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May 14, 2008

Mr. John S. Nohrstedt
U.S. Army Corps of Engineers
Engineering and Support Center, Huntsville
Attn: CEHNC-ED-CS-P
4820 University Square
Huntsville, Alabama 35816-1822

Subject: **Submittal of Final Monitoring Well Abandonment Report**
Seneca Army Depot Activity; File No. 1017A
Contract No. DACA87-02-D-0005, Task Order 27

Dear Mr. Nohrstedt:

Parsons Infrastructure & Technology Group Inc. (Parsons) is pleased to submit the Final Monitoring Well Abandonment Report for the Seneca Army Depot Activity located in Romulus, New York.

The work will be performed in accordance with the Scope of Work (SOW) for Task Order 27 under Contract DACA87-02-D-0005.

Parsons appreciates the opportunity to provide the Army with this document. Should you have any questions about the material presented and summarized in this document, please do not hesitate to call me at (617) 449-1570 to discuss them.

Sincerely,

Jeffrey Adams
Project Manager

Enclosures

cc: Mr. S. Absolom, SEDA
Mr. K. Hoddinott, USACHPPM (PROV)
Mr. R. Walton, USAEC
Mr. R. Battaglia, USACE-NY

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May 14, 2008

Mr. Julio F. Vazquez, Project Manager
U.S. Environmental Protection Agency, Region II
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Mr. Kuldeep K. Gupta, P.E.
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Remedial Bureau A, Section C
625 Broadway
Albany, NY 12233-7015

Mr. Mark S. Sergott
Bureau of Environmental Exposure Investigation, Room 300
New York State Department of Health
Flanigan Square, 547 River Street
Troy, NY 12180-2216

Subject: **Submittal of Final Monitoring Well Abandonment Report**
Seneca Army Depot Activity; File No. 1017A
EPA Site ID# NY0213820830 and NY Site ID# 8-50-006

Dear Mr. Vazquez/Gupta/Sergott:

Parsons Infrastructure & Technology Group Inc. (Parsons) is pleased to submit the Final Monitoring Well Abandonment Report for the Seneca Army Depot Activity located in Romulus, New York. Should you have any questions about the material presented and summarized in this document, please do not hesitate to call me at (617) 449-1570 to discuss them.

Sincerely,

Jeffrey Adams.
Project Manager

Enclosures

cc: Mr. S. Absolom, SEDA
Mr. K. Hoddinott, USACHPPM (PROV)
Mr. R. Walton, USAEC
Mr. R. Battaglia, USACE-NY
Mr. J. Nohrstedt, USACE
Mr. M. Heaney, TechLaw

US Army, Engineering & Support Center
Huntsville, AL

Seneca Army Depot Activity
Romulus, NY

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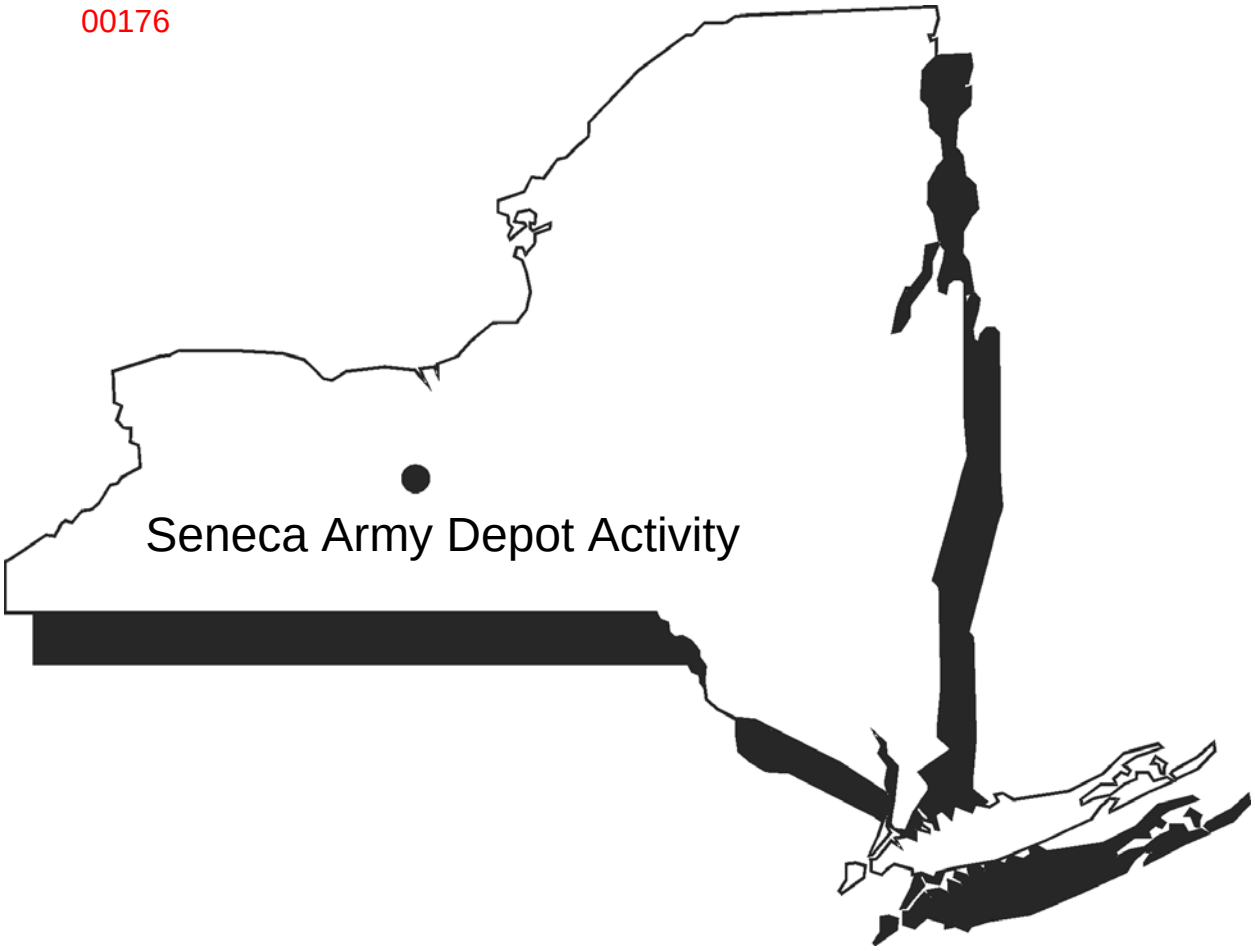

FINAL
MONITORING WELL ABANDONMENT REPORT

SENECA ARMY DEPOT ACTIVITY

EPA Site ID# NY0213820830
NY Site ID# 8-50-006
Contract No. DACA87-02-D-0005
Delivery Order No. 0027

PARSONS
MAY 2008

FINAL
MONITORING WELL ABANDONMENT REPORT

Prepared for:

Seneca Army Depot Activity
Romulus, New York

and

US Army Corps of Engineers
Engineering & Support Center, Huntsville

Prepared by:

PARSONS
150 Federal Street, 4th Floor
Boston, Massachusetts 02110

CERCLIS Site ID: NY0213820830
New York State Inactive Waste Site ID: 8-50-006
Contract No.: DACA87-02-D-0005, Delivery Order No.: 0027
Parsons Job No. 744354 **May 2008**

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1.0 INTRODUCTION

This report documents the abandonment of 35 permanent monitoring wells and 12 temporary monitoring wells at the former Seneca Army Depot Activity (SEDA or the Depot) in Seneca County, New York. The monitoring wells were abandoned because they were no longer needed for collection of groundwater samples in association with Comprehensive Environmental Response, Compensation, and Liability (CERCLA) Act or State of New York Inactive Hazardous Waste Site investigations and studies that have been ongoing at the SEDA since the Depot was listed as a Federal Facility on the National Priorities List (NPL) in August of 1990. The abandonment of each of the permanent and temporary wells was performed in accordance with requirements of the New York State Department of Environmental Conservation (NYSDEC), and with the approval of representatives of the NYSDEC and the U.S. Environmental Protection Agency, Region II (EPA). The well abandonment was performed on behalf of the U.S. Army, Corps of Engineers (Army) by Parsons Infrastructure & Technology Group Inc. (Parsons) and GeoLogic NY under Task Order 27 of Contract DACA87-02-D-0005.

The permanent monitoring wells abandoned included wells previously located in the areas of concern (AOCs) identified as SEADs 9, 33, 34, 43, 44A, 44B, 58, 62, 64A, 64B, 64C, and 64D. The specific AOC names corresponding to the SEAD designations are identified below, along with a brief description of the CERCLA action required:

- SEAD 09 – Old Scrap Wood Site – No Action.
- SEAD 33 – Building 121, Underground Waste Oil Tank – No Action.
- SEAD 34 – Building 319, Underground Waste Oil Tank – No Further Action.
- SEAD 43 – Building 606, Old Missile Propellant Test Laboratory; SEAD 56 – Building 606, Herbicide and Pesticide Storage; SEAD 69, Building 606, Waste Disposal Area – No Action with Land Use Control.
- SEAD 44A – Quality Assurance Test Laboratory, West of Building 616 – No Further Action with Land Use Control.
- SEAD 44B – Quality Assurance Test Laboratory, Brady Road – No Action with Land Use Control.
- SEAD 58 – Debris Area near Booster Station 2131 – No Action.
- SEAD 62 – Nicotine Sulfate Disposal Area near Building 606 and 612 – No Action with Land Use Control.
- SEAD 64A – Debris Landfill South of Storage Pad – Land Use Control.
- SEAD 64B – Debris Landfill South of Classification Area – No Further Action with Land Use Controls.
- SEAD 64C – Proposed Landfill Site – No Action with Land Use Control.

- SEAD 64D – Debris Landfill West of Building 2203 – No Further Action with Land Use Controls.

Remedial actions required and completed at these AOCs are described in greater detail in one of four Records of Decision (RODs) prepared by the Army, and issued by the Army and the EPA, with concurrence from the State of New York. The specific RODs involved include (emphasis added to AOCs in which wells abandoned):

- Record of Decision for Twenty No Action (SEADs 7, 9, 10, 18, 19, 20, 21, 22, 33, 35, 36, 37, 42, 47, 49, 51, 53, 55, 65, and 68) and Eight No Further Action (SEADs 28, 29, 30, 31, 32, 34, 60 and 61) SWMUs (Parsons, September 2003);
- Record of Decision for Sites Requiring Institutional Controls in the Planned Industrial / Office Development or Warehousing Area, SEADs 27, 64A, and 66 (Parsons, September 2004);
- Record of Decision, No Action and No Further Action for SEAD 58 and SEAD 63 (Parsons, August 2006); and
- Record of Decision for Seventeen SWMUs Requiring Land Use Controls (SEADs 13, 39, 40, 41, 43/56/69, 44A, 44B, 52, 62, 64B, 64C, 64D, 67, 122B and 122E) (Parsons, March 2007)

The 12 temporary monitoring wells abandoned included installations previously located in SEAD-12, the Radioactive Waste Burial Sites, at locations near Buildings 813 and 814 that were used to assess the extent of a possible trichloroethene plume that was identified in the groundwater near permanent wells MW12-37 and MW12-40. Once this work was completed and reported, the EPA and the NYSDEC authorized the Army to abandon the temporary wells that were installed during the Supplement Remedial Investigation at SEAD-12 to characterize the plume and its source.

Prior to the initiation of the well abandonment activities, Parsons prepared and submitted a workplan for regulatory agency review and approval describing procedures that would be used to safely abandon the unneeded monitoring wells at SEDA. Parsons prepared and submitted the "Monitoring Well Abandonment Work Plan" (Parsons, May 2005b) in accordance with procedures and recommendations provided in the NYSDEC's Guidance Document "Groundwater Monitoring Well Decommissioning Procedures" (Malcolm Pirnie, 1996). Per guidance provided within the NYSDEC's guidance manual, "a well is successfully decommissioned when:

- Migration of existing or future contaminants into an aquifer or between aquifers cannot occur.
- Migration of existing or future contaminants in the vadose zone cannot occur.
- The potential for vertical or horizontal migration of fluids in the well or adjacent to the well is minimized.

- Aquifer yield and hydrostatic head are conserved."1

There are 11 elements that must be addressed prior to or during the decommissioning of a monitoring well at a hazardous waste site. These include:

- Reviewing Site Data
- Selecting the Well Decommissioning Method
- Preparing a Site-Specific Health and Safety Plan
- Preparing a Materials Handling and Disposal Plan
- Establishing Decontamination Procedures
- Locating and Setting-up on the Well
- Removing the Protective Casing
- Decommissioning of Screen and Riser
- Selecting Mixing and Placing Grout
- Backfilling and Site Restoration, and
- Quality Assurance/Quality Control (QA/QC) Procedures

A complete list of the 35 permanent and 12 temporary (SEAD-12) wells abandoned at SEDA and there northing and easting coordinates is presented in **Table 1-1**. The decommissioning method selected for final closure of each well is contained in **Table 1-2**.

1 *"Groundwater Monitoring Well Decommissioning Procedures,"* pg ii, Malcolm Pirnie, October 1996.

Conservation

2.0 DATA REVIEW AND ANALYSIS

Available data from each of the affected sites (SEADs 9, 12, 33, 34, 43, 44A, 44B, 58, 62, 64A, 64B, 64C, and 64D) were obtained and reviewed during the development of the original work plan and, again prior to the abandonment of the wells at the AOCs in the field. Typically, the data analysis was completed during the Army's performance of human health and ecological risk assessments, which are reported in the document *Final Decision Document – Mini Risk Assessment* (Parsons, May 2002a). The results of the risk assessments subsequently served as the basis for the development and approval of the Proposed Remedial Action Plans (PRAP) and Records of Decision (ROD) that were finalized CERCLA decisions for each of the AOCs. Data for the 12 subject temporary wells at SEAD-12 were developed and reported to the regulatory community as part of the Supplemental Remedial Investigation (SRI) for SEAD-12, which focused in part on a suspected trichloroethene plume in the area of Buildings 813 and 814. Pertinent information from investigations conducted at each AOC is summarized in **Section 2.2** of this document.

2.1 Background Information

Prior to construction of the Seneca Army Depot Activity (SEDA or the Depot), the site was used for farming; the SEDA was constructed in 1941. After construction, the 10,600-acre Depot was owned by the United States Government and operated by the Department of the Army until late 2000, when portions of the Depot were deeded over to the State of New York (Prison) and the Seneca County Industrial Development Authority (SCIDA) for redevelopment and reuse. Over 7,000 acres of conservation/recreational land transferred to the SCIDA since September 2003.

SEDA was proposed for inclusion on the National Priority List (NPL) as a Federal Facility site in July of 1989; Congress approved and finalized the Depot's listing in August of 1990. In accordance with requirements of Section 120 of CERCLA (Title 42, *U.S. Code*, § 9620), the US Army, the EPA, and the NYSDEC negotiated and signed a Federal Facilities Agreement (FFA) or an Interagency Agreement (IAG) governing site investigation and remediation of the Depot in January 1993. This agreement determined that future investigations were to be based on CERCLA guidelines and RCRA was considered an Applicable or Relevant and Appropriate Requirement (ARAR) pursuant to Section 121 of CERCLA. In October 1995, SEDA was selected for closure under the provisions of the Base Realignment and Closure (BRAC) process. In 2000, the facility was closed.

2.2 Site Descriptions

The Army decommissioned existing monitoring wells at 13 sites during the project. Risk assessments completed for 12 of the sites (exclusive of SEAD-12) have shown that site conditions, including groundwater conditions, do not pose a threat to human health or the environment based on their future intended use; therefore, the wells were no longer necessary for further analysis of site conditions. At SEAD-12, temporary wells installed to determine the exact location of a suspected TCE plume near Building 813/814 will be decommissioned because results of the investigation indicated that the plume was localized, and did not extend to the location of any of the selected temporary wells. NYSDEC and USEPA agreed with the proposal to abandon the SEAD-12 temporary wells at a BRAC Cleanup Team (BCT) meeting on January 1, 2005. Brief descriptions of each site are contained below, along with summaries of any submitted reports and the proposed or agreed to plans for each.

2.2.1 SEAD-9 – Old Scrap Wood Site

SEAD-9 is located on the east-central portion of the Depot about 400 feet north of the intersection of East Kendaia Road and East Patrol Road (**Figure 2-1**). Within the site, a dirt road leads to a cul-de-sac where construction debris was deposited from 1977 to 1984. From 1984 to 1986, only scrap wood was deposited at the site. Periodically between 1985 and 1992, the Depot fire department used SEAD-9 for training when they burned scrap wood that was not sold.

The area was investigated by Parsons as part of the Expanded Site Inspection (ESI) for Eight Moderately Low Priority Areas of Concern (AOCs), the results of which were detailed in a December 1995 Report (Parsons, 1995a). The 2002 Mini Risk Assessment (MRA) determined that SEAD-9 did not pose a threat to human health or the environment given its intended use as part of the planned industrial/office development area. SEAD-9 was included in a July 2003 PRAP (Parsons, 2003a) with 27 other SWMUs where the Army proposed either No Action or No Further Action as the final remedial action. The EPA signed a ROD (Parsons, 2003b), which included SEAD-9 in September 2003.

