NS	NS
			MANGANESE	NT	NT	16	50	320
			NICKEL	NT	NT	5.8	NS	300
			POTASSIUM	NT	NT	1000	NS	NS
			RDX	NT	NT	0.31	NS	0.61
			SODIUM	NT	NT	810	NS	NS
Facility-Wide	FWGmw-001	Unconsolidated	ALUMINUM	100	23 J	NT	200	16000
			BARIUM	17	16	NT	2000	2900
			BIS(2-ETHYLHEXYL)PHTHALATE	0.87 U	0.87	NT	6.0	4.8
			CALCIUM	21000	17000	NT	NS	NS
			IRON	170	71	NT	300	11000
			MAGNESIUM	6500	5500	NT	NS	NS
			MANGANESE	12	2.7	NT	50	320
			METHOXYCHLOR	0.3 U	0.036 J	NT	40	27
			NICKEL	5 U	2.5 J	NT	NS	300
			PERCHLORATE	NT	0.17	NT	15	11
			POTASSIUM	1300	940 J	NT	NS	NS
			SELENIUM	10 U	5.6 J	NT	50	78
	FWGmw-002	Unconsolidated	SODIUM	3200	3300	NT	NS	NS
			ZINC	20 U	3.7 JB	NT	5000	4700
			1,3,5-TRINITROBENZENE	0.040 J	0.051 U	NT	NS	460
			ACETONE	2.5 B	1.2 JB	NT	NS	12000
			ALUMINUM	180	5.0 U	NT	200	16000
			ANTIMONY	0.21 J	0.9 U	NT	6.0	6.0
			BARIUM	74	48	NT	2000	2900
			BIS(2-ETHYLHEXYL)PHTHALATE	2.5 JB	0.76 U	NT	6.0	4.8
			CALCIUM	42000	31000	NT	NS	NS
			CARBON DISULFIDE	6.7	8.8	NT	NS	720
			CHLOROETHANE	0.33 J	0.5 U	NT	NA	21000
			IRON	640	110	NT	300	11000
			MAGNESIUM	14000	13000	NT	NS	NS
			MANGANESE	140	100	NT	50	320
			NAPHTHALENE	0.1 UJ	0.20	NT	NS	0.14
			POTASSIUM	14000	27000	NT	NS	NS
			SODIUM	23000	32000	NT	NS	NS



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Table 4-2. Summary of Constituents Detected

Area	Well Number	Monitored Zone	Analyte	Oct-12 Level (µg/L)	Jan-13 Level (µg/L)	Aug-13 Level (µg/L)	MCL (µg/L)	USEPA RSLs (µg/L)
Facility-Wide	FWGmw-003	Unconsolidated	ACETONE	1.6 JB	1.1 UJ	NT	NS	12000
			ALUMINUM	1600	42	NT	200	16000
			ARSENIC	5.3 J	5.0 U	NT	10	0.045
			BARIUM	72	59	NT	2000	2900
			BIS(2-ETHYLHEXYL)PHTHALATE	0.76 U	1.2	NT	6.0	4.8
			CALCIUM	79000	77000	NT	NS	NS
			CHROMIUM	2.8 J	2.5 U	NT	100	16000
			DIMETHYLPHTHALATE	0.76 U	0.71 J	NT	NS	NS
			IRON	2300	150	NT	300	11000
			MAGNESIUM	20000	19000	NT	NS	NS
			MANGANESE	600	520	NT	50	320
			POTASSIUM	2500	1400 J	NT	NS	NS
			SODIUM	4600	4200	NT	NS	NS
			ZINC	16 UB	2.0 JB	NT	5000	4700
	FWGmw-004	Unconsolidated	ALUMINUM	3200	4.2 J	60 U	200	16000
			BARIUM	44	22	23	2000	2900
			BIS(2-ETHYLHEXYL)PHTHALATE	1.2 B	0.91 B	0.25 B	6.0	4.8
			CALCIUM	89000	98000	96000	NS	NS
			CHROMIUM	5.3	2.5 U	4.0 U	100	16000
			COBALT	1.7 J	2.5 U	4.0 U	NS	4.7
			CYANIDE	0.0064 J	0.01 U	0.010 U	0.20	0.0014
			IRON	4000	20 U	100 U	300	11000
			LEAD	1.7 J	3.0 U	5.0 U	15	NS
			MAGNESIUM	38000	47000	47000	NS	NS
			MANGANESE	75	1.7 J	2.4 B	50	320
			NICKEL	2.9 J	3.0 U	5.0 U	NS	300
			POTASSIUM	2000	1500 U	710 J	NS	NS
			SODIUM	4000	3600	4700	NS	NS
			VANADIUM	7 UB	3.2 J	4.0 U	NS	63
			ZINC	17 B	1.3 JB	50 U	5000	4700
	FWGmw-005	Bedrock	ACETONE	1.1 B	1.1 U	NT	NS	12000
			ALUMINUM	60 U	3.7 J	NT	200	16000
			BARIUM	55	58	NT	2000	2900
			BIS(2-ETHYLHEXYL)PHTHALATE	0.84	0.76 U	NT	6.0	4.8
			CADMIUM	1.0	0.3 UJ	NT	5.0	6.9
			CALCIUM	46000	51000	NT	NS	NS
			COBALT	2.0 J	2.5 U	NT	NS	4.7
			IRON	3600	3000	NT	300	11000
			MAGNESIUM	15000	17000	NT	NS	NS
			MANGANESE	350	280	NT	50	320
			NICKEL	5 U	1.6 J	NT	NS	300
			POTASSIUM	1600	1500	NT	NS	NS
			SODIUM	6100	6900	NT	NS	NS
			VANADIUM	1.8 J	5.0 U	NT	NS	63
			ZINC	20 U	3.0 JB	NT	5000	4700
	FWGmw-006	Unconsolidated	ALUMINUM	60 U	5.5	NT	200	16000
			ANTIMONY	0.31 J	0.9 U	NT	6.0	6.0
			ARSENIC	5.1 J	2.9 J	NT	10	0.045
			BARIUM	33	30	NT	2000	2900
			CALCIUM	41000	37000	NT	NS	NS
			CARBON DISULFIDE	0.16 J	0.25 U	0.25 U	NS	720
			COBALT	1.6 J	1.3 U	NT	NS	4.7
			DIMETHYLPHTHALATE	0.76 U	0.28 J	NT	NS	NS
			IRON	18000	13000	NT	300	11000
			MAGNESIUM	21000	20000	NT	NS	NS
			MANGANESE	2000	1300	NT	50	320
			NICKEL	5 U	3.1	NT	NS	300
			POTASSIUM	1300	920 J	NT	NS	NS
			SODIUM	7400	6900	NT	NS	NS
			VANADIUM	1.5 UB	2.4 J	NT	NS	63
			ZINC	20 U	4.3 JB	NT	5000	4700

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Table 4-2. Summary of Constituents Detected

Area	Well Number	Monitored Zone	Analyte	Oct-12 Level (µg/L)	Jan-13 Level (µg/L)	Aug-13 Level (µg/L)	MCL (µg/L)	USEPA RSLs (µg/L)
Facility-Wide	FWGmw-007	Unconsolidated	ALUMINUM	4600	140	60 U	200	16000
			ARSENIC	6.9 J	5.0 U	10 U	10	0.045
			BARIUM	56	30	18	2000	2900
			BIS(2-ETHYLHEXYL)PHTHALATE	1.5	0.79 U	0.48 B	6.0	4.8
			CALCIUM	200000	160000	100000	NS	NS
			CHROMIUM	8.8	2.5 U	1.4 J	100	16000
			COBALT	4.2	2.5 U	4.0 U	NS	4.7
			COPPER	5.8 J	5.0 U	10 U	1300	620
			IRON	8100	410	100 U	300	11000
			LEAD	3.2 J	3.0 U	5.0 U	15	NS
			MAGNESIUM	140000	99000	52000	NS	NS
			MANGANESE	310	92	47	50	320
			NICKEL	9.3	3.0 U	2.3 J	NS	300
			POTASSIUM	4300	2200	1800	NS	NS
			SODIUM	18000	14000	7000	NS	NS
			ZINC	38 B	5.4 JB	50 U	5000	4700
	FWGmw-008	Unconsolidated	ALUMINUM	290	5.0 U	NT	200	16000
			ARSENIC	7.5 J	5.8	NT	10	0.045
			BARIUM	40	40	NT	2000	2900
			BIS(2-ETHYLHEXYL)PHTHALATE	0.95	1.1 J	NT	6.0	4.8
			CALCIUM	110000	100000	NT	NS	NS
			CHROMIUM	1.9 J	2.5	NT	100	16000
			ENDRIN KETONE	0.0075 J	0.0095 U	NT	NS	NS
			IRON	1100	520	NT	300	11000
			MAGNESIUM	27000	26000	NT	NS	NS
			MANGANESE	690	620	NT	50	320
			NICKEL	5 U	1.8 J	NT	NS	300
			PERCHLORATE	NT	0.061 J	NT	15	11
			POTASSIUM	2000	1500	NT	NS	NS
			SODIUM	6500	6800	NT	NS	NS
			ZINC	20 U	1.3 JB	NT	5000	4700
	FWGmw-009	Unconsolidated	ACETONE	1.1 U	NT	1.2 B	NS	12000
			ALUMINUM	980	NT	60 B	200	16000
			ARSENIC	11	NT	9.8 J	10	0.045
			BARIUM	59	NT	56	2000	2900
			BIS(2-ETHYLHEXYL)PHTHALATE	1.1	NT	0.34 B	6.0	4.8
			CALCIUM	92000	NT	89000	NS	NS
			CHROMIUM	2.1 J	NT	4.0 U	100	16000
			IRON	2700	NT	910	300	11000
			MAGNESIUM	25000	NT	24000	NS	NS
			MANGANESE	200	NT	180	50	320
			POTASSIUM	1600	NT	1200	NS	NS
			SODIUM	7600	NT	8500	NS	NS
			ZINC	12 B	NT	50 U	5000	4700
	FWGmw-010	Unconsolidated	ACETONE	2.3 B	1.2 JB	NT	NS	12000
			ARSENIC	11	15	NT	10	0.045
			BARIUM	41	38	NT	2000	2900
			BIS(2-ETHYLHEXYL)PHTHALATE	40	0.78 U	NT	6.0	4.8
			CALCIUM	9300	7700	NT	NS	NS
			CARBON DISULFIDE	0.33	0.24 J	NT	NS	720
			COBALT	15	23	NT	NS	4.7
			IRON	35000	29000 J	NT	300	11000
			MAGNESIUM	4500	5000	NT	NS	NS
			MANGANESE	1700	970	NT	50	320
			NICKEL	21	65	NT	NS	300
			PERCHLORATE	NT	0.053	NT	15	11
			POTASSIUM	2700	1800	NT	NS	NS
			SODIUM	2500	2300	NT	NS	NS
			ZINC	20 U	6.0 J	NT	5000	4700

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Table 4-2. Summary of Constituents Detected

Area	Well Number	Monitored Zone	Analyte	Oct-12 Level (µg/L)	Jan-13 Level (µg/L)	Aug-13 Level (µg/L)	MCL (µg/L)	USEPA RSLs (µg/L)
Facility-Wide	FWGmw-011	Unconsolidated	ACETONE	1.2 B	1.1 UJ	NT	NS	12000
			ALUMINUM	220	12	60 U	200	16000
			ARSENIC	4.4 J	3.3 J	10 U	10	0.045
			BARIUM	44	43	42	2000	2900
			BIS(2-ETHYLHEXYL)PHTHALATE	1.1 B	0.82	13	6.0	4.8
			CALCIUM	75000	76000	67000	NS	NS
			DIMETHYLPHTHALATE	0.8 U	0.75 J	NT	NS	NS
			DI-N-BUTYL PHTHALATE	0.8 U	0.76 U	1.7	NS	670
			IRON	700	1300 J	1900	300	11000
			MAGNESIUM	14000	15000	14000	NS	NS
			MANGANESE	250	290	270	50	320
			MERCURY	0.2 U	0.072 JB	0.20 U	2.0	0.63
			POTASSIUM	940	870 J	840 J	NS	NS
			SODIUM	5700	5900	6300	NS	NS
	FWGmw-012	Bedrock	3,3'-DICHLOROBENZIDINE	0.76 JB	0.81 U	NT	NS	0.11
			ANTIMONY	0.27 J	5 UJ	1.0 U	6.0	6.0
			BARIUM	22	23	25	2000	2900
			BIS(2-ETHYLHEXYL)PHTHALATE	2.8 JB	0.90 J	0.74 B	6.0	4.8
			CALCIUM	25000	24000	23000	NS	NS
			COBALT	1.5 J	1.8 J	1.8 J	NS	4.7
			DIMETHYLPHTHALATE	0.76 UJ	0.30 J	0.48 U	NS	NS
			DI-N-BUTYL PHTHALATE	0.76 U	0.81 U	0.74 J	NS	670
			IRON	2300	2700 J	2100	300	11000
			MAGNESIUM	5700	5400	5600	NS	NS
			MANGANESE	110	95	110	50	320
			NICKEL	5 U	2.0 J	2.4 J	NS	300
			POTASSIUM	890 J	1200 J	830 J	NS	NS
			SODIUM	7000	6400	6700	NS	NS
			ZINC	20 U	2.1 J	50 U	5000	4700
	FWGmw-013	Bedrock	ALUMINUM	60 U	5.5	NT	200	16000
			BARIUM	30	29	NT	2000	2900
			BIS(2-ETHYLHEXYL)PHTHALATE	1.9	0.97 JB	NT	6.0	4.8
			CALCIUM	55000	55000	NT	NS	NS
			COBALT	4 U	0.59 J	NT	NS	4.7
			CYANIDE <sup>1</sup>	0.0071 J	0.01 U	NT	0.20	0.0014
			MAGNESIUM	26000	26000	NT	NS	NS
			MANGANESE	520	560	NT	50	320
			PERCHLORATE	NT	0.013 J	NT	15	11
			POTASSIUM	2800	3100	NT	NS	NS
	FWGmw-014	Unconsolidated	SODIUM	7600	7100	NT	NS	NS
			ZINC	20 U	2.6 J	NT	5000	4700
			ACETONE	1.3 JB	1.1 UJ	NT	NS	12000
			BARIUM	34	31	NT	2000	2900
			CALCIUM	85000	87000	NT	NS	NS
			DIMETHYLPHTHALATE	0.76 U	0.28 J	NT	NS	NS
			GROSS BETA <sup>2</sup>	2.8 J	2.03 J	NT	NS	NS
			LEAD 214 <sup>2</sup>	24 J	-2.91 UJ	NT	NS	NS
			MAGNESIUM	21000	22000	NT	NS	NS
			MANGANESE	210	130	NT	50	320
			POTASSIUM	1800	1500	NT	NS	NS
			RADIUM (Total) <sup>3</sup>	0.47 J	0.423	NT	5.0	NS
	FWGmw-015	Unconsolidated	SODIUM	5300	6200	NT	NS	NS
			THORIUM	0.56 J	0.85 UB	NT	NS	NS
			URANIUM	0.54	0.33 J	NT	30	47
			ALUMINUM	70	3.0 J	60 U	200	16000
			ARSENIC	6.4 J	5.0 U	10 U	10	0.045
			BARIUM	19	17	14	2000	2900
			BIS(2-ETHYLHEXYL)PHTHALATE	1.2	1.0 B	0.45 B	6.0	4.8

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Table 4-2. Summary of Constituents Detected

Area	Well Number	Monitored Zone	Analyte	Oct-12 Level (µg/L)	Jan-13 Level (µg/L)	Aug-13 Level (µg/L)	MCL (µg/L)	USEPA RSLs (µg/L)
Facility-Wide	FWGmw-015	Unconsolidated	CALCIUM	250000	300000	340000	NS	NS
			CHROMIUM	1.4 J	2.5 U	4.0 U	100	16000
			COBALT	2.2 J	2.5 U	2.9 J	NS	4.7
			DELTA-BHC	0.013 J	0.0096 U	NT	NS	NS
			DIMETHYLPHTHALATE	2.6	0.76 U	0.48 U	NS	NS
			IRON	240	22 B	100 U	300	11000
			MAGNESIUM	170000	270000	260000	NS	NS
			MANGANESE	860	240	940	50	320
			NICKEL	3.0 J	1.8 J	2.5 J	NS	300
			PERCHLORATE	NT	0.056	NT	15	11
			POTASSIUM	3900	3800	4000	NS	NS
			SODIUM	33000	40000	44000	NS	NS
			VANADIUM	4 U	6.9	4.0 U	NS	63
			ZINC	20 U	6.7 JB	50 U	5000	4700
	FWGmw-016	Bedrock	ALUMINUM	60 U	5.0 U	27 J	200	16000
			ARSENIC	6.2 J	4.4 J	4.3 J	10	0.045
			BARIUM	54	56	55	2000	2900
			BIS(2-ETHYLHEXYL)PHTHALATE	0.76 U	0.86 B	0.32 B	6.0	4.8
			CALCIUM	100000	110000	100000	NS	NS
			IRON	590	530 B	600	300	11000
			MAGNESIUM	28000	29000	28000	NS	NS
			MANGANESE	200	210	210	50	320
			MERCURY	0.2 U	0.052 J	0.20 U	2.0	0.63
			POTASSIUM	2000	1900	2100	NS	NS
			SODIUM	11000	9700	11000	NS	NS
			ZINC	20 U	2.6 JB	50 U	5000	4700
Load line 1	LL1mw-064	Unconsolidated	BARIUM	NT	NT	53	2000	2900
			BIS(2-ETHYLHEXYL)PHTHALATE	NT	NT	0.61 B	6.0	4.8
			CALCIUM	NT	NT	58000	NS	NS
			DI-N-BUTYL PHTHALATE	NT	NT	0.91 J	NS	670
			IRON	NT	NT	580	300	11000
			MAGNESIUM	NT	NT	10000	NS	NS
			MANGANESE	NT	NT	130	50	320
			POTASSIUM	NT	NT	740 J	NS	NS
			SODIUM	NT	NT	5500	NS	NS
	LL1mw-065	Unconsolidated	ALUMINUM	NT	3.5 J	60 U	200	16000
			BARIUM	NT	50	50	2000	2900
			BIS(2-ETHYLHEXYL)PHTHALATE	NT	1.6 B	0.50 B	6.0	4.8
			CALCIUM	NT	81000	75000	NS	NS
			IRON	NT	44 J	170	300	11000
			MAGNESIUM	NT	21000	19000	NS	NS
			MANGANESE	NT	110	200	50	320
			POTASSIUM	NT	1100 J	1000	NS	NS
			SODIUM	NT	12000	12000	NS	NS
	LL1mw-083	Bedrock	1,3,5-TRINITROBENZENE	NT	NT	6.5 J	NS	460
			1,3-DINITROBENZENE	NT	NT	0.28 J	NS	1.5
			2,4,6-TRINITROTOLUENE	NT	NT	4.5 J	NS	2.2
			2,4-DINITROTOLUENE	NT	NT	2.9 J	NS	0.20
			2,6-DINITROTOLUENE	NT	NT	1.5 J	NS	0.042
			2-AMINO-4,6-DINITROTOLUENE	NT	NT	14 J	NS	30
			4-AMINO-2,6-DINITROTOLUENE	NT	NT	28	NS	30
			ALUMINUM	NT	NT	640	200	16000
			BARIUM	NT	NT	17	2000	2900
			BIS(2-ETHYLHEXYL)PHTHALATE	NT	NT	1.1 B	6.0	4.8
			CADMIUM	NT	NT	0.51 J	5.0	6.9
			CALCIUM	NT	NT	26000	NS	NS
			COBALT	NT	NT	7.1	NS	4.7
			DI-N-BUTYL PHTHALATE	NT	NT	1.6 B	NS	670
			ENDOSULFAN II	NT	NT	0.014 J	NS	78

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Table 4-2. Summary of Constituents Detected

Area	Well Number	Monitored Zone	Analyte	Oct-12 Level (µg/L)	Jan-13 Level (µg/L)	Aug-13 Level (µg/L)	MCL (µg/L)	USEPA RSLs (µg/L)
Load line 1	LL1mw-083	Bedrock	MAGNESIUM	NT	NT	5400	NS	NS
			MANGANESE	NT	NT	410	50	320
			NICKEL	NT	NT	27	NS	300
			POTASSIUM	NT	NT	2800	NS	NS
			SODIUM	NT	NT	7800	NS	NS
	LL1mw-084	Bedrock	ZINC	NT	NT	39 J	5000	4700
			1,3,5-TRINITROBENZENE	NT	NT	2.4 J	NS	460
			1,3-DINITROBENZENE	NT	NT	0.35 J	NS	1.5
			2,4,6-TRINITROTOLUENE	NT	NT	12 J	NS	2.2
			2,4-DINITROTOLUENE	NT	NT	1.4 J	NS	0.20
			2,6-DINITROTOLUENE	NT	NT	0.95 J	NS	0.042
			2-AMINO-4,6-DINITROTOLUENE	NT	NT	13 J	NS	30
			4-AMINO-2,6-DINITROTOLUENE	NT	NT	36	NS	30
			ALUMINUM	NT	NT	1300	200	16000
			BARIUM	NT	NT	18	2000	2900
			BETA-BHC	NT	NT	0.069	NS	0.022
			BIS(2-ETHYLHEXYL)PHTHALATE	NT	NT	1.8 B	6.0	4.8
			CADMIUM	NT	NT	1.4	5.0	6.9
			CALCIUM	NT	NT	65000	NS	NS
			COBALT	NT	NT	9.0	NS	4.7
			COPPER	NT	NT	9.1 J	1300	620
			DI-N-BUTYL PHTHALATE	NT	NT	1.1 B	NS	670
			HMX	NT	NT	0.97 J	NS	780
			MAGNESIUM	NT	NT	3100	NS	NS
			MANGANESE	NT	NT	67	50	320
			NICKEL	NT	NT	18	NS	300
			POTASSIUM	NT	NT	3600	NS	NS
			RDX	NT	NT	2.1 J	NS	0.61
			SELENIUM	NT	NT	4.9 J	50	78
			SODIUM	NT	NT	5700	NS	NS
			ZINC	NT	NT	58	5000	4700
	LL1mw-086	Unconsolidated	ACETONE	2.2 JB	1.1 UJ	NT	NS	12000
			ALUMINUM	160	1000	60 U	200	16000
			ANTIMONY	0.28 B	0.9 U	1.0 U	6.0	6.0
			ARSENIC	3.3 J	3.6 J	3.7 J	10	0.045
			BARIUM	45	64	39	2000	2900
			BERYLLIUM	0.16 UJB	0.056 J	1.0 U	4.0	16
			BETA-BHC	0.0095 U	0.0095 J	0.019 U	NS	0.022
			BIS(2-ETHYLHEXYL)PHTHALATE	1.2 J	0.94	1.2 B	6.0	4.8
			CADMIUM	0.74 JB	0.3 UJ	1.0 U	5.0	6.9
			CALCIUM	62000	65000	47000	NS	NS
			CHROMIUM	4 U	0.81 J	4.0 U	100	16000
			COBALT	4 U	0.84 J	4.0 U	NS	4.7
			DI-N-BUTYL PHTHALATE	0.76 U	0.78 U	0.86 B	NS	670
			IRON	2000	3800	600	300	11000
			MAGNESIUM	27000	26000	20000	NS	NS
			MANGANESE	610	600	310	50	320
			MERCURY	0.2 U	0.065 JB	0.20 U	2.0	0.63
			NICKEL	5 U	3.0	5.0 U	NS	300
			POTASSIUM	2600	2700	19000	NS	NS
			SODIUM	5600	5900	16000	NS	NS
			ZINC	20 U	4.5 J	50 U	5000	4700
	LL1mw-087	Unconsolidated	ACETONE	1.4 JB	1.1 UJ	NT	NS	12000
			ALUMINUM	650	5.0 U	60 U	200	16000
			BARIUM	33	30	28	2000	2900
			BIS(2-ETHYLHEXYL)PHTHALATE	0.85	0.94	0.86 B	6.0	4.8
			CALCIUM	91000	97000	99000	NS	NS
			CHROMIUM	1.8 J	2.5 U	4.0 U	100	16000
			COBALT	1.7 J	0.57 J	1.5 J	NS	4.7

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Table 4-2. Summary of Constituents Detected

Area	Well Number	Monitored Zone	Analyte	Oct-12 Level (µg/L)	Jan-13 Level (µg/L)	Aug-13 Level (µg/L)	MCL (µg/L)	USEPA RSLs (µg/L)
Load Line 1	LL1mw-087	Unconsolidated	DIMETHYLPHTHALATE	0.92	0.77 U	0.54 U	NS	NS
			DI-N-BUTYL PHTHALATE	0.76 U	0.77 U	0.84 J	NS	670
			IRON	1200	13 J	100 U	300	11000
			MAGNESIUM	27000	27000	29000	NS	NS
			MANGANESE	170	61	200	50	320
			MERCURY	0.5 U	0.057 B	0.20 U	2.0	0.63
			NICKEL	2.5 J	3.0 U	5.0 U	NS	300
			PERCHLORATE	NT	0.013 J	NT	15	11
			POTASSIUM	1100	1500 U	610 J	NS	NS
			SODIUM	6700	7200	8900	NS	NS
			ZINC	12 B	1.7 JB	50 U	5000	4700
Load Line 2	LL2mw-059	Bedrock	1,3,5-TRINITROBENZENE	NT	1.7	0.28 J	NS	460
			1,3-DINITROBENZENE	NT	0.074 J	0.10 U	NS	1.5
			2,4-DINITROTOLUENE	NT	0.43	0.21	NS	0.20
			2-AMINO-4,6-DINITROTOLUENE	NT	0.61	0.22	NS	30
			4-AMINO-2,6-DINITROTOLUENE	NT	0.58	0.38	NS	30
			ACETONE	NT	1.1 UJ	1.4 B	NS	12000
			ALUMINUM	NT	9.1	60 U	200	16000
			ARSENIC	NT	4.0 J	7.3 J	10	0.045
			BARIUM	NT	27	62	2000	2900
			BIS(2-ETHYLHEXYL)PHTHALATE	NT	0.85	1.4 B	6.0	4.8
			CALCIUM	NT	27000	29000	NS	NS
			COBALT	NT	6.0	14	NS	4.7
			DI-N-BUTYL PHTHALATE	NT	NT	1.5 B	NS	670
			HMX	NT	0.072	0.050 U	NS	780
			IRON	NT	2100 J	5300	300	11000
			MAGNESIUM	NT	10000	11000	NS	NS
			MANGANESE	NT	370	970	50	320
			NICKEL	NT	5.4	8.1	NS	300
			POTASSIUM	NT	750 J	860 J	NS	NS
			SODIUM	NT	3500	4400	NS	NS
			ZINC	NT	1.0 J	50 U	5000	4700
	LL2mw-265	Bedrock	2-AMINO-4,6-DINITROTOLUENE	NT	0.050 J	0.10 U	NS	30
			BARIUM	NT	7.0	11	2000	2900
			BIS(2-ETHYLHEXYL)PHTHALATE	NT	NT	1.5 B	6.0	4.8
			CALCIUM	NT	58000	81000	NS	NS
			COBALT	NT	0.69 J	4.8	NS	4.7
			DI-N-BUTYL PHTHALATE	NT	NT	1.4 B	NS	670
			HMX	NT	0.055	0.051 U	NS	780
			IRON	NT	140 J	2900	300	11000
			MAGNESIUM	NT	13000	24000	NS	NS
			MANGANESE	NT	32	540	50	320
			NICKEL	NT	8.0	12	NS	300
			POTASSIUM	NT	1500 U	710 J	NS	NS
			SODIUM	NT	3500	12000	NS	NS
			ZINC	NT	1.6 J	50 U	5000	4700
	LL2mw-267	Bedrock	2,4,6-TRINITROTOLUENE	NT	NT	0.54	NS	2.2
			2,4-DINITROTOLUENE	NT	NT	0.30	NS	0.20
			2-AMINO-4,6-DINITROTOLUENE	NT	NT	1.8	NS	30
			4-AMINO-2,6-DINITROTOLUENE	NT	NT	1.7	NS	30
			BARIUM	NT	NT	11	2000	2900
			BIS(2-ETHYLHEXYL)PHTHALATE	NT	NT	0.62 B	6.0	4.8
			CALCIUM	NT	NT	32000	NS	NS
			DI-N-BUTYL PHTHALATE	NT	NT	0.81 B	NS	670
			IRON	NT	NT	360	300	11000
			MAGNESIUM	NT	NT	17000	NS	NS
			MANGANESE	NT	NT	490	50	320

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Table 4-2. Summary of Constituents Detected

Area	Well Number	Monitored Zone	Analyte	Oct-12 Level (µg/L)	Jan-13 Level (µg/L)	Aug-13 Level (µg/L)	MCL (µg/L)	USEPA RSLs (µg/L)
Load Line 2	LL2mw-267	Bedrock	NICKEL	NT	NT	3.7 J	NS	300
			POTASSIUM	NT	NT	670 J	NS	NS
			RDX	NT	NT	1.5	NS	0.61
			SODIUM	NT	NT	19000	NS	NS
Load Line 3	LL3mw-238	Bedrock	1,3,5-TRINITROBENZENE	NT	NT	30	NS	460
			2,4,6-TRINITROTOLUENE	NT	NT	79	NS	2.2
			2,6-DINITROTOLUENE	NT	NT	0.52 J	NS	0.042
			2-AMINO-4,6-DINITROTOLUENE	NT	NT	19	NS	30
			4,4'-DDE	NT	NT	0.020 J	NS	0.20
			4-AMINO-2,6-DINITROTOLUENE	NT	NT	37	NS	30
			4-NITROTOLUENE	NT	NT	0.53	NS	3.7
			ALUMINUM	NT	NT	27 J	200	16000
			BARIUM	NT	NT	7.9	2000	2900
			BIS(2-ETHYLHEXYL)PHthalATE	NT	NT	0.39 B	6.0	4.8
			CALCIUM	NT	NT	51000	NS	NS
			ENDRIN ALDEHYDE	NT	NT	0.011 J	NS	NS
			HMX	NT	NT	2.2	NS	780
			MAGNESIUM	NT	NT	5700	NS	NS
			MANGANESE	NT	NT	2.6 B	50	320
			NITROBENZENE	NT	NT	0.17 J	NS	0.12
			POTASSIUM	NT	NT	2800	NS	NS
			RDX	NT	NT	7.2	NS	0.61
			SODIUM	NT	NT	3300	NS	NS
	LL3mw-241	Bedrock	1,3,5-TRINITROBENZENE	NT	13	4.3	NS	460
			2,4,6-TRINITROTOLUENE	NT	7.1	3.3	NS	2.2
			2,6-DINITROTOLUENE	NT	0.10 U	0.083 J	NS	0.042
			2-AMINO-4,6-DINITROTOLUENE	NT	3.0	2.9	NS	30
			4-AMINO-2,6-DINITROTOLUENE	NT	2.9	2.9	NS	30
			ALUMINUM	NT	8.0	60 U	200	16000
			BARIUM	NT	5.0 U	5.9	2000	2900
			BETA-BHC	NT	0.022	0.019 U	NS	0.022
			BIS(2-ETHYLHEXYL)PHthalATE	NT	NT	0.57 B	6.0	4.8
			CALCIUM	NT	17000	19000	NS	NS
			ENDRIN	NT	0.011 U	0.027	2.0	1.7
			HMX	NT	0.40 J	0.39 J	NS	780
			IRON	NT	73 J	100 U	300	11000
			MAGNESIUM	NT	7000	6500	NS	NS
			MANGANESE	NT	2.9	3.0 B	50	320
			NICKEL	NT	3.0 U	2.2 J	NS	300
			POTASSIUM	NT	1500 U	1000	NS	NS
			RDX	NT	1.1 J	0.98	NS	0.61
			SODIUM	NT	2600	3400	NS	NS
			ZINC	NT	1.5 J	50 U	5000	4700
	LL3mw-242	Bedrock	ALUMINUM	NT	8.3	NT	200	16000
			BARIUM	NT	7.1	NT	2000	2900
			CALCIUM	NT	10000	NT	NS	NS
			MAGNESIUM	NT	4800	NT	NS	NS
			MANGANESE	NT	2.0	NT	50	320
			NICKEL	NT	4.3	NT	NS	300
			POTASSIUM	NT	810 J	NT	NS	NS
			SODIUM	NT	8700	NT	NS	NS
	LL3mw-244	Bedrock	ZINC	NT	4.3 J	NT	5000	4700
			2-AMINO-4,6-DINITROTOLUENE	0.55	0.63	0.65	NS	30
			4-AMINO-2,6-DINITROTOLUENE	0.53 J	0.58	0.61	NS	30
			ACETONE	2.0 JB	1.1 UJ	NT	NS	12000
			ANTIMONY	1.2	0.9 U	0.35 J	6.0	6.0
			BARIUM	17	17	17	2000	2900
			BETA-BHC	0.0095 U	0.0083 J	0.025 J	NS	0.022
			BIS(2-ETHYLHEXYL)PHthalATE	0.76 U	1.1	0.46 B	6.0	4.8
			CALCIUM	23000	25000	24000	NS	NS

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Table 4-2. Summary of Constituents Detected

Area	Well Number	Monitored Zone	Analyte	Oct-12 Level (µg/L)	Jan-13 Level (µg/L)	Aug-13 Level (µg/L)	MCL (µg/L)	USEPA RSLs (µg/L)
Load Line 3	LL3mw-244	Bedrock	DI-N-BUTYL PHTHALATE	0.76 U	0.76 U	0.69 J	NS	670
			Hexavalent Chromium	0.173 J	0.143 J	0.361 J	NS	0.031
			HMX	0.051 U	0.056	0.066	NS	780
			MAGNESIUM	8100	8100	8200	NS	NS
			MANGANESE	1.9 J	2.0 U	5.0 U	50	320
			POTASSIUM	1300	1400 J	1300	NS	NS
			RDX	0.33	0.35 J	0.34	NS	0.61
			SODIUM	3700	3800	4000	NS	NS
			ZINC	20 U	1.7 J	50 U	5000	4700
	LL3mw-245	Bedrock	ACETONE	1.2 JB	1.1 UJ	NT	NS	12000
			ALUMINUM	60 U	6.0	NT	200	16000
			ANTIMONY	0.58 J	0.9 U	NT	6.0	6.0
			BARIUM	45	47	NT	2000	2900
			CALCIUM	110000	110000	NT	NS	NS
			CARBON DISULFIDE	0.20 J	1.2 J	NT	NS	720
			IRON	530	580 J	NT	300	11000
			MAGNESIUM	38000	39000	NT	NS	NS
			MANGANESE	33	27	NT	50	320
			POTASSIUM	6800	6800	NT	NS	NS
			SODIUM	21000	23000	NT	NS	NS
			VANADIUM	1.8 UB	3.4 J	NT	NS	63
Load Line 4	LL4mw-199	Unconsolidated	ALUMINUM	NT	7.4	NT	200	16000
			ARSENIC	NT	7.2	NT	10	0.045
			BARIUM	NT	110	NT	2000	2900
			BIS(2-ETHYLHEXYL)PHTHALATE	NT	1.0	NT	6.0	4.8
			CALCIUM	NT	98000	NT	NS	NS
			IRON	NT	1700	NT	300	11000
			MAGNESIUM	NT	24000	NT	NS	NS
			MANGANESE	NT	410	NT	50	320
			POTASSIUM	NT	1500	NT	NS	NS
			SODIUM	NT	8900	NT	NS	NS
			ZINC	NT	2.4 JB	NT	5000	4700
	LL4mw-201	Bedrock	ARSENIC	35	35	NT	10	0.045
			BARIUM	83	80	NT	2000	2900
			BIS(2-ETHYLHEXYL)PHTHALATE	0.76 U	1.1	NT	6.0	4.8
			CALCIUM	98000	92000	NT	NS	NS
			CARBON DISULFIDE	0.17 J	0.61	NT	NS	720
			IRON	1200	920	NT	300	11000
			MAGNESIUM	30000	28000	NT	NS	NS
			MANGANESE	150	140	NT	50	320
			NAPHTHALENE	0.32 J	0.096 U	NT	NS	0.14
			PERCHLORATE	0.026	0.026	NT	15	11
			POTASSIUM	1800	1600	NT	NS	NS
			SODIUM	13000	12000	NT	NS	NS
Load Line 6	LL6mw-002	Unconsolidated	ALUMINUM	NT	44	NT	200	16000
			BARIUM	NT	25	NT	2000	2900
			CALCIUM	NT	140000	NT	NS	NS
			IRON	NT	35	NT	300	11000
			MAGNESIUM	NT	30000	NT	NS	NS
			POTASSIUM	NT	850 J	NT	NS	NS
			SODIUM	NT	4000	NT	NS	NS
			ZINC	NT	1.5 JB	NT	5000	4700
	LL6mw-005	Bedrock	ARSENIC	NT	15	NT	10	0.045
			BARIUM	NT	64	NT	2000	2900
			CALCIUM	NT	79000	NT	NS	NS
			IRON	NT	800	NT	300	11000
			MAGNESIUM	NT	25000	NT	NS	NS
			MANGANESE	NT	530	NT	50	320



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Table 4-2. Summary of Constituents Detected

Area	Well Number	Monitored Zone	Analyte	Oct-12 Level (µg/L)	Jan-13 Level (µg/L)	Aug-13 Level (µg/L)	MCL (µg/L)	USEPA RSLs (µg/L)
Load Line 6	LL6mw-005	Bedrock	POTASSIUM	NT	1100 J	NT	NS	NS
			SODIUM	NT	8500	NT	NS	NS
			VANADIUM	NT	3.0 J	NT	NS	63
			ZINC	NT	22 J	NT	5000	4700
	LL6mw-008	Unconsolidated	ACETONE	1.4 JB	1.1 UJ	NT	NS	12000
			ALUMINUM	23 J	5.0 U	NT	200	16000
			ANTIMONY	0.67 B	0.9 U	NT	6.0	6.0
			BARIUM	22	27	NT	2000	2900
			CALCIUM	110000	130000	NT	NS	NS
			MAGNESIUM	40000	45000	NT	NS	NS
			MANGANESE	800	120	NT	50	320
			POTASSIUM	1200	1200 J	NT	NS	NS
			SODIUM	3300	3500	NT	NS	NS
			VANADIUM	1.3 UB	3.3 J	NT	NS	63
			ZINC	20 U	5.3 JB	NT	5000	4700
			ACETONE	1.2 JB	1.1 UJ	NT	NS	12000
	LL6mw-009	Bedrock	ARSENIC	9.0 J	8.8	NT	10	0.045
			BARIUM	30	37	NT	2000	2900
			BIS(2-ETHYLHEXYL)PHTHALATE	1.9	1.8	NT	6.0	4.8
			CALCIUM	95000	96000	NT	NS	NS
			CARBON DISULFIDE	0.24 J	0.25 U	NT	NS	720
			COBALT	2.9 J	2.8 U	NT	NS	4.7
			IRON	2900	3000	NT	300	11000
			MAGNESIUM	33000	34000	NT	NS	NS
			MANGANESE	600	590	NT	50	320
			NICKEL	5 U	2.1 J	NT	NS	300
			POTASSIUM	1900	1700	NT	NS	NS
			SODIUM	13000	13000	NT	NS	NS
			ZINC	20 U	14 J	NT	5000	4700
			BARIUM	NT	3.6 J	5.0 U	2000	2900
Load Line 10	LL10mw-003	Bedrock	CALCIUM	NT	64000	56000	NS	NS
			CARBON TETRACHLORIDE	NT	4.0	4.2	5.0	0.39
			CHLOROFORM	NT	0.45	0.56	NS	0.19
			MAGNESIUM	NT	20000	17000	NS	NS
			POTASSIUM	NT	1500 U	690 J	NS	NS
			SODIUM	NT	6300	8600	NS	NS
			ZINC	NT	2.3 JB	50 U	5000	4700
			ARSENIC	NT	22	NT	10	0.045
Load Line 11	LL11mw-007	Unconsolidated	BARIUM	NT	82	NT	2000	2900
			BIS(2-ETHYLHEXYL)PHTHALATE	NT	1.2	NT	6.0	4.8
			CALCIUM	NT	89000	NT	NS	NS
			IRON	NT	860	NT	300	11000
			MAGNESIUM	NT	32000	NT	NS	NS
			MANGANESE	NT	210	NT	50	320
			POTASSIUM	NT	1400 J	NT	NS	NS
			SELENIUM	NT	4.1 J	NT	50	78
			SODIUM	NT	12000	NT	NS	NS
			ZINC	NT	1.5 JB	NT	5000	4700
	LL11mw-011	Unconsolidated	ALUMINUM	140	37	NT	200	16000
			ARSENIC	4.3 J	4.2 J	NT	10	0.045
			BARIUM	40	52	NT	2000	2900
			BIS(2-ETHYLHEXYL)PHTHALATE	1.3 B	1.5 JB	NT	6.0	4.8
			CALCIUM	61000	63000	NT	NS	NS
			DIMETHYLPHTHALATE	0.66 J	0.76 U	NT	NS	NS
			IRON	630	470	NT	300	11000
			MAGNESIUM	17000	18000	NT	NS	NS
			MANGANESE	570	340	NT	50	320
			POTASSIUM	1200	1000 J	NT	NS	NS
			SODIUM	12000	9600	NT	NS	NS
			ZINC	20 U	3.5 J	NT	5000	4700

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Table 4-2. Summary of Constituents Detected

Area	Well Number	Monitored Zone	Analyte	Oct-12 Level (µg/L)	Jan-13 Level (µg/L)	Aug-13 Level (µg/L)	MCL (µg/L)	USEPA RSLs (µg/L)
Load Line 11	LL11mw-012	Bedrock	ACETONE	1.1 B	1.1 U	NT	NS	12000
			ALUMINUM	60 U	27	NT	200	16000
			BARIIUM	46	51	NT	2000	2900
			BIS(2-ETHYLHEXYL)PHTHALATE	0.76 U	1.3 B	NT	6.0	4.8
			CALCIUM	87000	88000	NT	NS	NS
			CARBON DISULFIDE	0.63	0.46	NT	NS	720
			CHLOROETHANE	0.48 J	0.5 U	NT	NA	21000
			ENDRIN KETONE	0.014 J	0.01 U	NT	NS	NS
			IRON	280	330 B	NT	300	11000
			MAGNESIUM	21000	22000	NT	NS	NS
			MANGANESE	79	80	NT	50	320
			NAPHTHALENE	0.095 U	0.14	NT	NS	0.14
			PERCHLORATE	NT	0.055	NT	15	11
			POTASSIUM	3100	3000	NT	NS	NS
			SODIUM	13000	12000	NT	NS	NS
			VANADIUM	1.9 U	3.0 J	NT	NS	63
			ZINC	20 U	10 JB	NT	5000	4700
Load Line 12	LL12mw-182	Unconsolidated	BIS(2-ETHYLHEXYL)PHTHALATE	1.0 B	0.76 U	NT	6.0	4.8
			DIMETHYLPHTHALATE	NT	0.36 J	NT	NS	NS
	LL12mw-182ss	Unconsolidated	BIS(2-ETHYLHEXYL)PHTHALATE	1.5 B	1.3	NT	6.0	4.8
			DIMETHYLPHTHALATE	NT	0.41 J	NT	NS	NS
	LL12mw-185	Unconsolidated	BARIIUM	NT	NT	50	2000	2900
			CALCIUM	NT	NT	710000	NS	NS
			COBALT	NT	NT	1.9 J	NS	4.7
			MAGNESIUM	NT	NT	290000	NS	NS
			MANGANESE	NT	NT	1700	50	320
			NICKEL	NT	NT	6.6	NS	300
			NITRATE-NITRITE	NT	100 J	130	1.0	1.6
			POTASSIUM	NT	NT	9200	NS	NS
			SODIUM	NT	NT	56000	NS	NS
	LL12mw-187	Unconsolidated	ACETONE	NT	1.1 JB	1.1 U	NS	12000
			BARIIUM	NT	300	280	2000	2900
			BIS(2-ETHYLHEXYL)PHTHALATE	NT	0.87	0.65 B	6.0	4.8
			CALCIUM	NT	990000	990000	NS	NS
			COBALT	NT	9.7	9.9	NS	4.7
			DIMETHYLPHTHALATE	NT	0.49 J	0.48 U	NS	NS
			DI-N-BUTYL PHTHALATE	NT	NT	0.84 J	NS	670
			IRON	NT	38	100 U	300	11000
			MAGNESIUM	NT	310000	300000	NS	NS
			MANGANESE	NT	2000	2200	50	320
			NICKEL	NT	15	15	NS	300
			NITRATE-NITRITE	NT	1200 J	1200	1.0	1.6
			NITROCELLULOSE	NT	1.9	1.1 J	NS	47000
			POTASSIUM	NT	49000	54000	NS	NS
			SODIUM	NT	37000	33000	NS	NS
			THALLIUM	NT	0.64	1.5 U	2.0	0.16
			VANADIUM	NT	6.1 J	4.0 U	NS	63
			ZINC	NT	7.4 JB	50 U	5000	4700
	LL12mw-242	Unconsolidated	ALUMINUM	NT	190 J	50 J	200	16000
			ARSENIC	NT	13	19	10	0.045
			BARIIUM	NT	29	26	2000	2900
			BIS(2-ETHYLHEXYL)PHTHALATE	NT	0.92	1.2 U	6.0	4.8
			BUTYLBENZYLPHTHALATE	NT	0.76 U	0.35 J	NS	14
			CALCIUM	NT	73000	71000	NS	NS
			DIMETHYLPHTHALATE	NT	0.56 J	0.48 U	NS	NS
			DI-N-BUTYL PHTHALATE	NT	NT	1.4	NS	670
			IRON	NT	720	660	300	11000

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Table 4-2. Summary of Constituents Detected

Area	Well Number	Monitored Zone	Analyte	Oct-12 Level (µg/L)	Jan-13 Level (µg/L)	Aug-13 Level (µg/L)	MCL (µg/L)	USEPA RSLs (µg/L)
Load Line 12	LL12mw-242	Unconsolidated	MAGNESIUM	NT	48000	48000	NS	NS
			MANGANESE	NT	66	61	50	320
			NITRATE-NITRITE	NT	0.064 J	0.024	1.0	1.6
			POTASSIUM	NT	1700	1900	NS	NS
			SODIUM	NT	36000	39000	NS	NS
			ZINC	NT	2.4 JB	50 U	5000	4700
	LL12mw-245	Unconsolidated	ALUMINUM	NT	1600 J	60 U	200	16000
			ARSENIC	NT	8.8	10 U	10	0.045
			BARIUM	NT	35	28	2000	2900
			BERYLLIUM	NT	0.072 J	1.0 U	4.0	16
			BETA-BHC	NT	0.0099 U	0.011 J	NS	0.022
			BIS(2-ETHYLHEXYL)PHTHALATE	NT	NT	0.68 B	6.0	4.8
			CALCIUM	NT	150000	160000	NS	NS
			CHROMIUM	NT	2.3 J	4.0 U	100	16000
			COBALT	NT	4.1	1.6 J	NS	4.7
			COPPER	NT	3.2 J	10 U	1300	620
			IRON	NT	4800	110	300	11000
			MAGNESIUM	NT	73000	73000	NS	NS
			MANGANESE	NT	220	190	50	320
			NICKEL	NT	5.7	7.4	NS	300
			NITRATE-NITRITE <sup>1</sup>	NT	0.074 J	0.11	1.0	1.6
			POTASSIUM	NT	3200	3500	NS	NS
			SODIUM	NT	25000	26000	NS	NS
			THALLIUM	NT	0.20 U	1.1 J	2.0	0.16
			VANADIUM	NT	3.3 J	4.0 U	NS	63
			ZINC	NT	13 J	50 U	5000	4700
	LL12mw-246	Unconsolidated	ANTIMONY	NT	1.4	NT	6.0	6.0
			ARSENIC	NT	42	NT	10	0.045
			BARIUM	NT	39	NT	2000	2900
			CALCIUM	NT	110000	NT	NS	NS
			IRON	NT	1600	NT	300	11000
			MAGNESIUM	NT	54000	NT	NS	NS
			MANGANESE	NT	81	NT	50	320
			MERCURY	NT	0.059 B	NT	2.0	0.63
			NITRATE-NITRITE <sup>1</sup>	NT	0.052 J	NT	1.0	1.6
			POTASSIUM	NT	5100	NT	NS	NS
			SELENIUM	NT	3.9 J	NT	50	78
			SODIUM	NT	30000	NT	NS	NS
			VANADIUM	NT	2.1 J	NT	NS	63
			ZINC	NT	1.5 JB	NT	5000	4700
	LL12mw-247	Unconsolidated	ALUMINUM	3100	2.9 J	160 J	200	16000
			ARSENIC	11	7.1	6.3 J	10	0.045
			BARIUM	45	29	27	2000	2900
			BETA-BHC	0.011 U	0.0098 U	0.18 J	NS	0.022
			BIS(2-ETHYLHEXYL)PHTHALATE	0.87 U	0.81 J	0.55 B	6.0	4.8
			CALCIUM	100000	100000	100000	NS	NS
			CHROMIUM	4.9	2.5 U	4.0 U	100	16000
			COBALT	2.7 J	0.55 J	4.0 U	NS	4.7
			DI-N-BUTYL PHTHALATE	0.87 U	0.76 U	0.67 J	NS	670
			IRON	6200	450	170	300	11000
			MAGNESIUM	53000	56000	54000	NS	NS
			MANGANESE	260	180	280	50	320
			NICKEL	5.6	3.0 U	5.0 U	NS	300
			NITRATE-NITRITE <sup>1</sup>	0.033 JB	0.075 J	0.024	1.0	1.6
			POTASSIUM	4300	2200	2700	NS	NS
			SODIUM	22000	24000	24000	NS	NS
			VANADIUM	6.3 U	3.5 J	4.0 U	NS	63
			ZINC	24 B	1.5 JB	50 U	5000	4700
NACA Test Area	NTAmw-109	Unconsolidated	ALUMINUM	NT	38	NT	200	16000
			BARIUM	NT	28	NT	2000	2900
			BIS(2-ETHYLHEXYL)PHTHALATE	NT	1.4 B	NT	6.0	4.8
			CALCIUM	NT	6800	NT	NS	NS

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Table 4-2. Summary of Constituents Detected

Area	Well Number	Monitored Zone	Analyte	Oct-12 Level (µg/L)	Jan-13 Level (µg/L)	Aug-13 Level (µg/L)	MCL (µg/L)	USEPA RSLs (µg/L)
NACA Test Area	NTAmw-109	Unconsolidated	CHROMIUM	NT	3.8	NT	100	16000
			IRON	NT	560	NT	300	11000
			MAGNESIUM	NT	4200	NT	NS	NS
			MANGANESE	NT	21	NT	50	320
			NICKEL	NT	2.3 J	NT	NS	300
			POTASSIUM	NT	1100 J	NT	NS	NS
			SODIUM	NT	1700	NT	NS	NS
			ZINC	NT	7.7 J	NT	5000	4700
	NTAmw-119	Unconsolidated	ACETONE	2.2 B	1.1 UJ	1.1 U	NS	12000
			ALUMINUM	60 U	3.7 J	0.11	200	16000
			BARIUM	76	80	86	2000	2900
			BIS(2-ETHYLHEXYL)PHTHALATE	0.76 U	0.99 JB	0.42 B	6.0	4.8
			CALCIUM	82000	80000	83000	NS	NS
			CARBON DISULFIDE	1.2	0.64	0.25	NS	720
			DI-N-BUTYL PHTHALATE	0.76 U	0.82 U	0.72 B	NS	670
			IRON	2300	1800	1500	300	11000
			MAGNESIUM	21000	21000	22000	NS	NS
			MANGANESE	310	320	340	50	320
			NAPHTHALENE	0.26	0.13	0.11	NS	0.14
			NITROCELLULOSE <sup>1</sup>	1.0 U	1.0 U	1.8	NS	47000
			POTASSIUM	1700	1500	1300	NS	NS
			SODIUM	7000	6800	7200	NS	NS
			ZINC	20 U	7.0 J	50 U	5000	4700
Ramsdell Quarry Landfill	RQLmw-006	Bedrock	ACETONE	NT	NT	3.4 JB	NS	12000
			ARSENIC	NT	NT	13	10	0.045
			BARIUM	NT	NT	7.9	2000	2900
			BETA-BHC	NT	NT	0.013 JB	NS	0.022
			BIS(2-ETHYLHEXYL)PHTHALATE	NT	NT	0.51 B	6.0	4.8
			CALCIUM	NT	NT	62000	NS	NS
			CARBON DISULFIDE	NT	NT	0.16 B	NS	720
			COBALT	NT	NT	9.2	NS	4.7
			IRON	NT	NT	54000	300	11000
			MAGNESIUM	NT	NT	28000	NS	NS
			MANGANESE	NT	NT	6800	50	320
			NICKEL	NT	NT	19	NS	300
			POTASSIUM	NT	NT	1000	NS	NS
	RQLmw-007	Bedrock	1,2-DICHLOROETHENE (TOTAL)	NT	0.5 U	0.18 J	7.0	260
			ACETONE	NT	1.1 UJ	1.2 JB	NS	12000
			ALUMINUM	NT	5.8 J	60 U	200	16000
			ANTIMONY	NT	1.2	1.0 U	6.0	6.0
			ARSENIC	NT	9.7	55	10	0.045
			BARIUM	NT	33	53	2000	2900
			BIS(2-ETHYLHEXYL)PHTHALATE	NT	1.0	0.46 J	6.0	4.8
			CADMIUM	NT	0.59 J	1.0 U	5.0	6.9
			CALCIUM	NT	94000	110000	NS	NS
			CIS-1,2-DICHLOROETHENE	NT	0.25 U	0.18 J	70	28
			COBALT	NT	7.0	7.1	NS	4.7
			CYANIDE <sup>1</sup>	NT	0.010 U	0.0080 J	0.20	0.0014
			DI-N-BUTYL PHTHALATE	NT	0.76 U	0.78 J	NS	670
			IRON	NT	840 J	13000	300	11000
			MAGNESIUM	NT	100000	100000	NS	NS
			MANGANESE	NT	1500	2100	50	320
			NICKEL	NT	17	14	NS	300
			POTASSIUM	NT	4400	7400	NS	NS
			SODIUM	NT	3700	5200	NS	NS
			THALLIUM	NT	0.15 J	1.5 U	2.0	0.16
			VANADIUM	NT	4.8 J	4.0 U	NS	63
			ZINC	NT	62 J	50 U	5000	4700
	RQLmw-008	Bedrock	2,6-DINITROTOLUENE	NT	0.10 U	0.14 J	NS	0.042
			4,4'-DDE	NT	0.0095 U	0.038 J	NS	0.20
			4-NITROTOLUENE	NT	0.10 U	0.12	NS	3.7
			ACENAPHTHENE	NT	0.11	0.095 U	NS	400

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Table 4-2. Summary of Constituents Detected

Area	Well Number	Monitored Zone	Analyte	Oct-12 Level (µg/L)	Jan-13 Level (µg/L)	Aug-13 Level (µg/L)	MCL (µg/L)	USEPA RSLs (µg/L)
Ramsdell Quarry Landfill	RQLmw-008	Bedrock	ACETONE	NT	1.1 UJ	2.3 JB	NS	12000
			ARSENIC	NT	12	38	10	0.045
			BARIUM	NT	84	140	2000	2900
			BETA-BHC	NT	0.0095 U	0.0093 JB	NS	0.022
			BIS(2-ETHYLHEXYL)PHTHALATE	NT	1.4 J	0.48 U	6.0	4.8
			CALCIUM	NT	53000	71000	NS	NS
			COBALT	NT	3.8	1.5 J	NS	4.7
			FLUORENE	NT	0.13	0.19	NS	220
			IRON	NT	55000 J	89000	300	11000
			MAGNESIUM	NT	68000	71000	NS	NS
			MANGANESE	NT	690	660	50	320
			MERCURY	NT	0.054 JB	0.20 U	2.0	0.63
			NICKEL	NT	6.9	2.9 J	NS	300
			NITROGLYCERIN	NT	0.51 UJ	0.67	NS	1.5
			POTASSIUM	NT	2700	4500	NS	NS
			SODIUM	NT	4100	6600 B	NS	NS
			THALLIUM	NT	0.2 U	1.2 J	2.0	0.16
			VANADIUM	NT	4.1 J	4.0 U	NS	63
			ZINC	NT	11 J	50 U	5000	4700
	RQLmw-009	Bedrock	ACETONE	NT	1.1 UJ	3.2 JB	NS	12000
			ALUMINUM	NT	13	60 U	200	16000
			ANTIMONY	NT	1.0	1.0 U	6.0	6.0
			ARSENIC	NT	14	43	10	0.045
			BARIUM	NT	29	53	2000	2900
			BIS(2-ETHYLHEXYL)PHTHALATE	NT	0.76 U	0.37 B	6.0	4.8
			CALCIUM	NT	27000	30000	NS	NS
			COBALT	NT	2.3 J	6.0	NS	4.7
			IRON	NT	5100 J	13000	300	11000
			MAGNESIUM	NT	23000	39000	NS	NS
			MANGANESE	NT	890	1500	50	320
			NICKEL	NT	2.6 J	6.8	NS	300
			POTASSIUM	NT	2800	4200	NS	NS
			SODIUM	NT	1800	1700 B	NS	NS
			ZINC	NT	4.1 J	50 U	5000	4700
	RQLmw-010	Bedrock	ACETONE	NT	NT	2.5 JB	NS	12000
			BIS(2-ETHYLHEXYL)PHTHALATE	NT	NT	0.63	6.0	4.8
			CALCIUM	NT	NT	76000	NS	NS
			CALCIUM	NT	NT	76000	NS	NS
			DI-N-BUTYL PHTHALATE	NT	NT	1.0	NS	670
			MAGNESIUM	NT	NT	35000	NS	NS
			MANGANESE	NT	NT	1300	50	320
			NICKEL	NT	NT	5.4	NS	300
			PERCHLORATE	NT	NT	0.018 B	15	11
			POTASSIUM	NT	NT	2800	NS	NS
	RQLmw-011	Bedrock	SODIUM	NT	NT	4000	NS	NS
			ALUMINUM	NT	NT	2500	200	16000
			BARIUM	NT	NT	21	2000	2900
			BIS(2-ETHYLHEXYL)PHTHALATE	NT	NT	0.22 B	6.0	4.8
			CALCIUM	NT	NT	26000	NS	NS
			COBALT	NT	NT	25	NS	4.7
			IRON	NT	NT	4700	300	11000
			LEAD	NT	NT	2.3 J	15	NS
			MAGNESIUM	NT	NT	11000	NS	NS
			MANGANESE	NT	NT	2300	50	320
			NICKEL	NT	NT	61	NS	300
			POTASSIUM	NT	NT	4300	NS	NS
			SODIUM	NT	NT	1800 B	NS	NS
			THALLIUM	NT	NT	1.7	2.0	0.16
			ZINC	NT	NT	35 J	5000	4700

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Table 4-2. Summary of Constituents Detected

Area	Well Number	Monitored Zone	Analyte	Oct-12 Level (µg/L)	Jan-13 Level (µg/L)	Aug-13 Level (µg/L)	MCL (µg/L)	USEPA RSLs (µg/L)
Sharon Conglomerate	SCFmw-002	Bedrock	ALUMINUM	NT	3.4 J	60 U	200	16000
			ARSENIC	NT	14	15	10	0.045
			BARIIUM	NT	41	42	2000	2900
			BETA-BHC	NT	0.0095 U	0.014 J	NS	0.022
			BIS(2-ETHYLHEXYL)PHTHALATE	NT	1.7 J	0.53 B	6.0	4.8
			CALCIUM	NT	83000	84000	NS	NS
			IRON	NT	310	340	300	11000
			MAGNESIUM	NT	28000	27000	NS	NS
			MANGANESE	NT	64	70	50	320
			MERCURY	NT	0.043 J	0.20 U	2.0	0.63
			NITRATE-NITRITE <sup>1</sup>	NT	0.0090 J	NT	1.0	1.6
			POTASSIUM	NT	2300	2300	NS	NS
			SODIUM	NT	20000	22000	NS	NS
			ZINC	NT	14 J	50 U	5000	4700
	SCFmw-004	Bedrock	BARIIUM	NT	96	83 J	2000	2900
			BETA-BHC	NT	0.0099 U	0.0087 J	NS	0.022
			BIS(2-ETHYLHEXYL)PHTHALATE	NT	1.3 J	0.95 B	6.0	4.8
			CALCIUM	NT	130000	150000 J	NS	NS
			CARBON DISULFIDE	NT	0.34	NT	NS	720
			DI-N-BUTYL PHTHALATE	NT	NT	0.84 J	NS	670
			IRON	NT	80	100 U	300	11000
			MAGNESIUM	NT	56000	60000 J	NS	NS
			MANGANESE	NT	720	740 J	50	320
			POTASSIUM	NT	2200	2700	NS	NS
			SODIUM	NT	8200	11000 J	NS	NS
			VANADIUM	NT	4.5 J	4.0 U	NS	63
Winklepeck Burning Grounds	WBGmw-006	Unconsolidated	BARIIUM	NT	20	23	2000	2900
			BIS(2-ETHYLHEXYL)PHTHALATE	NT	2.6 J	0.74 B	6.0	4.8
			CALCIUM	NT	69000	71000	NS	NS
			HMX	NT	6.2	5.6	NS	780
			MAGNESIUM	NT	24000	24000	NS	NS
			MANGANESE	NT	22	65	50	320
			POTASSIUM	NT	820 J	820 J	NS	NS
			RDX	NT	19	15	NS	0.61
			SODIUM	NT	5700	6300	NS	NS
			ZINC	NT	1.2 J	50 U	5000	4700
	WBGmw-007	Unconsolidated	BARIIUM	NT	12	NT	2000	2900
			BIS(2-ETHYLHEXYL)PHTHALATE	NT	0.93 J	NT	6.0	4.8
			CALCIUM	NT	59000	NT	NS	NS
			MAGNESIUM	NT	12000	NT	NS	NS
			MANGANESE	NT	1.4 J	NT	50	320
			POTASSIUM	NT	960 J	NT	NS	NS
			SODIUM	NT	2400	NT	NS	NS
			VANADIUM	NT	2.7 J	NT	NS	63
	WBGmw-009	Unconsolidated	ALUMINUM	NT	40	23 U	200	16000
			BARIIUM	NT	12	8.3	2000	2900
			BIS(2-ETHYLHEXYL)PHTHALATE	NT	2.0 J	0.64 JB	6.0	4.8
			CALCIUM	NT	64000	29000	NS	NS
			DI-N-BUTYL PHTHALATE	NT	NT	0.75 B	NS	670
			HMX	NT	1.1	1.2	NS	780
			IRON	NT	100 J	100 U	300	11000
			MAGNESIUM	NT	19000	8900	NS	NS
			MANGANESE	NT	23	17	50	320
			POTASSIUM	NT	1500 U	370 J	NS	NS
			RDX	NT	3.4	3.5	NS	0.61
			SODIUM	NT	3600	3500	NS	NS
			THALLIUM	NT	0.20 U	1.0 J	2.0	0.16
			ZINC	NT	2.6 J	50 U	5000	4700

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**Table 4-2. Summary of Constituents Detected**

Area	Well Number	Monitored Zone	Analyte	Oct-12 Level (µg/L)	Jan-13 Level (µg/L)	Aug-13 Level (µg/L)	MCL (µg/L)	USEPA RSLs (µg/L)
Winklepeck Burning Grounds	WBGmw-018	Unconsolidated	ACETONE	1.1 JB	1.1 UJ	1.1 U	NS	12000
			BARIUM	24	16	20	2000	2900
			BIS(2-ETHYLHEXYL)PHTHALATE	0.95 J	1.1 JB	0.31 B	6.0	4.8
			CALCIUM	16000	14000	15000	NS	NS
			HMX	0.27	0.067	0.14	NS	780
			MAGNESIUM	3700	3100	3400	NS	NS
			MANGANESE	8.8	2.0 U	5.0 U	50	320
			PERCHLORATE	NT	0.061	NT	15	11
			POTASSIUM	1000	850 J	1000	NS	NS
			RDX	0.55 J	0.099	0.35	NS	0.61
			SODIUM	1700	1200	1800	NS	NS
	WBGmw-019	Bedrock	ARSENIC	4.5 J	5.0 U	10 U	10	0.045
			BARIUM	59	59	62	2000	2900
			BETA-BHC	0.0095 U	0.0095 U	0.011 J	NS	0.022
			BIS(2-ETHYLHEXYL)PHTHALATE	0.76 U	0.89 JB	0.49 B	6.0	4.8
			CALCIUM	80000	75000	77000	NS	NS
			DI-N-BUTYL PHTHALATE	0.76 U	0.76 U	0.84	NS	670
			IRON	480	430	430	300	11000
			MAGNESIUM	23000	21000	22000	NS	NS
			MANGANESE	240	230	250	50	320
			POTASSIUM	1900	1600	1800	NS	NS
			SODIUM	7900	7400	8300	NS	NS
			ZINC	20 U	2.7 J	50 U	5000	4700
	WBGmw-020	Bedrock	ALUMINUM	60 U	4.0 J	60 U	200	16000
			ANTIMONY	0.5 U	0.75 J	1.0 U	6.0	6.0
			BARIUM	16	16	17	2000	2900
			BIS(2-ETHYLHEXYL)PHTHALATE	0.88	0.97 JB	0.54 B	6.0	4.8
			CALCIUM	31000	30000	31000	NS	NS
			DIMETHYLPHTHALATE	0.53 J	0.76 U	0.49 U	NS	NS
			DI-N-BUTYL PHTHALATE	0.76 U	0.81 U	0.76	NS	670
			IRON	4100	4000 J	4000	300	11000
			MAGNESIUM	10000	9800	11000	NS	NS
			MANGANESE	370	350	330	50	320
			NICKEL	2.2 J	2.3 J	3.6 J	NS	300
	WBGmw-021	Bedrock	POTASSIUM	670 J	1500 U	590 J	NS	NS
			SODIUM	3600	3400	4000	NS	NS
			ZINC	20 U	2.1 J	50 U	5000	4700
			ALUMINUM	60 U	3.9 J	60 U	200	16000
			ARSENIC	6.2 J	5.6	6.5 J	10	0.045
			BARIUM	56	56	62	2000	2900
			BIS(2-ETHYLHEXYL)PHTHALATE	0.81	2.5 JB	0.65 B	6.0	4.8
			CALCIUM	73000	74000	74000	NS	NS
			DI-N-BUTYL PHTHALATE	0.76 U	0.76 U	0.68 B	NS	670
			IRON	490	310	570	300	11000
			MAGNESIUM	19000	19000	19000	NS	NS
			MANGANESE	220	270	240	50	320
			POTASSIUM	1300	1300 J	1200	NS	NS
			SODIUM	4600	4500	5100	NS	NS

**Notes:**

**BOLD** = detected above the minimum detection limit.

All inorganics are filtered; all organics are not filtered.

µg/L = micrograms per liter

RSL = USEPA Regional Screening Level, revised November 2013

1 = results for cyanide and nitrate/nitrite, as well as the corresponding MCLs and RSLs, are in milligrams per liter (mg/L)

2 = Picocuries per liter (pCi/L) is a unit for measuring radioactive concentrations and reported in units of radioactivity. The curie (Ci) unit is the activity of 1 gram of radiological material with a +/- factor.

NT = not tested

NS = no standard

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

J = Results have been qualified "J" estimated result. For more details refer to Data Verification/Validation Reports in the FWGWMP Sampling Reports.

B = organic or inorganic analysis when the analyte is found in the method blank or any of the field blanks.

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Table 4-3. Exceedances of MCLs and RSLs

Area	Well Number	Monitored Zone	Analyte	Oct-12 Level (µg/L)	Jan-13 Level (µg/L)	Aug-13 Level (µg/L)	MCL (µg/L)	USEPA RSLs (µg/L)
Building 1200	B12mw-013	Bedrock	MANGANESE	780	22	NT	50	320
Central Burn Pits	CBPmw-002	Unconsolidated	ARSENIC	NT	21	NT	10	0.045
			IRON	NT	1700	NT	300	11000
			MANGANESE	NT	75	NT	50	320
	CBPmw-009	Bedrock	ARSENIC	3.4 J	5 U	NT	10	0.045
			IRON	650	820	NT	300	11000
			MANGANESE	98	93	NT	50	320
Demolition Area #2	DA2mw-108	Unconsolidated	IRON	NT	2100	NT	300	11000
			MANGANESE	NT	390	NT	50	320
	DA2mw-114	Bedrock	IRON	1000	540	920	300	11000
			MANGANESE	82	76	82	50	320
	DA2mw-115	Bedrock	IRON	570	680	720	300	11000
			MANGANESE	110	110	110	50	320
	DETmw-001	Unconsolidated	ARSENIC	NT	NT	26	10	0.045
			IRON	NT	NT	900	300	11000
	DETmw-003	Unconsolidated	MANGANESE	NT	NT	390	50	320
			MANGANESE	NT	NT	56	50	320
			ARSENIC	NT	10	12	10	0.045
			BENZO(A)ANTHRACENE	NT	0.095 U	0.15	NS	0.029
			BENZO(A)PYRENE	NT	0.095 U	0.12	0.2	0.0029
			BENZO(B)FLUORANTHENE	NT	0.095 U	0.12	NS	0.029
	DETmw-004	Unconsolidated	IRON	NT	1300	1400	300	11000
			MANGANESE	NT	250	250	50	320
Erie Burning Grounds	EBGmw-125	Unconsolidated	RDX	NT	6.1	2.3	NS	0.61
			ARSENIC	NT	13	NT	10	0.045
			IRON	NT	5100 J	NT	300	11000
	EBGmw-131	Bedrock	MANGANESE	NT	540	NT	50	320
			IRON	650	710 J	730	300	11000
Fuze & Booster Quarry	FBQmw-174	Bedrock	MANGANESE	130	140	150	50	320
Facility-Wide	FWGmw-002	Unconsolidated	2,4,6-TRINITROTOLUENE	NT	NT	18	NS	2.2
			2,4-DINITROTOLUENE	NT	NT	0.45	NS	0.20
			IRON	640	110	NT	300	11000
	FWGmw-003	Unconsolidated	MANGANESE	140	100	NT	50	320
			NAPHTHALENE	0.1 UJ	0.20	NT	NS	0.14
			ALUMINUM	1600	42	NT	200	16000
			ARSENIC	5.3 J	5 U	NT	10	0.045
	FWGmw-004	Unconsolidated	IRON	2300	150	NT	300	11000
			MANGANESE	600	520	NT	50	320
			ALUMINUM	3200	4.2 J	60 U	200	16000
			CYANIDE	0.0064 J	0.01 U	0.010 U	0.20	0.0014
	FWGmw-005	Bedrock	IRON	4000	20 U	100 U	300	11000
			MANGANESE	75	1.7 J	2.4 B	50	320
			IRON	3600	3000	NT	300	11000
	FWGmw-006	Unconsolidated	MANGANESE	350	280	NT	50	320
			ARSENIC	5.1 J	2.9 J	NT	10	0.045
			IRON	18000	13000	NT	300	11000
			MANGANESE	2000	1300	NT	50	320
	FWGmw-007	Unconsolidated	ALUMINUM	4600	140	60 U	200	16000
			ARSENIC	6.9 J	5 U	10 U	10	0.045
			IRON	8100	410	100 U	300	11000
			MANGANESE	310	92	47	50	320
	FWGmw-008	Unconsolidated	ALUMINUM	290	5 U	NT	200	16000
			ARSENIC	7.5 J	5.8	NT	10	0.045
			IRON	1100	520	NT	300	11000
			MANGANESE	690	620	NT	50	320



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Table 4-3. Exceedances of MCLs and RSLs

Area	Well Number	Monitored Zone	Analyte	Oct-12 Level (µg/L)	Jan-13 Level (µg/L)	Aug-13 Level (µg/L)	MCL (µg/L)	USEPA RSLs (µg/L)
Facility-Wide	FWGmw-009	Unconsolidated	ALUMINUM	980	NT	60 B	200	16000
			ARSENIC	11	NT	9.8 J	10	0.045
			IRON	2700	NT	910	300	11000
			MANGANESE	200	NT	180	50	320
	FWGmw-010	Unconsolidated	ARSENIC	11	15	NT	10	0.045
			BIS(2-ETHYLHEXYL)PHTHALATE	40	0.78 U	NT	6.0	4.8
			COBALT	15	23	NT	NS	4.7
			IRON	35000	29000 J	NT	300	11000
	FWGmw-011	Unconsolidated	MANGANESE	1700	970	NT	50	320
			ALUMINUM	220	12	60 U	200	16000
			ARSENIC	4.4 J	3.3 J	10 U	10	0.045
			BIS(2-ETHYLHEXYL)PHTHALATE	1.1 B	0.82	13	6.0	4.8
	FWGmw-012	Bedrock	IRON	700	1300 J	1900	300	11000
			MANGANESE	250	290	270	50	320
			3,3'-DICHLOROBENZIDINE	0.76 JB	0.81 U	NM	NS	0.11
			IRON	2300	2700 J	2100	300	11000
	FWGmw-013	Bedrock	MANGANESE	110	95	110	50	320
			CYANIDE <sup>1</sup>	0.0071 J	0.01 U	NT	0.20	0.0014
	FWGmw-014	Unconsolidated	MANGANESE	520	560	NT	50	320
			MANGANESE	210	130	NT	50	320
	FWGmw-015	Unconsolidated	ARSENIC	6.4 J	5 U	10 U	10	0.045
			MANGANESE	860	240	940	50	320
	FWGmw-016	Bedrock	ARSENIC	6.2 J	4.4 J	4.3 J	10	0.045
			IRON	590	530 B	600	300	11000
			MANGANESE	200	210	210	50	320
			IRON	NT	NT	580	300	11000
Load Line 1	LL1mw-064	Unconsolidated	MANGANESE	NT	NT	130	50	320
			MANGANESE	NT	110	200	50	320
	LL1mw-083	Bedrock	2,4,6-TRINITROTOLUENE	NT	NT	4.5 J	NS	2.2
			2,4-DINITROTOLUENE	NT	NT	2.9 J	NS	0.20
			2,6-DINITROTOLUENE	NT	NT	1.5 J	NS	0.042
			ALUMINUM	NT	NT	640	200	16000
			COBALT	NT	NT	7.1	NS	4.7
			MANGANESE	NT	NT	410	50	320
	LL1mw-084	Bedrock	2,4,6-TRINITROTOLUENE	NT	NT	12 J	NS	2.2
			2,4-DINITROTOLUENE	NT	NT	1.4 J	NS	0.20
			2,6-DINITROTOLUENE	NT	NT	0.95 J	NS	0.042
			4-AMINO-2,6-DINITROTOLUENE	NT	NT	36	NS	30
			ALUMINUM	NT	NT	1300	200	16000
			BETA-BHC	NT	NT	0.069	NS	0.022
			COBALT	NT	NT	9.0	NS	4.7
			MANGANESE	NT	NT	67	50	320
	LL1mw-086	Unconsolidated	RDX	NT	NT	2.1 J	NS	0.61
			ARSENIC	3.3 J	3.6 J	3.7 J	10	0.045
			IRON	2000	3800	600	300	11000
	LL1mw-087	Unconsolidated	MANGANESE	610	600	310	50	320
			ALUMINUM	650	5 U	60 U	200	16000
			IRON	1200	13 J	100 U	300	11000
			MANGANESE	170	61	200	50	320
Load Line 2	LL2mw-059	Bedrock	2,4-DINITROTOLUENE	NT	0.43	0.21	NS	0.20
			ARSENIC	NT	4.0 J	7.3 J	10	0.045
			COBALT	NT	6.0	14	NS	4.7
			IRON	NT	2100 J	5300	300	11000
	LL2mw-265	Bedrock	MANGANESE	NT	370	970	50	320
			COBALT	NT	0.69 J	4.8	NS	4.7
			IRON	NT	140 J	2900	300	11000
			MANGANESE	NT	32	540	50	320

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Table 4-3. Exceedances of MCLs and RSLs

Area	Well Number	Monitored Zone	Analyte	Oct-12 Level (µg/L)	Jan-13 Level (µg/L)	Aug-13 Level (µg/L)	MCL (µg/L)	USEPA RSLs (µg/L)
Load Line 2	LL2mw-267	Bedrock	2,4-DINITROTOLUENE	NT	NT	0.30	NS	0.20
			IRON	NT	NT	360	300	11000
			MANGANESE	NT	NT	490	50	320
			RDX	NT	NT	1.5	NS	0.61
Load Line 3	LL3mw-238	Bedrock	2,4,6-TRINITROTOLUENE	NT	NT	79	NS	2.2
			2,6-DINITROTOLUENE	NT	NT	0.52 J	NS	0.042
			4-AMINO-2,6-DINITROTOLUENE	NT	NT	37	NS	30
			NITROBENZENE	NT	NT	0.17 J	NS	0.12
			RDX	NT	NT	7.2	NS	0.61
			2,4,6-TRINITROTOLUENE	NT	7.1	3.3	NS	2.2
	LL3mw-241	Bedrock	2,6-DINITROTOLUENE	NT	0.10 U	0.083 J	NS	0.042
			BETA-BHC	NT	0.022	0.019 U	NS	0.022
			RDX	NT	1.1 J	0.98	NS	0.61
			HEXAVALENT CHROMIUM	0.173 J	0.143 J	0.361 J	NS	0.031
	LL3mw-244	Bedrock	BETA-BHC	0.0095 U	0.0083 J	0.025 J	NS	0.022
			IRON	530	580 J	NT	300	11000
Load Line 4	LL4mw-199	Unconsolidated	ARSENIC	NT	7.2	NT	10	0.045
			IRON	NT	1700	NT	300	11000
			MANGANESE	NT	410	NT	50	320
	LL4mw-201	Bedrock	ARSENIC	35	35	NT	10	0.045
			IRON	1200	920	NT	300	11000
			MANGANESE	150	140	NT	50	320
			NAPHTHALENE	0.32 J	0.096 U	NT	NS	0.14
			ARSENIC	NT	15	NT	10	0.045
Load Line 6	LL6mw-005	Bedrock	IRON	NT	800	NT	300	11000
			MANGANESE	NT	530	NT	50	320
			MANGANESE	800	120	NT	50	320
	LL6mw-008	Unconsolidated	ARSENIC	9.0 J	8.8	NT	10	0.045
			IRON	2900	3000	NT	300	11000
			MANGANESE	600	590	NT	50	320
Load Line 10	LL10mw-003	Bedrock	CARBON TETRACHLORIDE	NT	4.0	4.2	5.0	0.39
			CHLOROFORM	NT	0.45	0.56	NS	0.19
Load Line 11	LL11mw-007	Unconsolidated	ARSENIC	NT	22	NT	10	0.045
			IRON	NT	860	NT	300	11000
			MANGANESE	NT	210	NT	50	320
	LL11mw-011	Unconsolidated	ARSENIC	4.3 J	4.2 J	NT	10	0.045
			IRON	630	470	NT	300	11000
			MANGANESE	570	340	NT	50	320
	LL11mw-012	Bedrock	IRON	280	330 B	NT	300	11000
			MANGANESE	79	80	NT	50	320
			NAPHTHALENE	0.095 U	0.14	NT	NS	0.14
Load Line 12	LL12mw-185	Unconsolidated	MANGANESE	NT	NT	1700	50	320
			NITRATE-NITRITE <sup>1</sup>	NT	100 J	130	1.0	1.6
	LL12mw-187	Unconsolidated	COBALT	NT	9.7	9.9	NS	4.7
			MANGANESE	NT	2000	2200	50	320
			NITRATE-NITRITE <sup>1</sup>	NT	1200 J	1200	1.0	1.6
			THALLIUM	NT	0.64	1.5 U	2.0	0.16
	LL12mw-242	Unconsolidated	ARSENIC	NT	13	19	10	0.045
			IRON	NT	720	660	300	11000
			MANGANESE	NT	66	61	50	320
	LL12mw-245	Unconsolidated	ALUMINUM	NT	1600 J	60 U	200	16000
			ARSENIC	NT	8.8	10 U	10	0.045
			IRON	NT	4800	110	300	11000
			MANGANESE	NT	220	190	50	320
			THALLIUM	NT	0.20 U	1.1 J	2.0	0.16
	LL12mw-246	Unconsolidated	ARSENIC	NT	42	NT	10	0.045
			IRON	NT	1600	NT	300	11000
			MANGANESE	NT	81	NT	50	320

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**Table 4-3. Exceedances of MCLs and RSLs**

Area	Well Number	Monitored Zone	Analyte	Oct-12 Level (µg/L)	Jan-13 Level (µg/L)	Aug-13 Level (µg/L)	MCL (µg/L)	USEPA RSLs (µg/L)
Load Line 12	LL12mw-247	Unconsolidated	ALUMINUM	3100	2.9 J	160 J	200	16000
			ARSENIC	11	7.1	6.3 J	10	0.045
			IRON	6200	450	170	300	11000
			MANGANESE	260	180	280	50	320
NACA Test Area	NTAmw-109	Unconsolidated	IRON	NT	560	NT	300	11000
	NTAmw-119	Unconsolidated	IRON	2300	1800	1500	300	11000
			MANGANESE	310	320	340	50	320
			NAPHTHALENE	0.26	0.13	0.11	NS	0.14
Ramsdell Quarry	RQLmw-006	Bedrock	ARSENIC	NT	NT	13	10	0.045
			COBALT	NT	NT	9.2	NS	4.7
			IRON	NT	NT	54000	300	11000
			MANGANESE	NT	NT	6800	50	320
	RQLmw-007	Bedrock	ARSENIC	NT	9.7	55	10	0.045
			COBALT	NT	7.0	7.1	NS	4.7
			CYANIDE	NT	0.010 U	0.0080 J	0.20	0.0014
			IRON	NT	840 J	13000	300	11000
			MANGANESE	NT	1500	2100	50	320
			ARSENIC	NT	12	38	10	0.045
			IRON	NT	55000 J	89000	300	11000
			MANGANESE	NT	690	660	50	320
			THALLIUM	NT	0.2 U	1.2 J	2.0	0.16
	RQLmw-009	Bedrock	ARSENIC	NT	14	43	10	0.045
			COBALT	NT	2.3 J	6.0	NS	4.7
			IRON	NT	5100 J	13000	300	11000
			MANGANESE	NT	890	1500	50	320
	RQLmw-010	Bedrock	MANGANESE	NT	NT	1300	50	320
	RQLmw-011	Bedrock	ALUMINUM	NT	NT	2500	200	16000
			COBALT	NT	NT	25	NS	4.7
			IRON	NT	NT	4700	300	11000
			MANGANESE	NT	NT	2300	50	320
			THALLIUM	NT	NT	1.7	2.0	0.16
Sharon Conglomerate	SCFmw-002	Bedrock	ARSENIC	NT	14	15	10	0.045
			IRON	NT	310	340	300	11000
			MANGANESE	NT	64	70	50	320
	SCFmw-004	Bedrock	MANGANESE	NT	720	740 J	50	320
Winklepack Burning Grounds	WBGmw-006	Unconsolidated	MANGANESE	NT	22	65	50	320
			RDX	NT	19	15	NS	0.61
	WBGmw-009	Unconsolidated	RDX	NT	3.4	3.5	NS	0.61
			THALLIUM	NT	0.20 U	1.0 J	2.0	0.16
	WBGmw-019	Bedrock	ARSENIC	4.5 J	5 U	10 U	10	0.045
			IRON	480	430	430	300	11000
			MANGANESE	240	230	250	50	320
	WBGmw-020	Bedrock	IRON	4100	4000 J	4000	300	11000
			MANGANESE	370	350	330	50	320
	WBGmw-021	Bedrock	ARSENIC	6.2 J	5.6	6.5 J	10	0.045
			IRON	490	310	570	300	11000
			MANGANESE	220	270	240	50	320

Notes:

Several analytical methods used to analyze a number of polychlorinated biphenyls (PCBs), volatile organic compounds (VOCs), inorganics, semivolatile organic compounds (SVOCs), and pesticides currently do not meet the RVAAP QAPP reporting limits or RSLs. Tables listing the reporting limits that currently do not meet the RVAAP QAPP PQLs and/or RSL levels are presented in Appendix E. Note that the detection limit is a statistically derived number that varies based on analytical method and instrumentation. The RSL is independent from analytical method detection limits and is calculated from EPA toxicity values and exposure information. The RSL is not based on instrument capabilities but is risk driven.

1 = results for cyanide and nitrate/nitrite, as well as corresponding MCLs and RSLs, are in milligrams/liter (mg/L)

µg/L = micrograms/liter

All inorganics are filtered; all organics are not filtered.

NT = not tested NS = no standard

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

J = estimated result. Results have been qualified "J." For more details refer to Data Verification/Validation Reports in the FWGWMP Sampling Reports.

B = organic or inorganic analysis when the analyte is found in the method blank or any of the field blanks.

**Bold** = constituent detected above MCL or RSL.

RSLs = USEPA Regional Screening Levels, revised November 2013.

## **4.2 Building 1200**

During this reporting period, two bedrock aquifer wells (B12mw-012 and B12mw-013) were sampled at Building 1200.

### **B12mw-012**

- During this reporting period well B12mw-012 was sampled in January 2013; this well has been sampled nine times since April 2008.
- No constituents were identified at concentrations exceeding their respective MCLs or RSLs in this well during this reporting period.