2.2.2 SEAD-12 – Radioactive Waste Burial Sites

The 12 temporary wells designated for decommissioning in SEAD-12 are located in the area adjacent to the east and north sides of Building 813/814. The area surrounding Building 813/814 was the subject of a supplemental groundwater investigation following the completion of the site-wide SEAD-12 Remedial Investigation (RI) because groundwater samples collected during the RI indicated that trichloroethylene (TCE) was present in two wells at the site. The SRI was performed in 2004 to delineate the extent the

potential TCE plume. The SRI included the installation and sampling of the 12 temporary wells in question. Results of the sample analysis indicated that the TCE contamination did not extend into any of the 12 temporary wells. Parsons presented these results at the BRAC Meeting held on January 18, 2005 and received concurrence from NYSDEC and USEPA that the temporary wells were no longer necessary. Parsons issued the Final SRI Report detailing the results of the groundwater and soil investigations performed at Building 813/814 in October 2006. Parsons submitted the Final Feasibility Study in January 2008. Parsons will issue a Draft PRAP for SEAD-12 by the summer of 2008, and a Draft ROD will be issued before the end of 2008.

2.2.3 SEAD-33 – Building 121 – Underground Waste Oil Tank

SEAD-33 is located on the east-central portion of the Depot (**Figure 2-1**) and is comprised of the 30,000-gallon, steel underground waste oil tank at Building-121. A limited sampling program was performed in the area of the tank in 1994, with no contaminants detected above limits set forth in the NYSDEC Technical Administrative Guidance Memorandums (TAGMs). A MRA performed with the data from the site investigation determined that SEAD-33 did not pose a threat to human health or the environment given its intended use as part of the industrial area. SEAD-33 was included in the No Action/No Further Action PRAP and ROD finalized in 2003.

2.2.4 SEAD-34 – Building 319 – Underground Waste Oil Tanks (2)

SEAD-34 is located on the east-central portion of the Depot (**Figure 2-1**) and is comprised of the two underground waste oil tanks, one 30,000-gallon and one 20,000-gallon, at Building-319. A limited sampling program was performed in the area of the tank in 1994, with no contaminants detected above TAGMs. A MRA determined that SEAD-34 did not pose a threat to human health or the environment given its intended use as part of the industrial area. SEAD-34 was included in the NA/NFA ROD finalized in 2003.

2.2.5 SEAD-43 – Old Missile Propellant Test Lab & Herbicide/Pesticide Storage Building

SEAD-43 is located in the southeast corner of the Depot (**Figure 2-1**) and is comprised of Building 606 and the surrounding grounds. The building was reportedly used as a missile propellant test laboratory in the 1960s and was used as storage building for herbicides and pesticides from 1976 until the 1990s. The site was investigated extensively for toxic waste contamination during the ESI for Eight Moderately Low Priority AOCs and was investigated in 1999 for ordnance and explosives (OE) contamination. An Army memorandum dated April 6, 2000 classified the site as “No DOD Action Indicated” based on the results

of the OE surveys, and the MRA determined that SEAD-43 did not pose a threat to human health or the environment based on its future use as part of a correctional facility of the State of New York. Parsons submitted a Draft Final PRAP with land use controls (Institutional Controls [IC]) in August 2006 and a ROD with IC was signed March 2007.

2.2.6 SEAD-44A – Quality Assurance Test Laboratory

SEAD-44A is located in the southeast corner of the Depot approximately 1,000 feet east of Brady Road and 1,500 feet north of South Patrol Road (**Figure 2-1**). The approximately 15-acre site was originally occupied by Building 416 and a number of earthen berms that ran parallel to a dirt road through the site. The berms were most likely used to contain detonations caused during the QC testing of 40mm rifle-fired grenades. The building was dismantled prior to 1999, although the exact date of removal is not known, and the berms were bulldozed as part of an OE removal project in 2000. The site is currently a vacant field.

The site was investigated for toxic waste contamination during the ESI for Eight Moderately Low Priority AOCs and was surveyed for OE contamination during a number of investigations. A characterization study was performed by Army personnel in 1999 in support of the Explosive Safety Submission (ESS) (USACE, 2000), after which the boundaries of the site were expanded to approximately 25 acres. All 25 acres were fully cleared of vegetation prior to an OE clearance operation performed in 2000. The results of this clearance are discussed in Parsons' Final OE Engineering Evaluation/Cost Analysis (EE/CA) (2004a) and EODT's Final Report for the Ordnance and Explosive Removal Action at Seneca Army Depot Activity 44A (2001). A final OE clearance was performed in 2001, after which a recommendation was made that the site be released for unrestricted use with respect to OE (Weston, 2003). The MRA determined that SEAD-44A did not pose a threat to human health or the environment with respect to toxic waste based on its future use as part of a correctional facility of the State of New York. Parsons submitted a Draft Final PRAP with IC in August 2006 and a ROD with IC was signed March 2007.

2.2.7 SEAD-44B – Quality Assurance Test Laboratory

SEAD-44B, located in the southeastern portion of the Depot, runs along the east side of Brady Road and occupies an area that is approximately 350 feet by 200 feet (**Figure 2-1**) in size. Within this area are the structural remains of two buildings, an abandoned concrete foundation, and a dilapidated metal shack. The buildings were part of a QA test area for pyrotechnics, chemical smoke (CS) grenades, and other fire devices. The site was investigated during the ESI for Eight Moderately Low Priority AOCs, and the

MRA determined that SEAD-44B did not pose a threat to human health or the environment based on its future use as part of a correctional facility of the State of New York. Parsons submitted a Draft Final PRAP with IC in August 2006 and a ROD with IC was signed March 2007.

2.2.8 SEAD-58 – Debris Area Near Booster Station 2131

SEAD-58 is located in the west-central portion of the Depot approximately 355 feet northeast of Booster Station 2131 (**Figure 2-1**) and is characterized by two areas separated by a drainage swale. It was rumored that unknown types of debris, possibly including DDT, were dumped in both of the areas. The site was investigated during the ESI for Eight Moderately Low Priority AOCs, and the MRA determined that SEAD-58 did not pose a threat to human health or the environment based on its future use as part of the conservation/recreation area.

2.2.9 SEAD-62 – Nicotine Sulfate Disposal Area

SEAD-62, located in the southeastern portion of the Depot (**Figure 2-1**), originally measures approximately ¼ mile by ½ mile and is characterized by mostly undeveloped land with the exception of ammunition storage igloos and buildings on the western perimeter. It was rumored that two drums of nicotine sulfate may have been disposed of in the vicinity of Buildings 606 and 612, which are two of the buildings on the western side of this AOC. The site was investigated during the ESI for Seven Low Priority AOCs, the results of which were detailed in an April 1995 Report (Parsons, 1995b). After the ESI the site boundaries were reduced to 300 feet by 280 feet due to non-findings in the ESI. The MRA determined that SEAD-62 did not pose a threat to human health or the environment based on its future use as part of a correctional facility of the State of New York.

2.2.10 SEAD-64A – Garbage Disposal Area

SEAD-64A is located south of the storage pad at the intersection of 7th Street and Avenue A (**Figure 2-1**). The site was used as a solid waste disposal area between 1974 and 1979 when the solid waste incinerator at the Depot was not in operation. It was used primarily as a landfill for household items, although the SWMU Classification Report states that metal drums and other miscellaneous items may have been disposed of in the landfill. The site was investigated during the ESI for Seven Low Priority AOCs, and the MRA determined that SEAD-64A did not pose a threat to human health or the environment based on its intended use as part of the warehouse area. SEAD-64A was included in the PRAP for SWMUs Requiring Land Use Controls (Parsons, 2003c) in December 2003, and the EPA signed a ROD (Parsons, 2004b) for those sites in September 2004.

2.2.11 SEAD-64B – Garbage Disposal Area

SEAD-64B is located immediately north of Ovid Road near Building 2086 in the southern end of the Depot (**Figure 2-1**). As with SEAD-64A, the site was used as a solid waste disposal area between 1974 and 1979 and was used primarily as a landfill for household items but may have been used for some industrial waste. The site was investigated during the ESI for Seven Low Priority AOCs, and the MRA determined that SEAD-64B did not pose a threat to human health or the environment based on its future use as recreational/conservation land. Parsons submitted a Draft Final PRAP with IC in August 2006 and a ROD with IC was signed March 2007.

2.2.12 SEAD-64C – Garbage Disposal Area

SEAD-64C is located at the intersection of East Patrol Road and South Patrol Road in the southeastern corner of the Depot (**Figure 2-1**). In 1980, the site was proposed as a possible location for a sanitary landfill; however, it is unclear how much dumping, if any, was ever done in this location. The site was investigated during the ESI for Seven Low Priority AOCs, and the MRA determined that SEAD-64C did not pose a threat to human health or the environment based on its future use as part of a correctional facility of the State of New York. Parsons submitted a Draft Final PRAP with IC in August 2006 and a ROD with IC was signed March 2007.

2.2.13 SEAD-64D – Garbage Disposal Area

SEAD-64D was originally approximately 2,700-foot by 1,200-foot area adjacent to the West Patrol Road in the southwestern corner of the Depot (**Figure 2-1**). This area is generally heavily vegetated, although a number of north-south and east-west trending firebreaks have been cut through it. As with SEADs 64A and 64B, SEAD-64D was used for household solid waste and possibly some industrial waste disposal during the years the incinerator was not in operation. The site boundaries were reduced to 230 feet by 110 feet, because of the non-findings in the ESI. The site was investigated during the ESI for Seven Low Priority AOCs, and the MRA determined that SEAD-64D did not pose a threat to human health or the environment given its future use as part of the conservation/recreation area. Parsons submitted a Draft Final PRAP with IC in August 2006 and a ROD with IC was signed March 2007.

3.0 WELL ABANDONMENT ACTIVITIES

The Army abandoned 47 groundwater monitoring wells in accordance with specifications identified in its work plan "*Monitoring Well Abandonment Workplan"* (Parsons, May 2005b) and NYSDEC's *Groundwater Monitoring Well Decommissioning Procedures* (Malcolm-Pirnie, 1996). The Army's work plan originally identified 57 wells as being selected for abandonment; however six of the designated wells at SEADs-44A, 44B, and 62 could not be found at their identified locations within the Five Points Correctional Facility and are believed to have been destroyed during the construction of that facility. Four other wells designated for abandonment located at SEAD-70 were not abandoned at this time since neither a final remedy nor a Record of Decisions (ROD) is not in place for this area of concern. Northing and Easting coordinates of the abandoned wells are provided in **Table 1-1**. The original construction details of the abandoned wells, where available, are provided in **Attachment A**.

Three well abandonment events were conducted on or between the dates of June 19-22, 2005, August 9, 2007, and December 3-5, 2007. Work completed in 2005 was limited to wells at AOCs where final ROD were approved by the Army and the USEPA, with concurrence received from the State of New York. The work performed in 2007 included wells previously not removed during the 2005 effort, as well as the abandonment of additional wells that were located at AOCs where final decisions had been defined and documented in RODs since 2005. The Army issued a Notice of Intent to Proceed with well abandonment activities on July 30, 2007 to the EPA and NYSDEC, see **Attachment B**.

The decommissioning of each well was addressed on an individual basis and the appropriate procedure was selected based upon the well's particular condition. If protective bollards were present, they removed prior to well abandonment. Personnel of Parsons and its subcontractor, GeoLogic NY abandoned designated wells via one of two procedures:

- Casing Pulling – the well's bottom cap was punctured and then the well casing was pulled from the ground while the former well installation's void space was back grouted with a Portland cement and Bentonite mixture as the casing was lifted; or

- Overdrilling – the entire length of well installation was overdrilled using a hollow-stem augur, the well casing, sand pack and seal materials were removed, and then the former well installation's void space was back grouted with a Portland cement / Bentonite mixture as the auger was lifted and removed.

A general description of the well abandonment activities is provided in this section; details of specific

well abandonment method used for each well is provided in **Table 1-2**. Thirty-five (35) of the 47 wells abandoned were completed via casing pulling; the list of wells abandoned in this manner is presented below.

- SEAD-9 – Monitoring wells MW9-1, MW9-2, and MW9-3;
- SEAD-43 – Monitoring wells MW43-1, MW43-2, MW43-3, and MW43-4;
- SEAD-44B – Monitoring well MW44B-1 only; Montiroing wells MW44B-2 and MW44B-3 were not found at designated coordinates within the Five Points Correctional Facility property and are presumed to have been destroyed during the construction of this facility;
- SEAD-58 – Monitoring wells MW58-1, MW58-2, MW58-3, and MW58-4;
- SEAD-62 - Monitoring wells MW62-1 and MW62-3; Monitoring well MW62-2 was not found at its designated coordinates within the Five Points Correctional Facility property and is presumed to have been destroyed during the construction of this facility;
- SEAD-64A – Monitoring wells MW64A-1A, MW64A-2, and MW64-3;
- SEAD-64B – Monitoring wells MW64B-1 and MW64B-2;
- SEAD-64C – Monitoring well MW64C-1;
- SEAD-64D – Monitoring wells MW64D-1, MW64D-2, MW64D-3, MW64D-4, and MW64D-5; and
- SEAD-12 – Temporary monitoring wells TW12-1, TW12-3, TW12-4, TW12-5, TW12-7, TW12-8, TW12-9, TW12-24, TW12-25, and TW12-26.

The remaining 12 wells were abandoned by overdrilling the well installation. The list below summarizes the sites and wells that were abandoned by overdrilling the well casing:

- SEAD-33 – Monitoring wells MW33-1 and MW33-2;
- SEAD-34 – Monitoring wells MW34-1 and MW34-2
- SEAD-64A – Monitoring well MW64A-1;
- SEAD-64B – Monitoring well MW64B-3;
- SEAD-64C – Monitoring wells (MW64C-6, MW64C-7, MW64C-8, and MW64C-9); and

- SEAD-12 – Temporary wells TW12-22 and TW12-23.

During the overdrilling of monitoring well MW34-2, Parsons and GeoLogic NY encounter auger refusal at 8.5 feet below grade surface. Historic information estimated that the depth of the installation was 10 feet below grade. The former well installation was grouted from the point of augur refusal to the surface. Parsons and Geologic NY initially tried to abandon monitoring well MW64A-1 by casing pulling. However, the well casing broke in place during this attempt and the well installation was subsequently overdrilled in accordance with stipulations of the work plan and NYSDEC *Groundwater Monitoring Well Decommissioning Procedures* (Malcolm-Pirnie, 1996).

4.0 SUMMARY

The work plan "*Monitoring Well Abandonment Workplan"* (Parsons, May 2005b) had listed 57 wells for abandonment, however wells at SEADs-44A, 44B, and 62 (six wells) could not be located, and four wells at SEAD-70 could not be abandoned at this time since neither a final remedy nor a ROD is not in place for this area of concern. A total of 47 wells were abandoned in accordance to the work plan (Parsons, May 2005b) and NYSDEC "*Groundwater Monitoring Well Decommissioning Procedures"* (Malcolm-Pirnie, 1996).

Three abandonment events were conducted: June 20 through 22, 2005, August 9, 2007, and December 3 through 5, 2007.

- Well casings were considered non-hazardous waste based on historical data and were disposed of properly in accordance with the work plan and NYSDEC "Groundwater Monitoring Well Decommissioning Procedures" (Malcolm-Pirnie, 1996),
- Protective bollards were cleaned and recycled for scrap metal, and
- Soil cutting were disposed of on-site in accordance with the work plan and NYSDEC "Groundwater Monitoring Well Decommissioning Procedures" (Malcolm-Pirnie, 1996).

Wells were abandoned via one of two procedures: Casing Pulling while back grouting the void well installation space as the well casing is lifted upwards, or Overdrilling around the entire well casing for the entire length of the casing and then grouting the void well installation space as the auger casing is lifted upwards. Thirty-five (35) of the wells were pulled and back grouted. The remaining 12 wells were overdrilled in order to abandon them.

TABLES

Table 1-1
Wells Abandonment List
Monitoring Well Abandonment Report
Seneca Army Depot Activity

Group	Site	Well ID	Northing	Easting	Depth of Well from Ground (ft)	Grouted length? (ft)	Construction
A	SEAD-9	MW9-1	1000604.30	750938.13	5.2	2.5	PVC
	SEAD-9	MW9-2	1000653.30	750473.81	5.3	1.9	PVC
	SEAD-9	MW9-3	1000346.40	750524.00	10.2	2.5	PVC
	SEAD-33	MW33-1			est 10 ft	unknown	unknown
	SEAD-33	MW33-2			est 10 ft	unknown	unknown
	SEAD-34	MW34-1			est 10 ft	unknown	unknown
	SEAD-34	MW34-2			est 10 ft	unknown	unknown
	SEAD-43	MW43-1	987079.13	754460.06	15	3	PVC
	SEAD-43	MW43-2	987117.31	754149.38	18.4	2.7	PVC
	SEAD-43	MW43-3	987371.81	753848.38	18.7	2.7	PVC
	SEAD-43	MW43-4	987469.81	753486.94	13.4	3.1	PVC
B	SEAD-44A	MW44A-1	985665.81	753526.69	10.8	3	PVC
	SEAD-44A	MW44A-2	985425.38	753032.63	30.1	14	PVC
	SEAD-44A	MW44A-3	985174.00	752661.81	13.5	2.5	PVC
	SEAD-44B	MW44B-1	988170.63	751781.19	11.8	3.1	PVC
	SEAD-44B	MW44B-2	988170.63	751447.19	12.8	3.4	PVC
	SEAD-44B	MW44B-3	988015.06	751421.69	14.4	3.1	PVC
	SEAD-58	MW58-1	1000108.10	739368.44	11.2	3.5	PVC
	SEAD-58	MW58-2	1000232.30	739160.88	9.6	3	PVC
	SEAD-58	MW58-3	1000163.30	738946.25	10.6	3	PVC
	SEAD-58	MW58-4	999963.63	739060.31	9.5	3	PVC
C	SEAD-62	MW62-1	986971.81	753046.44	8.1	2.7	PVC
	SEAD-62	MW62-2	986879.31	752433.63	9.8	3.7	PVC
	SEAD-62	MW62-3	986348.75	752362.81	18	4.5	PVC
	SEAD-64A	MW64A-1	992408.81	750892.13	11.7	2.9	PVC
	SEAD-64A	MW64A-1A	992205.50	750788.88	12	3	PVC
	SEAD-64A	MW64A-2	992447.63	750496.56	8	2.7	PVC
	SEAD-64A	MW64A-3	992302.56	750529.31	8.7	2.7	PVC
	SEAD-64B	MW64B-1	985851.50	748724.31	15.7	3	PVC
	SEAD-64B	MW64B-2	985864.31	748302.56	14	2.5	PVC
	SEAD-64B	MW64B-3	986003.44	748385.56	26.2	7.5	PVC
	SEAD-64C	MW64C-1	984366.00	753991.56	16.1	2.5	PVC
	SEAD-64C	MW64C-6	984894.25	752900.13	est 10	unknown	PVC
	SEAD-64C	MW64C-7	984498.31	752224.38	est 10	unknown	PVC
	SEAD-64C	MW64C-8	984017.69	752914.63	est 10	unknown	PVC
	SEAD-64C	MW64C-9	984344.06	754311.88	est 10	unknown	PVC
D	SEAD-64D	MW64D-1	993059.75	741523.06	5.3	2.5	PVC
	SEAD-64D	MW64D-2	993638.56	740197.69	9	2.8	PVC
	SEAD-64D	MW64D-3	993017.31	740736.13	7.6	3.9	PVC
	SEAD-64D	MW64D-4	992533.69	741082.25	9.6	3.3	PVC
	SEAD-64D	MW64D-5	991371.56	740724.50	7.2	3.3	PVC
E	SEAD-12	TW12-1	1013887.38	744771.06	10.29	4	PVC
	SEAD-12	TW12-3	1013958.56	744795.82	9.9	4	PVC
	SEAD-12	TW12-4	1013837.12	744725.82	8.65	3	PVC
	SEAD-12	TW12-5	1014081.20	744840.68	11.05	4	PVC
	SEAD-12	TW12-7	1014167.40	744685.56	9	3.5	PVC
	SEAD-12	TW12-8	1014213.82	744689.60	10	4	PVC
	SEAD-12	TW12-9	1014218.06	744763.18	9.11	4.5	PVC
	SEAD-12	TW12-22	1013856.66	744764.52	23.5	9	PVC
	SEAD-12	TW12-23	1013837.12	744725.82	23.25	11.2	PVC
	SEAD-12	TW12-24	1014102.80	744789.50	9.3	3.1	PVC
	SEAD-12	TW12-25	1014159.70	744816.26	12.3	5.2	PVC
	SEAD-12	TW12-26	1014173.55	744765.00	10.9	4.9	PVC

Note: Grout Length is an estimate based on the depth of the well from well installation logs.

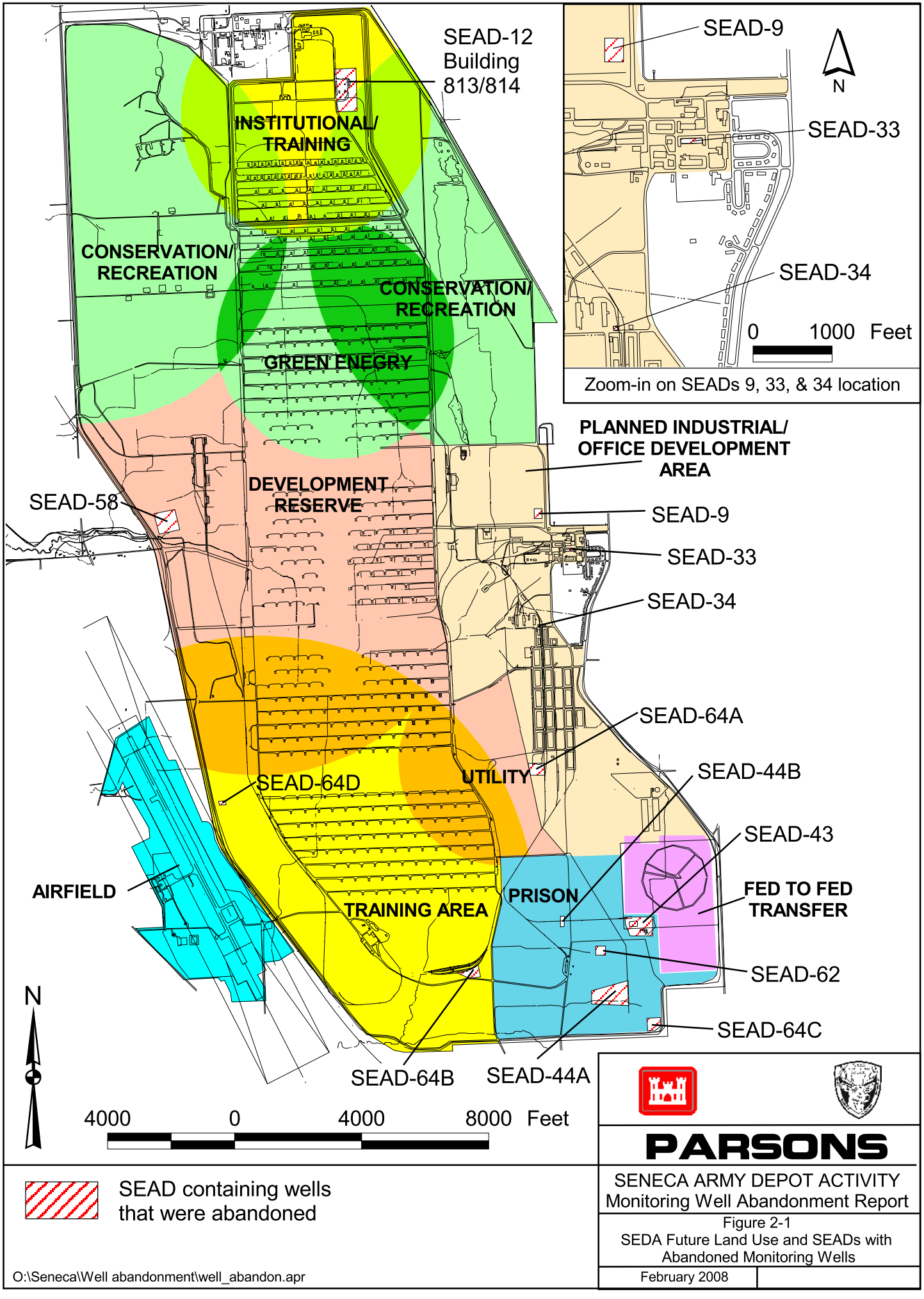
Table 1-2
Wells Abandonment Summary
Monitoring Well Abandonment Report
Seneca Army Depot Activity

			Pre-Abandonment Conditions			Abandonment Activities										
Group	Site	Well ID	Depth of Well from Ground (ft)	Grouted length?	Construction	Date Abandoned	Selected Abandonment Method	Casing Pulled	Bollards Pulled	Number of Bollards	Overdrill	Back Grouted	Grout	Total Depth (ft)	Back Grout (ft)	Overdrill (ft)
A	SEAD-9	MW9-1	5.2	2.5	PVC	12/4/2007	Backgrout	X	X	3		X		5.2		
	SEAD-9	MW9-2	5.3	1.9	PVC	6/20/2005	Backgrout	X	X	3		X		5.2	5.2	
	SEAD-9	MW9-3	10.2	2.5	PVC	12/4/2007	Backgrout	X	X	3		X		10.2		
	SEAD-33	MW33-1	est 10 ft	unknown	unknown	6/22/2005	Overdrill		X	3	X		X	6		6
	SEAD-33	MW33-2	est 10 ft	unknown	unknown	6/22/2005	Overdrill				X		X	5.5		5.5
	SEAD-34	MW34-1	est 10 ft	unknown	unknown	6/20/2005	Overdrill				X		X	6		6
	SEAD-34	MW34-2	est 10 ft	unknown	unknown	6/20/2005	Overdrill				X		X	8.9		8.9
	SEAD-43	MW43-1	15	3	PVC	12/4/2007	Backgrout	X	X	3		X		15	15	
	SEAD-43	MW43-2	18.4	2.7	PVC	12/4/2007	Backgrout	X	X	3		X		18.4	18.4	
	SEAD-43	MW43-3	18.7	2.7	PVC	12/4/2007	Backgrout	X	X	3		X		18.7	18.7	
	SEAD-43	MW43-4	13.4	3.1	PVC	12/4/2007	Backgrout	X	X	3		X		13.4	13.4	
B	SEAD-44A	MW44A-1	10.8	3	PVC	Well was removed in 1999 Five Point Correctional construction										
	SEAD-44A	MW44A-2	30.1	14	PVC	Well was removed in 1999 Five Point Correctional construction										
	SEAD-44A	MW44A-3	13.5	2.5	PVC	Well was removed in 1999 Five Point Correctional construction										
	SEAD-44B	MW44B-1	11.8	3.1	PVC	12/4/2007	Backgrout	X	X	3		X		11.8	11.8	
	SEAD-44B	MW44B-2	12.8	3.4	PVC	Well was previously removed, potentially in the 1999 Five Point Correctional construction										
	SEAD-44B	MW44B-3	14.4	3.1	PVC	Located within Five Point Correction facility										
	SEAD-58	MW58-1	11.2	3.5	PVC	12/5/2007	Backgrout	X	X	3		X		11.2	11.2	
	SEAD-58	MW58-2	9.6	3	PVC	12/5/2007	Backgrout	X	X	3		X		9.6	9.6	
	SEAD-58	MW58-3	10.6	3	PVC	12/5/2007	Backgrout	X	X	3		X		10.6	10.6	
	SEAD-58	MW58-4	9.5	3	PVC	12/5/2007	Backgrout	X	X	3		X		9.5	9.5	
C	SEAD-62	MW62-1	8.1	2.7	PVC	12/4/2007	Backgrout	X	X	3		X		8.1	8.1	
	SEAD-62	MW62-2	9.8	3.7	PVC	Well was previously removed, potentially in the 1999 Five Point Correctional construction										
	SEAD-62	MW62-3	18	4.5	PVC	12/4/2007	Backgrout	X	X	3		X		18	18	
	SEAD-64A	MW64A-1	11.7	2.9	PVC	6/21/2005	Overdrill		X	3	X		X	12		12
	SEAD-64A	MW64A-1A	12	3	PVC	12/3/2007	Backgrout	X	X	3		X		11.7	11.7	
	SEAD-64A	MW64A-2	8	2.7	PVC	6/20/2005	Backgrout	X	X	3		X		8	8	
	SEAD-64A	MW64A-3	8.7	2.7	PVC	6/20/2005	Backgrout	X	X	3		X		8.7	8.7	
	SEAD-64B	MW64B-1	15.7	3	PVC	12/5/2007	Backgrout	X	X	3		X		15.7	15.7	
	SEAD-64B	MW64B-2	14	2.5	PVC	12/5/2007	Backgrout	X	X	3		X		14	14	
	SEAD-64B	MW64B-3	26.2	7.5	PVC	12/5/2007	Overdrill		X	3	X		X	26		26
	SEAD-64C	MW64C-1	16.1	2.5	PVC	12/4/2007	Backgrout	X	X	3		X		16.1	16.1	
	SEAD-64C	MW64C-6	est 10	unknown	PVC	12/4/2007	Overdrill		X	3	X		X	12		12
	SEAD-64C	MW64C-7	est 10	unknown	PVC	12/4/2007	Overdrill		X	3	X		X	12		12
	SEAD-64C	MW64C-8	est 10	unknown	PVC	12/4/2007	Overdrill		X	3	X		X	12		12
	SEAD-64C	MW64C-9	est 10	unknown	PVC	12/4/2007	Overdrill		X	3	X		X	12		12
D	SEAD-64D	MW64D-1	5.3	2.5	PVC	12/3/2007	Backgrout	X	X	3		X		5.3	5.3	
	SEAD-64D	MW64D-2	9	2.8	PVC	12/3/2007	Backgrout	X	X	3		X		9	9	
	SEAD-64D	MW64D-3	7.6	3.9	PVC	12/3/2007	Backgrout	X	X	3		X		7.6	7.6	
	SEAD-64D	MW64D-4	9.6	3.3	PVC	12/3/2007	Backgrout	X	X	3		X		9.6	9.6	
	SEAD-64D	MW64D-5	7.2	3.3	PVC	12/3/2007	Backgrout	X	X	3		X		7.2	7.2	
E	SEAD-12	TW12-1	10.29	4	PVC	6/23/2005	Backgrout	X				X		10.29	10.29	
	SEAD-12	TW12-3	9.9	4	PVC	8/9/2007	Backgrout	X				X		9.9	9.9	
	SEAD-12	TW12-4	8.65	3	PVC	6/23/2005	Backgrout	X				X		8.65	8.65	
	SEAD-12	TW12-5	11.05	4	PVC	6/23/2005	Backgrout	X				X		11.05	11.05	
	SEAD-12	TW12-7	9	3.5	PVC	6/21/2005	Backgrout	X				X		9	9	

Table 1-2
Wells Abandonment Summary
Monitoring Well Abandonment Report
Seneca Army Depot Activity

			Pre-Abandonment Conditions			Abandonment Activities										
Group	Site	Well ID	Depth of Well from Ground (ft)	Grouted length?	Construction	Date Abandoned	Selected Abandonment Method	Casing Pulled	Bollards Pulled	Number of Bollards	Overdrill	Back Grouted	Grout	Total Depth (ft)	Back Grout (ft)	Overdrill (ft)
	SEAD-12	TW12-8	10	4	PVC	6/21/2005	Backgrout	X				X		10	10	
	SEAD-12	TW12-9	9.11	4.5	PVC	6/21/2005	Backgrout	X				X		9.11	9.11	
	SEAD-12	TW12-22	23.5	9	PVC	6/23/2005	Overdrill	X			X		X	23.5		23.5
	SEAD-12	TW12-23	23.25	11.2	PVC	6/23/2005	Overdrill	X			X		X	24.2		24.2
	SEAD-12	TW12-24	9.3	3.1	PVC	8/9/2007	Backgrout	X						9.3		
	SEAD-12	TW12-25	12.3	5.2	PVC	6/21/2005	Backgrout	X				X		12.3	12.3	
	SEAD-12	TW12-26	10.9	4.9	PVC	6/23/2005	Backgrout	X				X		10.9	10.9	

FIGURES


SEAD-12
Building
813/814
INSTITUTIONAL/
TRAINING
CONSERVATION/
RECREATION
CONSERVATION/
RECREATION
GREEN ENEGRY
DEVELOPMENT
RESERVE
PLANNED INDUSTRIAL/
OFFICE DEVELOPMENT
AREA
SEAD-58
SEAD-9
SEAD-33
SEAD-34
SEAD-64A
UTILITY
SEAD-44B
SEAD-64D
SEAD-43
AIRFIELD
PRISON
FED TO FED
TRANSFER
TRAINING AREA
SEAD-62
SEAD-64C
SEAD-64B
SEAD-44A
N
4000 0 4000 8000 Feet
SEAD-9
SEAD-33
SEAD-34
N
0 1000 Feet
Zoom-in on SEADs 9, 33, & 34 location
SEAD containing wells
that were abandoned
PARSONS
SENECA ARMY DEPOT ACTIVITY
Monitoring Well Abandonment Report
Figure 2-1
SEDA Future Land Use and SEADs with
Abandoned Monitoring Wells
February 2008
O:\Seneca\Well abandonment\well_abandon.apr

ATTACHMENT A

COMPLETION REPORT OF WELL No. MW9-1

PROJECT: EIGHT MODERATELY LOW PRIORITY AOCs
PROJECT LOCATION: SENECA ARMY DEPOT, ROMULUS NY
DRILLING CONTRACTOR: EMPIRE SOILS INVESTIGATIONS
DRILLING METHOD: HOLLOW STEM AUGER
WELL INSTALLATION STARTED: 03/21/94
WELL INSTALLATION COMPLETED: 03/21/94

WELL LOCATION (N/E): 1000604.2 750938.1
REFERENCE COORDINATE SYSTEM: NEW YORK STATE PLAN
GROUND SURFACE ELEVATION (ft): 747.3
DATUM: NAD 1983
GEOLOGIST: F. O'LOUGHLIN
CHECKED BY: KK

STRATA: MICRO DESCRIPTION (from boring log)	DEPTH (ft)	SYMBOL	WELL DETAILS	DEPTH (ft)		ELEVATION (ft)
					TPC	
					TR	
					TC	
	0			0.0	GS	747.3
ML						
ML						
ML				1.5	TBS	745.8
ML						
-						
ML				2.5	TSP	744.8
ML						
-				3.4	TSC	743.9
ML						
ML				4.3	BSC	743.0
-						
ML	5.2	5		5.2	POW	742.1
ML						
-						
-						

WELL CONSTRUCTION DETAILS

PROTECTIVE COVER
Diameter: 4
Type: RISER
Interval: 3.5

RISER
Diameter: 2
Type: SCH. 40-PVC
Interval: 4.5

SCREEN
Diameter: 2
Type: SCH. 40-PVC/0.010
Interval: .9

SURFACE SEAL
Type: CEMENT
Interval: 1.5

GROUT
Type: N/A
Interval: N/A

SEAL
Type: BENTONITE PELLETS
Interval: 1

SANDPACK
Type: #1, #3
Interval: 2.55

WELL DEVELOPMENT DATA
Date: 5/13/94
Method: BAIL/PUMP
Duration: 110 DAYS
Rate: 308 L/MIN
Final Measurements:

pH	Temperature (degrees C)	Conductivity (micromhos/cm)	Turbidity (NTU)
7.6	7.6	420	19.5

WATER LEVELS

Date	Time	Depth,TR
4/1	1245	3.84
4/14	1150	5.40
7/19	1004	5.87

LEGEND
SURFACE SEAL
GROUT
SEAL
SANDPACK
GRAVEL
SAND
SILT
CLAY
NO RECOVERY

TPC TOP OF PROTECTIVE CASING
TR TOP OF WELL RISER
GS GROUND SURFACE
TG TOP OF GROUT
TBS TOP BENTONITE SEAL
TSP TOP OF SANDPACK
TSC TOP OF SCREEN
BSC BOTTOM OF SCREEN
TD TOTAL DEPTH
POW POINT OF WELL

PARSONS
ENGINEERING-SCIENCE, INC.