### **B12mw-013**

- During this reporting period well B12mw-013 was sampled in October 2012 and January 2013; this well has been sampled four times beginning in April 2012.
- In October 2012, manganese was identified at a concentration of 780 microgram per liter ( $\mu\text{g/L}$ ); this exceeds the MCL and RSL for this compound. In January 2013; manganese was identified at a concentration of 22  $\mu\text{g/L}$ , which is below the MCL and RSL.
- Manganese concentrations increased from April to October 2012 in this well; there was a steep decline in the manganese concentration from October 2012 to January 2013.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.

## **4.3 Central Burn Pits**

During this reporting period, one unconsolidated aquifer well (CBPmw-002) and one bedrock well (CBPmw-009) were sampled at the Central Burn Pits.

### **CBPmw-002**

- During this reporting period, well CBPmw-002 was sampled in January 2013. This well has been sampled eight times since April 2008.
- Arsenic (21  $\mu\text{g/L}$ ) exceeded the MCL and RSL during this reporting period. Arsenic has been identified in this well at concentrations ranging from 9.8 to 24.8  $\mu\text{g/L}$ .
- Iron (1700  $\mu\text{g/L}$ ) and manganese (75  $\mu\text{g/L}$ ) were identified at concentrations exceeding their respective MCLs, but not their RSLs. Iron has been identified in this well at concentrations ranging from 320 to 3720  $\mu\text{g/L}$ ; manganese has been identified at concentrations ranging from 66 to 222  $\mu\text{g/L}$ .
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trends for arsenic, iron, and manganese are decreasing in this well; however, arsenic and iron concentrations increased in this well between July 2012 and January 2013.

**CBPmw-009**

- During this reporting period, well CBPmw-009 was sampled in October 2012 and January 2013. This well has been sampled four times since April 2012.
- Arsenic (3.4 J  $\mu\text{g/L}$ ) exceeded the RSL in this well in October 2012; arsenic was not detected in January 2013. Arsenic also was not detected in this well during the April and July 2012 sampling events. Due to the limited number of detections, no trend analysis was performed for arsenic.
- Iron exceeded the MCL in October 2012 (650  $\mu\text{g/L}$ ) and January 2013 (820  $\mu\text{g/L}$ ). Iron has been identified in this well at concentrations ranging from 320 to 820  $\mu\text{g/L}$ .
- Manganese exceeded the MCL in October 2012 (98  $\mu\text{g/L}$ ) and January 2013 (93  $\mu\text{g/L}$ ). Manganese has been identified in this well at concentrations ranging from 93 to 100  $\mu\text{g/L}$ .
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trend for iron is increasing in this well.
- The linear trend for manganese is decreasing in this well across a narrow concentration range.

**4.4 Demolition Area #2**

During the 2012 reporting period, five unconsolidated aquifer wells (DA2mw-108, DETmw-001, DETmw-002, DETmw-003, and DETmw-004) and two bedrock wells (DA2mw-114 and DA2mw-115) were sampled at Demolition Area #2 on at least one occasion.

**DA2mw-108**

- During this reporting period, well DA2mw-108 was sampled in January 2013. This well has been sampled eight times since April 2008.
- Iron (2100  $\mu\text{g/L}$ ) exceeded the MCL in this well during this reporting period; it did not exceed the RSL. Iron has been identified in this well at concentrations ranging from 978 to 5090  $\mu\text{g/L}$ .
- Manganese (390  $\mu\text{g/L}$ ) exceeded the MCL and RSL in this well during this reporting period. Manganese has been identified in this well at concentrations ranging from 295 to 440  $\mu\text{g/L}$ .
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trend for iron is decreasing in this well.
- The linear trend for manganese is increasing in this well.
- Note also that, at least with iron, the three highest concentrations (>3000  $\mu\text{g/L}$ ) occurred during the fall (i.e., October) sampling events; iron concentrations from the other six sampling events (e.g., January, April, and July) were <3000  $\mu\text{g/L}$ . This implies a seasonal trend for iron, which over time has decreased. The manganese results are “erratic” between 290 to 440  $\mu\text{g/L}$  with an average

concentration of 340 µg/L. This suggests a relatively stable trend. However, since the two highest manganese results occurred during the four most recent sampling events, the overall concentration trend for manganese has increased.

#### **DETMw-001**

- During this reporting period, well DETmw-001 was sampled in August 2013. This well was previously sampled for inorganics in October 2009. Prior sampling at this location occurred before October 2006.
- Arsenic (26 µg/L) exceeded the MCL and RSL in this well during this reporting period. Arsenic was identified at 5.5 µg/L during the October 2009 sampling event.
- Iron (900 µg/L) exceeded the MCL in this well. Iron was not identified in this well during the October 2009 sampling event.
- Manganese (390 µg/L) exceeded the MCL and RSL in this well during this reporting period. Manganese was identified at 78.5 µg/L in this well during the October 2009 sampling event.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- There has been insufficient data since October 2006 to perform a trend analysis on this well.

#### **DETMw-002**

- During this reporting period, well DETmw-002 was sampled in August 2013. This well was previously sampled for inorganics in October 2009 and October 2011. Prior sampling at this location occurred before October 2006.
- Manganese (56 µg/L) exceeded the MCL in this well during this reporting period; it did not exceed the RSL. Manganese was previously identified at concentrations ranging from 78 to 88.7 µg/L.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- There has been insufficient data since October 2006 to perform a trend analysis on this well, although manganese levels have consistently decreased during the three sampling events.

#### **DETMw-003**

- During this reporting period, well DETmw-003 was sampled in January and August 2013. Well DETmw-003 is a RCRA well and is sampled semiannually. It has been sampled 14 times since October 2006.
- Arsenic exceeded the MCL and RSL during both sampling events in this reporting period (10 and 12 µg/L, respectively). Arsenic has been identified in this well during every sampling event at concentrations ranging from 6.9 to 13.1 µg/L.
- Iron exceeded the MCL during both sampling events in this reporting period (1300 and 1400 µg/L, respectively). Iron has been identified in this well during every sampling event at concentrations ranging from 1300 to 1990 µg/L.

- Manganese exceeded the MCL during both sampling events in this reporting period (250 µg/L each). Manganese has been identified in this well during every sampling event at concentrations ranging from 230 to 294 µg/L.
- Several polynuclear aromatic hydrocarbons (PAHs) were identified in this well during the August 2013 sampling event. Benzo(a)anthracene, benzo(a)pyrene, and benzo(b)fluoranthene were detected at levels exceeding their respective RSLs. None of these constituents have previously been identified in this well. No concentration trends were prepared for the PAHs.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trend for arsenic is stable in this well.
- The linear trend for iron is decreasing in this well.
- The linear trend for manganese is decreasing in this well.

#### **DETmw-004**

- During this reporting period, well DETmw-004 was sampled in January and August 2013. Well DETmw-004 is a RCRA well and is sampled semiannually. It has been sampled 14 times since October 2006.
- The explosive compound Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX) exceeded the RSL during the January and August 2013 sampling events at concentrations of 6.1 and 2.3 µg/L, respectively. There is no MCL for this constituent. RDX has been identified in this well during 13 of the 14 sampling events at concentrations ranging from 0.16 to 6.1 µg/L.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trend for RDX is increasing. RDX concentrations routinely increase in the spring and decrease during the summer and fall sampling events.

#### **DA2mw-114**

- During this reporting period, well DA2mw-114 was sampled in October 2012 and January and August 2013. This well has been sampled four times since July 2012.
- Iron exceeded the MCL during all three sampling events in this reporting period; it did not exceed the RSL. Iron has been identified in this well during every sampling event at concentrations ranging from 540 to 1000 µg/L.
- Manganese exceeded the MCL during all three sampling events in this reporting period; it did not exceed the RSL. Manganese has been identified in this well during all four sampling events at concentrations ranging from 76 to 82 µg/L.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trends for iron and manganese are stable in this well.

**DA2mw-115**

- During this reporting period, well DA2mw-115 was sampled in October 2012 and January and August 2013. This well has been sampled four times since July 2012.
- Iron exceeded the MCL during all three sampling events in this reporting period; it did not exceed the RSL. Iron has been identified in this well during every sampling event at concentrations ranging from 300 to 720 µg/L.
- Manganese exceeded the MCL during all three sampling events in this reporting period; it did not exceed the RSL. Manganese has been identified in this well during all four sampling events at concentrations ranging from 92 to 110 µg/L.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trend for iron is increasing in this well.
- The linear trend for manganese is stable in this well.

**4.5 Erie Burning Grounds**

During the 2013 reporting period, one unconsolidated aquifer well (EBGmw-125) and one bedrock well (EBGmw-131) were sampled at the Erie Burning Grounds.

**EBGmw-125**

- During this reporting period, well EBGmw-125 was sampled in January 2013. This well has been sampled eight times since April 2008.
- Arsenic (13 µg/L) exceeded the MCL and RSL during this reporting period. Arsenic has been identified in this well during seven of the eight sampling events at concentrations ranging from 8.7 to 20 µg/L.
- Iron (5100 µg/L) exceeded the MCL during this reporting period; it did not exceed the RSL. Iron has been identified in this well during every sampling event at concentrations ranging from 2800 to 8710 µg/L.
- Manganese exceeded the MCL and RSL during this reporting period. Manganese has been identified in this well during every sampling event at concentrations ranging from 250 to 690 µg/L.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trend arsenic is increasing in this well. Arsenic levels generally increase during the fall events and decrease during the winter events.
- The linear trend for iron is decreasing in this well.
- The linear trend for manganese is increasing in this well.

**EBGmw-131**

- During this reporting period, well EBGmw-131 was sampled in October 2012 and January and August 2013. This well has been sampled four times since July 2012.



- Iron exceeded the MCL during each sampling event in this reporting period; it did not exceed the RSL. Iron has been identified in this well during every sampling event at concentrations ranging from 510 to 730 µg/L.
- Manganese exceeded the MCL during each sampling event in this reporting period; it did not exceed the RSL. Manganese has been identified in this well during every sampling event at concentrations ranging from 120 to 150 µg/L.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trends for iron and manganese are increasing across a narrow range of values.

#### **4.6 Facility-Wide Wells**

During this reporting period, 12 unconsolidated facility-wide groundwater (FWG) wells (FWGmw-001 through FWGmw-004, FWGmw-006 through FWGmw-011, FWGmw-014, and FWGmw-015) and four FWG bedrock wells (FWGmw-005, FWGmw-012, FWGmw-013, and FWGmw-016) were sampled at least twice during the period from October 2012 through August 2013.

##### **FWGmw-001**

- During this reporting period well FWGmw-001 was sampled in October 2012 and January 2013; this well has been sampled four times since April 2012.
- No constituents were identified at concentrations exceeding their respective MCLs or RSLs in this well during this reporting period.

##### **FWGmw-002**

- During this reporting period well FWGmw-002 was sampled in October 2012 and January 2013; this well has been sampled four times since April 2012.
- Iron exceeded the MCL during both sampling events; it did not exceed the RSL. Iron has been identified in this well during every sampling event at concentrations ranging from 110 to 1200 µg/L.
- Manganese exceeded the MCL during both sampling events; it did not exceed the RSL. Manganese has been identified in this well during every sampling event at concentrations ranging from 100 to 180 µg/L.
- During the January 2013 sampling event, naphthalene was identified at a concentration exceeding the RSL; naphthalene was not identified in this well during the other sampling events. There is no MCL for naphthalene. No trend analysis was performed for this constituent.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trends for iron and manganese are decreasing in this well.

### **FWGmw-003**

- During this reporting period well FWGmw-003 was sampled in October 2012 and January 2013; this well has been sampled four times since April 2012.
- Aluminum exceeded the MCL during the October 2012 sampling event; it did not exceed the RSL. Aluminum has been identified in this well during every sampling event at concentrations ranging from 42 to 1600 µg/L.
- Arsenic exceeded the RSL during the October 2012 event; it did not exceed the MCL. Arsenic was also identified in this well during the July 2012 sampling event at an estimated concentration of 3.3 µg/L. Arsenic was not detected during the April 2012 or January 2013 events.
- Iron exceeded the MCL during the October 2012 and January 2013 sampling events; it did not exceed the RSL. Iron has been identified in this well during every sampling event at concentrations ranging from 150 to 2300 µg/L.
- Manganese exceeded the MCL and RSL during both sampling events. Manganese has been identified in this well during every sampling event at concentrations ranging from 520 to 700 µg/L.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trends for aluminum, arsenic, iron, and manganese are decreasing in this well.

### **FWGmw-004**

- During this reporting period well FWGmw-004 was sampled in October 2012 and January and August 2013; this well has been sampled five times since April 2012.
- Aluminum (3200 µg/L) exceeded the MCL during the October 2012 sampling event; it did not exceed the RSL. Aluminum has been identified in this well on three occasions at concentrations ranging from 4.2 to 14,000 µg/L. Aluminum was not identified in this well during the April 2012 and August 2013 sampling events.
- Iron (4000 µg/L) exceeded the MCL during the October 2012 sampling event; it did not exceed the RSL. Iron was also identified in this well during the July 2012 sampling event at a concentration of 22,000 µg/L. Iron was not identified in this well during the April 2012, January 2013, or August 2013 sampling events.
- Manganese (75 µg/L) exceeded the MCL during the October 2012 sampling event; it did not exceed the RSL. Manganese has been identified in this well during every sampling event at concentrations ranging from 1.7 to 320 µg/L.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trends for aluminum, iron, and manganese are decreasing in this well.

### **FWGmw-005**

- During this reporting period well FWGmw-005 was sampled in October 2012 and January 2013; this well has been sampled four times since April 2012.

- Iron exceeded the MCL during both sampling events; it did not exceed the RSL. Iron has been identified in this well during every sampling event at concentrations ranging from 3000 to 4200 µg/L.
- Manganese exceeded the MCL during both sampling events and the RSL during the October 2012 event. Manganese has been identified in this well during every sampling event at concentrations ranging from 280 to 1000 µg/L.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trends for iron and manganese are decreasing in this well.

#### **FWGmw-006**

- During this reporting period well FWGmw-006 was sampled in October 2012 and January 2013; this well has been sampled four times since April 2012.
- Arsenic exceeded the RSL during both sampling events; it did not exceed the MCL. Arsenic has been identified in this well on three occasions at concentrations ranging from 2.9 to 5.2 µg/L. Arsenic was not detected during the July 2012 sampling event.
- Iron exceeded the MCL and RSL during both sampling events. Iron has been identified in this well during every sampling event at concentrations ranging from 630 to 18,000 µg/L.
- Manganese exceeded the MCL and RSL during both sampling events. Manganese has been identified in this well during every sampling event at concentrations ranging from 210 to 2700 µg/L.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trend for arsenic is decreasing in this well.
- The linear trends for iron and manganese are increasing in this well.

#### **FWGmw-007**

- During this reporting period well FWGmw-007 was sampled in October 2012 and January and August 2013; this well has been sampled five times since April 2012.
- Aluminum (4600 µg/L) exceeded the MCL during the October 2012 sampling event; it did not exceed the RSL. Aluminum was identified in this well at a concentration of 140 µg/L in January 2013, which is below the RSL and MCL. Aluminum was not detected during the April and July 2012 and August 2013 sampling events.
- Arsenic exceeded the RSL during the October 2012 sampling event; it did not exceed the MCL. Arsenic was not identified in this well during the other four sampling events. No trend analysis was performed for arsenic at this well.
- Iron exceeded the MCL during the October 2012 and January 2013 sampling events; it did not exceed the RSL on either occasion. Iron was not detected during the April and July 2012 and August 2013 sampling events.
- Manganese exceeded the MCL during the October 2012 and January 2013 sampling events; it did not exceed the RSL. Manganese has been identified in

this well during every sampling event at concentrations ranging from 47 to 310 µg/L.

- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trends for aluminum, iron, and manganese are decreasing in this well. There was a spike in inorganic concentrations in October 2012; the October 2012 levels do not appear consistent with concentration levels reported during the other four sampling events.

#### **FWGmw-008**

- During this reporting period well FWGmw-008 was sampled in October 2012 and January 2013; this well has been sampled four times since April 2012.
- Aluminum (290 µg/L) exceeded the MCL during the October 2012 sampling event; it did not exceed the RSL. Aluminum was identified in this well at an estimated concentration of 24 µg/L in July 2012, which is below the RSL and MCL. Aluminum was not detected during the April 2012 and January 2013 sampling events.
- Arsenic exceeded the RSL during the October 2012 and January 2013 sampling events; it did not exceed the MCL. Arsenic has been identified in this well during every sampling event at concentrations ranging from 5.2 to 7.5 µg/L.
- Iron exceeded the MCL during the October 2012 and January 2013 sampling events; it did not exceed the RSL on either occasion. Iron has been identified in this well during every sampling event at concentrations ranging from 520 to 1100 µg/L.
- Manganese exceeded the MCL during both sampling events; it did not exceed the RSL. Manganese has been identified in this well during every sampling event at concentrations ranging from 620 to 760 µg/L.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trend for arsenic is increasing in this well.
- The linear trend for iron is stable in this well.
- The linear trend for manganese is decreasing in this well.

#### **FWGmw-009**

- During this reporting period well FWGmw-009 was sampled in October 2012 and August 2013; this well has been sampled four times since April 2012.
- Aluminum (980 µg/L) exceeded the MCL during the October 2012 sampling event; it did not exceed the RSL. Aluminum was identified in this well at an estimated concentration of 55 µg/L in April 2012 and at a concentration of 60 µg/L in August 2013. Aluminum was not detected during the July 2012 sampling event.
- Arsenic exceeded the RSL during both sampling events; it also exceeded the MCL in October 2012. Arsenic has been identified in this well during every sampling event at concentrations ranging from 8.4 to 11 µg/L.

- Iron exceeded the MCL during the October 2012 and January 2013 sampling events; it did not exceed the RSL on either occasion. Iron has been identified in this well during every sampling event at concentrations ranging from 810 to 2700 µg/L.
- Manganese exceeded the MCL during both sampling events; it did not exceed the RSL. Manganese has been identified in this well during every sampling event at concentrations ranging from 150 to 200 µg/L.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trends for arsenic and manganese are increasing in this well.
- The linear trends for aluminum and iron are stable.

#### **FWGmw-010**

- During this reporting period well FWGmw-010 was sampled in October 2012 and January 2013; this well has been sampled four times since April 2012.
- Arsenic exceeded the MCL and RSL during both sampling events. Arsenic has been identified in this well during three of the four sampling events at concentrations ranging from 7.2 to 15 µg/L. Arsenic was not detected during the April 2012 event.
- Cobalt exceeded the RSL during both sampling events; there is no MCL for cobalt. Cobalt has been identified in this well during every sampling event at concentrations ranging from 15 to 28 µg/L.
- Iron exceeded the MCL and RSL during the October 2012 and January 2013 sampling events. Iron has been identified in this well during every sampling event at concentrations ranging from 13,000 to 35,000 µg/L.
- Manganese exceeded the MCL and RSL during both sampling events. Manganese has been identified in this well during every sampling event at concentrations ranging from 970 to 2100 µg/L.
- Bis(2-ethylhexyl)phthalate (BEHP) was identified at a concentration of 40 µg/L during the October 2012 sampling event, which exceeds the RSL and MCL for this constituent. BEHP was identified at a concentration of 0.82 µg/L in April 2012; it was not detected in this well during the July 2012 and January 2013 sampling events.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trends for arsenic and iron are increasing in this well.
- The linear trends for cobalt and manganese are decreasing in this well.
- A concentration trend for BEHP was not determined since the October 2012 result is significantly greater than the results from the other three sampling events. The October 2012 result for BEHP is anomalous.

#### **FWGmw-011**

- During this reporting period well FWGmw-011 was sampled in October 2012 and January and August 2013; this well has been sampled five times since April 2012.

- Aluminum exceeded the MCL during the October 2012 event; it was not identified at concentrations exceeding the RSL. Aluminum has been identified in this well during four of the five sampling events at concentrations ranging from 3.3 to 220 µg/L. Aluminum was not detected during the August 2013 event.
- Arsenic exceeded the RSL during the October 2012 and January 2013 sampling events; arsenic did not exceed the MCL during either event. Arsenic has been identified in this well during three of the five sampling events at estimated concentrations ranging from 3.3 to 4.4 µg/L. Arsenic was not detected during the April 2012 or August 2013 events.
- Iron exceeded the MCL during all three sampling events in this reporting period; it was not identified at concentrations exceeding the RSL. Iron has been identified in this well during every sampling event at concentrations ranging from 440 to 1900 µg/L.
- Manganese exceeded the MCL during all three sampling events in this reporting period; it was not identified at concentrations above the RSL. Manganese has been identified in this well during every sampling event at concentrations ranging from 250 to 410 µg/L.
- BEHP was identified at a concentration of 13 µg/L during the August 2013 sampling event, which exceeds the RSL and MCL for this constituent. BEHP was identified at concentrations ranging from 0.82 to 1.1 µg/L during three other sampling events; BEHP was not detected during the April 2012 sampling event.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trend for arsenic is stable in this well.
- The linear trend for iron is increasing in this well.
- The linear trends for aluminum and manganese are decreasing in this well.
- A concentration trend for BEHP was not determined since the August 2013 result is significantly greater than the results from the other four sampling events. The August 2013 result for BEHP appears to be anomalous.

#### **FWGmw-012**

- During this reporting period well FWGmw-012 was sampled in October 2012 and January and August 2013; this well has been sampled five times since April 2012.
- Iron exceeded the MCL during all three sampling events in this reporting period; it was not identified at concentrations exceeding the RSL. Iron has been identified in this well during every sampling event at concentrations ranging from 1200 to 2700 µg/L.
- Manganese exceeded the MCL during all three sampling events in this reporting period; it was not identified at concentrations above the RSL. Manganese has been identified in this well during every sampling event at concentrations ranging from 95 to 110 µg/L.
- 3,3-Dichlorobenzidine was identified at a concentration of 0.76 JB µg/L during the October 2012 sampling event, which exceeds the RSL for this constituent. This constituent was not detected during three other sampling events. (Note that semivolatile organic compounds were not tested for during the August 2013

sampling event). No trend analysis was performed for this analyte at this location.

- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trend for iron is increasing in this well.
- The linear trend for manganese is stable in this well.

#### **FWGmw-013**

- During this reporting period well FWGmw-013 was sampled in October 2012 and January 2013; this well has been sampled four times since April 2012.
- Manganese exceeded the MCL and RSL during both sampling events in this reporting period. Manganese has been identified in this well during every sampling event at concentrations ranging from 480 to 580 µg/L.
- Cyanide was identified at a concentration of 0.0071 J µg/L during the October 2012 sampling event, which exceeds the RSL for this constituent. This constituent was not detected during the three other sampling events. No trend analysis was performed for this analyte at this location.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trend for manganese is stable in this well.

#### **FWGmw-014**

- During this reporting period well FWGmw-014 was sampled in October 2012 and January 2013; this well has been sampled four times since April 2012.
- Manganese exceeded the MCL during both sampling events in this reporting period; it was not identified at concentrations above the RSL. Manganese has been identified in this well during every sampling event at concentrations ranging from 130 to 210 µg/L.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trend for manganese is decreasing in this well.

#### **FWGmw-015**

- During this reporting period well FWGmw-015 was sampled in October 2012 and January and August 2013; this well has been sampled five times since April 2012.
- Arsenic exceeded the RSL during the October 2012 sampling event; arsenic was not detected in this well during the other four sampling events. No trend analysis was performed for this analyte at this location.
- Manganese exceeded the MCL during all three sampling events in this reporting period; it was also identified at concentrations above the RSL during the October 2012 and August 2013 sampling events. Manganese has been identified in this well during every sampling event at concentrations ranging from 240 to 940 µg/L.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trend for manganese is increasing in this well.

**FWGmw-016**

- During this reporting period well FWGmw-016 was sampled in October 2012 and January and August 2013; this well has been sampled five times since April 2012.
- Arsenic exceeded the RSL during all three sampling events in this reporting period; it did not exceed the MCL during any event. Arsenic has been identified in this well during four of the five sampling events at concentrations ranging from 4.3 to 6.2 µg/L; arsenic was not identified in this well during the April 2012 sampling event.
- Iron exceeded the MCL during all three sampling events in this reporting period; iron did not exceed the RSL at this location. Iron has been identified in this well during all five sampling events at concentrations ranging from 530 to 9800 µg/L.
- Manganese exceeded the MCL during all three sampling events in this reporting period; it was not identified at concentrations above the RSL. Manganese has been identified in this well during every sampling event at concentrations ranging from 190 to 3000 µg/L.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trends for arsenic, iron, and manganese are decreasing in this well.

**4.7 Fuze and Booster**

During the 2013 reporting period, one bedrock aquifer well (FBQmw-174) was sampled at the Fuze and Booster area.

**FBQmw-174**

- During this reporting period, well FBQmw-174 was sampled in August 2013; this well has been sampled seven times since April 2008.
- 2,4-Dinitrotoluene (DNT) exceeded the RSL during this reporting period; there is no MCL for this constituent. 2,4-DNT has been identified in this well on five occasions at concentrations ranging from 0.057 to 0.45 µg/L.
- 2,4,6-Trinitrotoluene (TNT) exceeded the RSL during this reporting period; there is no MCL for this constituent. 2,4,6-TNT has been identified in this well during all seven sampling events at concentrations ranging from 9.6 to 62 µg/L.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trends for 2,4-DNT and 2,4,6-TNT are decreasing in this well.

**4.8 Load Line 1**

During this reporting period, four unconsolidated aquifer wells (LL1mw-064, LL1mw-065, LL1mw-086, and LL1mw-087) and two bedrocks wells (LL1mw-083 and LL1mw-084) were sampled in Load Line 1.



**LL1mw-064**

- During this reporting period well LL1mw-064 was sampled in August 2013; this well has been sampled nine times since April 2008.
- Iron exceeded the MCL during the August 2013 sampling event; iron did not exceed the RSL at this location. Iron has been identified in this well during every sampling event at concentrations ranging from 490 to 724 µg/L.
- Manganese exceeded the MCL during the August 2013 sampling event; it did not exceed the RSL. Manganese has been identified in this well during every sampling event at concentrations ranging from 110 to 132 µg/L.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trends for iron and manganese are stable to slightly decreasing in this well.

**LL1mw-065**

- During this reporting period well LL1mw-065 was sampled in January and August 2013; this well has been sampled 11 times since January 2008.
- Manganese exceeded the MCL during both sampling events; it did not exceed the RSL during either event. Manganese has been identified in this well during all 11 sampling events at concentrations ranging from 87.7 to 720 µg/L.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trend for manganese is decreasing in this well.

**LL1mw-083**

- During this reporting period well LL1mw-083 was sampled in August 2013; this well has been sampled nine times since October 2006.
- Aluminum exceeded the MCL during the August 2013 sampling event; it did not exceed the RSL at this location. Aluminum has been identified in this well during every sampling event at concentrations ranging from 612 to 1770 µg/L.
- Cobalt exceeded the RSL during the August 2013 sampling event; there is no MCL for cobalt. Cobalt has been identified in this well during every sampling event at concentrations ranging from 6.4 to 15 µg/L.
- Manganese exceeded the MCL and RSL during the August 2013 sampling event. Manganese has been identified in this well during every sampling event at concentrations ranging from 374 to 765 µg/L.
- 2,4-DNT exceeded the RSL during the August 2013 sampling event; there is no MCL for this constituent. 2,4-DNT has been identified in this well during eight sampling events at concentrations ranging from 2.6 to 5.2 µg/L.
- 2,6-DNT exceeded the RSL during the August 2013 sampling event; there is no MCL for this constituent. 2,6-DNT has been identified in this well during eight sampling events at concentrations ranging from 1.2 to 4.5 µg/L.
- 2,4,6-TNT exceeded the RSL during the August 2013 sampling event; there is no MCL for 2,4,6-TNT. This constituent has been identified in this well during eight sampling events at concentrations ranging from 4.5 to 9.2 µg/L.

- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trend for aluminum is increasing in this well.
- The linear trend for cobalt is increasing in this well, although concentration levels have decreased continually since October 2009.
- The linear trend for manganese is stable in this well.
- The linear trends for 2,4-DNT, 2,6-DNT, and 2,4,6-TNT are decreasing in this well.

#### **LL1mw-084**

- During this reporting period well LL1mw-084 was sampled in August 2013; this well has been sampled seven times since October 2009.
- Aluminum exceeded the MCL during the August 2013 sampling event; it did not exceed the RSL at this location. Aluminum has been identified in this well during every sampling event at concentrations ranging from 246 to 1300 µg/L.
- Cobalt exceeded the RSL during the August 2013 sampling event; there is no MCL for cobalt. Cobalt has been identified in this well during every sampling event at concentrations ranging from 9.0 to 20.6 µg/L.
- Manganese exceeded the MCL during the August 2013 sampling event; it did not exceed the RSL. Manganese has been identified in this well during every sampling event at concentrations ranging from 67 to 222 µg/L.
- beta-BHC exceeded the RSL during the August 2013 sampling event; there is no MCL for this pesticide. beta-BHC has been identified in this well during three sampling events at concentrations ranging from 0.069 to 0.26 µg/L. It was not detected during the other sampling events.
- 2,4-DNT exceeded the RSL during the August 2013 sampling event; there is no MCL for this constituent. 2,4-DNT has been identified in this well during six sampling events at concentrations ranging from 1.4 to 4.0 µg/L.
- 2,6-DNT exceeded the RSL during the August 2013 sampling event; there is no MCL for this constituent. 2,6-DNT has been identified in this well during six sampling events at concentrations ranging from 0.69 to 1.3 µg/L.
- 2,4,6-TNT exceeded the RSL during the August 2013 sampling event; there is no MCL for 2,4,6-TNT. This constituent has been identified in this well during six sampling events at concentrations ranging from 7.3 to 13 µg/L.
- 4-Amino-2,6-DNT exceeded the RSL during the August 2013 sampling event; there is no MCL for this constituent. 4-Amino-2,6-DNT has been identified in this well during six sampling events at concentrations ranging from 23 to 36 µg/L.
- RDX exceeded the RSL during the August 2013 sampling event; there is no MCL for RDX. This constituent has been identified in this well during five sampling events at concentrations ranging from 0.42 to 2.1 µg/L.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trend for aluminum is increasing in this well.
- The linear trends for cobalt and manganese are decreasing in this well.
- The linear trends for 2,4-DNT and 2,6-DNT are decreasing in this well.

- The linear trends for 2,4,6-TNT, 4-amino-2,6-DNT, and RDX are increasing in this well.
- The linear trend for beta-BHC is decreasing in this well.

#### **LL1mw-086**

- During this reporting period well LL1mw-086 was sampled in October 2012 and January and August 2013; this well has been sampled five times since April 2012.
- Arsenic exceeded the RSL during all three sampling events in this reporting period; it did not exceed the MCL at this location. Arsenic has been identified in this well during four of the five sampling events at concentrations ranging from 3.3 to 5.5 µg/L.
- Iron exceeded the MCL during all three sampling events in this reporting period; it did not exceed the RSL. Iron has been identified in this well during every sampling event at concentrations ranging from 600 to 3800 µg/L.
- Manganese exceeded the MCL during all three sampling events; it also exceeded the RSL in October 2012 and January 2013. Manganese has been identified in this well during every sampling event at concentrations ranging from 69 to 610 µg/L.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trends for arsenic and iron are decreasing in this well.
- The linear trend for manganese is increasing in this well.

#### **LL1mw-087**

- During this reporting period well LL1mw-087 was sampled in October 2012 and January and August 2013; this well has been sampled five times since April 2012.
- Aluminum exceeded the MCL during the October 2012 sampling event; it did not exceed the RSL. Aluminum has been identified in this well during two sampling events at concentrations of 650 and 120,000 µg/L. Aluminum was not detected in April 2012, January 2013, or August 2013.
- Iron exceeded the MCL during the October 2012 sampling event; it did not exceed the RSL. Iron has been identified in this well during four sampling events at concentrations ranging from 13 to 340,000 µg/L. Iron was not detected in this well in August 2013.
- Manganese exceeded the MCL during all three sampling events. Manganese has been identified in this well during every sampling event at concentrations ranging from 61 to 4800 µg/L.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trends for arsenic, iron, and manganese are decreasing in this well. Note that the elevated concentrations reported from July 2012 were not plotted for the trend evaluations.

## 4.9 Load Line 2

During this reporting period, three bedrock aquifer wells (LL2mw-059, LL2mw-265, and LL2mw-267) were sampled at least once.

### **LL2mw-059**

- During this reporting period well LL2mw-059 was sampled in January and August 2013; this well has been sampled 12 times since October 2006.
- Arsenic exceeded the RSL during the two sampling events; it did not exceed the MCL. Arsenic has been identified in this well during six sampling events at concentrations ranging from 4.0 to 7.3 µg/L. Arsenic was not detected in this well the first six times that it was sampled.
- Cobalt exceeded the RSL during both sampling events; there is no MCL for cobalt. Cobalt has been identified in this well on nine occasions at concentrations ranging from 1.3 to 29.1 µg/L.
- Iron exceeded the MCL during both sampling events; it did not exceed the RSL. Iron has been identified in this well during 11 sampling events at concentrations ranging from 71.7 to 7090 µg/L.
- Manganese exceeded the MCL and RSL during both sampling events. Manganese has been identified in this well during every sampling event at concentrations ranging from 9.5 to 5530 µg/L.
- 2,4-DNT exceeded the RSL during both sampling events; there is no MCL for this constituent. 2,4-DNT has been identified in this well during 11 sampling events at concentrations ranging from 0.12 to 0.86 µg/L.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trends for arsenic, cobalt, iron, and manganese are increasing in this well.
- The linear trend for 2,4-DNT is decreasing in this well.

### **LL2mw-265**

- During this reporting period well LL2mw-265 was sampled in January and August 2013; this well has been sampled 11 times since January 2008.
- Cobalt exceeded the RSL during the August 2013 sampling event; there is no MCL for cobalt. Cobalt has been identified in this well on eight occasions at concentrations ranging from 0.69 to 7.0 µg/L.
- Iron exceeded the MCL during both sampling events; it did not exceed the RSL. Iron has been identified in this well during 11 sampling events at concentrations ranging from 110 to 4250 µg/L.
- Manganese exceeded the MCL and RSL during the August 2013 sampling event. Manganese has been identified in this well during every sampling event at concentrations ranging from 32 to 1430 µg/L.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trends for cobalt and manganese are decreasing in this well.

- The linear trend for iron is increasing in this well.

### **LL2mw-267**

- During this reporting period well LL2mw-267 was sampled in August 2013; this well has been sampled six times since October 2009.
- Iron exceeded the MCL during the August 2013 sampling event; it did not exceed the RSL. Iron has been identified in this well during every sampling event at concentrations ranging from 360 to 164,000 µg/L.
- Manganese exceeded the MCL and RSL during the August 2013 sampling event. Manganese has been identified in this well during every sampling event at concentrations ranging from 490 to 2850 µg/L.
- 2,4-DNT exceeded the RSL during the August 2013 sampling event; there is no MCL for this constituent. 2,4-DNT has been identified in this well during five sampling events at concentrations ranging from 0.12 to 0.36 µg/L.
- RDX exceeded the RSL during the August 2013 sampling event; there is no MCL for RDX. RDX has been identified in this well during five sampling events at concentrations ranging from 0.93 to 1.7 µg/L.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trends for iron and manganese are decreasing in this well. Note that the elevated concentration of 164,000 µg/L reported for iron on October 2010 was not plotted for the trend analysis.
- The linear trends for 2,4-DNT and RDX are increasing in this well.

## **4.10 Load Line 3**

During the 2013 reporting period, five bedrock aquifer wells (LL3mw-238, LL3mw-241, LL3mw-242, LL3mw-244, and LL3mw-245) were sampled in Load Line 3.

### **LL3mw-238**

- During this reporting period well LL3mw-238 was sampled in August 2013; this well has been sampled nine times since October 2006.
- 2,6-DNT exceeded the RSL during the August 2013 sampling event; there is no MCL for this constituent. 2,6-DNT had not previously been identified in this well. No trend analysis was performed on this constituent for this well.
- 2,4,6-TNT exceeded the RSL during the August 2013 sampling event; there is no MCL for 2,4,6-TNT. This constituent has been identified in this well during eight sampling events at concentrations ranging from 60 to 100 µg/L.
- 4-Amino-2,6-DNT exceeded the RSL during the August 2013 sampling event; there is no MCL for this constituent. 4-amino-2,6-DNT has been identified in this well during eight sampling events at concentrations ranging from 25 to 37 µg/L.

- Nitrobenzene exceeded the RSL during the August 2013 sampling event; there is no MCL for nitrobenzene. Nitrobenzene has been identified in this well during four sampling events at concentrations ranging from 0.17 to 1.5 µg/L.
- RDX exceeded the RSL during the August 2013 sampling event; there is no MCL for RDX. RDX has been identified in this well during eight sampling events at concentrations ranging from 4.6 to 11 µg/L.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trend for 2,4,6-TNT is stable to slightly decreasing in this well.
- The linear trends for 4-amino-2,6-DNT and RDX are increasing in this well.
- The linear trend for nitrobenzene is decreasing in this well.

#### **LL3mw-241**

- During this reporting period well LL3mw-241 was sampled in January and August 2013; this well has been sampled 10 times since January 2008.
- 2,6-DNT exceeded the RSL during the August 2013 sampling event; there is no MCL for this constituent. 2,6-DNT has been identified in this well during seven sampling events at concentrations ranging from 0.076 to 0.30 µg/L.
- 2,4,6-TNT exceeded the RSL during the January and August 2013 sampling events; there is no MCL for 2,4,6-TNT. This constituent has been identified in this well during nine sampling events at concentrations ranging from 2.5 to 12 µg/L.
- RDX exceeded the RSL during the January and August 2013 sampling events; there is no MCL for RDX. RDX has been identified in this well during nine sampling events at concentrations ranging from 0.98 to 1.8 µg/L.
- beta-BHC exceeded the RSL during the January 2013 sampling event; there is no MCL for this pesticide. beta-BHC has been identified in this well during three sampling events at concentrations ranging from 0.022 to 0.052 µg/L. beta-BHC was not detected during the August 2013 sampling event.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trends for 2,6-DNT, 2,4,6-TNT, and RDX are decreasing in this well.
- The linear trend for beta-BHC is decreasing in this well.

#### **LL3mw-242**

- During this reporting period well LL3mw-242 was sampled in January 2013; this well has been sampled 10 times since October 2006.
- No constituents were identified at concentrations exceeding their respective MCLs or RSLs in this well during this reporting period.

#### **LL3mw-244**

- During this reporting period well LL3mw-244 was sampled in October 2012 and January and August 2013; this well has been sampled five times since April 2012.
- beta-BHC exceeded the RSL during the August 2013 sampling event; there is no MCL for this pesticide. beta-BHC has been identified in this well during two

sampling events at concentrations of 0.0083 and 0.025 µg/L. beta-BHC was not detected during the October 2012 sampling event.

- Hexavalent chromium exceeded the RSL during the October 2012, January 2013, and August 2013 sampling events. There is no MCL for hexavalent chromium. The hexavalent chromium concentrations ranged from 0.143 to 0.361 µg/L during the three sampling events; all three detections were qualified as estimated values.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trend for beta-BHC is increasing in this well.

#### **LL3mw-245**

- During this reporting period well LL3mw-245 was sampled in October 2012 and January 2013; this well has been sampled four times since April 2012.
- Iron exceeded the MCL during both sampling events; it did not exceed the RSL during either event. Iron has been identified in this well during every sampling event at concentrations ranging from 460 and 580 µg/L.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trend for iron is increasing in this well.

### **4.11 Load Line 4**

During this reporting period, one unconsolidated aquifer well (LL4mw-199) and one bedrock well (LL4mw-201) were each sampled in Load Line 4.

#### **LL4mw-199**

- During this reporting period well LL4mw-199 was sampled in January 2013; this well has been sampled 10 times since October 2006.
- Arsenic exceeded the RSL during the January 2013 sampling event; it did not exceed the MCL. Arsenic has been identified in this well during every sampling event at concentrations ranging from 4.8 to 17.3 µg/L.
- Iron exceeded the MCL during the January 2013 sampling event; it did not exceed the RSL. Iron has been identified in this well during every sampling event at concentrations ranging from 1700 and 22,300 µg/L.
- Manganese exceeded the MCL and RSL during the January 2013 sampling event. Manganese has been identified in this well during every sampling event at concentrations ranging from 300 to 2110 µg/L.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trend for arsenic is increasing in this well.
- The linear trends for iron and manganese are decreasing in this well. Note that the elevated concentration of 22,300 µg/L reported on October 2009 was not plotted since it is at least four times higher than the next closest value identified in this well.

**LL4mw-201**

- During this reporting period well LL4mw-201 was sampled in October 2012 and January 2013; this well has been sampled four times since April 2012.
- Arsenic exceeded the RSL and MCL during both sampling events. Arsenic has been identified in this well during each sampling event at concentrations ranging from 28 to 35 µg/L.
- Iron exceeded the MCL during both sampling events; it did not exceed the RSL. Iron has been identified in this well during each sampling event at concentrations ranging from 540 and 1200 µg/L.
- Manganese exceeded the MCL during both sampling events; it did not exceed the RSL during either event. Manganese has been identified in this well during each sampling event at concentrations ranging from 140 to 160 µg/L.
- Naphthalene exceeded the RSL during the October 2012 sampling event; there is no MCL for this constituent. This represents the only detection of this constituent in this well; consequently, no trend analysis was performed for naphthalene in well LL4mw-201.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trends for arsenic and iron are increasing in this well.
- The linear trend for manganese is decreasing in this well over a narrow range of concentrations levels.

**4.12 Load Line 6**

During this reporting period, one unconsolidated aquifer well (LL6mw-008) and two bedrock aquifer wells (LL6mw-005 and LL6mw-009) were sampled in Load Line 6 on at least one occasion.

**LL6mw-005**

- During this reporting period well LL6mw-005 was sampled in January 2013; this well has been sampled nine times since January 2009.
- Arsenic exceeded the RSL and MCL during the January 2013 sampling event. Arsenic has been identified in this well during every sampling event at concentrations ranging from 14.4 to 45.2 µg/L.
- Iron exceeded the MCL during the January 2013 sampling event; it did not exceed the RSL. Iron has been identified in this well during every sampling event at concentrations ranging from 800 and 2520 µg/L.
- Manganese exceeded the MCL and RSL during the January 2013 sampling event. Manganese has been identified in this well during every sampling event at concentrations ranging from 440 to 583 µg/L.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trends for arsenic, iron, and manganese are decreasing in this well.



**LL6mw-008**

- During this reporting period well LL6mw-008 was sampled in October 2012 and January 2013; this well has been sampled four times since April 2012.
- Manganese exceeded the MCL during both sampling events; it also exceeded the RSL during the October 2012 sampling event. Manganese has been identified in this well during each sampling event at concentrations ranging from 120 to 1500 µg/L.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trend for manganese is decreasing in this well.

**LL6mw-009**

- During this reporting period well LL6mw-009 was sampled in October 2012 and January 2013; this well has been sampled four times since April 2012.
- Arsenic exceeded the RSL during both sampling events; it did not exceed the MCL. Arsenic has been identified in this well during three of the four sampling events at concentrations ranging from 7.7 to 9.0 µg/L. Arsenic was not detected in this well during the April 2012 sampling event.
- Iron exceeded the MCL during both sampling events; it did not exceed the RSL. Iron has been identified in this well during three of the four sampling events at concentrations ranging from 2900 and 3000 µg/L. Iron was not detected in this well during the April 2012 sampling event.
- Manganese exceeded the MCL and RSL during both sampling events. Manganese has been identified in this well during each sampling event at concentrations ranging from 590 to 630 µg/L.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trends for arsenic and iron are increasing in this well.
- The linear trend for manganese is decreasing in this well.

**4.13 Load Line 10**

During this reporting period, one bedrock aquifer well (LL10mw-003) was sampled on two occasions in Load Line 10.

**LL10mw-003**

- During this reporting period, well LL10mw-003 was sampled in January and August 2013; this well has been sampled nine times since January 2009.
- Carbon tetrachloride exceeded the RSL during both sampling events; carbon tetrachloride was not identified at concentrations above the MCL. Carbon tetrachloride has been identified in this well during every sampling event at concentrations ranging from 0.47 to 4.2 µg/L.

- Chloroform exceeded the RSL during both sampling events; there is no MCL for this constituent. Chloroform has been identified in this well during six of the nine sampling events at concentrations ranging from 0.25 to 0.56 µg/L.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trends for carbon tetrachloride and chloroform are increasing in this well.

#### **4.14 Load Line 11**

During this reporting period, one unconsolidated aquifer well (LL11mw-011) and two bedrock aquifer wells (LL11mw-007 and LL11mw-012) were sampled in Load Line 11.

##### **LL11mw-007**

- During this reporting period well LL11mw-007 was sampled in January 2013; this well has been sampled 10 times since October 2006.
- Arsenic exceeded the MCL and RSL during the January 2013 sampling event. Arsenic has been identified in this well during every sampling event at concentrations ranging from 16 to 66.7 µg/L.
- Iron exceeded the MCL during the January 2013 sampling event; iron did not exceed the RSL at this location. Iron has been identified in this well during every sampling event at concentrations ranging from 333 to 3100 µg/L.
- Manganese exceeded the MCL during the January 2013 sampling event; it was not identified at concentrations above the RSL. Manganese has been identified in this well during every sampling event at concentrations ranging from 180 to 274 µg/L.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trend for arsenic is increasing slightly in this well; however, this is skewed by the elevated concentration of 66.7 µg/L reported in October 2009. Ignoring this result, arsenic concentrations range between 16 and 23.1 µg/L, which suggest stable conditions.
- The linear trends for iron and manganese are decreasing in this well.

##### **LL11mw-011**

- During this reporting period well LL11mw-011 was sampled in October 2012 and January 2013; this well has been sampled four times since April 2012.
- Arsenic exceeded the RSL during both sampling events; it did not exceed the MCL. Arsenic has been identified in this well during three of the four sampling events at concentrations ranging from 4.2 to 6.9 µg/L. Arsenic was not detected in this well during the April 2012 event.
- Iron exceeded the MCL during the both sampling events; iron did not exceed the RSL at this location. Iron has been identified in this well during three of the four

sampling events at concentrations ranging from 470 to 4300 µg/L. Iron was not identified in this well during the April 2012 event.

- Manganese exceeded the MCL and RSL during both sampling events. Manganese has been identified in this well during every sampling event at concentrations ranging from 71 to 570 µg/L.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trends for arsenic and iron are decreasing in this well. However, the iron trend is skewed by the elevated concentration reported in July 2012 at this location, which is 7 to 10 times greater than the subsequent concentration levels reported in October 2012 and January 2013.
- The linear trend for manganese is increasing in this well, although manganese concentrations decreased from October 2012 to January 2013.

#### **LL11mw-012**

- During this reporting period well LL11mw-012 was sampled in October 2012 and January 2013; this well has been sampled four times since April 2012.
- Iron exceeded the MCL during the January 2013 sampling event; iron did not exceed the RSL at this location. Iron has been identified in this well during three of the four sampling events at concentrations ranging from 190 to 330 µg/L. Iron was not identified in this well during the April 2012 event.
- Manganese exceeded the MCL during both sampling events; it did not exceed the RSL. Manganese has been identified in this well during every sampling event at concentrations ranging from 73 to 83 µg/L.
- Naphthalene was identified at a concentration of 0.14 µg/L in January 2013, which is equal to the RSL for this constituent; there is no MCL for naphthalene. Naphthalene was not detected in this well during the other three sampling events; consequently, no trend analysis was performed for this constituent.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trends for iron and manganese are increasing in this well.

### **4.15 Load Line 12**

During this reporting period, eight unconsolidated aquifer wells (LL12mw-182, LL12mw-182ss, LL12mw-185, LL12mw-187, LL12mw-242, LL12mw-245, LL12mw-246, and LL12mw-247) were sampled in Load Line 12.

#### **LL12mw-082**

- During this reporting period well LL12mw-082 was sampled in October 2012 and January 2013; this well has been sampled 13 times since October 2006.
- This well was specifically sampled for BEHP in October 2012 and phthalates in January 2013. No constituents were identified at concentrations exceeding their respective MCLs or RSLs in this well during this reporting period.

#### **LL12mw-082ss**

- During this reporting period well LL12mw-082ss was sampled in October 2012 and January 2013; this well has been sampled four times since April 2012.
- This well was specifically sampled for BEHP in October 2012 and phthalates in January 2013. No constituents were identified at concentrations exceeding their respective MCLs or RSLs in this well during this reporting period.

#### **LL12mw-185**

- During this reporting period well LL12mw-185 was sampled in January 2013 (nitrate-nitrite only) and August 2013 (nitrate-nitrite and metals only); this well has been sampled 10 times since January 2008.
- Manganese exceeded the MCL and RSL during August 2013 sampling event. Manganese has been identified in this well during 10 sampling events at concentrations ranging from 1380 to 1900 µg/L.
- Nitrate-nitrite exceeded the MCL and RSL during the January and August 2013 sampling events. Nitrate-nitrite has been identified in this well during 10 sampling events at concentrations ranging from 0.66 to 240 milligram per liter (mg/L).
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trend for manganese is increasing in this well.
- The linear trend for nitrate-nitrite is decreasing in this well.

#### **LL12mw-187**

- During this reporting period well LL12mw-187 was sampled in January and August 2013; this well has been sampled 11 times since January 2008.
- Cobalt exceeded the RSL during both sampling events; there is no MCL for cobalt. Cobalt has been identified in this well during every sampling event at concentrations ranging from 9.1 to 10.9 µg/L.
- Manganese exceeded the MCL and RSL during both sampling events. Manganese has been identified in this well during every sampling event at concentrations ranging from 2000 to 2260 µg/L.
- Thallium exceeded the RSL during the January 2013 sampling event; it did not exceed the MCL. Thallium has been identified in this well during five sampling events at concentrations ranging from 0.39 to 0.64 µg/L.
- Nitrate-nitrite exceeded the MCL and RSL during the January and August 2013 sampling events. Nitrate-nitrite has been identified in this well during 10 sampling events at concentrations ranging from 200 to 1800 mg/L.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trends for cobalt and manganese are decreasing in this well.
- The linear trends for thallium and nitrate-nitrite are increasing in this well.

### **LL12mw-242**

- During this reporting period well LL12mw-242 was sampled in January and August 2013; this well has been sampled 11 times since January 2008.
- Arsenic exceeded the MCL and RSL during both sampling events. Arsenic has been identified in this well during every sampling event at concentrations ranging from 13 to 53.5 µg/L. Ignoring the elevated concentration of 53.5 µg/L reported in January 2008, arsenic concentrations ranged from 13 to 28.1 µg/L.
- Iron exceeded the MCL during both sampling events; it did not exceed the RSL. Iron has been identified in this well during every sampling event at concentrations ranging from 565 to 65,800 µg/L. Ignoring the elevated concentration of 65,800 µg/L reported in January 2008, iron concentrations ranged from 565 to 4390 µg/L.
- Manganese exceeded the MCL during both sampling events; it did not exceed the RSL during either event. Manganese has been identified in this well during every sampling event at concentrations ranging from 52.6 to 1070 µg/L. Ignoring the elevated concentration of 1070 µg/L reported in January 2008, manganese concentrations ranged from 52.6 to 99.8 µg/L.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trends for arsenic, iron, and manganese are decreasing in this well. Note that the iron result from January 2008 was not plotted since it is nearly 15 times higher than the next highest result; plotting this result would have masked any apparent trend patterns in the chart.

### **LL12mw-245**

- During this reporting period well LL12mw-245 was sampled in January and August 2013; this well has been sampled 11 times since January 2008.
- Aluminum exceeded the MCL during the January 2013 sampling event; it did not exceed the RSL. Aluminum has been identified in this well during six sampling events at concentrations ranging from 27.6 to 4000 µg/L. Aluminum was not identified during the August 2013 sampling event.
- Arsenic exceeded the RSL during the January 2013 sampling event; it did not exceed the MCL. Arsenic has been identified in this well during eight sampling events at concentrations ranging from 3.6 to 24.4 µg/L. Arsenic was not identified during the April 2008, January 2012, and August 2013 sampling events.
- Iron exceeded the MCL during the January 2013 sampling event; it did not exceed the RSL. Iron has been identified in this well during nine sampling events at concentrations ranging from 73.5 to 7800 µg/L.
- Manganese exceeded the MCL during both sampling events; it did not exceed the RSL during either event. Manganese has been identified in this well during every sampling event at concentrations ranging from 56.5 to 430 µg/L.
- Thallium exceeded the RSL during the August 2013 sampling event; it did not exceed the MCL. Thallium has not previously been identified in this well; consequently, no trend analysis was performed.

- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trends for aluminum and iron are increasing in this well. Although, the trend is decreasing for both constituents since July 2012.
- The linear trend for arsenic is decreasing in this well.
- The linear trend for manganese is stable in this well.

#### **LL12mw-246**

- During this reporting period well LL12mw-246 was sampled in January 2013; this well has been sampled 10 times since January 2008.
- Arsenic exceeded the RSL and MCL during the January 2013 sampling event. Arsenic has been identified in this well during every sampling event at concentrations ranging from 14.6 to 42.4 µg/L.
- Iron exceeded the MCL during the January 2013 sampling event; it did not exceed the RSL. Iron has been identified in this well during nine sampling events at concentrations ranging from 1130 to 2120 µg/L.
- Manganese exceeded the MCL during the January 2013 sampling event; it did not exceed the RSL. Manganese has been identified in this well during every sampling event at concentrations ranging from 28 to 81 µg/L.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trends for arsenic and iron are increasing in this well.
- The linear trend for manganese is stable in this well.

#### **LL12mw-247**

- During this reporting period well LL12mw-247 was sampled in October 2012 and January and August 2013; this well has been sampled five times since April 2012.
- Aluminum exceeded the MCL during the October 2012 sampling event; it did not exceed the RSL. Aluminum has been identified on four occasions at concentrations ranging from 2.9 to 3100 µg/L. Aluminum was not detected during the April 2012 sampling event.
- Arsenic exceeded the RSL during all three sampling events in this reporting period; it also exceeded the MCL during the October 2012 event. Arsenic has been identified in this well during every sampling event at concentrations ranging from 6.3 to 11 µg/L.
- Iron exceeded the MCL during the October 2012 and January 2013 sampling events; it did not exceed the RSL during either event. Iron has been identified in this well during every sampling event at concentrations ranging from 170 to 6200 µg/L.
- Manganese exceeded the MCL during all three sampling events in this reporting period; it did not exceed the RSL. Manganese has been identified in this well during every sampling event at concentrations ranging from 160 to 280 µg/L.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trends for aluminum, arsenic, and iron are decreasing in this well.

- The linear trend for manganese is increasing in this well.

#### **4.16 NACA Test Area**

During this reporting period, two unconsolidated aquifer wells (NTAmw-109 and NTAmw-119) were sampled in the NACA Test Area. These are paired wells in which NTAmw-119 was installed in a deeper unconsolidated aquifer zone.

##### **NTAmw-109**

- During this reporting period well NTAmw-109 was sampled in January 2013; this well has been sampled eight times since April 2008.
- Iron exceeded the MCL during the January 2013 sampling event; it did not exceed the RSL. Iron has been identified in this well during every sampling event at concentrations ranging from 290 to 3220 µg/L.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trend for iron is decreasing in this well.

##### **NTAmw-119**

- During this reporting period well NTAmw-119 was sampled in October 2012 and January and August 2013; this well has been sampled five times since April 2012.
- Iron exceeded the MCL during all three sampling events in this reporting period; it did not exceed the RSL. Iron has been identified in this well during every sampling event at concentrations ranging from 340 to 3100 µg/L.
- Manganese exceeded the MCL during all three sampling events in this reporting period; it also exceeded the RSL during the January and August 2013 events. Manganese has been identified in this well during every sampling event at concentrations ranging from 200 to 340 µg/L.
- Naphthalene exceeded the RSL during the October 2012 sampling event; there is no MCL for naphthalene. Naphthalene has been identified in this well during every sampling event at concentrations ranging from 0.11 to 0.26 µg/L.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trends for iron and manganese are increasing in this well.
- The linear trend for naphthalene is decreasing in this well.

#### **4.17 Ramsdell Quarry Landfill**

During this reporting period, 6 bedrock aquifer wells (RQLmw-006 through RQLmw-011) were sampled on at least one at the Ramsdell Quarry Landfill.

### **RQLmw-006**

- During this reporting period well RQLmw-006 was sampled in August 2013; this well has been sampled four times since October 2009.
- Arsenic exceeded the MCL and RSL during the August 2013 sampling event. Arsenic has been identified in this well during all four sampling events at concentrations ranging from 13 to 55.9 µg/L.
- Cobalt exceeded the RSL during the August 2013 sampling event; there is no MCL for cobalt. Cobalt has been identified in this well during all four sampling events at concentrations ranging from 7.7 to 39 µg/L.
- Iron exceeded the MCL and RSL during the August 2013 sampling event. Iron has been identified in this well during all four sampling events at concentrations ranging from 37,200 to 120,000 µg/L.
- Manganese exceeded the MCL and RSL during the August 2013 sampling event. Manganese has been identified in this well during all four sampling events at concentrations ranging from 5360 to 11,000 µg/L.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trend for arsenic is decreasing in this well.
- The linear trends for cobalt, iron, and manganese are increasing in this well. Note that the concentration trends for these three constituents are affected by the concentration spike reported for each constituent in October 2011. If the data from October 2011 were removed from the trend chart, the iron and manganese trends would still be increasing; however, cobalt would be on the decline.

### **RQLmw-007**

- During this reporting period well RQLmw-007 was sampled in January and August 2013; this well has been sampled 14 times since October 2006.
- Arsenic exceeded the RSL during both sampling events; it also exceeded the MCL during the August 2013 event. Arsenic has been identified in this well during 13 sampling events at concentrations ranging from 4.6 to 71.4 µg/L.
- Cobalt exceeded the RSL during both sampling events; there is no MCL for cobalt. Cobalt has been identified in this well during 12 sampling events at concentrations ranging from 2.7 to 20 µg/L.
- Iron exceeded the MCL during both sampling events; iron also exceeded the RSL during the August 2013 event. Iron has been identified in this well during every sampling event at concentrations ranging from 381 to 23,900 µg/L.
- Manganese exceeded the MCL and RSL during both sampling events. Manganese has been identified in this well during every sampling event at concentrations ranging from 19.1 to 2730 µg/L.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trends for arsenic, iron, and manganese are decreasing in this well.
- The linear trend for cobalt is increasing in this well.
- Arsenic concentrations show temporal fluctuations; arsenic concentrations are generally higher in the fall and lower in the spring.



### **RQLmw-008**

- During this reporting period well RQLmw-008 was sampled in January and August 2013; this well has been sampled 14 times since October 2006.
- Arsenic exceeded the MCL and RSL during both sampling events. Arsenic has been identified in this well during every sampling event at concentrations ranging from 11.3 to 68.7 µg/L.
- Iron exceeded the MCL and RSL during both sampling events. Iron has been identified in this well during every sampling event at concentrations ranging from 18,200 to 141,000 µg/L.
- Manganese exceeded the MCL and RSL during both sampling events. Manganese has been identified in this well during every sampling event at concentrations ranging from 296 to 1280 µg/L.
- Thallium exceeded the RSL during the August 2013 sampling event; it did not exceed the MCL. This is the first time that thallium has been identified in this well; consequently, no trend analysis was performed.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trends for arsenic, iron, and manganese are decreasing in this well.
- Arsenic concentrations show temporal fluctuations; arsenic concentrations are generally higher in the fall and lower in the spring.

### **RQLmw-009**

- During this reporting period well RQLmw-009 was sampled in January and August 2013; this well has been sampled 14 times since October 2006.
- Arsenic exceeded the MCL and RSL during both sampling events. Arsenic has been identified in this well during 11 sampling events at concentrations ranging from 8.9 to 43 µg/L.
- Cobalt exceeded the RSL during the August 2013 sampling event; there is no MCL for cobalt. Cobalt has been identified in this well during 12 sampling events at concentrations ranging from 2.1 to 7.0 µg/L.
- Iron exceeded the MCL during both sampling events; iron also exceeded the RSL during the August 2013 event. Iron has been identified in this well during every sampling event at concentrations ranging from 869 to 21,700 µg/L.
- Manganese exceeded the MCL and RSL during both sampling events. Manganese has been identified in this well during every sampling event at concentrations ranging from 113 to 2400 µg/L.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trends for arsenic, cobalt, iron, and manganese are decreasing in this well.
- Arsenic concentrations show temporal fluctuations; arsenic concentrations are generally higher in the fall and lower in the spring.

**RQLmw-010**

- During this reporting period well RQLmw-010 was sampled in August 2013; this well has been sampled three times since October 2009.
- Manganese exceeded the MCL and RSL during the August 2013 sampling event. Manganese has been identified in this well during all three sampling events at concentrations ranging from 1280 to 3650 µg/L.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trend for manganese is decreasing in this well.

**RQLmw-011**

- During this reporting period well RQLmw-011 was sampled in August 2013; this well has been sampled four times since October 2009.
- Aluminum exceeded the MCL during the August 2013 sampling event; it did not exceed the RSL. Aluminum has been identified in this well on two occasions at concentrations of 1100 and 2500 µg/L. Aluminum was not detected during the October 2009 and October 2010 sampling events.
- Cobalt exceeded the RSL during the August 2013 sampling event; there is no MCL for cobalt. Cobalt has been identified in this well during all four sampling events at concentrations ranging from 11.6 to 25 µg/L.
- Iron exceeded the MCL during the August 2013 sampling event; iron did not exceed the RSL. Iron has been identified in this well during all four sampling events at concentrations ranging from 1550 to 4700 µg/L.
- Manganese exceeded the MCL and RSL during the August 2013 sampling event. Manganese has been identified in this well during all four sampling events at concentrations ranging from 2300 to 4050 µg/L.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trends for aluminum, cobalt, and iron are increasing in this well.
- The linear trend for manganese is decreasing in this well.

**4.18 Sharon Conglomerate**

During this reporting period, groundwater samples were collected from two wells (SCFmw-002 and SCFmw-004) completed in the basal Sharon Conglomerate unit.

**SCFmw-002**

- During this reporting period well SCFmw-002 was sampled in January and August 2013; this well has been sampled 12 times since April 2009.
- Arsenic exceeded the MCL and RSL during both sampling events. Arsenic has been identified in this well during every sampling event at concentrations ranging from 11.4 to 20.6 µg/L.

- Iron exceeded the MCL during both sampling events; iron did not exceed the RSL during either event. Iron has been identified in this well during 10 sampling events at concentrations ranging from 216 to 730 µg/L.
- Manganese exceeded the MCL during both sampling events; it did not exceed the RSL. Manganese has been identified in this well during every sampling event at concentrations ranging from 64 to 102 µg/L.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trends for arsenic and manganese are decreasing in this well.
- The linear trend for iron is increasing in this well.

#### **SCFmw-004**

- During this reporting period well SCFmw-004 was sampled in January and August 2013; this well has been sampled 12 times since April 2009.
- Manganese exceeded the MCL and RSL during both sampling events. Manganese has been identified in this well during every sampling event at concentrations ranging from 624 to 740 µg/L.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trend for manganese is increasing in this well.

### **4.19 Winklepeck Burning Grounds**

During this reporting period, four unconsolidated aquifer wells (WBGmw-006, WBGmw-007, WBGmw-009, and WBGmw-018) and three bedrock aquifer wells (WBGmw-019, WBGmw-020, and WBGmw-021) were sampled at the Winklepeck Burning Grounds.

#### **WBGmw-006**

- During this reporting period well WBGmw-006 was sampled in January and August 2013; this well has been sampled 11 times since October 2006.
- Manganese exceeded the MCL during the August 2013 sampling event; it did not exceed the RSL. Manganese has been identified in this well during every sampling event at concentrations ranging from 22 to 100 µg/L.
- RDX exceeded the RSL during both sampling events; there is no MCL for RDX. RDX has been identified in this well during 12 sampling events at concentrations ranging from 15 to 58 µg/L.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trend for manganese is stable to slightly decreasing in this well.
- The linear trend for RDX is decreasing in this well.

### **WBGmw-007**

- During this reporting period well WBGmw-007 was sampled in January 2013; this well has been sampled 10 times since October 2006.
- No constituents were identified at concentrations exceeding their respective MCLs or RSLs in this well during this reporting period.

### **WBGmw-009**

- During this reporting period well WBGmw-009 was sampled in January and August 2013; this well has been sampled 11 times since October 2006.
- Thallium exceeded the RSL during the August 2013 sampling event; it did not exceed the MCL. This is the first time that thallium has been detected in well WBGmw-009. No trend analysis was performed for this constituent in this well.
- RDX exceeded the RSL during both sampling events; there is no MCL for RDX. RDX has been identified in this well during 10 sampling events at concentrations ranging from 1.0 to 9.0 µg/L.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trend for RDX is decreasing in this well.

### **WBGmw-018**

- During this reporting period well WBGmw-018 was sampled in October 2012 and January and August 2013; this well has been sampled five times since April 2012.
- No constituents were identified above their respective MCLs or RSLs in this well during this reporting period.

### **WBGmw-019**

- During this reporting period well WBGmw-019 was sampled in October 2012 and January and August 2013; this well has been sampled five times since April 2012.
- Arsenic exceeded the RSL during the October 2012 sampling event; it did not exceed the MCL. This is the first occurrence of arsenic in this well; consequently, no trend analysis was performed for this constituent at this location.
- Iron exceeded the MCL during all three sampling events; it did not exceed the RSL. Iron has been identified in this well during all five sampling events at concentrations ranging from 430 to 480 µg/L.
- Manganese exceeded the MCL during all three sampling events; it did not exceed the RSL. Manganese has been identified in this well during all five sampling events at concentrations ranging from 220 to 250 µg/L.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trend for iron is stable to slightly increasing in this well.
- The linear trend for manganese is decreasing in this well.

### **WBGmw-020**

- During this reporting period well WBGmw-020 was sampled in October 2012 and January and August 2013; this well has been sampled five times since April 2012.

- Iron exceeded the MCL during all three sampling events; it did not exceed the RSL. Iron has been identified in this well during all five sampling events at concentrations ranging from 3900 to 4100 µg/L.
- Manganese exceeded the MCL and RSL during all three sampling events. Manganese has been identified in this well during all five sampling events at concentrations ranging from 330 to 370 µg/L.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trend for iron is stable in this well.
- The linear trend for manganese is decreasing in this well.

#### **WBGmw-021**

- During this reporting period well WBGmw-021 was sampled in October 2012 and January and August 2013; this well has been sampled five times since April 2012.
- Arsenic exceeded the RSL during all three sampling events in this reporting period; it did not exceed the MCL. Arsenic has been identified in this well during all five sampling events at concentrations ranging from 5.6 to 7.2 µg/L.
- Iron exceeded the MCL during all three sampling events; it did not exceed the RSL. Iron has been identified in this well during all five sampling events at concentrations ranging from 310 to 570 µg/L.
- Manganese exceeded the MCL during all three sampling events; it did not exceed the RSL. Manganese has been identified in this well during all five sampling events at concentrations ranging from 220 to 270 µg/L.
- No other constituents were identified above their respective MCLs or RSLs in this well during this reporting period.
- The linear trend for arsenic is decreasing in this well.
- The linear trends for iron and manganese are increasing in this well.

### **4.20 MCL and RSL Exceedances**

Table 4-3 lists all wells and COPCs reported as present in samples collected during the FWGWMP in October 2012 and January, and August 2013 at concentrations greater than either the MCLs or the RSLs. This section summarizes those conditions and is presented by analyte group (e.g., inorganics, explosives, etc.).

#### **4.20.1 Inorganics**

During this 2013 reporting period, aluminum (12 wells), arsenic (33 wells), cobalt (10 wells), cyanide (3 wells), iron (50 wells), manganese (63 wells), and thallium (5 wells) were reported at concentrations exceeding their respective MCLs and/or RSLs during at least one sampling event from the 164 wells sampled. The following general observations were noted regarding the inorganic constituents: 1) the MCL for aluminum was exceeded in 12 wells, and the aluminum RSL was not exceeded during the sampling events; 2) all detected arsenic concentrations exceeded the RSL and 42% of the detected

arsenic concentrations exceeded the MCL; 3) cobalt exceeded the RSL in 10 wells; there is no MCL for cobalt; 4) cyanide exceeded the RSL in 3 wells; there is no MCL for cyanide; 5) iron exceeded the MCL in 50 wells, and it exceeded the RSL in six wells on at least one occasion; 6) manganese exceeded the MCL in 63 wells, and it exceeded the RSL in 32 wells on at least one occasion; and 7) thallium exceeded the RSL in five wells on one occasion.

#### **4.20.2 Volatile Organic Compounds**

During this reporting period, carbon tetrachloride (one well), and chloroform (one well) were reported at concentrations exceeding their respective RSLs during two sampling events. The following general observations were noted regarding the VOCs: 1) carbon tetrachloride exceeded the RSL but not the MCL in one well on two occasions; and 2) chloroform exceeded the RSL in one well on two occasions; there is no MCL for this VOC.

#### **4.20.3 Semivolatile Organic Compounds**

During this reporting period, 3,3'-dichlorobenzidine (one well), bis(2-ethylhexyl)phthalate (two wells), naphthalene (four wells), benzo(a)anthracene (one well), benzo(a)pyrene (one well), and benzo(b)fluoranthene (one well), were reported at concentrations exceeding their respective MCLs and/or RSLs during one sampling event. The following general observations were noted regarding the SVOCs: 1) 3,3'-dichlorobenzidine exceeded the RSL in one well on one occasion; there is no MCL for this SVOC; 2) bis(2-ethylhexyl)phthalate was identified at concentrations exceeding the RSL and MCL in two wells on one occasion; 3) naphthalene exceeded the RSL in four wells on one occasion; there is no MCL for this SVOC; 4) benzo(a)anthracene, benzo(a)pyrene and benzo(b)fluoranthene exceeded the RSL but not the MCL in one well on one occasion (DETMw-003). This is first reported detection of these SVOCs in this well.

#### **4.20.4 Pesticides and Herbicides**

During the 2013 reporting period, beta-BHC (three wells) was reported at concentrations exceeding the RSL during at least one sampling event. There are no established MCLs for this pesticide/herbicide.

#### **4.20.5 Explosives and Propellants**

During this sampling period, 2,4-DNT (five wells), 2,6-DNT (five wells), 2,4,6-TNT (five wells), 4-amino-2,6-DNT (two wells), nitrate as nitrite (two wells), nitrobenzene (one well) and RDX (seven wells) were reported at concentrations exceeding their respective RSLs during at least one sampling event. In addition, nitrate as nitrite exceeded its MCL in two wells during two sampling events. There are no MCLs for the other explosives and propellants.

#### **4.20.6 Hexavalent Chromium**

During the three sampling events hexavalent chromium was detected at levels above the reporting limit in one well of three wells sampled. The detections at LL3mw-244 were elevated above the RSL of 0.031 µg/L (there is no MCL for hexavalent chromium). Note that these three wells will be resampled for hexavalent chromium semiannually.

#### **4.21 Alpha, Beta, and Gamma Radionuclides**

FWGmw-014 (one of the 2012 installed wells in the former monazite sands storage area) and BKGmw-005 (back ground upgradient control) were analyzed for alpha, beta, and gamma radionuclides. As shown in October 2012 and January 2013 events the gamma spectroscopy, gross alpha and beta screening indicated that no results exceeded their respective MCLs.

Analysis for total alpha radium by method 903.0 (approved drinking water method for total alpha radium) and total thorium & uranium by inductively coupled plasma mass spectrometry (ICPMS), method 6020 were as follows; the total alpha radium was below the EPA drinking water limit of 5.0 picocuries per liter (pCi/L). The total uranium results were also reported to be below EPA limits of 30 µg/L. While there is no EPA standard for thorium in drinking water, the thorium results showed the constituent at the method detection limit (MDL) or as a nondetect.

Based on this analysis EQM does not believe that there is a radiation concern at well FWGmw-014.

#### **4.22 Assessment of Groundwater Remedial Action Effectiveness**

Groundwater remedial actions have not been performed to date at RVAAP and therefore are not discussed in this report. The facility-wide groundwater conditions are still being evaluated.

## SECTION 5

### FWGWMP ANNUAL RECOMMENDATIONS/REVIEW

#### 5.1 FWGWMP Annual Recommendations

The USACE is performing CERCLA closure at the former RVAAP under the IRP and the Military Munitions Response Program (MMRP). The overall goal is to remediate the RVAAP installation so all of the property can be transferred to the ARNG and be used by the OHARNG as a military training site. One of the activities conducted under the IRP includes monitoring of an extensive network (now 281 wells) of groundwater monitoring wells at the RVAAP facility. To date, 281 FWGWMP wells at the facility have been sampled and analyzed a minimum of four quarters. Monitoring of the facility-wide groundwater is specified as a requirement of the Ohio EPA's DFFOs. The DFFOs were issued to the U.S. Department of the Army on June 10, 2004.

Additionally, much of the FWGWMP has been conducted as part of the groundwater RI study(s). This is similar to groundwater detection monitoring, and nature and extent monitoring. Going forward, data generated under the FWGWMP will continue to be used to further assess groundwater under additional RI activities, and to assist in completing the FS.

The Army has proposed, with concurrence from the Ohio EPA and the OHARNG, to move from an area-specific approach to a facility-wide approach for RVAAP-66. This will provide a more focused approach for achieving the goals of the FWGWMP including:

- Characterize the nature and extent of facility-wide groundwater contamination.
- Assess the risk posed to human health and the environment from facility-wide groundwater.
- Establish a system to monitor potential offsite migration of contaminants via groundwater.
- Provide for continuing groundwater monitoring at the RQL and DA2 RCRA units.

In order to accomplish the goal for a facility-wide approach to groundwater the USACE, under a GSA PBA contract, retained EQM (Contract No. GS-10F-0293K – Delivery Order W912QR-11-F-0266) to obtain a signed ROD for the facility-wide groundwater (RVAAP-66).

The objective of this project is to complete groundwater investigation activities in support of the ROD. It should be noted that this section of the Annual 2013 Report only presents a broad summary of the RI/FS Activities. Additional details regarding the objectives and scope for completing the remedial investigation activities will be provided in the RI/FS Work Plan currently being prepared by EQM. A significant amount of work has already



been conducted at RVAAP surrounding the various AOCs including remedial investigations, human health risk evaluations, feasibility studies, interim remedial measures, groundwater monitoring, etc. The current FWGWMP schedule involves semiannual sampling of a subset of the 281 existing wells at RVAAP. A baseline data set has been established for all of the wells at RVAAP. It appears from these data that the initial investigative phase for the existing wells has been completed [i.e., there is an understanding of the impacts of specific AOC sources to individual wells at the facility]. As a result, this RI/FS will pursue a ROD for groundwater using a facility-wide approach. Consequently, the RI for facility-wide groundwater will entail a thorough evaluation of historical data, assessment of key data gaps, geotechnical analyses, additional chemical analyses, aquifer testing, preparation of a baseline risk assessment (BRA), groundwater modeling, and installation of additional wells to supplement the hydrogeologic and fate-and-transport models. Specifically, additional monitoring wells will be installed at the facility to further characterize the nature and extent of facility-wide groundwater impacts.

The transition from an AOC-based to facility-wide approach is designed to evaluate the overall contributions to groundwater from all potential contaminant source areas at RVAAP and to predict potential offsite migration pathways, potential potable use areas, and areas that may require restricted groundwater use. In the latter case, this may involve melding of several previously described AOCs or smaller segregated areas based on the model outputs. Historical data previously obtained from the various AOCs will be reviewed, screened, evaluated, and used as input into the evaluations conducted as part of the facility-wide groundwater RI (e.g., conceptual model, nature and extent, BRA, and fate-and-transport models).

The primary objective of the RI/FS is to obtain a signed Record of Decision for facility-wide groundwater at RVAAP. To meet this goal, the following steps will be taken:

- Review historical studies and monitoring activities at RVAAP in order to coordinate the facility-wide groundwater investigation with all other relevant investigations conducted to date.
- Screen historical and recent data to identify site related chemicals (SRCs) and COPCs and their distribution in groundwater across RVAAP via site mapping and groundwater modeling.
- Evaluate and determine if any contaminants have migrated or are migrating off RVAAP through the collection of data from newly installed wells and subsequent groundwater modeling.
- Conduct a BRA to evaluate the potential threat to human health and the environment through the groundwater pathway if no remedial action is taken. The BRA will determine the COPCs that are chemicals of concern (COCs), if any, which may ultimately require mitigation.
- Identify potential groundwater use areas, as well as potential restricted areas that cannot be used for potable use, via evaluation of new and existing data, groundwater modeling, and risk evaluation. It will

ultimately be the ARNG's responsibility for final evaluation of the potential areas for potable use by OHARNG personnel. Identification of these zones through modeling will serve as the starting point for ARNG to validate whether these areas are suitable for potable groundwater use and to assess the effect any future production well(s) might have on the aquifer, including radius of influence (ROI) and resulting flow patterns.

- Perform the FS, Proposed Plan, and ROD to address any identified COCs. The plan objective will have been met when the ROD has been approved and signed.

### **5.1.1 Work Completed Under The Remedial Investigation**

To date the following activities associated with the RI have been completed or are currently being conducted:

- RI/FS Work Plan has been submitted as a draft to all stakeholders. This document is still under review at the time of the preparation of this report.
- Evaluation of Existing Data, including:
  - Review of historical studies and monitoring activities.
  - Preparation of isoconcentration maps.
  - Assessment of origin of common contaminants in groundwater.
  - Investigation of the potential origin and impact of bis(2-ethylhexyl)phthalate.
- Field Investigation, including:
  - Installation of 38 new wells in support of hydrogeologic system modeling and contaminant fate-and-transport modeling and to address key data gaps.
  - Permeability testing on 20 test cores.
  - Aquifer testing, including two short-term pump tests.
  - Groundwater sampling, including quarterly sampling of the 38 new wells, semiannual sampling of 35 existing wells (including five RCRA wells), sampling of the six Mustard Burial Site wells for chemical warfare breakdown products, and assessing the presence of hexavalent chromium in the new and existing wells and perchlorate in the new wells.
- Contaminant Fate-and-Transport Modeling
  - Develop a facility-wide 3-dimensional groundwater flow model.
  - Predict migration paths and maximum future extent of contaminant migration.
  - Demonstrate early attainment use zones.
  - Screen alternative remedial actions in support of FS development via model simulations.

As part of the activities completed to date, EQM performed a preliminary assessment of the analytical data for the RVAAP wells dating from October 2006 through October

2012. The data were compared to the more conservative of the RSLs (November 2012) and drinking water standards MCLs as a preliminary determination of the nature and extent of impact within the RVAAP fence line. The objective of this evaluation was to determine if any additional RI wells are warranted at the site. (Note that this screening was performed as an initial attempt to determine nature and extent and not as part of the overall risk assessment screening process). This nature and extent evaluation focused on those constituents that can be strictly tied to historical activities conducted at RVAAP (e.g., explosives/propellants, volatile organic compounds, semivolatile organic compounds, pesticides, and polychlorinated biphenyls), although metals in the groundwater will also be evaluated.

Based on EQM's review,

- One of the new wells installed in 2012, LL3mw-244, consistently contains low levels of explosive constituents (HMX, RDX, 2-amino-4,6-DNT, and 4-amino-2,6-DNT). This well is located approximately 40 feet north of the southern fence line and indicates a potential exit pathway. While none of the concentrations of explosives detected in this well exceed their respective RSLs or the COPC screening level RSLs of  $10^{-6}$  (carcinogen) or  $HI=0.1$  (non-carcinogen), these explosives are all considered COPCs at RVAAP. Note that this well also has detections above the reporting limit for hexavalent chromium. Wells LL3mw-242 and LL3mw-243 are located north-northeast of this well, and they have generally not been found to contain explosive constituents. Preliminarily, the fate-and-transport model indicates that the flow path from the source area near LL3mw-241, LL3mw-239, and LL3mw-238 is slightly to the south-southwest. Based on this information, the extent of explosives in groundwater has not been defined south-southwest of well LL3mw-244.
- Well LL2mw-059 has also been found to consistently contain low concentrations of explosive constituents (2,4-DNT, HMX, 1,3,5-trinitrobenzene 1,3-dinitrobenzene, 2-amino-4,6-DNT, and 4-amino-2,6-DNT). This well is located approximately 300 feet north of the southern fence line and indicates a potential exit pathway. Detected levels of 2,4-DNT have ranged from 0.39  $\mu\text{g/L}$  to 0.49  $\mu\text{g/L}$ . The RSL is 0.2  $\mu\text{g/L}$  for this constituent. Note that this well is not one of the wells installed in 2012. It is being sampled as part of the ongoing semiannual groundwater monitoring activities. Three wells (LL2mw-060, LL2mw265, and SCFmw-003) are located east-southeast of well LL2mw-059, but they have not been found to contain explosives constituents. Based on this information, we recommend that a well be installed approximately due south of LL2mw-059.
- Well LL1mw-086 has been found to contain low concentrations of the organochloride pesticide, beta-BHC. This well also indicates a potential exit pathway along the eastern property boundary. beta-BHC was detected at a concentration of 0.027  $\mu\text{g/L}$  in July 2012 (there was also a detection above the reporting limit for beta-BHC in January 2013). The RSL is 0.022  $\mu\text{g/L}$ .

In order to more fully define the nature and extent of impacts at the facility (as well as to determine potential offsite contamination), EQM proposes to install three additional

groundwater monitoring wells hydraulically down-gradient of the above-referenced wells. The new wells will be installed beyond the existing RVAAP perimeter fence line on RVAAP property. The new wells will be installed in accordance with the *Facility-Wide Groundwater Monitoring Program Plan RVAAP-66 Facility-Wide Groundwater Addendum* (EQM, January 2012), which included amendments to the *Facility-Wide Sampling and Analysis Plan for Environmental Investigations, Ravenna Army Ammunition Plant, Ravenna, Ohio, Field Sampling Plan* (SAIC, 2011); *Facility-Wide Sampling and Analysis Plan for Environmental Investigations, Ravenna Army Ammunition Plant, Ravenna, Ohio, Quality Assurance Project Plan* (SAIC, 2011); and *Facility-Wide Safety and Health Plan for Environmental Investigations* (SAIC, 2011). These wells were installed in November 2013.

### **5.1.2 Work To Be Completed Under The Remedial Investigation**

The following activities associated with the RI/FS have yet to be completed:

- Complete four quarters of groundwater sampling of the 3 new RI wells.
- Prepare and submit the final RI Work Plan including:
  - A review of historical data/studies.
  - Identification of data gaps.
  - Determine the need for additional analyses/testing as it relates to the RI.(A draft RI Work Plan has been submitted; this document will be finalized upon concurrence by the Ohio EPA.)
- Prepare the RI Report, which will include:
  - Groundwater modeling in support of two major elements of project execution: 1) facility-wide fate-and-transport evaluation and 2) evaluation and optimization of remedial alternatives in the FS.
  - Refining the facility-wide groundwater conceptual site model using data collected during the RI phase and historical hydrogeologic data.
  - Conducting a human health baseline risk assessment for facility-wide groundwater exposure including: 1) The use of the MCLs, RSLs, and the FWCUGs, 2) fate-and-transport modeling, and 3) an assessment of potential offsite impacts.
- Prepare and complete the FS.
- Prepare and complete the Proposed Plan including the public hearing and comment period.
- Prepare and complete the ROD.

The OHARNG would like to utilize groundwater in certain areas of the facility. Specific areas for groundwater use have not been specifically identified by the OHARNG. Ongoing activities in pursuit of the ROD for facility-wide groundwater will better

determine contaminated areas (if any) and help identify where groundwater can or cannot be utilized at the facility.

As required by Ohio EPA's DFFOs, EQM will continue to perform Facility-Wide groundwater monitoring during the development of the RI/FS, including scheduled groundwater sampling and analysis, sampling event reporting, and annual report preparation and submittal.

## SECTION 6

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## **APPENDIX A**

### **CORRESPONDENCE DOCUMENTING THE DELAY IN THE APRIL 2013 SAMPLING EVENT**



Ravenna Army Ammunition Plant  
8451 State Route 5  
Ravenna, Ohio 44266

8 April, 2013

Ohio Environmental Protection Agency  
Attn: Ms. Eileen Mohr  
Northeast District Office  
2110 East Aurora Road  
Twinsburg, OH 44087-1924

Subject: April 2013 Groundwater Monitoring Event Notification  
RVAAP-66 Facility-Wide Groundwater Monitoring Program  
Ravenna Army Ammunition Plant, Ravenna, Ohio

Dear Ms. Mohr,

This letter provides notification that the sampling of the wells installed under the *Facility-Wide Groundwater Monitoring Program Plan RVAAP-66 Facility-Wide Groundwater Addendum* and the *Facility-Wide Groundwater Monitoring Program Plan RVAAP-66 Facility-Wide Groundwater Semiannual Monitoring Addendum* for the above referenced site, is currently scheduled to be conducted April 22-26, 2013. This document was prepared by the US Army Corps of Engineers, Louisville District in support of the Ravenna Army Ammunition Plant/Camp Ravenna cleanup program.

The purpose of this event is to conduct sampling and analysis at six of the wells installed in 2012 (in order to complete the four quarters of monitoring for these wells), as well as to fill in data gaps for other wells, including some additional perchlorate and hexavalent chromium analysis at selected wells. Attachment 1 presents the wells to be sampled and the analysis for each well. As part of this sampling event water levels and total depth measurements will also be collected, as well as conducting inspections of all monitoring wells at the facility.

Please contact the undersigned at (330) 358-7312 or [mark.c.patterson@us.army.mil](mailto:mark.c.patterson@us.army.mil) if there are issues or concerns with this notification.

Sincerely,

A handwritten signature in cursive script that reads "Mark C. Patterson".

Mark C. Patterson  
RVAAP Facility Manager  
Base Realignment and Closure Division

SUBJECT: April 2013 Groundwater Monitoring Event Notification RVAPP-66 Facility-  
Wide Groundwater

Cc: Nancy Zikmanis – Ohio EPA, DERR  
Ann Wood – ARNG  
Brett Merkel - ARNG  
Katie Tait – OHARNG  
Glen Beckham – USACE  
Nat Peters – USACE  
Mark Nichter – USACE  
Kathy Krantz - USACE



Ravenna Army Ammunition Plant  
8451 State Route 5  
Ravenna, Ohio 44266

**ATTACHMENT 1**  
**WELL LIST AND ANALYTES**

[illegible]





John R. Kasich, Governor  
Mary Taylor, Lt. Governor  
Scott J. Nally, Director

April 10, 2013

RE: RAVENNA ARMY AMMUNITION PLANT  
PORTAGE/TRUMBULL COUNTIES  
FACILITY-WIDE GROUNDWATER  
NOTICE OF DEFICIENCY  
OHIO EPA ID # 267-000859-036

Mr. Mark Patterson, Facility Manager  
Ravenna Army Ammunition Plant  
8451 State Route 5  
Ravenna, OH 44266

**CERTIFIED MAIL**  
**7012 1010 0000 9467 6127**

Dear Mr. Patterson:

On April 10, 2013, the Ohio Environmental Protection Agency (Ohio EPA), Northeast District Office (NEDO), Division of Environmental Response and Revitalization (DERR) received notification from the Army (dated April 08, 2013) regarding an upcoming sampling event for April 22-26, 2013, and a list of wells proposed for sampling.

Please refer to Section (XIII) (28) of the June 2004 Directors Final Findings and Orders (DFFOs), which states in part: *"Respondent shall notify Ohio EPA not less than fifteen (15) days in advance of all sample collection activity."* The Army has not complied with this paragraph of the DFFOs.

Additionally, Ohio EPA will be reviewing the wells suggested for sampling activities. A forty-five (45) day turn around would put the comment period end date at May 27, 2013. We will endeavor to review this document in a shorter time frame. In the event that sampling occurs and Ohio EPA does not agree with the wells that were sampled, analytes, and proposed activities, we may require additional work to be conducted pursuant to Section XI of the DFFOs.

If you have any questions concerning this correspondence, please do not hesitate to contact me at (330) 963-1221. I look forward to your response.

Sincerely,

Eileen T. Mohr, Project Manager  
Division of Environmental Response and Revitalization

ETM/kss

cc: Katie Tait, OHARNG  
Ann Wood, ARNGD

ec: Justin Burke, Ohio EPA, CO, DERR  
Nancy Zikmanis, Ohio EPA, NEDO, DERR  
Kevin Palombo, Ohio EPA, NEDO, DERR

Todd Fisher, Ohio EPA, NEDO, DERR  
Al Muller, Ohio EPA, NEDO, DERR

**E-MAILED**  
04-15-2013 AMH

**Scanned**

By: AMH  
Date: 04-15-2013

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

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OHIO EPA  
NORTHEAST DISTRICT OFFICE  
2110 EAST AURORA ROAD  
TWINSBURG OH 44087

**SENDER: COMPLETE THIS SECTION**

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- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

**1. Article Addressed to:**

**MARK PATTERSON  
RAVENNA ARMY AMMUNITION PLANT  
8451 STATE ROUTE 5  
RAVENNA OH 44266**

**COMPLETE THIS SECTION ON DELIVERY**

**A. Signature**

X *Gail Harris*

☒ Agent  
☐ Addressee

**B. Received by (Printed Name)**

*Gail Harris*

**C. Date of Delivery**

*4-15-2013*

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If YES, enter delivery address below: ☒ No

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☐ Registered ☐ Return Receipt for Merchandise  
☐ Insured Mail ☐ C.O.D.

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**2. Article Number 7012 1010 0000 9467 6127 (04/10/13 K.Schillo for EM)**  
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Domestic Return Receipt

102595-02-M-1540

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Ravenna Army Ammunition Plant  
8451 State Route 5  
Ravenna, Ohio 44266

April 23, 2013

Ohio Environmental Protection Agency  
Attn: Ms. Eileen Mohr  
Northeast District Office  
2110 East Aurora Road  
Twinsburg, OH 44087-1924

Subject: Response to Notice of Deficiency  
(Ohio EPA ID # 267-000859-036)  
April 2013 Groundwater Monitoring Event Notification  
RVAAP-66 Facility-Wide Groundwater Monitoring Program  
Ravenna Army Ammunition Plant, Ravenna, Ohio

Dear Ms. Mohr,

On April 15, 2013, the Army received a Notice of Deficiency letter (Certified Mail 7012 1010 0000 9467 6127) from the Ohio Environmental Protection Agency (EPA), dated April 10, 2013. The Ohio EPA provided comments pertaining to the Army's "April 2013 Groundwater Monitoring Event Notification" letter, dated April 8, 2013. The Ohio EPA noted that the Army had not complied with the 15-day notification requirements specified in the DFFOs.


In response and due to timing issues presented by the Ohio EPA, the Army is withdrawing its notification for the proposed sampling event in April 2013. The April sampling and analysis event will not be conducted. As presented in the Ohio EPA approved *Facility-Wide Groundwater Monitoring Program Plan RVAAP-66 Facility-Wide Groundwater Semiannual Monitoring Addendum*, beginning in January 2012 sampling events transitioned to semiannual monitoring in January and July of each calendar year. Quarterly monitoring had been included in 2012 due to the requirement to obtain 4 quarters of data for the new wells installed in 2012.

As explained in the Army's "April 2013 Groundwater Monitoring Event Notification" letter, the purpose of the April event was to conduct sampling and analysis at seven of the wells installed in 2012 (in order to complete the four quarters of monitoring for these wells), as well as to fill in data gaps for other wells. This included some additional perchlorate and hexavalent chromium analysis at select wells. The proposed April sampling and analysis activities will now be conducted as part of the scheduled July 2013 sampling event. The Army will provide a notification letter including a list of all wells to be sampled and analytes for each well to the Ohio EPA with sufficient review and comment time prior to sampling in July.

Please contact the undersigned at (330) 358-7312 or [mark.c.patterson@us.army.mil](mailto:mark.c.patterson@us.army.mil) if there are issues or concerns with this notification.

SUBJECT: Response to Notice of Deficiency (Ohio EPA ID # 267-000859-036), April 2013  
Groundwater Monitoring Event Notification

Sincerely,

A handwritten signature in black ink that reads "Mark C. Patterson". The signature is written in a cursive, flowing style.

Mark C. Patterson  
RVAAP Facility Manager  
Base Realignment and Closure Division

Cc: Nancy Zikmanis – Ohio EPA, DERR  
Ann Wood – ARNG  
Brett Merkel - ARNG  
Katie Tait – OHARNG  
Glen Beckham – USACE  
Nat Peters – USACE  
Mark Nichter – USACE  
John Miller – EQM

## **APPENDIX B**

### **LIST OF WELLS SAMPLED BY QUARTER**

<b>October 2012 Well Sampling List</b>	
<b>Well ID Number</b>	<b>RVAAP Location</b>
LL1mw-086	SE/Load Line 1
EBGmw-131	Paired with EBGmw-125
LL1mw-087	Southeast area of RVAAP
LL12mw-247	Southeast area of RVAAP
LL4mw-201	South of Load Line 4
LL3mw-244	South of Load Line 3
LL3mw-245	East of Load Line 3
CBPmw-009	Central Burn Pits
FWGmw-001	Group 2 DLA Ore Storage Area
B12mw-013	Building 1200
FWGmw-002	North Perimeter
FWGmw-003	North Line Road Coal Tipple
WBGmw-018	Near WBGmw-007 (west)
WBGmw-019	Near WBGmw-007 (west)
WBGmw-020	Paired with WBGmw-009
WBGmw-021	Paired with WBGmw-006
DA2mw-114	Near DA2mw-108
DA2mw-115	Paired with DETmw-003
FWGmw-004	Administration Area/George Road
FWGmw-005	Western Area of Facility
FWGmw-006	Western Area of Facility
FWGmw-007	Southwestern Area of Facility
FWGmw-008	Western Depot Area
FWGmw-009	Western Depot Area
NTAmw-119	NACA Test
LL6mw-008	Load Line 6
LL6mw-009	Load Line 6
LL11mw-011	Load Line 11
LL11mw-012	Load Line 11
FWGmw-010	DLA Main Ore Storage Yard Area
FWGmw-011	East Classification Yard
FWGmw-012	East Classification Yard
FWGmw-013	Wet Storage Area
FWGmw-014	Route 80 Tank Farm
CBLmw-005	C Block
FWGmw-015	Admin/ George Road
FWGmw-016	Admin/ George Road
LL12mw-182ss	Load Line 12
LL12mw-182	Load Line 12
SCFmw-002	Southeast area of RVAAP

<b>January 2013 New Well Sampling List</b>	
<b>Well ID Number</b>	<b>RVAAP Location</b>
B12mw-013	Building 1200
CBLmw-005	C Block
CBPmw-009	Central Burn Pits
DA2mw-114	Near DA2mw-108
DA2mw-115	Paired with DETmw-003
EBGmw-131	Paired with EBGmw-125
FWGmw-001	Group 2 DLA Ore Storage Area
FWGmw-002	North Perimeter
FWGmw-003	North Line Road Coal Tipple
FWGmw-004	Administration Area/George Road
FWGmw-005	Western Area of Facility
FWGmw-006	Western Area of Facility
FWGmw-007	Southwestern Area of Facility
FWGmw-008	Western Depot Area
FWGmw-009	Western Depot Area
FWGmw-010	DLA Main Ore Storage Yard Area
FWGmw-011	East Classification Yard
FWGmw-012	East Classification Yard
FWGmw-013	Wet Storage Area
FWGmw-014	Route 80 Tank Farm
FWGmw-015	Admin/ George Road
FWGmw-016	Admin/ George Road
LL11mw-011	Load Line 11
LL11mw-012	Load Line 11
LL12mw-182ss	Load Line 12
LL12mw-247	Southeast area of RVAAP
LL1mw-086	SE/Load Line 1
LL1mw-087	Southeast area of RVAAP
LL3mw-244	South of Load Line 3
LL3mw-245	East of Load Line 3
LL4mw-201	South of Load Line 4
LL6mw-008	Load Line 6
LL6mw-009	Load Line 6
NTAmw-119	NACA Test
WBGmw-018	Near WBGmw-007 (west)
WBGmw-019	Near WBGmw-007 (west)
WBGmw-020	Paired with WBGmw-009
WBGmw-021	Paired with WBGmw-006

<b>January 2013 Semiannual Well Sampling List</b>	
<b>Well ID Number</b>	<b>RVAAP Location</b>
SCFmw-002	Sharon Conglomerate Deep Well
SCFmw-004	Sharon Conglomerate Deep Well
LL1mw-064	Load Line 1
LL1mw-065	Load Line 1
LL2mw-059	Load Line 2
LL2mw-265	Load Line 2
LL3mw-241	Load Line 3
LL3mw-242	Load Line 3
LL4mw-199	Load Line 4
LL6mw-002	Load Line 6
LL6mw-005	Load Line 6
LL10mw-003	Load Line 10
LL11mw-007	Load Line 11
LL12mw-182	Load Line 12
LL12mw-185	Load Line 12
LL12mw-187	Load Line 12
LL12mw-242	Load Line 12
LL12mw-245	Load Line 12
LL12mw-246	Load Line 12
BKGmw-005	Background Well
BKGmw-021	Background Well
CBLmw-002	C-Block
CBPmw-002	Central Burn Pit
B12mw-012	Building 1200
WBGmw-006	Winklepeck Burning Grounds
WBGmw-007	Winklepeck Burning Grounds
WBGmw-009	Winklepeck Burning Grounds
DA2mw-108	Open Demolition Area #2
DET-003	Open Demolition Area #2
DET-004	Open Demolition Area #2
NTAmw-109	NACA Test Area
EBGmw-125	Erie Burning Grounds
RQLmw-007	Ramsdell Quarry Landfill
RQLmw-008	Ramsdell Quarry Landfill
RQLmw-009	Ramsdell Quarry Landfill

### August 2013 Semiannual Well Sampling List

Well ID Number	RVAAP Location	Sampling Rationale
BKGmw-010	Background Well	Needed perchlorate analysis to complete full suite of sampling
B12mw-013	Building 1200	Complete 4 quarters of sampling
DA2mw-114	Demolition Area #2	Semiannual Well
DA2mw-115	Demolition Area #2	Semiannual Well
DETmw-001	Demolition Area #2	Complete 4 quarters of sampling
DETmw-002	Demolition Area #2	Complete 4 quarters of sampling
DETmw-003	Demolition Area #2	Semiannual RCRA Well
DETmw-004	Demolition Area #2	Semiannual RCRA Well
EBGmw-131	Erie Burning Grounds	Complete 4 quarters of sampling
FBQmw-174	Fuze & Booster Quarry	Semiannual Well
FWGmw-002	Facility-Wide wells	Needed perchlorate analysis to complete full suite of sampling
FWGmw-004	Facility-Wide wells	Semiannual Well
FWGmw-006	Facility-Wide wells	VOC sampling due to historical benzen detections
FWGmw-007	Facility-Wide wells	Semiannual Well
FWGmw-009	Facility-Wide wells	Complete 4 quarters of sampling
FWGmw-011	Facility-Wide wells	Semiannual Well
FWGmw-012	Facility-Wide wells	Semiannual Well
FWGmw-015	Facility-Wide wells	Semiannual Well
FWGmw-016	Facility-Wide wells	Semiannual Well
LL1mw-064	Load Line 1	Semiannual Well
LL1mw-065	Load Line 1	Semiannual Well
LL1mw-083	Load Line 1	Semiannual Well
LL1mw-084	Load Line 1	Semiannual Well
LL1mw-086	Load Line 1	Semiannual Well
LL1mw-087	Load Line 1	Semiannual Well
LL2mw-059	Load Line 2	Semiannual Well
LL2mw-265	Load Line 2	Semiannual Well
LL2mw-267	Load Line 2	Semiannual Well
LL3mw-238	Load Line 3	Semiannual Well
LL3mw-239	Load Line 3	Needed perchlorate analysis to complete full suite of sampling
LL3mw-241	Load Line 3	Semiannual Well
LL3mw-244	Load Line 3	Semiannual Well
LL10mw-003	Load Line 10	Semiannual Well
LL12mw-185	Load Line 12	Semiannual Well
LL12mw-187	Load Line 12	Semiannual Well
LL12mw-242	Load Line 12	Semiannual Well
LL12mw-245	Load Line 12	Semiannual Well
LL12mw-247	Load Line 12	Semiannual Well
NTAmw-119	NACA Testing Area	Semiannual Well
RQLmw-006	Ramsdell Quarry Landfill	Complete 4 quarters of sampling
RQLmw-007	Ramsdell Quarry Landfill	Semiannual RCRA Well
RQLmw-008	Ramsdell Quarry Landfill	Semiannual RCRA Well
RQLmw-009	Ramsdell Quarry Landfill	Semiannual RCRA Well
RQLmw-010	Ramsdell Quarry Landfill	Complete 4 quarters of sampling
RQLmw-011	Ramsdell Quarry Landfill	Complete 4 quarters of sampling
SCFmw-002	Sharon Conglomerate Formation	Semiannual Well
SCFmw-004	Sharon Conglomerate Formation	Semiannual Well
WBGmw-006	Winklepeck Burning Grounds	Semiannual Well
WBGmw-009	Winklepeck Burning Grounds	Semiannual Well
WBGmw-018	Winklepeck Burning Grounds	Complete 4 quarters of sampling
WBGmw-019	Winklepeck Burning Grounds	Complete 4 quarters of sampling
WBGmw-020	Winklepeck Burning Grounds	Semiannual Well
WBGmw-021	Winklepeck Burning Grounds	Semiannual Well

**APPENDIX C**  
**WATER LEVEL MEASUREMENT FIELD SHEETS**  
**AUGUST 2013**



## COMPREHENSIVE WATER LEVEL MEASUREMENTS

RVAAP FACILITY-WIDE GROUNDWATER MONITORING PROGRAM

August 2013

Well Number	Location	Date	Time	Depth to Water*	Depth to Bottom	Description of bottom	Instrument/Serial Number
ASYmw-001	Atlas Scrap Yard	8/13/2013	15:10	11.02	23.20	hard	OH02911
ASYmw-002	Atlas Scrap Yard	8/13/2013	15:18	14.30	22.95	hard	OH02911
ASYmw-003	Atlas Scrap Yard	8/13/2013	16:08	12.01	23.55	hard	OH02911
ASYmw-004	Atlas Scrap Yard	8/13/2013	16:01	8.86	29.86	hard	OH02911
ASYmw-005	Atlas Scrap Yard	8/13/2013	15:55	7.42	27.25	soft	OH02911
ASYmw-006	Atlas Scrap Yard	8/13/2013	15:29	13.56	28.76	hard	OH02911
ASYmw-007	Atlas Scrap Yard	8/13/2013	15:43	14.91	28.99	soft	OH02911
ASYmw-008	Atlas Scrap Yard	8/13/2013	15:49	4.89	27.28	medium	OH02911
ASYmw-009	Atlas Scrap Yard	8/13/2013	15:24	11.42	24.35	soft	OH02911
ASYmw-010	Atlas Scrap Yard	8/13/2013	15:31	11.90	31.00	hard	OH02911
B12mw-010	Building 1200	8/19/2013	14:40	16.09	22.82	hard	heron
B12mw-011	Building 1200	8/19/2013	14:50	17.24	26.69	hard	heron
B12mw-012	Building 1200	8/19/2013	14:45	16.52	24.82	hard	heron
B12mw-013	Building 1200	8/19/2013	14:35	17.63	24.16	hard	heron
BKGmw-004	Background	8/19/2013	13:55	13.38	22.23	hard	heron
BKGmw-005	Background	8/20/2013	11:12	12.65	20.89	hard	heron
BKGmw-006	Background	8/20/2013	12:30	22.98	37.52	hard	heron
BKGmw-008	Background	8/19/2013	13:10	15.87	27.39	hard	heron
BKGmw-010	Background	8/19/2013	14:55	15.45	21.98	hard	heron
BKGmw-012	Background	8/19/2013	14:20	8.55	62.09	hard	heron
BKGmw-013	Background	8/14/2013	12:05	12.09	27.96	hard	heron
BKGmw-015	Background	8/20/2013	12:20	48.98	53.00	hard	heron
BKGmw-016	Background	8/19/2013	16:40	6.93	21.12	medium	heron
BKGmw-017	Background	8/20/2013	11:30	18.36	35.90	hard	heron
BKGmw-018	Background	8/20/2013	21:10	16.18	27.51	hard	heron
BKGmw-019	Background	8/20/2013	11:40	20.65	35.59	hard	heron
BKGmw-020	Background	8/14/2013	8:20	8.82	33.22	hard	heron
BKGmw-021	Background	8/19/2013	14:00	15.3	21.42	hard	heron
CBLmw-001	C-Block Quarry	8/19/2013	16:10	43.14	50.43	hard	heron

\*All measurements from top of casing

NR = Not Recorded

## COMPREHENSIVE WATER LEVEL MEASUREMENTS

RVAAP FACILITY-WIDE GROUNDWATER MONITORING PROGRAM

August 2013

Well Number	Location	Date	Time	Depth to Water*	Depth to Bottom	Description of bottom	Instrument/Serial Number
CBLmw-002	C-Block Quarry	8/19/2013	16:05	37.72	47.34	hard	heron
CBLmw-003	C-Block Quarry	8/19/2013	15:50	35.69	44.72	hard	heron
CBLmw-004	C-Block Quarry	8/19/2013	15:50	34.74	46.95	hard	heron
CBLmw-005	C-Block Quarry	8/19/2013	15:45	25.25	32.40	hard	heron
CBPmw-001	Central Burn Pits	8/13/2013	16:51	12.29	34.24	soft	OH02911
CBPmw-002	Central Burn Pits	8/13/2013	16:38	7.36	31.68	medium	OH02911
CBPmw-003	Central Burn Pits	8/13/2013	16:27	11.62	30.26	medium	OH02911
CBPmw-004	Central Burn Pits	8/13/2013	16:33	10.39	29.69	medium	OH02911
CBPmw-005	Central Burn Pits	8/13/2013	16:30	11.71	27.48	hard	OH02911
CBPmw-006	Central Burn Pits	8/13/2013	16:45	7.43	25.20	hard	Heron
CBPmw-007	Central Burn Pits	8/13/2013	16:16	15.08	31.95	medium	OH02911
CBPmw-008	Central Burn Pits	8/13/2013	16:40	16.63	27.92	hard	Heron
CBPmw-009	Central Burn Pits	8/13/2013	16:42	9.91	66.71	hard	OH02911
CPmw-001	Cobbs Pond	8/13/2013	16:05	2.99	14.71	hard	Heron
CPmw-002	Cobbs Pond	8/13/2013	16:20	0.4	14.98	hard	Heron
CPmw-003	Cobbs Pond	8/13/2013	15:55	1.48	17.72	hard	Heron
CPmw-004	Cobbs Pond	8/13/2013	16:40	10.62	22.54	hard	Heron
CPmw-005	Cobbs Pond	8/13/2013	16:30	10.52	43.15	hard	Heron
CPmw-006	Cobbs Pond	8/13/2013	16:30	8.08	20.69	hard	Heron
DA2mw-104	Demo.Area 2	8/20/2013	15:00	21.15	29.19	hard	heron
DA2mw-105	Demo.Area 2	8/20/2013	15:45	3.54	16.22	hard	heron
DA2mw-106	Demo.Area 2	8/20/2013	15:40	6.38	16.78	hard	heron
DA2mw-107	Demo.Area 2	8/20/2013	15:25	8.95	16.84	hard	heron
DA2mw-108	Demo.Area 2	8/20/2013	16:25	6.79	17.15	hard	heron
DA2mw-109	Demo.Area 2	8/20/2013	16:10	14.65	24.25	soft	heron
DA2mw-110	Demo.Area 2	8/20/2013	16:15	9.49	22.35	hard	heron
DA2mw-111	Demo.Area 2	8/20/2013	16:05	7.92	14.79	hard	heron
DA2mw-112	Demo.Area 2	8/20/2013	15:55	7.7	17.04	hard	heron
DA2mw-113	Demo.Area 2	8/20/2013	15:50	7.92	16.29	hard	heron

\*All measurements from top of casing

NR = Not Recorded

## COMPREHENSIVE WATER LEVEL MEASUREMENTS

RVAAP FACILITY-WIDE GROUNDWATER MONITORING PROGRAM

August 2013

Well Number	Location	Date	Time	Depth to Water*	Depth to Bottom	Description of bottom	Instrument/Serial Number
DA2mw-114	Demo.Area 2	8/20/2013	16:30	5.7	21.75	medium	heron
DA2mw-115	Demo.Area 2	8/20/2013	14:45	6.1	46.79	medium	heron
DETMw-001	Demo.Area 2	8/20/2013	15:05	22.5	38.88	medium	heron
DETMw-002	Demo.Area 2	8/20/2013	14:50	32.69	41.99	medium	heron
DETMw-003	Demo.Area 2	8/20/2013	14:40	9.63	15.99	hard	heron
DETMw-004	Demo.Area 2	8/20/2013	14:30	10.88	13.80	hard	heron
EBGmw-123	Erie Burning Grounds	8/19/2013	12:40	9.24	34.74	hard	heron
EBGmw-124	Erie Burning Grounds	8/19/2013	12:35	2.89	32.65	medium	heron
EBGmw-125	Erie Burning Grounds	8/19/2013	12:50	11.44	27.43	hard	heron
EBGmw-126	Erie Burning Grounds	8/19/2013	12:15	1.82	27.75	hard	heron
EBGmw-127	Erie Burning Grounds	8/19/2013	12:08	4.05	32.82	hard	heron
EBGmw-128	Erie Burning Grounds	8/19/2013	12:00	6.59	28.24	hard	heron
EBGmw-129	Erie Burning Grounds	8/19/2013	12:30	5.69	30.94	hard	heron
EBGmw-130	Erie Burning Grounds	8/19/2013	13:05	6.08	28.39	hard	heron
EBGmw-131	Erie Burning Grounds	8/19/2013	13:00	9.69	73.40	hard	heron
FBQmw-166	Fuze and Booster Quarry	8/14/2013	11:17	5.45	19.83	hard	OH02911
FBQmw-167	Fuze and Booster Quarry	8/14/2013	11:15	4.81	18.9	hard	OH02911
FBQmw-168	Fuze and Booster Quarry	8/14/2013	10:22	10.74	21.28	medium	OH02911
FBQmw-169	Fuze and Booster Quarry	8/14/2013	11:11	6.85	18.18	hard	OH02911
FBQmw-170	Fuze and Booster Quarry	8/14/2013	10:59	16.62	32.80	hard	OH02911
FBQmw-171	Fuze and Booster Quarry	8/14/2013	10:55	16.88	31.54	hard	OH02911
FBQmw-172	Fuze and Booster Quarry	8/14/2013	10:51	27.16	34.51	hard	OH02911
FBQmw-173	Fuze and Booster Quarry	8/14/2013	10:44	43.87	53.08	hard	OH02911
FBQmw-174	Fuze and Booster Quarry	8/14/2013	10:32	15.4	23.14	hard	OH02911
FBQmw-175	Fuze and Booster Quarry	8/14/2013	10:27	17.05	25.84	hard	OH02911
FBQmw-176	Fuze and Booster Quarry	8/14/2013	10:16	8.09	23.74	soft	OH02911
FBQmw-177	Fuze and Booster Quarry	8/14/2013	10:18	12.64	24.78	soft	OH02911
FWGmw-001	Facilitywide	8/19/2013	14:15	8.48	20.00	hard	heron
FWGmw-002	Facilitywide	8/19/2013	14:05	23.29	69.80	hard	heron

\*All measurements from top of casing

NR = Not Recorded

## COMPREHENSIVE WATER LEVEL MEASUREMENTS

RVAAP FACILITY-WIDE GROUNDWATER MONITORING PROGRAM

August 2013

Well Number	Location	Date	Time	Depth to Water*	Depth to Bottom	Description of bottom	Instrument/Serial Number
FWGmw-003	Facilitywide	8/20/2013	11:20	5.49	21.04	medium	heron
FWGmw-004	Facilitywide	8/14/2013	12:30	13.09	22.45	hard	heron
FWGmw-005	Facilitywide	8/19/2013	16:15	21.98	31.80	soft	heron
FWGmw-006	Facilitywide	8/19/2013	16:20	6.31	19.24	hard	heron
FWGmw-007	Facilitywide	8/20/2013	10:40	23.72	32.16	hard	heron
FWGmw-008	Facilitywide	8/20/2013	10:50	6.3	21.84	soft	heron
FWGmw-009	Facilitywide	8/20/2013	11:00	2.84	20.32	medium	heron
FWGmw-010	Facilitywide	8/19/2013	13:20	10.8	19.10	hard	heron
FWGmw-011	Facilitywide	8/19/2013	13:30	2.84	17.69	hard	heron
FWGmw-012	Facilitywide	8/19/2013	13:35	1.24	42.41	hard	heron
FWGmw-013	Facilitywide	8/14/2013	11:55	18.77	36.65	hard	heron
FWGmw-014	Facilitywide	8/20/2013	11:05	4.38	21.08	hard	heron
FWGmw-015	Facilitywide	8/14/2013	12:15	5.04	26.21	hard	heron
FWGmw-016	Facilitywide	8/14/2013	12:20	16.27	67.45	hard	heron
LL1mw-063	Loadline 1	8/13/2013	13:33	22.53	30.13	hard	1659
LL1mw-064	Loadline 1	8/19/2013	13:25	1.21	21.07	hard	heron
LL1mw-065	Loadline 1	8/13/2013	11:48	10.76	22.96	hard	1659
LL1mw-067	Loadline 1	8/13/2013	14:30	16.77	25.74	hard	1659
LL1mw-078	Loadline 1	8/13/2013	13:13	30.07	41.13	soft	1659
LL1mw-079	Loadline 1	8/13/2013	12:41	30.12	41.78	hard	1659
LL1mw-080	Loadline 1	8/13/2013	12:30	9.40	22.41	hard	1659
LL1mw-081	Loadline 1	8/13/2013	12:57	27.46	42.10	soft	1659
LL1mw-082	Loadline 1	8/13/2013	14:11	26.38	41.42	hard	1659
LL1mw-083	Loadline 1	8/13/2013	13:58	31.05	41.41	hard	1659
LL1mw-084	Loadline 1	8/13/2013	13:45	27.11	38.93	hard	1659
LL1mw-085	Loadline 1	8/13/2013	12:15	33.96	44.95	hard	1659
LL1mw-086	Loadline 1	8/13/2013	11:56	7.07	77.82	soft	1659
LL1mw-087	Loadline 1	8/13/2013	11:27	5.23	18.09	medium	1659
LL2mw-059	Loadline 2	8/13/2013	11:30	12.83	21.84	hard	OH02911

\*All measurements from top of casing

NR = Not Recorded

## COMPREHENSIVE WATER LEVEL MEASUREMENTS

RVAAP FACILITY-WIDE GROUNDWATER MONITORING PROGRAM

August 2013

Well Number	Location	Date	Time	Depth to Water*	Depth to Bottom	Description of bottom	Instrument/Serial Number
LL2mw-060	Loadline 2	8/13/2013	11:40	9.55	21.88	hard	OH02911
LL2mw-261	Loadline 2	8/13/2013	12:38	6.82	22.55	hard	OH02911
LL2mw-262	Loadline 2	8/13/2013	12:22	6.96	22.68	hard	OH02911
LL2mw-263	Loadline 2	8/13/2013	12:14	7.05	23.53	hard	OH02911
LL2mw-264	Loadline 2	8/13/2013	12:08	5.17	22.46	hard	OH02911
LL2mw-265	Loadline 2	8/13/2013	11:37	9.31	24.52	hard	OH02911
LL2mw-266	Loadline 2	8/13/2013	12:46	10.60	22.81	hard	OH02911
LL2mw-267	Loadline 2	8/13/2013	12:52	8.94	22.12	hard	OH02911
LL2mw-268	Loadline 2	8/13/2013	12:02	14.37	29.96	soft	OH02911
LL2mw-269	Loadline 2	8/13/2013	11:55	15.88	30.33	soft	OH02911
LL2mw-270	Loadline 2	8/13/2013	12:30	7.12	22.49	hard	OH02911
LL3mw-232	Loadline 3	8/13/2013	14:17	17.88	39.90	medium	OH02911
LL3mw-233	Loadline 3	8/13/2013	14:10	24.63	31.54	soft	OH02911
LL3mw-234	Loadline 3	8/13/2013	14:00	9.89	22.74	hard	OH02911
LL3mw-235	Loadline 3	8/13/2013	14:24	16.43	23.04	hard	OH02911
LL3mw-236	Loadline 3	8/13/2013	14:33	14.89	26.70	hard	OH02911
LL3mw-237	Loadline 3	8/13/2013	14:43	14.30	25.63	medium	OH02911
LL3mw-238	Loadline 3	8/13/2013	13:55	15.14	23.44	hard	OH02911
LL3mw-239	Loadline 3	8/13/2013	13:48	22.82	37.00	soft	OH02911
LL3mw-240	Loadline 3	8/13/2013	13:40	28.00	36.72	medium	OH02911
LL3mw-241	Loadline 3	8/13/2013	15:00	9.11	25.67	hard	OH02911
LL3mw-242	Loadline 3	8/13/2013	13:17	13.90	22.60	hard	OH02911
LL3mw-243	Loadline 3	8/13/2013	13:26	12.46	26.43	hard	OH02911
LL3mw-244	Loadline 3	8/13/2013	13:08	10.23	46.94	hard	OH02911
LL3mw-245	Loadline 3	8/13/2013	14:10	12.05	48.75	hard	Heron
LL4mw-193	Loadline 4	8/13/2013	14:55	6.10	24.14	hard	Heron
LL4mw-194	Loadline 4	8/13/2013	15:00	7.49	23.49	hard	Heron
LL4mw-195	Loadline 4	8/13/2013	15:15	10.42	22.72	hard	Heron
LL4mw-196	Loadline 4	8/13/2013	15:30	13.24	21.75	hard	Heron

\*All measurements from top of casing

NR = Not Recorded

## COMPREHENSIVE WATER LEVEL MEASUREMENTS

RVAAP FACILITY-WIDE GROUNDWATER MONITORING PROGRAM

August 2013

Well Number	Location	Date	Time	Depth to Water*	Depth to Bottom	Description of bottom	Instrument/Serial Number
LL4mw-197	Loadline 4	8/13/2013	15:25	14.35	23.58	hard	Heron
LL4mw-198	Loadline 4	8/13/2013	15:40	6.39	22.34	hard	Heron
LL4mw-199	Loadline 4	8/13/2013	14:45	7.16	23.12	hard	Heron
LL4mw-200	Loadline 4	8/13/2013	14:20	17.35	25.10	hard	Heron
LL4mw-201	Loadline 4	8/13/2013	14:50	9.40	69.95	hard	Heron
LL5mw-001	Loadline 5	8/14/2013	10:43	19.09	27.06	medium	1659
LL5mw-002	Loadline 5	8/14/2013	9:44	19.55	27.52	hard	1659
LL5mw-003	Loadline 5	8/14/2013	9:54	18.21	23.98	hard	1659
LL5mw-004	Loadline 5	8/14/2013	10:05	17.00	25.33	hard	1659
LL5mw-005	Loadline 5	8/14/2013	10:19	20.59	29.67	soft	1659
LL5mw-006	Loadline 5	8/14/2013	10:33	19.13	27.10	medium	1659
LL6mw-001	Loadline 6	8/14/2013	10:00	12.05	17.60	hard	heron
LL6mw-002	Loadline 6	8/14/2013	10:35	20.68	24.48	hard	heron
LL6mw-003	Loadline 6	8/14/2013	10:10	15.32	25.62	medium	heron
LL6mw-004	Loadline 6	8/14/2013	10:40	16.21	24.48	hard	heron
LL6mw-005	Loadline 6	8/14/2013	10:25	11.72	21.95	soft	heron
LL6mw-006	Loadline 6	8/14/2013	10:15	13.39	17.75	hard	heron
LL6mw-007	Loadline 6	8/14/2013	10:50	4.9	19.30	hard	heron
LL6mw-008	Loadline 6	8/14/2013	11:00	14.19	20.04	hard	heron
LL6mw-009	Loadline 6	8/14/2013	11:05	13.84	41.32	hard	heron
LL7mw-001	Loadline 7	8/14/2013	9:05	19.79	33.14	hard	OH02911
LL7mw-002	Loadline 7	8/14/2013	8:38	15.00	27.27	hard	OH02911
LL7mw-003	Loadline 7	8/14/2013	9:00	10.79	33.63	hard	OH02911
LL7mw-004	Loadline 7	8/14/2013	8:57	14.26	32.81	hard	OH02911
LL7mw-005	Loadline 7	8/14/2013	8:41	20.64	30.43	hard	OH02911
LL7mw-006	Loadline 7	8/14/2013	8:50	10.03	30.04	hard	OH02911
LL8mw-001	Loadline 8	8/14/2013	10:00	10.33	27.17	soft	OH02911
LL8mw-002	Loadline 8	8/14/2013	9:43	17.14	32.68	hard	OH02911
LL8mw-003	Loadline 8	8/14/2013	9:51	11.62	23.09	hard	OH02911

\*All measurements from top of casing

NR = Not Recorded

## COMPREHENSIVE WATER LEVEL MEASUREMENTS

RVAAP FACILITY-WIDE GROUNDWATER MONITORING PROGRAM

August 2013

Well Number	Location	Date	Time	Depth to Water*	Depth to Bottom	Description of bottom	Instrument/Serial Number
LL8mw-004	Loadline 8	8/14/2013	9:36	10.01	22.80	hard	OH02911
LL8mw-005	Loadline 8	8/14/2013	9:27	11.65	26.95	soft	OH02911
LL8mw-006	Loadline 8	8/14/2013	9:21	19.45	27.14	hard	OH02911
LL9mw-001	Loadline 9	8/14/2013	9:29	14.68	23.35	hard	1659
LL9mw-002	Loadline 9	8/14/2013	8:36	7.90	22.74	hard	1659
LL9mw-003	Loadline 9	8/14/2013	9:18	11.21	24.2	hard	1659
LL9mw-004	Loadline 9	8/14/2013	8:17	18.97	34.89	hard	1659
LL9mw-005	Loadline 9	8/14/2013	8:47	14.66	23.5	hard	1659
LL9mw-006	Loadline 9	8/14/2013	8:25	16.94	28.82	hard	1659
LL9mw-007	Loadline 9	8/14/2013	9:05	7.76	18.2	hard	1659
LL10mw-001	Loadline 10	8/14/2013	11:02	23.39	29.58	hard	1659
LL10mw-002	Loadline 10	8/14/2013	11:11	16.68	29.80	hard	1659
LL10mw-003	Loadline 10	8/14/2013	11:35	19.86	28.55	hard	1659
LL10mw-004	Loadline 10	8/14/2013	11:42	12.09	33.53	hard	1659
LL10mw-005	Loadline 10	8/14/2013	12:00	14.18	29.24	hard	1659
LL10mw-006	Loadline 10	8/14/2013	11:25	11.2	26.48	medium	1659
LL11mw-001	Loadline 11	8/14/2013	8:25	8.98	23.34	hard	heron
LL11mw-002	Loadline 11	8/14/2013	9:40	1.14	16.39	hard	heron
LL11mw-003	Loadline 11	8/14/2013	8:55	1.3	16.02	hard	heron
LL11mw-004	Loadline 11	8/14/2013	9:05	0.92	16.13	hard	heron
LL11mw-005	Loadline 11	8/14/2013	9:10	5.02	16.38	hard	heron
LL11mw-006	Loadline 11	8/14/2013	9:20	3.41	15.68	hard	heron
LL11mw-007	Loadline 11	8/14/2013	9:35	13.72	25.25	hard	heron
LL11mw-008	Loadline 11	8/14/2013	8:45	1.58	15.68	hard	heron
LL11mw-009	Loadline 11	8/14/2013	8:30	2.29	19.49	hard	heron
LL11mw-010	Loadline 11	8/14/2013	8:40	3.99	23.42	hard	heron
LL11mw-011	Loadline 11	8/14/2013	11:40	7.95	20.31	hard	heron
LL11mw-012	Loadline 11	8/14/2013	11:45	19.83	119.45	medium	heron
LL12mw-088	Loadline 12	8/13/2013	13:10	5.84	27.35	medium	Heron

\*All measurements from top of casing

NR = Not Recorded

## COMPREHENSIVE WATER LEVEL MEASUREMENTS

RVAAP FACILITY-WIDE GROUNDWATER MONITORING PROGRAM

August 2013

Well Number	Location	Date	Time	Depth to Water*	Depth to Bottom	Description of bottom	Instrument/Serial Number
LL12mw-107	Loadline 12	8/13/2013	13:00	8.10	33.65	hard	Heron
LL12mw-113	Loadline 12	8/13/2013	12:26	5.26	25.72	soft	Heron
LL12mw-128	Loadline 12	8/13/2013	13:35	8.79	33.91	hard	Heron
LL12mw-153	Loadline 12	8/13/2013	12:30	5.43	25.06	hard	Heron
LL12mw-154	Loadline 12	8/13/2013	12:40	7.94	28.67	hard	Heron
LL12mw-182	Loadline 12	8/13/2013	11:30	8.96	37.95	hard	Heron
LL12mw-182ss	Loadline 12	8/13/2013	11:32	8.96	38.40	hard	Heron
LL12mw-183	Loadline 12	8/13/2013	11:40	11.45	36.28	hard	Heron
LL12mw-184	Loadline 12	8/13/2013	13:15	11.65	31.34	hard	Heron
LL12mw-185	Loadline 12	8/13/2013	12:12	6.35	23.23	hard	Heron
LL12mw-186	Loadline 12	8/13/2013	14:06	5.22	21.00	hard	Heron
LL12mw-187	Loadline 12	8/13/2013	12:15	8.45	29.85	hard	Heron
LL12mw-188	Loadline 12	8/13/2013	12:25	4.34	22.04	hard	Heron
LL12mw-189	Loadline 12	8/13/2013	14:05	3.65	19.55	hard	Heron
LL12mw-242	Loadline 12	8/13/2013	12:08	7.83	28.64	hard	Heron
LL12mw-243	Loadline 12	8/13/2013	12:45	8.22	24.30	hard	Heron
LL12mw-244	Loadline 12	8/13/2013	12:00	8.89	30.59	hard	Heron
LL12mw-245	Loadline 12	8/13/2013	12:50	7.01	30.00	soft	Heron
LL12mw-246	Loadline 12	8/13/2013	11:45	15.41	34.97	hard	Heron
LL12mw-247	Loadline 12	8/13/2013	13:45	4.49	22.60	hard	Heron
LNWmw-024	Landfill North of Winklepeck	8/21/2013	11:30	12.17	22.51	medium	heron
LNWmw-025	Landfill North of Winklepeck	8/21/2013	11:25	4.82	20.29	hard	heron
LNWmw-026	Landfill North of Winklepeck	8/21/2013	11:20	5.42	25.97	hard	heron
LNWmw-027	Landfill North of Winklepeck	8/21/2013	11:15	7.05	26.85	hard	heron
MBSmw-001	Suspected Mustard Agent Burial	8/20/2013	10:10	17.3	30.99	hard	heron
MBSmw-002	Suspected Mustard Agent Burial	8/20/2013	10:20	17.85	31.14	soft	heron
MBSmw-003	Suspected Mustard Agent Burial	8/20/2013	10:25	18.02	30.70	hard	heron
MBSmw-004	Suspected Mustard Agent Burial	8/20/2013	10:30	16.11	27.18	hard	heron
MBSmw-005	Suspected Mustard Agent Burial	8/20/2013	10:15	17.54	29.95	soft	heron

\*All measurements from top of casing

NR = Not Recorded



## COMPREHENSIVE WATER LEVEL MEASUREMENTS

RVAAP FACILITY-WIDE GROUNDWATER MONITORING PROGRAM

August 2013

Well Number	Location	Date	Time	Depth to Water*	Depth to Bottom	Description of bottom	Instrument/Serial Number
MBSmw-006	Suspected Mustard Agent Burial	8/20/2013	10:00	17.02	28.00	hard	heron
NTAmw-107	NACA Test Area	8/20/2013	8:15	12.35	24.09	soft	heron
NTAmw-108	NACA Test Area	8/20/2013	8:20	17.41	24.41	medium	heron
NTAmw-109	NACA Test Area	8/20/2013	8:25	11.79	20.89	soft	heron
NTAmw-110	NACA Test Area	8/20/2013	8:35	13.9	29.75	hard	heron
NTAmw-111	NACA Test Area	8/20/2013	8:45	4.69	22.08	hard	heron
NTAmw-112	NACA Test Area	8/20/2013	9:20	8.69	26.58	soft	heron
NTAmw-113	NACA Test Area	8/20/2013	8:50	6.71	29.64	hard	heron
NTAmw-114	NACA Test Area	8/20/2013	8:55	6.23	22.78	hard	heron
NTAmw-115	NACA Test Area	8/20/2013	9:05	13.19	25.30	hard	heron
NTAmw-116	NACA Test Area	8/20/2013	9:08	6.19	22.53	hard	heron
NTAmw-117	NACA Test Area	8/20/2013	9:10	13.69	27.49	hard	heron
NTAmw-118	NACA Test Area	8/20/2013	9:15	8.72	24.66	hard	heron
NTAmw-119	NACA Test Area	8/20/2013	8:30	12.3	104.65	hard	heron
RQLmw-006	Ramsdell Quarry Landfill	8/13/2013	15:09	33.48	42.03	hard	1659
RQLmw-007	Ramsdell Quarry Landfill	8/13/2013	17:05	5.05	18.48	hard	1659
RQLmw-008	Ramsdell Quarry Landfill	8/13/2013	16:55	5.50	18.67	hard	1659
RQLmw-009	Ramsdell Quarry Landfill	8/13/2013	16:50	4.40	18.80	hard	1659
RQLmw-010	Ramsdell Quarry Landfill	8/13/2013	16:39	24.06	35.34	hard	1659
RQLmw-011	Ramsdell Quarry Landfill	8/13/2013	15:36	20.60	35.36	hard	1659
RQLmw-012	Ramsdell Quarry Landfill	8/13/2013	15:20	20.50	32.69	hard	1659
RQLmw-013	Ramsdell Quarry Landfill	8/13/2013	16:32	24.07	35.90	soft	1659
RQLmw-014	Ramsdell Quarry Landfill	8/13/2013	16:02	19.65	31.55	hard	1659
RQLmw-015	Ramsdell Quarry Landfill	8/13/2013	14:48	30.13	41.87	medium	1659
RQLmw-016	Ramsdell Quarry Landfill	8/13/2013	14:57	34.32	41.67	medium	1659
RQLmw-017	Ramsdell Quarry Landfill	8/19/2013	11:45	28.85	32.70	hard	heron
SCFmw-001	Sharon Conglomerate	8/14/2013	11:25	88.48	214.30	medium	heron
SCFmw-002	Sharon Conglomerate	8/13/2013	13:56	18.62	150.10	medium	Heron
SCFmw-003	Sharon Conglomerate	8/13/2013	11:48	7.64	139.65	medium	OH02911

\*All measurements from top of casing

NR = Not Recorded

## COMPREHENSIVE WATER LEVEL MEASUREMENTS

RVAAP FACILITY-WIDE GROUNDWATER MONITORING PROGRAM

August 2013

Well Number	Location	Date	Time	Depth to Water*	Depth to Bottom	Description of bottom	Instrument/Serial Number
SCFmw-004	Sharon Conglomerate	8/20/2013	10:30	-0.2	112.5	hard	QED
SCFmw-005	Sharon Conglomerate	8/13/2013	15:47	9.80	156.10	medium	1659
SCFmw-006	Sharon Conglomerate	8/19/2013	13:50	17.88	87.91	medium	heron
WBGmw-005	Winklepeck Burning Grounds	8/21/2013	10:30	5.98	21.12	hard	heron
WBGmw-006	Winklepeck Burning Grounds	8/21/2013	9:18	7.63	20.14	hard	heron
WBGmw-007	Winklepeck Burning Grounds	8/21/2013	9:40	17.04	26.38	hard	heron
WBGmw-008	Winklepeck Burning Grounds	8/21/2013	9:56	14.75	20.80	hard	heron
WBGmw-009	Winklepeck Burning Grounds	8/21/2013	9:10	13.08	24.27	medium	heron
WBGmw-010	Winklepeck Burning Grounds	8/21/2013	10:40	7.70	23.29	hard	heron
WBGmw-011	Winklepeck Burning Grounds	8/21/2013	10:45	10.33	23.75	medium	heron
WBGmw-012	Winklepeck Burning Grounds	8/21/2013	11:40	NR	NR	not found	NR
WBGmw-013	Winklepeck Burning Grounds	8/21/2013	10:15	11.04	24.04	hard	heron
WBGmw-014	Winklepeck Burning Grounds	8/21/2013	10:00	16.12	24.93	hard	heron
WBGmw-015	Winklepeck Burning Grounds	8/21/2013	9:45	12.09	23.43	hard	heron
WBGmw-016	Winklepeck Burning Grounds	8/21/2013	9:36	17.79	25.05	hard	heron
WBGmw-017	Winklepeck Burning Grounds	8/21/2013	9:25	8.46	23.33	hard	heron
WBGmw-018	Winklepeck Burning Grounds	8/21/2013	9:00	17.45	24.77	hard	heron
WBGmw-019	Winklepeck Burning Grounds	8/21/2013	8:55	16.87	50.48	medium	heron
WBGmw-020	Winklepeck Burning Grounds	8/21/2013	9:05	12.62	43.59	medium	heron
WBGmw-021	Winklepeck Burning Grounds	8/21/2013	9:15	9.42	43.08	hard	heron

\*All measurements from top of casing

NR = Not Recorded

**APPENDIX D**

**WELL INSPECTION SHEETS**

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 001 Location/Functional Area: AS4  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 23.7 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

some rust

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: Paint

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 23.70

Thickness of sediment accumulation (reported depth-present measurement): 0.50

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): Q

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/13/13

Inspected by: Cal

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 002 Location/Functional Area: ASY  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 9.5 ft  
 Flush-mount/~~Above-ground~~ Completion: \_\_\_\_\_  
 Reported Construction Depth: 22.7 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

little rust

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: Paint plate

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 22.95

Thickness of sediment accumulation (reported depth-present measurement): -0.25

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): Hard

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/13/13

Inspected by: Cal

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 003 Location/Functional Area: ASY  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 23.5 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

_____
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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

_____
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_____

**Identification:**

Is the well labeled with the correct number?

Describe labeling: paint & plate.

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

_____
_____
_____
_____

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 23.5

Thickness of sediment accumulation (reported depth-present measurement): -0.05

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): hard

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

_____
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_____
_____

Inspection Date: 8/13/13

Inspected by: Cal

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 004 Location/Functional Area: ASY  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 29.6 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well? ☒ ☐ ☐ \_\_\_\_\_

Are any of the posts damaged or degraded? ☒ ☐ ☐ \_\_\_\_\_

Is a concrete pad installed? ☒ ☐ ☐ \_\_\_\_\_

Is the pad cracked or deteriorated? Frost Heaving? ☒ ☐ ☐ \_\_\_\_\_

Is steel protective casing installed? ☒ ☐ ☐ \_\_\_\_\_

Does the protective casing have a weep hole? ☒ ☐ ☐ \_\_\_\_\_

Does vegetation around the well need clearing? ☒ ☐ ☐ \_\_\_\_\_

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box? ☐ ☐ ☒ \_\_\_\_\_

Does the well have a flush-mount box? ☐ ☐ ☒ \_\_\_\_\_

Is the traffic cover cracked or broken? ☐ ☐ ☒ \_\_\_\_\_

Is the concrete apron cracked or deteriorated? Frost Heaving? ☐ ☐ ☒ \_\_\_\_\_

**Identification:**

Is the well labeled with the correct number? ☒ ☐ ☐ \_\_\_\_\_

Describe labeling: Paint & Plate

**Security:**

Does the well have a cap or lid? ☒ ☐ ☐ \_\_\_\_\_

Does the well have a weatherproof lock? ☒ ☐ ☐ no lock tab

Does the lock secure well? ☒ ☐ ☐ \_\_\_\_\_

Does the inner casing have a water-tight cap? ☒ ☐ ☐ \_\_\_\_\_

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?) ☐ ☒ ☐ \_\_\_\_\_

Is the well casing loose, (at the surface?) ☐ ☒ ☐ \_\_\_\_\_

Is a measurement point marked at the top of well casing? ☒ ☐ ☐ \_\_\_\_\_

Measured depth of the well from measurement point: 29.86

Thickness of sediment accumulation (reported depth-present measurement): -0.26

Are there any obstructions in the well? ☐ ☒ ☐ \_\_\_\_\_

Description of well bottom conditions (soft, hard, etc.): Q

Inspection Date: 8/13/13

Inspected by: Cal

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 005 Location/Functional Area: AS4

Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion:

Reported Construction Depth: 26.2 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

**Identification:**

Is the well labeled with the correct number?

Describe labeling: plate + paint

**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 27.25

Thickness of sediment accumulation (reported depth-present measurement): -1.05

Are there an obstructions in the well?

Description of well bottom conditions (soft-hard, etc.): soft

Inspection Date: 8/13/13

Inspected by: Carl



**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 006 Location/Functional Area: AS4  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion:  
 Reported Construction Depth: 28.8 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 28.76

Thickness of sediment accumulation (reported depth-present measurement): 0.04

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): hard

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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Inspection Date: 8/13/13

Inspected by: Cal

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 007 Location/Functional Area: ASY

Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/~~Above-ground~~ Completion: \_\_\_\_\_

Reported Construction Depth: 28.8 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

**Identification:**

Is the well labeled with the correct number?

Describe labeling: plate paint

**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 28.99

Thickness of sediment accumulation (reported depth-present measurement): -0.19

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): (soft)

Inspection Date: 8/13/13

Inspected by: Cal

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 108 Location/Functional Area: AS4  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 27.7 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 27.28

Thickness of sediment accumulation (reported depth-present measurement): 6.42

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): Med

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Inspection Date: 8/13/13

Inspected by: 8/13/13 Pal

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 009 Location/Functional Area: ASY  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 24.3 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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**Identification:**

Is the well labeled with the correct number?

Describe labeling: Paint

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 24.35

Thickness of sediment accumulation (reported depth-present measurement): -0.05

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): \_\_\_\_\_

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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Inspection Date: 8/13/13

Inspected by: Cal

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 010 Location/Functional Area: ASY  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 29.8 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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**Identification:**

Is the well labeled with the correct number?

Describe labeling: Paint

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 31.00

Thickness of sediment accumulation (reported depth-present measurement): -1.20

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): Hard

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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Inspection Date: 8/13/13

Inspected by: Cal

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 010 Location/Functional Area: B12  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: NR  
 Reported Construction Depth: 23.2 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3  
 Are the posts positioned to prevent collision damage to the well?  
 Are any of the posts damaged or degraded?  
 Is a concrete pad installed?  
 Is the pad cracked or deteriorated? Frost Heaving?  
 Is steel protective casing installed?  
 Does the protective casing have a weep hole?  
 Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Leaky OK Pass

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?  
 Does the well have a flush-mount box?  
 Is the traffic cover cracked or broken?  
 Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?  
 Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Neck Pans

**Security:**

Does the well have a cap or lid?  
 Does the well have a weatherproof lock?  
 Does the lock secure well?  
 Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)  
 Is the well casing loose, (at the surface?)  
 Is a measurement point marked a the top of well casing?  
 Measured depth of the well from measurement point: 22.82  
 Thickness of sediment accumulation (reported depth-present measurement): 0.38  
 Are there an obstructions in the well?  
 Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/19

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 011 Location/Functional Area: B12  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion:     
 Reported Construction Depth: 26.9 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Rusty

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling:   

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Needs Paint

**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 26.69

Thickness of sediment accumulation (reported depth-present measurement): 0.21

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): HA

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/11

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 012 Location/Functional Area: B12  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: AC  
 Reported Construction Depth: 24.9 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Runs

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Needs Paint

**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 24.82

Thickness of sediment accumulation (reported depth-present measurement): 0.08

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.):

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/12

Inspected by: gc



**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 004 Location/Functional Area: BKE  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: AG  
 Reported Construction Depth: 22.0 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Runby

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Lock Cap Missing

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 22.23

Thickness of sediment accumulation (reported depth-present measurement): -0.23

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 4/19

Inspected by: ja

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 013 Location/Functional Area: B12  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 24.25 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

_____
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_____
_____

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 24.10

Thickness of sediment accumulation (reported depth-present measurement): 0.09

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): HK

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

_____
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Inspection Date: 6/1/00

Inspected by: [Signature]

Ravenna Army Ammunition Plant  
**WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 005 Location/Functional Area: BKG  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: AG  
 Reported Construction Depth: 21.0 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 20.89

Thickness of sediment accumulation (reported depth-present measurement): 0.11

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 9/20

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 006 Location/Functional Area: BKC  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: Ne  
 Reported Construction Depth: 37.6 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Rug

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 37.52

Thickness of sediment accumulation (reported depth-present measurement): 0.08

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/20

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 008 Location/Functional Area: BK6  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: AG  
 Reported Construction Depth: 27.5 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Rusty  
Nearly New Top

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 27.39

Thickness of sediment accumulation (reported depth-present measurement): 0.11

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Rusty Needs New TB

Inspection Date: 8/19

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 010 Location/Functional Area: BK6  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 21.6 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the protective casing have a weep hole?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Rust

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Does the well have a flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the concrete apron cracked or deteriorated? Frost Heaving?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Describe labeling: \_\_\_\_\_

Needs Pump

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked a the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 21.98

Thickness of sediment accumulation (reported depth-present measurement):

-0.38

Are there an obstructions in the well?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): Hard

Inspection Date: 8/1

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 0612 Location/Functional Area: BKE  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 21 ft  
 Flush-mount/Above-ground Completion: AS  
 Reported Construction Depth: 62.3 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3  
 Are the posts positioned to prevent collision damage to the well?  
 Are any of the posts damaged or degraded?  
 Is a concrete pad installed?  
 Is the pad cracked or deteriorated? Frost Heaving?  
 Is steel protective casing installed?  
 Does the protective casing have a weep hole?  
 Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Ready

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?  
 Does the well have a flush-mount box?  
 Is the traffic cover cracked or broken?  
 Is the concrete apron cracked or deteriorated? Frost Heaving?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?  
 Describe labeling:

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?  
 Does the well have a weatherproof lock?  
 Does the lock secure well?  
 Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface)?  
 Is the well casing loose, (at the surface)?  
 Is a measurement point marked at the top of well casing?  
 Measured depth of the well from measurement point: 62.09  
 Thickness of sediment accumulation (reported depth-present measurement): 0.21  
 Are there any obstructions in the well?  
 Description of well bottom conditions (soft, hard, etc.): It

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Ready

Inspection Date: 5/19

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 013 Location/Functional Area: BK6  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 28 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3  
 Are the posts positioned to prevent collision damage to the well?  
 Are any of the posts damaged or degraded?  
 Is a concrete pad installed?  
 Is the pad cracked or deteriorated? Frost Heaving?  
 Is steel protective casing installed?  
 Does the protective casing have a weep hole?  
 Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Rusty

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?  
 Does the well have a flush-mount box?  
 Is the traffic cover cracked or broken?  
 Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?  
 Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?  
 Does the well have a weatherproof lock?  
 Does the lock secure well?  
 Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)  
 Is the well casing loose, (at the surface?)  
 Is a measurement point marked at the top of well casing?  
 Measured depth of the well from measurement point: 27.96  
 Thickness of sediment accumulation (reported depth-present measurement): 0.04  
 Are there any obstructions in the well?  
 Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/14

Inspected by: [Signature]



**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 015 Location/Functional Area: BKG  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 70 ft  
 Flush-mount/Above-ground Completion: AC  
 Reported Construction Depth: 52.9 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Rusty

Rusty

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Needs Paint

**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 53.00

Thickness of sediment accumulation (reported depth-present measurement): -0.10

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.):

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/20

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 616 Location/Functional Area: BKC  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10.1 ft  
 Flush-mount/Above-ground Completion: NA  
 Reported Construction Depth: 21.1 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Just

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 21.12

Thickness of sediment accumulation (reported depth-present measurement): -0.02

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): MA

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 6/19

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 017 Location/Functional Area: BKG  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10.1 ft  
 Flush-mount/Above-ground Completion: Ne  
 Reported Construction Depth: 36.1 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Rusty

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 35.90

Thickness of sediment accumulation (reported depth-present measurement): 0.20

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.):

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Hard

Inspection Date: 8/20

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 018 Location/Functional Area: Back ground  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 27.2 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: \_\_\_\_\_  
 Are the posts positioned to prevent collision damage to the well?  
 Are any of the posts damaged or degraded?  
 Is a concrete pad installed?  
 Is the pad cracked or deteriorated? Frost Heaving?  
 Is steel protective casing installed?  
 Does the protective casing have a weep hole?  
 Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?  
 Does the well have a flush-mount box?  
 Is the traffic cover cracked or broken?  
 Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?  
 Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?  
 Does the well have a weatherproof lock?  
 Does the lock secure well?  
 Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)  
 Is the well casing loose, (at the surface?)  
 Is a measurement point marked a the top of well casing?  
 Measured depth of the well from measurement point: 27.51  
 Thickness of sediment accumulation (reported depth-present measurement): 0.31  
 Are there an obstructions in the well?  
 Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Needs new casing top

Inspection Date: 8/20/13 Inspected by: gn

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 019 Location/Functional Area: BKΦ  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: AK  
 Reported Construction Depth: 35.7 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3  
 Are the posts positioned to prevent collision damage to the well?  
 Are any of the posts damaged or degraded?  
 Is a concrete pad installed?  
 Is the pad cracked or deteriorated? Frost Heaving?  
 Is steel protective casing installed?  
 Does the protective casing have a weep hole?  
 Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Rusty Bent

but sound

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?  
 Does the well have a flush-mount box?  
 Is the traffic cover cracked or broken?  
 Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?  
 Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?  
 Does the well have a weatherproof lock?  
 Does the lock secure well?  
 Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)  
 Is the well casing loose, (at the surface?)  
 Is a measurement point marked at the top of well casing?  
 Measured depth of the well from measurement point: 35.59  
 Thickness of sediment accumulation (reported depth-present measurement): 0.11  
 Are there any obstructions in the well?  
 Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Rusty

Inspection Date: 6/20

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 020 Location/Functional Area: BKG  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 33.2 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 33.202 m

Thickness of sediment accumulation (reported depth-present measurement): -0.02

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/14

Inspected by: ja

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 021 Location/Functional Area: BKG  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10.1 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 20.16 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3  
 Are the posts positioned to prevent collision damage to the well?  
 Are any of the posts damaged or degraded?  
 Is a concrete pad installed?  
 Is the pad cracked or deteriorated? Frost Heaving?  
 Is steel protective casing installed?  
 Does the protective casing have a weep hole?  
 Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Reef  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?  
 Does the well have a flush-mount box?  
 Is the traffic cover cracked or broken?  
 Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Identification:**

Is the well labeled with the correct number?  
 Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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\_\_\_\_\_

**Security:**

Does the well have a cap or lid?  
 Does the well have a weatherproof lock?  
 Does the lock secure well?  
 Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)  
 Is the well casing loose, (at the surface?)  
 Is a measurement point marked a the top of well casing?  
 Measured depth of the well from measurement point: 21.42  
 Thickness of sediment accumulation (reported depth-present measurement): 0.82  
 Are there an obstructions in the well?  
 Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Needs New Top  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Inspection Date: 6/16

Inspected by: JF

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 601 Location/Functional Area: CBZ  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 51.6 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3  
 Are the posts positioned to prevent collision damage to the well?  
 Are any of the posts damaged or degraded?  
 Is a concrete pad installed?  
 Is the pad cracked or deteriorated? Frost Heaving?  
 Is steel protective casing installed?  
 Does the protective casing have a weep hole?  
 Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Ready

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?  
 Does the well have a flush-mount box?  
 Is the traffic cover cracked or broken?  
 Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?  
 Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?  
 Does the well have a weatherproof lock?  
 Does the lock secure well?  
 Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)  
 Is the well casing loose, (at the surface?)  
 Is a measurement point marked at the top of well casing?  
 Measured depth of the well from measurement point: 50.47  
 Thickness of sediment accumulation (reported depth-present measurement): 1.17  
 Are there any obstructions in the well?  
 Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/19 Inspected by: [Signature]



**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 002 Location/Functional Area: EBL  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: He  
 Reported Construction Depth: 47.2 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Dung

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 47.34

Thickness of sediment accumulation (reported depth-present measurement): -0.14

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/19

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 603 Location/Functional Area: CBC  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC 10  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: \_\_\_\_\_ ft  
 Flush-mount/Above-ground Completion: AK  
 Reported Construction Depth: 45.8 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 44.72

Thickness of sediment accumulation (reported depth-present measurement): 1.08

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/11

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 004 Location/Functional Area: CBL  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: AC  
 Reported Construction Depth: 46.8 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Rusty

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 46.95

Thickness of sediment accumulation (reported depth-present measurement): -0.15

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 6/15

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 005 Location/Functional Area: CBL  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 8 ft  
 Flush-mount/Above-ground Completion: AE  
 Reported Construction Depth: 34.42 ft ☐ BGS or ☒ BTOC (chosed one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 2

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the protective casing have a weep hole?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Does the well have a flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Is the concrete apron cracked or deteriorated? Frost Heaving?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Describe labeling: \_\_\_\_\_

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked at the top of well casing?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 32.40

Thickness of sediment accumulation (reported depth-present measurement): 0.02

Are there any obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): H

Inspection Date: 8/19

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 001 Location/Functional Area: CBP  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/~~Above-ground~~ Completion: \_\_\_\_\_  
 Reported Construction Depth: 34.9 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

_____
_____
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_____

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 34.24

Thickness of sediment accumulation (reported depth-present measurement): 0.66

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): \_\_\_\_\_

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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Inspection Date: 8/13/13

Inspected by: Cal

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 002 Location/Functional Area: CBP  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion:  
 Reported Construction Depth: 32.2 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 31.68

Thickness of sediment accumulation (reported depth-present measurement): 0.52

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): Med

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/13/13

Inspected by: Cal

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 003 Location/Functional Area: CBI  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/~~Above-ground~~ Completion: \_\_\_\_\_  
 Reported Construction Depth: 27.1 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

*needs 2.5-3' of sand  
between casings*

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 30.26

Thickness of sediment accumulation (reported depth-present measurement): -3.16

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): medium

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/13/13

Inspected by: Scal

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 004 Location/Functional Area: CBP

Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion:

Reported Construction Depth: 29.5 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

**Identification:**

Is the well labeled with the correct number?

Describe labeling:

**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 29.69

Thickness of sediment accumulation (reported depth-present measurement): -0.19

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): red

Inspection Date: 8/13/13

Inspected by: Cal



**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 005 Location/Functional Area: CBP  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion:  
 Reported Construction Depth: 27.3 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3  
 Are the posts positioned to prevent collision damage to the well?  
 Are any of the posts damaged or degraded?  
 Is a concrete pad installed?  
 Is the pad cracked or deteriorated? Frost Heaving?  
 Is steel protective casing installed?  
 Does the protective casing have a weep hole?  
 Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?  
 Does the well have a flush-mount box?  
 Is the traffic cover cracked or broken?  
 Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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**Identification:**

Is the well labeled with the correct number?  
 Describe labeling: Paint

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?  
 Does the well have a weatherproof lock?  
 Does the lock secure well?  
 Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<u>no lock tab</u>
_____
_____

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)  
 Is the well casing loose, (at the surface?)  
 Is a measurement point marked at the top of well casing?  
 Measured depth of the well from measurement point: 27.48  
 Thickness of sediment accumulation (reported depth-present measurement): -0.18  
 Are there any obstructions in the well?  
 Description of well bottom conditions (soft, hard etc.): \_\_\_\_\_

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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Inspection Date: 8/13/13

Inspected by: Cal

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 006 Location/Functional Area: CPB  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 25.1 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 25.20

Thickness of sediment accumulation (reported depth-present measurement): -0.10

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): ft.

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 6/13

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 007 Location/Functional Area: CBP  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/~~Above-ground~~ Completion: \_\_\_\_\_  
 Reported Construction Depth: 32.4 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Needs 2.5-3'  
sand between  
casing

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: paint

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 31.75

Thickness of sediment accumulation (reported depth-present measurement): 0.45

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): Med

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/13/13

Inspected by: Cal

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 008 Location/Functional Area: CBP  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 27.6 ft ☐ BGS or ☒ BTOC (chosed one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the protective casing have a weep hole?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Does the well have a flush-mount box?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Describe labeling: \_\_\_\_\_

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked at the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 27.92

Thickness of sediment accumulation (reported depth-present measurement): -0.32

Are there any obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): H

Inspection Date: 5/13

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 009 Location/Functional Area: CBP  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 66.55 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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**Identification:**

Is the well labeled with the correct number?

Describe labeling: id on bollard not well

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 66.77

Thickness of sediment accumulation (reported depth-present measurement): -0.16

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): Q

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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Inspection Date: 8/13/13

Inspected by: Cal

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 001 Location/Functional Area: CP  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: FM  
 Reported Construction Depth: 15.3 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 14.71

Thickness of sediment accumulation (reported depth-present measurement): 0.59

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/13

Inspected by: [Signature]

**Ravenna Army Ammunition Plant**  
**WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 002 Location/Functional Area: CP  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: FM  
 Reported Construction Depth: 15.1 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 14.98

Thickness of sediment accumulation (reported depth-present measurement): 0.12

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 6/17

Inspected by: [Signature]

Ravenna Army Ammunition Plant  
**WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 003 Location/Functional Area: CP  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: FM  
 Reported Construction Depth: 17.6 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Rush

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 17.72

Thickness of sediment accumulation (reported depth-present measurement): -0.12

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 5/12

Inspected by: [Signature]



**Ravenna Army Ammunition Plant**  
**WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 004 Location/Functional Area: CP  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 22.2 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 22.54

Thickness of sediment accumulation (reported depth-present measurement): -0.34

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): 4

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/13

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 005 Location/Functional Area: CP  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 42.4 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Rusty

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 43.15

Thickness of sediment accumulation (reported depth-present measurement): -0.75

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 4/13

Inspected by: J

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 006 Location/Functional Area: CP  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 20.2 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the protective casing have a weep hole?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a flush-mount box?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the traffic cover cracked or broken?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the concrete apron cracked or deteriorated? Frost Heaving?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Describe labeling: \_\_\_\_\_

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked at the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 20.69

Thickness of sediment accumulation (reported depth-present measurement): 0.49

Are there any obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): H

Inspection Date: 8/13

Inspected by: J

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 104 Location/Functional Area: DAZ  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: AC  
 Reported Construction Depth: 29.6 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Asy

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 29.19

Thickness of sediment accumulation (reported depth-present measurement): 0.41

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 5/20

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 105 Location/Functional Area: DAZ  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 5 ft  
 Flush-mount/Above-ground Completion: AC  
 Reported Construction Depth: 16.2 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Rust

Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the protective casing have a weep hole?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Does the well have a flush-mount box?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
--------------------------	-------------------------------------	--------------------------

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Describe labeling:

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked at the top of well casing?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 16.22

Thickness of sediment accumulation (reported depth-present measurement): 0.02

Are there any obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): 1+

Inspection Date: 8/21

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 106 Location/Functional Area: DA 2  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 7 ft  
 Flush-mount/Above-ground Completion: BC  
 Reported Construction Depth: 18.1 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4  
 Are the posts positioned to prevent collision damage to the well?  
 Are any of the posts damaged or degraded?  
 Is a concrete pad installed?  
 Is the pad cracked or deteriorated? Frost Heaving?  
 Is steel protective casing installed?  
 Does the protective casing have a weep hole?  
 Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Needs Paint

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?  
 Does the well have a flush-mount box?  
 Is the traffic cover cracked or broken?  
 Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?  
 Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?  
 Does the well have a weatherproof lock?  
 Does the lock secure well?  
 Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)  
 Is the well casing loose, (at the surface?)  
 Is a measurement point marked a the top of well casing?  
 Measured depth of the well from measurement point: 16.78  
 Thickness of sediment accumulation (reported depth-present measurement): 1.32  
 Are there an obstructions in the well?  
 Description of well bottom conditions (soft, hard, etc.): #

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/20

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 107 Location/Functional Area: DA2  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 5 ft  
 Flush-mount/Above-ground Completion: AC  
 Reported Construction Depth: 16.5 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Rough

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 16.84

Thickness of sediment accumulation (reported depth-present measurement): -0.34

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/26

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 108 Location/Functional Area: DAZ  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 5 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 16.9 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 17.15

Thickness of sediment accumulation (reported depth-present measurement): 0.25

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): HI

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 6/20

Inspected by: [Signature]



**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 109 Location/Functional Area: DA 2  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 24.1 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4  
 Are the posts positioned to prevent collision damage to the well?  
 Are any of the posts damaged or degraded?  
 Is a concrete pad installed?  
 Is the pad cracked or deteriorated? Frost Heaving?  
 Is steel protective casing installed?  
 Does the protective casing have a weep hole?  
 Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?  
 Does the well have a flush-mount box?  
 Is the traffic cover cracked or broken?  
 Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Identification:**

Is the well labeled with the correct number?  
 Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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\_\_\_\_\_

**Security:**

Does the well have a cap or lid?  
 Does the well have a weatherproof lock?  
 Does the lock secure well?  
 Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)  
 Is the well casing loose, (at the surface?)  
 Is a measurement point marked at the top of well casing?  
 Measured depth of the well from measurement point: 24.25  
 Thickness of sediment accumulation (reported depth-present measurement): -0.15  
 Are there any obstructions in the well?  
 Description of well bottom conditions (soft, hard, etc.): S

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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Inspection Date: 8/20

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 110 Location/Functional Area: DAZ  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 21.9 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 22.35

Thickness of sediment accumulation (reported depth-present measurement): -0.45

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 4/2

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 111 Location/Functional Area: DA 2  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 5 ft  
 Flush-mount/Above-ground Completion: AC  
 Reported Construction Depth: 14.8 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the protective casing have a weep hole?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Erosion around Base  
- Stable

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Does the well have a flush-mount box?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the concrete apron cracked or deteriorated? Frost Heaving?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Describe labeling: \_\_\_\_\_

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked at the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 14.79

Thickness of sediment accumulation (reported depth-present measurement): 0.01

Are there any obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): \_\_\_\_\_

Inspection Date: 8/20

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 112 Location/Functional Area: DA2  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 5 ft  
 Flush-mount/Above-ground Completion: AC  
 Reported Construction Depth: 16.6 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Identification:**

Is the well labeled with the correct number?

Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 17.64

Thickness of sediment accumulation (reported depth-present measurement): -0.44

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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Inspection Date: 9/7

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 113 Location/Functional Area: DA2  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 5 ft  
 Flush-mount/Above-ground Completion: AG  
 Reported Construction Depth: 16.1 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4  
 Are the posts positioned to prevent collision damage to the well?  
 Are any of the posts damaged or degraded?  
 Is a concrete pad installed?  
 Is the pad cracked or deteriorated? Frost Heaving?  
 Is steel protective casing installed?  
 Does the protective casing have a weep hole?  
 Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

*All of DET Needs Paint*  
  
*Rusty*

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?  
 Does the well have a flush-mount box?  
 Is the traffic cover cracked or broken?  
 Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?  
 Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?  
 Does the well have a weatherproof lock?  
 Does the lock secure well?  
 Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)  
 Is the well casing loose, (at the surface?)  
 Is a measurement point marked at the top of well casing?  
 Measured depth of the well from measurement point: 16.29  
 Thickness of sediment accumulation (reported depth-present measurement): -0.19  
 Are there any obstructions in the well?  
 Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/20

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 114 Location/Functional Area: D42  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 21.8 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 21.75

Thickness of sediment accumulation (reported depth-present measurement): 0.05

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): med

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 6/20

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 115 Location/Functional Area: DAZ  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: Re  
 Reported Construction Depth: 46.8 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 46.79

Thickness of sediment accumulation (reported depth-present measurement): 0.01

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): med

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/2

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 001 Location/Functional Area: DET  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 5 ft  
 Flush-mount/Above-ground Completion: AB  
 Reported Construction Depth: 40.5 ft ☐ BGS or ☒ BTOC (chosed one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4  
 Are the posts positioned to prevent collision damage to the well?  
 Are any of the posts damaged or degraded?  
 Is a concrete pad installed?  
 Is the pad cracked or deteriorated? Frost Heaving?  
 Is steel protective casing installed?  
 Does the protective casing have a weep hole?  
 Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Wobbly - Stable

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?  
 Does the well have a flush-mount box?  
 Is the traffic cover cracked or broken?  
 Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?  
 Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?  
 Does the well have a weatherproof lock?  
 Does the lock secure well?  
 Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)  
 Is the well casing loose, (at the surface?)  
 Is a measurement point marked a the top of well casing?  
 Measured depth of the well from measurement point: 38.88  
 Thickness of sediment accumulation (reported depth-present measurement): 1.62  
 Are there an obstructions in the well?  
 Description of well bottom conditions (soft, hard, etc.): med

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/20

Inspected by: [Signature]



**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 002 Location/Functional Area: Det  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 5 ft  
 Flush-mount/Above-ground Completion: AG  
 Reported Construction Depth: 40.0 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the protective casing have a weep hole?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Rusty

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Does the well have a flush-mount box?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the traffic cover cracked or broken?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Describe labeling:

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked at the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 41.99

Thickness of sediment accumulation (reported depth-present measurement): -1.99

Are there any obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): med

Inspection Date: 8/20

Inspected by: Jc

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 0043 Location/Functional Area: DEF  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 5 ft  
 Flush-mount/Above-ground Completion: AK  
 Reported Construction Depth: 13.0 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 15.99

Thickness of sediment accumulation (reported depth-present measurement): 2.99

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/20

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 004 Location/Functional Area: DET  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 5 ft  
 Flush-mount/Above-ground Completion: PC  
 Reported Construction Depth: 12.0 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Ref

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 13.80

Thickness of sediment accumulation (reported depth-present measurement): -1.80

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 6/20

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 123 Location/Functional Area: EB6  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: A  
 Reported Construction Depth: 33.7 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4  
 Are the posts positioned to prevent collision damage to the well?  
 Are any of the posts damaged or degraded?  
 Is a concrete pad installed?  
 Is the pad cracked or deteriorated? Frost Heaving?  
 Is steel protective casing installed?  
 Does the protective casing have a weep hole?  
 Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?  
 Does the well have a flush-mount box?  
 Is the traffic cover cracked or broken?  
 Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Identification:**

Is the well labeled with the correct number?  
 Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?  
 Does the well have a weatherproof lock?  
 Does the lock secure well?  
 Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)  
 Is the well casing loose, (at the surface?)  
 Is a measurement point marked at the top of well casing?  
 Measured depth of the well from measurement point: 34.74  
 Thickness of sediment accumulation (reported depth-present measurement): -1.04  
 Are there an obstructions in the well?  
 Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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Inspection Date: 8/15

Inspected by: J

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 124 Location/Functional Area: EBG  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: NA  
 Reported Construction Depth: 32.9 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: ✓

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 32.65

Thickness of sediment accumulation (reported depth-present measurement): 0.25

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): M

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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Inspection Date: 4/19

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 125 Location/Functional Area: Eg 6  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: DE  
 Reported Construction Depth: 26.8 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4  
 Are the posts positioned to prevent collision damage to the well?  
 Are any of the posts damaged or degraded?  
 Is a concrete pad installed?  
 Is the pad cracked or deteriorated? Frost Heaving?  
 Is steel protective casing installed?  
 Does the protective casing have a weep hole?  
 Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?  
 Does the well have a flush-mount box?  
 Is the traffic cover cracked or broken?  
 Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Identification:**

Is the well labeled with the correct number?  
 Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?  
 Does the well have a weatherproof lock?  
 Does the lock secure well?  
 Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)  
 Is the well casing loose, (at the surface?)  
 Is a measurement point marked a the top of well casing?  
 Measured depth of the well from measurement point: 27.43  
 Thickness of sediment accumulation (reported depth-present measurement): -0.63  
 Are there an obstructions in the well?  
 Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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Inspection Date: 6/10

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 126 Location/Functional Area: EBG  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: AR  
 Reported Construction Depth: 27.9 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4  
 Are the posts positioned to prevent collision damage to the well?  
 Are any of the posts damaged or degraded?  
 Is a concrete pad installed?  
 Is the pad cracked or deteriorated? Frost Heaving?  
 Is steel protective casing installed?  
 Does the protective casing have a weep hole?  
 Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Under water

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?  
 Does the well have a flush-mount box?  
 Is the traffic cover cracked or broken?  
 Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?  
 Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?  
 Does the well have a weatherproof lock?  
 Does the lock secure well?  
 Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)  
 Is the well casing loose, (at the surface?)  
 Is a measurement point marked a the top of well casing?  
 Measured depth of the well from measurement point: 27.75  
 Thickness of sediment accumulation (reported depth-present measurement): 0.15  
 Are there an obstructions in the well?  
 Description of well bottom conditions (soft, hard, etc.):

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/1/9

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 127 Location/Functional Area: EB6  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: AK  
 Reported Construction Depth: 324 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

**Identification:**

Is the well labeled with the correct number?

Describe labeling:

**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 32.42

Thickness of sediment accumulation (reported depth-present measurement): -0.42

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): HK

Inspection Date: 4/19

Inspected by: [Signature]



**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 128 Location/Functional Area: EBG  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: AC  
 Reported Construction Depth: 28.0 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4  
 Are the posts positioned to prevent collision damage to the well?  
 Are any of the posts damaged or degraded?  
 Is a concrete pad installed?  
 Is the pad cracked or deteriorated? Frost Heaving?  
 Is steel protective casing installed?  
 Does the protective casing have a weep hole?  
 Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Rusty

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?  
 Does the well have a flush-mount box?  
 Is the traffic cover cracked or broken?  
 Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?  
 Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?  
 Does the well have a weatherproof lock?  
 Does the lock secure well?  
 Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)  
 Is the well casing loose, (at the surface?)  
 Is a measurement point marked a the top of well casing?  
 Measured depth of the well from measurement point: 28.24  
 Thickness of sediment accumulation (reported depth-present measurement): -0.24  
 Are there an obstructions in the well?  
 Description of well bottom conditions (soft, hard, etc.):

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 9/19

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 129 Location/Functional Area: EB 5  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: AK  
 Reported Construction Depth: 28.4 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 30.94

Thickness of sediment accumulation (reported depth-present measurement) -2.54

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): 0

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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Inspection Date: 8/19

Inspected by: Am

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 130 Location/Functional Area: EBF  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: AC  
 Reported Construction Depth: 28.3 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4  
 Are the posts positioned to prevent collision damage to the well?  
 Are any of the posts damaged or degraded?  
 Is a concrete pad installed?  
 Is the pad cracked or deteriorated? Frost Heaving?  
 Is steel protective casing installed?  
 Does the protective casing have a weep hole?  
 Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?  
 Does the well have a flush-mount box?  
 Is the traffic cover cracked or broken?  
 Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Identification:**

Is the well labeled with the correct number?  
 Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?  
 Does the well have a weatherproof lock?  
 Does the lock secure well?  
 Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)  
 Is the well casing loose, (at the surface?)  
 Is a measurement point marked a the top of well casing?  
 Measured depth of the well from measurement point: 28.3  
 Thickness of sediment accumulation (reported depth-present measurement): -0.09  
 Are there an obstructions in the well?  
 Description of well bottom conditions (soft, hard, etc.): A

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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Inspection Date: 4/9 Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 131 Location/Functional Area: EBE  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: AS  
 Reported Construction Depth: 73.10 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 73.40

Thickness of sediment accumulation (reported depth-present measurement): -0.30

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): hard

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/10

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 106 Location/Functional Area: FBQ  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 19.5 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 19.83

Thickness of sediment accumulation (reported depth-present measurement): -0.33

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): 0

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/14/13

Inspected by: cal

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 167 Location/Functional Area: FBQ  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion:  
 Reported Construction Depth: 18.9 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

**Identification:**

Is the well labeled with the correct number?

Describe labeling:

**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 18.09

Thickness of sediment accumulation (reported depth-present measurement): 0

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.):

Inspection Date: 8/14/13

Inspected by: Cal

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 168 Location/Functional Area: FBQ  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 21.6 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the protective casing have a weep hole?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Does the well have a flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Describe labeling: \_\_\_\_\_

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked a the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 21.28

Thickness of sediment accumulation (reported depth-present measurement): 0.32

Are there an obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): Medium

Inspection Date: 8-14-13

Inspected by: Cal

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 1169 Location/Functional Area: FBQ  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion:  
 Reported Construction Depth: 18.2 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 18.18

Thickness of sediment accumulation (reported depth-present measurement):

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.):

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

0.02

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Inspection Date: 8/14/13

Inspected by: Col



**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 170 Location/Functional Area: FBQ  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion:  
 Reported Construction Depth: 32.6 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: \_\_\_\_\_

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 32.80 - 0.20

Thickness of sediment accumulation (reported depth-present measurement): \_\_\_\_\_

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.):                     

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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Inspection Date: 8/14/13 Inspected by: Cal

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 171 Location/Functional Area: FBQ  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/~~Above-ground~~ Completion:  
 Reported Construction Depth: 31.1 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 31.54

Thickness of sediment accumulation (reported depth-present measurement): -0.44

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard etc.): \_\_\_\_\_

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/14/13

Inspected by: Cal

Ravenna Army Ammunition Plant  
**WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 172 Location/Functional Area: FBQ  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 34.4 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 34.51

Thickness of sediment accumulation (reported depth-present measurement): -0.11

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): \_\_\_\_\_

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/14/13

Inspected by: Cal

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 173 Location/Functional Area: FBQ  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 20 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 53.0 ft ☐ BGS or ☒ BTOC (chosed one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 53.08

Thickness of sediment accumulation (reported depth-present measurement): -6.08

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): \_\_\_\_\_

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/14/13

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 174 Location/Functional Area: FBQ  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 26.2 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4  
 Are the posts positioned to prevent collision damage to the well? ☒ ☐ ☐ \_\_\_\_\_  
 Are any of the posts damaged or degraded? ☐ ☒ ☐ \_\_\_\_\_  
 Is a concrete pad installed? ☒ ☐ ☐ \_\_\_\_\_  
 Is the pad cracked or deteriorated? Frost Heaving? ☐ ☒ ☐ \_\_\_\_\_  
 Is steel protective casing installed? ☒ ☐ ☐ \_\_\_\_\_  
 Does the protective casing have a weep hole? ☒ ☐ ☐ \_\_\_\_\_  
 Does vegetation around the well need clearing? ☐ ☒ ☐ \_\_\_\_\_

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box? ☐ ☐ ☒ \_\_\_\_\_  
 Does the well have a flush-mount box? ☐ ☐ ☒ \_\_\_\_\_  
 Is the traffic cover cracked or broken? ☐ ☐ ☒ \_\_\_\_\_  
 Is the concrete apron cracked or deteriorated? Frost Heaving? ☐ ☐ ☒ \_\_\_\_\_

**Identification:**

Is the well labeled with the correct number? ☒ ☐ ☐ \_\_\_\_\_  
 Describe labeling: \_\_\_\_\_

**Security:**

Does the well have a cap or lid? ☒ ☐ ☐ \_\_\_\_\_  
 Does the well have a weatherproof lock? ☒ ☐ ☐ \_\_\_\_\_  
 Does the lock secure well? ☒ ☐ ☐ \_\_\_\_\_  
 Does the inner casing have a water-tight cap? ☒ ☐ ☐ \_\_\_\_\_

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?) ☐ ☒ ☐ \_\_\_\_\_  
 Is the well casing loose, (at the surface?) ☐ ☒ ☐ \_\_\_\_\_  
 Is a measurement point marked at the top of well casing? ☒ ☐ ☐ \_\_\_\_\_  
 Measured depth of the well from measurement point: 23.14  
 Thickness of sediment accumulation (reported depth-present measurement): 3.06  
 Are there any obstructions in the well? ☐ ☒ ☐ \_\_\_\_\_  
 Description of well bottom conditions (soft, hard, etc.):                     

Inspection Date: 8/14/13 Inspected by: Cal

Ravenna Army Ammunition Plant  
**WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 175 Location/Functional Area: FRQ  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 25.6 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4  
 Are the posts positioned to prevent collision damage to the well?  
 Are any of the posts damaged or degraded?  
 Is a concrete pad installed?  
 Is the pad cracked or deteriorated? Frost Heaving?  
 Is steel protective casing installed?  
 Does the protective casing have a weep hole?  
 Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?  
 Does the well have a flush-mount box?  
 Is the traffic cover cracked or broken?  
 Is the concrete apron cracked or deteriorated? Frost Heaving?