UNITED STATES ARMY
CORPS OF ENGINEERS
Seneca Army Depot
Romulus, New York

COMPLETION REPORT OF WELL No. MW9-1

COMPLETION REPORT OF WELL No. MW9-2

PROJECT: EIGHT MODERATELY LOW PRIORITY AOCs
PROJECT LOCATION: SENECA ARMY DEPOT, ROMULUS NY
DRILLING CONTRACTOR: EMPIRE SOILS INVESTIGATIONS
DRILLING METHOD: HOLLOW STEM AUGER
WELL INSTALLATION STARTED: 03/09/94
WELL INSTALLATION COMPLETED: 03/09/94

WELL LOCATION (N/E): 1000653.0 750473.7
REFERENCE COORDINATE SYSTEM: NEW YORK STATE PLAN
GROUND SURFACE ELEVATION (ft): 731.5
DATUM: NAD 1983
GEOLOGIST: F. O'LOUGHLIN
CHECKED BY: KK

STRATA: MICRO DESCRIPTION (from boring log)	DEPTH (ft)	SYMBOL	WELL DETAILS	DEPTH (ft)		ELEVATION (ft)
					TPC	
					TR	
					TC	
	0			0.0	GS	731.5
ML				1.0	TBS	730.5
ML				1.9	TSP	729.6
ML				2.5	TSC	729.0
				4.5	BSC	727.0
	5.3 5			5.3	POW	726.2

WELL CONSTRUCTION DETAILS

PROTECTIVE COVER
Diameter: 4
Type: RISER
Interval: 3.5

RISER
Diameter: 2
Type: SCH. 40-PVC
Interval: 4.75

SCREEN
Diameter: 2
Type: SCH. 40-PVC/0.010
Interval: 2

SURFACE SEAL
Type: CEMENT
Interval: 1.0

GROUT
Type: N/A
Interval: N/A

SEAL
Type: BENTONITE PELLETS
Interval: .9

SANDPACK
Type: #1, #3
Interval: 3.4

WELL DEVELOPMENT DATA
Date: 3/17/94
Method: BAIL
Duration: 65 MIN
Rate: 1.4 L/MIN
Final Measurements:

pH	Temperature (degrees C)	Conductivity (micromhos/cm)	Turbidity (NTU)
7.07	1.5	500	3.18

WATER LEVELS

Date	Time	Depth, TR
3/17	1015	2.11
3/17	1115	2.30

LEGEND

SURFACE SEAL, GROUT, SEAL, SANDPACK, GRAVEL, SAND, SILT, CLAY, NO RECOVERY

TPC	TOP OF PROTECTIVE CASING
TR	TOP OF WELL RISER
GS	GROUND SURFACE
TG	TOP OF GROUT
TBS	TOP BENTONITE SEAL
TSP	TOP OF SANDPACK
TSC	TOP OF SCREEN
BSC	BOTTOM OF SCREEN
TD	TOTAL DEPTH
POW	POINT OF WELL

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COMPLETION REPORT OF WELL No. MW9-2

COMPLETION REPORT OF WELL No. MW9-3

PROJECT: EIGHT MODERATELY LOW PRIORITY AOCs
PROJECT LOCATION: SENECA ARMY DEPOT, ROMULUS NY
DRILLING CONTRACTOR: EMPIRE SOILS INVESTIGATIONS
DRILLING METHOD: HOLLOW STEM AUGER
WELL INSTALLATION STARTED: 03/20/94
WELL INSTALLATION COMPLETED: 03/20/94

WELL LOCATION (N/E): 1000346.4 750523.7
REFERENCE COORDINATE SYSTEM: NEW YORK STATE PLAN
GROUND SURFACE ELEVATION (ft): 734.4
DATUM: NAD 1983
GEOLOGIST: F. O'LOUGHLIN
CHECKED BY: KK

STRATA: MICRO DESCRIPTION (from boring log)	DEPTH (ft)	SYMBOL	WELL DETAILS	DEPTH (ft)		ELEVATION (ft)
					TPC	
					TR	
					TC	
	0			0.0	GS	734.4
ML						
ML						
ML				1.5	TBS	732.9
-						
SM				2.5	TSP	731.9
				3.4	TSC	731.0
-						
SM						
SP	5					
-						
SP						
ML						
-						
ML				9.0	BSC	725.4
ML						
-						
10.2	10			10.2	POW	724.2
-						

WELL CONSTRUCTION DETAILS

PROTECTIVE COVER
Diameter: 4
Type: RISER
Interval: 3.5

RISER
Diameter: 2
Type: SCH. 40-PVC
Interval: 4.6

SCREEN
Diameter: 2
Type: SCH. 40-PVC/0.010
Interval: .9, 3.95

SURFACE SEAL
Type: CEMENT
Interval: 1.5

GROUT
Type: N/A
Interval: N/A

SEAL
Type: BENTONITE PELLETS
Interval: 1

SANDPACK
Type: #1, #3
Interval: 7.65

WELL DEVELOPMENT DATA
Date: 4/1/94
Method: BAIL/PUMP
Duration: 87 MIN
Rate: 1.5 L/MIN
Final Measurements:

WATER LEVELS

Date	Time	Depth,TR
4/1	1330	1.68
4/1	1447	5.12

pH	Temperature (degrees C)	Conductivity (micromhos/cm)	Turbidity (NTU)
6.86	6.4	750	3.05

LEGEND

SURFACE SEAL
GROUT
SEAL
SANDPACK
GRAVEL
SAND
SILT
CLAY
NO RECOVERY

TPC TOP OF PROTECTIVE CASING
TR TOP OF WELL RISER
GS GROUND SURFACE
TG TOP OF GROUT
TBS TOP BENTONITE SEAL
TSP TOP OF SANDPACK
TSC TOP OF SCREEN
BSC BOTTOM OF SCREEN
TD TOTAL DEPTH
POW POINT OF WELL

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COMPLETION REPORT OF WELL No. MW9-3

SEAD-33

Well Construction Diagram

could not be located.

SEAD-34

Well Construction Diagram

could not be located.

COMPLETION REPORT OF WELL No. MW43-1

PROJECT: EIGHT MODERATELY LOW PRIORITY AOCs
PROJECT LOCATION: SENECA ARMY DEPOT, ROMULUS NY
DRILLING CONTRACTOR: EMPIRE SOILS INVESTIGATIONS
DRILLING METHOD: HOLLOW STEM AUGER
WELL INSTALLATION STARTED: 03/22/94
WELL INSTALLATION COMPLETED: 03/22/94

WELL LOCATION (N/E): 987079.1 754460.0
REFERENCE COORDINATE SYSTEM: New York State Plane
GROUND SURFACE ELEVATION (ft): 764.8
DATUM: NAD 1983
GEOLOGIST: F. O'LOUGHLIN
CHECKED BY: KK

STRATA: MICRO DESCRIPTION (from boring log)	DEPTH (ft)	SYMBOL	WELL DETAILS	DEPTH (ft)		ELEVATION (ft)
					TPC	
					TR	
					TC	
	0			0.0	GS	764.8
ML						
ML						
ML-CL						
-				2.0	TBS	762.8
ML-CL						
GM				3.0	TSP	761.8
GM						
-						
GM				4.7	TSC	760.1
	5					
-						
GM						
-						
GM						
GM						
-	10					
CL						
CL						
-						
-						
CL						
-						
-				13.9	BSC	750.9
-						
-	15.0			15.0	POW	749.8
	15					

WELL CONSTRUCTION DETAILS

PROTECTIVE COVER
Diameter: 4
Type: RISER
Interval: 3.5

RISER
Diameter: 2
Type: SCH. 40-PVC
Interval: 5.5

SCREEN
Diameter: 2
Type: SCH. 40-PVC/0.010
Interval: 9

SURFACE SEAL
Type: CEMENT
Interval: 2.0

GROUT
Type: N/A
Interval: N/A

SEAL
Type: BENTONITE PELLETS
Interval: 1

SANDPACK
Type: #1, #3
Interval: 12

WELL DEVELOPMENT DATA
Date: 3/20/94
Method: BAIL
Duration: 125 MIN
Rate: 1.5 L/MIN
Final Measurements:

pH	Temperature (degrees C)	Conductivity (micromhos/cm)	Turbidity (NTU)
7.29	5.5	385	0.67

WATER LEVELS

Date	Time	Depth,TR
3/20	1430	2.46
3/20	1615	2.88

LEGEND

SURFACE SEAL
GROUT
SEAL
SANDPACK
GRAVEL
SAND
SILT
CLAY
NO RECOVERY

TPC TOP OF PROTECTIVE CASING
TR TOP OF WELL RISER
GS GROUND SURFACE
TG TOP OF GROUT
TBS TOP BENTONITE SEAL
TSP TOP OF SANDPACK
TSC TOP OF SCREEN
BSC BOTTOM OF SCREEN
TD TOTAL DEPTH
POW POINT OF WELL

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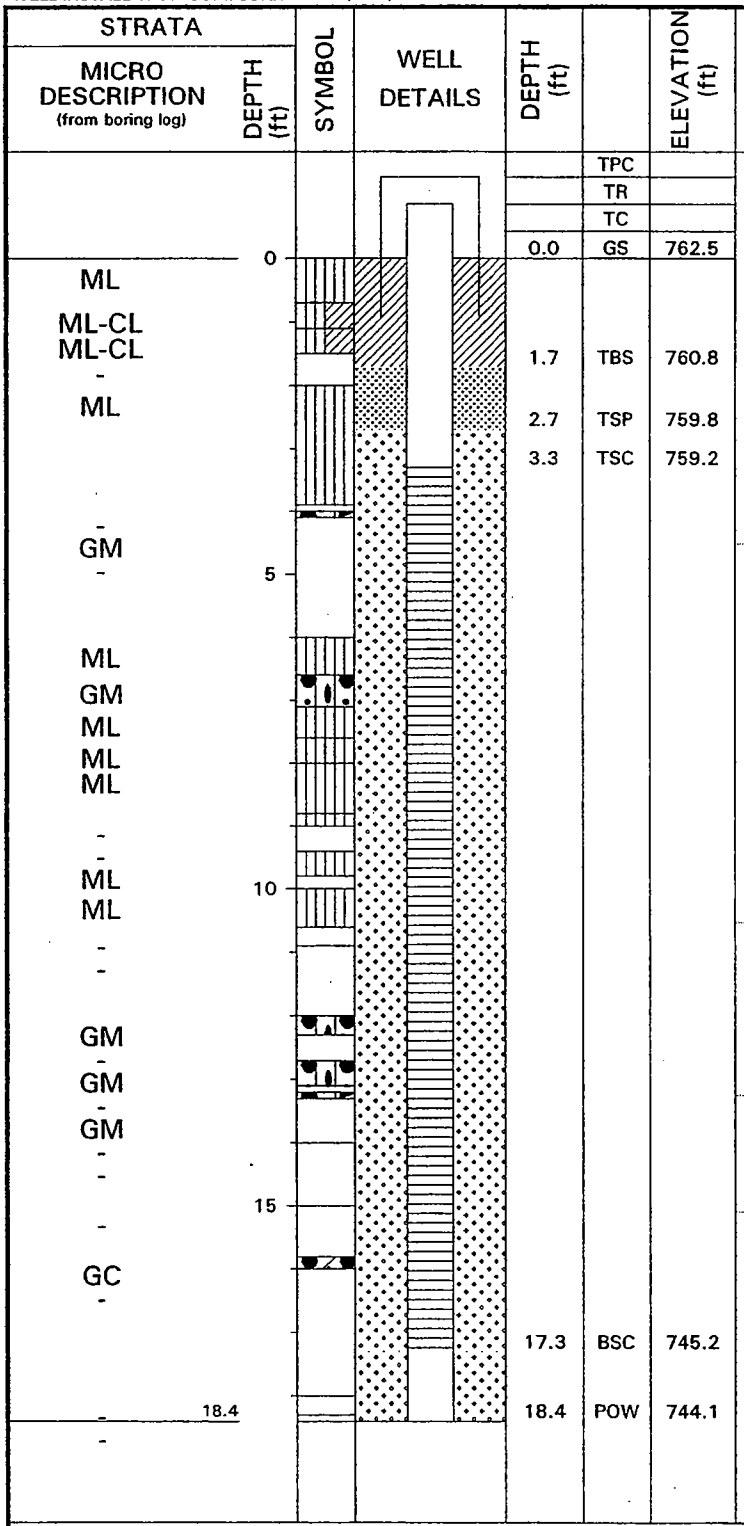
COMPLETION REPORT OF WELL No. MW43-1

COMPLETION REPORT OF WELL No. MW43-2

PROJECT:	EIGHT MODERATELY LOW PRIORITY AOCs	WELL LOCATION (N/E):	987117.2 754149.1
PROJECT LOCATION:	SENECA ARMY DEPOT, ROMULUS NY	REFERENCE COORDINATE SYSTEM:	New York State Plane
DRILLING CONTRACTOR:	EMPIRE SOILS INVESTIGATIONS	GROUND SURFACE ELEVATION (ft):	762.5
DRILLING METHOD:	HOLLOW STEM AUGER	DATUM:	NAD 1983
WELL INSTALLATION STARTED:	03/19/94	GEOLOGIST:	F. O'LOUGHLIN
WELL INSTALLATION COMPLETED:	03/19/94	CHECKED BY:	KK



WELL CONSTRUCTION DETAILS

PROTECTIVE COVER
Diameter: 4
Type: RISER
Interval: 3.5

RISER
Diameter: 2
Type: SCH. 40-PVC
Interval: 3.85

SCREEN
Diameter: 2
Type: SCH. 40-PVC/0.010
Interval: 3.95, 8.95

SURFACE SEAL
Type: CEMENT
Interval: 1.7

GROUT
Type: N/A
Interval: N/A

SEAL
Type: BENTONITE PELLETS
Interval: 1

SANDPACK
Type: #1, #3
Interval: 15.7

WELL DEVELOPMENT DATA
Date: 3/23/94
Method: BAIL
Duration: 3 DAYS
Rate: .109 L/MIN
Final Measurements:

WATER LEVELS

Date	Time	Depth,TR
3/21	1345	2.16
3/22	1114	9.80
3/23	1215	8.08

pH	Temperature (degrees C)	Conductivity (micromhos/cm)	Turbidity (NTU)
7.20	8.5	550	1.79

LEGEND

SURFACE SEAL, GROUT, SEAL, SANDPACK, GRAVEL, SAND, SILT, CLAY, NO RECOVERY

TPC	TOP OF PROTECTIVE CASING
TR	TOP OF WELL RISER
GS	GROUND SURFACE
TG	TOP OF GROUT
TBS	TOP BENTONITE SEAL
TSP	TOP OF SANDPACK
TSC	TOP OF SCREEN
BSC	BOTTOM OF SCREEN
TD	TOTAL DEPTH
POW	POINT OF WELL