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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**Identification:**

Is the well labeled with the correct number?  
 Describe labeling: Paint

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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**Security:**

Does the well have a cap or lid?  
 Does the well have a weatherproof lock?  
 Does the lock secure well?  
 Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)  
 Is the well casing loose, (at the surface?)  
 Is a measurement point marked at the top of well casing?  
 Measured depth of the well from measurement point: 25.84  
 Thickness of sediment accumulation (reported depth-present measurement): -0.24  
 Are there any obstructions in the well?  
 Description of well bottom conditions (soft, hard, etc.): disconnected tubing 5' down

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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Inspection Date: 8/14/13

Inspected by: Cal

Ravenna Army Ammunition Plant  
**WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 176 Location/Functional Area: FBQ  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 23.3 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 23.74

Thickness of sediment accumulation (reported depth-present measurement): -0.44

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): \_\_\_\_\_

Inspection Date: 8.14.13

Inspected by: Cal

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 177 Location/Functional Area: FBQ  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion:  
 Reported Construction Depth: 24.8 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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Are any of the posts damaged or degraded?

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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Does the protective casing have a weep hole?

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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Does the well have a flush-mount box?

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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Is the traffic cover cracked or broken?

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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Is the concrete apron cracked or deteriorated? Frost Heaving?

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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Describe labeling: Paint

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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Does the lock secure well?

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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Is a measurement point marked at the top of well casing?

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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Measured depth of the well from measurement point: 24.78

Thickness of sediment accumulation (reported depth-present measurement): 0.02

Are there any obstructions in the well?

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.):

Inspection Date: 8/14/13

Inspected by: Cal



**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: FWG 001 Location/Functional Area: FWC

Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: \_\_\_\_\_

Reported Construction Depth: 20.05 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

_____
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_____
_____

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 20.00

Thickness of sediment accumulation (reported depth-present measurement): 0.05

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): 4X

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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Inspection Date: 6/19

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 002 Location/Functional Area: FWG  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: As  
 Reported Construction Depth: 70.05 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 69.80

Thickness of sediment accumulation (reported depth-present measurement): 0.25

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard etc.): \_\_\_\_\_

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 6/1/01

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 003 Location/Functional Area: FWG  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: AG  
 Reported Construction Depth: 21.1 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 26.04

Thickness of sediment accumulation (reported depth-present measurement): 0.06

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): bedium

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/20

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 004 Location/Functional Area: FWG  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion:  
 Reported Construction Depth: 22.6 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 22.45

Thickness of sediment accumulation (reported depth-present measurement): 0.15

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/14

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 005 Location/Functional Area: FWG  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: He  
 Reported Construction Depth: 31.9 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 31.80

Thickness of sediment accumulation (reported depth-present measurement): 0.10

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): sup

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 6/15

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 006 Location/Functional Area: FA6  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: AC  
 Reported Construction Depth: 19.25 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 19.24

Thickness of sediment accumulation (reported depth-present measurement): 0.01

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/19

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 007 Location/Functional Area: FWG  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: AC  
 Reported Construction Depth: 32.35 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point:

Thickness of sediment accumulation (reported depth-present measurement):

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.):

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

32.16  
0.19  
soft hard

Inspection Date: 6/20

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 008 Location/Functional Area: FW 6  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: AG  
 Reported Construction Depth: 22.1 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 21.84

Thickness of sediment accumulation (reported depth-present measurement): 0.25

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): 5' +

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 6/20

Inspected by: [Signature]



**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 009 Location/Functional Area: FWG  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: AC  
 Reported Construction Depth: 20.4 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 20.32

Thickness of sediment accumulation (reported depth-present measurement): 0.08

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.):

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Medium

Inspection Date: 9/20

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 010 Location/Functional Area: FW 6  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: AC  
 Reported Construction Depth: 19.1 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 19.10

Thickness of sediment accumulation (reported depth-present measurement): 0

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 6/10

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 611 Location/Functional Area: FWC  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: AC  
 Reported Construction Depth: 17.8 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 17.69

Thickness of sediment accumulation (reported depth-present measurement): 0.11

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): HA

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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Inspection Date: 5/1/04

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 612 Location/Functional Area: FWC  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: As  
 Reported Construction Depth: 42.45 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 42.41

Thickness of sediment accumulation (reported depth-present measurement): 0.04

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): NA

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 6/1

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 013 Location/Functional Area: FWG  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 36.7 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 36.65

Thickness of sediment accumulation (reported depth-present measurement): 0.05

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 6/14

Inspected by: [Signature]

Ravenna Army Ammunition Plant  
**WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 014 Location/Functional Area: FWG  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: hr  
 Reported Construction Depth: 21.15 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3  
 Are the posts positioned to prevent collision damage to the well?  
 Are any of the posts damaged or degraded?  
 Is a concrete pad installed?  
 Is the pad cracked or deteriorated? Frost Heaving?  
 Is steel protective casing installed?  
 Does the protective casing have a weep hole?  
 Does vegetation around the well need clearing?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?  
 Does the well have a flush-mount box?  
 Is the traffic cover cracked or broken?  
 Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?  
 Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?  
 Does the well have a weatherproof lock?  
 Does the lock secure well?  
 Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)  
 Is the well casing loose, (at the surface?)  
 Is a measurement point marked a the top of well casing?  
 Measured depth of the well from measurement point: 21.08  
 Thickness of sediment accumulation (reported depth-present measurement): 0.07  
 Are there an obstructions in the well?  
 Description of well bottom conditions (soft, hard, etc.): M

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 4/20

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 015 Location/Functional Area: FWC  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 26.35 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 26.21

Thickness of sediment accumulation (reported depth-present measurement): 0.14

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 6/14

Inspected by: J

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 016 Location/Functional Area: FWG  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 67.5 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 67.48

Thickness of sediment accumulation (reported depth-present measurement): 0.05

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): \_\_\_\_\_

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/14

Inspected by: [Signature]



**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 221 MW-063 Location/Functional Area: Load Line 1  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: Above  
 Reported Construction Depth: 30 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Some rust

Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the protective casing have a weep hole?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Describe labeling: good

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked a the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 30.13

Thickness of sediment accumulation (reported depth-present measurement): -0.13

Are there an obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): hard

Inspection Date: 8/13/13

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 064 Location/Functional Area: CLI  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: AS  
 Reported Construction Depth: 21.1 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Ring

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 21.07

Thickness of sediment accumulation (reported depth-present measurement): 0.03

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 9/19

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: KL1 MW - 065 Location/Functional Area: Load Line 1  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: Above  
 Reported Construction Depth: 23.4 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the protective casing have a weep hole?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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rusty

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Describe labeling: good

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked a the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 22.96

Thickness of sediment accumulation (reported depth-present measurement): 0.44

Are there an obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): h/c/d

Inspection Date: 8/13/13

Inspected by: B. Spink

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: LL1 MW-067 Location/Functional Area: Load Line 1  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 9.7 ft  
 Flush-mount/Above-ground Completion: Above  
 Reported Construction Depth: \_\_\_\_\_ ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the protective casing have a weep hole?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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light rust

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------

Describe labeling: good

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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seal intact

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked at the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 25.74

Thickness of sediment accumulation (reported depth-present measurement): -0.14

Are there any obstructions in the well?

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): hard

bar/suspended

Inspection Date: 8/13/13

Inspected by: S. Spacharo

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 221 MW-078 Location/Functional Area: Load Line 1  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 9.5 ft  
 Flush-mount/Above-ground Completion: Above  
 Reported Construction Depth: 41.1 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the protective casing have a weep hole?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Describe labeling: good

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked at the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 41.13

Thickness of sediment accumulation (reported depth-present measurement): 0.03

Are there any obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): soft

Inspection Date: 8/13/13

Inspected by: S. Threshido

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: LL1 MW-079 Location/Functional Area: Load Line 1  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 <sup>9.4</sup> ft  
 Flush-mount/Above-ground Completion: Above  
 Reported Construction Depth: 42 ft ☐ BGS or ☒ BTOC (chosed one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: good

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 41.78

Thickness of sediment accumulation (reported depth-present measurement): 0.22

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): hard

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/13/13

Inspected by: X. Spindler

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 22 MW-080 Location/Functional Area: Load Line 1  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 9.5 ft  
 Flush-mount/Above-ground Completion: Above  
 Reported Construction Depth: 22.0 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the protective casing have a weep hole?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Describe labeling: Good

**Security:**

Does the well have a cap or lid?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the lock secure well?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked at the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 22.41

Thickness of sediment accumulation (reported depth-present measurement): -0.41

Are there any obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): hard

Inspection Date: 8/13/13

Inspected by: S. Symonds

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 221 MW-081 Location/Functional Area: Load Line 1  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 9.5 10 ft  
 Flush-mount/Above-ground Completion: Above  
 Reported Construction Depth: 41.9 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
--------------------------	-------------------------------------	--------------------------

Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the protective casing have a weep hole?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------

Describe labeling: good

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked a the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 42.10

Thickness of sediment accumulation (reported depth-present measurement): 0.20

Are there an obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): 50/6

Inspection Date: 8/13/13

Inspected by: S. Spaschko



**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: LL1 MW-082 Location/Functional Area: Locd Line 1  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 9.5' to 10' ft  
 Flush-mount/Above-ground Completion: Above  
 Reported Construction Depth: 41.8 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the protective casing have a weep hole?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Describe labeling: good

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked a the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 41.42

Thickness of sediment accumulation (reported depth-present measurement): 0.38

Are there an obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): hard

Inspection Date: 8/13/13

Inspected by: B. Spashado

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 111 mch 083 Location/Functional Area: Lead Line 1  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 9.5 cal 18 ft  
 Flush-mount/Above-ground Completion: Above  
 Reported Construction Depth: 41.7 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
--------------------------	-------------------------------------	--------------------------

Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the protective casing have a weep hole?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Describe labeling: good

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
--------------------------	-------------------------------------	--------------------------

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked a the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 41.41

Thickness of sediment accumulation (reported depth-present measurement): 0.29

Are there an obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): h/c

Inspection Date: 8/13/13

Inspected by: X. X. X. X.

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: LL1mw-084 Location/Functional Area: Load Line 1  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 9.6 cal 10 ft  
 Flush-mount/Above-ground Completion: Above  
 Reported Construction Depth: 39.3 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the protective casing have a weep hole?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------

Describe labeling: good

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked a the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 38.93

Thickness of sediment accumulation (reported depth-present measurement): 0.37

Are there an obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): h/c

Inspection Date: 8/13/13

Inspected by: X. Spach

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 221 MW-085 Location/Functional Area: Load Line 1  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 9.4 ft  
 Flush-mount/Above-ground Completion: Above  
 Reported Construction Depth: 44.7 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
--------------------------	-------------------------------------	--------------------------

Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
--------------------------	-------------------------------------	--------------------------

Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the protective casing have a weep hole?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------

Describe labeling: good

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked at the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 44.95  
45.15

Thickness of sediment accumulation (reported depth-present measurement): 0.25

Are there any obstructions in the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): hard

beveled-removable  
suspended at top

Inspection Date: 8/13/13

Inspected by: S. Spenshaw

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 221 MW-086 Location/Functional Area: Loco Line 1  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: Above  
 Reported Construction Depth: 77.38 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the protective casing have a weep hole?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Describe labeling: good

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked at the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 77.82

Thickness of sediment accumulation (reported depth-present measurement): -0.44

Are there any obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): soft

Inspection Date: 8/13/13

Inspected by: H. Spence

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: LL1MW-087 Location/Functional Area: Load Line 1  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: above  
 Reported Construction Depth: 18.55 ~~18.09~~ ft ☐ BGS or ☒ BTOC (chosed one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the protective casing have a weep hole?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Describe labeling: Good

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked at the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 18.09

Thickness of sediment accumulation (reported depth-present measurement): 0.46

Are there any obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): medium

Inspection Date: 8/13/13

Inspected by: B. Spink

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: MW059 Location/Functional Area: U2

Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 9.8 ft

Flush-mount/Above-ground Completion: \_\_\_\_\_

Reported Construction Depth: 21.8 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: paint

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

no lock tab

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 21.84

Thickness of sediment accumulation (reported depth-present measurement): -0.04

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): hard

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8-13-13

Inspected by: Carl

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 0100 Location/Functional Area: 412 LL2  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 9.8 ft  
 Flush-mount/Above-ground Completion:  
 Reported Construction Depth: 20.9 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: Paint

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 21.88

Thickness of sediment accumulation (reported depth-present measurement):

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): H-

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8-13-13

Inspected by: Cal



**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 261 Location/Functional Area: LL2  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion:  
 Reported Construction Depth: 21.9 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4  
 Are the posts positioned to prevent collision damage to the well?  
 Are any of the posts damaged or degraded?  
 Is a concrete pad installed?  
 Is the pad cracked or deteriorated? Frost Heaving?  
 Is steel protective casing installed?  
 Does the protective casing have a weep hole?  
 Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?  
 Does the well have a flush-mount box?  
 Is the traffic cover cracked or broken?  
 Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?  
 Describe labeling: paint

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?  
 Does the well have a weatherproof lock?  
 Does the lock secure well?  
 Does the inner casing have a water-tight cap?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)  
 Is the well casing loose, (at the surface?)  
 Is a measurement point marked at the top of well casing?  
 Measured depth of the well from measurement point: 22.56  
 Thickness of sediment accumulation (reported depth-present measurement): -0.65  
 Are there any obstructions in the well?  
 Description of well bottom conditions (soft, hard, etc.):

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/13/13

Inspected by: Cal

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 262 Location/Functional Area: 42  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion:  
 Reported Construction Depth: 22.3 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Identification:**

Is the well labeled with the correct number?

Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

_____
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 22.68

Thickness of sediment accumulation (reported depth-present measurement): 0.38

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.):

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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Inspection Date: 8/13

Inspected by: \_\_\_\_\_

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 2103 Location/Functional Area: U2  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/~~Above-ground~~ Completion: \_\_\_\_\_  
 Reported Construction Depth: 23.0 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 2353

Thickness of sediment accumulation (reported depth-present measurement): -053

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): Cal

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/13/13

Inspected by: Cal

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 264 Location/Functional Area: 412  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 21.7 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

peeling paint

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 22.46

Thickness of sediment accumulation (reported depth-present measurement): -0.76

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): hard

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/13/13

Inspected by: Ca9

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 2105 Location/Functional Area: U7  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 23.8 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the protective casing have a weep hole?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Does the well have a flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Describe labeling: Paint

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked at the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 24.52

Thickness of sediment accumulation (reported depth-present measurement): 0.72

Are there any obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): hard

Inspection Date: 8-13-13

Inspected by: Cal

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 2606 Location/Functional Area: LL7  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: 0  
 Reported Construction Depth: 22.2 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4  
 Are the posts positioned to prevent collision damage to the well?  
 Are any of the posts damaged or degraded?  
 Is a concrete pad installed?  
 Is the pad cracked or deteriorated? Frost Heaving?  
 Is steel protective casing installed?  
 Does the protective casing have a weep hole?  
 Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?  
 Does the well have a flush-mount box?  
 Is the traffic cover cracked or broken?  
 Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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**Identification:**

Is the well labeled with the correct number?  
 Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?  
 Does the well have a weatherproof lock?  
 Does the lock secure well?  
 Does the inner casing have a water-tight cap?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)  
 Is the well casing loose, (at the surface?)  
 Is a measurement point marked at the top of well casing?  
 Measured depth of the well from measurement point: 22.81  
 Thickness of sediment accumulation (reported depth-present measurement): -0.61  
 Are there any obstructions in the well?  
 Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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Inspection Date: 8/13/13

Inspected by: Cal

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 267 Location/Functional Area: UL2  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 22.0 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 22.12

Thickness of sediment accumulation (reported depth-present measurement): -0.12

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): \_\_\_\_\_

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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Inspection Date: 8/13/13

Inspected by: Cal

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 268 Location/Functional Area: U2  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion:  
 Reported Construction Depth: 29.3 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: Paint

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 29.96

Thickness of sediment accumulation (reported depth-present measurement): -0.66

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): S

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/13/13

Inspected by: CoD



**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 269 Location/Functional Area: U2  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: 0  
 Reported Construction Depth: 29.4 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the protective casing have a weep hole?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Does the well have a flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Describe labeling: paint / plate

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked at the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 30.33

Thickness of sediment accumulation (reported depth-present measurement): -0.93

Are there any obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): S

Inspection Date: 8/13/13

Inspected by: ad

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 270 Location/Functional Area: 42  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 20.3 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4  
 Are the posts positioned to prevent collision damage to the well? ☒ ☐ ☐ \_\_\_\_\_  
 Are any of the posts damaged or degraded? ☐ ☒ ☐ \_\_\_\_\_  
 Is a concrete pad installed? ☒ ☐ ☐ \_\_\_\_\_  
 Is the pad cracked or deteriorated? Frost Heaving? ☐ ☒ ☐ \_\_\_\_\_  
 Is steel protective casing installed? ☒ ☐ ☐ \_\_\_\_\_  
 Does the protective casing have a weep hole? ☒ ☐ ☐ \_\_\_\_\_  
 Does vegetation around the well need clearing? ☐ ☒ ☐ \_\_\_\_\_

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box? ☐ ☐ ☒ \_\_\_\_\_  
 Does the well have a flush-mount box? ☐ ☐ ☒ \_\_\_\_\_  
 Is the traffic cover cracked or broken? ☐ ☐ ☒ \_\_\_\_\_  
 Is the concrete apron cracked or deteriorated? Frost Heaving? ☐ ☐ ☒ \_\_\_\_\_

**Identification:**

Is the well labeled with the correct number? ☒ ☐ ☐ \_\_\_\_\_  
 Describe labeling: \_\_\_\_\_

**Security:**

Does the well have a cap or lid? ☒ ☐ ☐ \_\_\_\_\_  
 Does the well have a weatherproof lock? ☒ ☐ ☐ \_\_\_\_\_  
 Does the lock secure well? ☒ ☐ ☐ \_\_\_\_\_  
 Does the inner casing have a water-tight cap? ☒ ☐ ☐ \_\_\_\_\_

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?) ☐ ☒ ☐ \_\_\_\_\_  
 Is the well casing loose, (at the surface?) ☐ ☒ ☐ \_\_\_\_\_  
 Is a measurement point marked a the top of well casing? ☒ ☐ ☐ \_\_\_\_\_  
 Measured depth of the well from measurement point: 22.49 -2.19  
 Thickness of sediment accumulation (reported depth-present measurement): \_\_\_\_\_  
 Are there an obstructions in the well? ☐ ☒ ☐ \_\_\_\_\_  
 Description of well bottom conditions (soft, hard, etc.): (hard) \_\_\_\_\_

Inspection Date: 8/13/13 Inspected by: Col

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 232 Location/Functional Area: U3  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 38.8 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: Paint & Plate

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 39.90

Thickness of sediment accumulation (reported depth-present measurement): 1.10

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): Med

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/13/13

Inspected by: CAO

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 233 Location/Functional Area: LL3  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/~~Above-ground~~ Completion: \_\_\_\_\_  
 Reported Construction Depth: 32.2 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<u>No lock tab</u>
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 31.54

Thickness of sediment accumulation (reported depth-present measurement): 0.66

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): Q

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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Inspection Date: 8/13/13

Inspected by: Cal

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 234 Location/Functional Area: LL3  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion:  
 Reported Construction Depth: 22.1 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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**Identification:**

Is the well labeled with the correct number?

Describe labeling: Paint plates

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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\_\_\_\_\_

**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

no lock tab  
\_\_\_\_\_  
\_\_\_\_\_

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 22.74

Thickness of sediment accumulation (reported depth-present measurement): -0.64

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): hard

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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Inspection Date: 8/13/13

Inspected by: Cal

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 235 Location/Functional Area: LL3  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/~~Above-ground~~ Completion:  
 Reported Construction Depth: 22.2 ft ☐ BGS or ☒ BTOC (chosed one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: print + plate

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 23.04

Thickness of sediment accumulation (reported depth-present measurement): -0.84

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): hard

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/13/13

Inspected by: Cal

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 236 Location/Functional Area: W3  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion:  
 Reported Construction Depth: 26.2 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: paint plate

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 26.70

Thickness of sediment accumulation (reported depth-present measurement): -0.50

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): Hard

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/13/13

Inspected by: Cal

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 237 Location/Functional Area: 43

Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/~~Above-ground~~ Completion: \_\_\_\_\_

Reported Construction Depth: 24.9 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

NO LOCK TAB

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 25.63

Thickness of sediment accumulation (reported depth-present measurement): 0.73

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): medium hard

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/13/13

Inspected by: Cal



**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 238 Location/Functional Area: LL3  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 22.9 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: paint + plate

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

no lock tab

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 23.44

Thickness of sediment accumulation (reported depth-present measurement): -0.54

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): hard.

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/13/13

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 239 Location/Functional Area: LL3  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 36.8 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 37.00

Thickness of sediment accumulation (reported depth-present measurement): -0.20

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): Soft

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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Inspection Date: 8/13/13

Inspected by: Cal

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 240 Location/Functional Area: LL3  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/~~Above-ground~~ Completion: \_\_\_\_\_  
 Reported Construction Depth: 30.5 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: Paint & tag

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

No lock tag

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 36.72

Thickness of sediment accumulation (reported depth-present measurement): 0.22

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): medium

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/13/13

Inspected by: Cal

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 241 Location/Functional Area: LL3  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/~~Above-ground~~ Completion: \_\_\_\_\_  
 Reported Construction Depth: 25.1 ft ☐ BGS or ☒ BTOC (chosed one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 25.67

Thickness of sediment accumulation (reported depth-present measurement): -0.57

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): Hard

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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Inspection Date: 8/13/13

Inspected by: Cal

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 242 Location/Functional Area: LL3  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 21.9 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: Paint

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------

**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 22.60

Thickness of sediment accumulation (reported depth-present measurement): -0.70

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): hard

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8-13-13

Inspected by: Dal

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 243 Location/Functional Area: LL3  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 25.8 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: paint

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 26.43

Thickness of sediment accumulation (reported depth-present measurement): -0.63

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): med

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8-13-13

Inspected by: Carl

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 244 Location/Functional Area: LL3  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/~~Above-ground~~ Completion: \_\_\_\_\_  
 Reported Construction Depth: 47.25 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

X		
	X	
X		
	X	
X		
	X	
	X	

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?


**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

X		
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?


**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 46.94

Thickness of sediment accumulation (reported depth-present measurement): 0.31

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): H

	X	
	X	
X		
	X	

Inspection Date: 8-13-13

Inspected by: Cal

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 245 Location/Functional Area: LC 3

Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: \_\_\_\_\_

Reported Construction Depth: 48.9 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the protective casing have a weep hole?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Does the well have a flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Is the traffic cover cracked or broken?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Describe labeling: \_\_\_\_\_

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------

Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked a the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 48.75

Thickness of sediment accumulation (reported depth-present measurement): 0.15

Are there an obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): H

Inspection Date: 6/17

Inspected by: [Signature]



**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 193 Location/Functional Area: H4  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 23.5 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 24.14

Thickness of sediment accumulation (reported depth-present measurement): -0.64

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 6/13

Inspected by: J

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 194 Location/Functional Area: LL 4  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 23.4 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Rusty

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 23.4

Thickness of sediment accumulation (reported depth-present measurement): -0.09

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): fk

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: \_\_\_\_\_

Inspected by: \_\_\_\_\_

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 195 Location/Functional Area: CL4  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 22.3 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Revol

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 22.72

Thickness of sediment accumulation (reported depth-present measurement): 0.42

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): 11

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/13

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 196 Location/Functional Area: LC4  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 21.4 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Lock Cover Man

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 21.75

Thickness of sediment accumulation (reported depth-present measurement): 0.35

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/13

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 197 Location/Functional Area: LL4  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 22.7 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------

Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
--------------------------	-------------------------------------	--------------------------

Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the protective casing have a weep hole?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------

Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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1 leaning OK

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Does the well have a flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------

Describe labeling: \_\_\_\_\_

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------

Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked at the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 23.58

Thickness of sediment accumulation (reported depth-present measurement): -0.88

Are there any obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): H

Inspection Date: 8/17

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 198 Location/Functional Area: 4624  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 22.3 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

_____
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_____

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 22.34

Thickness of sediment accumulation (reported depth-present measurement): -0.04

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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Inspection Date: \_\_\_\_\_

Inspected by: \_\_\_\_\_

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 199 Location/Functional Area: LL4  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 22.6 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 23.12

Thickness of sediment accumulation (reported depth-present measurement): -0.52

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/1<sup>st</sup>

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 206 Location/Functional Area: L44  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 25.0 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 25.10

Thickness of sediment accumulation (reported depth-present measurement): 0.10

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): st

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/17

Inspected by: [Signature]



**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 201 Location/Functional Area: LL4

Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: \_\_\_\_\_

Reported Construction Depth: 70.15 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
--------------------------	-------------------------------------	--------------------------

Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the protective casing have a weep hole?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Describe labeling: \_\_\_\_\_

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked at the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 69.95

Thickness of sediment accumulation (reported depth-present measurement): 0.20

Are there any obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): 1"

Inspection Date: 4/17

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 225 MW-001 Location/Functional Area: Load Line 5  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: Above  
 Reported Construction Depth: 26.9 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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surface rust

Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the protective casing have a weep hole?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Describe labeling: good

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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missing weather proof cap

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked at the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 27.06

Thickness of sediment accumulation (reported depth-present measurement): -0.16

Are there any obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): medium

Inspection Date: 8/14/13

Inspected by: D. J. [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: LL5mw-002 Location/Functional Area: Box Line 5  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: Above  
 Reported Construction Depth: 27.9 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Surface post

Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the protective casing have a weep hole?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Describe labeling: good

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked at the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 27.52

Thickness of sediment accumulation (reported depth-present measurement): 0.38

Are there any obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): hard

Inspection Date: 8/14/13

Inspected by: S. Spenshard

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: LL5m12-003 Location/Functional Area: Load Line S  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: Above  
 Reported Construction Depth: 24.0 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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surface rust

Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the protective casing have a weep hole?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Describe labeling: good

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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missing weather cap

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked at the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 23.98

Thickness of sediment accumulation (reported depth-present measurement): 0.02

Are there any obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): hard

Inspection Date: 8/14/13

Inspected by: S. Thompson

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 115 MW-004 Location/Functional Area: Locd Line 5  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: Above  
 Reported Construction Depth: 24.9 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
--------------------------	-------------------------------------	--------------------------

surface rust

Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------

Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
--------------------------	-------------------------------------	--------------------------

Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------

Does the protective casing have a weep hole?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------

Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Describe labeling: good

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------

Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
--------------------------	-------------------------------------	--------------------------

Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
--------------------------	-------------------------------------	--------------------------

Is a measurement point marked at the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 25.33

Thickness of sediment accumulation (reported depth-present measurement): -0.43

Are there any obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): soft

Inspection Date: 8/14/13

Inspected by: X. Hernandez

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 225mw-005 Location/Functional Area: Load Line 5  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: Above  
 Reported Construction Depth: 29.9 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
--------------------------	-------------------------------------	--------------------------

surface rust

Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------

Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
--------------------------	-------------------------------------	--------------------------

Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------

Does the protective casing have a weep hole?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------

Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
--------------------------	-------------------------------------	--------------------------

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Does the well have a flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------

Describe labeling: good

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------

Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------

Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------

locks

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
--------------------------	-------------------------------------	--------------------------

Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
--------------------------	-------------------------------------	--------------------------

Is a measurement point marked at the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 29.67

Thickness of sediment accumulation (reported depth-present measurement):

0.23

Are there any obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): medium - soft

Inspection Date: 8/14/13

Inspected by: B. Spaschke

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 115MW-006 Location/Functional Area: Load Line 5  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: Above  
 Reported Construction Depth: 26.9 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
--------------------------	-------------------------------------	--------------------------

Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------

Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
--------------------------	-------------------------------------	--------------------------

Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------

Does the protective casing have a weep hole?

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Does the well have a flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------

Describe labeling: good

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------

Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------

Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
--------------------------	-------------------------------------	--------------------------

Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked a the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 27.10

Thickness of sediment accumulation (reported depth-present measurement): -0.20

Are there an obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): medium

Inspection Date: 8/14/13

Inspected by: X. Spink

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 001 Location/Functional Area: LL6  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: FM  
 Reported Construction Depth: 17.0 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
--------------------------	-------------------------------------	--------------------------

Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------

Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
--------------------------	-------------------------------------	--------------------------

Is steel protective casing installed?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	--------------------------	-------------------------------------

Does the protective casing have a weep hole?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	--------------------------	-------------------------------------

Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------

Does the well have a flush-mount box?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------

Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
--------------------------	-------------------------------------	--------------------------

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
--------------------------	-------------------------------------	--------------------------

**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Describe labeling: Needs ID Paint

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------

Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
--------------------------	-------------------------------------	--------------------------

Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	--------------------------	-------------------------------------

Is a measurement point marked at the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 17.60

Thickness of sediment accumulation (reported depth-present measurement): 0.60

Are there any obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): FA

Inspection Date: 5/14

Inspected by: [Signature]



**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 002 Location/Functional Area: LL6  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 22.5 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Rusty

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Needs Paint

**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 24.48

Thickness of sediment accumulation (reported depth-present measurement): -1.98

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): IF

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/14

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 003 Location/Functional Area: LL6  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 25.9 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
--------------------------	-------------------------------------	--------------------------

Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------

Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
--------------------------	-------------------------------------	--------------------------

Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------

Does the protective casing have a weep hole?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Does the well have a flush-mount box?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
--------------------------	-------------------------------------	--------------------------

Is the traffic cover cracked or broken?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Describe labeling: \_\_\_\_\_

Neach ID Panel

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Missing Lock Cover

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
--------------------------	-------------------------------------	--------------------------

Is a measurement point marked at the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 25.62

Thickness of sediment accumulation (reported depth-present measurement): 0.28

Are there any obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.):

Soft

Inspection Date: 8/14

Inspected by: J

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 004 Location/Functional Area: LL6  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 25.1 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Rusty

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 24.48

Thickness of sediment accumulation (reported depth-present measurement): 0.62

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/12

Inspected by: J

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 005 Location/Functional Area: LLC  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 22.5 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Rusty

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Needs Paint

**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 21.95

Thickness of sediment accumulation (reported depth-present measurement): 0.55

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): S

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 5/14

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 006 Location/Functional Area: LL6  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: FM  
 Reported Construction Depth: 17.0 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Rusty

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Needs #12 Pin

**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 17.75

Thickness of sediment accumulation (reported depth-present measurement): -0.75

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 5/14

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 007 Location/Functional Area: CLG  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: FM  
 Reported Construction Depth: 19.5 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is steel protective casing installed?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Does the protective casing have a weep hole?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Rusty  
Slight Corrosion

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a flush-mount box?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the traffic cover cracked or broken?

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	-------------------------------------	--------------------------

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Describe labeling:

Needs Re-X

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Is a measurement point marked at the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 19.30

Thickness of sediment accumulation (reported depth-present measurement): 0.20

Are there any obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): H

Inspection Date: 5/1/06

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 008 Location/Functional Area: LL 6  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 20.20 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 20.04

Thickness of sediment accumulation (reported depth-present measurement): 0.16

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 6/11/15

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 009 Location/Functional Area: LLI  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 41.40 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 41.32

Thickness of sediment accumulation (reported depth-present measurement): 0.08

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): 4

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/1/5

Inspected by: [Signature]



**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 001 Location/Functional Area: U7  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 32.2 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: paint plate

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 33.14

Thickness of sediment accumulation (reported depth-present measurement): -0.94

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): 0

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/14/13

Inspected by: Cal

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 002 Location/Functional Area: U7  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion:  
 Reported Construction Depth: 27.8 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

rusted post - repair out

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 27.27

Thickness of sediment accumulation (reported depth-present measurement): 0.53

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard etc.):

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/14/13

Inspected by: Ccl

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 003 Location/Functional Area: U7  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 33.6 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

_____
_____
_____
_____
_____
_____
_____

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

_____
_____
_____
_____

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

_____
_____
_____
_____

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 33.63

Thickness of sediment accumulation (reported depth-present measurement): -0.03

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): \_\_\_\_\_

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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(1')

Inspection Date: 8/14/13

Inspected by: Orl

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 004 Location/Functional Area: U7

Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion:

Reported Construction Depth: 32.5 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

rusted posts

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

no lock tab

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 32.81

Thickness of sediment accumulation (reported depth-present measurement): -0.31

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.):

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/14/13

Inspected by: Cal

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 005 Location/Functional Area: LL7  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 30.6 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

rusted posts

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

No lock tab

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 30.43

Thickness of sediment accumulation (reported depth-present measurement): 6.17

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): \_\_\_\_\_

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/14/13

Inspected by: Cal

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 004 Location/Functional Area: LL7  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion:  
 Reported Construction Depth: 30.4 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**Identification:**

Is the well labeled with the correct number?

Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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<u>No lock tab</u>
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point:

Thickness of sediment accumulation (reported depth-present measurement):

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.):

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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<u>30.04</u>
<u>0.36</u>
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Inspection Date: 8/14/13

Inspected by: Cal

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 001 Location/Functional Area: U8  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 26.8 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3  
 Are the posts positioned to prevent collision damage to the well?  
 Are any of the posts damaged or degraded?  
 Is a concrete pad installed?  
 Is the pad cracked or deteriorated? Frost Heaving?  
 Is steel protective casing installed?  
 Does the protective casing have a weep hole?  
 Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?  
 Does the well have a flush-mount box?  
 Is the traffic cover cracked or broken?  
 Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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**Identification:**

Is the well labeled with the correct number?  
 Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?  
 Does the well have a weatherproof lock?  
 Does the lock secure well?  
 Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface)?  
 Is the well casing loose, (at the surface)?  
 Is a measurement point marked at the top of well casing?  
 Measured depth of the well from measurement point: 27.48  
 Thickness of sediment accumulation (reported depth-present measurement): 27.17  
 Are there any obstructions in the well?  
 Description of well bottom conditions (soft, hard, etc.): 0

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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Inspection Date: 8/14/13

Inspected by: Cal

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 002 Location/Functional Area: LL8

Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/~~Above-ground~~ Completion:

Reported Construction Depth: 32.8 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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**Identification:**

Is the well labeled with the correct number?

Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 32.68

Thickness of sediment accumulation (reported depth-present measurement): 0.12

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.):

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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Inspection Date: 8/14/13

Inspected by: Cal



**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 003 Location/Functional Area: LL8  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion:  
 Reported Construction Depth: 23.3 ft ☐ BGS or ☒ BTOC (chosed one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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**Identification:**

Is the well labeled with the correct number?

Describe labeling: paint plate

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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fading

**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

no locktab

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 23.09

Thickness of sediment accumulation (reported depth-present measurement): 0.21

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard etc.): 0

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8-14-13

Inspected by: Cal

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 004 Location/Functional Area: LL8  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: 0  
 Reported Construction Depth: 27.2 23.0 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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**Identification:**

Is the well labeled with the correct number?

Describe labeling: plate paint

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 22.80

Thickness of sediment accumulation (reported depth-present measurement): 0.20

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): sed

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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tubing disconnected in the well bottom?

Inspection Date: 8/14/13

Inspected by: Cal

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 005 Location/Functional Area: LL8  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 27.2 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3  
 Are the posts positioned to prevent collision damage to the well? ☒ ☐ ☐ \_\_\_\_\_  
 Are any of the posts damaged or degraded? ☐ ☒ ☐ \_\_\_\_\_  
 Is a concrete pad installed? ☒ ☐ ☐ \_\_\_\_\_  
 Is the pad cracked or deteriorated? Frost Heaving? ☐ ☒ ☐ \_\_\_\_\_  
 Is steel protective casing installed? ☒ ☐ ☐ \_\_\_\_\_  
 Does the protective casing have a weep hole? ☒ ☐ ☐ \_\_\_\_\_  
 Does vegetation around the well need clearing? ☐ ☒ ☐ \_\_\_\_\_

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box? ☐ ☐ ☒ \_\_\_\_\_  
 Does the well have a flush-mount box? ☐ ☐ ☒ \_\_\_\_\_  
 Is the traffic cover cracked or broken? ☐ ☐ ☒ \_\_\_\_\_  
 Is the concrete apron cracked or deteriorated? Frost Heaving? ☐ ☐ ☒ \_\_\_\_\_

**Identification:**

Is the well labeled with the correct number? ☒ ☐ ☐ \_\_\_\_\_  
 Describe labeling: \_\_\_\_\_

**Security:**

Does the well have a cap or lid? ☒ ☐ ☐ \_\_\_\_\_  
 Does the well have a weatherproof lock? ☒ ☐ ☐ \_\_\_\_\_  
 Does the lock secure well? ☒ ☐ ☐ \_\_\_\_\_  
 Does the inner casing have a water-tight cap? ☒ ☐ ☐ \_\_\_\_\_

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?) ☒ ☒ ☐ \_\_\_\_\_  
 Is the well casing loose, (at the surface?) ☒ ☒ ☐ \_\_\_\_\_  
 Is a measurement point marked a the top of well casing? ☒ ☐ ☐ \_\_\_\_\_  
 Measured depth of the well from measurement point: 26.95  
 Thickness of sediment accumulation (reported depth-present measurement): 0.25  
 Are there an obstructions in the well? ☐ ☒ ☐ \_\_\_\_\_  
 Description of well bottom conditions (soft) hard, etc.): SOFT

Inspection Date: 8/14/13 Inspected by: Cal

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 006 Location/Functional Area: LL8

Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion:

Reported Construction Depth: 26.8 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

pad patch cracking

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

no lock tab

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 27.14

Thickness of sediment accumulation (reported depth-present measurement): 0.34

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): Q

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/14/13

Inspected by: Cal

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 129mW-001 Location/Functional Area: Lead Line 9  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: Above  
 Reported Construction Depth: 23.3 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: <u>3</u>				
Are the posts positioned to prevent collision damage to the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are any of the posts damaged or degraded?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>some surface rust on one</u>
Is a concrete pad installed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the pad cracked or deteriorated? Frost Heaving?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is steel protective casing installed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the protective casing have a weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does vegetation around the well need clearing?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the well have a flush-mount box?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the traffic cover cracked or broken?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the concrete apron cracked or deteriorated? Frost Heaving?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

**Identification:**

Is the well labeled with the correct number?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Describe labeling: <u>fair, some rust over numbers</u>				

**Security:**

Does the well have a cap or lid?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the well have a weatherproof lock?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the lock secure well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the inner casing have a water-tight cap?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>needs a little sand</u>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is the well casing loose, (at the surface?)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a measurement point marked at the top of well casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Measured depth of the well from measurement point: <u>23.35</u>				
Thickness of sediment accumulation (reported depth-present measurement): <u>-0.05</u>				
Are there any obstructions in the well?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Description of well bottom conditions (soft, hard, etc.): <u>hard</u>				

Inspection Date: 8/14/13

Inspected by: X. Spenshade

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 449 MW-002 Location/Functional Area: Locd Line 9  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: Above  
 Reported Construction Depth: 22.4 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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surface rust

Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the protective casing have a weep hole?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Describe labeling: good

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked a the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 22.74

Thickness of sediment accumulation (reported depth-present measurement): -0.34

Are there an obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): hkd

Inspection Date: 8/14/13

Inspected by: J. Spenshade

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 229 MW-003 Location/Functional Area: load line 9  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: Above  
 Reported Construction Depth: 23.8 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the protective casing have a weep hole?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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*One post is leaning w/ concrete heave; soil, no wiggle*

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Describe labeling: fail

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked at the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 24.20

Thickness of sediment accumulation (reported depth-present measurement): -0.40

Are there any obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): hard

Inspection Date: 8/14/13

Inspected by: J. Spence

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 119mw-004 Location/Functional Area: Load Line 9  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: Above  
 Reported Construction Depth: 34.9 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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surface rust

Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
--------------------------	-------------------------------------	--------------------------

Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the protective casing have a weep hole?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
--------------------------	-------------------------------------	--------------------------

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Does the well have a flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Describe labeling: fail; some surface rust on casing and numbers

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------

Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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needs seal

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked at the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 34.83

Thickness of sediment accumulation (reported depth-present measurement): 0.01

Are there any obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): hard

Inspection Date: 8/14/13

Inspected by: X. Spenshott



**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 119 MW-005 Location/Functional Area: Load Line 9  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: Above  
 Reported Construction Depth: 23.3 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the protective casing have a weep hole?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
--------------------------	-------------------------------------	--------------------------

Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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rust; one post leaning w/ concrete  
uplifted

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Does the well have a flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------

Describe labeling: fil

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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needs a little sand

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked at the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 23.50

Thickness of sediment accumulation (reported depth-present measurement): -0.20

Are there any obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): hard

Inspection Date: 8/14/13

Inspected by: X. Spinks

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: LL9 MW - 0016 Location/Functional Area: Load Line 9  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: Above  
 Reported Construction Depth: 28.9 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the protective casing have a weep hole?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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surface rust

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------

Describe labeling: good

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked at the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 28.82

Thickness of sediment accumulation (reported depth-present measurement): 0.08

Are there any obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): hard

Inspection Date: 8/14/13

Inspected by: S. Spenshato

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 229 MW-007 Location/Functional Area: Load Line 9  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: Flush  
 Reported Construction Depth: 18.5 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is steel protective casing installed?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Does the protective casing have a weep hole?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a flush-mount box?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Describe labeling: feeding

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked at the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 18.20

Thickness of sediment accumulation (reported depth-present measurement): 0.30

Are there any obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): hard

Inspection Date: 8/14/13

Inspected by: X. Xypharito

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: LL10 MW-001 Location/Functional Area: Load Line 10  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: Above  
 Reported Construction Depth: 29.8 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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surface rust

Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the protective casing have a weep hole?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Describe labeling: good

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked at the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 29.58

Thickness of sediment accumulation (reported depth-present measurement):

0.22

Are there any obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): hard

Inspection Date: 8/14/13

Inspected by: S. Spaschke

Ravenna Army Ammunition Plant  
**WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 2210mw-002 Location/Functional Area: Locd Line 10  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: Above  
 Reported Construction Depth: 29.7 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Surface rust

Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the protective casing have a weep hole?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Describe labeling: 2210

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked at the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 29.80

Thickness of sediment accumulation (reported depth-present measurement): 0.10

Are there any obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): hard

Inspection Date: 8/14/13

Inspected by: J. Spashenko

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 2610 MW-003 Location/Functional Area: Load Line 3  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: Above  
 Reported Construction Depth: 28.9 ft ☐ BGS or ☒ BTOC (chosed one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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surface rust

Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the protective casing have a weep hole?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Describe labeling: good

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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missing weatherproof cap

Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked at the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 28.55

Thickness of sediment accumulation (reported depth-present measurement): 0.35

Are there any obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): bed

Inspection Date: 8/14/13

Inspected by: J. Spentando

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: U10MW-004 Location/Functional Area: Load Line 10  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: Above  
 Reported Construction Depth: 33.8 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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surface rust

Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the protective casing have a weep hole?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Describe labeling: good

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------

no weatherproof lock

Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked at the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 33.53

Thickness of sediment accumulation (reported depth-present measurement): 0.27

Are there any obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): hard

Inspection Date: 8/14/13

Inspected by: S. Gjoshad

**Ravenna Army Ammunition Plant**  
**WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 4210 MW-005 Location/Functional Area: Red Line 8/0  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: Above  
 Reported Construction Depth: 29.3 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Surface rust

Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the protective casing have a weep hole?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Describe labeling: Red

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked at the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 29.24

Thickness of sediment accumulation (reported depth-present measurement): 0.06

Are there any obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): hard

Inspection Date: 8/14/13

Inspected by: S. Spindler



**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 2210mw-006 Location/Functional Area: Load Line 10  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: Above  
 Reported Construction Depth: 26.1 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Surface rust

Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the protective casing have a weep hole?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Identification:**

Is the well labeled with the correct number?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Describe labeling: \_\_\_\_\_

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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missing weatherproof lock

Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked at the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 26.48

Thickness of sediment accumulation (reported depth-present measurement): -0.38

Are there any obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): med.

Inspection Date: 8/14/13

Inspected by: A. Spivey

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 001 Location/Functional Area: LL11

Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: \_\_\_\_\_

Reported Construction Depth: 24.1 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 23.64

Thickness of sediment accumulation (reported depth-present measurement): 0.46

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): Hard

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 5/14

Inspected by: JH

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 002 Location/Functional Area: LL11  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: FM  
 Reported Construction Depth: 16.0 ft ☐ BGS or ☒ BTOC (chosed one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Needs Paint #11

**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 16.39

Thickness of sediment accumulation (reported depth-present measurement): -0.39

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): fl

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/11

Inspected by: J

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 003 Location/Functional Area: LC11  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: FM  
 Reported Construction Depth: 15.9 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4  
 Are the posts positioned to prevent collision damage to the well?  
 Are any of the posts damaged or degraded?  
 Is a concrete pad installed?  
 Is the pad cracked or deteriorated? Frost Heaving?  
 Is steel protective casing installed?  
 Does the protective casing have a weep hole?  
 Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?  
 Does the well have a flush-mount box?  
 Is the traffic cover cracked or broken?  
 Is the concrete apron cracked or deteriorated? Frost Heaving?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?  
 Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?  
 Does the well have a weatherproof lock?  
 Does the lock secure well?  
 Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)  
 Is the well casing loose, (at the surface?)  
 Is a measurement point marked at the top of well casing?  
 Measured depth of the well from measurement point: 16.02  
 Thickness of sediment accumulation (reported depth-present measurement): -0.12  
 Are there an obstructions in the well?  
 Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 6/11

Inspected by: J

**Ravenna Army Ammunition Plant**  
**WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 004 Location/Functional Area: LC11  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: FM  
 Reported Construction Depth: 16.2 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

**Identification:**

Is the well labeled with the correct number?

Describe labeling:

**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 16.13

Thickness of sediment accumulation (reported depth-present measurement): 0.07

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): H

Inspection Date: 5/14

Inspected by: JF

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 005 Location/Functional Area: LL11  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: FM  
 Reported Construction Depth: 16.0 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Needs Well ID Plate

**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 16.38

Thickness of sediment accumulation (reported depth-present measurement): -0.38

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): It

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 6/14

Inspected by: [Signature]

**Ravenna Army Ammunition Plant**  
**WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 006 Location/Functional Area: LC11  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: FM  
 Reported Construction Depth: 15.5 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is steel protective casing installed?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Does the protective casing have a weep hole?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a flush-mount box?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the traffic cover cracked or broken?

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	-------------------------------------	--------------------------

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Describe labeling: \_\_\_\_\_

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Is a measurement point marked a the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 15.68

Thickness of sediment accumulation (reported depth-present measurement): -0.18

Are there an obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): lt

Inspection Date: 4/14

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 007 Location/Functional Area: \_\_\_\_\_  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: AG  
 Reported Construction Depth: 25.2 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Surficial Cracks

Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the protective casing have a weep hole?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Describe labeling: \_\_\_\_\_

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Missing Lock Cam

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked at the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 25.25

Thickness of sediment accumulation (reported depth-present measurement): 0.05

Are there any obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): H

Inspection Date: 6/14

Inspected by: [Signature]



**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 008 Location/Functional Area: 2211  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: FM  
 Reported Construction Depth: 15.4 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is steel protective casing installed?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Does the protective casing have a weep hole?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a flush-mount box?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
--------------------------	-------------------------------------	--------------------------

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Describe labeling:

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Is a measurement point marked at the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 15.64

-0.28

Thickness of sediment accumulation (reported depth-present measurement):

Are there any obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): HA

Inspection Date: 9/14

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 009 Location/Functional Area: LL11  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 16.6 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the protective casing have a weep hole?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Does the well have a flush-mount box?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the traffic cover cracked or broken?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Describe labeling: \_\_\_\_\_

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked a the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 19.49

Thickness of sediment accumulation (reported depth-present measurement): 2.89

Are there an obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): H

Inspection Date: 8/15

Inspected by: JR

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 010 Location/Functional Area: L211  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 23.4 ft ☐ BGS or ☒ BTOC (chosed one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Missing Lock Cor

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 23.42

Thickness of sediment accumulation (reported depth-present measurement): -0.02

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): \_\_\_\_\_

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 4/14

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 011 Location/Functional Area: LL11  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 20.45 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 20.31

Thickness of sediment accumulation (reported depth-present measurement): 0.14

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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Inspection Date: 8/14

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 012 Location/Functional Area: LC11  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: 0  
 Reported Construction Depth: 119.45 ft ☐ BGS or ☒ BTOC (chosed one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 119.45

Thickness of sediment accumulation (reported depth-present measurement): 0

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): medium-hard

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/14

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 088 Location/Functional Area: LC17  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 27.1 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 27.35

Thickness of sediment accumulation (reported depth-present measurement): -0.25

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): m

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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Inspection Date: 4/13

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 107 Location/Functional Area: L412  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 33.1 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 33.65

Thickness of sediment accumulation (reported depth-present measurement): 0.55

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/13

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 113 Location/Functional Area: LL12  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion:     
 Reported Construction Depth: 25.0 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling:   

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 25.72

Thickness of sediment accumulation (reported depth-present measurement): 0.72

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.):   

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/13

Inspected by: gm



**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 128 Location/Functional Area: LL12  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: 0  
 Reported Construction Depth: 33.3 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 33.9

Thickness of sediment accumulation (reported depth-present measurement): 0.6

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/13

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 153 Location/Functional Area: 44/2  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: 0  
 Reported Construction Depth: 25.0 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 25.06

Thickness of sediment accumulation (reported depth-present measurement): -0.06

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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Inspection Date: 8/13

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 154 Location/Functional Area: LC12  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: 0  
 Reported Construction Depth: 28.7 ft ☐ BGS or ☒ BTOC (chosed one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 28.67

Thickness of sediment accumulation (reported depth-present measurement): 0.03

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 4/13

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 182 Location/Functional Area: LL13  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: 0  
 Reported Construction Depth: 37.7 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 37.95

Thickness of sediment accumulation (reported depth-present measurement): 0.25

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.):

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/13

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 18255 Location/Functional Area: LL12  
 Casing Type: ☒ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: 0  
 Reported Construction Depth: 38.5 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 38.40

Thickness of sediment accumulation (reported depth-present measurement): 0.10

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): \_\_\_\_\_

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/13

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 183 Location/Functional Area: LL12  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 36 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 36.28

Thickness of sediment accumulation (reported depth-present measurement): -0.28

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): \_\_\_\_\_

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/13

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 184 Location/Functional Area: CL12  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: 0  
 Reported Construction Depth: 31.2 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 31.34

Thickness of sediment accumulation (reported depth-present measurement): 0.14

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 4/13

Inspected by: jc

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 155 Location/Functional Area: LL12  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: 0  
 Reported Construction Depth: 23.2 ft ☐ BGS or ☒ BTOC (chosed one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 23.23

Thickness of sediment accumulation (reported depth-present measurement): 0.03

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): \_\_\_\_\_

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/17

Inspected by: [Signature]



**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 188 Location/Functional Area: LL12

Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: \_\_\_\_\_

Reported Construction Depth: 21.0 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Lock Cover Missing

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 21.00

Thickness of sediment accumulation (reported depth-present measurement): 0

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): \_\_\_\_\_

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/13

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 187 Location/Functional Area: LL12  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion:  
 Reported Construction Depth: 29.4 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Notes well cover

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 29.85

Thickness of sediment accumulation (reported depth-present measurement): 0.45

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.):

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/13

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 188 Location/Functional Area: 4412  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: 0  
 Reported Construction Depth: 22.2 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 22.04

Thickness of sediment accumulation (reported depth-present measurement): 0.16

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): \_\_\_\_\_

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 6/12

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 189 Location/Functional Area: LC12  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion:     
 Reported Construction Depth: 19.6 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4  
 Are the posts positioned to prevent collision damage to the well?  
 Are any of the posts damaged or degraded?  
 Is a concrete pad installed?  
 Is the pad cracked or deteriorated? Frost Heaving?  
 Is steel protective casing installed?  
 Does the protective casing have a weep hole?  
 Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?  
 Does the well have a flush-mount box?  
 Is the traffic cover cracked or broken?  
 Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Identification:**

Is the well labeled with the correct number?  
 Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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\_\_\_\_\_

**Security:**

Does the well have a cap or lid?  
 Does the well have a weatherproof lock?  
 Does the lock secure well?  
 Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Lock Cover Mem  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)  
 Is the well casing loose, (at the surface?)  
 Is a measurement point marked a the top of well casing?  
 Measured depth of the well from measurement point: 19.55  
 Thickness of sediment accumulation (reported depth-present measurement): 0.05  
 Are there an obstructions in the well?  
 Description of well bottom conditions (soft, hard, etc.): \_\_\_\_\_

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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Inspection Date: 11/13

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 242 Location/Functional Area: LL12  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion:  
 Reported Construction Depth: 28.3 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 28.64

Thickness of sediment accumulation (reported depth-present measurement): -0.34

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.):

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 6/13

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 243 Location/Functional Area: LL12  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: ①  
 Reported Construction Depth: 25.7 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Rusty

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 24.30

Thickness of sediment accumulation (reported depth-present measurement): 1.40

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/13

Inspected by: Jr

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 244 Location/Functional Area: LL12  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion:  
 Reported Construction Depth: 32.1 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

rusty

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 30.59

Thickness of sediment accumulation (reported depth-present measurement): 1.51

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): \_\_\_\_\_

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 5/13

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 245 Location/Functional Area: 2112  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: 0  
 Reported Construction Depth: 30.5 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Prof

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 30.60

Thickness of sediment accumulation (reported depth-present measurement): 1.50

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): Soft

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 6/17

Inspected by: [Signature]



**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 246 Location/Functional Area: U12  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: 2  
 Reported Construction Depth: 34.3 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the protective casing have a weep hole?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Revised

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Describe labeling: \_\_\_\_\_

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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No Lock Cap

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked at the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 34.97 - 0.67

Thickness of sediment accumulation (reported depth-present measurement): \_\_\_\_\_

Are there any obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): \_\_\_\_\_

Inspection Date: 4/13

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 247 Location/Functional Area: LC12  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: 0  
 Reported Construction Depth: 22.6 ft ☐ BGS or ☒ BTOC (chosed one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 22.60

Thickness of sediment accumulation (reported depth-present measurement): 0

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 6/5/7

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 024 Location/Functional Area: LNW  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 22.7 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

*Needs Post*

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 22.57

Thickness of sediment accumulation (reported depth-present measurement): 0.19

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): M

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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Inspection Date: 6/21

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 025 Location/Functional Area: 2 NW  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: 0  
 Reported Construction Depth: 19.9 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3  
 Are the posts positioned to prevent collision damage to the well?  
 Are any of the posts damaged or degraded?  
 Is a concrete pad installed?  
 Is the pad cracked or deteriorated? Frost Heaving?  
 Is steel protective casing installed?  
 Does the protective casing have a weep hole?  
 Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*Neces Pan*

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?  
 Does the well have a flush-mount box?  
 Is the traffic cover cracked or broken?  
 Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?  
 Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?  
 Does the well have a weatherproof lock?  
 Does the lock secure well?  
 Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)  
 Is the well casing loose, (at the surface?)  
 Is a measurement point marked at the top of well casing?  
 Measured depth of the well from measurement point: 20.29  
 Thickness of sediment accumulation (reported depth-present measurement): -0.39  
 Are there an obstructions in the well?  
 Description of well bottom conditions (soft, hard, etc.):

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/21

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 021 Location/Functional Area: LNW  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: AK  
 Reported Construction Depth: 25.8 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

*Needs Paint*

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 25.97

Thickness of sediment accumulation (reported depth-present measurement): -0.17

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): ft

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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Inspection Date: 8/21

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 027 Location/Functional Area: LNW  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: AC  
 Reported Construction Depth: 26.7 ft ☐ BGS or ☒ BTOC (chosed one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

*Needs Paint*

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 26.85

Thickness of sediment accumulation (reported depth-present measurement): -0.15

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): \_\_\_\_\_

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/21

Inspected by: \_\_\_\_\_

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 001 Location/Functional Area: AB5  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 9.7 ft  
 Flush-mount/Above-ground Completion: Ac  
 Reported Construction Depth: 31.5 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Under Work

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 30.99

Thickness of sediment accumulation (reported depth-present measurement): 0.51

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 4/20

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 002 Location/Functional Area: 17B5  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 9.3 ft  
 Flush-mount/Above-ground Completion: 176  
 Reported Construction Depth: 30.7 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4  
 Are the posts positioned to prevent collision damage to the well?  
 Are any of the posts damaged or degraded?  
 Is a concrete pad installed?  
 Is the pad cracked or deteriorated? Frost Heaving?  
 Is steel protective casing installed?  
 Does the protective casing have a weep hole?  
 Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?  
 Does the well have a flush-mount box?  
 Is the traffic cover cracked or broken?  
 Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Identification:**

Is the well labeled with the correct number?  
 Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?  
 Does the well have a weatherproof lock?  
 Does the lock secure well?  
 Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)  
 Is the well casing loose, (at the surface?)  
 Is a measurement point marked at the top of well casing?  
 Measured depth of the well from measurement point: 31.14  
 Thickness of sediment accumulation (reported depth-present measurement): -0.44  
 Are there any obstructions in the well?  
 Description of well bottom conditions (soft, hard, etc.): soft

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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Inspection Date: 8/20 Inspected by: [Signature]



**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 003 Location/Functional Area: 17B9  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 9.7 ft  
 Flush-mount/Above-ground Completion: AG  
 Reported Construction Depth: 30.5 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 30.70

Thickness of sediment accumulation (reported depth-present measurement): 0.20

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/20

Inspected by: Jc

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 004 Location/Functional Area: 17BS  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 9.7 ft  
 Flush-mount/Above-ground Completion: AC  
 Reported Construction Depth: 27.0 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 27.18

Thickness of sediment accumulation (reported depth-present measurement): -0.18

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): 11

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/20

Inspected by: J

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 005 Location/Functional Area: MBS  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: 0  
 Reported Construction Depth: 30.2 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: BF

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Ref

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Missing Lock Cap

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 29.95

Thickness of sediment accumulation (reported depth-present measurement): 0.25

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): Soft

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 6/20

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 006 Location/Functional Area: MBS  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: AC  
 Reported Construction Depth: 28.2 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling:

☒ ☐ ☐ Needs Paint

**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 28.00

Thickness of sediment accumulation (reported depth-present measurement): 6.20

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/20

Inspected by: J

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 007 Location/Functional Area: NACN  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: AC  
 Reported Construction Depth: 24.6 ft ☐ BGS or ☒ BTOC (chosed one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Run

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Needs Paint

**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 24.09

Thickness of sediment accumulation (reported depth-present measurement): 0.51

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): soft

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 4/26

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 108 Location/Functional Area: NACA  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: Ac  
 Reported Construction Depth: 24.4 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Ref

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 24.4

Thickness of sediment accumulation (reported depth-present measurement): -0.01

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): Med

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 9/20

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 109 Location/Functional Area: NAC 9  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: AE  
 Reported Construction Depth: 20.9 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Run  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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\_\_\_\_\_  
\_\_\_\_\_

**Identification:**

Is the well labeled with the correct number?

Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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\_\_\_\_\_  
\_\_\_\_\_

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 20.89

Thickness of sediment accumulation (reported depth-present measurement): 0.01

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): soft

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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Inspection Date: 8/20

Inspected by: je

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 110 Location/Functional Area: NACA  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: AK  
 Reported Construction Depth: 29.6 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the protective casing have a weep hole?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Ready

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a flush-mount box?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the traffic cover cracked or broken?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the concrete apron cracked or deteriorated? Frost Heaving?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------

Describe labeling: \_\_\_\_\_

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked a the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 29.75

Thickness of sediment accumulation (reported depth-present measurement): -0.15

Are there an obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): HA

Inspection Date: 6/26

Inspected by: [Signature]



**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 111 Location/Functional Area: NAAN  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: AQ  
 Reported Construction Depth: 22.4 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Rush

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 22.08

Thickness of sediment accumulation (reported depth-present measurement): 0.32

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/21

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 112 Location/Functional Area: WACN  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: AC  
 Reported Construction Depth: 26.9 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Rep

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 26.58

Thickness of sediment accumulation (reported depth-present measurement): 0.36

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.):

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Soft

Inspection Date: 8/2

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 113 Location/Functional Area: NACA  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: AG  
 Reported Construction Depth: 30.6 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Risk

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 29.64

Thickness of sediment accumulation (reported depth-present measurement): 0.96

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 6/20

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 114 Location/Functional Area: NWAC1  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: Ac  
 Reported Construction Depth: 22.6 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the protective casing have a weep hole?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Ref  
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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Does the well have a flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Is the concrete apron cracked or deteriorated? Frost Heaving?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Describe labeling: \_\_\_\_\_

\_\_\_\_\_

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked a the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 22.78

Thickness of sediment accumulation (reported depth-present measurement): -0.18

Are there an obstructions in the well?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): H

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Inspection Date: 8/2

Inspected by: J

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 115 Location/Functional Area: NACA  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: AC  
 Reported Construction Depth: 25.2 ft ☐ BGS or ☒ BTOC (chosed one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 25.30

Thickness of sediment accumulation (reported depth-present measurement): -0.10

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/24

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 116 Location/Functional Area: WACH  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: AC  
 Reported Construction Depth: 22.6 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 2  
 Are the posts positioned to prevent collision damage to the well?  
 Are any of the posts damaged or degraded?  
 Is a concrete pad installed?  
 Is the pad cracked or deteriorated? Frost Heaving?  
 Is steel protective casing installed?  
 Does the protective casing have a weep hole?  
 Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Rust

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?  
 Does the well have a flush-mount box?  
 Is the traffic cover cracked or broken?  
 Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?  
 Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?  
 Does the well have a weatherproof lock?  
 Does the lock secure well?  
 Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)  
 Is the well casing loose, (at the surface?)  
 Is a measurement point marked at the top of well casing?  
 Measured depth of the well from measurement point: 22.53  
 Thickness of sediment accumulation (reported depth-present measurement): 0.07  
 Are there any obstructions in the well?  
 Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/2

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 117 Location/Functional Area: NAGA  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: AK  
 Reported Construction Depth: 27.4 ft ☐ BGS or ☒ BTOC (chosed one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Rep

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 27.49

Thickness of sediment accumulation (reported depth-present measurement): 0.09

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 5/20

Inspected by: J

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 118 Location/Functional Area: IV A GA  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 6 ft  
 Flush-mount/Above-ground Completion: AC  
 Reported Construction Depth: 24.6 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Ring

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Missing Lock Key

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 24.66

Thickness of sediment accumulation (reported depth-present measurement): -0.06

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): IF

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 6/20

Inspected by: [Signature]



**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 119 Location/Functional Area: WACA  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: AG  
 Reported Construction Depth: 104.6 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Surface Crack

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 104.65

Thickness of sediment accumulation (reported depth-present measurement): -0.05

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): 0

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 6/20

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: BQ1ms-006 Location/Functional Area: BQ1  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 20 ft  
 Flush-mount/Above-ground Completion: Above  
 Reported Construction Depth: 41.4 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the protective casing have a weep hole?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Describe labeling: good

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked at the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 42.03

Thickness of sediment accumulation (reported depth-present measurement): -0.63

Are there any obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): hard

Inspection Date: 8/13/13

Inspected by: H. Spink

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: RQ4mw-007 Location/Functional Area: RQ4  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: Above  
 Reported Construction Depth: 18.2 ft ☐ BGS or ☒ BTOC (chosed one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 0

Are the posts positioned to prevent collision damage to the well?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
--------------------------	-------------------------------------	--------------------------

Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the protective casing have a weep hole?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
--------------------------	-------------------------------------	--------------------------

Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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weeps

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Describe labeling: 0007

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked at the top of well casing?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 18.48

Thickness of sediment accumulation (reported depth-present measurement): -0.28

Are there any obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): hard

Inspection Date: 8/13/13

Inspected by: S. Spenshott

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: RAAMW-008 Location/Functional Area: RAAL  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: Above  
 Reported Construction Depth: 18.5 ft ☐ BGS or ☒ BTOC (chosed one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 0

Are the posts positioned to prevent collision damage to the well?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the protective casing have a weep hole?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Describe labeling: good

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked at the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 18.67

Thickness of sediment accumulation (reported depth-present measurement): -0.17

Are there any obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): hard

Inspection Date: 8/13/13

Inspected by: SS. Spink

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: RQ1 MW-009 Location/Functional Area: RQ1  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: Above  
 Reported Construction Depth: 18.4 ft ☐ BGS or ☒ BTOC (chosed one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 0

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: good

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 18.80

Thickness of sediment accumulation (reported depth-present measurement): -0.40

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): hard

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/13/13

Inspected by: H. Spence

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: BQ4mw-010 Location/Functional Area: BQ4  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 20 ft  
 Flush-mount/Above-ground Completion: Above  
 Reported Construction Depth: 35.1 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 2

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the protective casing have a weep hole?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Describe labeling: good

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked a the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 35.34

Thickness of sediment accumulation (reported depth-present measurement): -0.2 ✓

Are there an obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): hard

Inspection Date: 8/13/13

Inspected by: B. S. S. S. S.

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: RDLMD-011 Location/Functional Area: RDL  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 20 ft  
 Flush-mount/Above-ground Completion: Above  
 Reported Construction Depth: 34.6 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the protective casing have a weep hole?

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Describe labeling: good

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
--------------------------	-------------------------------------	--------------------------

Is a measurement point marked a the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 35.36

Thickness of sediment accumulation (reported depth-present measurement): 0.76

Are there an obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): hard

Inspection Date: 8/13/13

Inspected by: S. Sympson

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: RQLMW-012 Location/Functional Area: RQ1  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: Above  
 Reported Construction Depth: 32.5 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

✓		
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Are any of the posts damaged or degraded?

	✓	
--	---	--

Is a concrete pad installed?

✓		
---	--	--

Is the pad cracked or deteriorated? Frost Heaving?

	✓	
--	---	--

Is steel protective casing installed?

✓		
---	--	--

Does the protective casing have a weep hole?

✓		
---	--	--

Does vegetation around the well need clearing?

	✓	
--	---	--

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

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Does the well have a flush-mount box?

--	--	--

Is the traffic cover cracked or broken?

--	--	--

Is the concrete apron cracked or deteriorated? Frost Heaving?

--	--	--

**Identification:**

Is the well labeled with the correct number?

✓		
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Describe labeling: good

**Security:**

Does the well have a cap or lid?

✓		
---	--	--

Does the well have a weatherproof lock?

✓		
---	--	--

Does the lock secure well?

✓		
---	--	--

Does the inner casing have a water-tight cap?

✓		
---	--	--

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

	✓	
--	---	--

Is the well casing loose, (at the surface?)

	✓	
--	---	--

Is a measurement point marked at the top of well casing?

✓		
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Measured depth of the well from measurement point: 32.69

Thickness of sediment accumulation (reported depth-present measurement): -0.19

Are there any obstructions in the well?

	✓	
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Description of well bottom conditions (soft, hard, etc.): hard

Inspection Date: 8/13/13

Inspected by: A. Spink



**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: RQ1mw-013 Location/Functional Area: RQ1  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: Above  
 Reported Construction Depth: 36.6 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the protective casing have a weep hole?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Describe labeling: good

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked a the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 35.90

Thickness of sediment accumulation (reported depth-present measurement): 0.70

Are there an obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): soft

Inspection Date: 8/13/13

Inspected by: S. Spenshade

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: RQ2mw-014 Location/Functional Area: RQ2  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: Above  
 Reported Construction Depth: 31.6 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the protective casing have a weep hole?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Describe labeling: 2000

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked at the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 31.55

Thickness of sediment accumulation (reported depth-present measurement): 0.05

Are there any obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): h/c

Inspection Date: 8/13/13

Inspected by: D. Spahr

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: RQ1m4-015 Location/Functional Area: RQ1  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: Above  
 Reported Construction Depth: 41.6 ft ☐ BGS or ☒ BTOC (chosed one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the protective casing have a weep hole?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Describe labeling: good

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked at the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 41.87

Thickness of sediment accumulation (reported depth-present measurement): -0.27

Are there any obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): med

Inspection Date: 8/13/13

Inspected by: H. Spensha

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: RBLmw-016 Location/Functional Area: RQL  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: Above  
 Reported Construction Depth: 41.6 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the protective casing have a weep hole?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Describe labeling: good

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked a the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 41.67

Thickness of sediment accumulation (reported depth-present measurement): -0.07

Are there an obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): med

Inspection Date: 8/13/13

Inspected by: S. Spacharo

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 017 Location/Functional Area: RQL  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: AE  
 Reported Construction Depth: 32.5 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4  
 Are the posts positioned to prevent collision damage to the well?  
 Are any of the posts damaged or degraded?  
 Is a concrete pad installed?  
 Is the pad cracked or deteriorated? Frost Heaving?  
 Is steel protective casing installed?  
 Does the protective casing have a weep hole?  
 Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?  
 Does the well have a flush-mount box?  
 Is the traffic cover cracked or broken?  
 Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Identification:**

Is the well labeled with the correct number?  
 Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?  
 Does the well have a weatherproof lock?  
 Does the lock secure well?  
 Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)  
 Is the well casing loose, (at the surface?)  
 Is a measurement point marked a the top of well casing?  
 Measured depth of the well from measurement point: 32.70  
 Thickness of sediment accumulation (reported depth-present measurement): -0.20  
 Are there an obstructions in the well?  
 Description of well bottom conditions (soft, hard, etc.): 11

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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Inspection Date: 8/19 Inspected by: [Signature]

Ravenna Army Ammunition Plant  
**WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 001 Location/Functional Area: SCF  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 213.61 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the protective casing have a weep hole?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Describe labeling: \_\_\_\_\_

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked at the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 214.30

Thickness of sediment accumulation (reported depth-present measurement): -0.69

Are there any obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): med

Inspection Date: 8/14

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 002 Location/Functional Area: SCF  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion:  
 Reported Construction Depth: 149.65 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 150.10

Thickness of sediment accumulation (reported depth-present measurement): -0.45

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): Med

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/17

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: SCF 003 Location/Functional Area: SCF  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/~~Above-ground~~ Completion: \_\_\_\_\_  
 Reported Construction Depth: 139.65 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Identification:**

Is the well labeled with the correct number?

Describe labeling: Paint/etched

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 139.65

Thickness of sediment accumulation (reported depth-present measurement): \_\_\_\_\_

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): M-H

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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Inspection Date: 8/13/13

Inspected by: CEL



**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 004 Location/Functional Area: SGF  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 112.47 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

**Identification:**

Is the well labeled with the correct number?

Describe labeling: Paint

**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 112.50

Thickness of sediment accumulation (reported depth-present measurement): -0.03

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): Hard-medium

Inspection Date: 8/20/13

Inspected by: Cal

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: SCFmJ-005 Location/Functional Area: SCF near 304 AOC  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 15 ft  
 Flush-mount/Above-ground Completion: Above  
 Reported Construction Depth: 156.41 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the protective casing have a weep hole?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does vegetation around the well need clearing?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Describe labeling: good

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked at the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: ~138.10 156.10

Thickness of sediment accumulation (reported depth-present measurement): 0.31

Are there any obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): med.

Inspection Date: 8/13/13

Inspected by: H. Spink

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 906 Location/Functional Area: SCF  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: Ac  
 Reported Construction Depth: 88.32 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: paint

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 87.91

Thickness of sediment accumulation (reported depth-present measurement): 0.41

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): medium

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/10

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 005 Location/Functional Area: WBG  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: Re  
 Reported Construction Depth: 21.1 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3  
 Are the posts positioned to prevent collision damage to the well?  
 Are any of the posts damaged or degraded?  
 Is a concrete pad installed?  
 Is the pad cracked or deteriorated? Frost Heaving?  
 Is steel protective casing installed?  
 Does the protective casing have a weep hole?  
 Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Needs Paved

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?  
 Does the well have a flush-mount box?  
 Is the traffic cover cracked or broken?  
 Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?  
 Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?  
 Does the well have a weatherproof lock?  
 Does the lock secure well?  
 Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)  
 Is the well casing loose, (at the surface?)  
 Is a measurement point marked a the top of well casing?  
 Measured depth of the well from measurement point: 21.12  
 Thickness of sediment accumulation (reported depth-present measurement): -0.02  
 Are there an obstructions in the well?  
 Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/21 Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 006 Location/Functional Area: W B 6  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 20.4 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Ring

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing? 20.14

Measured depth of the well from measurement point: 7.639m

Thickness of sediment accumulation (reported depth-present measurement): 0.26

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): \_\_\_\_\_

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/21

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 007 Location/Functional Area: WBG  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 26.3 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 26.38

Thickness of sediment accumulation (reported depth-present measurement): -0.08

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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Inspection Date: 8/21

Inspected by: J

Ravenna Army Ammunition Plant  
**WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 008 Location/Functional Area: WBC  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10.1 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 21.0 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 20.80

Thickness of sediment accumulation (reported depth-present measurement): 0.20

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): \_\_\_\_\_

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/21

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 009 Location/Functional Area: WBE  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: 0  
 Reported Construction Depth: 24.0 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 24.27

Thickness of sediment accumulation (reported depth-present measurement): -0.27

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): med

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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Inspection Date: 8/21

Inspected by: [Signature]



**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 610 Location/Functional Area: WBC  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: NC  
 Reported Construction Depth: 23.6 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Needs Pad

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 23.29

Thickness of sediment accumulation (reported depth-present measurement): 0.31

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): fl

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/21

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 011 Location/Functional Area: WBC  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion:     
 Reported Construction Depth: 24.0 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling:   

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 23.75

Thickness of sediment accumulation (reported depth-present measurement): 0.25

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.):   

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 6/22

Inspected by:

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 12 Location/Functional Area: WBG  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole-Well Type: Screened Monitor Interval Length: \_\_\_\_\_ ft  
 Flush-mount/~~Above-ground~~ Completion: \_\_\_\_\_  
 Reported Construction Depth: 32.0 ft ☐ BGS or ☒ BTOC (chosed one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: N/A well not located during inspection  
 Are the posts positioned to prevent collision damage to the well? ☐ ☐ ☐ \_\_\_\_\_  
 Are any of the posts damaged or degraded? ☐ ☐ ☐ \_\_\_\_\_  
 Is a concrete pad installed? ☐ ☐ ☐ \_\_\_\_\_  
 Is the pad cracked or deteriorated? Frost Heaving? ☐ ☐ ☐ \_\_\_\_\_  
 Is steel protective casing installed? ☐ ☐ ☐ \_\_\_\_\_  
 Does the protective casing have a weep hole? ☐ ☐ ☐ \_\_\_\_\_  
 Does vegetation around the well need clearing? ☐ ☐ ☐ \_\_\_\_\_

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box? ☐ ☐ ☐ \_\_\_\_\_  
 Does the well have a flush-mount box? ☐ ☐ ☐ \_\_\_\_\_  
 Is the traffic cover cracked or broken? ☐ ☐ ☐ \_\_\_\_\_  
 Is the concrete apron cracked or deteriorated? Frost Heaving? ☐ ☐ ☐ \_\_\_\_\_

**Identification:**

Is the well labeled with the correct number? ☐ ☐ ☐ \_\_\_\_\_  
 Describe labeling: \_\_\_\_\_

**Security:**

Does the well have a cap or lid? ☐ ☐ ☐ \_\_\_\_\_  
 Does the well have a weatherproof lock? ☐ ☐ ☐ \_\_\_\_\_  
 Does the lock secure well? ☐ ☐ ☐ \_\_\_\_\_  
 Does the inner casing have a water-tight cap? ☐ ☐ ☐ \_\_\_\_\_

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?) ☐ ☐ ☐ \_\_\_\_\_  
 Is the well casing loose, (at the surface?) ☐ ☐ ☐ \_\_\_\_\_  
 Is a measurement point marked a the top of well casing? ☐ ☐ ☐ \_\_\_\_\_  
 Measured depth of the well from measurement point: N/A  
 Thickness of sediment accumulation (reported depth-present measurement): \_\_\_\_\_  
 Are there an obstructions in the well? ☐ ☐ ☐ \_\_\_\_\_  
 Description of well bottom conditions (soft, hard, etc.): N/A not located during inspection

Inspection Date: 8/21 Inspected by: gm

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 013 Location/Functional Area: WBC  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: 0  
 Reported Construction Depth: 23.9 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*Needs Post*

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 24.04

Thickness of sediment accumulation (reported depth-present measurement): - 0.14

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.):

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 6/21

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 014 Location/Functional Area: WBG  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: 0  
 Reported Construction Depth: 25.0 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the protective casing have a weep hole?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Does the well have a flush-mount box?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the concrete apron cracked or deteriorated? Frost Heaving?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Describe labeling: \_\_\_\_\_

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the lock secure well?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked at the top of well casing?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 24.95

Thickness of sediment accumulation (reported depth-present measurement): 0.07

Are there any obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): ft

Inspection Date: 5/21

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 015 Location/Functional Area: W B 6  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion:  
 Reported Construction Depth: 23.8 ft ☐ BGS or ☒ BTOC (chosed one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Identification:**

Is the well labeled with the correct number?

Describe labeling:

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 23.43

Thickness of sediment accumulation (reported depth-present measurement): 0.37

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.):

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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Inspection Date: 06/21

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 016 Location/Functional Area: WBG  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: 0  
 Reported Construction Depth: 35.4 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 4

*Needs Paving*

Are the posts positioned to prevent collision damage to the well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the protective casing have a weep hole?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Does the well have a flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Describe labeling:

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked at the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 35.05

Thickness of sediment accumulation (reported depth-present measurement): 0.35

Are there any obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.):

Inspection Date: 8/21

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 017 Location/Functional Area: WB6  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: 0  
 Reported Construction Depth: 23.9 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 3

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*Needs Pad*

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 23.33

Thickness of sediment accumulation (reported depth-present measurement): 0.57

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/24

Inspected by: [Signature]



**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 018 Location/Functional Area: WBG  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: AC  
 Reported Construction Depth: 24.8 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 0

Berm - Good

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

_____
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 24.77

Thickness of sediment accumulation (reported depth-present measurement): 0.03

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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Inspection Date: 8/21

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 019 Location/Functional Area: WB6  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: 0  
 Reported Construction Depth: 50.5 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 0

Berm - Good

Are the posts positioned to prevent collision damage to the well?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Are any of the posts damaged or degraded?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is a concrete pad installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Is the pad cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is steel protective casing installed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the protective casing have a weep hole?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Does vegetation around the well need clearing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Does the well have a flush-mount box?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the traffic cover cracked or broken?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the concrete apron cracked or deteriorated? Frost Heaving?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Identification:**

Is the well labeled with the correct number?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Describe labeling:

**Security:**

Does the well have a cap or lid?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the well have a weatherproof lock?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the lock secure well?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is the well casing loose, (at the surface?)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Is a measurement point marked a the top of well casing?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Measured depth of the well from measurement point: 50.48

Thickness of sediment accumulation (reported depth-present measurement):

0.02

Are there an obstructions in the well?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Description of well bottom conditions (soft, hard, etc.): Med

Inspection Date: 8/21

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 020 Location/Functional Area: WBG  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion:     
 Reported Construction Depth: 43.8 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 0

Berm Goal

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>


**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>


**Identification:**

Is the well labeled with the correct number?

Describe labeling:  

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>


**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked at the top of well casing?

Measured depth of the well from measurement point: 43.59

Thickness of sediment accumulation (reported depth-present measurement): 0.21

Are there any obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): Med

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>


Inspection Date: 8/21

Inspected by: [Signature]

**Ravenna Army Ammunition Plant  
WELL INSPECTION CHECKLIST**

**WELL INFORMATION:**

Well Number: 021 Location/Functional Area: WPB6  
 Casing Type: ☐ Steel ☐ Stainless Steel ☒ PVC  
 Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft  
 Flush-mount/Above-ground Completion: \_\_\_\_\_  
 Reported Construction Depth: 43.1 ft ☐ BGS or ☒ BTOC (chose one only)

**INSPECTION ITEMS**

**Well-Head Completion:**

YES NO N/A COMMENTS

**Above-ground completion:**

Number of Guard posts at well: 0

Berm - Good

Are the posts positioned to prevent collision damage to the well?

Are any of the posts damaged or degraded?

Is a concrete pad installed?

Is the pad cracked or deteriorated? Frost Heaving?

Is steel protective casing installed?

Does the protective casing have a weep hole?

Does vegetation around the well need clearing?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Flush-mount completion:**

Is the traffic cover securely bolted to the flush-mount box?

Does the well have a flush-mount box?

Is the traffic cover cracked or broken?

Is the concrete apron cracked or deteriorated? Frost Heaving?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identification:**

Is the well labeled with the correct number?

Describe labeling: \_\_\_\_\_

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Security:**

Does the well have a cap or lid?

Does the well have a weatherproof lock?

Does the lock secure well?

Does the inner casing have a water-tight cap?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Down-hole Condition:**

Is the well casing bent, corroded, or broken (at the surface?)

Is the well casing loose, (at the surface?)

Is a measurement point marked a the top of well casing?

Measured depth of the well from measurement point: 43.08

Thickness of sediment accumulation (reported depth-present measurement): 0.02

Are there an obstructions in the well?

Description of well bottom conditions (soft, hard, etc.): H

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection Date: 8/21

Inspected by: J

## **APPENDIX E**

### **REPORTING LIMITS THAT CURRENTLY DO NOT MEET THE RVAAP QAPP PROJECT ACTION REQUIREMENTS, MCLS, AND/OR RSLs**

**VOCs**

CAS No.	Analyte Name	Units	MDL	LOD <sup>1</sup>	RL	PAR <sup>2</sup>	MCL	RSL
79-34-5	1,1,2,2-Tetrachloroethane	µg/L	0.18	0.25	1	1	NS	0.066
79-00-5	1,1,2-Trichloroethane	µg/L	0.27	0.5	1	1	5	0.24
106-93-4	1,2-Dibromoethane	µg/L	0.24	0.25	1	1	NS	0.0065
107-06-2	1,2-Dichloroethane	µg/L	0.22	0.25	1	1	5	0.15
75-27-4	Bromodichloromethane	µg/L	0.15	0.25	1	1	NS	0.12
124-48-1	Dibromochloromethane	µg/L	0.18	0.25	1	1	NS	0.15
75-01-4	Vinyl chloride	µg/L	0.22	0.25	1	1	2	0.015

**SVOCS**

CAS No.	Analyte Name	Units	MDL	LOD <sup>1</sup>	RL	PAR <sup>2</sup>	MCL	RSL
91-94-1	3,3'-Dichlorobenzidine	µg/L	0.37	1	5	5	NS	0.11
534-52-1	4,6-Dinitro-2-methylphenol	µg/L	2.4	4	5	25	NS	1.2
56-55-3	Benzo(a)anthracene	µg/L	0.03	0.1	0.2	0.2	NS	0.029
50-32-8	Benzo(a)pyrene	µg/L	0.051	0.1	0.2	0.2	0.2	0.0029
205-99-2	Benzo(b)fluoranthene	µg/L	0.039	0.1	0.2	0.2	NS	0.029
111-44-4	bis(2-Chloroethyl)ether	µg/L	0.1	0.1	1	1	NS	0.012
117-81-7	bis(2-Ethylhexyl)phthalate	µg/L	0.22	0.5	2	10	6	0.071
53-70-3	Dibenzo(a,h)anthracene	µg/L	0.45	0.1	0.2	50	NS	0.0029
118-74-1	Hexachlorobenzene	µg/L	0.085	0.1	0.2	10	1	0.042
87-68-3	Hexachlorobutadiene	µg/L	0.27	0.5	1	10	NS	0.26
193-39-5	Indeno(1,2,3-cd)pyrene	µg/L	0.043	0.1	0.2	0.2	NS	0.029
621-64-7	N-Nitroso-di-n-propylamine	µg/L	0.24	0.5	1	10	NS	0.0093
87-86-5	Pentachlorophenol	µg/L	0.27	1	5	5	1	0.17

**Pesticides**

CAS No.	Analyte Name	Units	MDL	LOD <sup>1</sup>	RL	PAR <sup>2</sup>	MCL	RSL
309-00-2	Aldrin	µg/L	0.0082	0.02	0.03	0.03	NS	0.0002
319-84-6	alpha-BHC	µg/L	0.007	0.02	0.03	0.03	NS	0.0062
60-57-1	Dieldrin	µg/L	0.0075	0.02	0.03	0.03	NS	0.0015
76-44-8	Heptachlor	µg/L	0.008	0.02	0.03	0.03	0.4	0.0018
1024-57-3	Heptachlor epoxide	µg/L	0.0071	0.02	0.03	0.03	0.2	0.0033
8001-35-2	Toxaphene	µg/L	0.32	0.8	2	2	3	0.013

**PCB**

CAS No.	Analyte Name	Units	MDL	LOD <sup>1</sup>	RL	PAR <sup>2</sup>	MCL	RSL
11104-28-2	PCB- 1221	µg/L	0.13	0.2	0.5	0.2	0.5	0.0043
11141-16-5	PCB- 1232	µg/L	0.16	0.2	0.5	0.2	0.5	0.0043
53469-21-9	PCB- 1242	µg/L	0.22	0.4	0.5	0.4	0.5	0.034
12672-29-6	PCB- 1248	µg/L	0.1	0.2	0.5	0.2	0.5	0.034
11097-69-1	PCB- 1254	µg/L	0.16	0.2	0.5	0.2	0.5	0.034
11096-82-5	PCB- 1260	µg/L	0.17	0.2	0.5	0.2	0.5	0.034

**Explosives**

CAS No.	Analyte Name	Units	MDL	LOD <sup>1</sup>	RL	PAR <sup>2</sup>	MCL	RSL
606-20-2	2,6-Dinitrotoluene	µg/L	0.05	0.1	0.13	0.1	NS	0.042

**Inorganics**

CAS No.	Analyte Name	Units	MDL	LOD <sup>1</sup>	RL	PAR <sup>2</sup>	MCL	RSL
7440-38-2	Arsenic	µg/L	3.3	10	10	5	10	0.045
7440-70-2	Calcium	µg/L	630	1000	1000	100	NS	NS
7440-66-6	Zinc	µg/L	27	50	50	10	NS	4700
7440-28-0	Thallium	µg/L	0.79	1.5	2	1	2	0.16
57-12-5	Cyanide	mg/L	0.01	0.01	0.0032	0.01	0.2	0.0014

Notes:

1- LOD= The smallest amount or concentration of a substance that must be present in a sample in order to be detected at a high level of confidence (99%). At the LOD, the false negative rate is 1%.

2- Project Action Requirements from table 4 of the Facility Wide QAPP

NS= No Standard

**APPENDIX F**  
**TIME-TREND GRAPHS**

### **Time Trend Graphs for Groundwater 2012-2013**

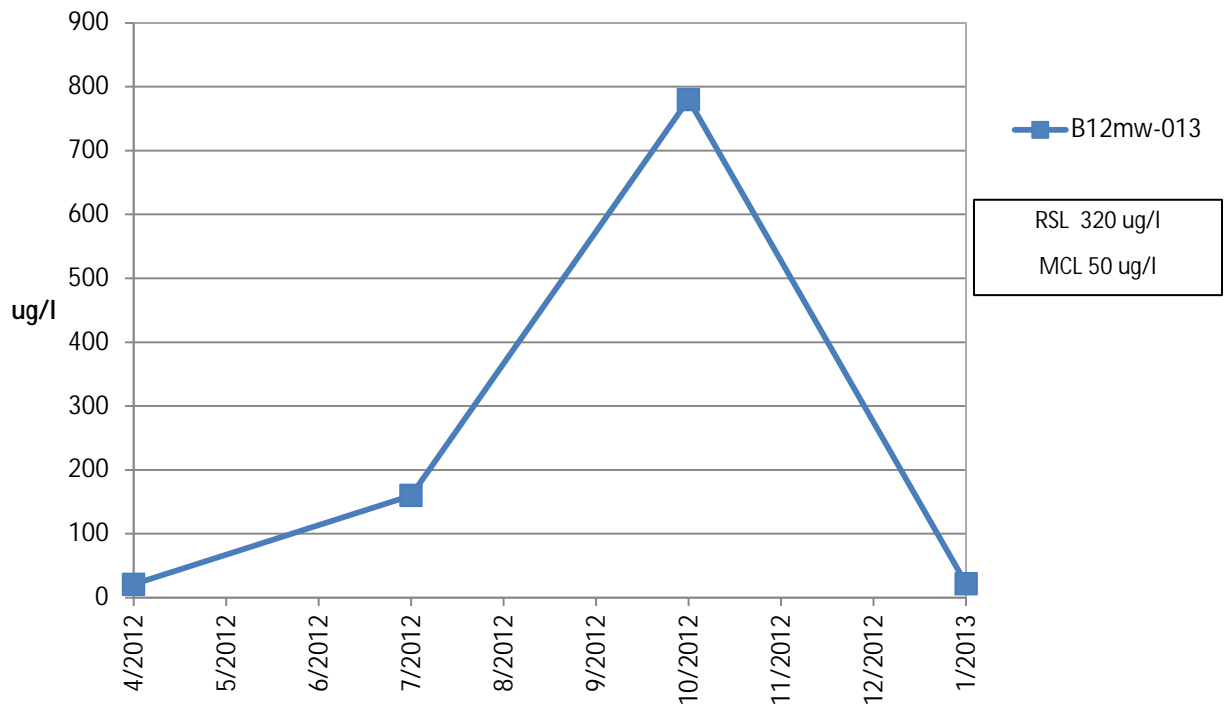
#### **Approach:**

Time-trend graphs were generated to display the groundwater sampling results for the wells sampled October 2012, January 2013, and August 2013. The following guidelines were applied to produce the graphs:

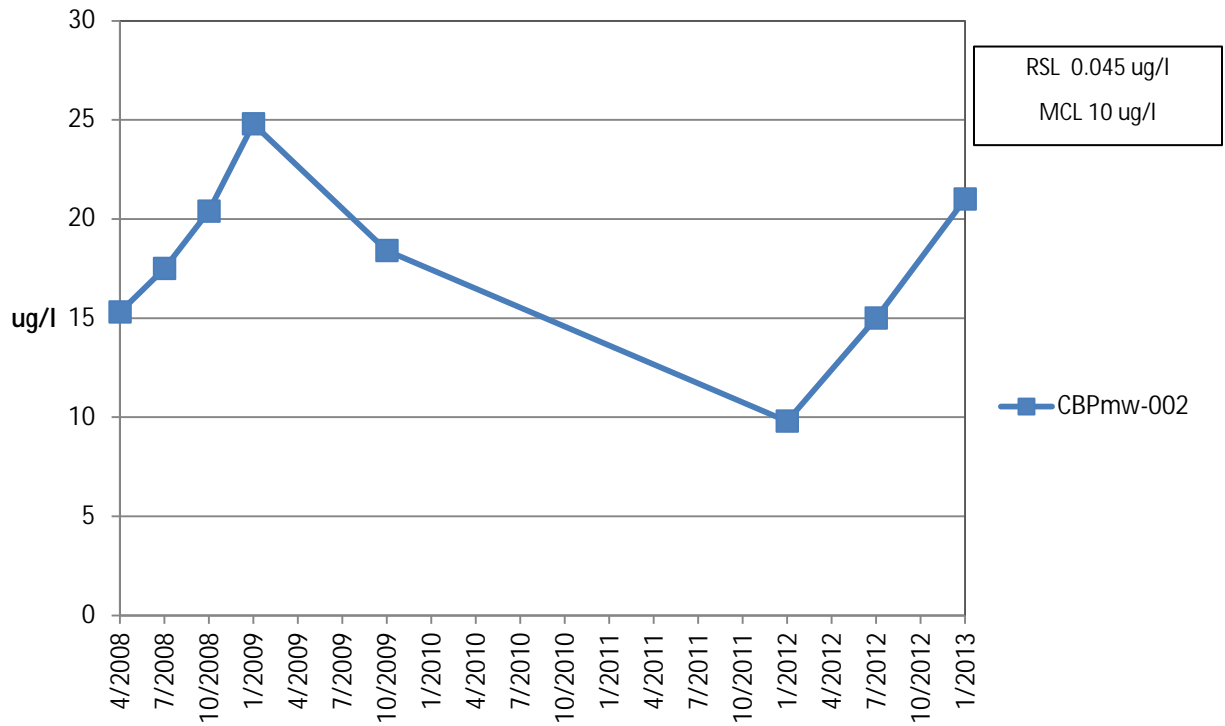
1. Only wells sampled during this reporting period with at least one detection of an organic, explosive, or inorganic above the MCL or RSL and that have been sampled a minimum of three times since 2006 were graphed.
2. Values reported as “non-detect” are shown as one-half the reporting limit.
3. Essential nutrients (i.e., calcium, magnesium, potassium, and sodium) were not graphed.
4. The graphs are organized by AOC (alphabetically ordered beginning with Background Wells).



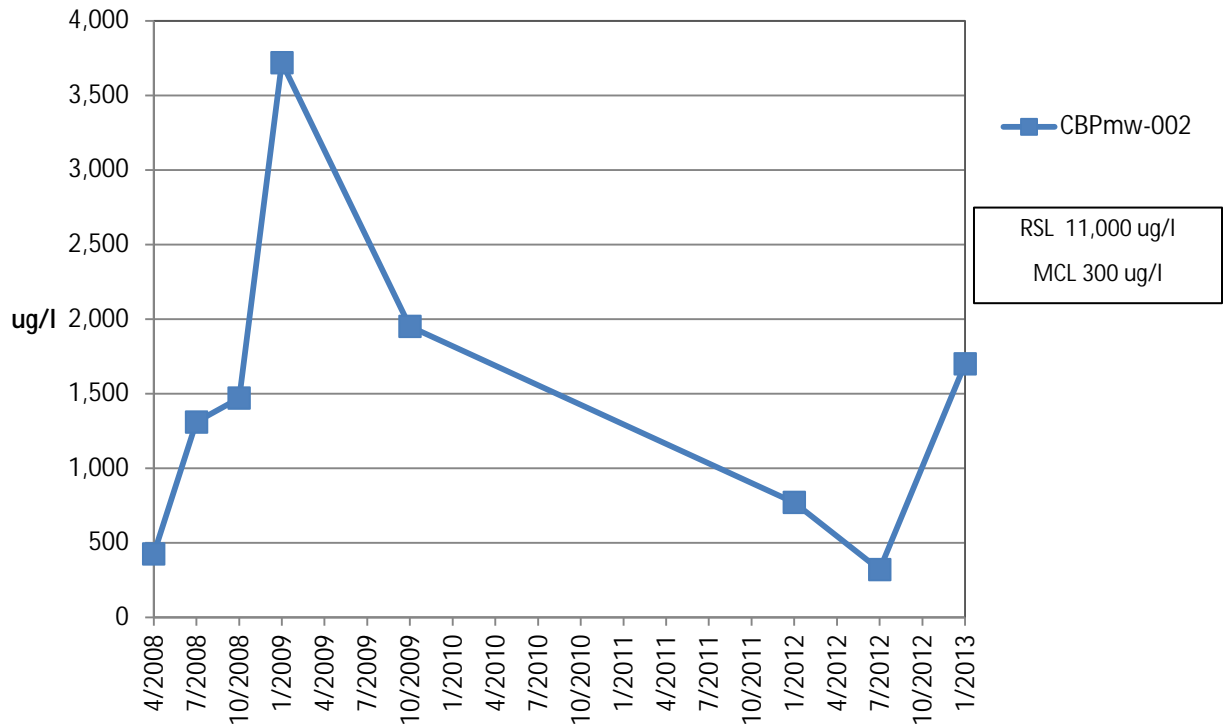
# Building 1200 Manganese (Bedrock)



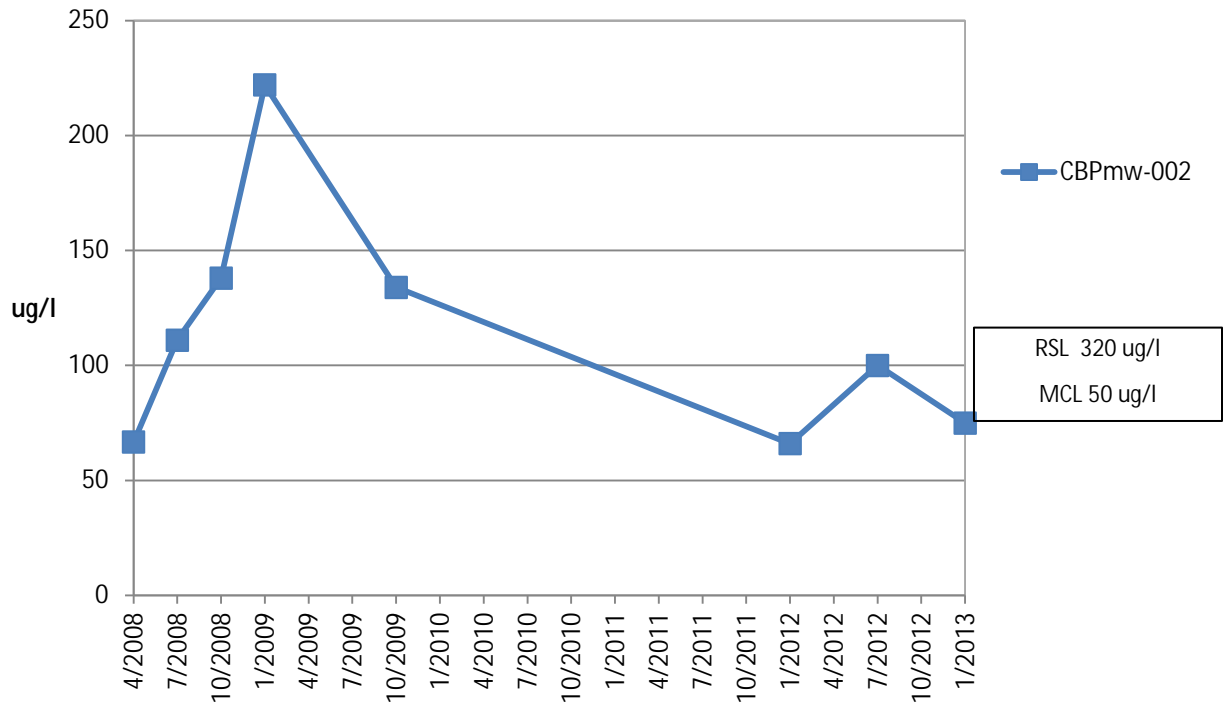
### Central Burn Pits Arsenic (unconsolidated)



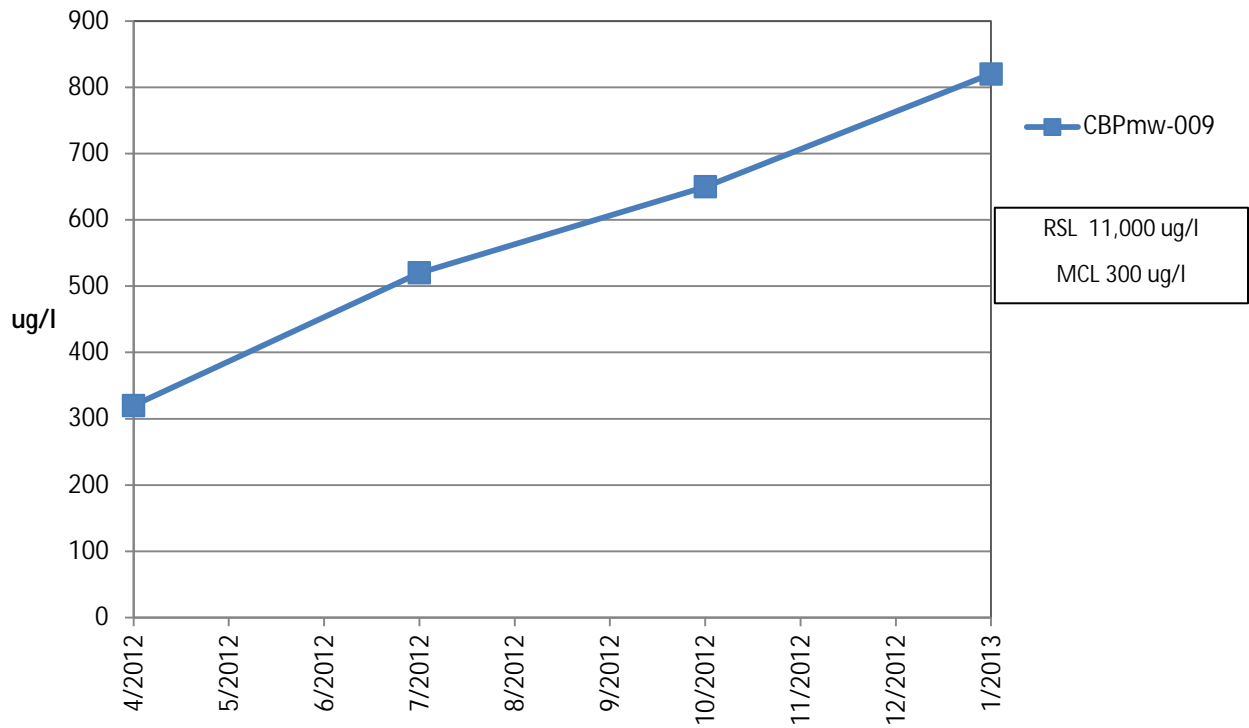
### Central Burn Pits Iron (unconsolidated)



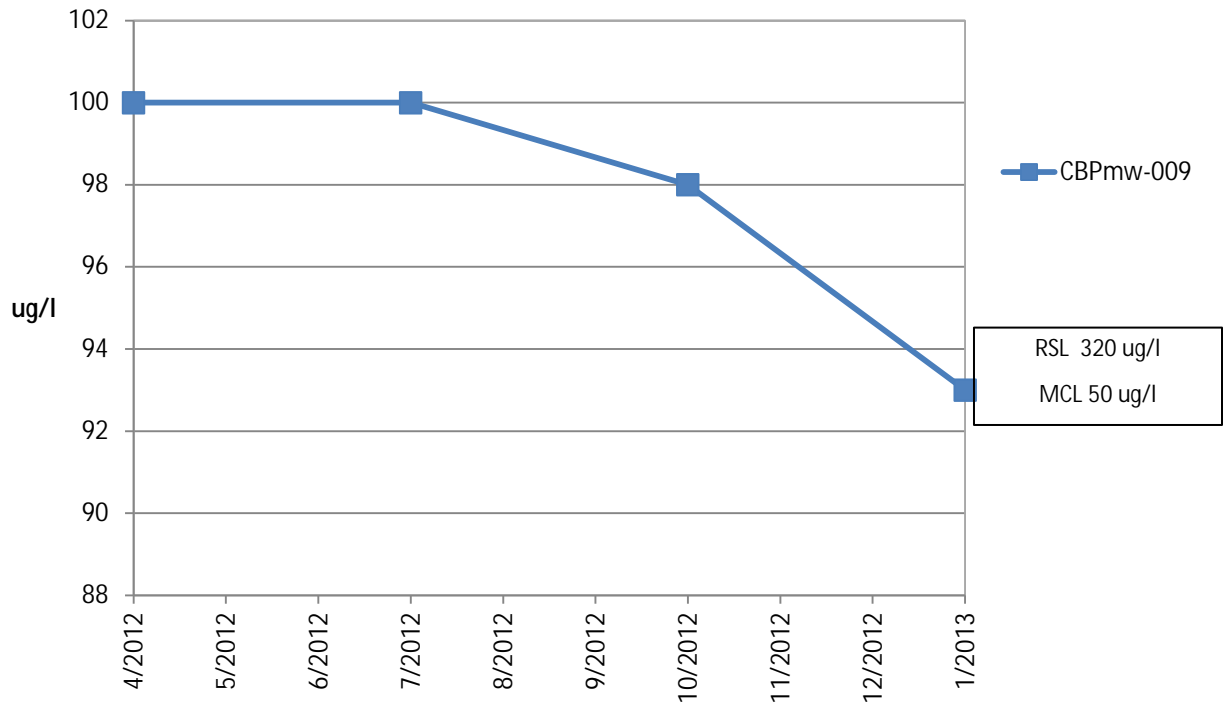
### Central Burn Pits Manganese (unconsolidated)



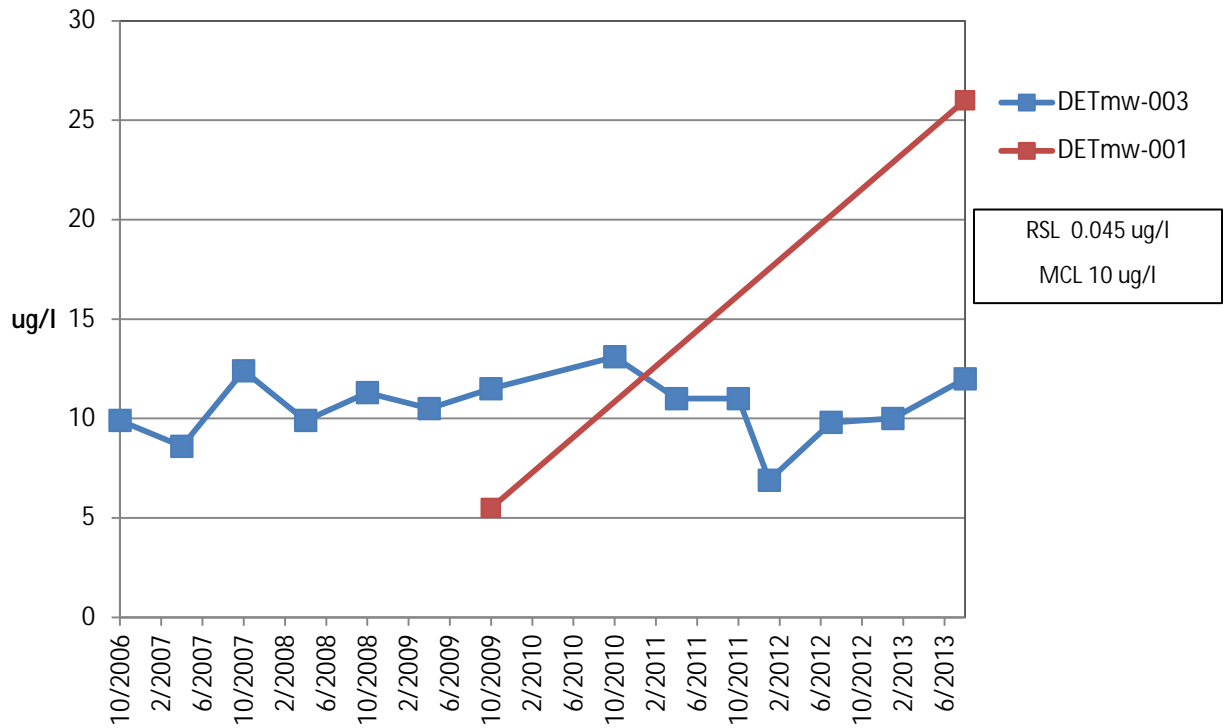
### Central Burn Pits Iron (bedrock)



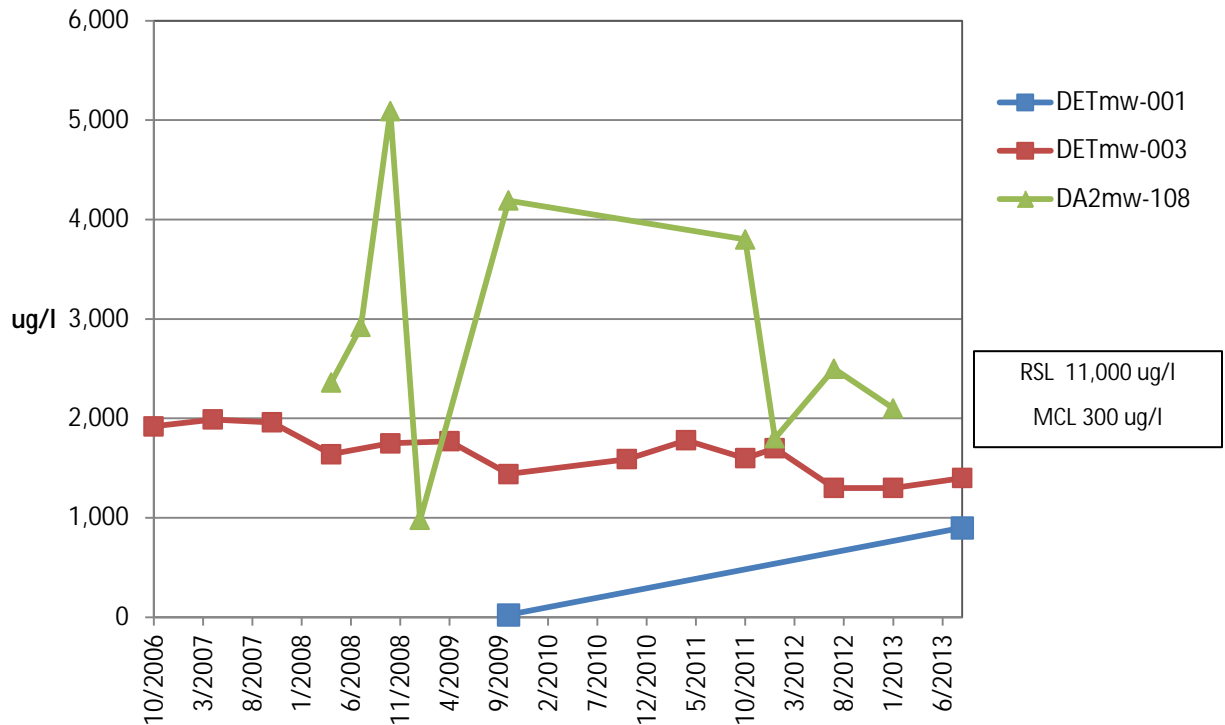
# Central Burn Pits Manganese (bedrock)



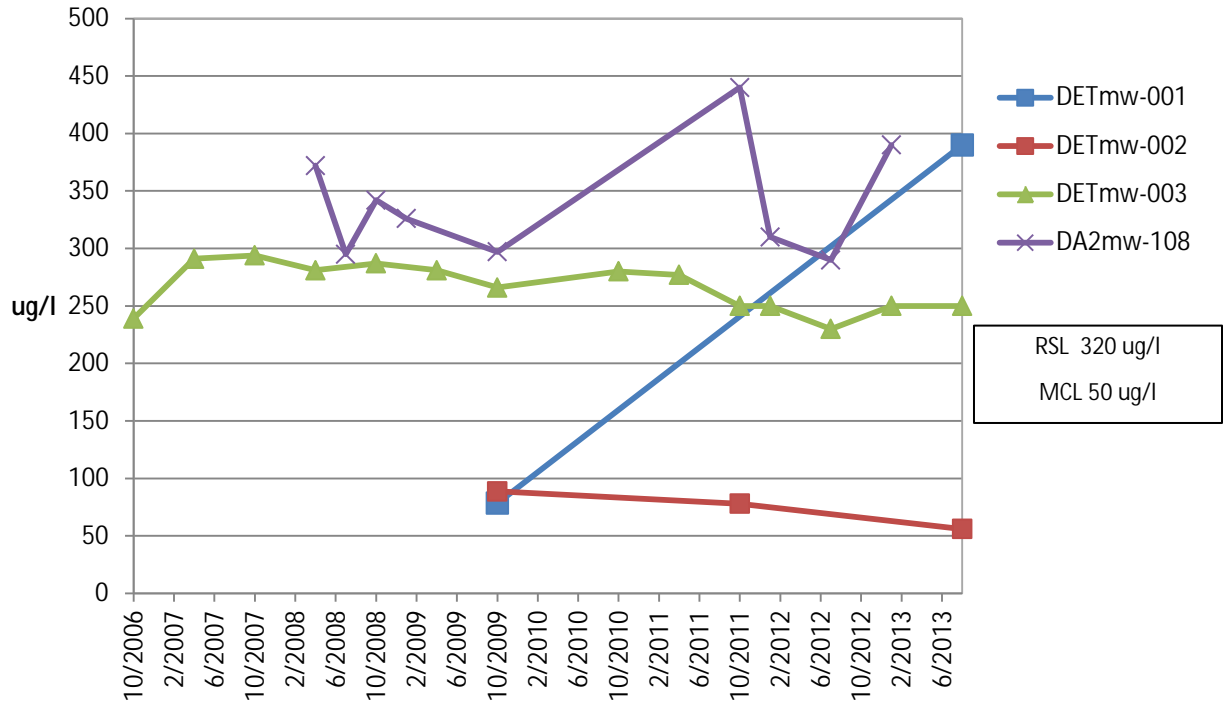
## Demolition Area 2 Arsenic (unconsolidated)



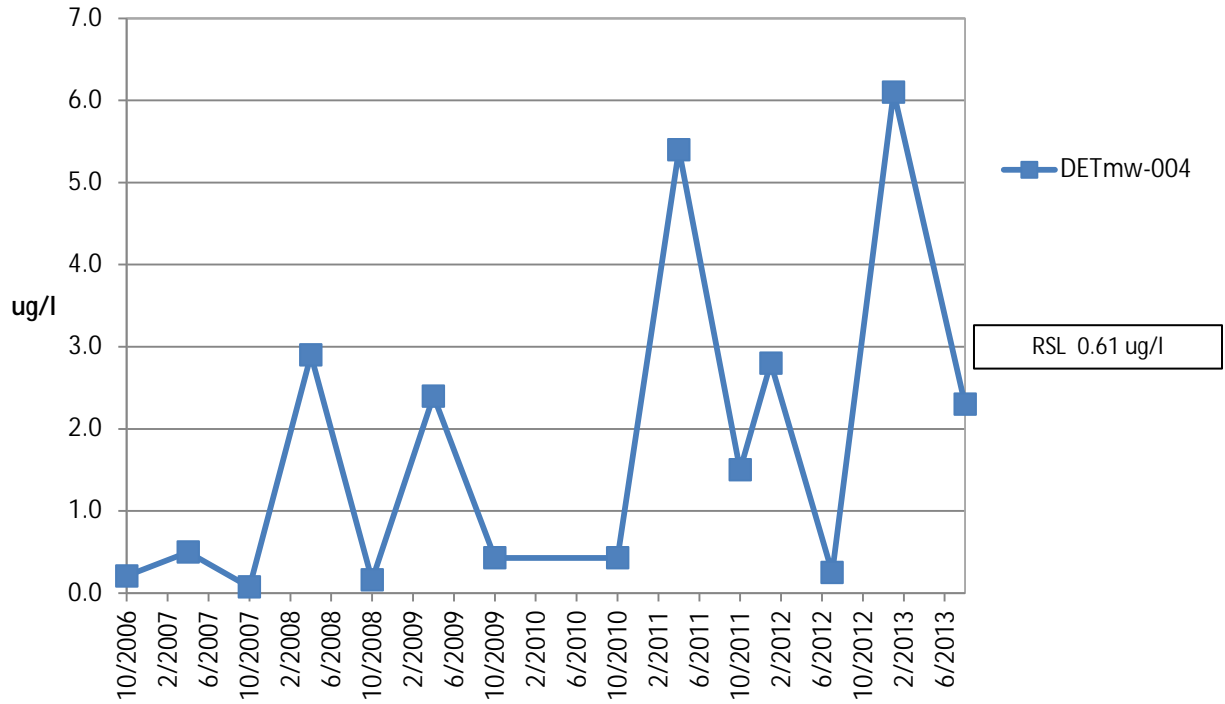
## Demolition Area 2 Iron (unconsolidated)



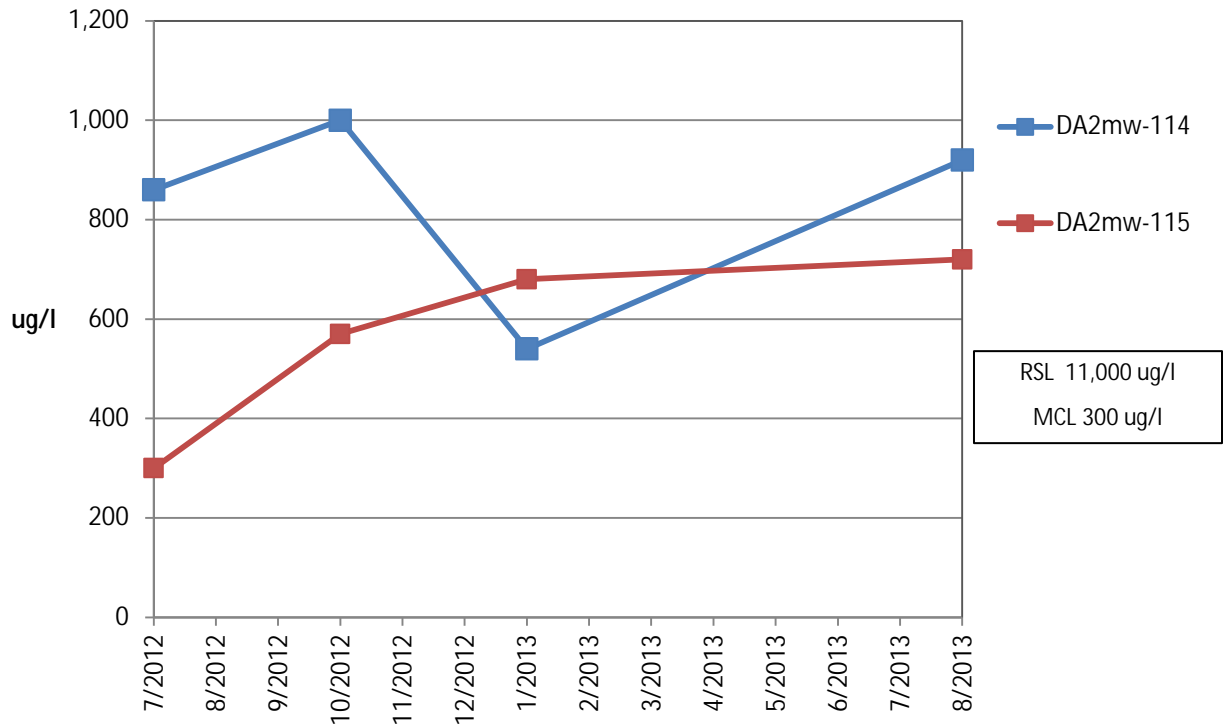
## Demolition Area 2 Manganese (unconsolidated)



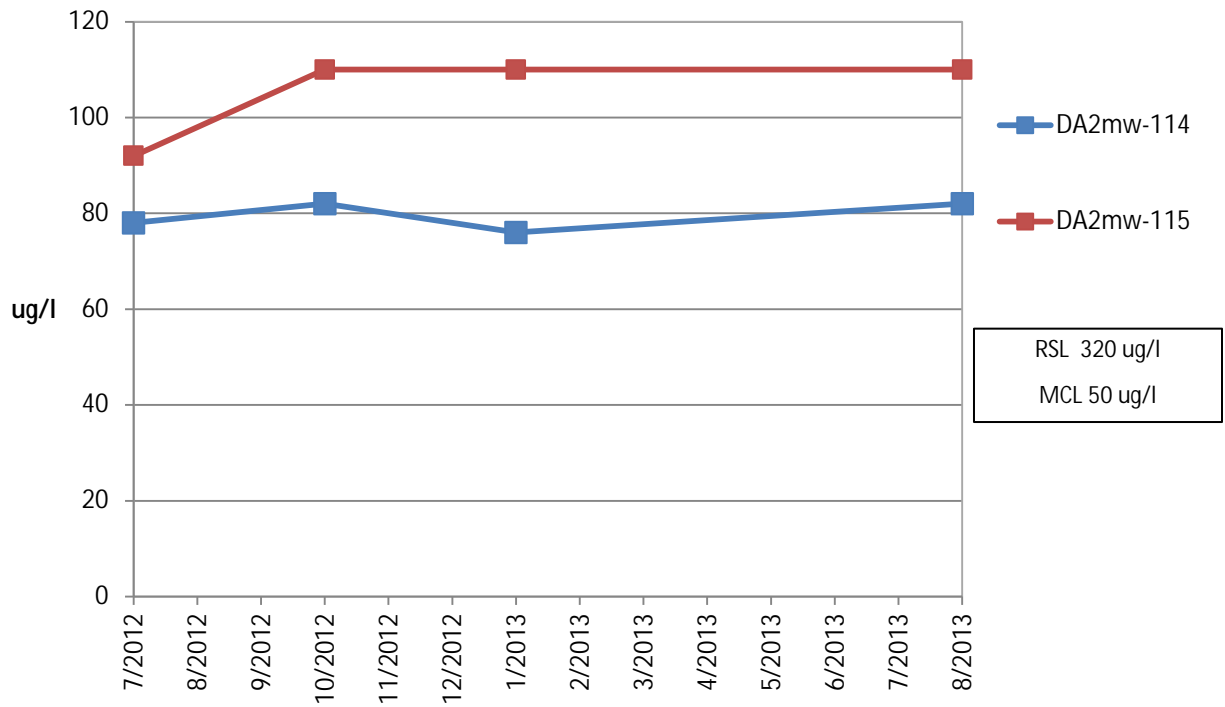
## Demolition Area 2 RDX (unconsolidated)



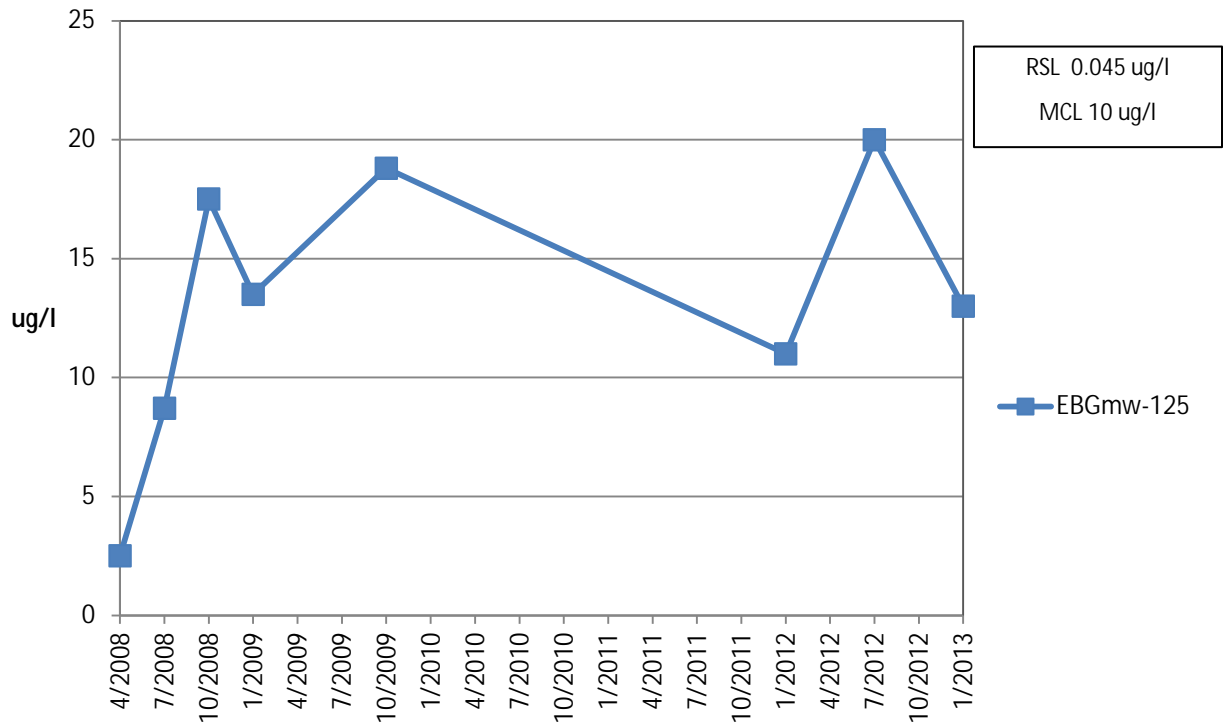
### Demolition Area 2 Iron (bedrock)



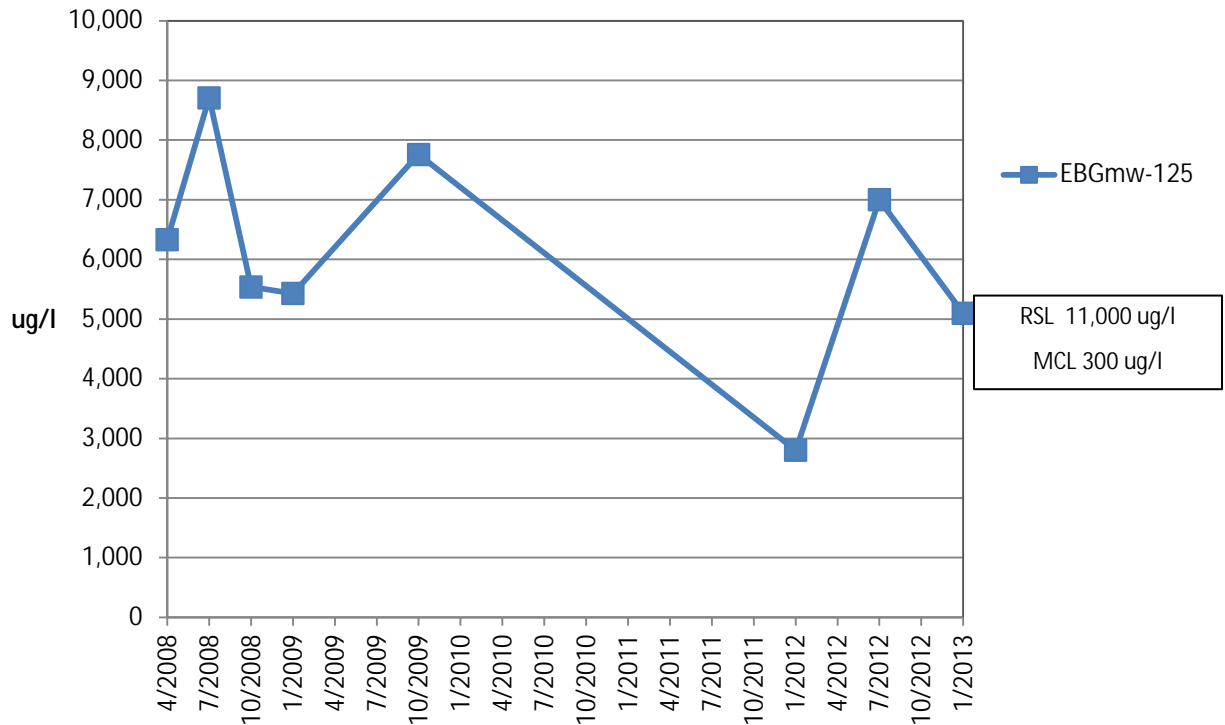
### Demolition Area 2 Manganese (bedrock)



### Erie Burning Grounds Arsenic (unconsolidated)

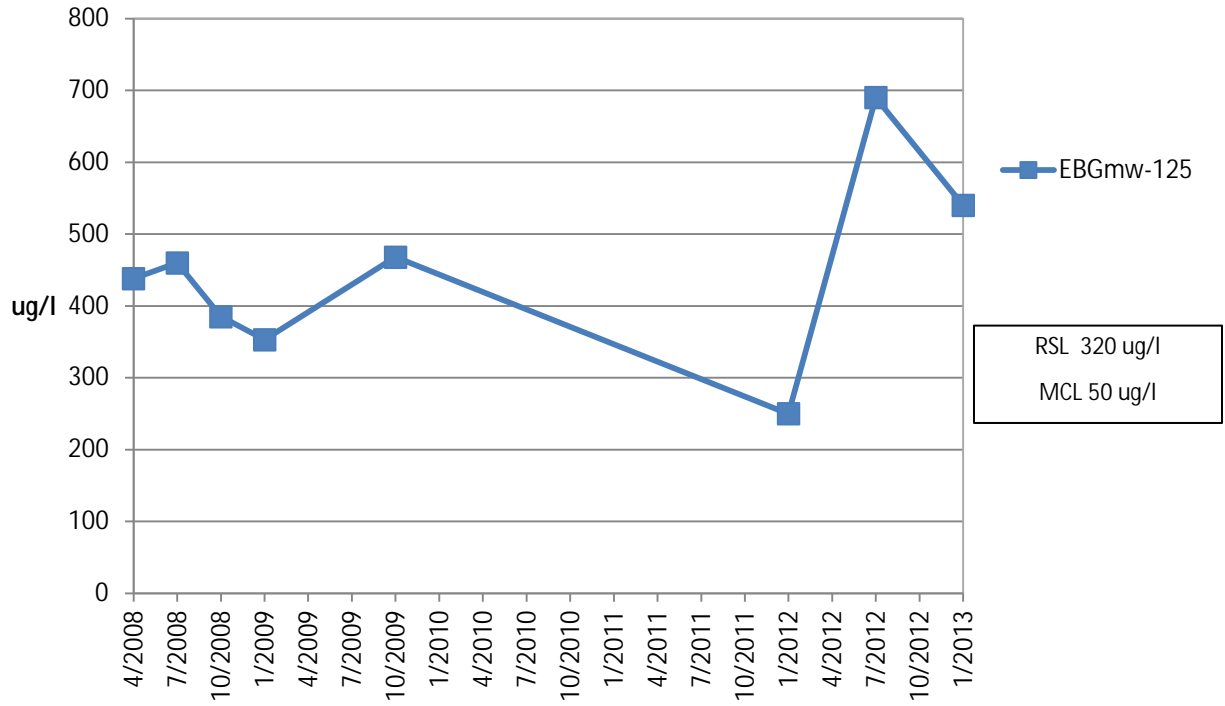


### Erie Burning Grounds Iron (unconsolidated)

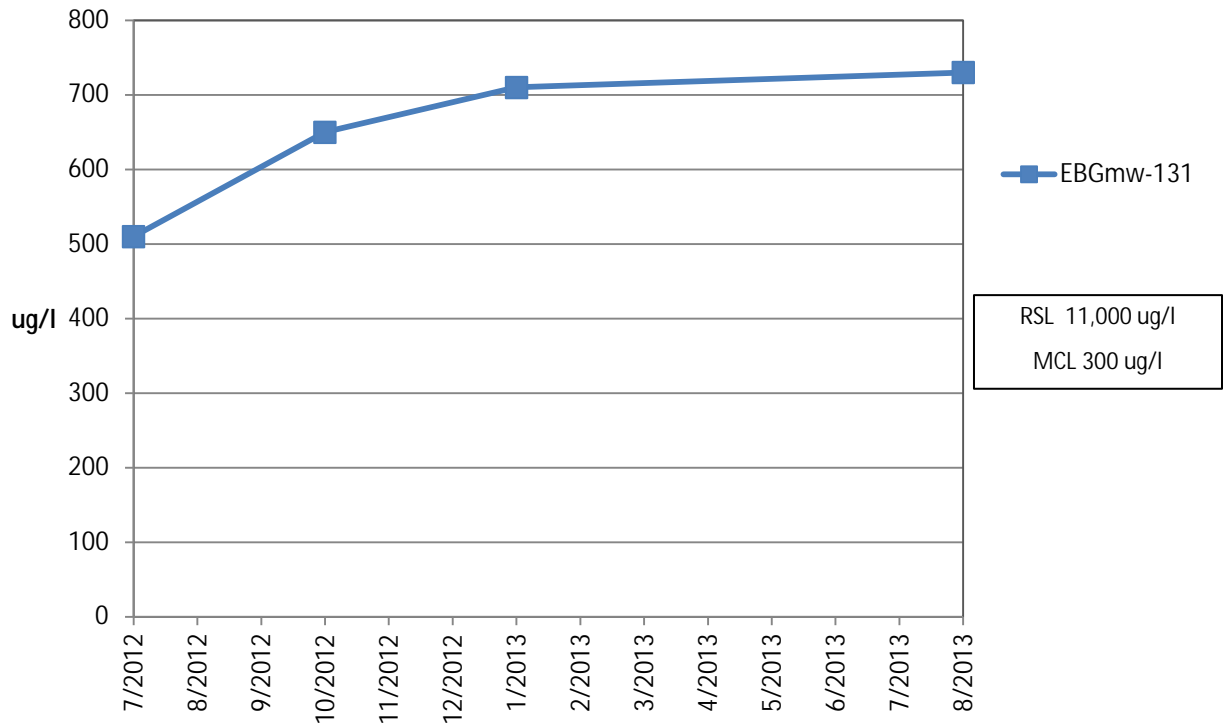




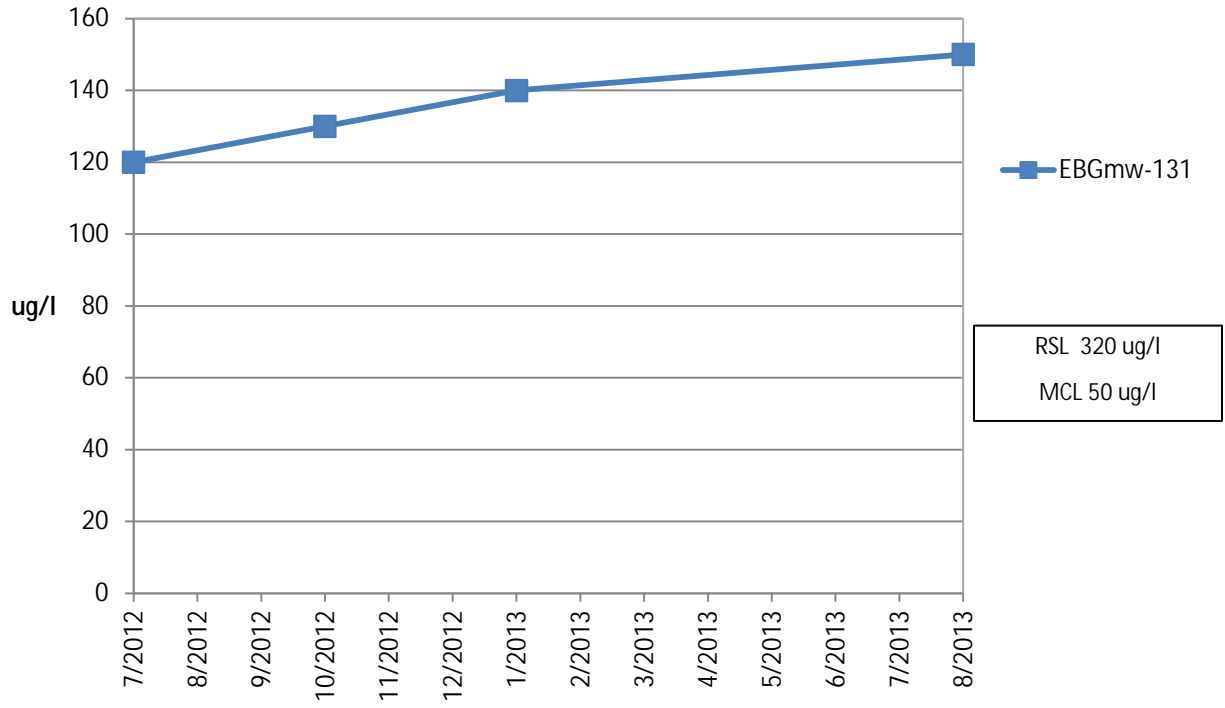
### Erie Burning Grounds Manganese (unconsolidated)



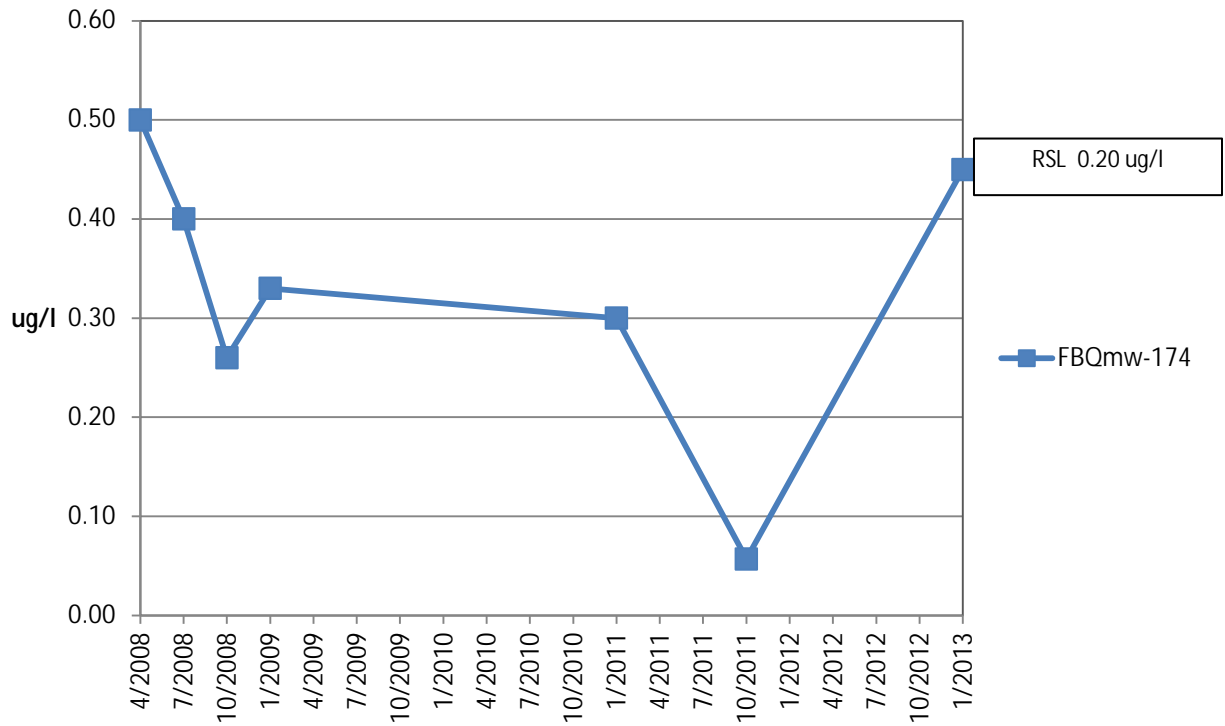
### Erie Burning Grounds Iron (bedrock)



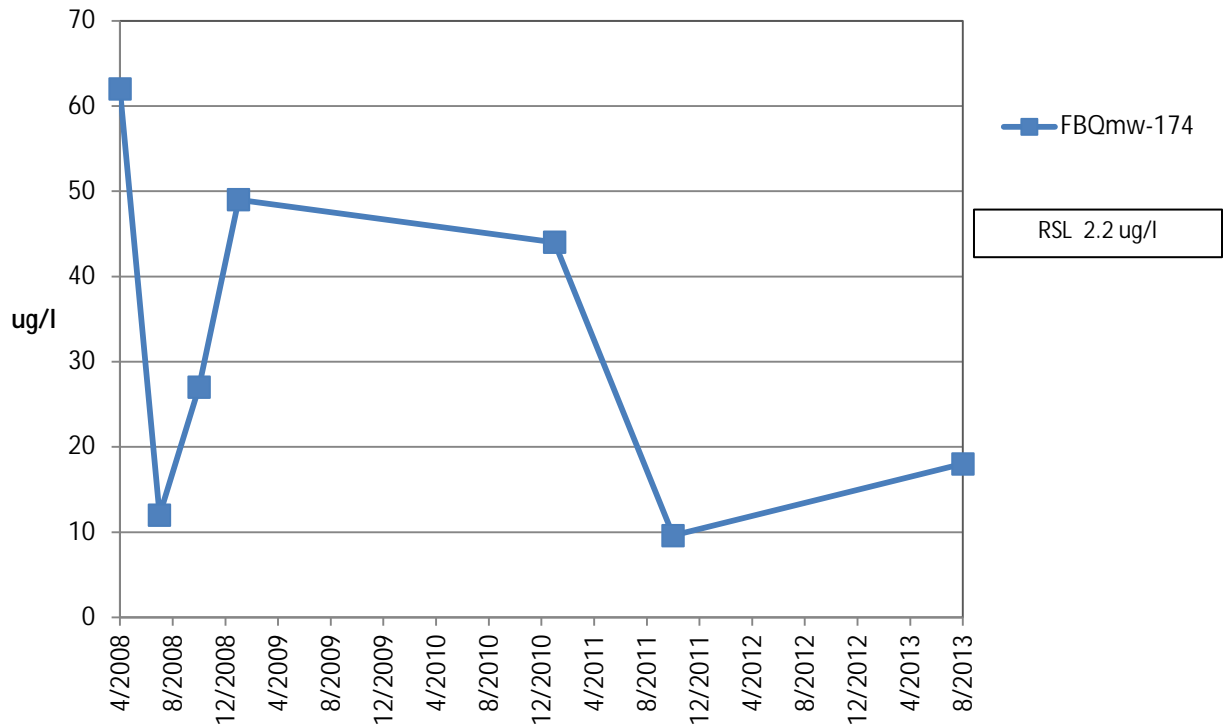
# Erie Burning Grounds Manganese (bedrock)



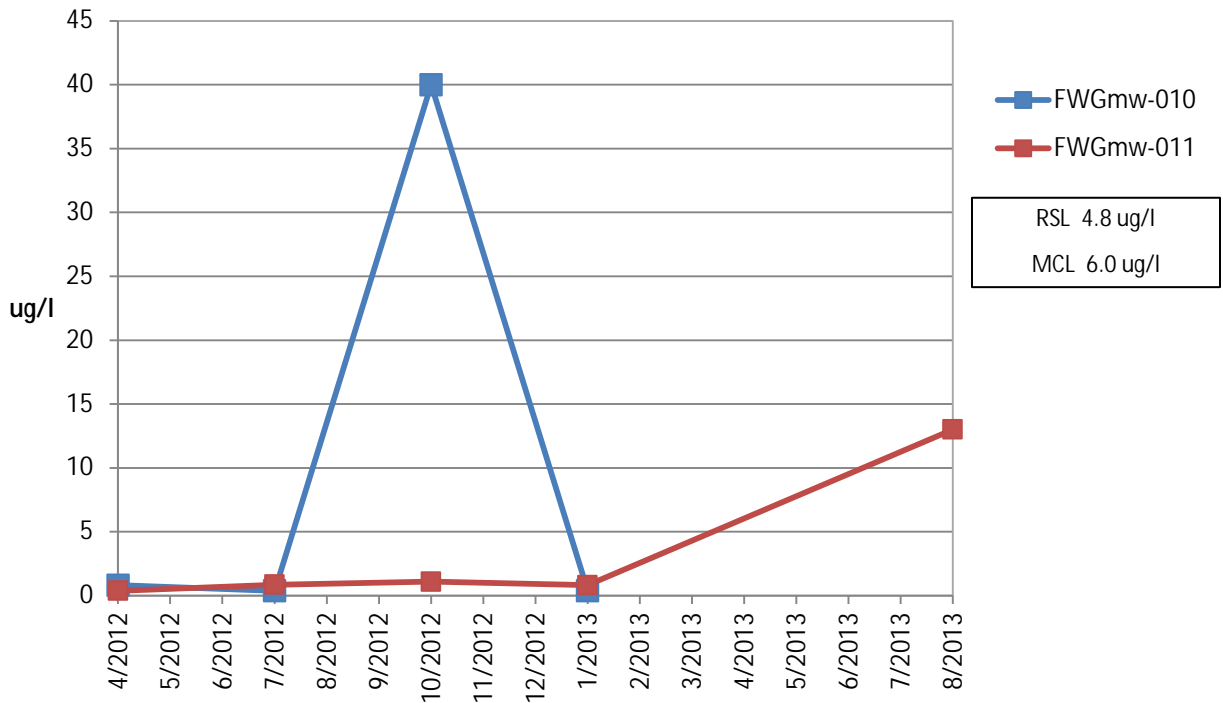
### Fuze & Booster Quarry 2,4-Dinitrotoluene



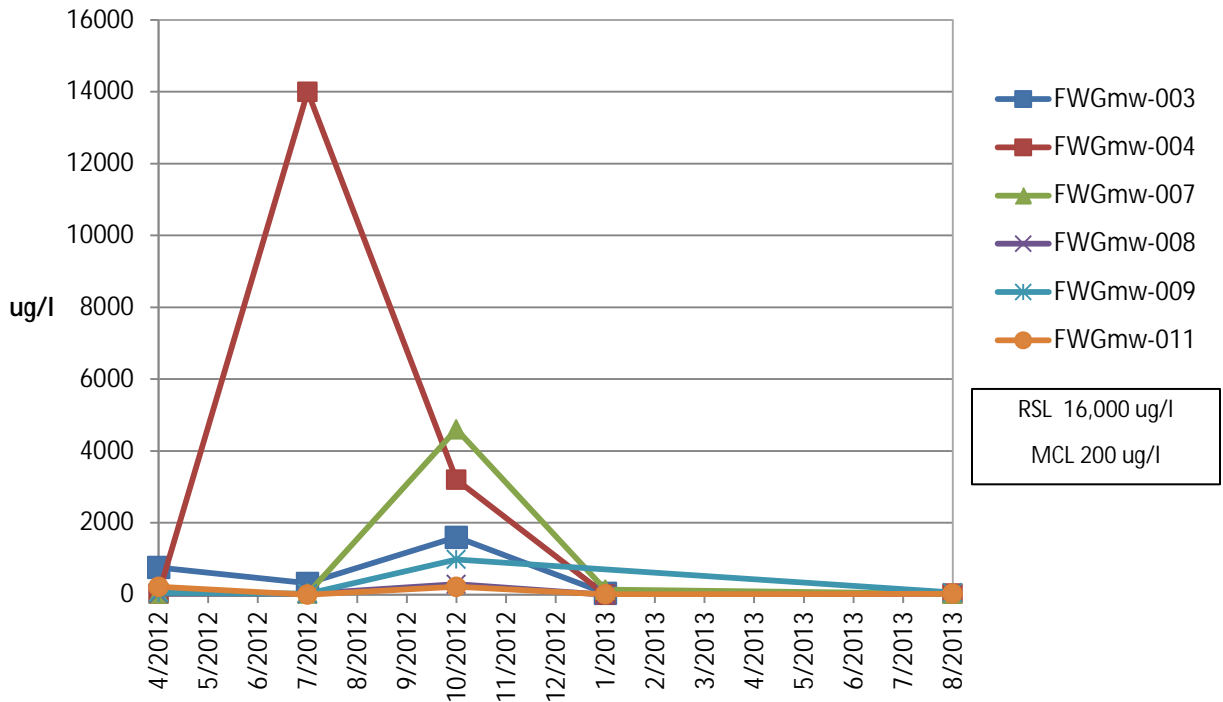
### Fuze & Booster Quarry 2,4,6-TNT



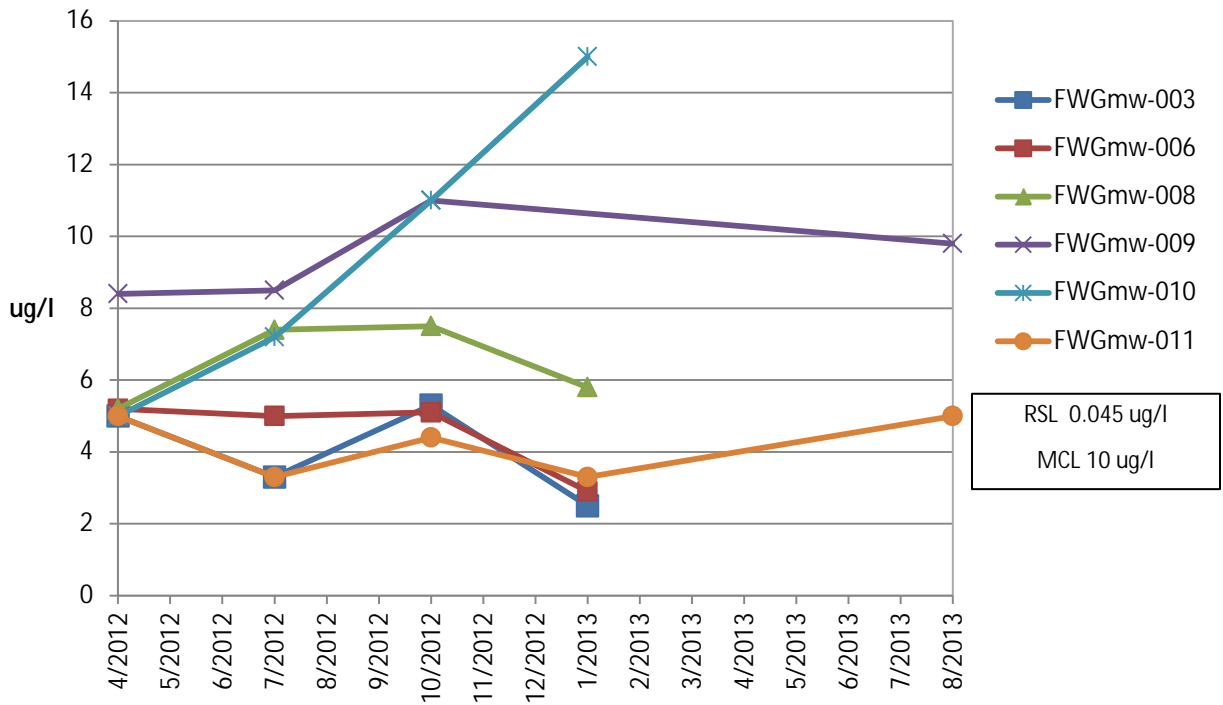
### Facility-Wide Groundwater (FWG Wells) Bis(2-ethylhexyl)phthalate



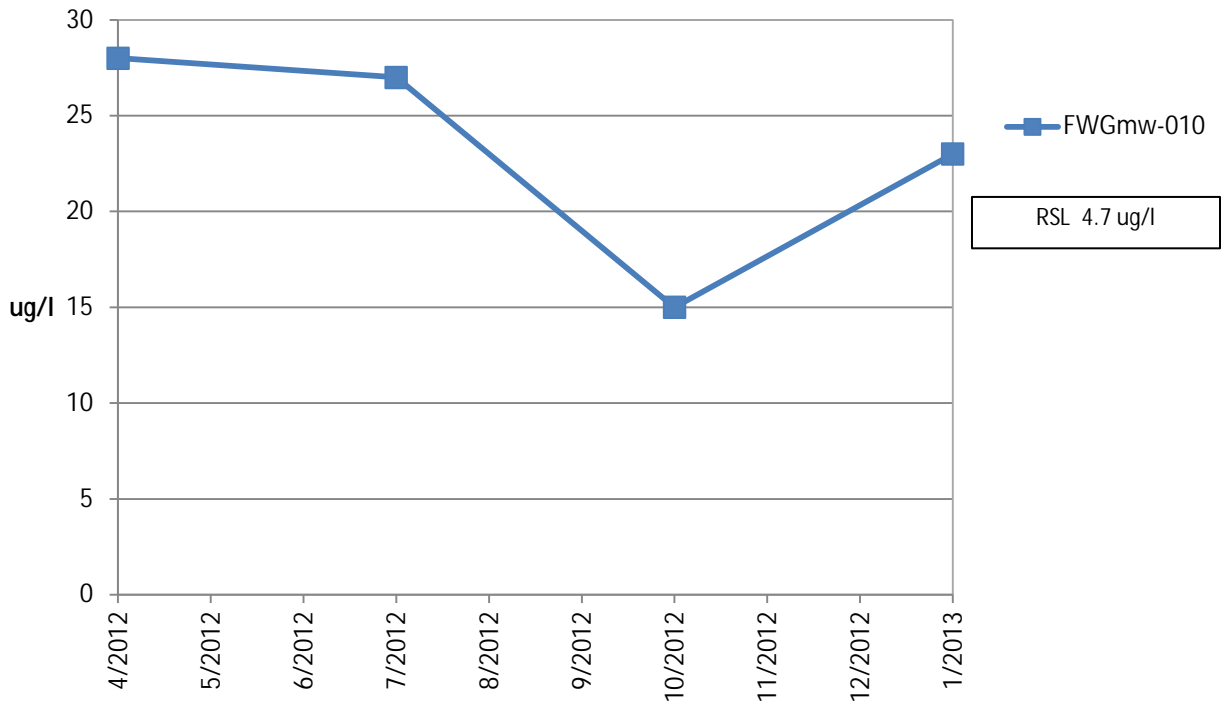
### Facility-Wide Groundwater (FWG Wells) Aluminum (unconsolidated)



### Facility-Wide Groundwater (FWG Wells) Arsenic (unconsolidated)



### Facility-Wide Groundwater (FWG Wells) Cobalt (unconsolidated)



ug/l

FWGmw-002

FWGmw-003

FWGmw-007

FWGmw-008

FWGmw-009

FWGmw-011

RSL 11,000 ug/l

MCL 300 ug/l

Date	FWGmw-002	FWGmw-003	FWGmw-007	FWGmw-008	FWGmw-009	FWGmw-011
4/2012	1200	1900	0	800	1000	400
5/2012	1000	1000	0	1000	1000	700
6/2012	1000	1000	0	1000	1000	900
7/2012	800	500	0	800	1000	1000
8/2012	800	800	3000	800	1000	800
9/2012	800	1800	6000	1000	2500	700
10/2012	600	2300	8100	1100	2700	700
11/2012	400	1800	6000	1000	2500	1000
12/2012	200	500	3000	800	2200	1200
1/2013	100	200	400	500	2000	1300
2/2013	100	100	300	400	1800	1400
3/2013	100	100	200	300	1600	1500
4/2013	100	100	100	200	1400	1600
5/2013	100	100	50	100	1200	1700
6/2013	100	100	20	50	1000	1800
7/2013	100	100	10	20	900	1900
8/2013	100	100	0	10	900	1900

ug/l

FWGmw-004

FWGmw-006

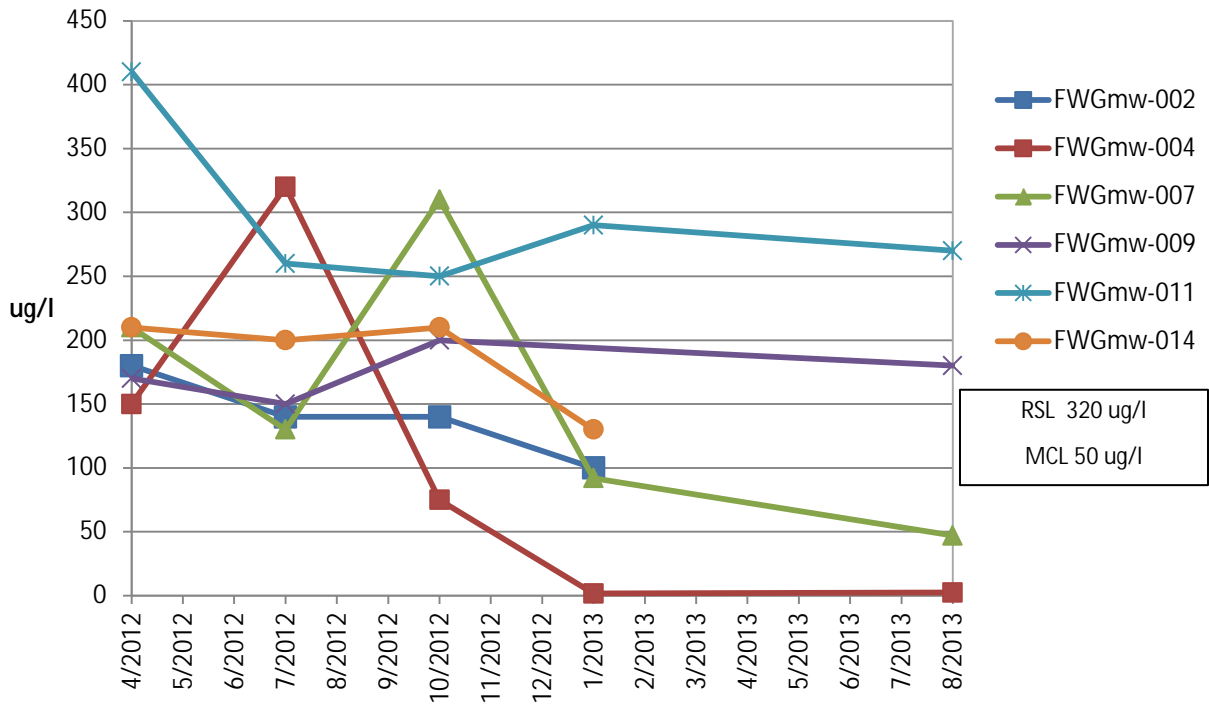
FWGmw-010

RSL 11,000 ug/l

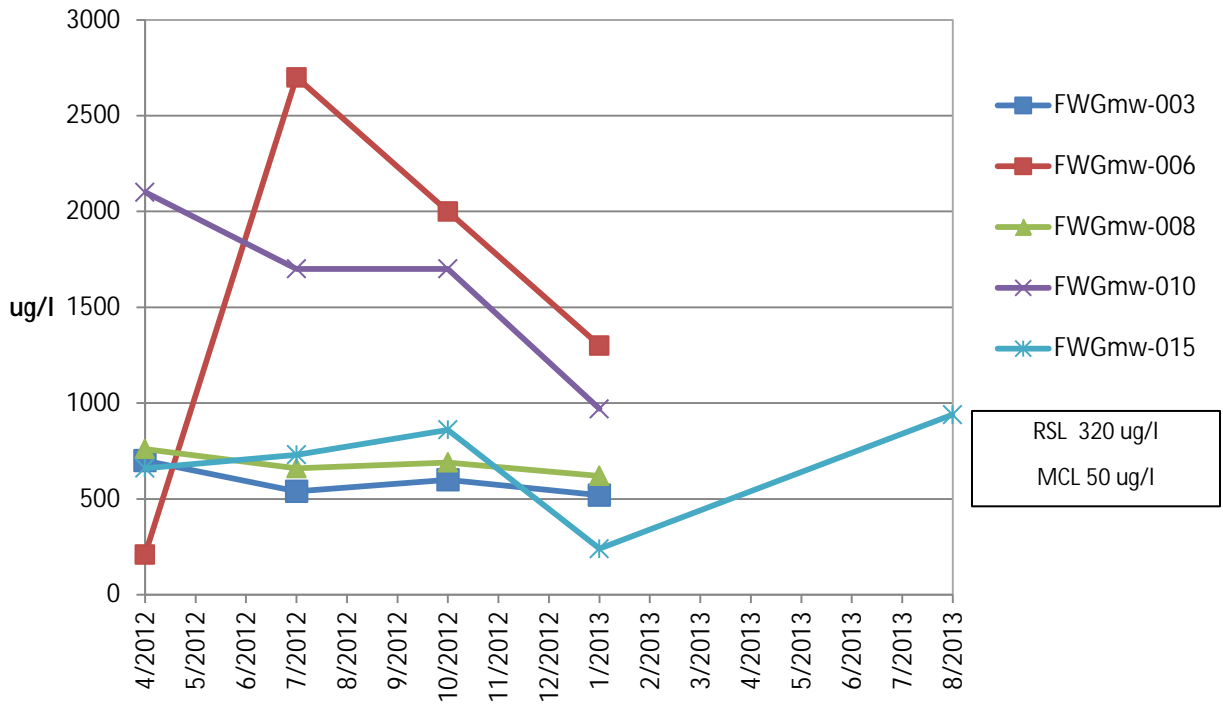
MCL 300 ug/l

Date	FWGmw-004 (ug/l)	FWGmw-006 (ug/l)	FWGmw-010 (ug/l)
4/2012	0	0	13,000
7/2012	22,000	12,000	24,000
10/2012	4,000	18,000	35,000
1/2013	0	13,000	29,000
8/2013	0	0	0

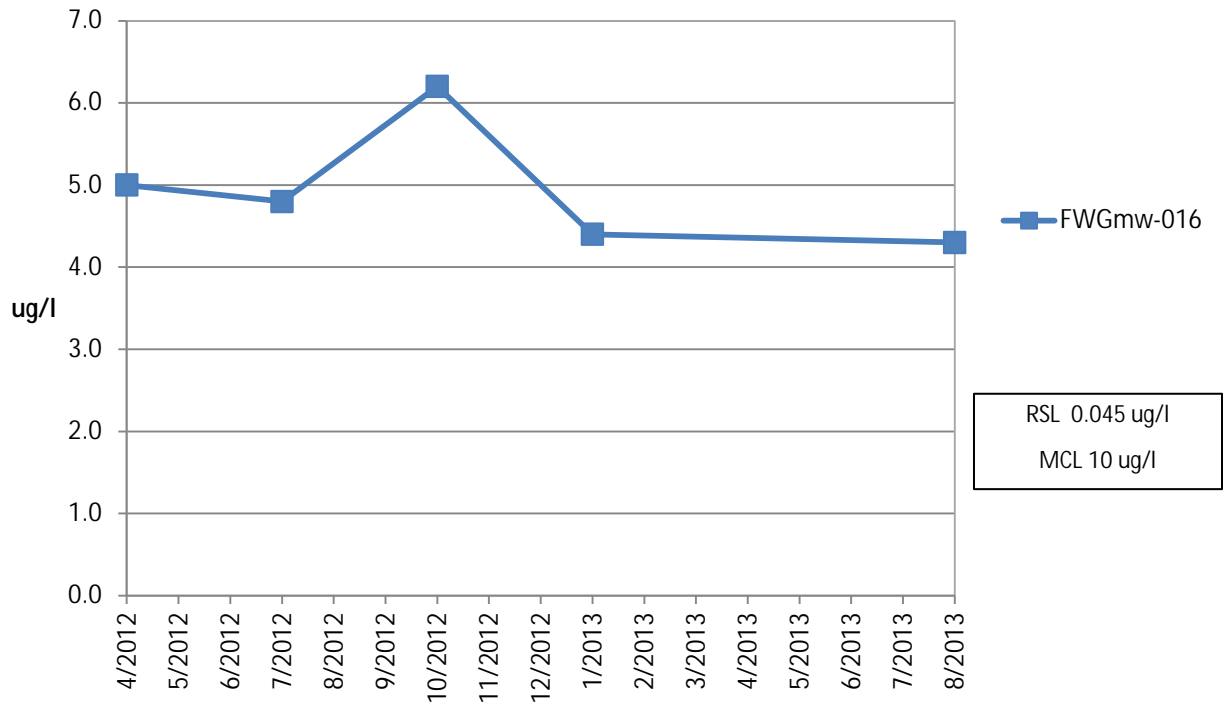
### Facility-Wide Groundwater (FWG Wells) Manganese (unconsolidated)



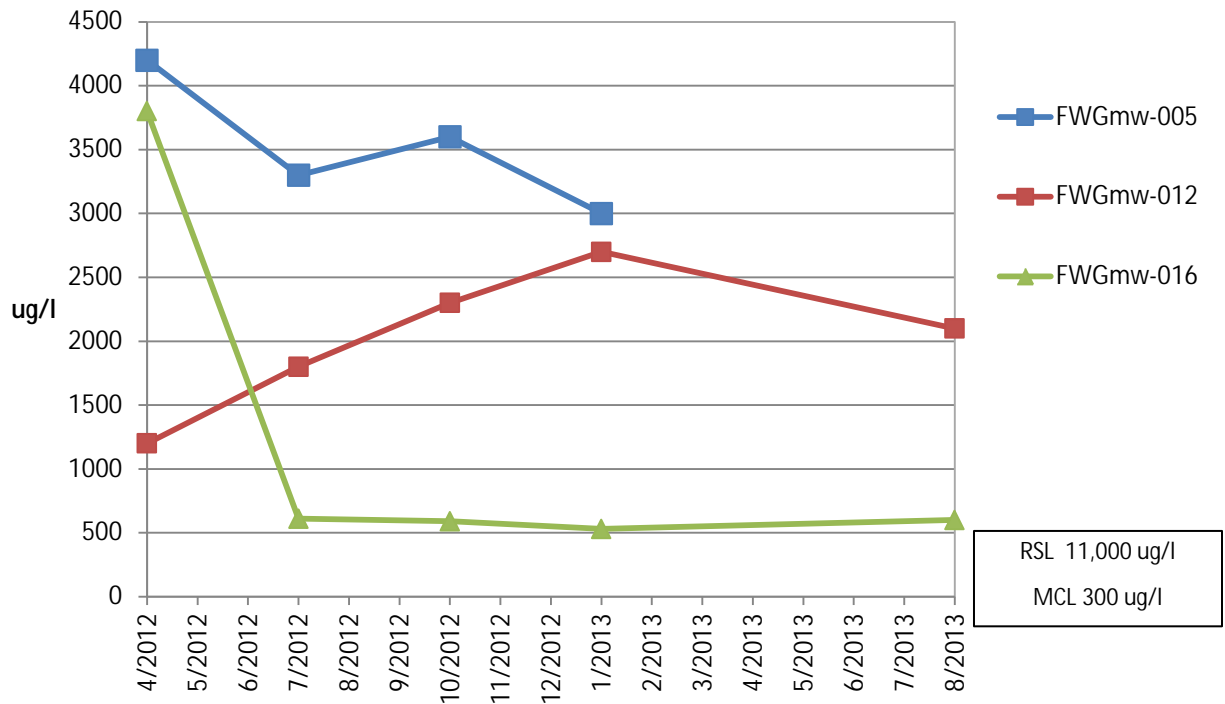
### Facility-Wide Groundwater (FWG Wells) Manganese (unconsolidated)