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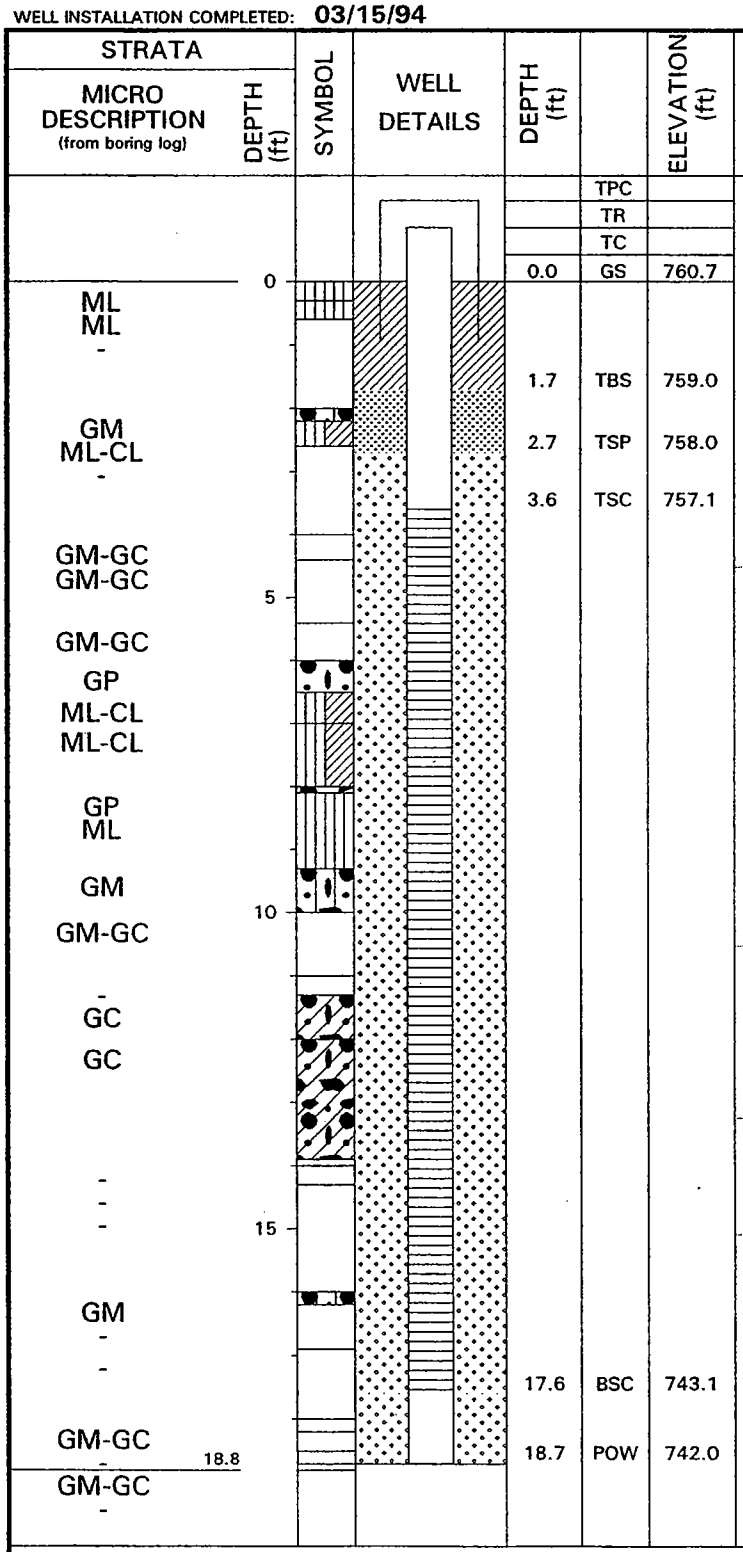
COMPLETION REPORT OF WELL No. MW43-2

COMPLETION REPORT OF WELL No. MW43-3

PROJECT:	EIGHT MODERATELY LOW PRIORITY AOCs	WELL LOCATION (N/E):	987371.6 753848.5
PROJECT LOCATION:	SENECA ARMY DEPOT, ROMULUS NY	REFERENCE COORDINATE SYSTEM:	New York State Plane
DRILLING CONTRACTOR:	EMPIRE SOILS INVESTIGATIONS	GROUND SURFACE ELEVATION (ft):	760.7
DRILLING METHOD:	HOLLOW STEM AUGER	DATUM:	NAD 1983
WELL INSTALLATION STARTED:	03/15/94	GEOLOGIST:	F. O'LOUGHLIN
WELL INSTALLATION COMPLETED:	03/15/94	CHECKED BY:	KK



WELL CONSTRUCTION DETAILS

PROTECTIVE COVER
Diameter: 4
Type: RISER
Interval: 3.5

RISER
Diameter: 2
Type: SCH. 40-PVC
Interval: 4.6

SCREEN
Diameter: 2
Type: SCH. 40-PVC/0.010
Interval: 4, 9

SURFACE SEAL
Type: CEMENT
Interval: 1.7

GROUT
Type: N/A
Interval: N/A

SEAL
Type: BENTONITE PELLETS
Interval: 1

SANDPACK
Type: #1, #3
Interval: 16

WELL DEVELOPMENT DATA
Date: 3/18/94
Method: BAIL
Duration: 101 MIN
Rate: 2 L/MIN
Final Measurements:

pH	Temperature (degrees C)	Conductivity (micromhos/cm)	Turbidity (NTU)
7.01	8.5	700	7.51

WATER LEVELS

Date	Time	Depth,TR
3/18	1030	2.78
3/18	1214	3.56

LEGEND: SURFACE SEAL, GROUT, SEAL, SANDPACK, GRAVEL, SAND, SILT, CLAY, NO RECOVERY

TPC	TOP OF PROTECTIVE CASING
TR	TOP OF WELL RISER
GS	GROUND SURFACE
TG	TOP OF GROUT
TBS	TOP BENTONITE SEAL
TSP	TOP OF SANDPACK
TSC	TOP OF SCREEN
BSC	BOTTOM OF SCREEN
TD	TOTAL DEPTH
POW	POINT OF WELL

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COMPLETION REPORT OF WELL No. MW43-3

COMPLETION REPORT OF WELL No. MW43-4

PROJECT: EIGHT MODERATELY LOW PRIORITY AOCs
PROJECT LOCATION: SENECA ARMY DEPOT, ROMULUS NY
DRILLING CONTRACTOR: EMPIRE SOILS INVESTIGATIONS
DRILLING METHOD: HOLLOW STEM AUGER
WELL INSTALLATION STARTED: 03/17/94
WELL INSTALLATION COMPLETED: 03/17/94

WELL LOCATION (N/E): 987469.7 753487.1
REFERENCE COORDINATE SYSTEM: New York State Plane
GROUND SURFACE ELEVATION (ft): 757.0
DATUM: NAD 1983
GEOLOGIST: K. KELLY
CHECKED BY: KK

STRATA: MICRO DESCRIPTION (from boring log)	DEPTH (ft)	SYMBOL	WELL DETAILS	DEPTH (ft)		ELEVATION (ft)
					TPC	
					TR	
					TC	
	0			0.0	GS	757.0
ML						
ML-CL						
ML-CL						
-				2.1	TBS	754.9
GM-GC						
GM-GC				3.1	TSP	753.9
-				4.1	TSC	752.9
GM						
GM						
GM	5					
-						
GM						
GM						
GM						
GM						
-						
GM						
-						
GM						
GM						
GM						
-	10					
GM-GC						
-						
-						
-				12.3	BSC	744.7
-						
	13.4			13.4	POW	743.6

WELL CONSTRUCTION DETAILS

PROTECTIVE COVER
Diameter: 4
Type: RISER
Interval: 3.5

RISER
Diameter: 2
Type: SCH. 40-PVC
Interval: 4.85

SCREEN
Diameter: 2
Type: SCH. 40-PVC/0.010
Interval: .9, 2, 3.95

SURFACE SEAL
Type: CEMENT
Interval: 2.1

GROUT
Type: N/A
Interval: N/A

SEAL
Type: BENTONITE PELLETS
Interval: 1

SANDPACK
Type: #1, #3
Interval: 10.3

WELL DEVELOPMENT DATA
Date: 3/19/94
Method: BAIL/PUMP
Duration: 75 MIN
Rate:
Final Measurements:

WATER LEVELS

Date	Time	Depth, TR
3/19	0900	1.70
3/19	1000	3.08

pH	Temperature (degrees C)	Conductivity (micromhos/cm)	Turbidity (NTU)
7.06	6	550	7.62

LEGEND

SURFACE SEAL
GROUT
SEAL
SANDPACK
GRAVEL
SAND
SILT
CLAY
NO RECOVERY

TPC TOP OF PROTECTIVE CASING
TR TOP OF WELL RISER
GS GROUND SURFACE
TG TOP OF GROUT
TBS TOP BENTONITE SEAL
TSP TOP OF SANDPACK
TSC TOP OF SCREEN
BSC BOTTOM OF SCREEN
TD TOTAL DEPTH
POW POINT OF WELL

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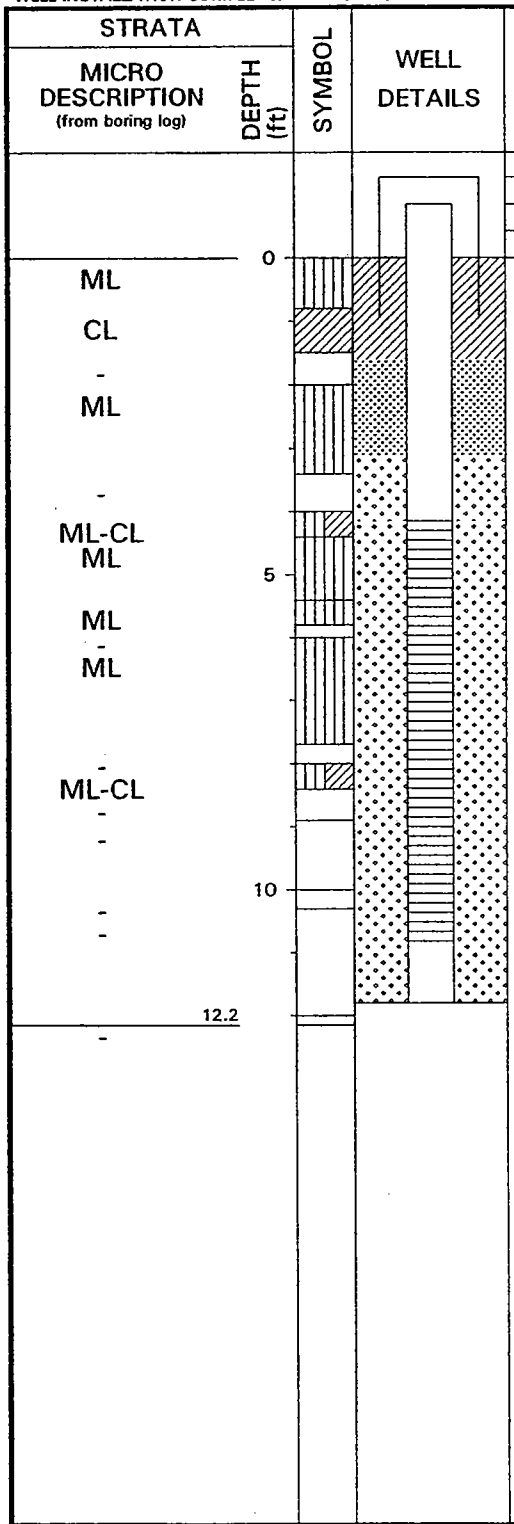
COMPLETION REPORT OF WELL No. MW43-4

COMPLETION REPORT OF WELL No. MW44B-1

PROJECT: EIGHT MODERATELY LOW PRIORITY AOCs
PROJECT LOCATION: SENECA ARMY DEPOT, ROMULUS NY
DRILLING CONTRACTOR: EMPIRE SOILS INVESTIGATIONS
DRILLING METHOD: HOLLOW STEM AUGER
WELL INSTALLATION STARTED: 03/21/94
WELL INSTALLATION COMPLETED: 03/21/94

WELL LOCATION (N/E): 988170.5 751781.0
REFERENCE COORDINATE SYSTEM: New York State Plane
GROUND SURFACE ELEVATION (ft): 745.3
DATUM: NAD 1983
GEOLOGIST: F. O'LOUGHLIN
CHECKED BY: KK



DEPTH (ft)		ELEVATION (ft)
	TPC	
	TR	
	TC	
0.0	GS	745.3
1.6	TBS	743.7
3.1	TSP	742.2
4.2	TSC	741.1
11.0	BSC	734.3
11.8	POW	733.5

WELL CONSTRUCTION DETAILS

PROTECTIVE COVER
Diameter: 4
Type: RISER
Interval: 3.5

RISER
Diameter: 2
Type: SCH. 40-PVC
Interval: 4.85

SCREEN
Diameter: 2
Type: SCH. 40-PVC/0.010
Interval: 2, 4

SURFACE SEAL
Type: CEMENT
Interval: 1.6

GROUT
Type: N/A
Interval: N/A

SEAL
Type: BENTONITE CHIPS
Interval: 1.5

SANDPACK
Type: #1, #3
Interval: 8.7

WELL DEVELOPMENT DATA
Date: 4/1/94
Method: BAIL/PUMP
Duration: 130 MIN
Rate: .1028 L/MIN
Final Measurements:

pH	Temperature (degrees C)	Conductivity (micromhos/cm)	Turbidity (NTU)
7.50	6	400	30.1

WATER LEVELS

Date	Time	Depth,TR
4/1	1115	1.85
4/1	1304	10.48

LEGEND

SURFACE SEAL, GROUT, SEAL, SANDPACK, GRAVEL, SAND, SILT, CLAY, NO RECOVERY

TPC	TOP OF PROTECTIVE CASING
TR	TOP OF WELL RISER
GS	GROUND SURFACE
TG	TOP OF GROUT
TBS	TOP BENTONITE SEAL
TSP	TOP OF SANDPACK
TSC	TOP OF SCREEN
BSC	BOTTOM OF SCREEN
TD	TOTAL DEPTH
POW	POINT OF WELL

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COMPLETION REPORT OF WELL No. MW44B-1

COMPLETION REPORT OF WELL No. MW58-1

PROJECT: EIGHT MODERATELY LOW PRIORITY AOCs
PROJECT LOCATION: SENECA ARMY DEPOT, ROMULUS NY
DRILLING CONTRACTOR: EMPIRE SOILS INVESTIGATIONS
DRILLING METHOD: HOLLOW STEM AUGER
WELL INSTALLATION STARTED: 03/31/94
WELL INSTALLATION COMPLETED: 03/31/94

WELL LOCATION (N/E): 1000107.7 739368.6
REFERENCE COORDINATE SYSTEM: New York State Plane
GROUND SURFACE ELEVATION (ft): 617.9
DATUM: NAD 1983
GEOLOGIST: K. KELLY
CHECKED BY: KK

STRATA: MICRO DESCRIPTION (from boring log)	DEPTH (ft)	SYMBOL	WELL DETAILS	DEPTH (ft)		ELEVATION (ft)
					TPC	
					TR	
					TC	
	0			0.0	GS	617.9
ML						
ML						
ML-CL						
				2.5	TBS	615.4
ML-CL						
ML						
GM				3.5	TSP	614.4
GC						
				4.6	TSC	613.4
ML						
GM	5					
GM						
ML						
SP						
ML-CL						
GM						
	10			10.3	BSC	607.7
	11.0			11.2	POW	606.8

WELL CONSTRUCTION DETAILS

PROTECTIVE COVER
Diameter: 4
Type: RISER
Interval: 3.5

RISER
Diameter: 2
Type: SCH. 40-PVC
Interval: 5.1

SCREEN
Diameter: 2
Type: SCH. 40-PVC/0.010
Interval: 4, .8

SURFACE SEAL
Type: CEMENT
Interval: 2.5

GROUT
Type: N/A
Interval: N/A

SEAL
Type: BENTONITE PELLETS
Interval: 1

SANDPACK
Type: #1, #3
Interval: 7.65

WELL DEVELOPMENT DATA
Date: 5/15/94
Method: BAIL/PUMP
Duration: 100 MIN
Rate:
Final Measurements:

WATER LEVELS

Date	Time	Depth,TR
5/15	1130	2.14
5/15	1335	2.77

pH	Temperature (degrees C)	Conductivity (micromhos/cm)	Turbidity (NTU)
7.15	8.7	390	38.9

LEGEND

SURFACE SEAL
GROUT
SEAL
SANDPACK
GRAVEL
SAND
SILT
CLAY
NO RECOVERY

TPC TOP OF PROTECTIVE CASING
TR TOP OF WELL RISER
GS GROUND SURFACE
TG TOP OF GROUT
TBS TOP BENTONITE SEAL
TSP TOP OF SANDPACK
TSC TOP OF SCREEN
BSC BOTTOM OF SCREEN
TD TOTAL DEPTH
POW POINT OF WELL

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COMPLETION REPORT OF WELL No. MW58-1

COMPLETION REPORT OF WELL No. MW58-2

PROJECT: EIGHT MODERATELY LOW PRIORITY AOCs
PROJECT LOCATION: SENECA ARMY DEPOT, ROMULUS NY
DRILLING CONTRACTOR: EMPIRE SOILS INVESTIGATIONS
DRILLING METHOD: HOLLOW STEM AUGER
WELL INSTALLATION STARTED: 04/01/94
WELL INSTALLATION COMPLETED: 04/01/94