### Facility-Wide Groundwater (FWG Wells) Arsenic (bedrock)

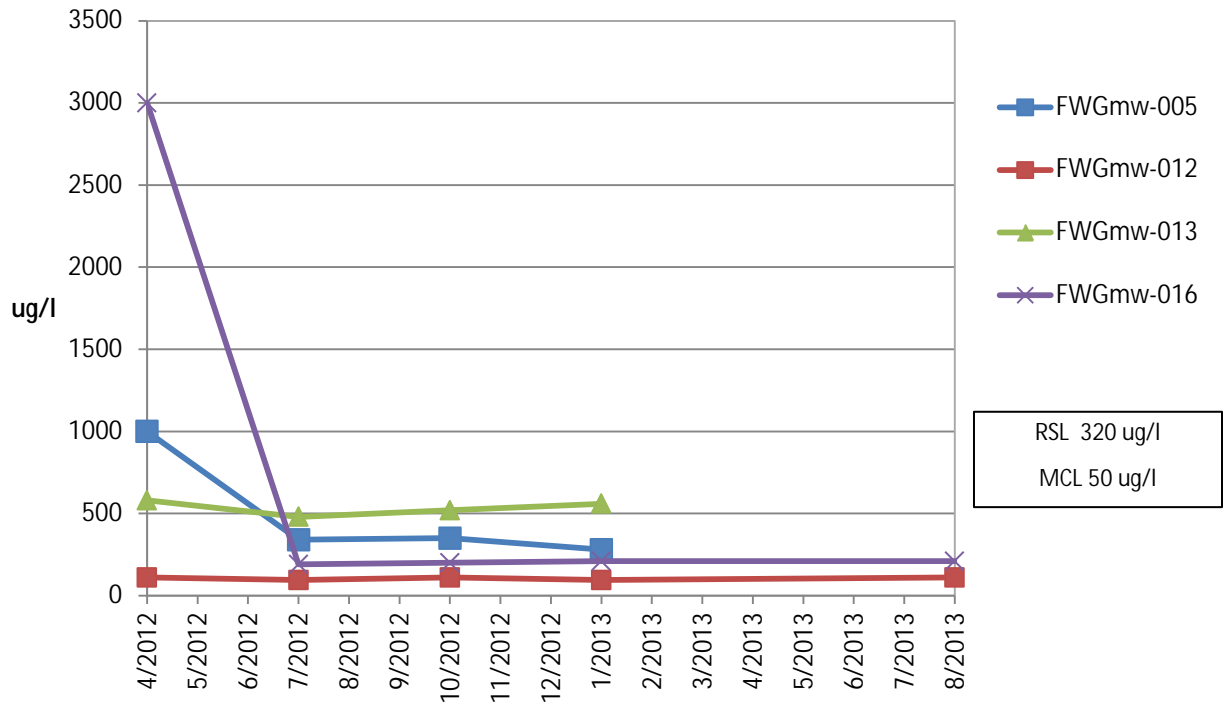


### Facility-Wide Groundwater (FWG Wells) Iron (bedrock)

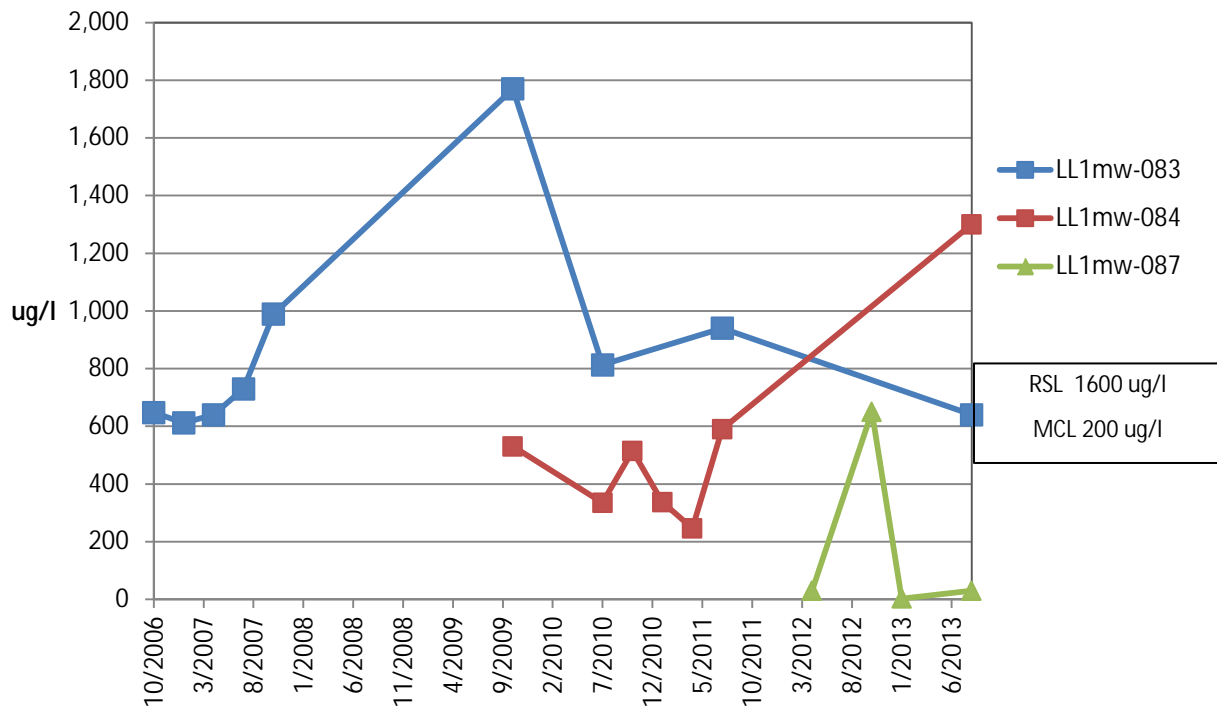




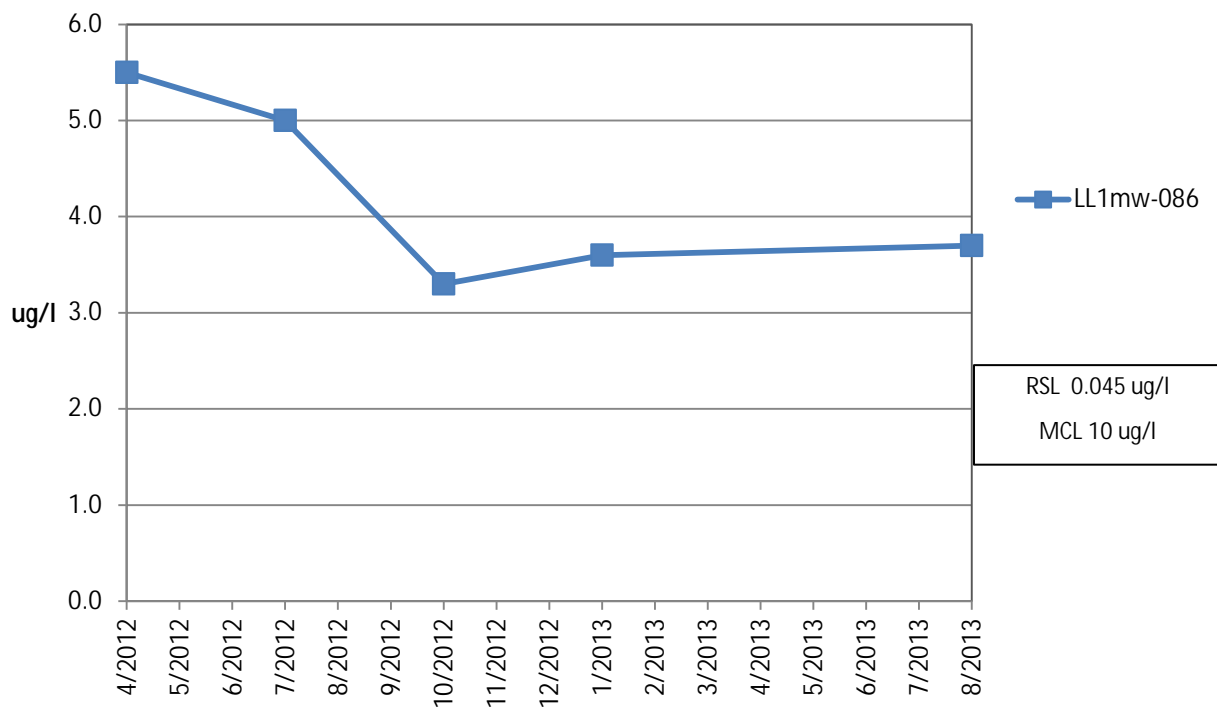
## Facility-Wide Groundwater (FWG Wells) Manganese (bedrock)



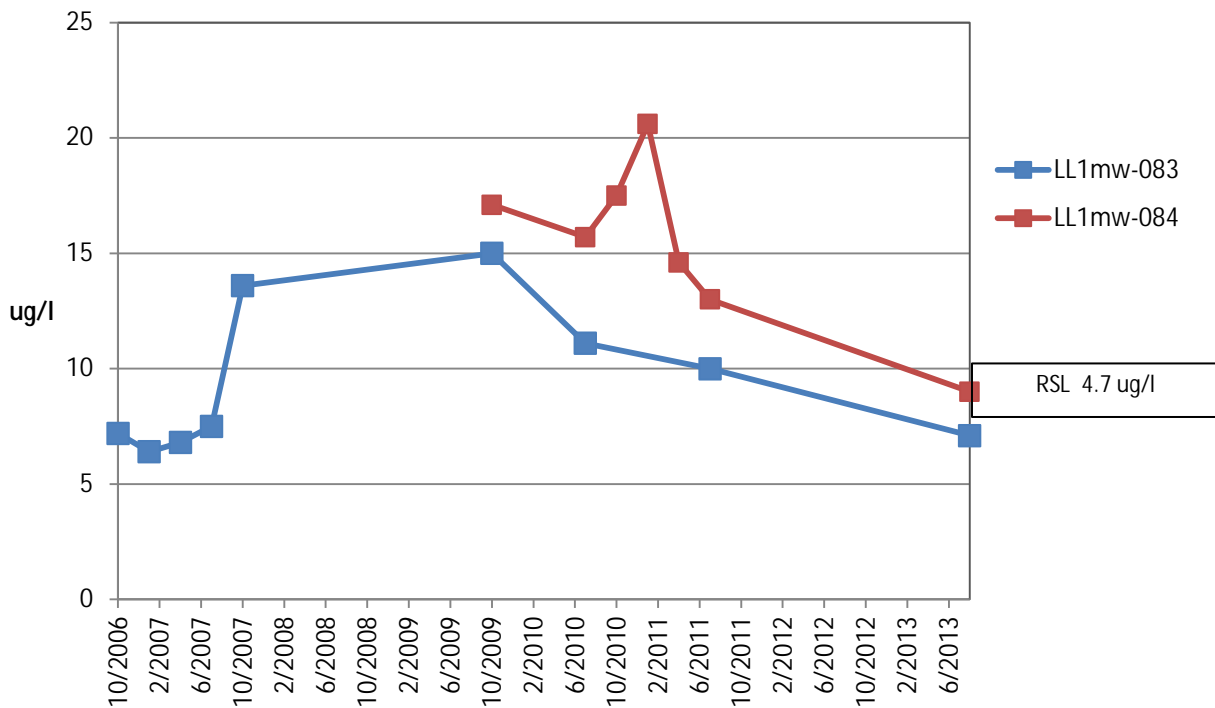
### Load Line 1 Aluminum



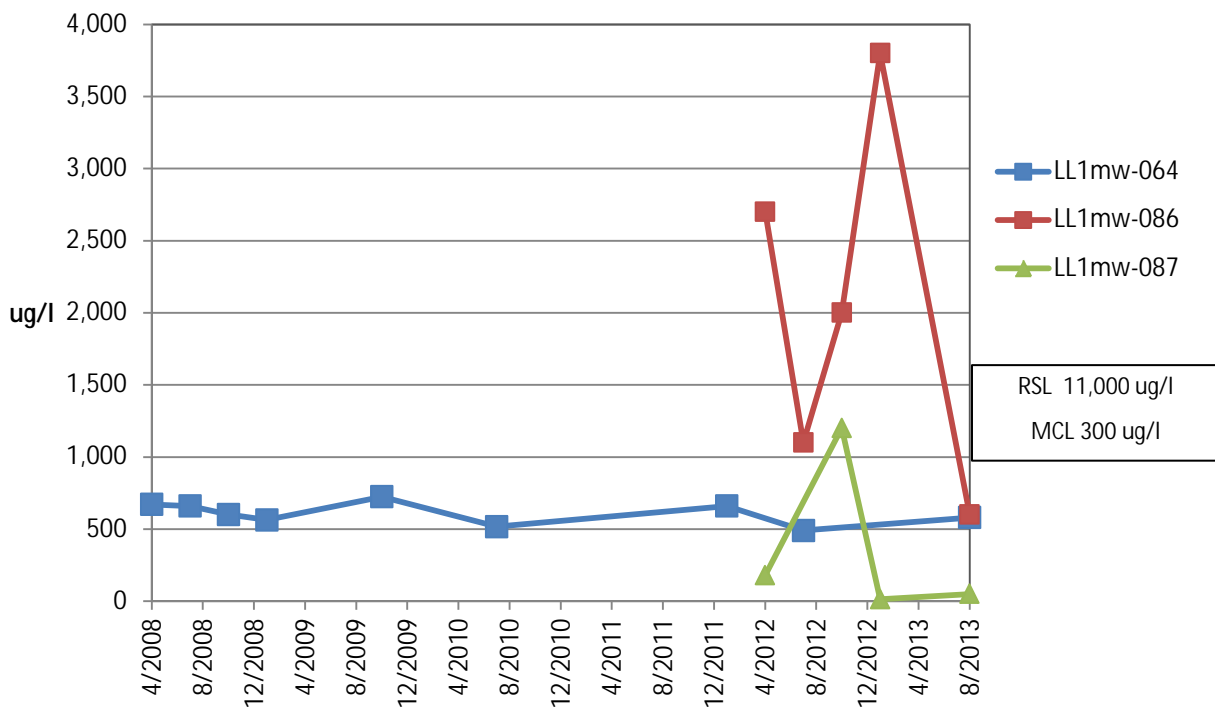
### Load Line 1 Arsenic



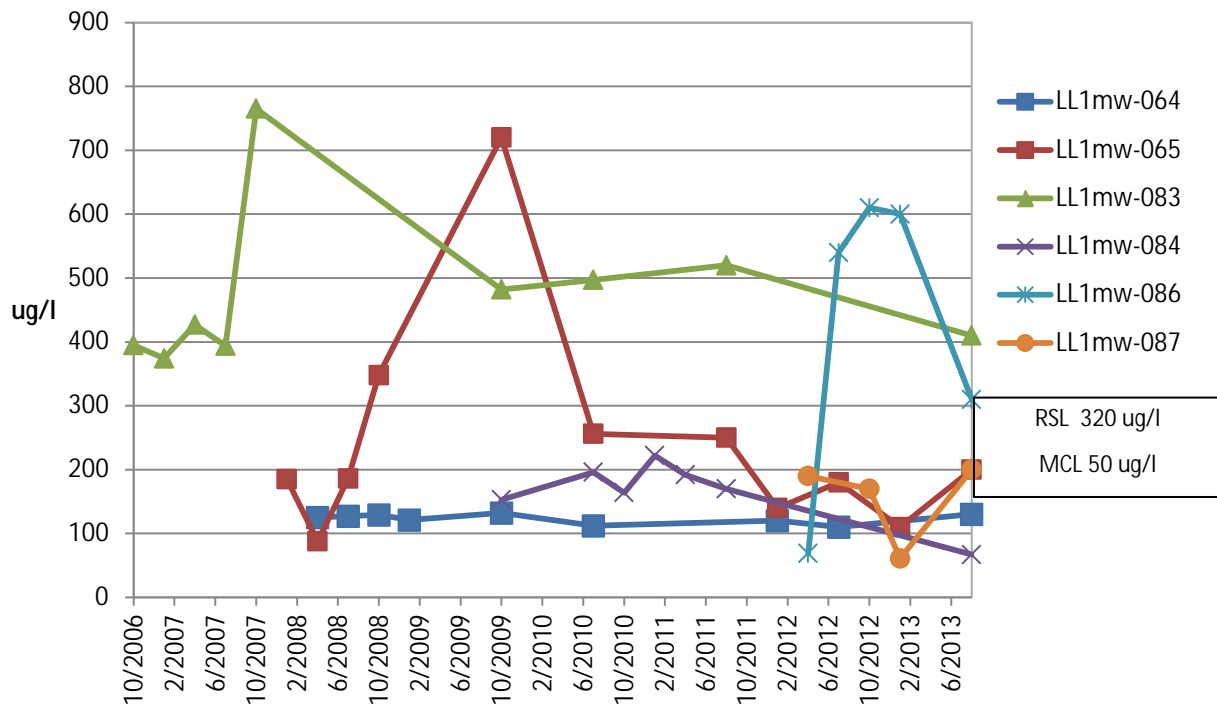
### Load Line 1 Cobalt



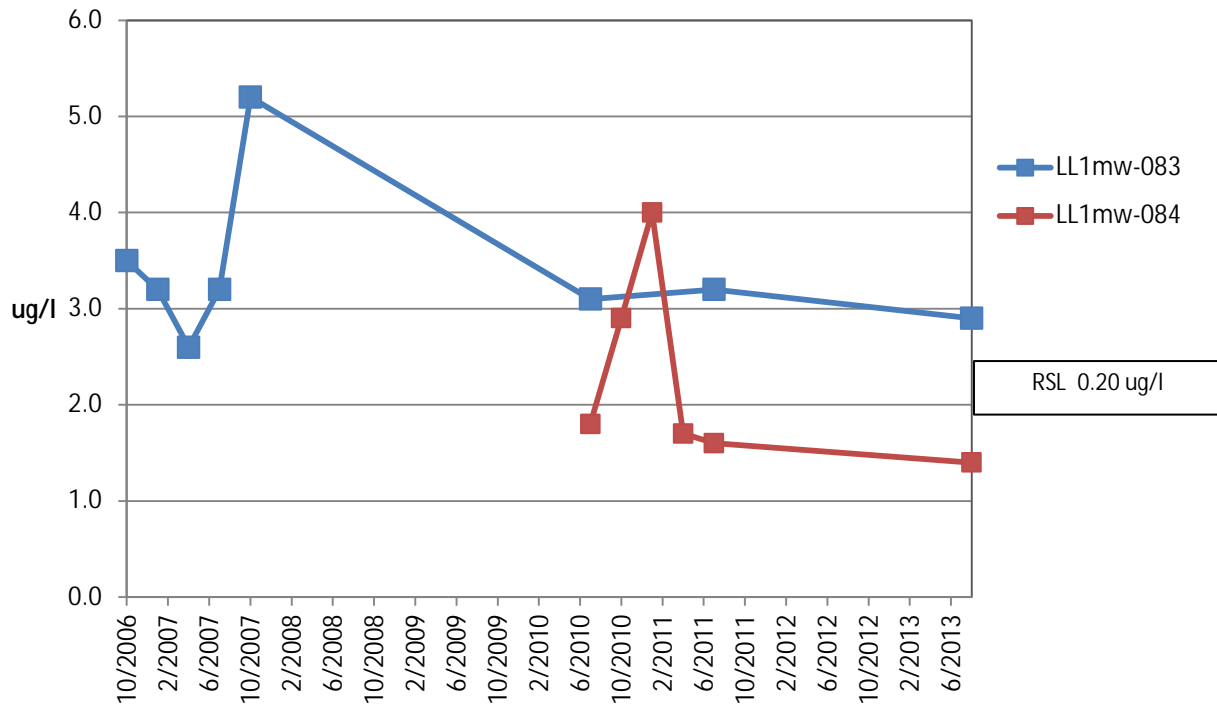
### Load Line 1 Iron



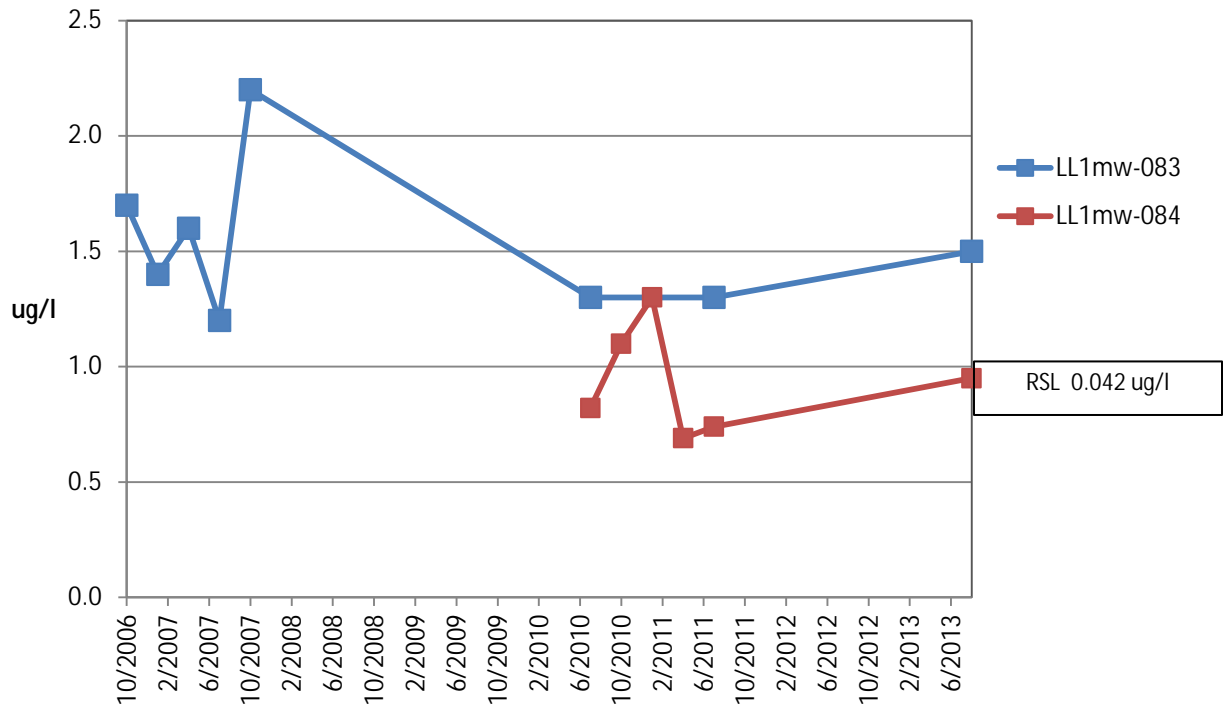
## Load Line 1 Manganese



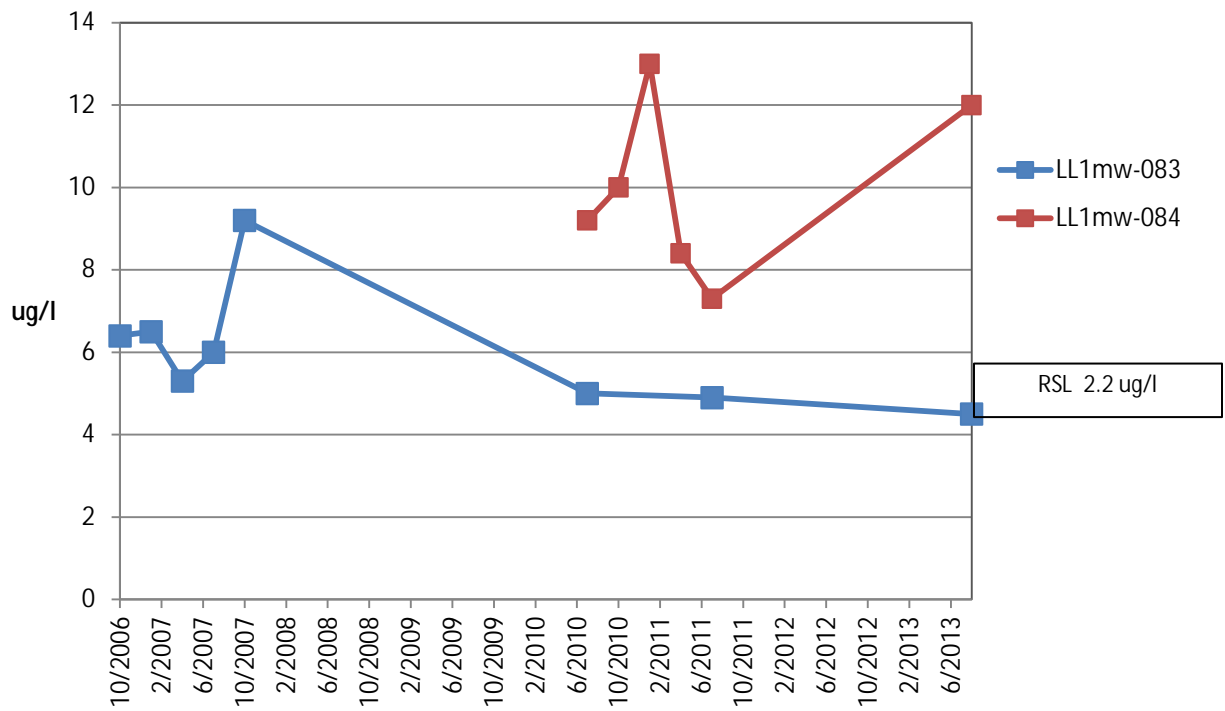
## Load Line 1 2,4-Dinitrotoluene



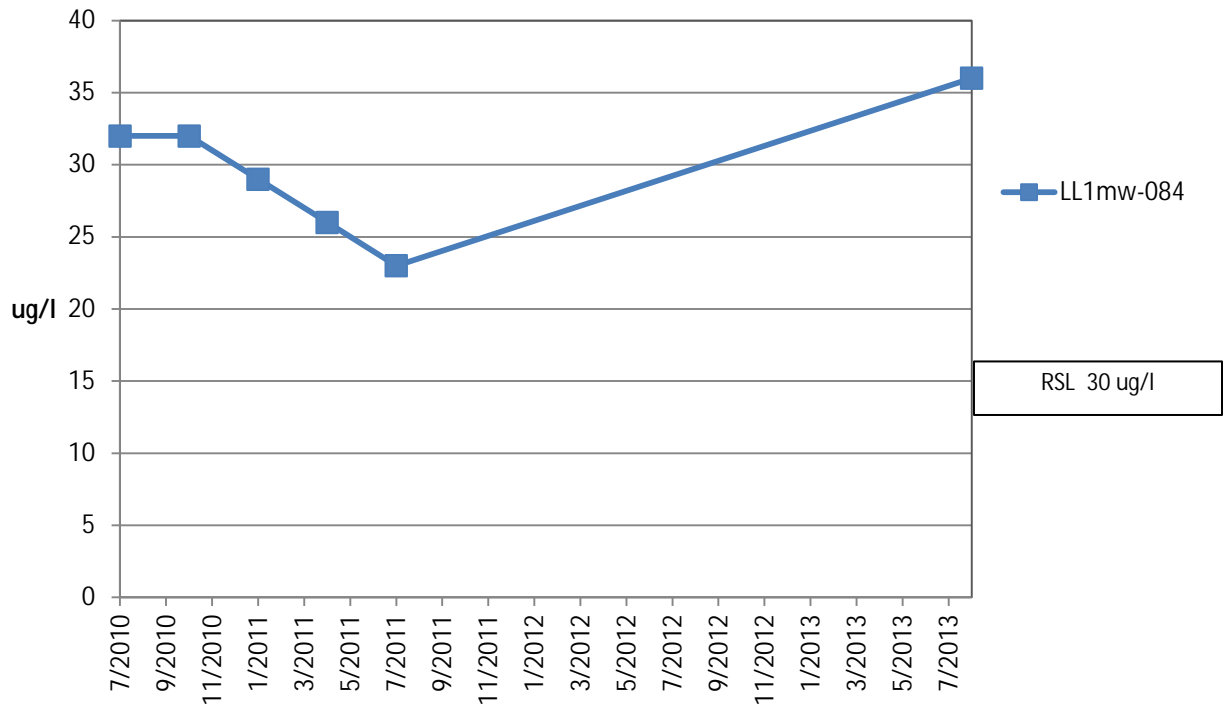
### Load Line 1 2,6-Dinitrotoluene



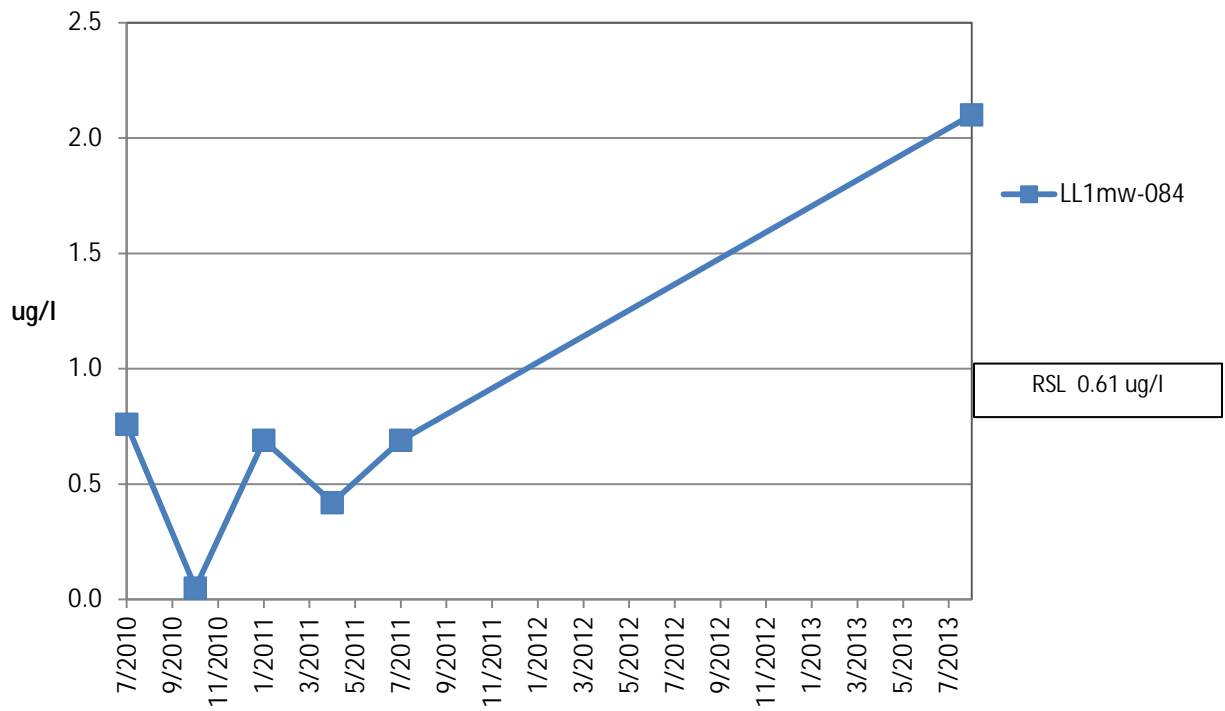
### Load Line 1 2,4,6-Trinitrotoluene



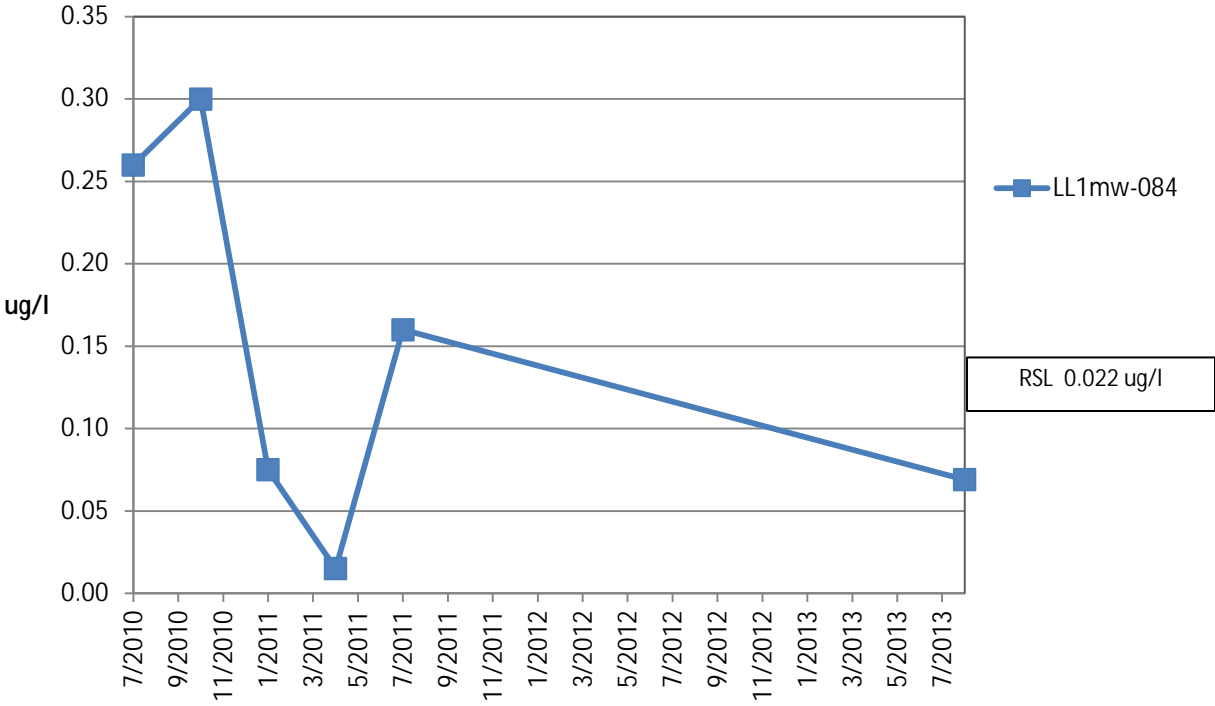
Load Line 1  
4-Amino-2,6-DNT



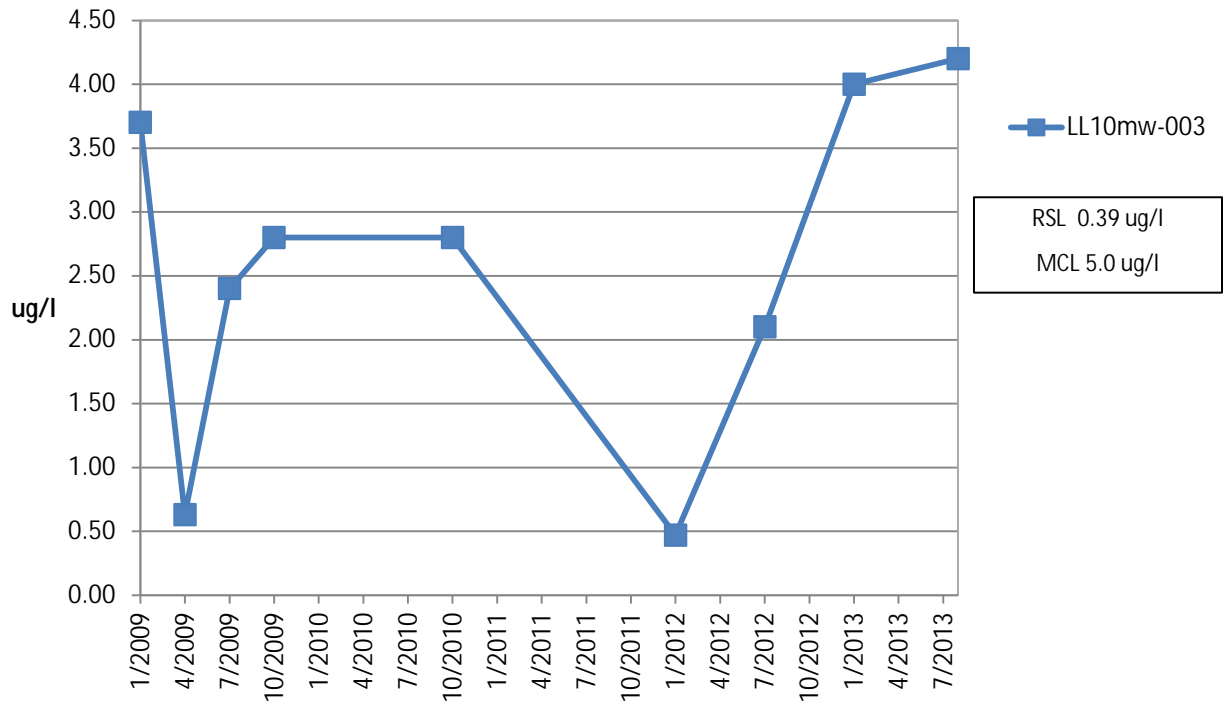
Load Line 1  
RDX



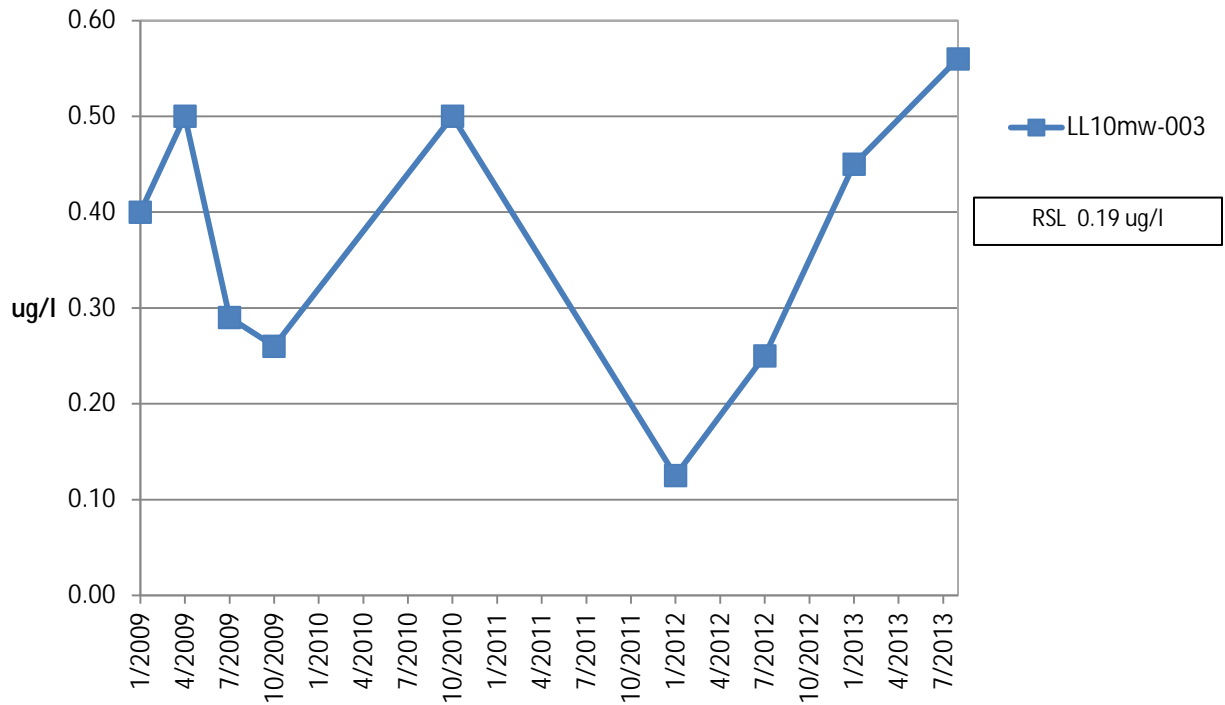
Load Line 1  
Beta-BHC



### Load Line 10 Carbon Tetrachloride

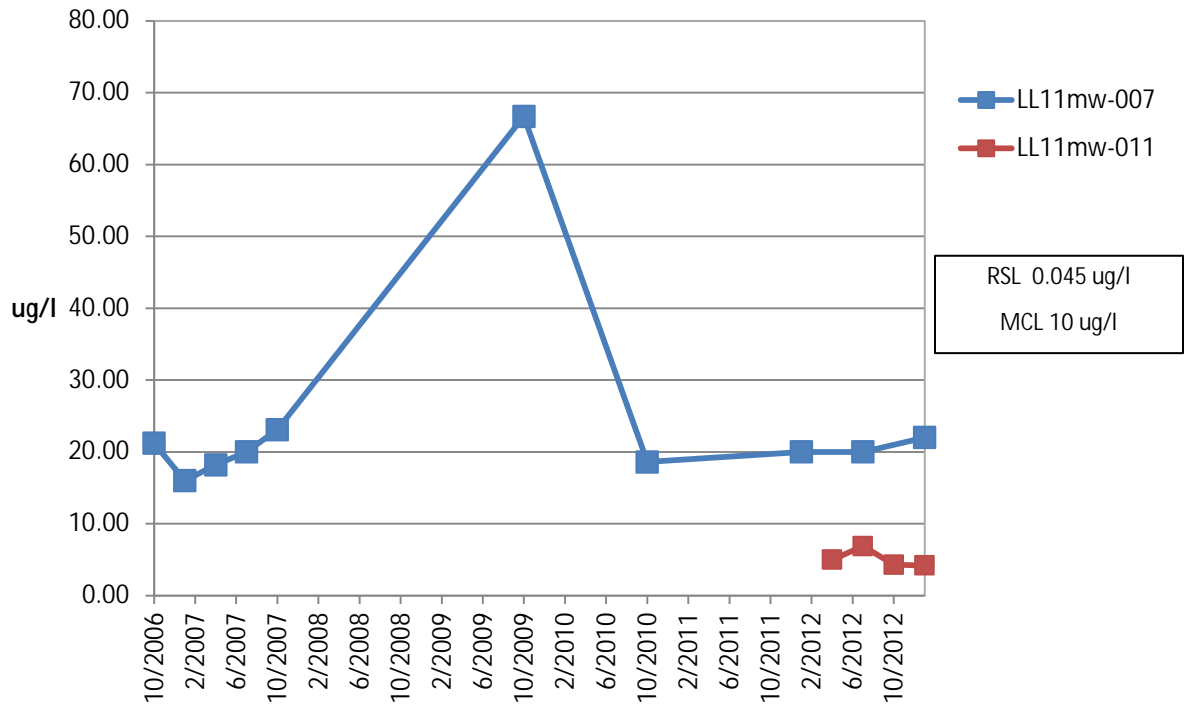


### Load Line 10 Chloroform

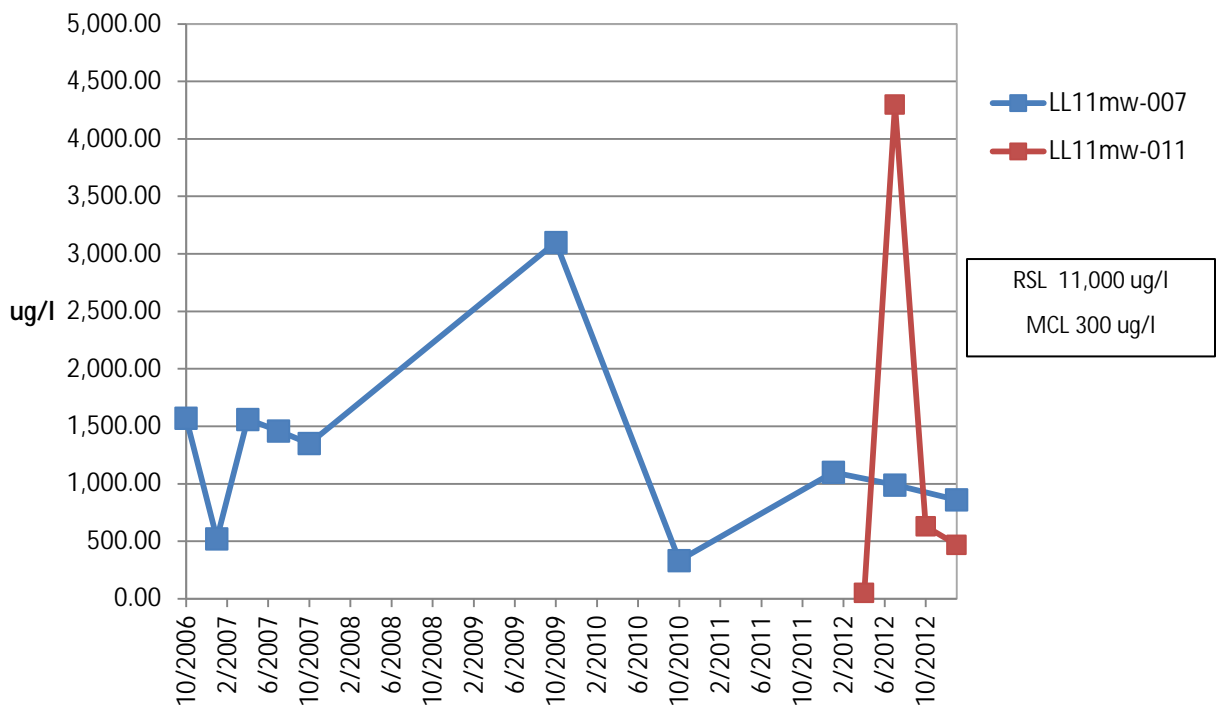




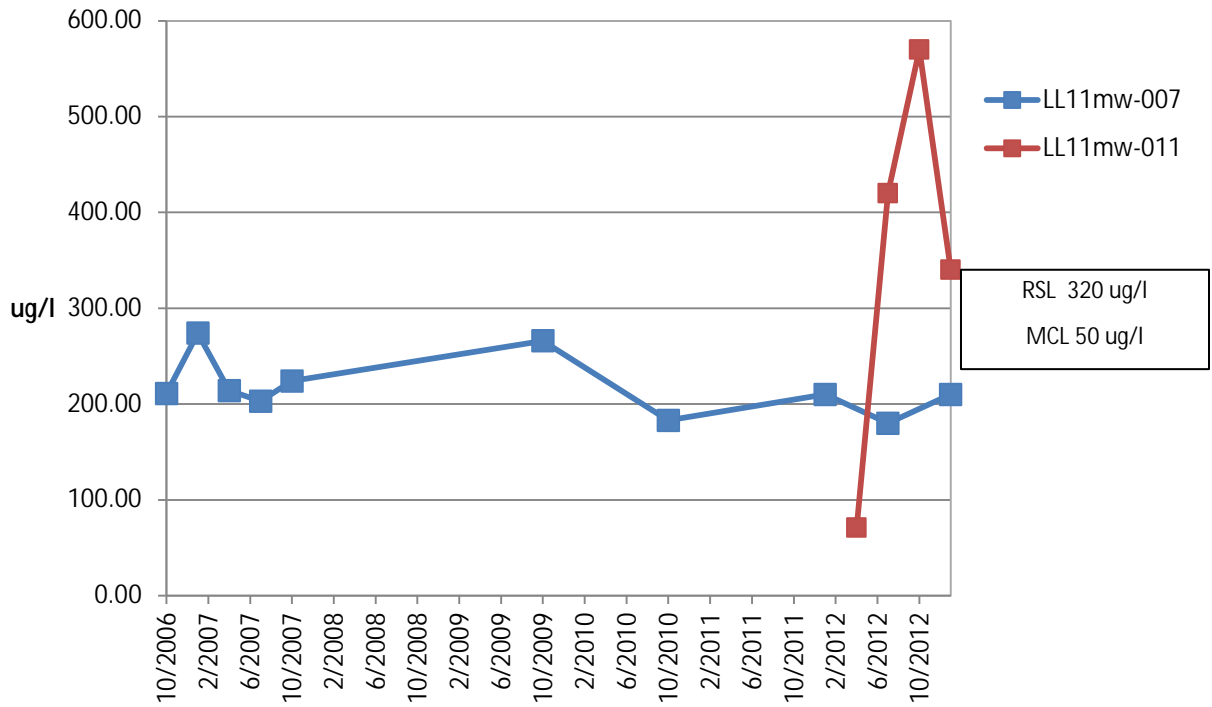
### Load Line 11 Arsenic (unconsolidated)



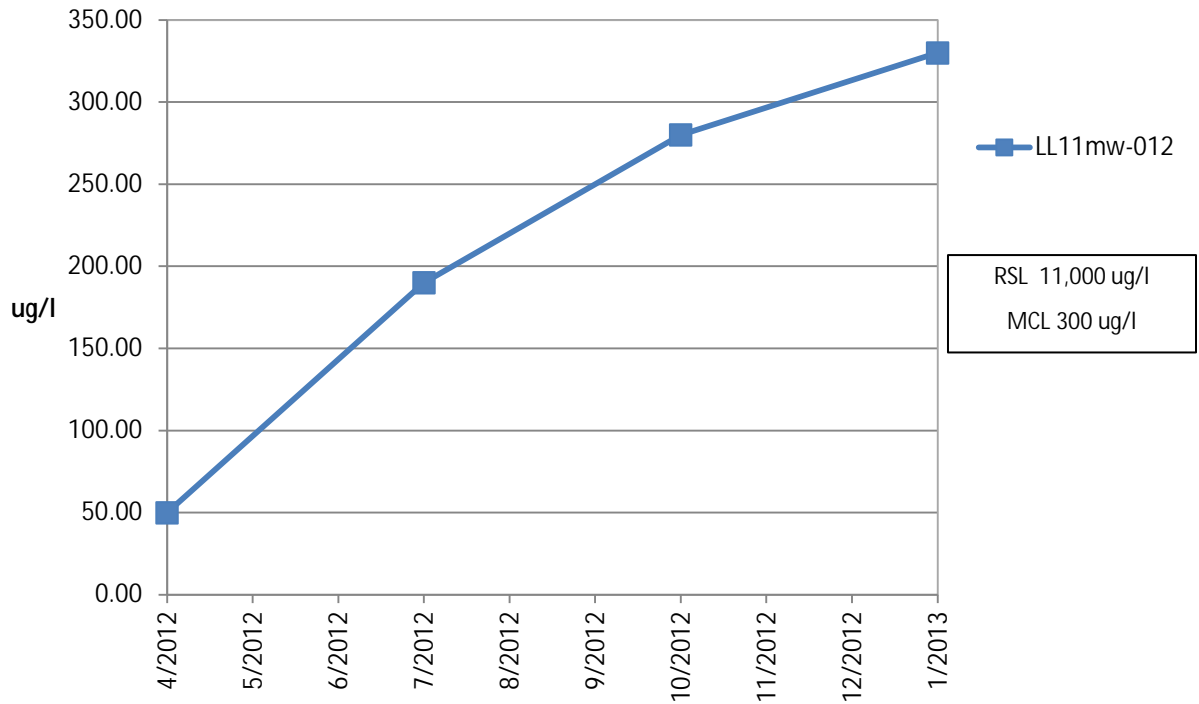
### Load Line 11 Iron (unconsolidated)



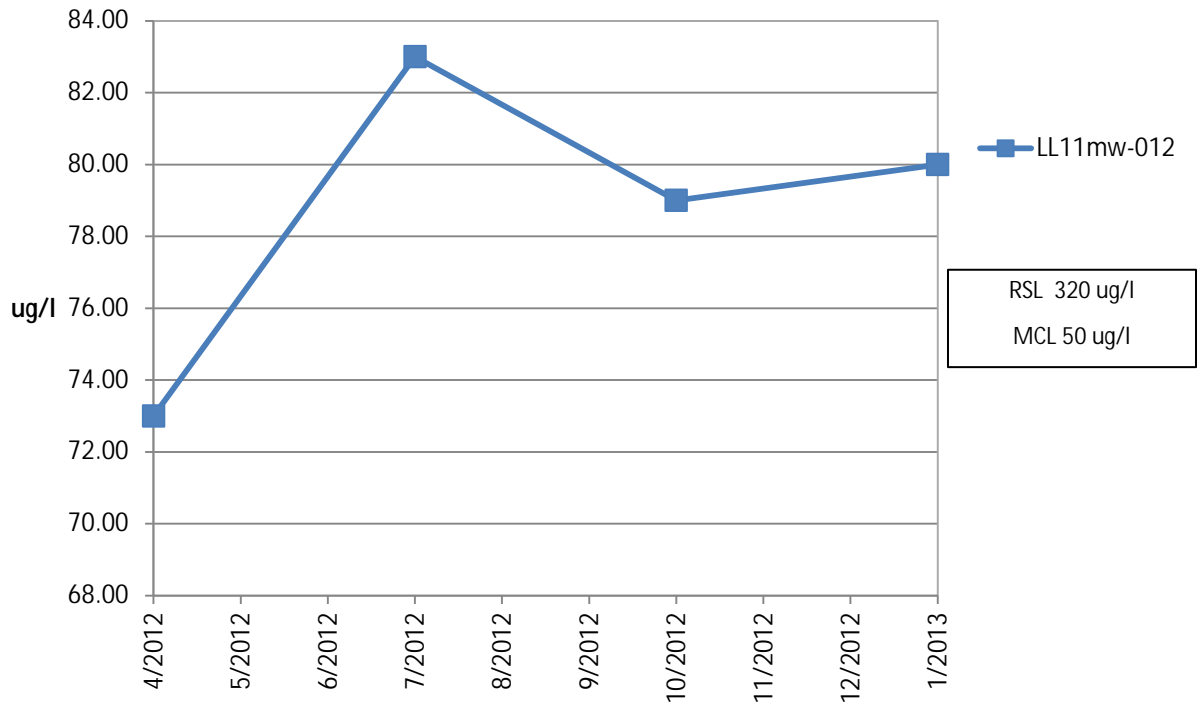
### Load Line 11 Manganese (unconsolidated)



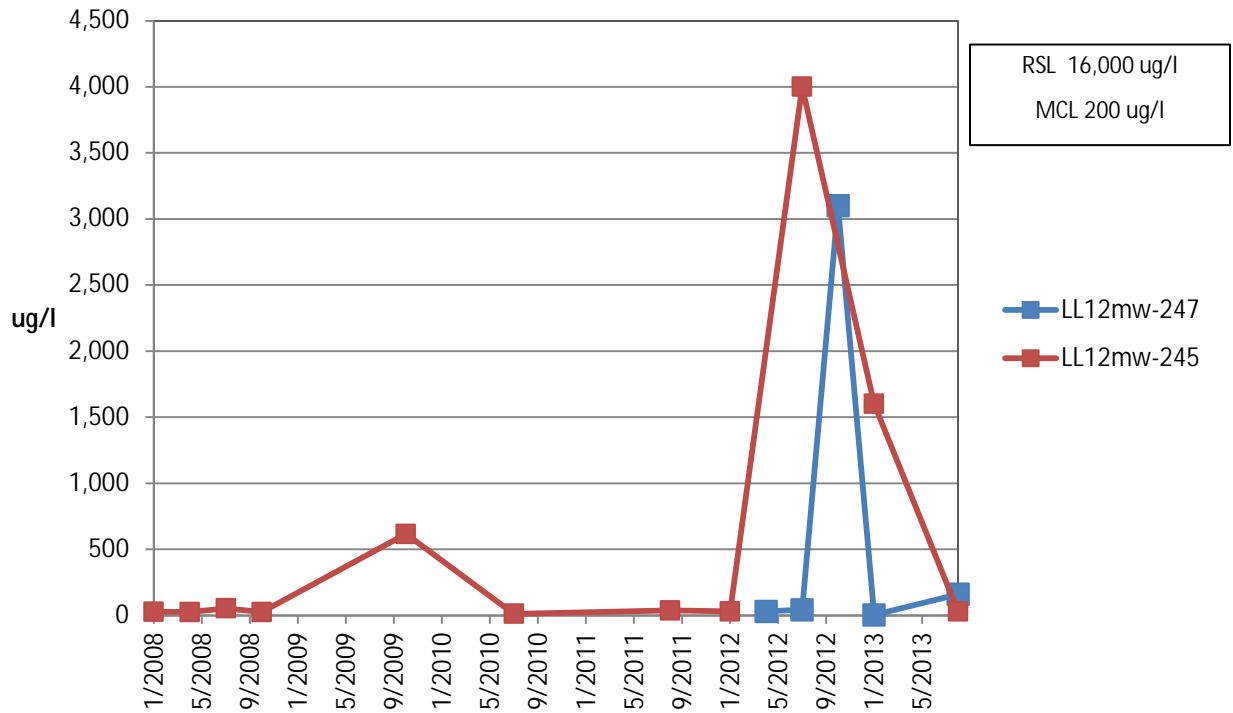
### Load Line 11 Iron (bedrock)



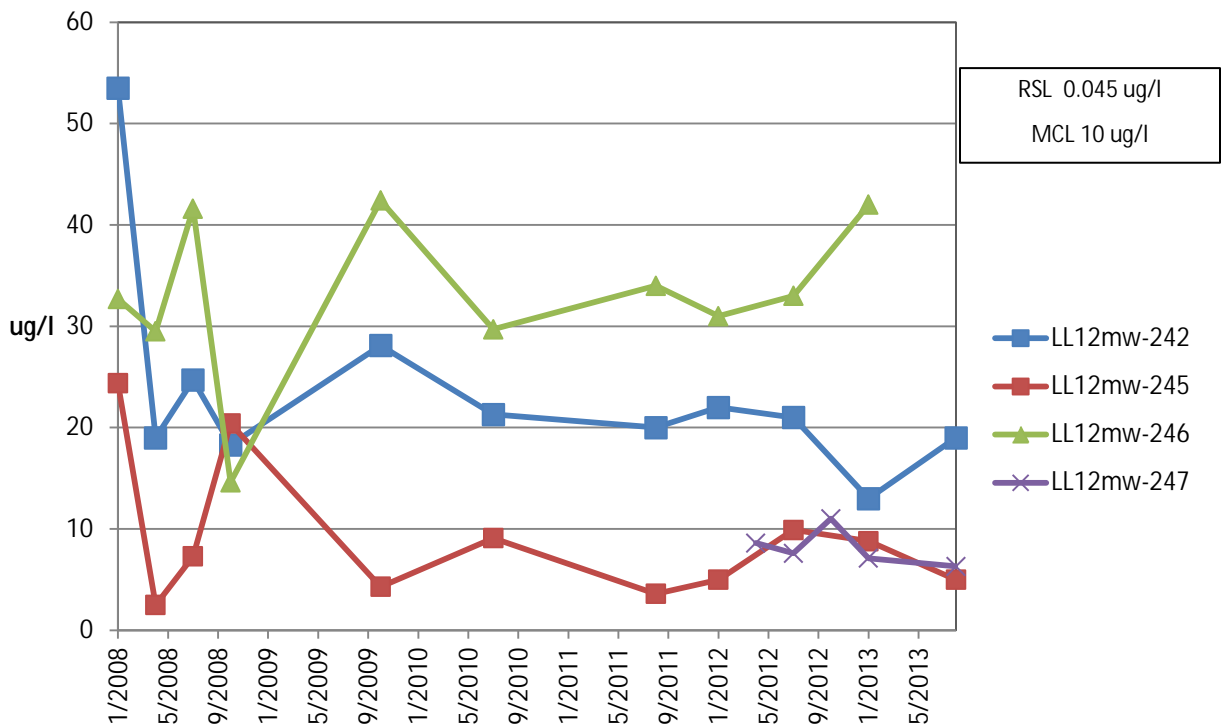
# Load Line 11 Manganese (bedrock)



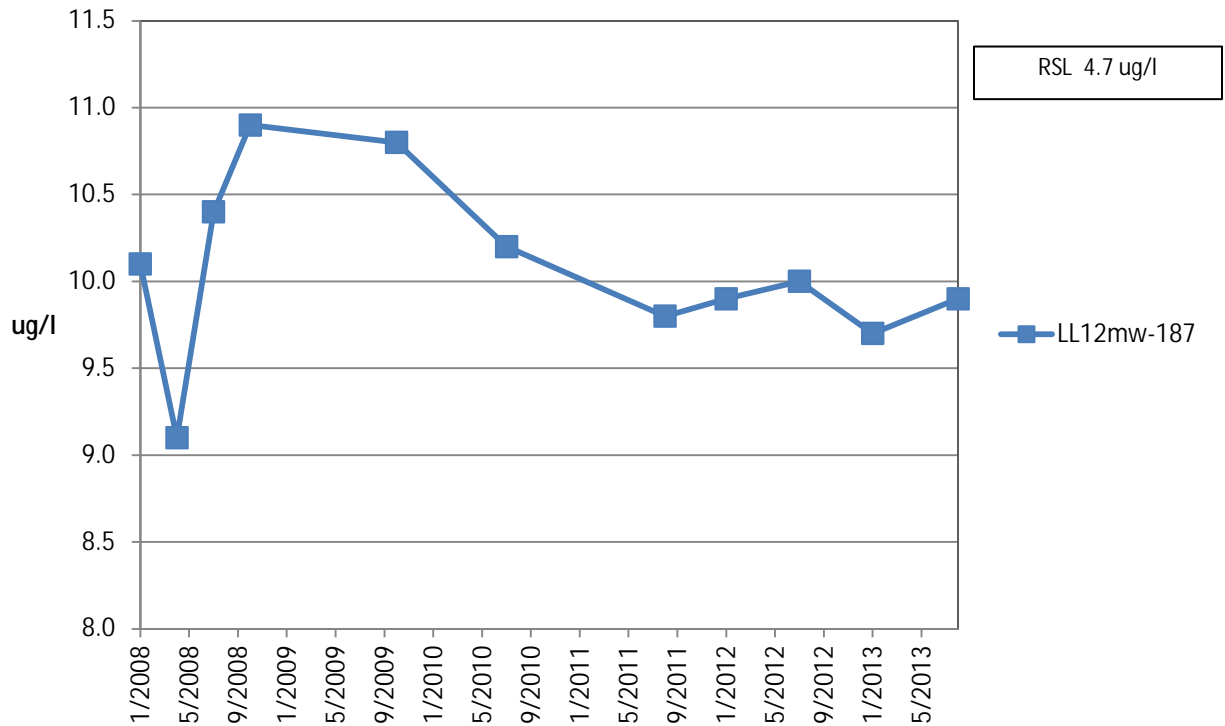
## Load Line 12 Aluminum



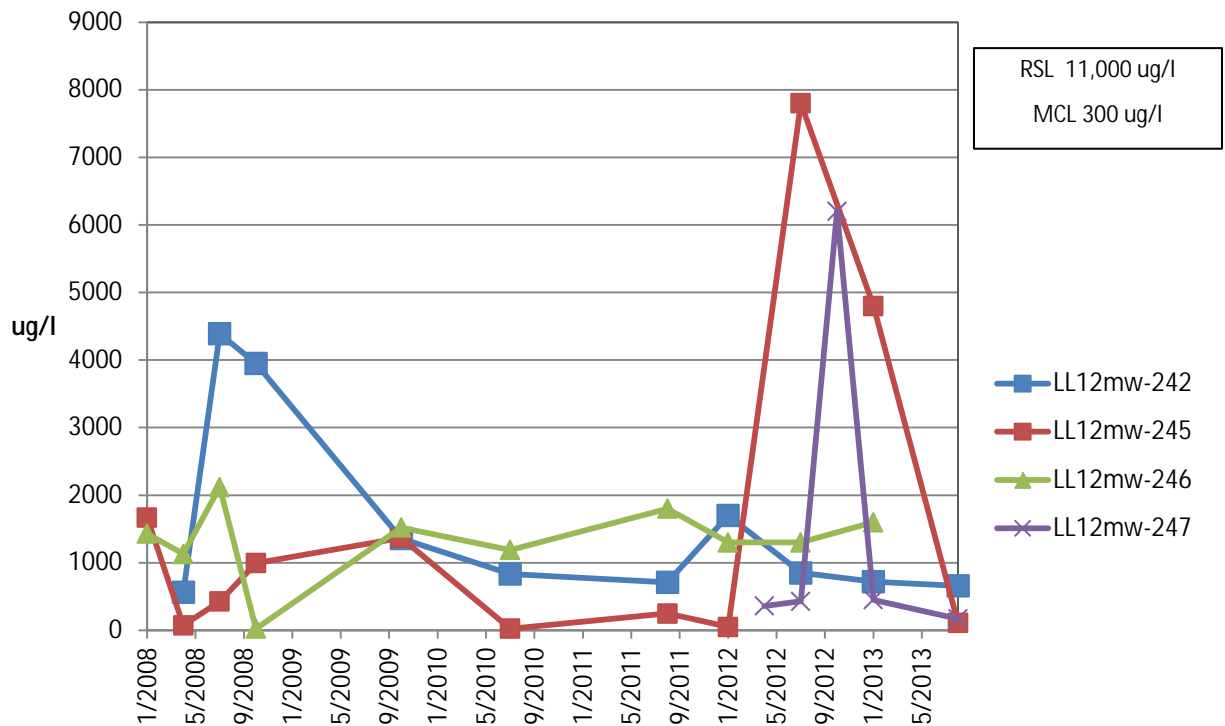
## Load Line 12 Arsenic



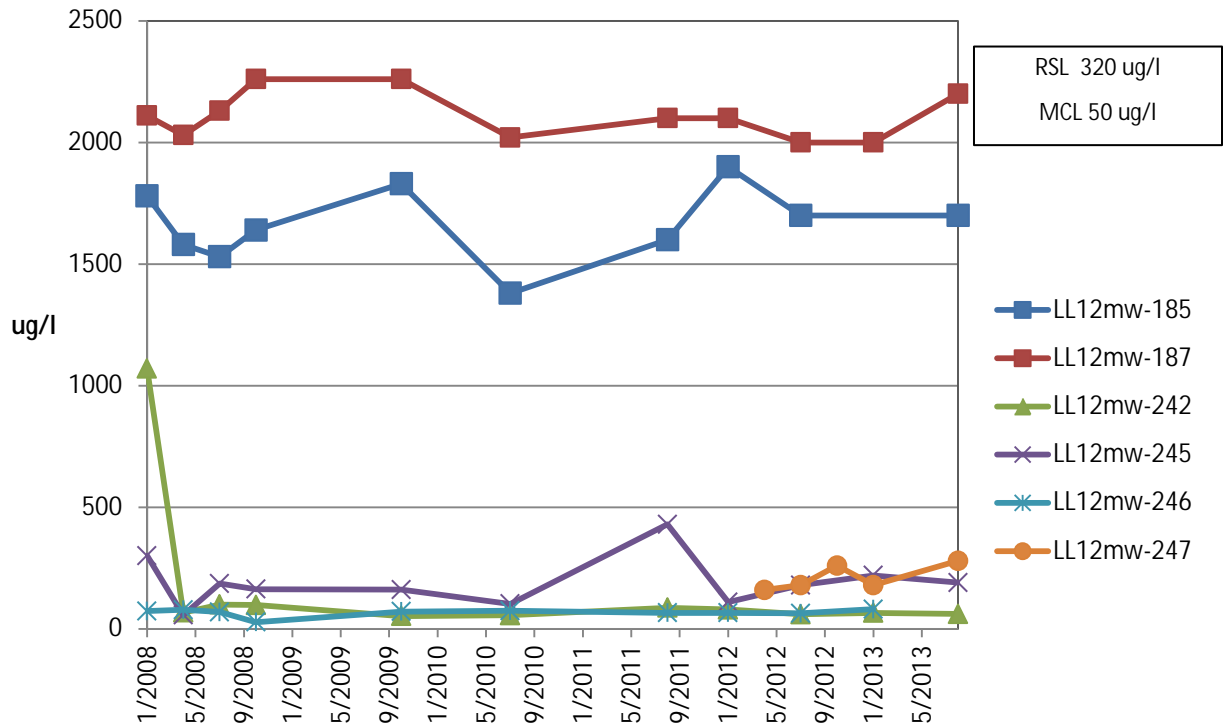
## Load Line 12 Cobalt



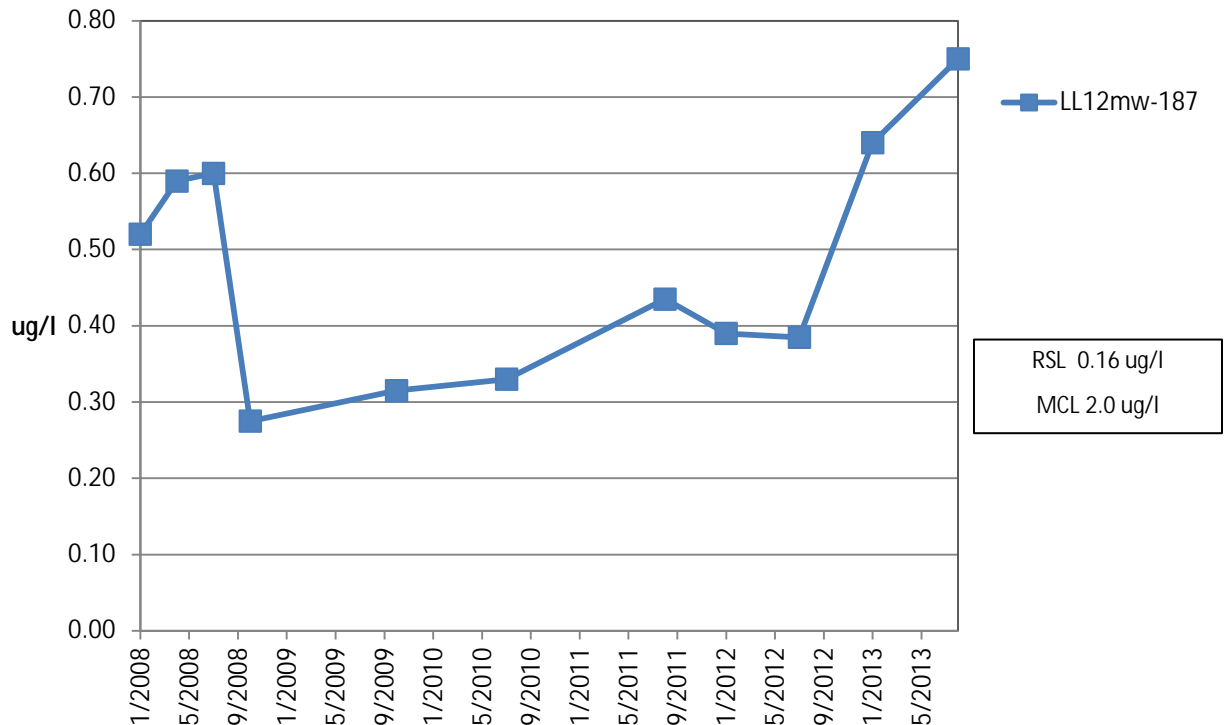
## Load Line 12 Iron



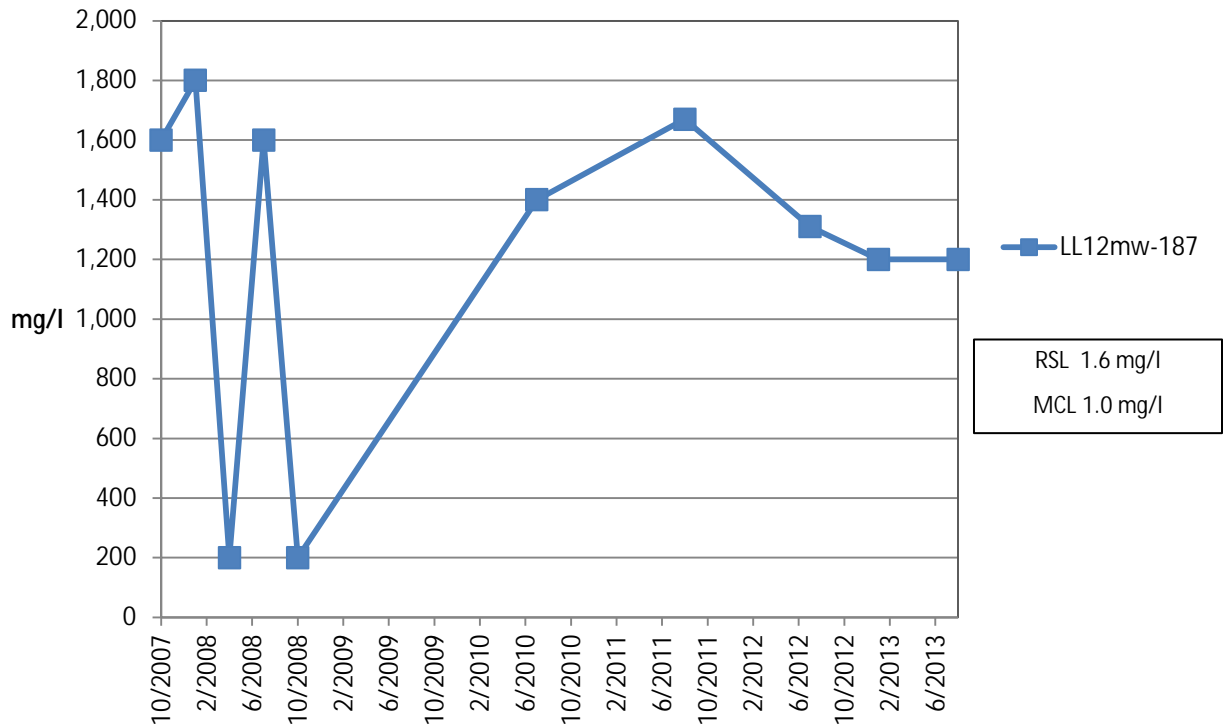
## Load Line 12 Manganese



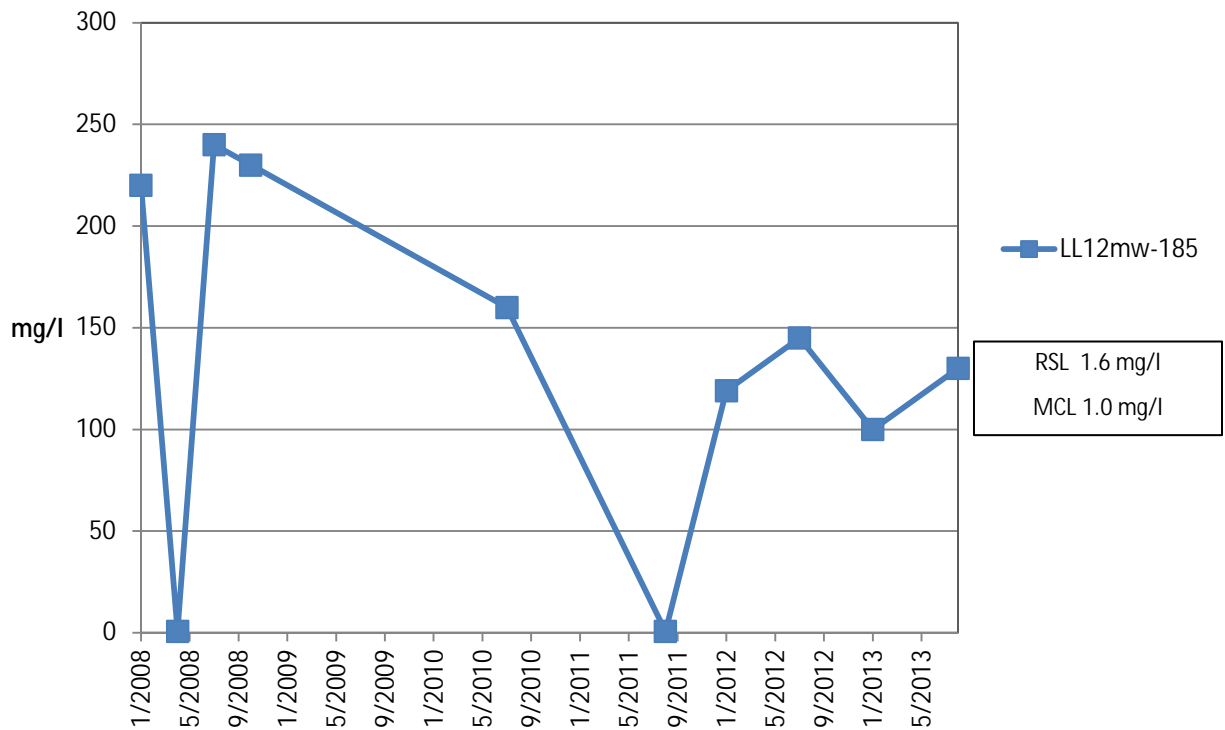
## Load Line 12 Thallium



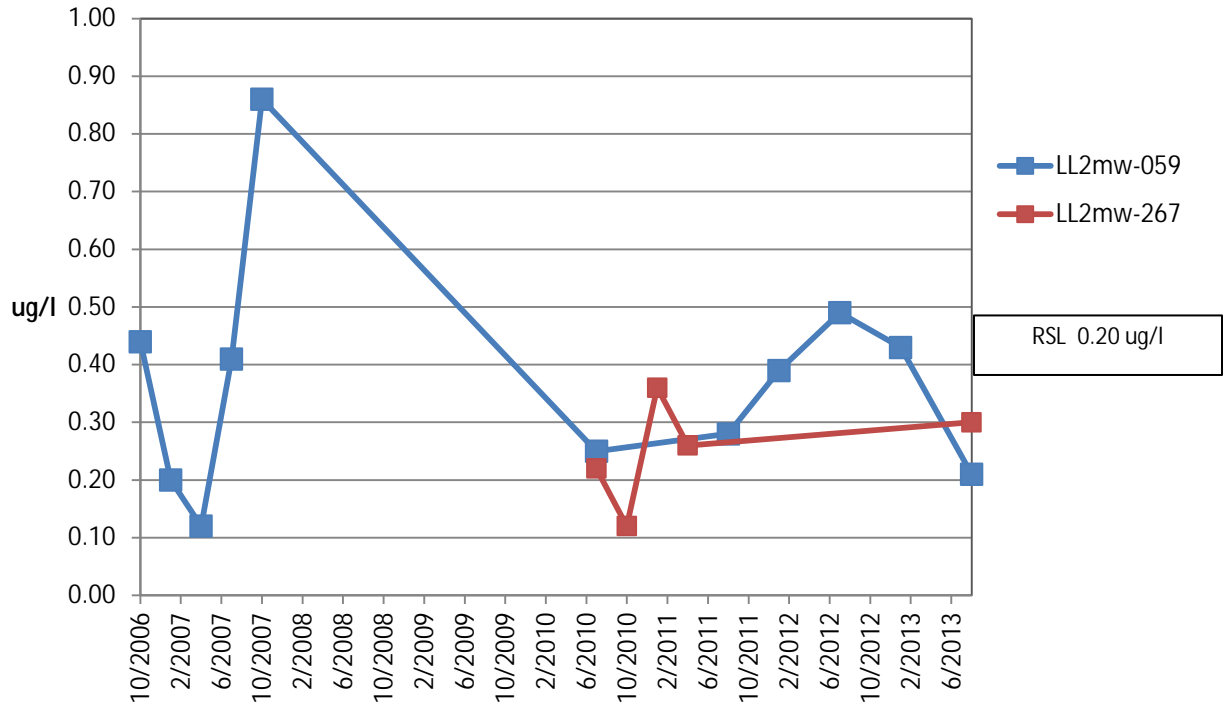
Load Line 12  
Nitrate-Nitrite



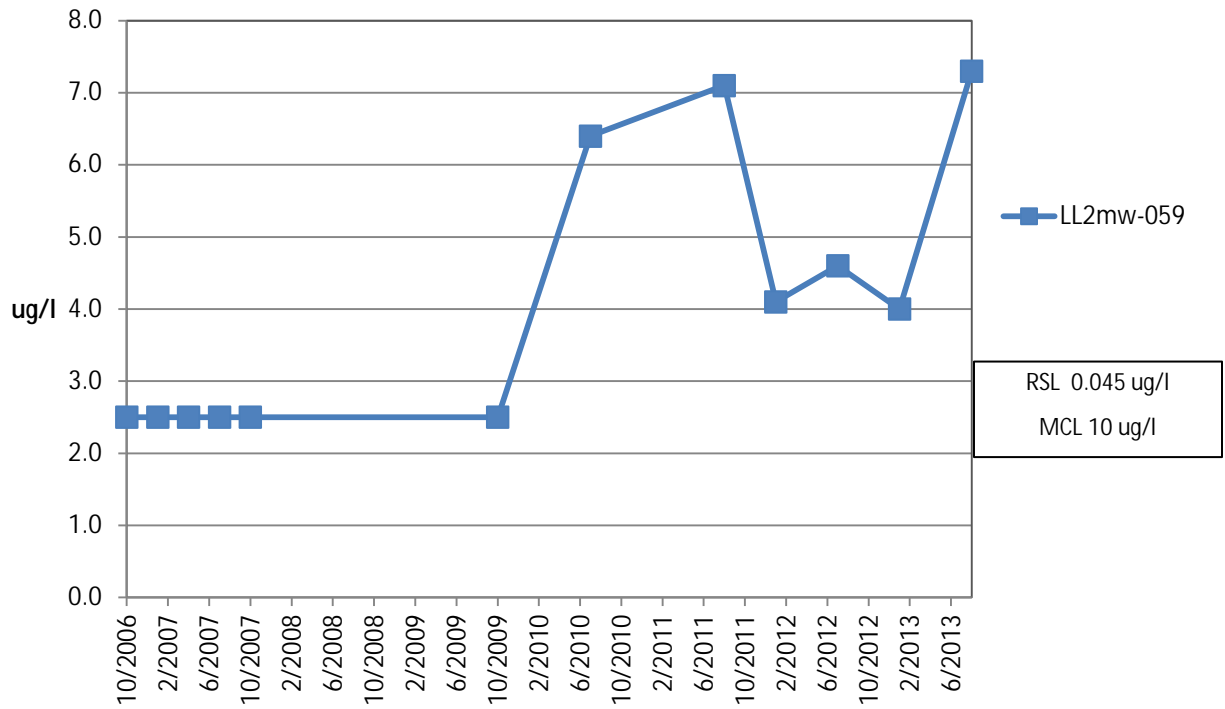
Load Line 12  
Nitrate-Nitrite



## Load Line 2 2,4-Dinitrotoluene

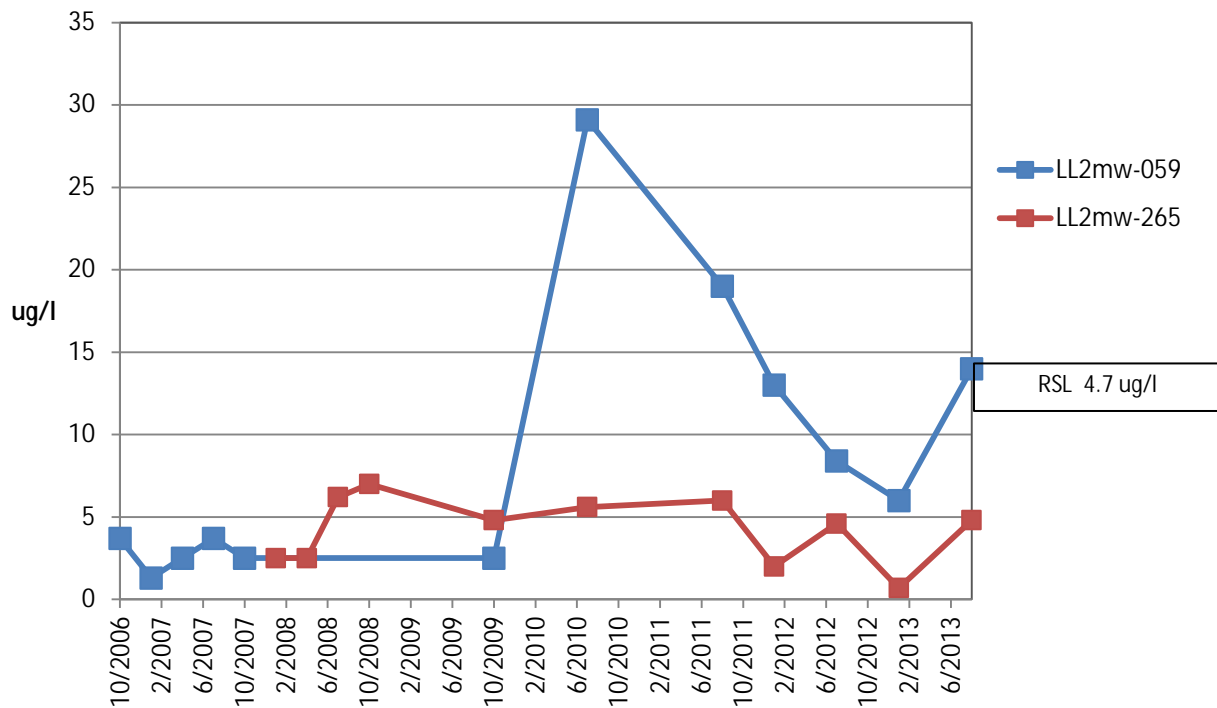


## Load Line 2 Arsenic

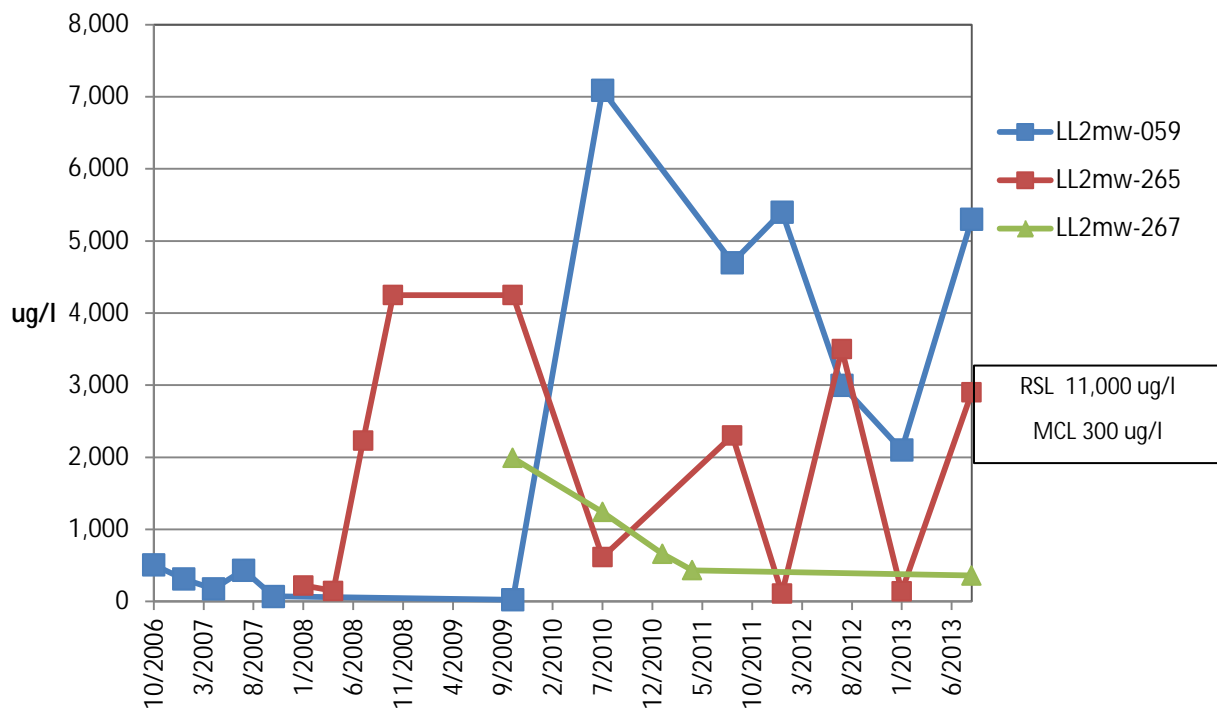




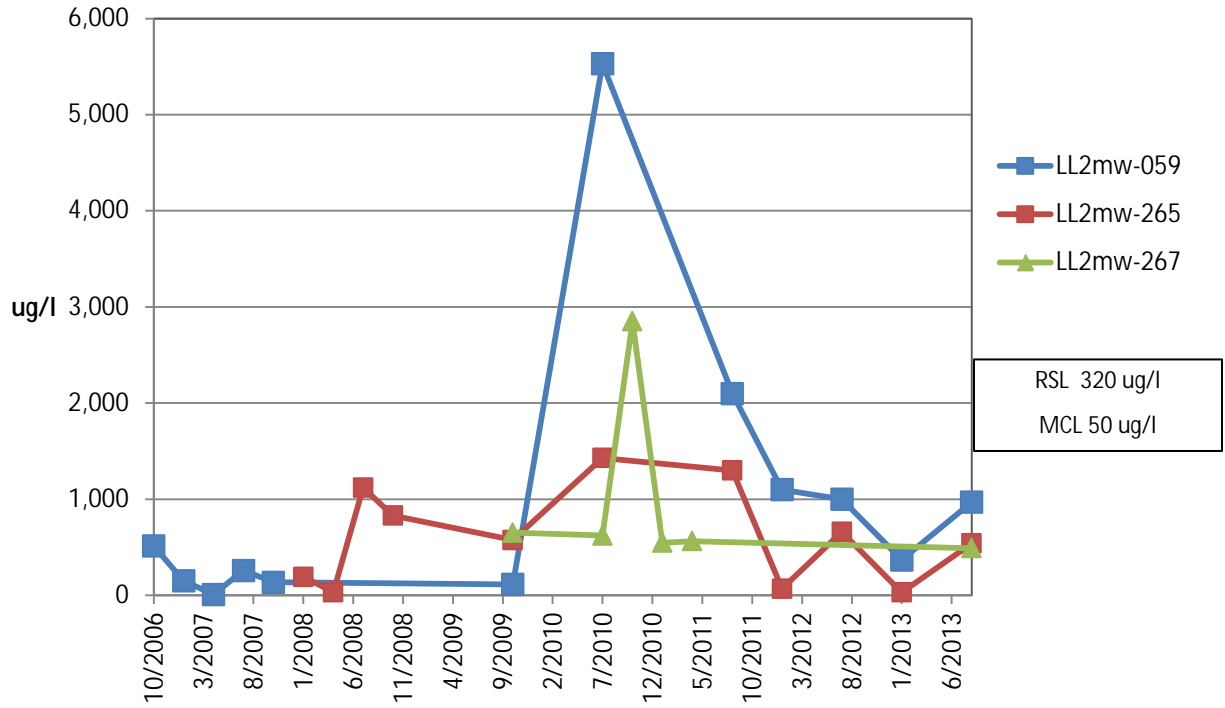
## Load Line 2 Cobalt



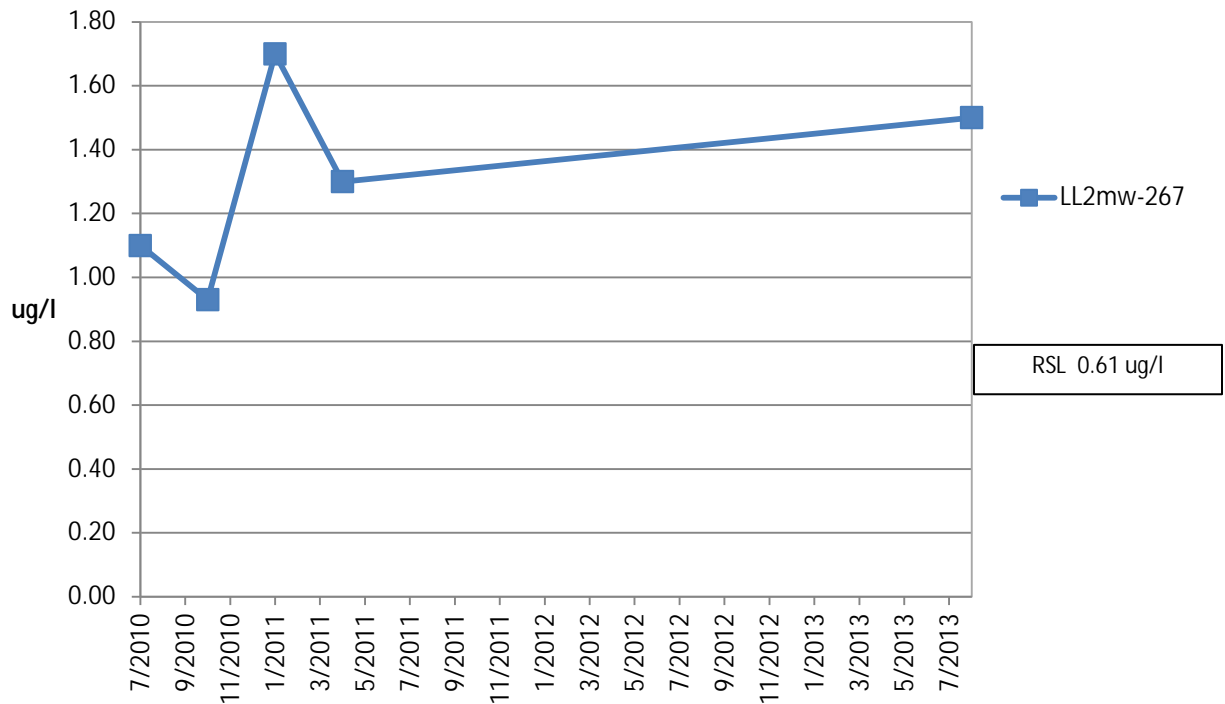
## Load Line 2 Iron



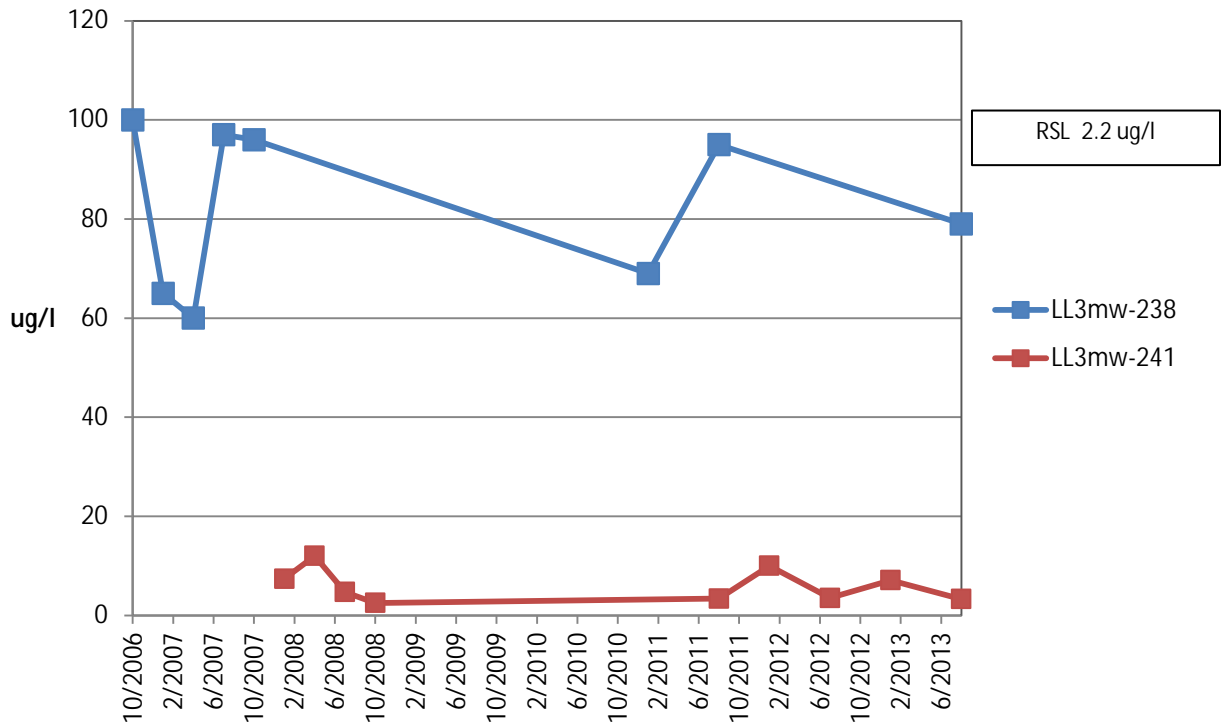
## Load Line 2 Manganese



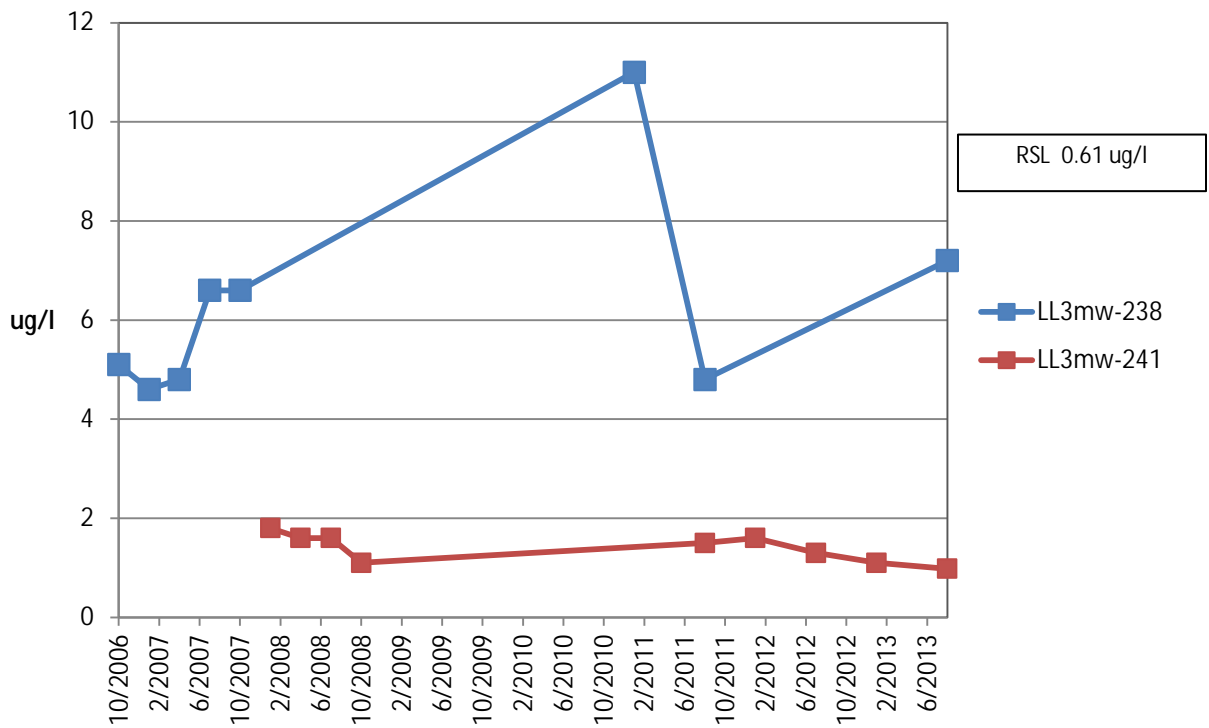
## Load Line 2 RDX



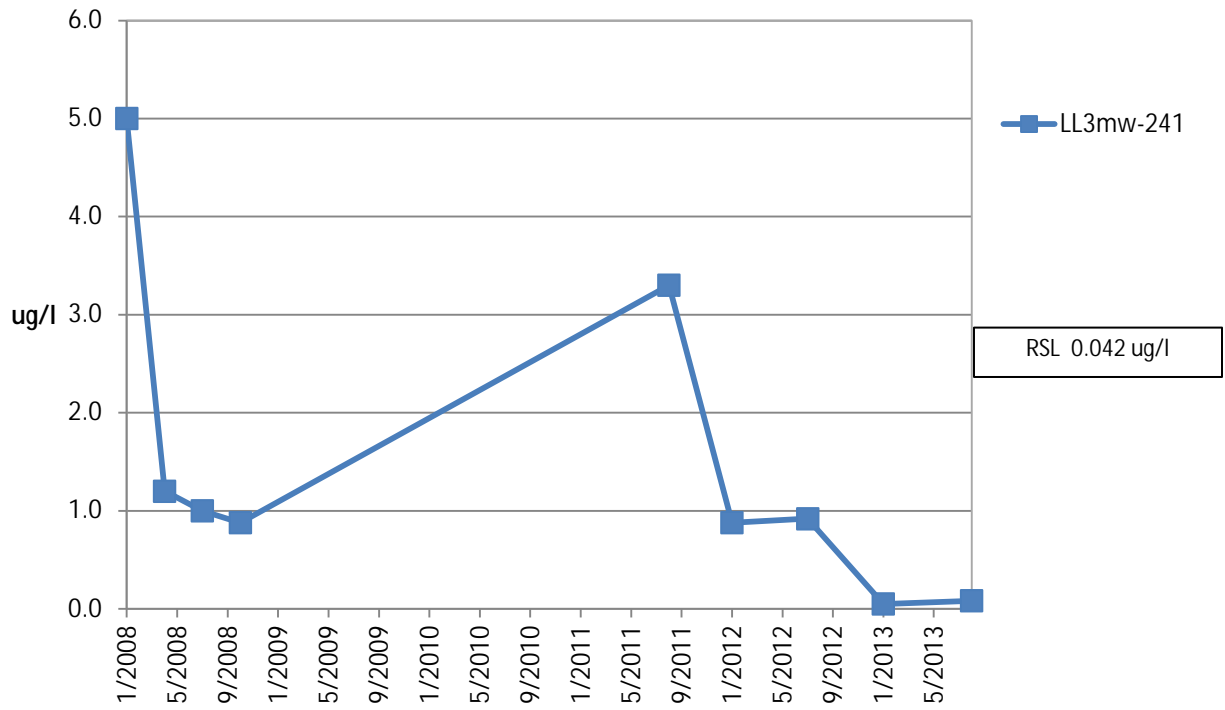
### Load Line 3 2,4,6-Trinitrotoluene



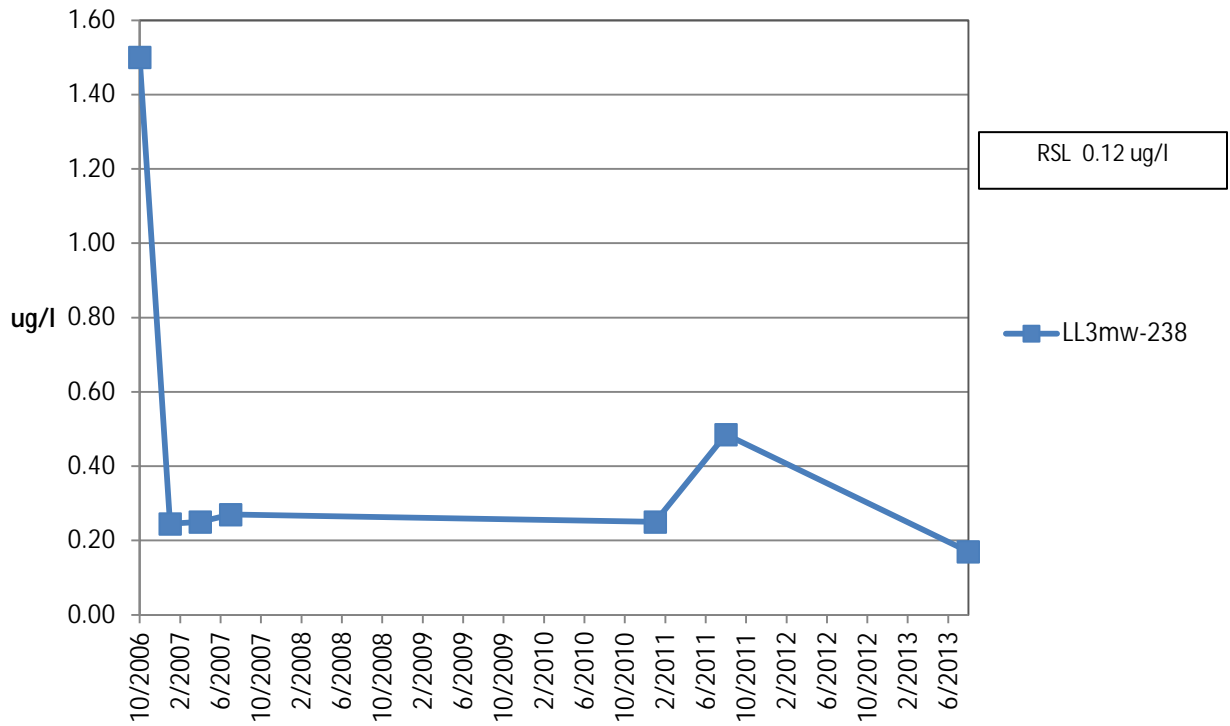
### Load Line 3 RDX



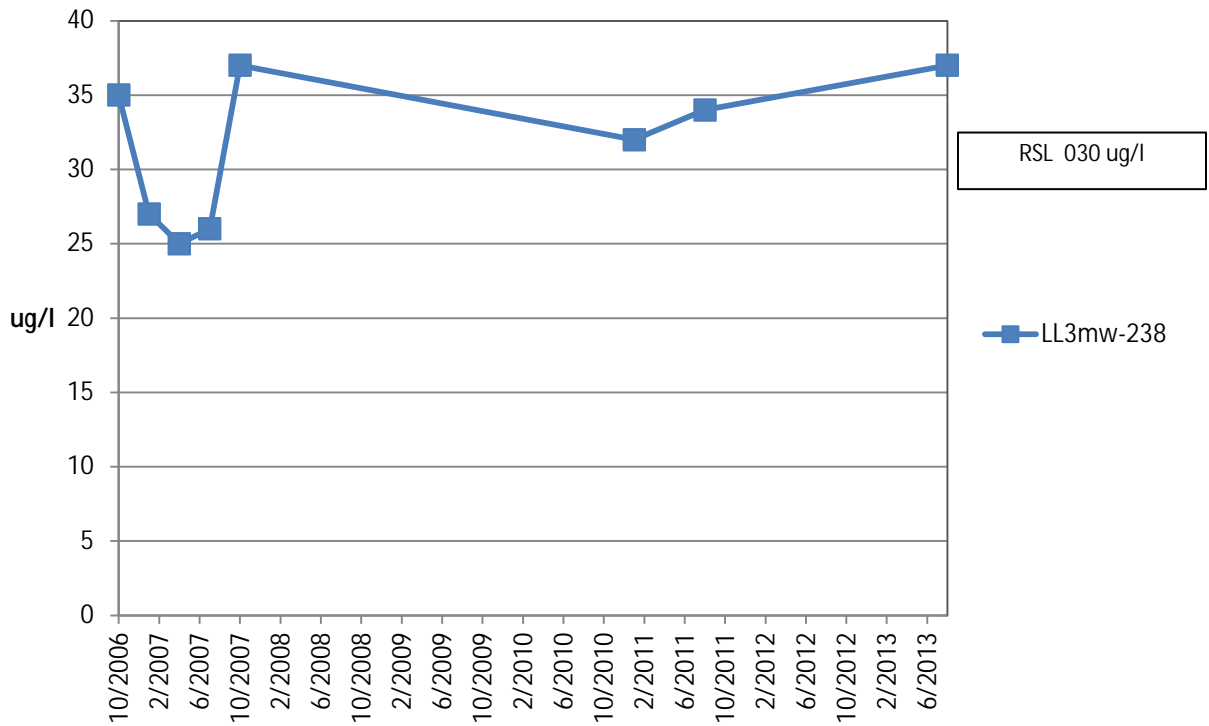
### Load Line 3 2,6-Dinitrotoluene



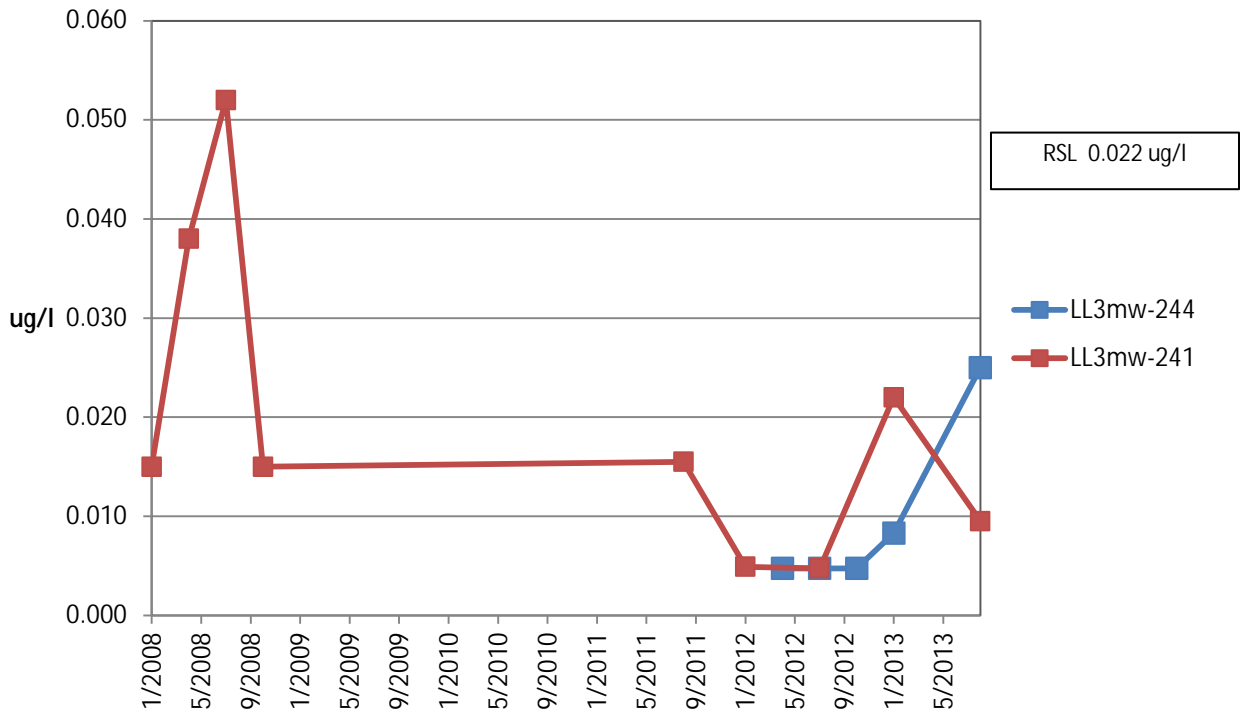
### Load Line 3 Nitrobenzene



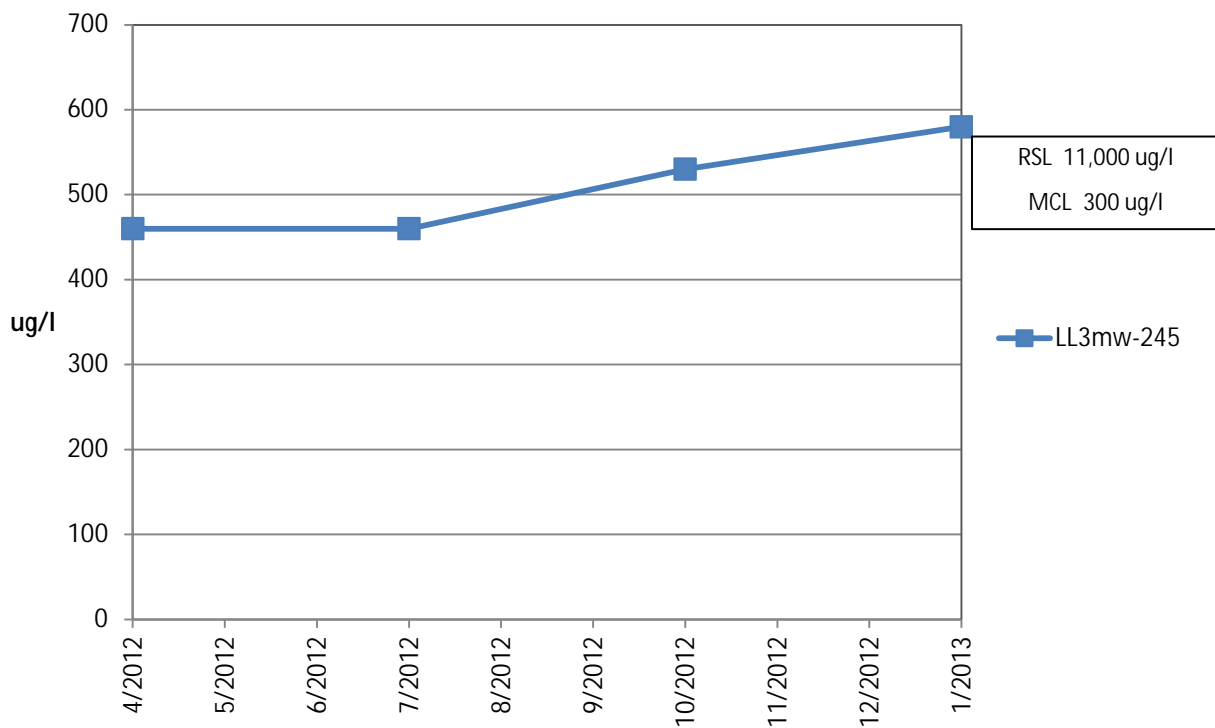
### Load Line 3 4-Amino-2,6-Dinitrotoluene



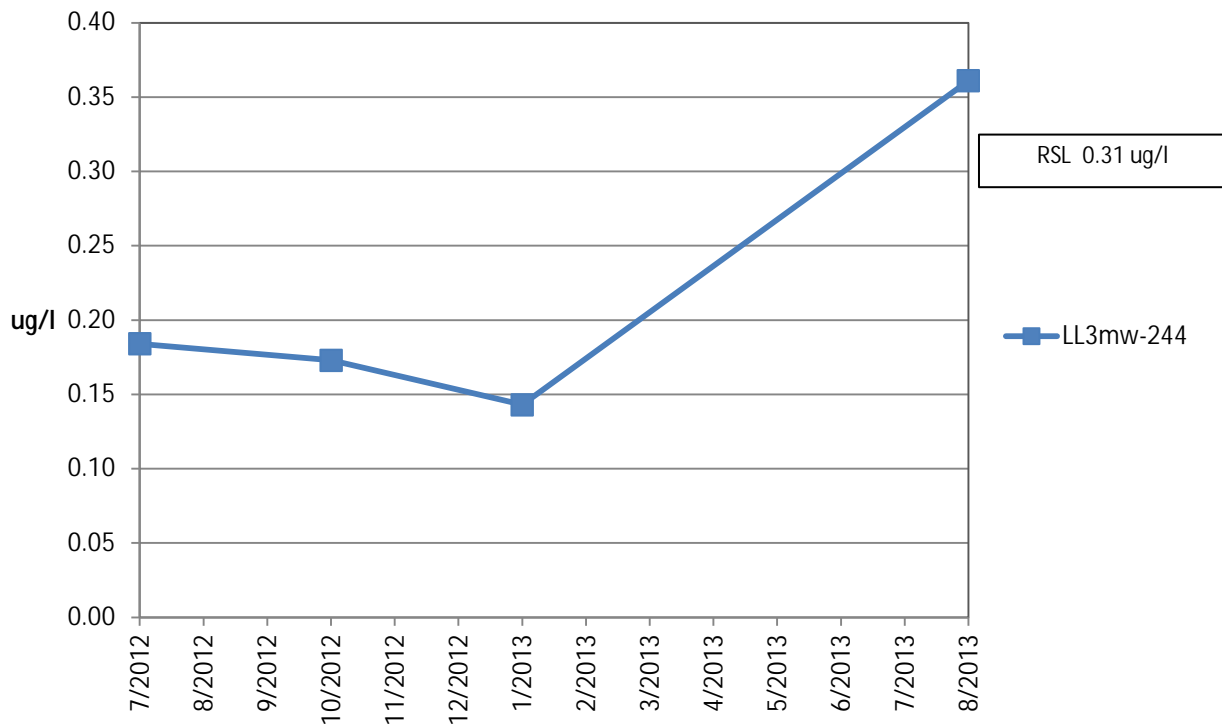
### Load Line 3 Beta-BHC



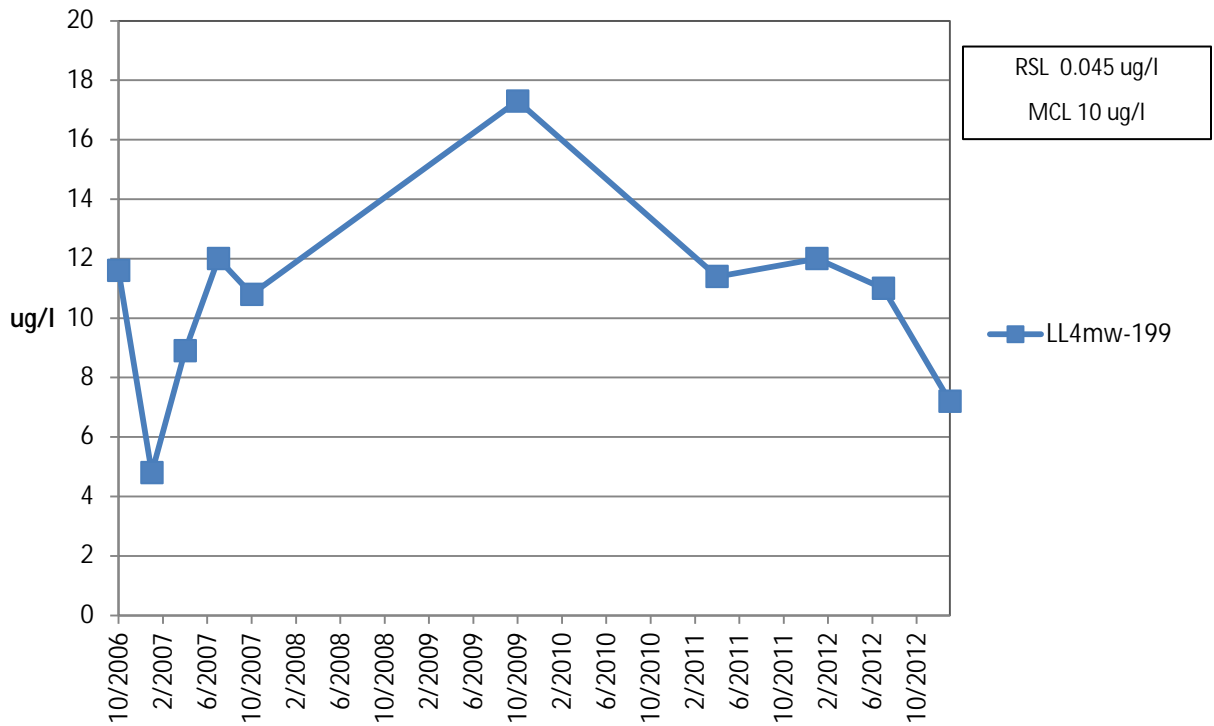
### Load Line 3 Iron



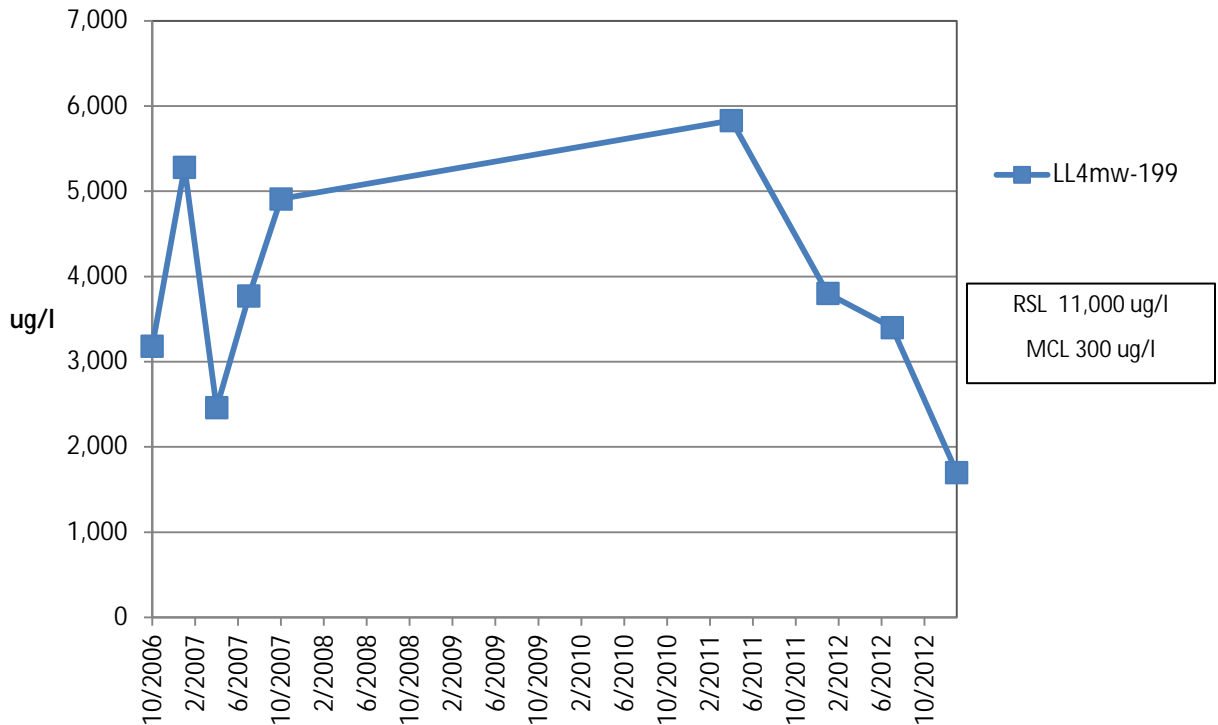
### Load Line 3 Hexavalent Chromium



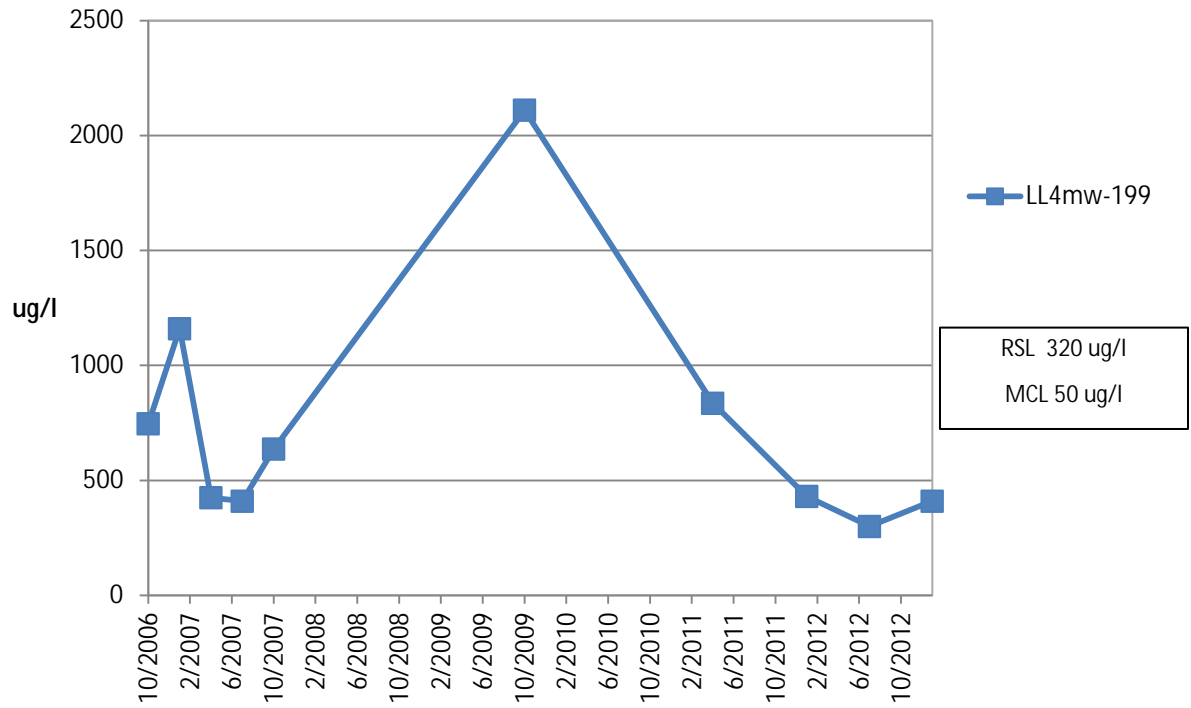
### Load Line 4 Arsenic (unconsolidated)



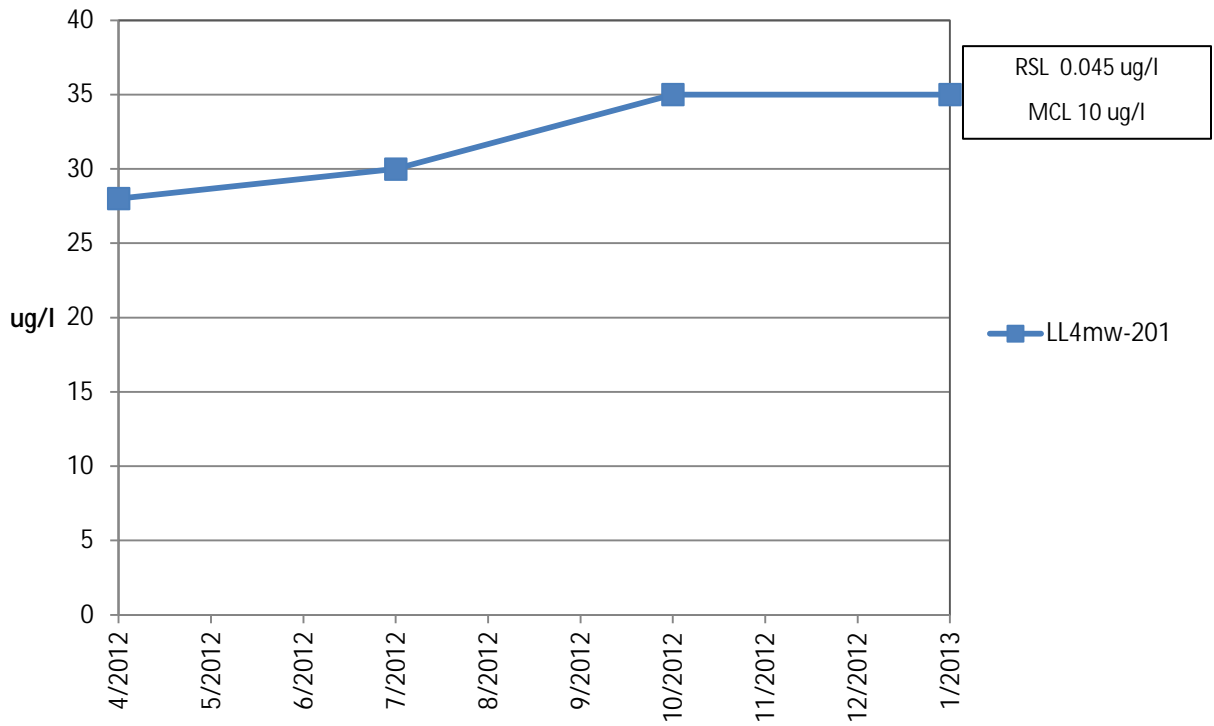
### Load Line 4 Iron (unconsolidated)



### Load Line 4 Manganese (unconsolidated)

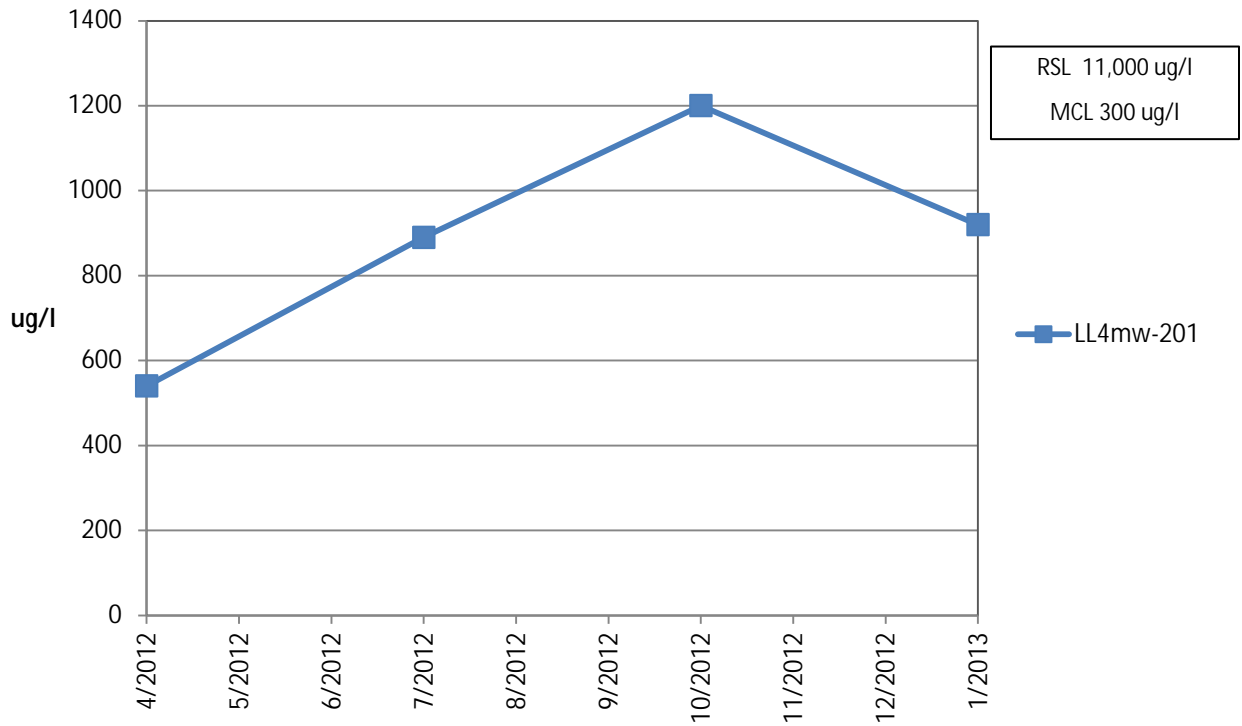


### Load Line 4 Arsenic (bedrock)

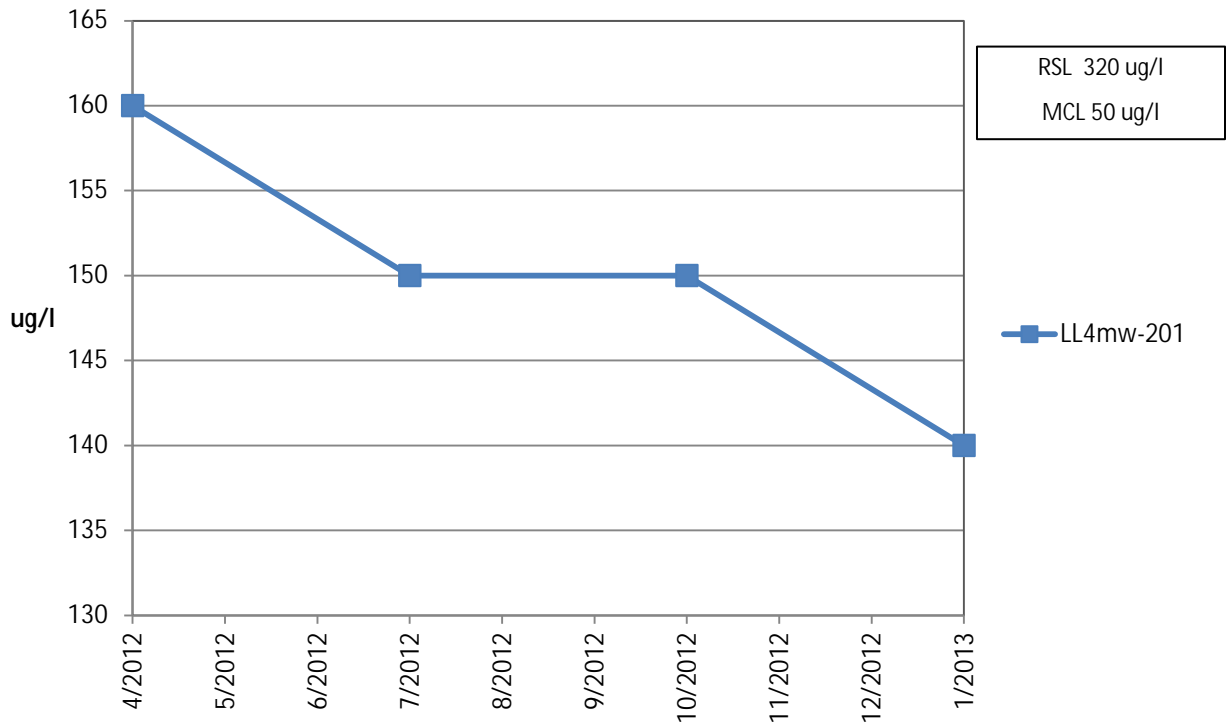




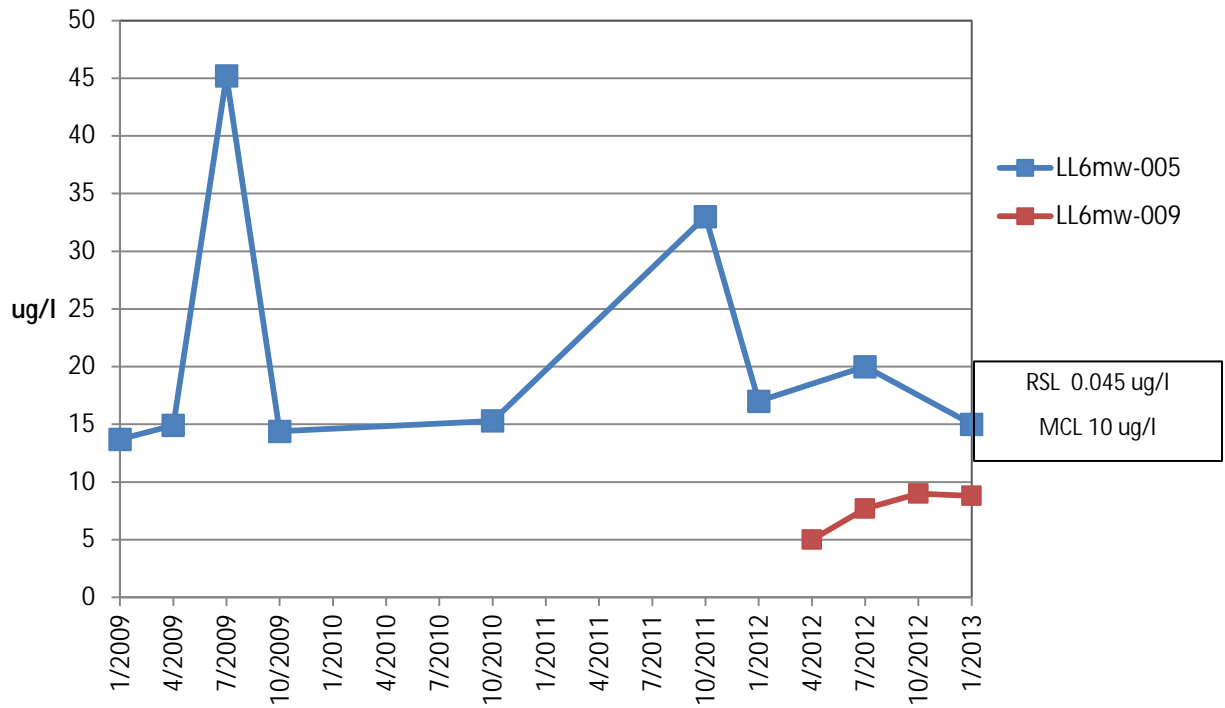
### Load Line 4 Iron (bedrock)



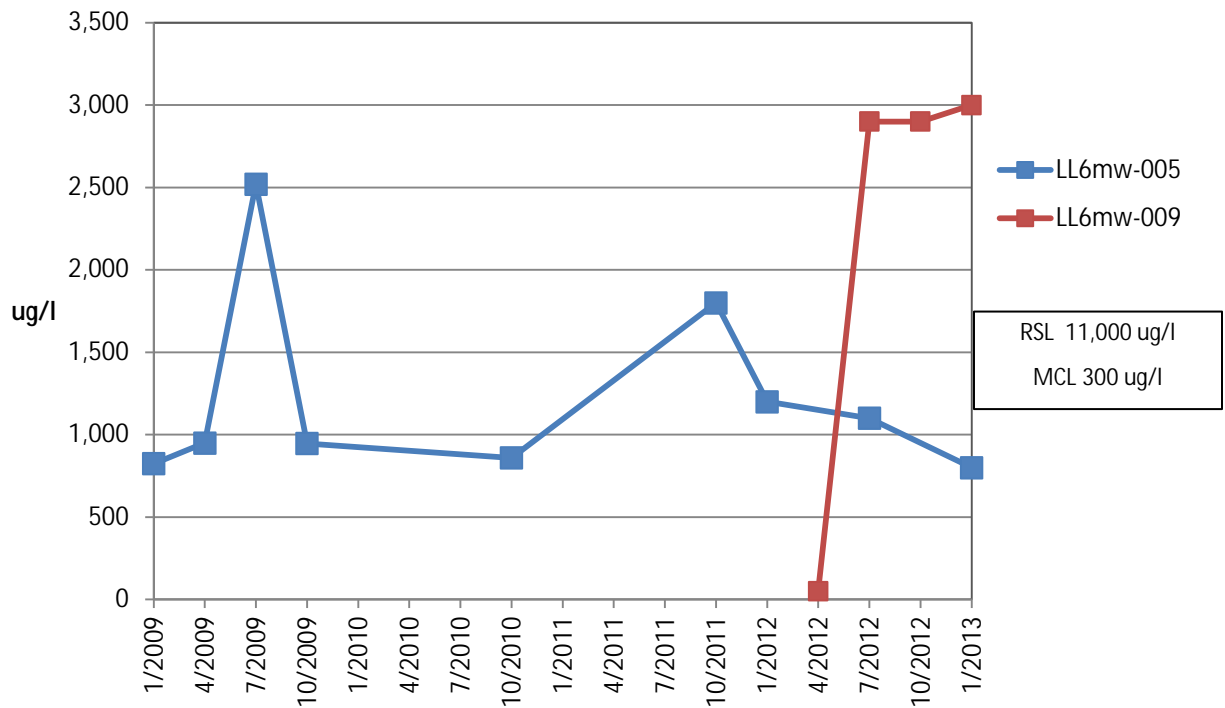
### Load Line 4 Manganese (bedrock)



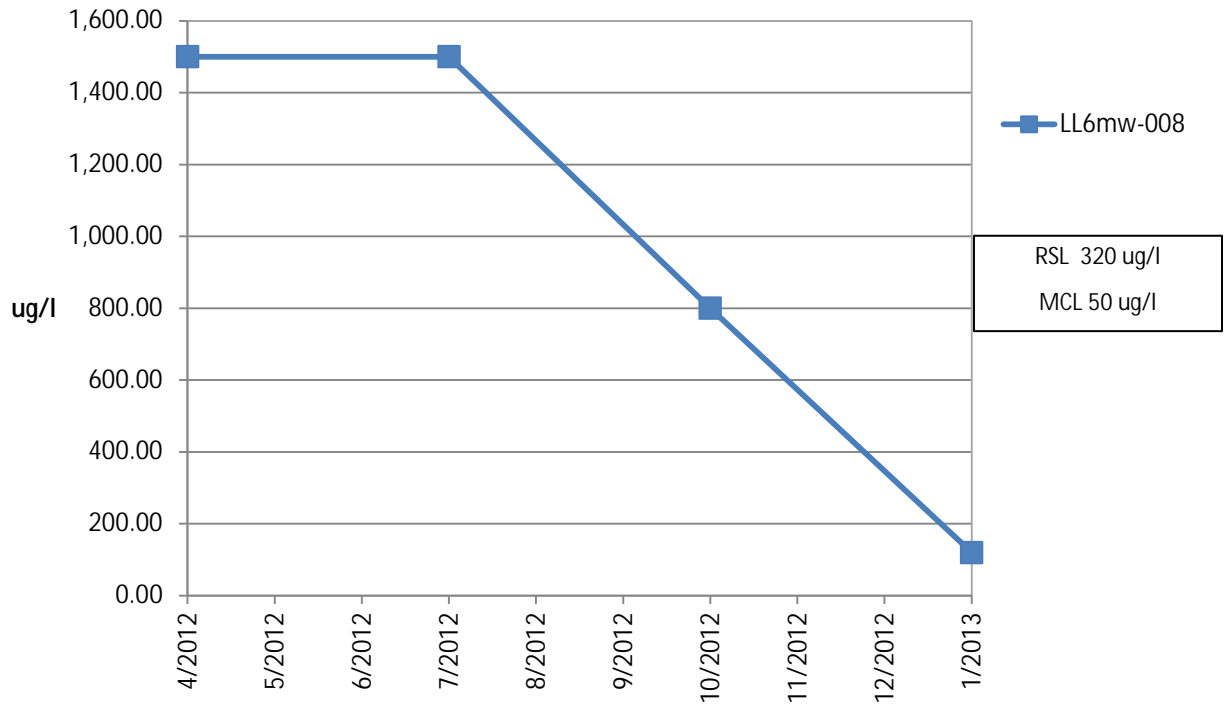
### Load Line 6 Arsenic (bedrock)



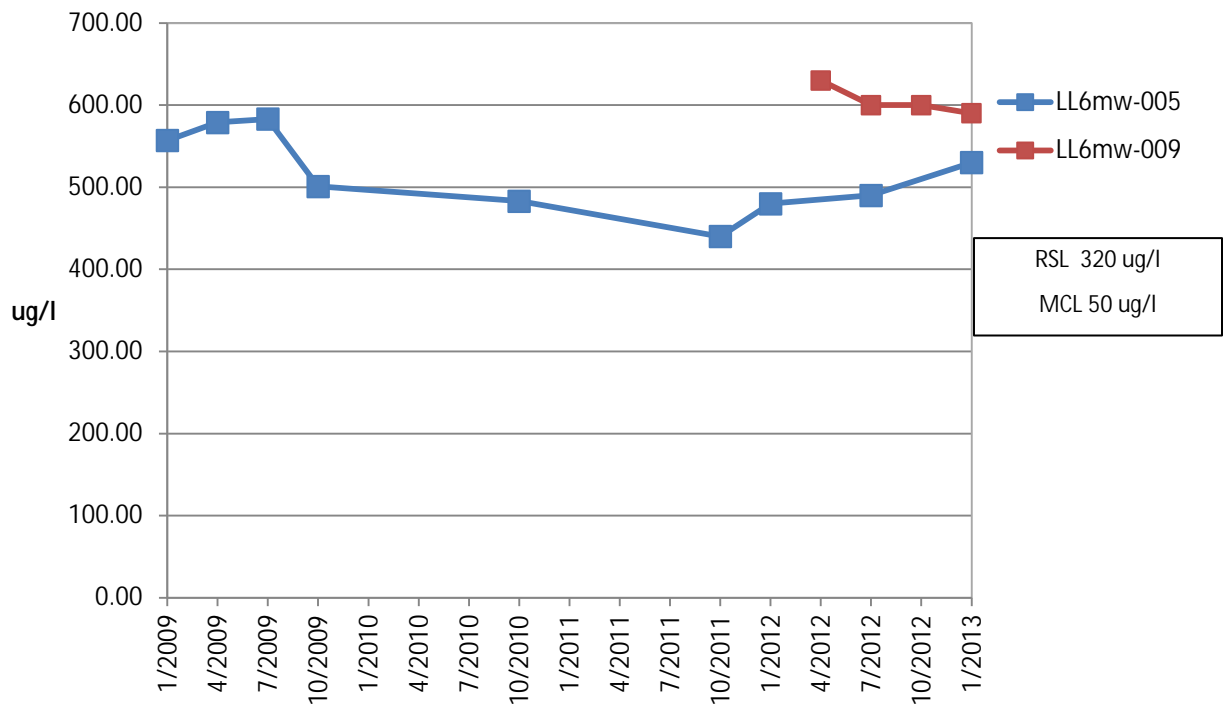
### Load Line 6 Iron (bedrock)



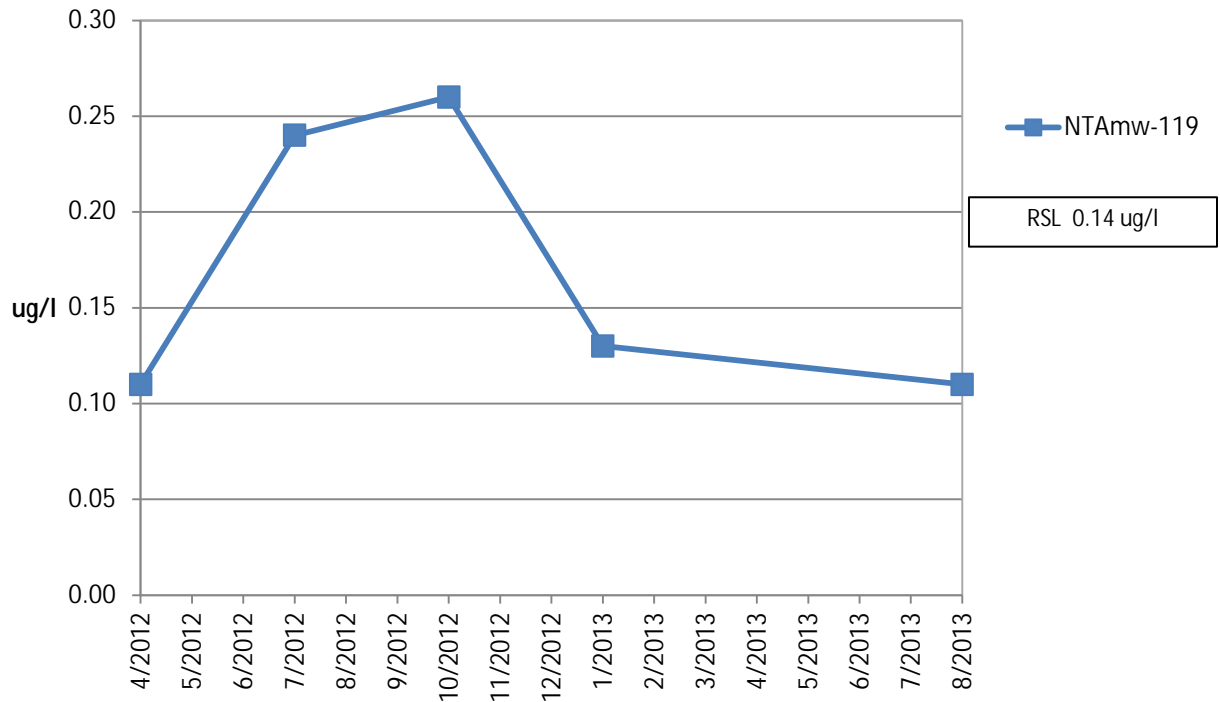
### Load Line 6 Manganese (unconsolidated)



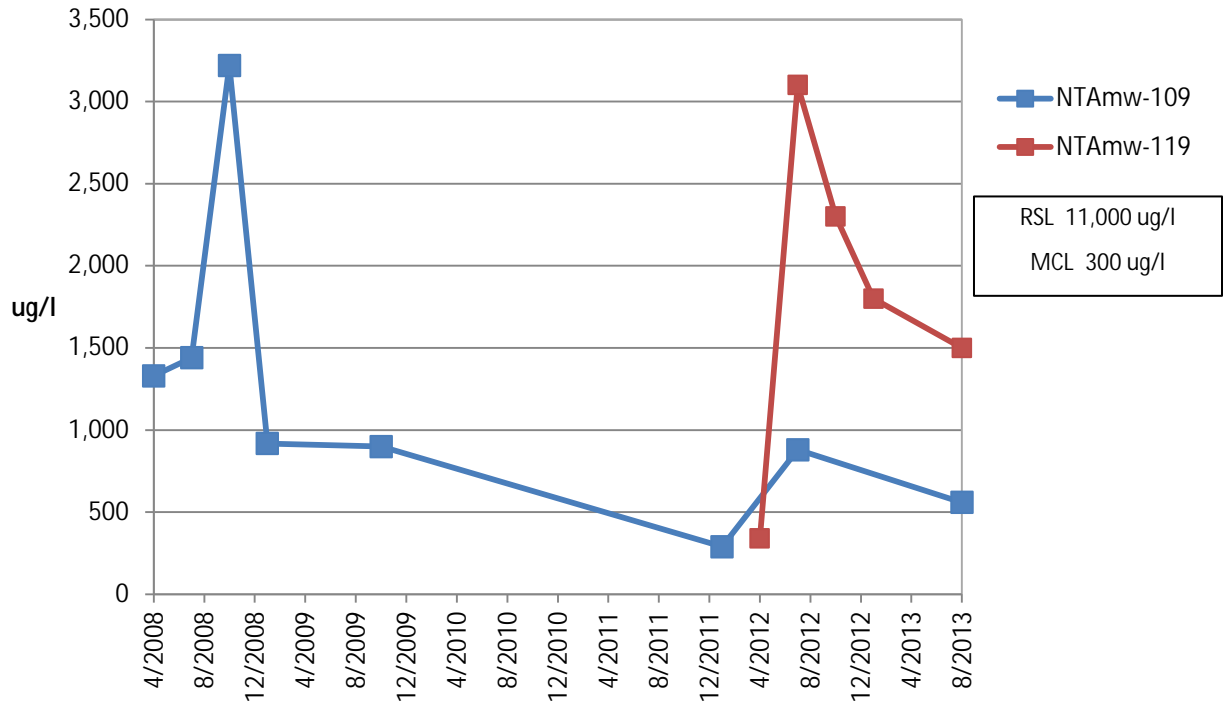
### Load Line 6 Manganese (bedrock)



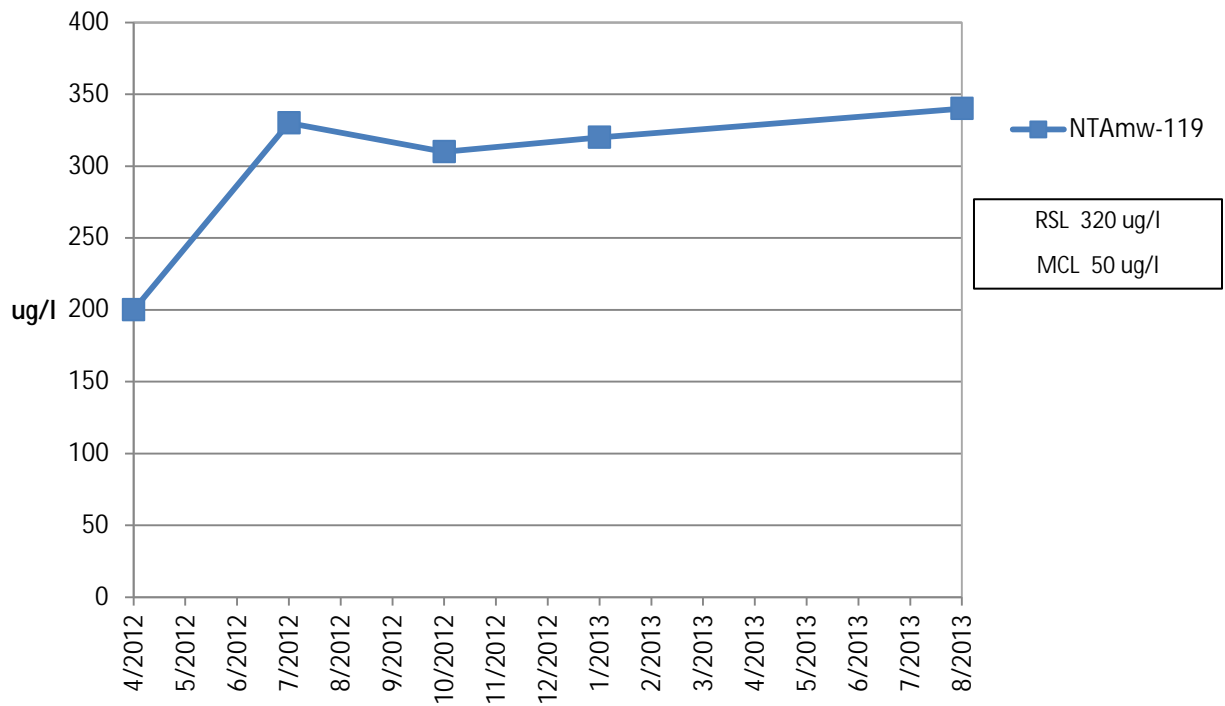
### NACA Test Area Naphthalene



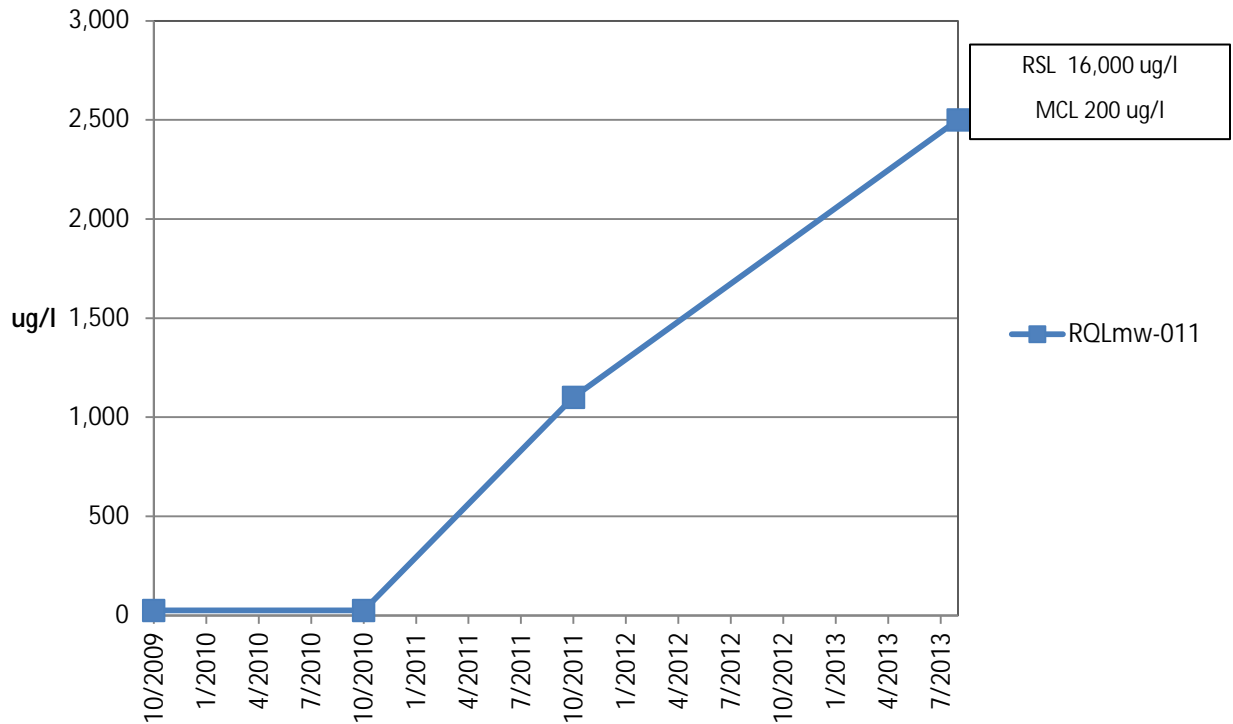
### NACA Test Area Iron (unconsolidated)



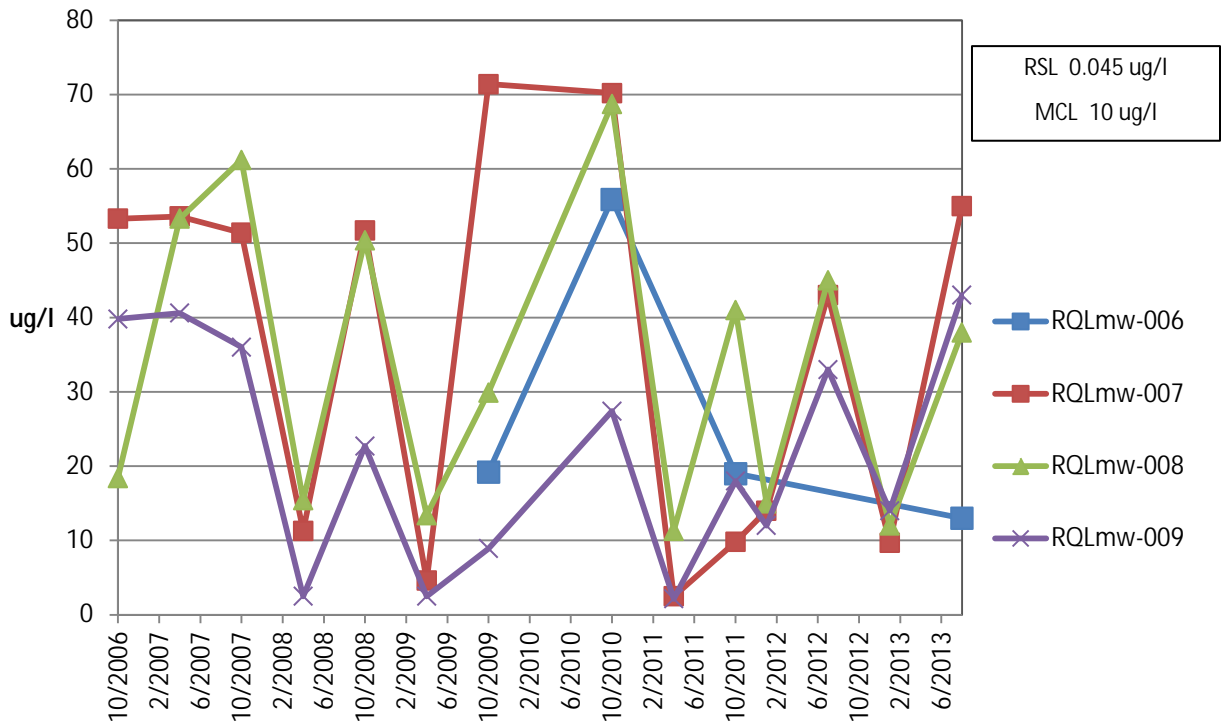
# NACA Test Area Manganese (unconsolidated)



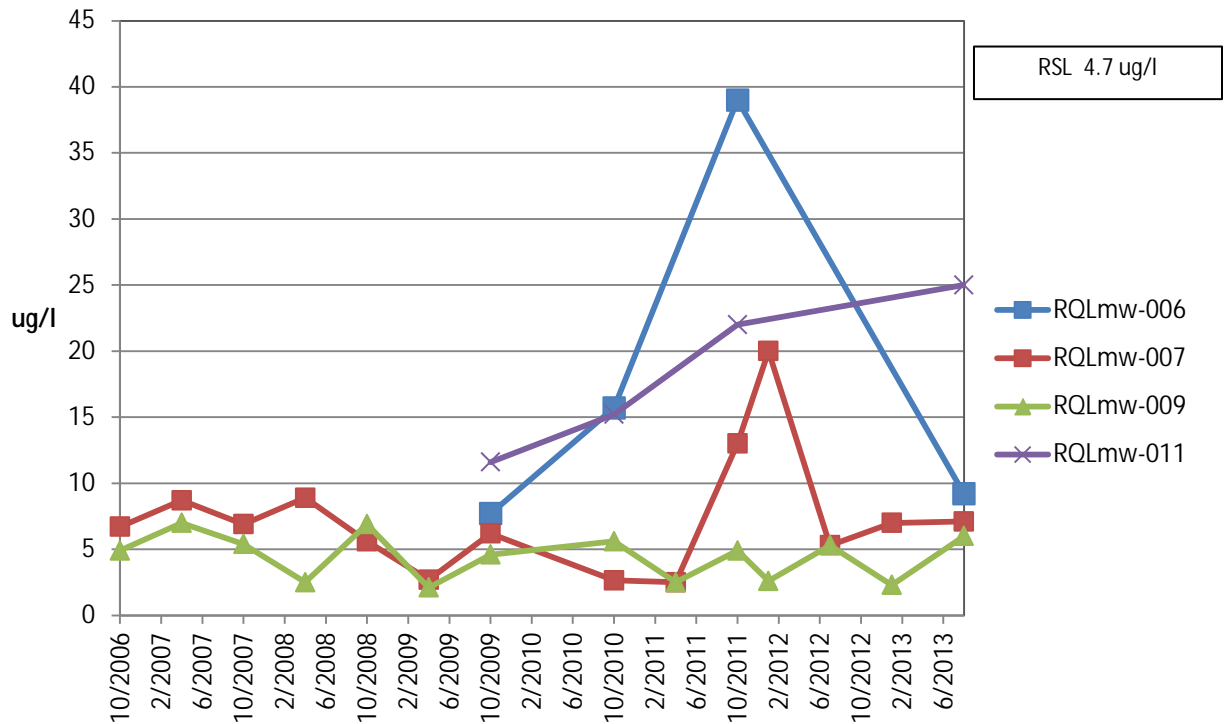
# Ramsdell Quarry Landfill Aluminum (bedrock)



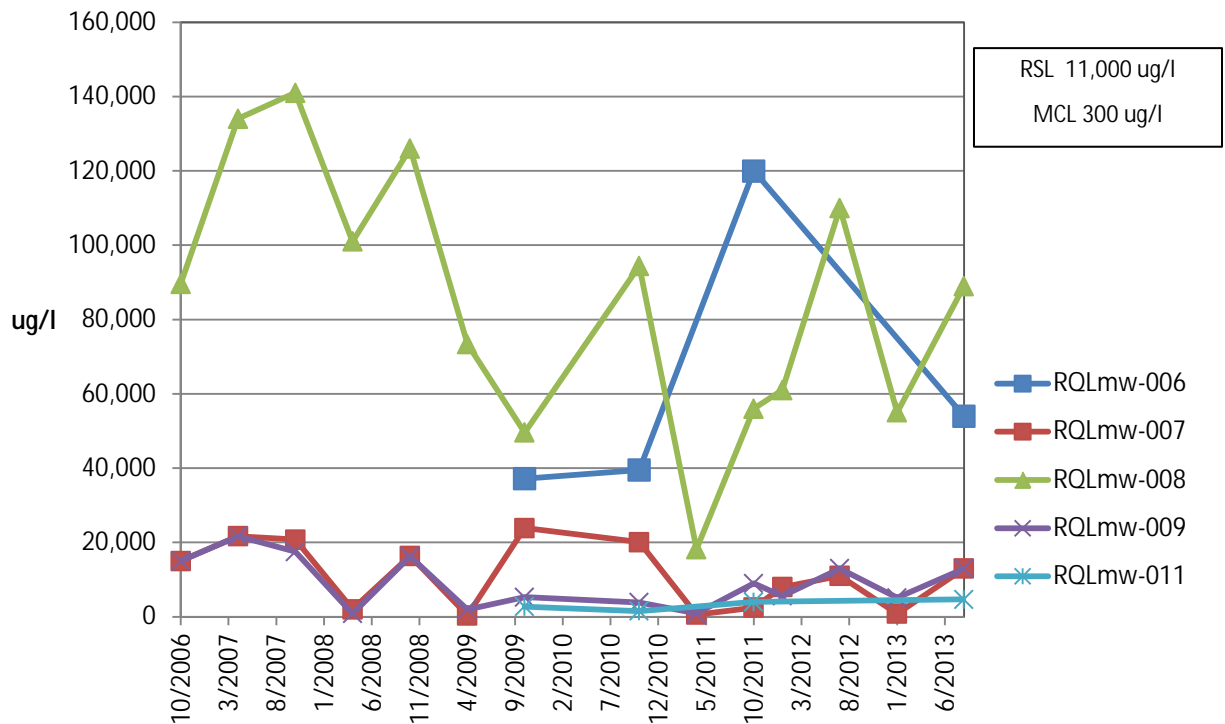
# Ramsdell Quarry Landfill Arsenic (bedrock)



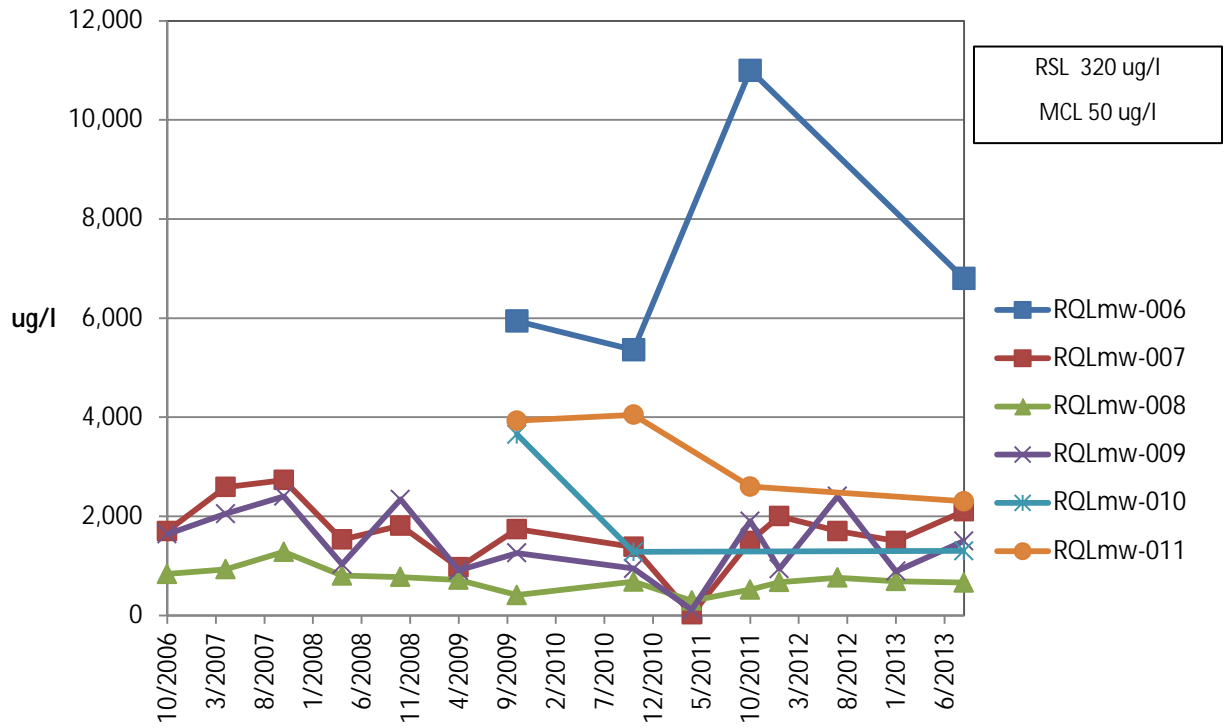
## Ramsdell Quarry Landfill Cobalt (bedrock)



## Ramsdell Quarry Landfill Iron (bedrock)

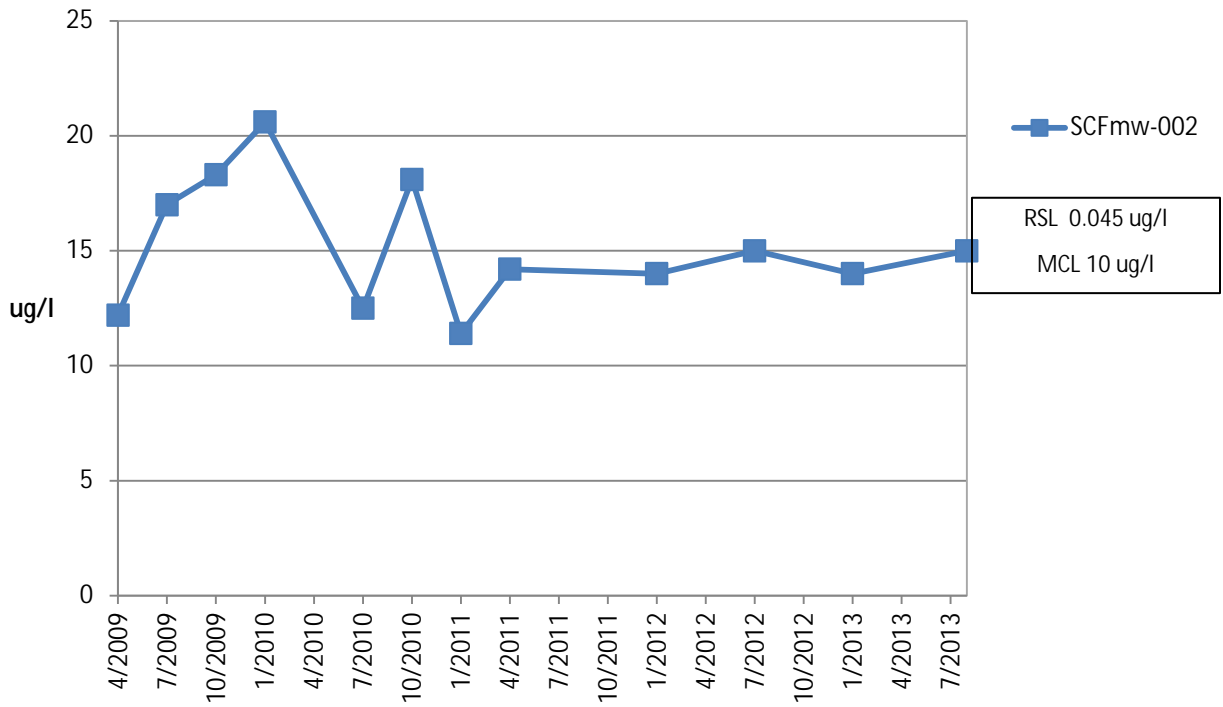


# Ramsdell Quarry Landfill Manganese (bedrock)

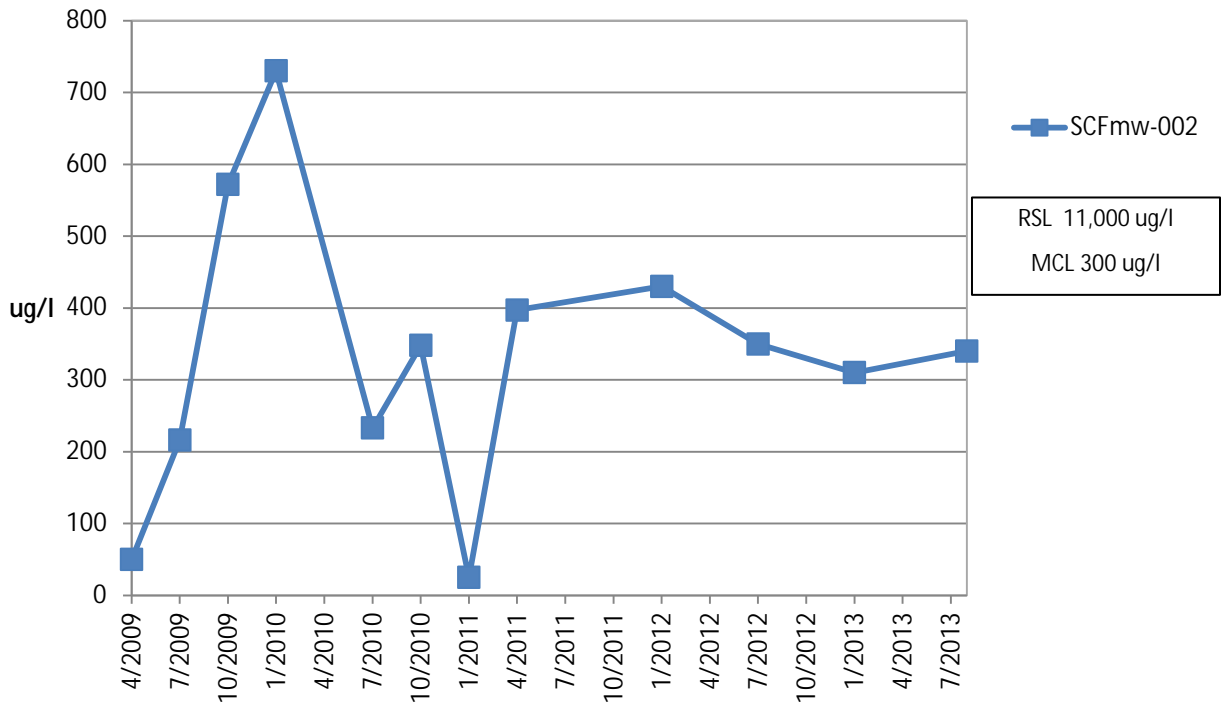




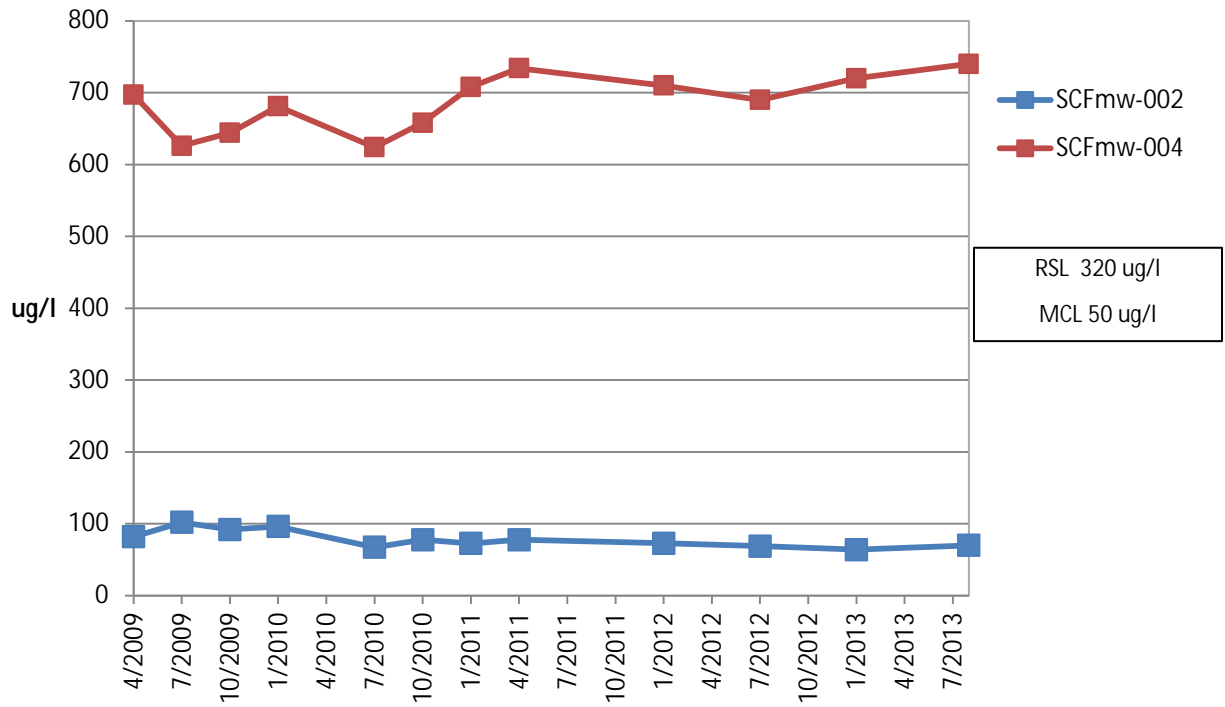
### Sharon Conglomerate Formation Arsenic (bedrock)