WELL LOCATION (N/E): 1000232.2 739160.9
REFERENCE COORDINATE SYSTEM: New York State Plane
GROUND SURFACE ELEVATION (ft): 614.9
DATUM: NAD 1983
GEOLOGIST: K. KELLY
CHECKED BY: KK

STRATA: MICRO DESCRIPTION (from boring log)	DEPTH (ft)	SYMBOL	WELL DETAILS	DEPTH (ft)		ELEVATION (ft)
					TPC	
					TR	
					TC	
	0			0.0	GS	614.9
ML ML ML-CL						
ML-CL CL				2.0	TBS	612.9
				3.0	TSP	611.9
ML-CL GM GM ML GM GM ML ML	5			4.5	TSC	610.5
				8.5	BSC	606.5
	9.6			9.6	POW	605.4

WELL CONSTRUCTION DETAILS

PROTECTIVE COVER
Diameter: 4
Type: RISER
Interval: 3.5

RISER
Diameter: 2
Type: SCH. 40-PVC
Interval: 5.2

SCREEN
Diameter: 2
Type: SCH. 40-PVC/0.010
Interval: 4

SURFACE SEAL
Type: CEMENT
Interval: 2.0

GROUT
Type: N/A
Interval: N/A

SEAL
Type: BENTONITE PELLETS
Interval: 1

SANDPACK
Type: #1, #3
Interval: 6.55

WELL DEVELOPMENT DATA
Date: 5/16/94
Method: BAIL/PUMP
Duration: 2 DAYS
Rate: .300 L/MIN
Final Measurements:

pH	Temperature (degrees C)	Conductivity (micromhos/cm)	Turbidity (NTU)
7.19	9.6	400	16.4

WATER LEVELS

Date	Time	Depth, TR
5/15	1445	1.85
5/16	1140	7.20

LEGEND

SURFACE SEAL, GROUT, SEAL, SANDPACK, GRAVEL, SAND, SILT, CLAY, NO RECOVERY

TPC	TOP OF PROTECTIVE CASING
TR	TOP OF WELL RISER
GS	GROUND SURFACE
TG	TOP OF GROUT
TBS	TOP BENTONITE SEAL
TSP	TOP OF SANDPACK
TSC	TOP OF SCREEN
BSC	BOTTOM OF SCREEN
TD	TOTAL DEPTH
POW	POINT OF WELL

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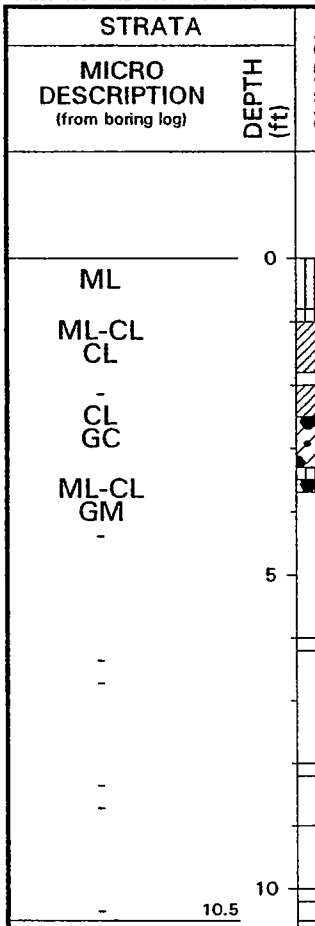
COMPLETION REPORT OF WELL No. MW58-2

COMPLETION REPORT OF WELL No. MW58-3

PROJECT:	EIGHT MODERATELY LOW PRIORITY AOCs	WELL LOCATION (N/E):	1000163.5 738946.0
PROJECT LOCATION:	SENECA ARMY DEPOT, ROMULUS NY	REFERENCE COORDINATE SYSTEM:	New York State Plane
DRILLING CONTRACTOR:	EMPIRE SOILS INVESTIGATIONS	GROUND SURFACE ELEVATION (ft):	610.3
DRILLING METHOD:	HOLLOW STEM AUGER	DATUM:	NAD 1983
WELL INSTALLATION STARTED:	04/02/94	GEOLOGIST:	K. KELLY
WELL INSTALLATION COMPLETED:	04/02/94	CHECKED BY:	KK



DEPTH (ft)		ELEVATION (ft)
	TPC	
	TR	
	TC	
0.0	GS	610.3
2.0	TBS	608.3
3.0	TSP	607.3
4.0	TSC	606.4
9.7	BSC	600.7
10.6	POW	599.8

WELL CONSTRUCTION DETAILS

PROTECTIVE COVER
Diameter: 4
Type: RISER
Interval: 3.5

RISER
Diameter: 2
Type: SCH. 40-PVC
Interval: 5.2

SCREEN
Diameter: 2
Type: SCH. 40-PVC/0.010
Interval: 4, .8

SURFACE SEAL
Type: CEMENT
Interval: 2

GROUT
Type: N/A
Interval: N/A

SEAL
Type: BENTONITE PELLETS
Interval: 1

SANDPACK
Type: #1, #3
Interval: 7.55

WELL DEVELOPMENT DATA

Date: 5/16/94
Method: BAIL/PUMP
Duration: 340 MIN
Rate: .5 L/MIN
Final Measurements:

WATER LEVELS

Date	Time	Depth,TR
5/16	0840	2.09
5/16	1400	10.0

pH	Temperature (degrees C)	Conductivity (micromhos/cm)	Turbidity (NTU)
7.1	10.5	390	42

LEGEND

SURFACE SEAL, GROUT, SEAL, SANDPACK, GRAVEL, SAND, SILT, CLAY, NO RECOVERY

TPC	TOP OF PROTECTIVE CASING
TR	TOP OF WELL RISER
GS	GROUND SURFACE
TG	TOP OF GROUT
TBS	TOP BENTONITE SEAL
TSP	TOP OF SANDPACK
TSC	TOP OF SCREEN
BSC	BOTTOM OF SCREEN
TD	TOTAL DEPTH
POW	POINT OF WELL

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COMPLETION REPORT OF WELL No. MW58-3

COMPLETION REPORT OF WELL No. MW58-4

PROJECT: EIGHT MODERATELY LOW PRIORITY AOCs
PROJECT LOCATION: SENECA ARMY DEPOT, ROMULUS NY
DRILLING CONTRACTOR: EMPIRE SOILS INVESTIGATIONS
DRILLING METHOD: HOLLOW STEM AUGER
WELL INSTALLATION STARTED: 04/04/94
WELL INSTALLATION COMPLETED: 04/04/94

WELL LOCATION (N/E): 999963.8 739060.1
REFERENCE COORDINATE SYSTEM: New York State Plane
GROUND SURFACE ELEVATION (ft): 612.8
DATUM: NAD 1983
GEOLOGIST: K. KELLY
CHECKED BY: KK

STRATA MICRO DESCRIPTION (from boring log)	DEPTH (ft)	SYMBOL	WELL DETAILS	DEPTH (ft)		ELEVATION (ft)
					TPC	
					TR	
					TC	
	0			0.0	GS	612.8
ML						
ML						
-				2.0	TBS	610.8
ML						
ML-CL				3.0	TSP	609.8
ML						
-						
CL				4.4	TSC	608.4
CL						
-	5					
-						
GM						
-						
GC						
-				8.4	BSC	604.5
-						
-						
-	9.5			9.5	POW	603.4

WELL CONSTRUCTION DETAILS

PROTECTIVE COVER
Diameter: 4
Type: RISER
Interval: 3.5

RISER
Diameter: 2
Type: SCH. 40-PVC
Interval: 5.2

SCREEN
Diameter: 2
Type: SCH. 40-PVC/0.010
Interval: 3.95

SURFACE SEAL
Type: CEMENT
Interval: 2

GROUT
Type: N/A
Interval: N/A

SEAL
Type: BENTONITE PELLETS
Interval: 1

SANDPACK
Type: #1, #3
Interval: 6.45

WELL DEVELOPMENT DATA
Date: 5/16/94
Method: BAIL/PUMP
Duration: 60 MIN
Rate: 1.5 L/MIN
Final Measurements:

WATER LEVELS

Date	Time	Depth,TR
5/16	1430	3.07
5/16	1540	3.5

pH	Temperature (degrees C)	Conductivity (micromhos/cm)	Turbidity (NTU)
7.7	11	380	5.18

LEGEND

SURFACE SEAL
GROUT
SEAL
SANDPACK
GRAVEL
SAND
SILT
CLAY
NO RECOVERY

TPC	TOP OF PROTECTIVE CASING
TR	TOP OF WELL RISER
GS	GROUND SURFACE
TG	TOP OF GROUT
TBS	TOP BENTONITE SEAL
TSP	TOP OF SANDPACK
TSC	TOP OF SCREEN
BSC	BOTTOM OF SCREEN
TD	TOTAL DEPTH
POW	POINT OF WELL

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COMPLETION REPORT OF WELL No. MW58-4

COMPLETION REPORT OF WELL No. MW62-1

PROJECT: SEVEN LOW PRIORITY AOCs
PROJECT LOCATION: SENECA ARMY DEPOT, ROMULUS NY
DRILLING CONTRACTOR: EMPIRE SOILS INVESTIGATIONS
DRILLING METHOD: HOLLOW STEM AUGER
WELL INSTALLATION STARTED: 03/28/94
WELL INSTALLATION COMPLETED: 03/28/94

WELL LOCATION (N/E): 986972.2 753046.3
REFERENCE COORDINATE SYSTEM: New York State Plane
GROUND SURFACE ELEVATION (ft): 751.3
DATUM: NAD 1983
GEOLOGIST: F. O'LOUGHLIN
CHECKED BY: FO

STRATA MICRO DESCRIPTION (from boring log)	DEPTH (ft)	SYMBOL	WELL DETAILS	DEPTH (ft)		ELEVATION (ft)
					TPC	
					TR	
					TC	
	0			0.0	GS	751.3
OL ML CL				1.5	TBS	749.8
ML				2.7	TSP	748.6
ML				3.9	TSC	747.4
ML	5					
ML				7.3	BSC	744.0
	8.1			8.1	POW	743.2

WELL CONSTRUCTION DETAILS

PROTECTIVE COVER
Diameter: 4
Type: RISER
Interval: 3.5

RISER
Diameter: 2
Type: SCH. 40-PVC
Interval: 5

SCREEN
Diameter: 2
Type: SCH. 40-PVC/0.010
Interval: 2, .8

SURFACE SEAL
Type: CEMENT
Interval: 1.5

GROUT
Type: N/A
Interval: N/A

SEAL
Type: BENTONITE PELLETS
Interval: 1.2

SANDPACK
Type: #1, #3
Interval: 5.3

WELL DEVELOPMENT DATA
Date: 6/28/94
Method: BAIL/PUMP
Duration: 8 DAYS
Rate: .1 L/MIN
Final Measurements:

pH	Temperature (degrees C)	Conductivity (micromhos/cm)	Turbidity (NTU)
7.65	16.4	800	30

WATER LEVELS

Date	Time	Depth,TR
6/21	1640	2.34
6/25	0820	6.68
6/28	1130	8.41

LEGEND
SURFACE SEAL
GROUT
SEAL
SANDPACK
GRAVEL
SAND
SILT
CLAY
NO RECOVERY

TPC TOP OF PROTECTIVE CASING
TR TOP OF WELL RISER
GS GROUND SURFACE
TBS TOP BENTONITE SEAL
TSP TOP OF SANDPACK
TSC TOP OF SCREEN
BSC BOTTOM OF SCREEN
TD TOTAL DEPTH
POW POINT OF WELL

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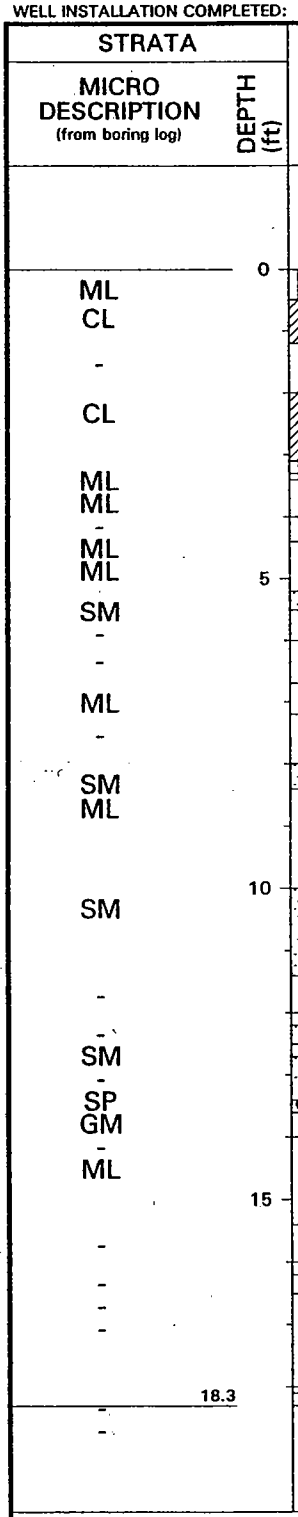
COMPLETION REPORT OF WELL No. MW62-1

COMPLETION REPORT OF WELL No. MW62-3

PROJECT: SEVEN LOW PRIORITY AOCs
PROJECT LOCATION: SENECA ARMY DEPOT, ROMULUS NY
DRILLING CONTRACTOR: EMPIRE SOILS INVESTIGATIONS
DRILLING METHOD: HOLLOW STEM AUGER
WELL INSTALLATION STARTED: 06/27/94
WELL INSTALLATION COMPLETED: 06/28/94

WELL LOCATION (N/E): 986348.3 752362.3
REFERENCE COORDINATE SYSTEM: New York State Plane
GROUND SURFACE ELEVATION (ft): 747.9
DATUM: NAD 1983
GEOLOGIST: K. KELLY
CHECKED BY: FO



DEPTH (ft)		ELEVATION (ft)
	TPC	
	TR	
	TC	
0.0	GS	747.9
1.5	TBS	746.4
4.5	TSP	743.4
5.4	TSC	742.5
17.1	BSC	730.8
18.0	POW	729.9

WELL CONSTRUCTION DETAILS

PROTECTIVE COVER
Diameter: 4
Type: RISER
Interval: 3.5

RISER
Diameter: 2
Type: SCH. 40-PVC
Interval:

SCREEN
Diameter: 2
Type: SCH. 40-PVC/0.010
Interval: 8.95, 1.95

SURFACE SEAL
Type: CEMENT
Interval: 1.5

GROUT
Type: N/A
Interval: N/A

SEAL
Type: BENTONITE PELLETS
Interval: 1

SANDPACK
Type: #1, #3
Interval: 13

WELL DEVELOPMENT DATA
Date: 7/12/94
Method: BAIL/PUMP
Duration: 7 DAYS
Rate: .1767 L/MIN
Final Measurements:

pH	Temperature (degrees C)	Conductivity (micromhos/cm)	Turbidity (NTU)
7.16	10.6	510	20

WATER LEVELS

Date	Time	Depth,TR
7/6	1130	3.28
7/12	1535	11.5

LEGEND

SURFACE SEAL, GROUT, SEAL, SANDPACK, GRAVEL, SAND, SILT, CLAY, NO RECOVERY

TPC	TOP OF PROTECTIVE CASING
TR	TOP OF WELL RISER
GS	GROUND SURFACE
TBS	TOP BENTONITE SEAL
TSP	TOP OF SANDPACK
TSC	TOP OF SCREEN
BSC	BOTTOM OF SCREEN
TD	TOTAL DEPTH
POW	POINT OF WELL

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COMPLETION REPORT OF WELL No. MW62-3

COMPLETION REPORT OF WELL No. MW64A-1

PROJECT: SEVEN LOW PRIORITY AOCs
PROJECT LOCATION: SENECA ARMY DEPOT, ROMULUS NY
DRILLING CONTRACTOR: EMPIRE SOILS INVESTIGATIONS
DRILLING METHOD: HOLLOW STEM AUGER
WELL INSTALLATION STARTED: 04/02/94
WELL INSTALLATION COMPLETED: 04/02/94

WELL LOCATION (N/E): 992409.1 750892.2
REFERENCE COORDINATE SYSTEM: New York State Plane
GROUND SURFACE ELEVATION (ft): 745.8
DATUM: NAD 1983
GEOLOGIST: F. O'LOUGHLIN
CHECKED BY: FO

STRATA MICRO DESCRIPTION (from boring log)	DEPTH (ft)	SYMBOL	WELL DETAILS	DEPTH (ft)		ELEVATION (ft)
					TPC	
					TR	
					TC	
	0			0.0	GS	745.8
ML ML						
-				1.7	TBS	744.1
ML				2.9	TSP	742.9
-				4.0	TSC	741.8
ML ML	5					
- SM						
-						
-						
-				9.6	BSC	736.2
	10					
-	10.7					
				11.7	POW	734.1

WELL CONSTRUCTION DETAILS

PROTECTIVE COVER
Diameter: 4
Type: RISER
Interval: 3.5

RISER
Diameter: 2
Type: SCH. 40-PVC
Interval: 5

SCREEN
Diameter: 2
Type: SCH. 40-PVC/0.010
Interval: 5, 1

SURFACE SEAL
Type: CEMENT
Interval: 1.7

GROUT
Type: N/A
Interval: N/A

SEAL
Type: BENTONITE PELLETS
Interval: 1.2

SANDPACK
Type: #1, #3
Interval: 7.8

WELL DEVELOPMENT DATA
Date: 7/10/94
Method: BAIL/PUMP
Duration: 48 DAYS
Rate:
Final Measurements:

WATER LEVELS

Date	Time	Depth,TR
5/23	1045	10.86
5/24	0725	11.71
7/9	1400	10.50

pH	Temperature (degrees C)	Conductivity (micromhos/cm)	Turbidity (NTU)
7.07	13.8	460	3.6

LEGEND
SURFACE SEAL
GROUT
SEAL
SANDPACK
GRAVEL
SAND
SILT
CLAY
NO RECOVERY

TPC TOP OF PROTECTIVE CASING
TR TOP OF WELL RISER
GS GROUND SURFACE
TBS TOP BENTONITE SEAL
TSP TOP OF SANDPACK
TSC TOP OF SCREEN
BSC BOTTOM OF SCREEN
TD TOTAL DEPTH
POW POINT OF WELL

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COMPLETION REPORT OF WELL No. MW64A-1

COMPLETION REPORT OF WELL No. MW64A-1A

PROJECT: SEVEN LOW PRIORITY AOCs
PROJECT LOCATION: SENECA ARMY DEPOT, ROMULUS NY
DRILLING CONTRACTOR: EMPIRE SOILS INVESTIGATIONS
DRILLING METHOD: HOLLOW STEM AUGER
WELL INSTALLATION STARTED: 03/31/94
WELL INSTALLATION COMPLETED: 03/31/94

WELL LOCATION (N/E): 992205.5 750789.3
REFERENCE COORDINATE SYSTEM: New York State Plane
GROUND SURFACE ELEVATION (ft): 744.5
DATUM: NAD 1983
GEOLOGIST: F. O'LOUGHLIN
CHECKED BY: FO

STRATA: MICRO DESCRIPTION (from boring log)	DEPTH (ft)	SYMBOL	WELL DETAILS	DEPTH (ft)		ELEVATION (ft)
					TPC	
					TR	
					TC	
	0			0.0	GS	744.5
ML						
ML				1.5	TBS	743.0
-						
CL				3.0	TSP	741.5
ML						
-				4.1	TSC	740.4
ML						
-	5					
ML						
-						
-						
-						
-	10					
-				10.9	BSC	733.6
-						
	12.3			12.0	POW	732.5
-						
-						

WELL CONSTRUCTION DETAILS

PROTECTIVE COVER
Diameter: 4
Type: RISER
Interval: 3.5

RISER
Diameter: 2
Type: SCH. 40-PVC
Interval: 5

SCREEN
Diameter: 2
Type: SCH. 40-PVC/0.010
Interval: 4, 2

SURFACE SEAL
Type: CEMENT
Interval: 1.5

GROUT
Type: N/A
Interval: N/A

SEAL
Type: BENTONITE PELLETS
Interval: 1.5

SANDPACK
Type: #1, #3
Interval: 9

WELL DEVELOPMENT DATA

	pH	Temperature (degrees C)	Conductivity (micromhos/cm)	Turbidity (NTU)
Date:				
Method:				
Duration:				
Rate:				
Final Measurements:				

WATER LEVELS

Date	Time	Depth,TR

LEGEND

SURFACE SEAL	GRAVEL	TPC TOP OF PROTECTIVE CASING
GROUT	SAND	TR TOP OF WELL RISER
SEAL	SILT	GS GROUND SURFACE
SANDPACK	CLAY	TBS TOP BENTONITE SEAL
	NO RECOVERY	TSP TOP OF SANDPACK
		TSC TOP OF SCREEN
		BSC BOTTOM OF SCREEN
		TD TOTAL DEPTH
		POW POINT OF WELL

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COMPLETION REPORT OF WELL No. MW64A-1A

COMPLETION REPORT OF WELL No. MW64A-2

PROJECT: SEVEN LOW PRIORITY AOCs
PROJECT LOCATION: SENECA ARMY DEPOT, ROMULUS NY
DRILLING CONTRACTOR: EMPIRE SOILS INVESTIGATIONS
DRILLING METHOD: HOLLOW STEM AUGER
WELL INSTALLATION STARTED: 04/01/94
WELL INSTALLATION COMPLETED: 04/01/94

WELL LOCATION (N/E): 992447.6 750496.9
REFERENCE COORDINATE SYSTEM: New York State Plane
GROUND SURFACE ELEVATION (ft): 739.2
DATUM: NAD 1983
GEOLOGIST: F. O'LOUGHLIN
CHECKED BY: FO

STRATA: MICRO DESCRIPTION (from boring log)	DEPTH (ft)	SYMBOL	WELL DETAILS	DEPTH (ft)		ELEVATION (ft)
					TPC	
					TR	
					TC	
	0			0.0	GS	739.2
ML				1.5	TBS	737.7
ML				2.7	TSP	736.5
ML				3.7	TSC	735.6
ML						
ML	5					
				7.1	BSC	732.1
	8.2			8.0	POW	731.2

WELL CONSTRUCTION DETAILS

PROTECTIVE COVER
Diameter: 4
Type: RISER
Interval: 3.5

RISER
Diameter: 2
Type: SCH. 40-PVC
Interval: 5

SCREEN
Diameter: 2
Type: SCH. 40-PVC/0.010
Interval: 1, 3

SURFACE SEAL
Type: CEMENT
Interval: 1.5

GROUT
Type: N/A
Interval: N/A

SEAL
Type: BENTONITE CHIPS
Interval: 1.2

SANDPACK
Type: #1, #3
Interval: 5.3

WELL DEVELOPMENT DATA
Date: 7/19/94
Method: BAIL/PUMP
Duration: 57 DAYS
Rate:
Final Measurements:

WATER LEVELS

Date	Time	Depth,TR
5/23	1330	7.42
7/10	1630	7.22
7/19	1520	9.40

pH	Temperature (degrees C)	Conductivity (micromhos/cm)	Turbidity (NTU)
6.78	18.9	1000	33

LEGEND
SURFACE SEAL
GROUT
SEAL
SANDPACK
GRAVEL
SAND
SILT
CLAY
NO RECOVERY

TPC TOP OF PROTECTIVE CASING
TR TOP OF WELL RISER
GS GROUND SURFACE
TBS TOP BENTONITE SEAL
TSP TOP OF SANDPACK
TSC TOP OF SCREEN
BSC BOTTOM OF SCREEN
TD TOTAL DEPTH
POW POINT OF WELL

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COMPLETION REPORT OF WELL No. MW64A-2

COMPLETION REPORT OF WELL No. MW64A-3

PROJECT: SEVEN LOW PRIORITY AOCs
PROJECT LOCATION: SENECA ARMY DEPOT, ROMULUS NY
DRILLING CONTRACTOR: EMPIRE SOILS INVESTIGATIONS
DRILLING METHOD: HOLLOW STEM AUGER
WELL INSTALLATION STARTED: 04/01/94
WELL INSTALLATION COMPLETED: 04/01/94

WELL LOCATION (N/E): 992302.2 750529.2
REFERENCE COORDINATE SYSTEM: New York State Plane
GROUND SURFACE ELEVATION (ft): 737.8
DATUM: NAD 1983
GEOLOGIST: F. O'LOUGHLIN
CHECKED BY: FO

STRATA MICRO DESCRIPTION (from boring log)	DEPTH (ft)	SYMBOL	WELL DETAILS	DEPTH (ft)		ELEVATION (ft)
					TPC	
					TR	
					TC	
	0			0.0	GS	737.8
ML						
ML				1.5	TBS	736.3
ML				2.7	TSP	735.1
ML				3.6	TSC	734.2
	5					
				7.6	BSC	730.2
	8.7			8.7	POW	729.1

WELL CONSTRUCTION DETAILS

PROTECTIVE COVER
Diameter: 4
Type: RISER
Interval: 3.5

RISER
Diameter: 2
Type: SCH. 40-PVC
Interval: 5

SCREEN
Diameter: 2
Type: SCH. 40-PVC/0.010
Interval: 4

SURFACE SEAL
Type: CEMENT
Interval: 1.5

GROUT
Type: N/A
Interval: N/A

SEAL
Type: BENTONITE CHIPS
Interval: 1.2

SANDPACK
Type: #1, #3
Interval: 6

WELL DEVELOPMENT DATA
Date: 5/23/94
Method: BAIL/PUMP
Duration: 120 MIN
Rate: .400 L/MIN
Final Measurements:

WATER LEVELS

Date	Time	Depth,TR
5/23	1350	6.59
5/23	1610	7.03

pH	Temperature (degrees C)	Conductivity (micromhos/cm)	Turbidity (NTU)
7.09	10.9	460	3.24

LEGEND
SURFACE SEAL
GROUT
SEAL
SANDPACK
GRAVEL
SAND
SILT
CLAY
NO RECOVERY

TPC TOP OF PROTECTIVE CASING
TR TOP OF WELL RISER
GS GROUND SURFACE
TBS TOP BENTONITE SEAL
TSP TOP OF SANDPACK
TSC TOP OF SCREEN
BSC BOTTOM OF SCREEN
TD TOTAL DEPTH
POW POINT OF WELL

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COMPLETION REPORT OF WELL No. MW64A-3

COMPLETION REPORT OF WELL No. MW64B-1

PROJECT: SEVEN LOW PRIORITY AOCs
PROJECT LOCATION: SENECA ARMY DEPOT, ROMULUS NY
DRILLING CONTRACTOR: EMPIRE SOILS INVESTIGATIONS
DRILLING METHOD: HOLLOW STEM AUGER
WELL INSTALLATION STARTED: 05/13/94
WELL INSTALLATION COMPLETED: 05/14/94

WELL LOCATION (N/E): 985851.5 748724.3
REFERENCE COORDINATE SYSTEM: New York State Plane
GROUND SURFACE ELEVATION (ft): 705.9
DATUM: NAD 1983
GEOLOGIST: F. O'LOUGHLIN
CHECKED BY: FO

STRATA MICRO DESCRIPTION (from boring log)	DEPTH (ft)	SYMBOL	WELL DETAILS	DEPTH (ft)		ELEVATION (ft)
					TPC	
					TR	
					TC	
	0			0.0	GS	705.9
ML						
CL						
CL				1.5	TBS	704.4
				3.0	TSP	702.9
				4.1	TSC	701.8
ML						
	5					
ML						
ML						
CL						
SM						
ML						
	10					
SM						
ML						
ML						
ML						
ML						
				14.8	BSC	691.1
	15					
				15.7	POW	690.2
	16.0					

WELL CONSTRUCTION DETAILS

PROTECTIVE COVER
Diameter: 4
Type: RISER
Interval: 3.5

RISER
Diameter: 2
Type: SCH. 40-PVC
Interval: 5

SCREEN
Diameter: 2
Type: SCH. 40-PVC/0.010
Interval: 9, .8

SURFACE SEAL
Type: CEMENT
Interval: 1.5

GROUT
Type: N/A
Interval: N/A

SEAL
Type: BENTONITE PELLETS
Interval: 1.5

SANDPACK
Type: #1, #3
Interval: 12.7

WELL DEVELOPMENT DATA
Date: 5/24/94
Method: BAIL/PUMP
Duration: 180 MIN
Rate:
Final Measurements:

WATER LEVELS

Date	Time	Depth,TR
5/24	0935	3.29
5/24	1210	4.64

pH	Temperature (degrees C)	Conductivity (micromhos/cm)	Turbidity (NTU)
7.00	9.7	680	49.3

LEGEND
SURFACE SEAL
GROUT
SEAL
SANDPACK
GRAVEL
SAND
SILT
CLAY
NO RECOVERY

TPC TOP OF PROTECTIVE CASING
TR TOP OF WELL RISER
GS GROUND SURFACE
TBS TOP BENTONITE SEAL
TSP TOP OF SANDPACK
TSC TOP OF SCREEN
BSC BOTTOM OF SCREEN
TD TOTAL DEPTH
POW POINT OF WELL

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COMPLETION REPORT OF WELL No. MW64B-1

COMPLETION REPORT OF WELL No. MW64B-2

PROJECT: SEVEN LOW PRIORITY AOCs
PROJECT LOCATION: SENECA ARMY DEPOT, ROMULUS NY
DRILLING CONTRACTOR: EMPIRE SOILS INVESTIGATIONS
DRILLING METHOD: HOLLOW STEM AUGER
WELL INSTALLATION STARTED: 05/14/94
WELL INSTALLATION COMPLETED: 05/15/94

WELL LOCATION (N/E): 985864.1 748302.3
REFERENCE COORDINATE SYSTEM: New York State Plane
GROUND SURFACE ELEVATION (ft): 702.2
DATUM: NAD 1983
GEOLOGIST: F. O'LOUGHLIN
CHECKED BY: FO

STRATA: MICRO DESCRIPTION (from boring log)	DEPTH (ft)	SYMBOL	WELL DETAILS	DEPTH (ft)		ELEVATION (ft)
					TPC	
					TR	
					TC	
	0			0.0	GS	702.2
ML						
ML						
ML						
SM				1.5	TBS	700.7
CL						
ML				2.5	TSP	699.7
				3.9	TSC	698.4
ML						
ML	5					
ML						
ML						
ML						
ML						
ML	10					
ML						
ML						
				12.9	BSC	689.4
	14.0			14.0	POW	688.3

WELL CONSTRUCTION DETAILS

PROTECTIVE COVER
Diameter: 4
Type: RISER
Interval: 3.5

RISER
Diameter: 2
Type: SCH. 40-PVC
Interval: 5

SCREEN
Diameter: 2
Type: SCH. 40-PVC/0.010
Interval: 9

SURFACE SEAL
Type: CEMENT
Interval: 1.5

GROUT
Type: N/A
Interval: N/A

SEAL
Type: BENTONITE PELLETS
Interval: 1

SANDPACK
Type: #1, #3
Interval: 11.45

WELL DEVELOPMENT DATA
Date: 5/24/94
Method: BAIL/PUMP
Duration: 102 MIN
Rate:
Final Measurements:

WATER LEVELS

Date	Time	Depth,TR
5/24	1505	4.23
5/24	1630	5.56

pH	Temperature (degrees C)	Conductivity (micromhos/cm)	Turbidity (NTU)
7.09	9.6	590	38.7

LEGEND

SURFACE SEAL
GROUT
SEAL
SANDPACK
GRAVEL
SAND
SILT
CLAY
NO RECOVERY

TPC TOP OF PROTECTIVE CASING
TR TOP OF WELL RISER
GS GROUND SURFACE
TBS TOP BENTONITE SEAL
TSP TOP OF SANDPACK
TSC TOP OF SCREEN
BSC BOTTOM OF SCREEN
TD TOTAL DEPTH
POW POINT OF WELL

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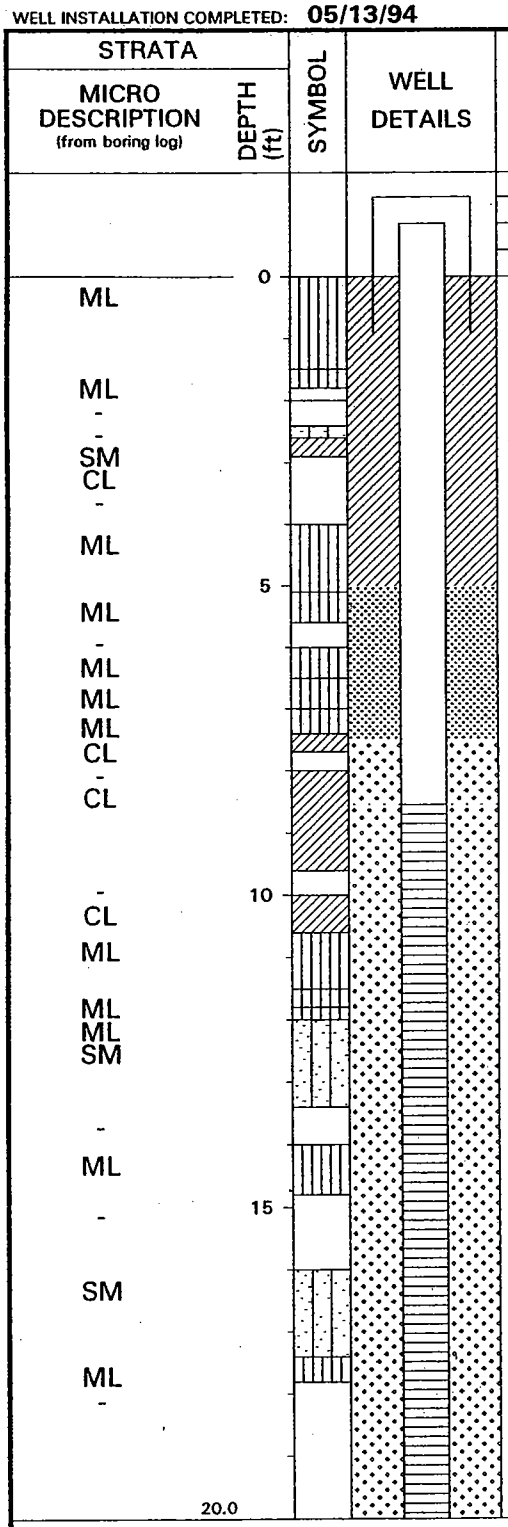
COMPLETION REPORT OF WELL No. MW64B-2