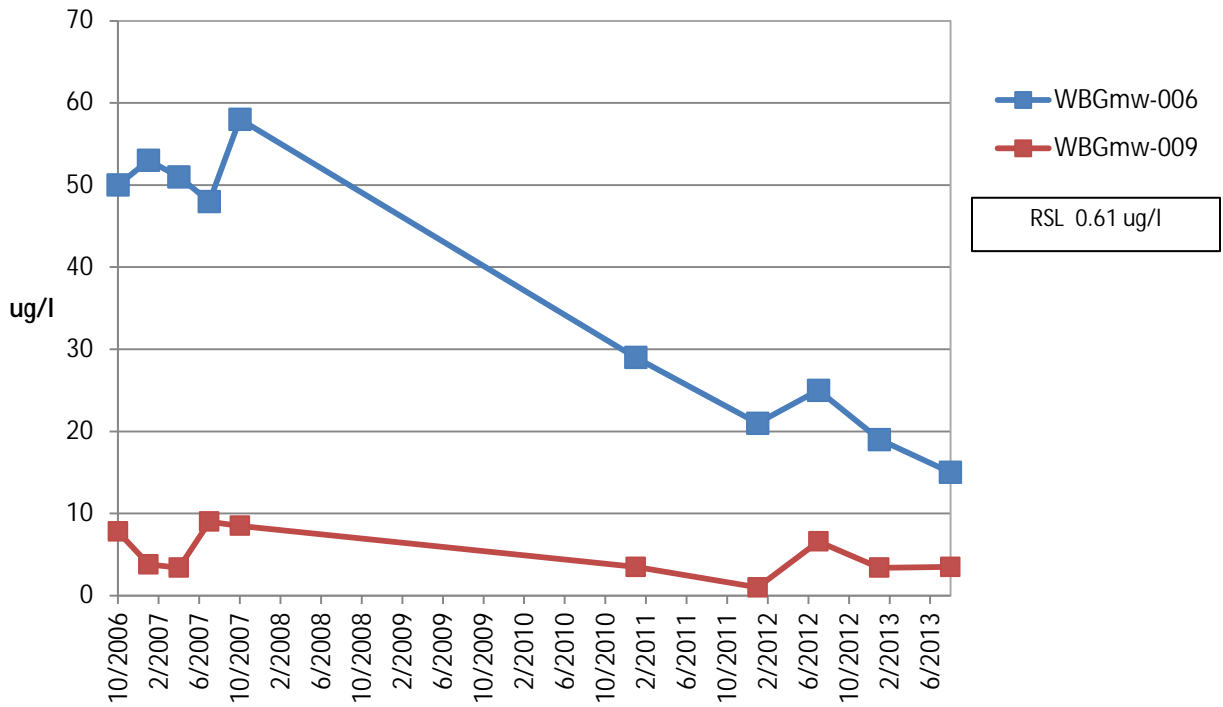
### Sharon Conglomerate Formation Iron (bedrock)



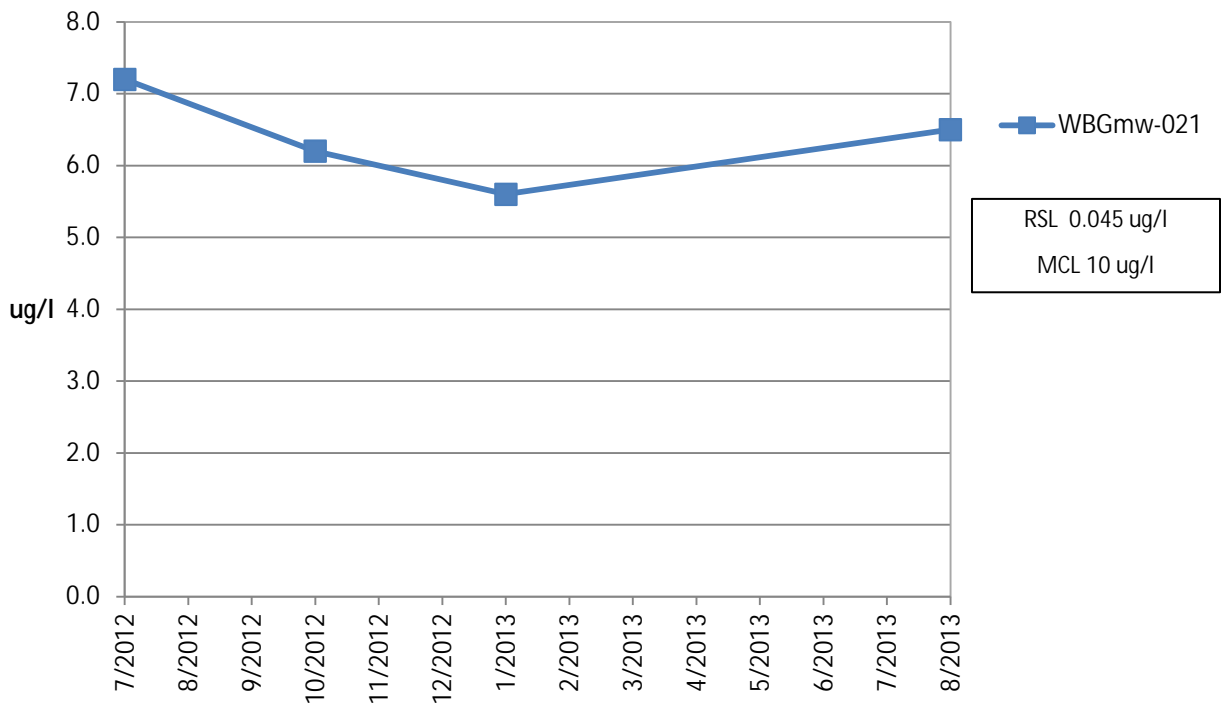
## Sharon Conglomerate Formation Manganese (bedrock)



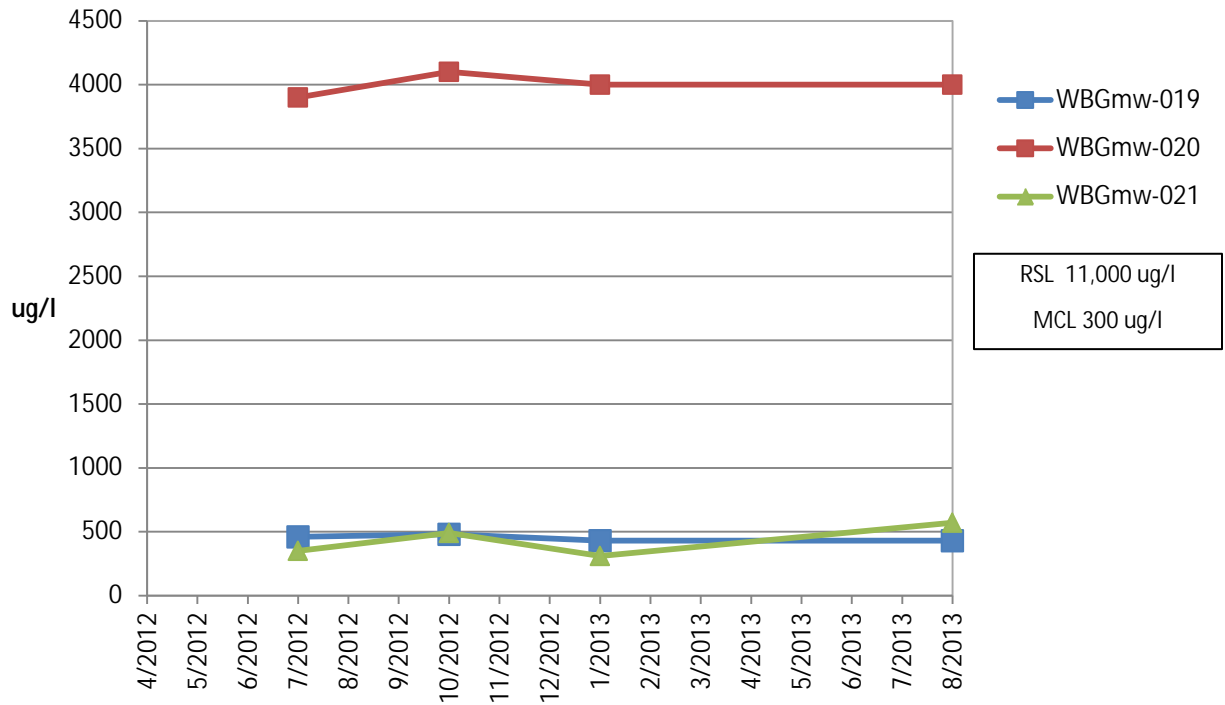
## Winklepeck Burning Grounds RDX



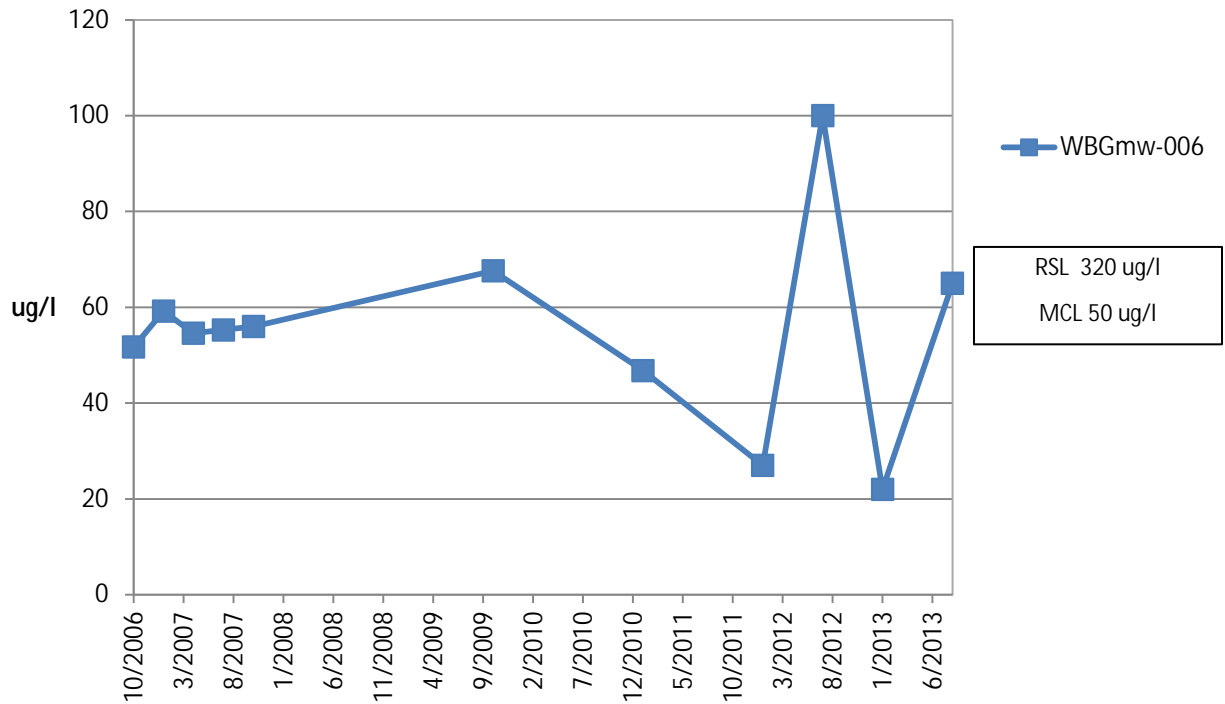
## Winklepeck Burning Grounds Arsenic (bedrock)



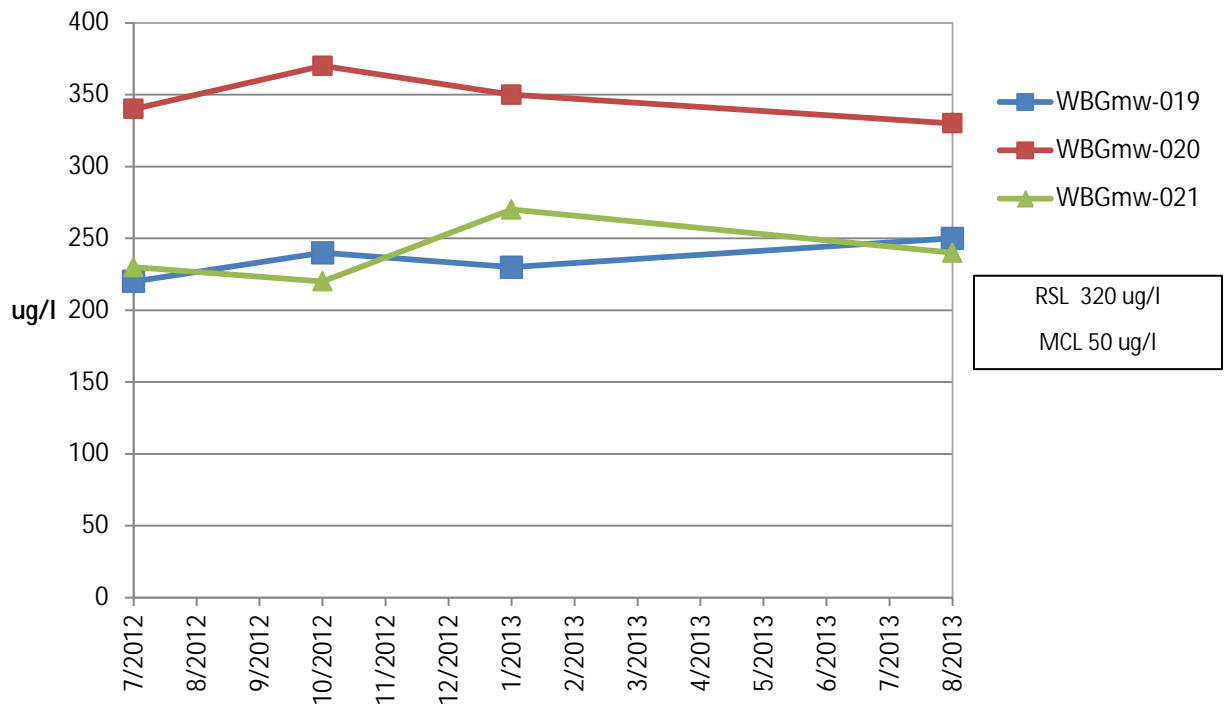
### Winklepeck Burning Grounds Iron (bedrock)



### Winklepeck Burning Grounds Manganese (unconsolidated)



# Winklepeck Burning Grounds Manganese (bedrock)



**APPENDIX G**

**CORRESPONDENCE AND COMMENTS/RESPONSES**



## NATIONAL GUARD BUREAU

111 SOUTH GEORGE MASON DRIVE  
ARLINGTON VA 22204-1373

April 30, 2014

Ohio Environmental Protection Agency  
DERR-NEDO  
Attn: Mr. Kevin Palombo  
2110 East Aurora Road  
Twinsburg, OH 44087-1924

Subject: Ravenna Army Ammunition Plant (RVAAP) Restoration Program  
Portage/Trumbull Counties  
RVAAP-66 Facility-Wide Groundwater  
Annual Report for 2013  
Ohio EPA # 267-000859-036

Dear Mr. Palombo:

On April 22, 2014 the Army received a letter of correspondence from the Ohio Environmental Protection Agency (Ohio EPA), dated April 17, 2014. The letter presented the Ohio EPA approval upon specified conditions for the *Final Facility-Wide Groundwater Monitoring Program RVAAP-66 Facility-Wide Groundwater Annual Report for 2013* for the Ravenna Army Ammunition Plant in Portage/Trumbull Counties Ohio. Enclosed please find responses to the specified conditions as well as replacement pages and electronic copies of the full document. This document was prepared for the US Army Corps of Engineers (USACE) - Louisville District, by Environmental Quality Management, Inc. under Contract No. W912QR-11-F-0266.

### Response to Comments

The following paragraphs present Ohio EPA's review comments, which are then followed by the Army's responses:

1. **Ohio EPA Comment:** It is required for Ohio EPA to receive the Response to Comments and provide approval prior to receiving a "Final" document. In the future, please provide "Final" documents after receiving approval, in accordance with DFFOs Paragraph 40.

**Army Response:** Agreed, the Army will await Ohio EPA approval prior to issuing future "Final" documents.

2. **Ohio EPA Comment:** In the Response to Ohio EPA Comments letter dated February 21, 2014, the Ohio EPA does not concur with the response to comment 5. Ohio EPA has a concern that this well has shown pH values greater than 9. The Army needs to determine whether this is a short term anomaly or due to sampling/equipment error. The Army's Response states that "Well FWGmw-002 is not currently included in the semiannual monitoring events; however, EQM will monitor pH level in this well during the next two events to determine whether this is a trend, short term

Subject: Facility-Wide Groundwater Monitoring Program RVAAP-66 Facility-Wide Groundwater Annual Report for 2013 Ravenna Army Ammunition Plant Restoration Program, Portage/Trumbull Counties, Ohio

anomaly/variation in groundwater quality, or simply due to sampling/equipment error.”

Ohio EPA will require this well to be placed on the semiannual sampling schedule, if pH values continue to be elevated over the next two monitoring periods.

**Army Response:** Agreed. The following text will be inserted into Section 3.3.2: *FWGmw-002 is currently scheduled to be purged in May and July 2014 and sampled for field pH. If pH values continue to be elevated over these next two monitoring periods this well will be placed on the semiannual sampling schedule.*

In addition to the response to comments above this submittal includes 1 hard copy, and 2 electronic copies on CDs. Please note that only replacement pages are being submitted for the printed copies. The CDs contain the full document. The Change Page Instruction Sheet is attached. Finalization of this document will occur in accordance with the Director's Final Findings and Orders upon receipt of the Ohio Environmental Protection Agency approval letter. Note that an additional electronic copy on CD will be sent via express mail to J. Burke of the Ohio EPA.

Please contact the undersigned at (703) 601-7785 or [brett.a.merkel.civ@mail.mil](mailto:brett.a.merkel.civ@mail.mil) if there are issues or concerns with this submission.

Sincerely,



Brett A. Merkel  
RVAAP Restoration Program Manager  
Army National Guard Directorate

cc: Nancy Zikmanis, Ohio EPA, NEDO-DERR  
Rod Beals, Ohio EPA, NEDO-DERR  
Justin Burke, Ohio EPA, CO-DERR  
Kevin Sedlak, ARNG, Camp Ravenna  
Katie Tait, OHARNG Camp Ravenna  
Mark Nichter, USACE Louisville  
Gail Harris, Vista Sciences





**NATIONAL GUARD BUREAU**  
111 SOUTH GEORGE MASON DRIVE  
ARLINGTON VA 22204-1373

February 21, 2014

Ohio Environmental Protection Agency  
DERR-NEDO  
Attn: Kevin Palombo, Environmental Specialist  
2110 East Aurora Road  
Twinsburg, OH 44087-1924

Subject: Ravenna Army Ammunition Plant (RVAAP) Restoration Program  
Portage/Trumbull Counties, RVAAP-66 Facility-Wide Groundwater  
Ohio EPA ID # 267-000859-036

Dear Mr. Palombo:

The Army is submitting this letter of correspondence in support of the Facility-Wide Groundwater Monitoring Program (FWGWMP) for the Ravenna Army Ammunition Plant (RVAAP), Ravenna, Ohio. This correspondence was prepared by the US Army Corps of Engineers (USACE) - Louisville District, with the assistance of Environmental Quality Management, Inc. (EQM) under Contract No. W912QR-11-F-0266.

This letter provides responses to the Ohio EPA's review comments regarding the *"FWGWMP Draft Facility-Wide Groundwater Annual Report for 2013, dated December 11, 2013, and Draft Report on the August 2013 Sampling Event, dated December 19, 2013."* Ohio EPA's letter was submitted February 4, 2014, and received by the Army on February 6, 2014. The Army requests Ohio EPA's review and concurrence with the Army's response to comments.

**Response to Comments**

The Army understands the Ohio EPA's review comments may be applicable to both of the Army's subject documents. The following paragraphs present Ohio EPA's review comments, which are then followed by the Army's responses:

1. **Ohio EPA Comment: The version of RSLs used in the report needs to be clarified.** Ground water sampling results were compared to Ohio EPA and U.S. EPA Regional Screening Levels (RSLs) for tap water. The RSLs were most recently updated in November 2013. The report does not state what version of the RSLs was utilized. This clarification needs to be added.

**Army Response:** The Army used the revised November 2013 RSLs for the comparison. A footnote has been added to Tables 4-2 and 4-3 to this effect. Additionally, the tables in the August 2013 report will also have this footnote added.

2. **Ohio EPA Comment: MCL and RSL for cyanide need to be correctly cited.** The text of the report incorrectly states (page viii): "...there is no MCL for cyanide." However, Tables 4-2 and 4-3 correctly listed the MCL for cyanide, which is 0.2 mg/L. Also, pages 48, 50, and 59 of Table 4-2 incorrectly indicate that the tap water RSL for cyanide is 0 mg/L. The current tap water RSL for cyanide, 0.0014 mg/L, is correctly listed in Table 4-3. The text on page viii needs to be

Subject: Army responses to Ohio EPA's review comments regarding the "FWGWMP Draft Facility-Wide Groundwater Annual Report for 2013, dated December 11, 2013, and Draft Report on the August 2013 Sampling Event, dated December 19, 2013." Ravenna Army Ammunition Plant Restoration Program, Portage/Trumbull Counties, RVAAP-66 Facility-Wide Groundwater, Ohio EPA ID # 267-000859-036

changed to indicate that there is a MCL for cyanide, and pages 48, 49, and 59 of Table 4-2 needs to list the correct RSL for cyanide. These discrepancies need to be corrected.

**Army Response:** The text on page viii will be revised as follows "*cyanide exceeded the RSL but not the MCL in three wells.*" Pages 48, 49, and 59 of Table 4-2 have been corrected with the correct RSL values.

3. **Ohio EPA Comment: The rate, extent, and concentration of chemicals of potential concern (COPCs) in the vicinity of LL3mw-244 need to be determined.** Well LL3mw-244, screened in the Upper Sharon Aquifer, is located in the vicinity of Load Line 3, approximately 40 feet north and hydraulically upgradient of the southern boundary fence line. The concentration of hexavalent chromium in LL3mw-244 during the October 2012 and January and August 2013 sampling events consistently exceeded the RSL for that compound. Page 106 of the report indicates that well LL3mw-244 has consistently contained explosive constituents at low levels (below RSLs). Further, page 106 states:

*Based on this information the extent of explosives in ground water has not been defined south-southwest of LL3mw-244.*

COPCs may be migrating in the Upper Sharon Aquifer off the facility's property, and to the south-southwest.

Further, it is our understanding that new wells PW-1, PW-2, and PW-3, located near the eastern and southeastern property lines, were installed in December 2013. At this writing, data from these new wells were not available.

The rate, extent, and concentration of hexavalent chromium and explosive constituents in the vicinity of that portion of the southern facility boundary line near Load Line 3 need to be determined. Hopefully, the installation of the additional monitoring wells will provide this information.

**Army Response:** The Ohio EPA is correct. The Army installed new wells near the eastern and southeastern property lines down-gradient of Load Lines 1-3 in December 2013. This included a new RI well (LL3mw-246) installed hydraulically down-gradient of well LL3mw-244. The new RI well was sampled in January 2014 and the results are currently pending. Until the groundwater laboratory results are received and evaluated, no other statements can be made regarding potential off-RVAAP impacts in this area of the site.

4. **Ohio EPA Comment: The concentration of hexavalent chromium in LL3mw-244 needs to be accurately and consistently described throughout the report.** The report (Table 4-2, page 55) indicates that the concentrations of hexavalent chromium exceeded its respective RSL during the October 2012 and January and August 2013 sampling events. Confusingly, page 85-86 of the report indicates that the only constituent that exceeded the MCL or RSL in LL3mw-244 during the reporting period was beta-BHC. Page 85 through 86 of the report need to be revised to

Subject: Army responses to Ohio EPA's review comments regarding the "FWGWMP Draft Facility-Wide Groundwater Annual Report for 2013, dated December 11, 2013, and Draft Report on the August 2013 Sampling Event, dated December 19, 2013." Ravenna Army Ammunition Plant Restoration Program, Portage/Trumbull Counties, RVAAP-66 Facility-Wide Groundwater, Ohio EPA ID # 267-000859-036

indicate that the concentrations of hexavalent chromium in LL3mw-244 consistently exceeded the RSL during the reporting period. This issue needs to be addressed.

**Army Response:** The following bullet will be added to page 86 of the 2013 Annual report:

- *Hexavalent chromium exceeded the RSL during the October 2012, January 2013, and August 2013 sampling events. There is no MCL for hexavalent chromium. The hexavalent chromium concentrations ranged from 0.143 to 0.361 µg/L during the three sampling events; all three detections were qualified as estimated values.*

**5. Ohio EPA Comment: There is a concern with the high pH value in FWGmw-002.**

According to the report, the measured pH value of greater than 9 in FWGmw-002 may be indicative that the well has been impacted. The report ambiguously states (page 39):

*EQM will monitor the pH in the future, if it is part of the FWGMP network.*

The facility needs to determine whether there is a pH impact in FWGmw-002, or if the elevated pH value represents a short term anomaly/variation in ground water quality, or is due to sampling and/or equipment error. This issue needs to be addressed.

**Army Response:** Well FWGmw-002 is located on the north side of RVAAP and is up-gradient of former operations at the site. This well was sampled in October 2012 and January 2013. Based on the constituent concentrations identified in well FWGmw-002 during these two sampling events, there is no residual contamination present that would account for the higher pH response. This well is not currently included in the semiannual monitoring events; however EQM will monitor the pH level in this well during the next two sampling events to determine whether this is a trend, short term anomaly/variation in groundwater quality, or simply due to sampling/equipment error.

**6. Ohio EPA Comment: The apparent sharp decrease in the number of BEHP detections above the RSL and/or MCL in 2013 compared to the 2012 reporting period needs to be explained.**

According to the *FWGWMP Annual Report for 2013*, BEHP was identified at concentrations above the compound's MCL and RSL in only two wells (FWGmw-010 and FWGmw-011) for one sampling event each during the 2013 reporting period. Whereas, according to the previously reviewed *FWGWMP Annual Report for 2012*, BEHP was identified at concentrations above the compound's MCL and/or RSL in 65 monitoring wells for at least one sample event during the 2012 reporting period.

It is not clear why there has been an apparently large decline in the frequency at which BEHP is detected above the RSL and/or MCL during the reporting period. This issue needs to be evaluated and explained.

**Army Response:** The *FWGWMP Annual Report for 2012* included the quarterly reports for October 2011, January 2012, April 2012, and July 2012. The RSLs updated in April 2012 were used for comparison in the 2012 Annual Report. In April 2012, the RSL for BEHP was 0.071

Subject: Army responses to Ohio EPA's review comments regarding the "FWGWMP Draft Facility-Wide Groundwater Annual Report for 2013, dated December 11, 2013, and Draft Report on the August 2013 Sampling Event, dated December 19, 2013." Ravenna Army Ammunition Plant Restoration Program, Portage/Trumbull Counties, RVAAP-66 Facility-Wide Groundwater, Ohio EPA ID # 267-000859-036

µg/L. Beginning in November 2012, the RSL for BEHP was revised to 4.8 µg/L; this value remained unchanged during the May 2013 and November 2013 updates. [Historically, the Region IX Preliminary Remediation Goal (PRG) for BEHP was also 4.8 µg/L.] A preliminary review of the 2012 annual data (i.e., data from October 2011 and January, April, and October 2012) shows only four occurrences in which BEHP exceeds the current RSL of 4.8 µg/L.

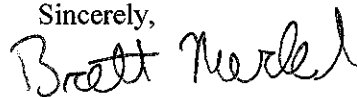
#### Statement

**Ohio EPA Statement:** The quality of potentiometric maps has improved. The quality of the potentiometric maps submitted has improved and represent a more realistic interpretation of ground water flow compared to previous such submissions.

**Army Response:** Acknowledged. The Army appreciates the Ohio EPA's assistance in improving the quality of the potentiometric maps.

Please contact the undersigned at (703) 601-7785 or [brett.a.merkel.civ@mail.mil](mailto:brett.a.merkel.civ@mail.mil) if there are issues or concerns with this submission.

Sincerely,



Brett A. Merkel  
RVAAP Restoration Program Manager  
Army National Guard Directorate

cc: Nancy Zikmanis, Ohio EPA, DERR-NEDO  
Rod Beals, Ohio EPA, DERR-NEDO  
Justin Burke, Ohio EPA  
Kevin Sedlak, ARNG, Camp Ravenna  
Katie Tait, OHARNG Camp Ravenna  
Glen Beckham, USACE Louisville  
Nat Peters, USACE Louisville  
Eric Cheng, USACE Louisville  
Gail Harris, Vista Sciences



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

February 4, 2014

Mr. Brett Merkel  
Army National Guard Directorate  
ARNGD-ILE Clean Up  
111 South George Mason Drive  
Arlington, VA 22203

**RE: RAVENNA ARMY AMMUNITION PLANT, PORTAGE/TRUMBULL COUNTIES,  
COMMENT LETTER RE: FWGWMP DRAFT FACILITY-WIDE GROUND  
WATER ANNUAL REPORT FOR 2013, DATED DECEMBER 11, 2013 AND  
DRAFT REPORT ON THE AUGUST 2013 SAMPLING EVENT, DATED  
DECEMBER 19, 2013, OHIO EPA ID # 267-000859-036**

Dear Mr. Merkel:

The Ohio Environmental Protection Agency (Ohio EPA) has received and reviewed the "Draft Facility-Wide Groundwater Monitoring Program (FWGWMP) RVAAP-66 Facility-Wide Ground Water Annual Report for 2013 at the Ravenna Army Ammunition Plant (RVAAP), Ravenna, Ohio." This document was received at Ohio EPA's Northeast District Office (NEDO), Division of Environmental Response and Revitalization (DERR), on December 12, 2013 and is dated December 11, 2013. Ohio EPA also received the "FWGWMP RVAAP-66 Facility-Wide Groundwater Report on the August 2013 Sampling Event," at NEDO on December 20 and is dated December 19, 2013. Both documents were prepared for the U.S. Army Corps of Engineers (USACE) - Louisville District, by Environmental Quality Management, Inc. (EQM), under Contract No. GS-10F-0293K.

The Annual Report summarizes the results of the ground water sampling events conducted October 15-17, 2012; January 21-25, 2013; and August 19-21, 2013. Note: Beginning in January, 2013, sampling frequency was changed from quarterly to semiannual (scheduled to occur in January and July). To date, all 281 FWGWMP wells at the facility have been sampled at least four quarters.

It is noted that the data package for the August 2013 Sampling Event was received by this office after the Annual Report, which included the August 2013 data. In the future,

**E-MAILED**  
02-06-2014 BWH

**Scanned**

By: BWH  
Date: 02-06-2014

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

**RECEIVED**  
02-06-2014



all data packages for the year should be received by this office before the Annual Report is submitted.

Comments on the document, based on Ohio EPA review, are provided below. These comments may also be applicable to the August 2013 Sampling Event data package and should be addressed in both reports. Please provide responses to the enclosed comments in accordance with the Directors Findings and Orders.

### COMMENTS

- #1. **The version of RSLs used in the report needs to be clarified.** Ground water sampling results were compared to Ohio EPA and U.S. EPA regional Screening Levels (RSLs) for tap water. The RSLs were most recently updated in November 2013. The report does not state what version of the RSLs was utilized. This clarification needs to be added.
- #2. **MCL and RSL for cyanide need to be correctly cited.** The text of the report incorrectly states (page viii): "...there is no MCL for cyanide". However, Tables 4-2 and 4-3 correctly listed the MCL for cyanide, which is 0.2 mg/L. Also, pages 48, 50, and 59 of Table 4-2 incorrectly indicate that the tap water RSL for cyanide is 0 mg/L. The current tap water RSL for cyanide, 0.0014 mg/L, is correctly listed in Table 4-3. The text on page viii needs to be changed to indicate that there is a MCL for cyanide, and pages 48, 49, and 59 of Table 4-2 needs to list the correct RSL for cyanide. These discrepancies need to be corrected.
- #3. **The rate, extent, and concentration of chemicals of potential concern (COPCs) in the vicinity of LL3mw-244 need to be determined.** Well LL3mw-244, screened in the Upper Sharon Aquifer, is located in the vicinity of Load Line 3, approximately 40 feet north and hydraulically upgradient of the southern boundary fence line. The concentration of hexavalent chromium in LL3mw-244, during the October 2012, January and August 2013 sampling events, consistently exceeded the RSL for that compound. Page 106 of the report indicates that well LL3mw-244 has consistently contained explosive constituents at low levels (below RSLs). Further, page 106 of the report states:

*Based on this information the extent of explosives in ground water has not been defined south-southwest of LL3mw-244.*

COPCs may be migrating in the Upper Sharon Aquifer off the facility's property, and to the south-southwest.

Further, it is our understanding that new wells PW-1, PW-2 and PW-3, located near the eastern and southeastern property lines were, installed in December, 2013. At this writing, data from these new wells were not available.

The rate, extent, and concentration of hexavalent chromium and explosive constituents in the vicinity of that portion of the southern facility boundary line near Load Line 3 need to be determined. Hopefully, the installation of the additional monitoring wells will provide this information.

- #4. The concentration of hexavalent chromium in LL3mw-244 needs to be accurately and consistently described throughout the report.** The report (Table 4-2, page 55) indicates that the concentrations of hexavalent chromium exceeded its respective RSL during the October 2012, January and August 2013 sampling events. Confusingly, page 85-86 of the report indicates that the only constituent that exceeded either a MCL or RSL in LL3mw-244 during the reporting period was beta-BHC. Page 85 through 86 of the report need to be revised to indicate that the concentrations of hexavalent chromium in LL3mw-244 consistently exceeded the RSL during the reporting period. This issue needs to be addressed.
- #5. There is a concern with the high pH value in FWGmw-002.** According to the report, the measured pH value of greater than 9 in FWGmw-002 may be indicative that the well has been impacted. The report ambiguously states (page 39):

*EQM will monitor the pH in the future, if it is part of the FWGWMP network.*

The facility needs to determine whether there is a pH impact in FWGmw-002, or if the elevated pH value represents a short term anomaly/variation in ground water quality, or is due to sampling and/or equipment error. This issue needs to be addressed.

- #6. The apparent sharp decrease in the number of BEHP detections above the RSL and/or MCL in 2013 compared to the 2012 reporting period needs to be explained.** According to the *FWGWMP Annual Report for 2013*, BEHP was identified at concentrations above the compound's MCL and RSL in only two wells (FWGmw-010 and FWGmw-011) for one sampling event each during the 2013 reporting period. Whereas, according to the previously reviewed the *FWGWMP Annual Report for 2012*, BEHP was identified at concentrations above the compound's MCL and/or RSL in 65 monitoring wells for at least one sample event during the 2012 reporting period.



It is not clear why there has been an apparently large decline in the frequency at which BEHP is detected above the RSL and/or MCL during the reporting period. This issue needs to be evaluated and explained.

## Statement

**The quality of potentiometric maps has improved.** The quality of the potentiometric maps submitted has improved and represent a more realistic interpretation of ground water flow compared to previous such submissions.

Pursuant to the CERCLA process, the property owner usually can provide the expected land uses to assist in ensuring that the investigation addresses all receptors for both current and future land uses. Be advised that due to land use uncertainty, Ohio EPA may require additional work in the future, to address data gaps. It is incumbent upon the Army to finalize land use at Camp Ravenna as soon as possible, otherwise additional work and schedule slippage may result.

This document was reviewed by personnel from Ohio EPA, DERR. Ohio EPA has determined that additional information is necessary to approve the document. If you have any questions, please call me at (330) 963-1292.

Sincerely,



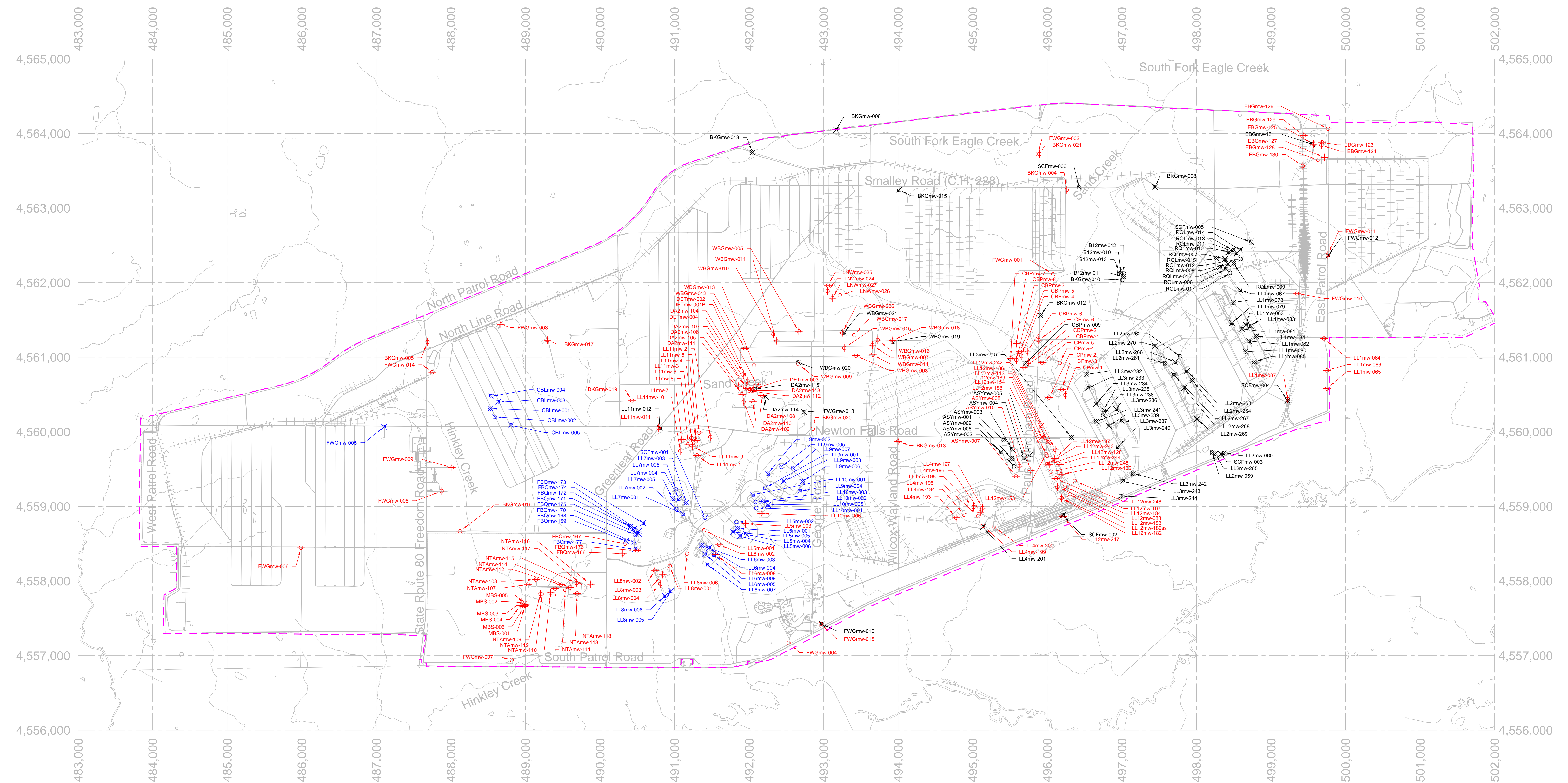
Kevin M. Palombo  
Environmental Specialist  
Division of Environmental Response and Revitalization

KP/nvr





cc: Katie Tait, OHARNG, Camp Ravenna  
Kevin Sedlak, ARNG, Camp Ravenna  
Glen Beckham, USACE, Louisville  
Mark Nichter, USACE  
Rebecca Haney/Gail Harris, Vista Sciences

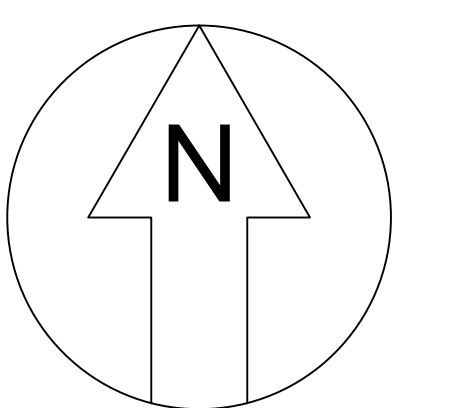
ec: Nancy Zikmanis, Ohio EPA, NEDO, DERR  
Justin Burke, Ohio EPA, CO, DERR  
Al Muller, Ohio EPA NEDO, DDAGW  
Rod Beals, Ohio EPA, NEDO, DERR





### LEGEND

-  SHARON MEMBER WELL  
 UNCONSOLIDATED WELL  
 HOMEWOOD MEMBER WELL  
 PROPERTY LINE

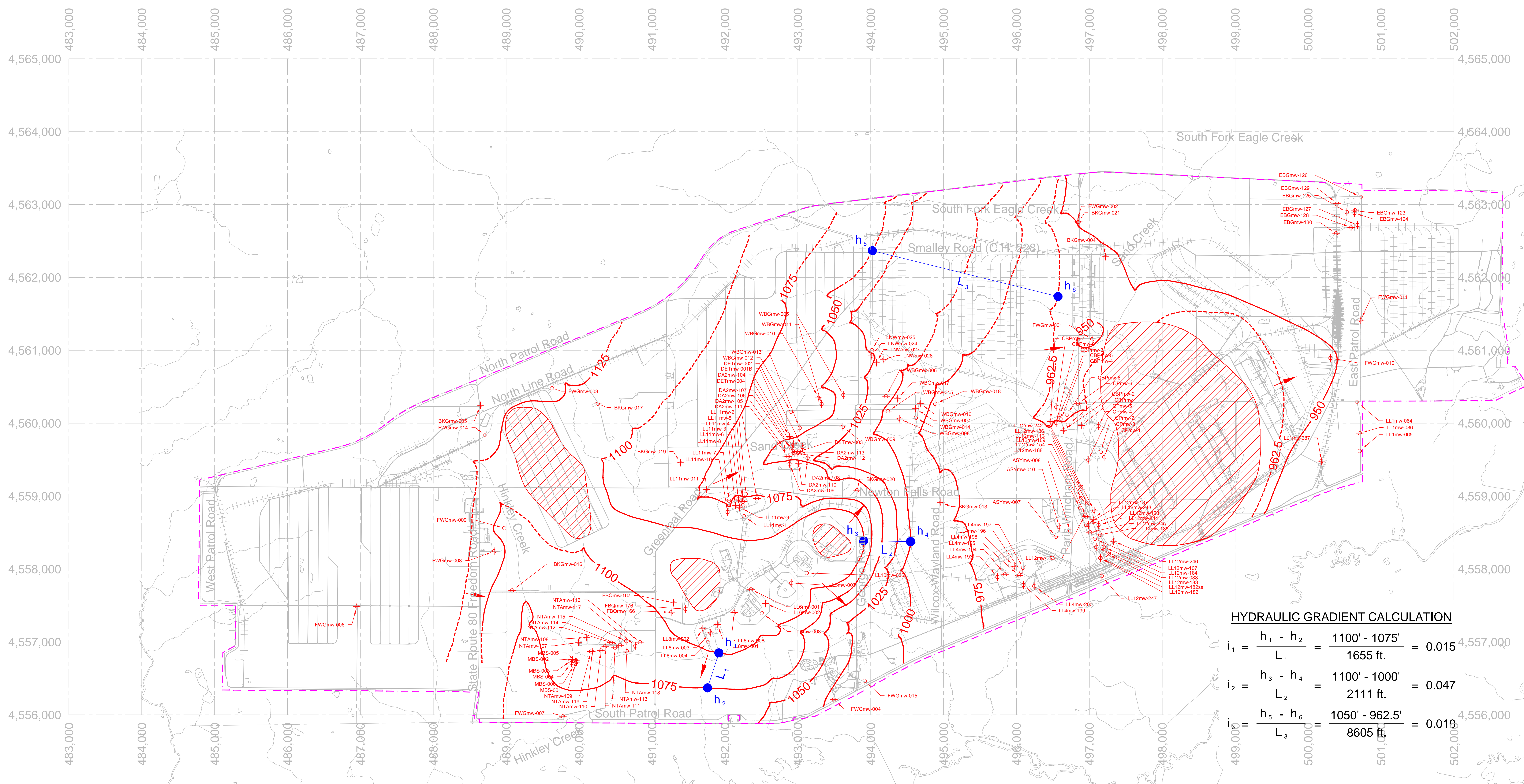


0 500 1000  
SCALE (METERS)

COORDINATE SYSTEM UTM NAD 83 ZONE 17

				 <p><b>ENVIRONMENTAL QUALITY</b></p> <p>1800 CARLSON BLVD., CINCINNATI, OHIO 45240 PHONE 513.825.7500   FAX 513.825.7495 WWW.EQMI.COM</p>	DRAWN: R. RUSSELL 09-30-2013		<p><b>COORDINATE SYSTEM: NAD 83 UTM ZONE 18N</b></p> <p><b>MONITORING WELLS AT RVAAP</b></p> <table><tr><th>SIZE</th><th>PROJECT NO.</th><th>DWG NO.</th><th>REV</th></tr><tr><td>E</td><td>030174.0016</td><td>PLATE 1</td><td>0</td></tr></table>				SIZE	PROJECT NO.	DWG NO.	REV	E	030174.0016	PLATE 1	0
SIZE	PROJECT NO.	DWG NO.	REV															
E	030174.0016	PLATE 1	0															
					CHECKED: S. SPESSHARDT 10-01-2013													
				APPROVED: J. MILLER 10-01-2013														
REV	DESCRIPTION	DATE	APPROVED	SCALE: AS SHOWN														
REFVISIONS																		






### HYDRAULIC GRADIENT CALCULATION

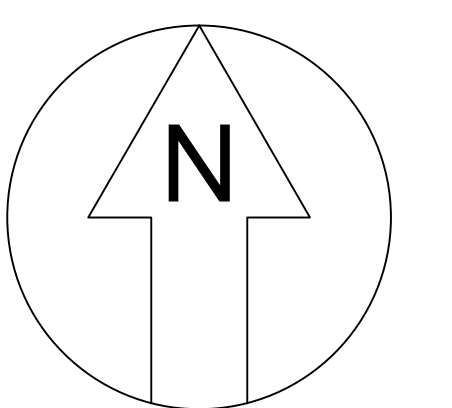
$$i_1 = \frac{h_1 - h_2}{L_1} = \frac{1100' - 1075'}{1655 \text{ ft.}} = 0.015^{4,557,000}$$

$$i_2 = \frac{h_3 - h_4}{L_2} = \frac{1100' - 1000'}{2111 \text{ ft.}} = 0.047$$

$$i_3 = \frac{h_5 - h_6}{L_3} = \frac{1050' - 962.5'}{8605 \text{ ft.}} = 0.010$$

### LEGEND


- 
 UNCONSOLIDATED WELL  
 PROPERTY LINE  
 1100----- LINE OF EQUAL GROUNDWATER ELEVATION (ft.,amsl) [DASHED WHERE INFERRED]  
 GROUNDWATER DIRECTION  
 UNCONSOLIDATED AQUIFER MISSING  
 INFERRED GROUNDWATER DIVIDE



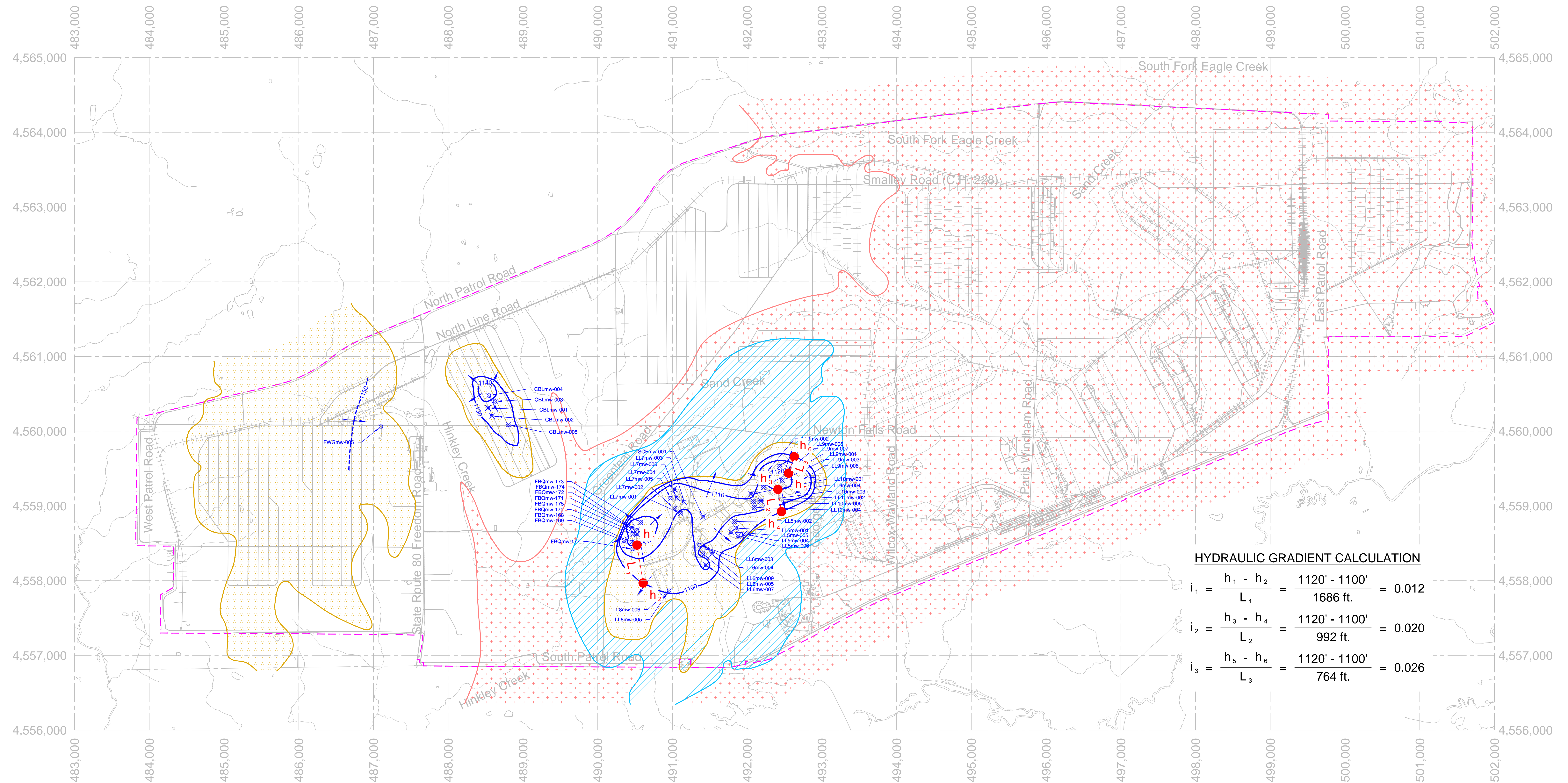
0 500 1000  
SCALE (METERS)

COORDINATE SYSTEM UTM NAD 83 ZONE 17

RVAP Area			RVAP Area			RVAP Area			RVAP Area				
Well ID	Phonometric Elevation August 2015, (mvd)		Well ID	Phonometric Elevation August 2015, (mvd)		Well ID	Phonometric Elevation August 2015, (mvd)		Well ID	Phonometric Elevation August 2015, (mvd)			
Load Line 1	L11Ww-04	839.89	L11Ww-08	875.22	Deviation Area 2	D1TWW-01B	1054.26	NGCA Test Area	NTWw-07	1057.86	Subsided Material Against Base of Well	MSWw-001	1046.90
	L11Ww-07	858.61	L11Ww-09	872.55		D1Ww-01	1028.15		NTWw-11	1060.21		MSWw-002	1047.57
	L11Ww-08	830.50	L11Ww-11A	874.92		D1Ww-02	1027.18		NTWw-16	1066.55		MSWw-003	1060.45
	L11Ww-09	830.09	L11Ww-12B	968.45		D1Ww-04	1027.80		NTWw-110	1068.72		MSWw-004	1055.69
	L11Ww-10	876.82	L11Ww-15D	872.42		D1Ww-14	1052.74		NTWw-111	1076.25		MSWw-005	1064.68
Load Line 4	L11Ww-19A	879.27	L11Ww-15A	871.12	Deviation Area 2	D1Ww-15S	1041.80	NGCA Test Area	NTWw-112	1068.45	Facility Wells	MSWw-006	1064.81
	L11Ww-19B	872.17	L11Ww-15E	875.86		D1Ww-18B	1037.41		NTWw-113	1068.97		FWWw-007	1048.14
	L11Ww-19C	871.25	L11Ww-16A	876.26		D1Ww-19T	1052.88		NTWw-114	1069.17		FWWw-008	1049.81
	L11Ww-19F	871.11	L11Ww-16B	871.53		D1Ww-19B	1052.87		NTWw-116	1068.74		FWWw-003	1100.87
	L11Ww-18B	877.23	L11Ww-16A	871.51		D1Ww-19B	1056.64		NTWw-118	1068.14		FWWw-004	1100.06
Load Line 5	L11Ww-19B	870.12	L11Ww-16B	874.36	Deviation Area 2	D1Ww-110	1054.29	NGCA Test Area	NTWw-117	1070.02	Facility Wells	FWWw-006	1122.06
	L11Ww-20D	870.59	L11Ww-16E	873.39		D1Ww-111	1054.25		NTWw-118	1072.72		FWWw-007	1051.69
	L11Ww-001	1102.44	L11Ww-16F	872.48		D1Ww-112	1029.74		NTWw-119	1077.77		FWWw-008	1103.31
	L11Ww-002	1102.68	L11Ww-16G	876.29		D1Ww-113	1029.19		MSWw-006	1067.42		FWWw-009	1097.20
	L11Ww-003	1102.68	L11Ww-16H	874.39		D1Ww-123	830.30.35		MSWw-007	1072.05		FWWw-010	951.35
Load Line 6	L11Ww-004	1110.58	L11Ww-20C	873.37	Fire Burning Scenario	D1Ww-124	838.93	Boring Groups	MSWw-007	983.55	Background	BSWw-011	959.77
	L11Ww-008	1109.96	L11Ww-20D	872.87		D1Ww-125	888.45		MSWw-008	983.48		FWWw-011	1103.19
	L11Ww-010	1109.96	L11Ww-20A	871.76		D1Ww-126	888.79		MSWw-009	1004.88		FWWw-012	1103.19
	L11Ww-011	1107.37	L11Ww-20B	872.83		D1Ww-127	888.22		MSWw-010	1001.10		BSWw-011	964.84
	L11Ww-012	1107.43	L11Ww-20C	868.42		D1Ww-128	859.54		MSWw-011	1005.22		BSWw-010	1103.20
Load Line 7	L11Ww-004	1102.74	L11Ww-20A	879.70	Fire Burning Scenario	D1Ww-129	859.67	Boring Groups	MSWw-012	NM	Background	BSWw-012	977.00
	L11Ww-010	1112.83	ADTW-007	955.25		D1Ww-130	877.82		MSWw-013	1006.06		BSWw-016	1006.06
	L11Ww-011	1081.18	ADTW-008	873.96		D1Ww-136	1100.41		MSWw-014	988.68		BSWw-011	1103.59
	L11Ww-012	1078.86	ADTW-010	855.15		FWWw-107	1111.06		MSWw-015	985.15		BSWw-010	1009.38
	L11Ww-013	1085.80	ADTW-011	862.93		D1Ww-137	1102.85		FWWw-018	974.24		BSWw-012	1009.38
Load Line 11	L11Ww-018	1088.80	ADTW-007	962.89	Facility and Deviation County	L11Ww-014	1028.88	Boring Groups	MSWw-017	988.14	Background	BSWw-017	959.38
	L11Ww-019	1088.80	ADTW-008	963.85		L11Ww-015	1028.88		MSWw-018	988.14		NE = NOT MEASURED	
	L11Ww-020	1088.80	ADTW-009	963.85		L11Ww-016	1028.88		MSWw-019	988.14			
	L11Ww-021	1088.80	ADTW-010	963.85		L11Ww-017	1028.88		MSWw-020	988.14			
	L11Ww-022	1088.80	ADTW-011	963.85		L11Ww-018	1028.88		MSWw-021	988.14			
Load Line 11	L11Ww-023	1088.29	ADTW-012	962.39	Facility and Deviation County	L11Ww-019	1028.88	Boring Groups	MSWw-022	988.14	Background	BSWw-022	959.38
	L11Ww-024	1087.74	ADTW-013	961.84		L11Ww-020	1028.88		MSWw-023	988.14			
	L11Ww-025	1087.19	ADTW-014	961.29		L11Ww-021	1028.88		MSWw-024	988.14			
	L11Ww-026	1086.64	ADTW-015	960.74		L11Ww-022	1028.88		MSWw-025	988.14			
	L11Ww-027	1086.09	ADTW-016	960.19		L11Ww-023	1028.88		MSWw-026	988.14			
Load Line 11	L11Ww-028	1085.54	ADTW-017	960.19	Facility and Deviation County	L11Ww-024	1028.88	Boring Groups	MSWw-027	988.14	Background	BSWw-027	959.38
	L11Ww-029	1085.00	ADTW-018	960.19		L11Ww-025	1028.88		MSWw-028	988.14			
	L11Ww-030	1084.45	ADTW-019	960.19		L11Ww-026	1028.88		MSWw-029	988.14			
	L11Ww-031	1083.90	ADTW-020	960.19		L11Ww-027	1028.88		MSWw-030	988.14			
	L11Ww-032	1083.35	ADTW-021	960.19		L11Ww-028	1028.88		MSWw-031	988.14			
Load Line 11	L11Ww-033	1082.80	ADTW-022	960.19	Facility and Deviation County	L11Ww-029	1028.88	Boring Groups	MSWw-032	988.14	Background	BSWw-032	959.38
	L11Ww-034	1082.25	ADTW-023	960.19		L11Ww-030	1028.88		MSWw-033	988.14			
	L11Ww-035	1081.70	ADTW-024	960.19		L11Ww-031	1028.88		MSWw-034	988.14			
	L11Ww-036	1081.15	ADTW-025	960.19		L11Ww-032	1028.88		MSWw-035	988.14			
	L11Ww-037	1080.60	ADTW-026	960.19		L11Ww-033	1028.88		MSWw-036	988.14			
Load Line 11	L11Ww-038	1080.05	ADTW-027	960.19	Facility and Deviation County	L11Ww-034	1028.88	Boring Groups	MSWw-037	988.14	Background	BSWw-037	959.38
	L11Ww-039	1079.50	ADTW-028	960.19		L11Ww-035	1028.88		MSWw-038	988.14			
	L11Ww-040	1078.95	ADTW-029	960.19		L11Ww-036	1028.88		MSWw-039	988.14			
	L11Ww-041	1078.40	ADTW-030	960.19		L11Ww-037	1028.88		MSWw-040	988.14			
	L11Ww-042	1077.85	ADTW-031	960.19		L11Ww-038	1028.88		MSWw-041	988.14			
Load Line 11	L11Ww-043	1077.30	ADTW-032	960.19	Facility and Deviation County	L11Ww-039	1028.88	Boring Groups	MSWw-042	988.14	Background	BSWw-042	959.38
	L11Ww-044	1076.75	ADTW-033	960.19		L11Ww-040	1028.88		MSWw-043	988.14			
	L11Ww-045	1076.20	ADTW-034	960.19		L11Ww-041	1028.88		MSWw-044	988.14			
	L11Ww-046	1075.65	ADTW-035	960.19		L11Ww-042	1028.88		MSWw-045	988.14			
	L11Ww-047	1075.10	ADTW-036	960.19		L11Ww-043	1028.88		MSWw-046	988.14			
Load Line 11	L11Ww-048	1074.55	ADTW-037	960.19	Facility and Deviation County	L11Ww-044	1028.88	Boring Groups	MSWw-047	988.14	Background	BSWw-047	959.38
	L11Ww-049	1074.00	ADTW-038	960.19		L11Ww-045	1028.88		MSWw-048	988.14			
	L11Ww-050	1073.45	ADTW-039	960.19		L11Ww-046	1028.88		MSWw-049	988.14			
	L11Ww-051	1072.90	ADTW-040	960.19		L11Ww-047	1028.88		MSWw-050	988.14			
	L11Ww-052	1072.35	ADTW-041	960.19		L11Ww-048	1028.88		MSWw-051	988.14			
Load Line 11	L11Ww-053	1071.80	ADTW-042	960.19	Facility and Deviation County	L11Ww-049	1028.88	Boring Groups	MSWw-052	988.14	Background	BSWw-052	959.38
	L11Ww-054	1071.25	ADTW-043	960.19		L11Ww-050	1028.88		MSWw-053	988.14			
	L11Ww-055	1070.70	ADTW-044	960.19		L11Ww-051	1028.88		MSWw-054	988.14			
	L11Ww-056	1070.15	ADTW-045	960.19		L11Ww-052	1028.88		MSWw-055	988.14			
	L11Ww-057	1069.60	ADTW-046	960.19		L11Ww-053	1028.88		MSWw-056	988.14			
Load Line 11	L11Ww-058	1069.05	ADTW-047	960.19	Facility and Deviation County	L11Ww-054	1028.88	Boring Groups	MSWw-057	988.14	Background	BSWw-057	959.38
	L11Ww-059	1068.50	ADTW-048	960.19		L11Ww-055	1028.88		MSWw-058	988.14			
	L11Ww-060	1067.95	ADTW-049	960.19		L11Ww-056	1028.88		MSWw-059	988.14			
	L11Ww-061	1067.40	ADTW-050	960.19		L11Ww-057	1028.88		MSWw-060	988.14			
	L11Ww-062	1066.85	ADTW-051	960.19		L11Ww-058	1028.88		MSWw-061	988.14			
Load Line 11	L11Ww-063	1066.30	ADTW-052	960.19	Facility and Deviation County	L11Ww-059	1028.88	Boring Groups	MSWw-062	988.14	Background	BSWw-062	959.38
	L11Ww-064	1065.75	ADTW-053	960.19		L11Ww-060	1028.88		MSWw-063	988.14			
	L11Ww-065	1065.20	ADTW-054	960.19		L11Ww-061	1028.88		MSWw-064	988.14			
	L11Ww-066	1064.65	ADTW-055	960.19		L11Ww-062	1028.88		MSWw-065	988.14			
	L11Ww-067	1064.10	ADTW-056	960.19		L11Ww-063	1028.88		MSWw-066	988.14			
Load Line 11	L11Ww-068	1063.55	ADTW-057	960.19	Facility and Deviation County	L11Ww-064	1028.88	Boring Groups	MSWw-067	988.14	Background	BSWw-067	959.38
	L11Ww-069	1063.00	ADTW-058	960.19		L11Ww-065	1028.88		MSWw-068	988.14			
	L11Ww-070	1062.45	ADTW-059	960.19		L11Ww-066	1028.88		MSWw-069	988.14			
	L11Ww-071	1061.90	ADTW-060	960.19		L11Ww-067	1028.88		MSWw-070	988.14			
	L11Ww-072	1061.35	ADTW-061	960.19		L11Ww-068	1028.88		MSWw-071	988.14			
Load Line 11	L11Ww-073	1060.80	ADTW-062	960.19	Facility and Deviation County	L11Ww-069	1028.88	Boring Groups	MSWw-072	988.14	Background	BSWw-072	959.38
	L11Ww-074	1060.25	ADTW-063	960.19		L11Ww-070	1028.88		MSWw-073	988.14			
	L11Ww-075	1059.70	ADTW-064	960.19		L11Ww-071	1028.88		MSWw-074	988.14			
	L11Ww-076	1059.15	ADTW-065	960.19		L11Ww-072	1028.88		MSWw-075	988.14			
	L11Ww-077	1058.60	ADTW-066	960.19		L11Ww-073	1028.88		MSWw-076	988.14			
Load Line 11	L11Ww-078	1058.05	ADTW-067	960.19	Facility and Deviation County	L11Ww-074	1028.88	Boring Groups	MSWw-077	988.14	Background	BSWw-077	959.38
	L11Ww-079	1057.50	ADTW-068	960.19		L11Ww-075	1028.88		MSWw-078	988.14			
	L11Ww-080	1056.95	ADTW-069	960.19		L11Ww-076	1028.88		MSWw-079	988.14			
	L11Ww-081	1056.40	ADTW-070	960.19		L11Ww-077	1028.88		MSWw-080	988.14			
	L11Ww-082	1055.85	ADTW-071	960.19		L11Ww-078	1028.88		MSWw-081	988.14			
Load Line 11	L11Ww-083	1055.30	ADTW-072	960.19	Facility and Deviation County	L11Ww-079	1028.88	Boring Groups	MSWw-082	988.14	Background	BSWw-082	959.38
	L11Ww-084	1054.75	ADTW-073	960.19		L11Ww-080	1028.88		MSWw-083	988.14			
	L11Ww-085	1054.20	ADTW-074	960.19		L11Ww-081	1028.88		MSWw-084	988.14			
	L11Ww-086	1053.65	ADTW-075	960.19		L11Ww-082	1028.88		MSWw-085	988.14			
	L11Ww-087	1053.10	ADTW-076	960.19		L11Ww-083	1028.88		MSWw-086	988.14			
Load Line 11	L11Ww-088	1052.55	ADTW-077	960.19	Facility and Deviation County	L11Ww-084	1028.88	Boring Groups	MSWw-087	988.14	Background	BSWw-087	959.38
	L11Ww-089	1052.00	ADTW-078	960.19		L11Ww-085	1028.88		MSWw-088	988.14			
	L11Ww-090	1051.45	ADTW-079	960.19		L11Ww-086	1028.88		MSWw-089	988.14			
	L11Ww-091	1050.90	ADTW-080	960.19		L11Ww-087	1028.88		MSWw-090	988.14			
	L11Ww-092	1050.35	ADTW-081	960.19		L11Ww-088	1028.88		MSWw-091	988.14			
Load Line 11	L11Ww-093	1049.80	ADTW-082	960.19	Facility and Deviation County	L11Ww-089	1028.88	Boring Groups	MSWw-092	988.14	Background	BSWw-092	959.38
	L11Ww-094	1049.25	ADTW-083	960.19		L11Ww-090	1028.88		MSWw-093	988.14			
	L11Ww-095	1048.70	ADTW-084	960.19		L11Ww-091	1028.88		MSWw-094	988.14			
	L11Ww-096	1048.15	ADTW-085	960.									

				<div></div> <div>ENVIRONMENTAL QUALITY MANAGEMENT, INC. 1900 CARLSON BLVD., CINCINNATI, OHIO 45240 PHONE 513.825.7500 / FAX 513.825.7495 WWW.EQM-CO.COM</div>	DRAWN	R. RUSSELL	09-30-2013	GEOTECHNICAL SYSTEMS CHANGES LOG # 1			
					CHECKED	S. SPESSHARDT	10-01-2013	POTENTIOMETRIC SURFACE OF UNCONSOLIDATED AQUIFER (AUGUST 2013)			
					APPROVED	J. MILLER	10-01-2013				
				SCALE:			AS SHOWN				
REV	DESCRIPTION	DATE	APPROVED								
REVISIONS				SIZE PROJECT NO. DWG NO. REV							
				E 030174.0016 PLATE 2 0							





### HYDRAULIC GRADIENT CALCULATION

$$i_1 = \frac{h_1 - h_2}{L_1} = \frac{1120' - 1100'}{1686 \text{ ft.}} = 0.012$$

$$i_2 = \frac{h_3 - h_4}{L_2} = \frac{1120' - 1100'}{992 \text{ ft.}} = 0.020$$

$$i_3 = \frac{h_5 - h_6}{L_3} = \frac{1120' - 1100'}{764 \text{ ft.}} = 0.026$$

RV/ASP Area	Unit ID	Elementary Element Request (2019-20, unit)	RV/ASP Area	Unit ID	Elementary Element Request (2019-20, unit)
Load Line 5	LL/Unit001	1158.63	C-Book Query	CL/Unit001	1137.54
	LL/Unit002	1159.13.51		CL/Unit002	1137.52
	LL/Unit004	1158.61		CL/Unit003	1138.57
	LL/Unit005	1158.63		CL/Unit004	1146.10
	LL/Unit006	1158.67		CL/Unit005	1150.88
	LL/Unit007	1159.04		FD/Unit006	1125.57
Load Line 6	LL/Unit004	1159.19	Fast and Loosest Query	FD/Unit008	1113.73
	LL/Unit005	1158.75		FD/Unit009	1125.64
	LL/Unit007	1157.72		FD/Unit010	1122.89
	LL/Unit008	1159.01		FD/Unit011	1122.87
	LL/Unit009	1158.85		FD/Unit012	1122.27
	LL/Unit010	1158.85		FD/Unit013	1124.57
Load Line 7	LL/Unit002	1154.59	Fastest Query	FD/Unit014	1124.57
	LL/Unit003	1155.05		FD/Unit015	1123.68
	LL/Unit004	1152.06		FD/Unit016	1111.49
	LL/Unit005	1152.23		FD/Unit017	1111.49
	LL/Unit006	1155.53		FD/Unit018	1146.12
	LL/Unit007	1155.53			
	LL/Unit005	1154.58			
	LL/Unit006	1097.72			
	LL/Unit007	1139.94			
	LL/Unit008	1139.46			
	LL/Unit009	1242.93			
	LL/Unit010	1212.86			
Load Line 9	LL/Unit005	1116.27			
	LL/Unit006	1116.27			
	LL/Unit007	1112.94			
	LL/Unit008	1112.94			
	LL/Unit009	1112.93			
	LL/Unit010	1116.29			
Load Line 10	LL/Unit002	1115.45			
	LL/Unit003	1115.42			
	LL/Unit004	1115.45			
	LL/Unit005	1115.45			

## NOTES

1. BEDROCK GEOLOGY ADOPTED FROM  
"GEOLOGY AND GROUND-WATER RESOURCES OF PORTAGE COUNTY, OHIO"  
(WINSLOW AND WHITE, 1966). NOT ALL LITHOLOGIC UNITS ARE PRESENTED.

### LEGEND

☒ **HOMEWOOD MEMBER WELL**

----- PROPERTY LINE

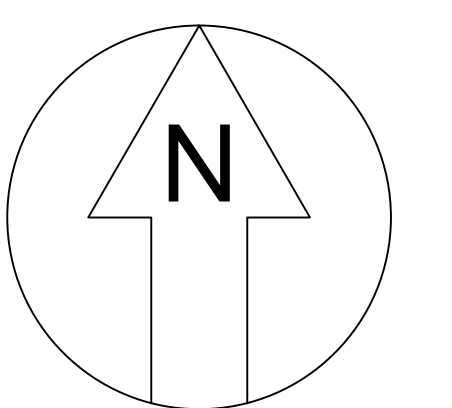
1100 ——— LINE OF EQUAL GROUNDWATER ELEVATION (ft.,amsl)  
1030 - - - - - (INTERMEDIATE DASHED)

→ GROUNDWATER DIRECTION



**HOMEWOOD MEMBER**

SHARON MEMBER

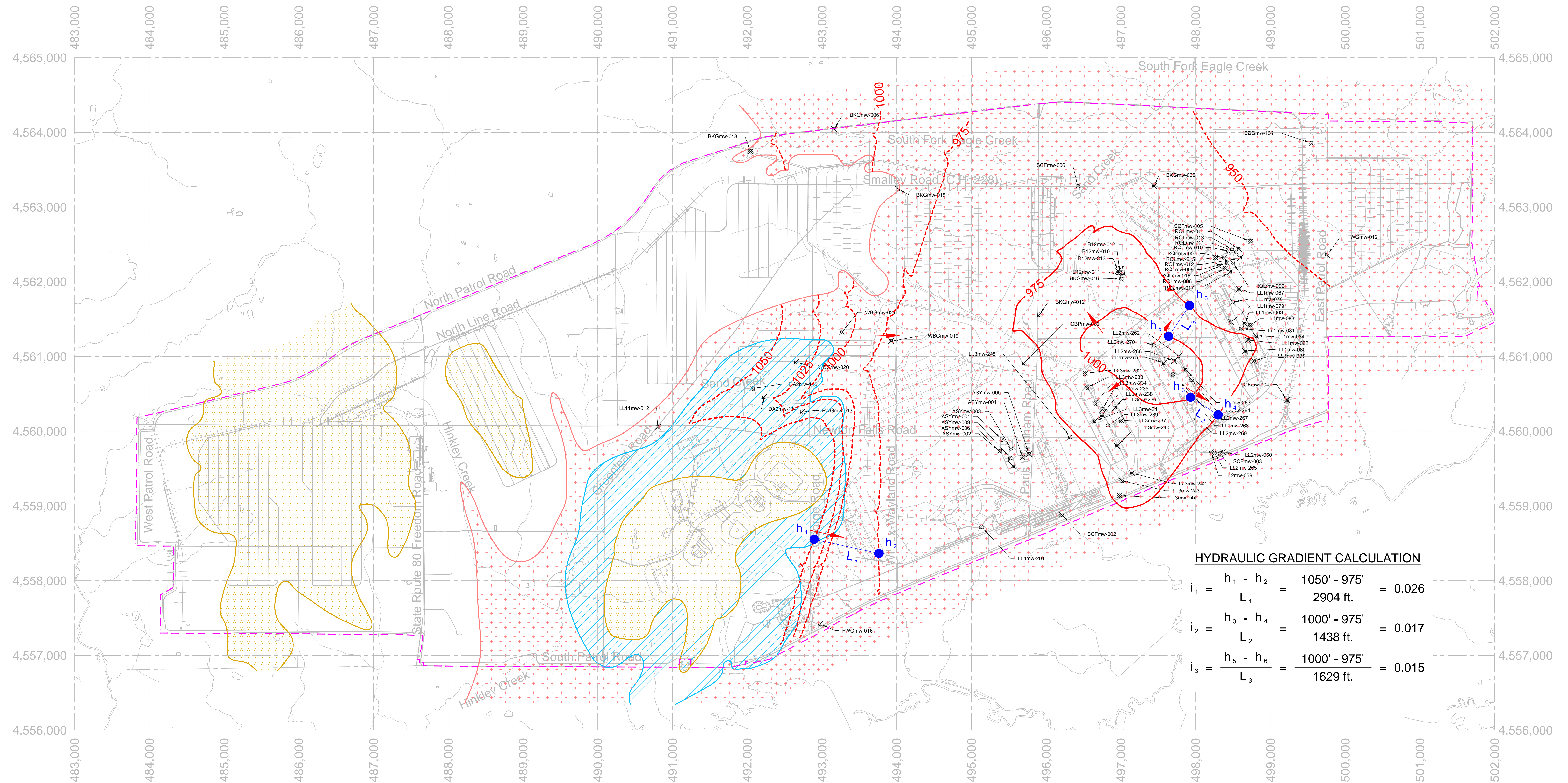
 SHARON SHALE

0 500 1000  
SCALE (METERS)

COORDINATE SYSTEM UTM NAD 83 ZONE 17

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### HYDRAULIC GRADIENT CALCULATION

$$i_1 = \frac{h_1 - h_2}{L_1} = \frac{1050' - 975'}{2904 \text{ ft.}} = 0.026$$

$$i_2 = \frac{h_3 - h_4}{L_2} = \frac{1000' - 975'}{1438 \text{ ft.}} = 0.017$$

$$i_3 = \frac{h_5 - h_6}{L_3} = \frac{1000' - 975'}{1629 \text{ ft.}} = 0.015$$

### LEGEND

✕ SHARON MEMBER WELL

— PROPERTY LINE

HOMewood MEMBER

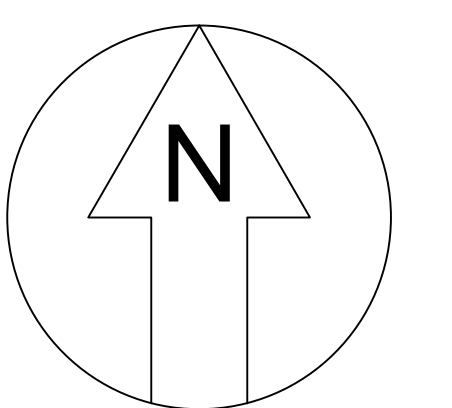
SHARON MEMBER

SHARON SHALE

## NOTES

1. BEDROCK GEOLOGY ADOPTED FROM  
"GEOLOGY AND GROUND-WATER RESOURCES OF PORTAGE COUNTY, OHIO"  
(WINSLOW AND WHITE, 1966). NOT ALL LITHOLOGIC UNITS ARE PRESENTED.

RVAAP Area	Well ID	Planned/Actual Elevation (feet) 2019-2020	RVAAP Area	Well ID	Planned/Actual Elevation (feet) 2019-2020
LOST Line 1	LL1rwa001	957.00	Lost Spring Yard	LL1rwa002	956.00
	LL1rwa002	957.00		LL1rwa003	957.00
	LL1rwa003	957.75		LL1rwa004	957.00
	LL1rwa004	947.75		LL1rwa005	957.00
	LL1rwa005	956.67		LL1rwa006	956.67
	LL1rwa001	971.46		LL1rwa007	957.28
	LL1rwa002	981.67		LL1rwa008	958.45
	LL1rwa003	964.76		LL1rwa009	971.28
	LL1rwa004	947.75		LL1rwa010	958.45
	LL1rwa005	962.88	Building 1200	LL1rwa011	968.46
LOST Line 2	LL1rwa006	953.84		LL1rwa012	968.81
	LL1rwa007	952.02		LL1rwa013	968.81
	LL1rwa008	1004.58		LL1rwa014	968.81
	LL1rwa009	1005.06		LL1rwa015	1006.29
	LL1rwa010	1004.62		LL1rwa016	1007.96
	LL1rwa011	1006.71		LL1rwa017	1007.96
	LL1rwa012	981.93		LL1rwa018	961.91
	LL1rwa013	1006.68		LL1rwa019	960.58
	LL1rwa014	1002.09		LL1rwa020	961.91
	LL1rwa015	1003.00	Ramped Quarry Landfill	LL1rwa021	955.97
LOST Line 3	LL1rwa016	982.53		LL1rwa022	957.15
	LL1rwa017	979.73		LL1rwa023	956.64
	LL1rwa018	956.67		LL1rwa024	953.84
	LL1rwa019	953.84		LL1rwa025	961.93
	LL1rwa020	962.88		LL1rwa026	962.29
	LL1rwa021	961.93		LL1rwa027	963.66
	LL1rwa022	961.75		LL1rwa028	973.38
	LL1rwa023	960.61		LL1rwa029	1001.69
	LL1rwa024	979.52		LL1rwa030	1001.62
	LL1rwa025	985.56	Fairbryne	LL1rwa031	961.93
LOST Line 4	LL1rwa026	984.42		LL1rwa032	961.93
	LL1rwa027	979.75		LL1rwa033	966.73
	LL1rwa028	979.50		LL1rwa034	966.73
	LL1rwa029	981.19		LL1rwa035	961.93
	LL1rwa030	968.62		LL1rwa036	966.73
	LL1rwa031	968.62		LL1rwa037	966.73
	LL1rwa032	968.62		LL1rwa038	966.73
	LL1rwa033	968.62		LL1rwa039	966.73
	LL1rwa034	968.62		LL1rwa040	966.73
	LL1rwa035	968.62		LL1rwa041	966.73

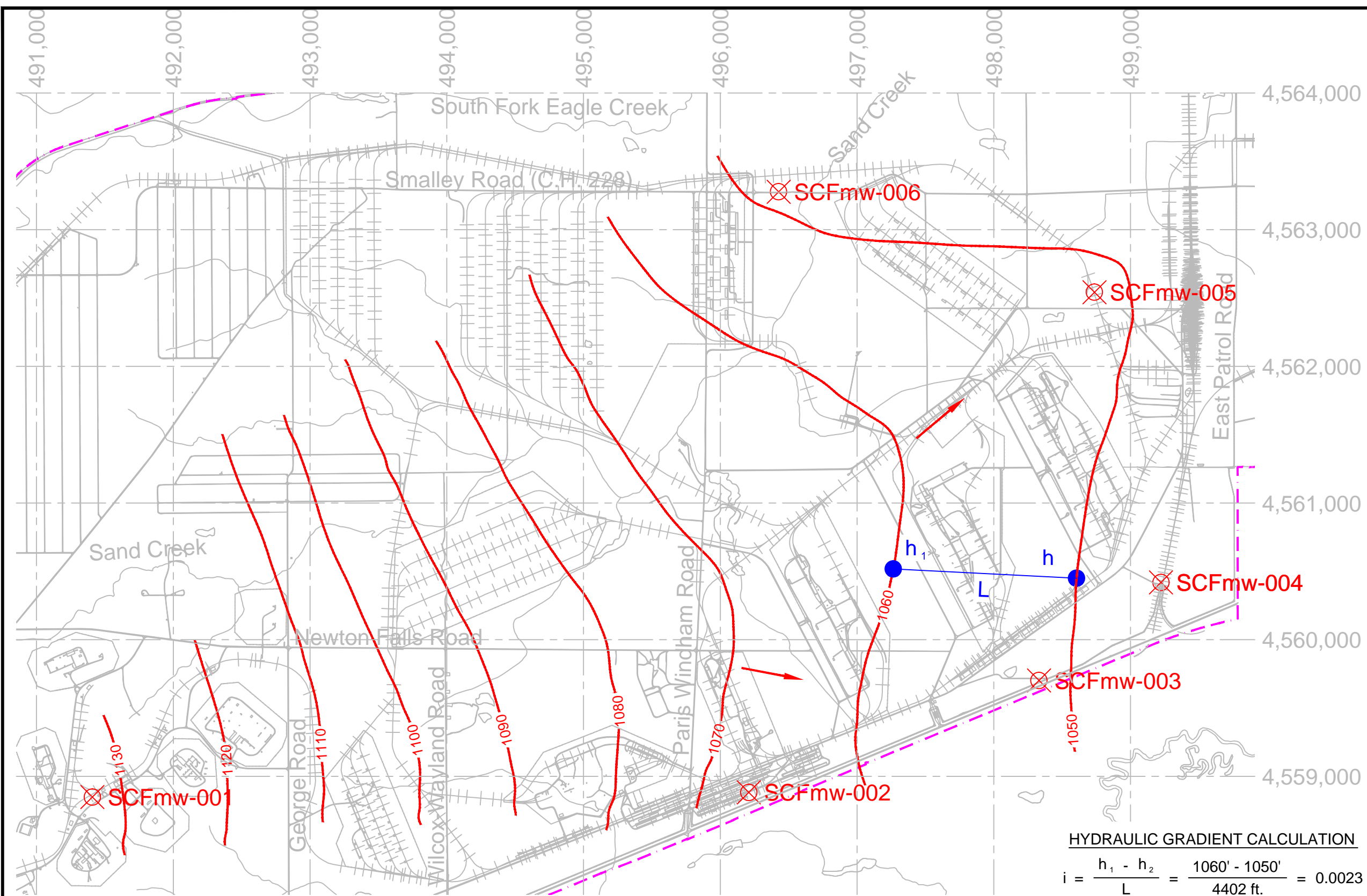


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SCALE (METERS)

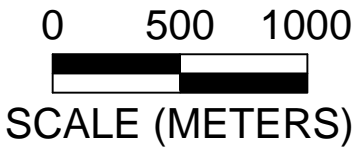
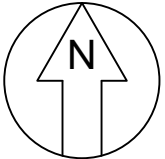
COORDINATE SYSTEM UTM NAD 83 ZONE 17

				 <p><b>ENVIRONMENTAL QUALITY MANAGEMENT, INC.</b></p> <p>1800 CARLSON BLVD., CINCINNATI, OHIO 45240 PHONE 513.825.7500   FAX 513.825.7495 WWW.EQM.COM</p>	DRAWN: R. RUSSELL 09-30-2013		<p><b>POTENTIOMETRIC SURFACE OF UPPER SHARON (AUGUST 2013)</b></p>			
					CHECKED: S. SPESSHARDT 10-01-2013					
					APPROVED: J. MILLER 10-01-2013					
REV	DESCRIPTION	DATE	APPROVED	SCALE: AS SHOWN		SIZE	PROJECT NO.	DWG NO.	REV	
	REVISIONS					E	030174.0016	PLATE 4	0	





SHARON CONGLOMERATE WELLS	
Well ID	Elevation (ft, amsl)
SCFmw-001	1032.23
SCFmw-002	965.94
SCFmw-003	950.83
SCFmw-004	944.37
SCFmw-005	951.00
SCFmw-006	948.04



HYDRAULIC GRADIENT CALCULATION

$$i = \frac{h_1 - h_2}{L} = \frac{1060' - 1050'}{4402 \text{ ft.}} = 0.0023$$

- LEGEND**
- PROPERTY LINE
  - 980 — LINE OF EQUAL GROUNDWATER ELEVATION (ft,amsl)
  - GROUNDWATER DIRECTION
  - ⊗ MONITORING WELL

COORDINATE SYSTEM UTM NAD 83 ZONE 17

				 ENVIRONMENTAL QUALITY MANAGEMENT, INC. 1800 CARILLON BLVD. CINCINNATI, OHIO 45240 P (513)825-7500 F (513)825-7495	<b>DRAWN</b>	R. RUSSELL	09-30-2013	<b>POTENTIOMETRIC SURFACE OF SHARON CONGLOMERATE (AUGUST 2013)</b>		
				<b>CHECKED</b>	S. SPESSHARDT	10-01-2013				
				<b>APPROVED</b>	J. MILLER	10-01-2013				
				<b>SCALE:</b>	AS SHOWN					
<b>REV</b>	<b>DESCRIPTION</b>	<b>DATE</b>	<b>APPROVED</b>				<b>ORIGINAL SIZE</b>	<b>PROJECT NO.</b>	<b>DWG NO.</b>	<b>REV</b>
REVISIONS							B	30174.0016.001	PLATE 5	0