COMPLETION REPORT OF WELL No. MW64B-3

PROJECT: SEVEN LOW PRIORITY AOCs
PROJECT LOCATION: SENECA ARMY DEPOT, ROMULUS NY
DRILLING CONTRACTOR: EMPIRE SOILS INVESTIGATIONS
DRILLING METHOD: HOLLOW STEM AUGER
WELL INSTALLATION STARTED: 05/12/94
WELL INSTALLATION COMPLETED: 05/13/94

WELL LOCATION (N/E): 986003.6 748385.3
REFERENCE COORDINATE SYSTEM: New York State Plane
GROUND SURFACE ELEVATION (ft): 709.2
DATUM: NAD 1983
GEOLOGIST: F. O'LOUGHLIN
CHECKED BY: FO



DEPTH (ft)		ELEVATION (ft)
	TPC	
	TR	
	TC	
0.0	GS	709.2
5.0	TBS	704.2
7.5	TSP	701.7
8.6	TSC	700.6

WELL CONSTRUCTION DETAILS

PROTECTIVE COVER
Diameter: 4
Type: RISER
Interval: 3.5

RISER
Diameter: 2
Type: SCH. 40-PVC
Interval: 10

SCREEN
Diameter: 2
Type: SCH. 40-PVC/0.010
Interval: 2, 9, 4

SURFACE SEAL
Type: CEMENT
Interval: 1.5

GROUT
Type: BENTONITE/CEMENT
Interval: 3.5

SEAL
Type: BENTONITE PELLETS
Interval: 2.5

SANDPACK
Type: #1, #3
Interval: 18.7

WELL DEVELOPMENT DATA
Date: 5/25/94
Method: BAIL/PUMP
Duration: 205 MIN
Rate:
Final Measurements:

WATER LEVELS

Date	Time	Depth,TR
5/25	0905	12.55
5/25	1145	15.89

pH	Temperature (degrees C)	Conductivity (micromhos/cm)	Turbidity (NTU)
6.80	9.0	870	1.68

LEGEND

SURFACE SEAL, GROUT, SEAL, SANDPACK, GRAVEL, SAND, SILT, CLAY, NO RECOVERY

TPC	TOP OF PROTECTIVE CASING
TR	TOP OF WELL RISER
GS	GROUND SURFACE
TBS	TOP BENTONITE SEAL
TSP	TOP OF SANDPACK
TSC	TOP OF SCREEN
BSC	BOTTOM OF SCREEN
TD	TOTAL DEPTH
POW	POINT OF WELL

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COMPLETION REPORT OF WELL No. MW64B-3

COMPLETION REPORT OF WELL No. MW64B-3

PROJECT: SEVEN LOW PRIORITY AOCs
PROJECT NO: 720518-01000
PROJECT LOCATION: SENECA ARMY DEPOT, ROMULUS NY

GROUND SURFACE ELEVATION (ft): 709.2
GEOLOGIST: F. O'LOUGHLIN
CHECKED BY: FO

STRATA: MICRO DESCRIPTION (from boring log)	DEPTH (ft)	SYMBOL	WELL DETAILS	DEPTH (ft)		ELEVATION (ft)
	20					
ML						
ML						
	25			25.4	BSC	683.8
	26.2			26.2	POW	683.0

WELL CONSTRUCTION DETAILS

(See Page 1)

LEGEND

- SURFACE SEAL
- GROUT
- SEAL
- SANDPACK
- GRAVEL
- SAND
- SILT
- CLAY
- NO RECOVERY

TPC	TOP OF PROTECTIVE CASING
TR	TOP OF WELL RISER
GS	GROUND SURFACE
TBS	TOP BENTONITE SEAL
TSP	TOP OF SANDPACK
TSC	TOP OF SCREEN
BSC	BOTTOM OF SCREEN
TD	TOTAL DEPTH
POW	POINT OF WELL

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COMPLETION REPORT OF WELL No. MW64B-3

COMPLETION REPORT OF WELL No. MW64C-1

PROJECT: SEVEN LOW PRIORITY AOCs
PROJECT LOCATION: SENECA ARMY DEPOT, ROMULUS NY
DRILLING CONTRACTOR: EMPIRE SOILS INVESTIGATIONS
DRILLING METHOD: HOLLOW STEM AUGER
WELL INSTALLATION STARTED: 05/16/94
WELL INSTALLATION COMPLETED: 05/16/94

WELL LOCATION (N/E): 984365.9 753991.2
REFERENCE COORDINATE SYSTEM: New York State Plane
GROUND SURFACE ELEVATION (ft): 764.2
DATUM: NAD 1983
GEOLOGIST: F. O'LOUGHLIN
CHECKED BY: FO

STRATA MICRO DESCRIPTION (from boring log)	DEPTH (ft)	SYMBOL	WELL DETAILS	DEPTH (ft)		ELEVATION (ft)
					TPC	
					TR	
					TC	
	0			0.0	GS	764.2
ML ML				1.5	TBS	762.7
ML				2.5	TSP	761.7
ML				3.5	TSC	760.7
ML ML	5					
ML SP ML						
ML ML	10					
ML SM						
SM SM						
ML	15			15.3	BSC	748.9
	16.1			16.1	POW	748.1

WELL CONSTRUCTION DETAILS

PROTECTIVE COVER
Diameter: 4
Type: RISER
Interval: 3.5

RISER
Diameter: 2
Type: SCH. 40-PVC
Interval: 5

SCREEN
Diameter: 2
Type: SCH. 40-PVC/0.010
Interval: 1.95, 9

SURFACE SEAL
Type: CEMENT
Interval: 1.5

GROUT
Type: N/A
Interval: N/A

SEAL
Type: BENTONITE PELLETS
Interval: 1

SANDPACK
Type: #1, #3
Interval: 15.6

WELL DEVELOPMENT DATA
Date: 6/24/94
Method: BAIL/PUMP
Duration: 2 DAYS
Rate: .750 L/MIN
Final Measurements:

pH	Temperature (degrees C)	Conductivity (micromhos/cm)	Turbidity (NTU)
7.58	9.8	590	30

WATER LEVELS

Date	Time	Depth,TR
6/23	1600	5.21
6/24	1230	11.4

LEGEND

SURFACE SEAL, GROUT, SEAL, SANDPACK, GRAVEL, SAND, SILT, CLAY, NO RECOVERY

TPC TOP OF PROTECTIVE CASING
TR TOP OF WELL RISER
GS GROUND SURFACE
TBS TOP BENTONITE SEAL
TSP TOP OF SANDPACK
TSC TOP OF SCREEN
BSC BOTTOM OF SCREEN
TD TOTAL DEPTH
POW POINT OF WELL

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COMPLETION REPORT OF WELL No. MW64C-1

COMPLETION REPORT OF WELL No. MW64D-1

PROJECT: **SEVEN LOW PRIORITY AOCs**
PROJECT LOCATION: **SENECA ARMY DEPOT, ROMULUS NY**
DRILLING CONTRACTOR: **EMPIRE SOILS INVESTIGATIONS**
DRILLING METHOD: **HOLLOW STEM AUGER**
WELL INSTALLATION STARTED: **03/28/94**
WELL INSTALLATION COMPLETED: **03/28/94**

WELL LOCATION (N/E): **993059.7 741523.1**
REFERENCE COORDINATE SYSTEM: **New York State Plane**
GROUND SURFACE ELEVATION (ft): **666.6**
DATUM: **NAD 1983**
GEOLOGIST: **K.KELLY**
CHECKED BY: **FO**

STRATA MICRO DESCRIPTION (from boring log)	DEPTH (ft)	SYMBOL	WELL DETAILS	DEPTH (ft)		ELEVATION (ft)
					TPC	
					TR	
					TC	
				0.0	GS	666.6
	0					
ML						
CL				1.5	TBS	665.1
-						
CL				2.5	TSP	664.1
CL						
GM				3.6	TSC	663.1
-						
GC				4.4	BSC	662.3
GC						
CL	5.3			5.3	POW	661.4
-	5					

WELL CONSTRUCTION DETAILS

PROTECTIVE COVER
Diameter: **4**
Type: **RISER**
Interval: **3.5**

RISER
Diameter: **2**
Type: **SCH. 40-PVC**
Interval: **4.2**

SCREEN
Diameter: **2**
Type: **SCH. 40-PVC/0.010**
Interval: **.8**

SURFACE SEAL
Type: **CEMENT**
Interval: **1.5**

GROUT
Type: **N/A**
Interval: **N/A**

SEAL
Type: **BENTONITE PELLETS**
Interval: **1**

SANDPACK
Type: **#1, #3**
Interval: **2.75**

WELL DEVELOPMENT DATA
Date: **6/25/94**
Method: **BAIL/PUMP**
Duration: **3 DAYS**
Rate: **.232 L/MIN**
Final Measurements:

pH	Temperature (degrees C)	Conductivity (micromhos/cm)	Turbidity (NTU)
7.45	15.9	700	2.5

WATER LEVELS

Date	Time	Depth,TR
6/23	1430	4.71
6/25	1315	5.5

LEGEND
SURFACE SEAL
GROUT
SEAL
SANDPACK
GRAVEL
SAND
SILT
CLAY
NO RECOVERY

TPC	TOP OF PROTECTIVE CASING
TR	TOP OF WELL RISER
GS	GROUND SURFACE
TBS	TOP BENTONITE SEAL
TSP	TOP OF SANDPACK
TSC	TOP OF SCREEN
BSC	BOTTOM OF SCREEN
TD	TOTAL DEPTH
POW	POINT OF WELL

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COMPLETION REPORT OF
WELL No. MW64D-1

COMPLETION REPORT OF WELL No. MW64D-2

PROJECT: SEVEN LOW PRIORITY AOCs
PROJECT LOCATION: SENECA ARMY DEPOT, ROMULUS NY
DRILLING CONTRACTOR: EMPIRE SOILS INVESTIGATIONS
DRILLING METHOD: HOLLOW STEM AUGER
WELL INSTALLATION STARTED: 06/21/94
WELL INSTALLATION COMPLETED: 06/21/94

WELL LOCATION (N/E): 993638.6 740197.6
REFERENCE COORDINATE SYSTEM: New York State Plane
GROUND SURFACE ELEVATION (ft): 633.7
DATUM: NAD 1983
GEOLOGIST: K.KELLY
CHECKED BY: FO

STRATA: MICRO DESCRIPTION (from boring log)	DEPTH (ft)	SYMBOL	WELL DETAILS	DEPTH (ft)		ELEVATION (ft)
					TPC	
					TR	
					TC	
	0			0.0	GS	633.7
ML ML CL -				1.5	TBS	632.2
CL				2.8	TSP	630.9
SP ML GM				4.0	TSC	629.8
ML GM	5					
GM - GM -				7.9	BSC	625.8
GM-GC -	9.0			9.0	POW	624.7

WELL CONSTRUCTION DETAILS

PROTECTIVE COVER
Diameter: 4
Type: RISER
Interval: 3.5

RISER
Diameter: 2
Type: SCH. 40-PVC
Interval: 5

SCREEN
Diameter: 2
Type: SCH. 40-PVC/0.010
Interval: 3.95

SURFACE SEAL
Type: CEMENT
Interval: 1.5

GROUT
Type: N/A
Interval: N/A

SEAL
Type: BENTONITE PELLETS
Interval: 1.3

SANDPACK
Type: #1, #3
Interval: 6.3

WELL DEVELOPMENT DATA
Date: 6/28/94
Method: BAIL
Duration: 170 MIN
Rate: .720 L/MIN
Final Measurements:

pH	Temperature (degrees C)	Conductivity (micromhos/cm)	Turbidity (NTU)
7.2	14	450	2.54

WATER LEVELS

Date	Time	Depth,TR
6/28	0955	4.05
6/28	1240	4.48

LEGEND
SURFACE SEAL
GROUT
SEAL
SANDPACK
GRAVEL
SAND
SILT
CLAY
NO RECOVERY

TPC	TOP OF PROTECTIVE CASING
TR	TOP OF WELL RISER
GS	GROUND SURFACE
TBS	TOP BENTONITE SEAL
TSP	TOP OF SANDPACK
TSC	TOP OF SCREEN
BSC	BOTTOM OF SCREEN
TD	TOTAL DEPTH
POW	POINT OF WELL

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COMPLETION REPORT OF
WELL No. MW64D-2

COMPLETION REPORT OF WELL No. MW64D-3

PROJECT: SEVEN LOW PRIORITY AOCs
PROJECT LOCATION: SENECA ARMY DEPOT, ROMULUS NY
DRILLING CONTRACTOR: EMPIRE SOILS INVESTIGATIONS
DRILLING METHOD: HOLLOW STEM AUGER
WELL INSTALLATION STARTED: 06/20/94
WELL INSTALLATION COMPLETED: 06/20/94

WELL LOCATION (N/E): 993017.4 740735.8
REFERENCE COORDINATE SYSTEM: New York State Plane
GROUND SURFACE ELEVATION (ft): 647.3
DATUM: NAD 1983
GEOLOGIST: K.KELLY
CHECKED BY: FO

STRATA MICRO DESCRIPTION (from boring log)	DEPTH (ft)	SYMBOL	WELL DETAILS	DEPTH (ft)		ELEVATION (ft)
					TPC	
					TR	
					TC	
	0			0.0	GS	647.3
ML ML				1.5	TBS	645.8
CL CL						
CL				3.9	TSP	643.4
ML				4.9	TSC	642.4
	5					
ML GM-GC				6.9	BSC	640.4
ML				7.6	POW	639.7
	7.8					

WELL CONSTRUCTION DETAILS

PROTECTIVE COVER
Diameter: 4
Type: RISER
Interval: 3.5

RISER
Diameter: 2
Type: SCH. 40-PVC
Interval: 6.15

SCREEN
Diameter: 2
Type: SCH. 40-PVC/0.010
Interval: 1.95

SURFACE SEAL
Type: CEMENT
Interval: 1.5

GROUT
Type: N/A
Interval: N/A

SEAL
Type: BENTONITE PELLETS
Interval: 2.4

SANDPACK
Type: #1, #3
Interval: 4.2

WELL DEVELOPMENT DATA
Date: 6/27/94
Method: BAIL/PUMP
Duration: 110 MIN
Rate: VARIABLE
Final Measurements:

WATER LEVELS

Date	Time	Depth,TR
6/27	1445	3.72
6/27	1435	4.90

pH	Temperature (degrees C)	Conductivity (micromhos/cm)	Turbidity (NTU)
7.30	13.5	500	12

LEGEND

SURFACE SEAL
GROUT
SEAL
SANDPACK
GRAVEL
SAND
SILT
CLAY
NO RECOVERY

TPC	TOP OF PROTECTIVE CASING
TR	TOP OF WELL RISER
GS	GROUND SURFACE
TBS	TOP BENTONITE SEAL
TSP	TOP OF SANDPACK
TSC	TOP OF SCREEN
BSC	BOTTOM OF SCREEN
TD	TOTAL DEPTH
POW	POINT OF WELL

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COMPLETION REPORT OF WELL No. MW64D-3

COMPLETION REPORT OF WELL No. MW64D-4

PROJECT: SEVEN LOW PRIORITY AOCs
PROJECT LOCATION: SENECA ARMY DEPOT, ROMULUS NY
DRILLING CONTRACTOR: EMPIRE SOILS INVESTIGATIONS
DRILLING METHOD: HOLLOW STEM AUGER
WELL INSTALLATION STARTED: 06/20/94
WELL INSTALLATION COMPLETED: 06/20/94

WELL LOCATION (N/E): 992533.5 741082.2
REFERENCE COORDINATE SYSTEM: New York State Plane
GROUND SURFACE ELEVATION (ft): 659.7
DATUM: NAD 1983
GEOLOGIST: K.KELLY
CHECKED BY: FO

STRATA MICRO DESCRIPTION (from boring log)	DEPTH (ft)	SYMBOL	WELL DETAILS	DEPTH (ft)		ELEVATION (ft)
					TPC	
					TR	
					TC	
	0			0.0	GS	659.7
ML - CL - GM-GC - ML -				1.5	TBS	658.2
				3.3	TSP	656.5
ML - ML SM GM GM GM - GM GC GC - CL - - -	5			4.6	TSC	655.2
				8.5	BSC	651.2
	9.9			9.6	POW	650.1

WELL CONSTRUCTION DETAILS

PROTECTIVE COVER
Diameter: 4
Type: RISER
Interval: 3.5

RISER
Diameter: 2
Type: SCH. 40-PVC
Interval: 5.55

SCREEN
Diameter: 2
Type: SCH. 40-PVC/0.010
Interval: 3.95

SURFACE SEAL
Type: CEMENT
Interval: 1.5

GROUT
Type: N/A
Interval: N/A

SEAL
Type: BENTONITE PELLETS
Interval: 1.75

SANDPACK
Type: #1, #3
Interval: 6.6

WELL DEVELOPMENT DATA
Date: 6/27/94
Method: BAIL
Duration: 124 MIN
Rate: .540 L/MIN
Final Measurements:

WATER LEVELS

Date	Time	Depth,TR
6/27	0900	7.94
6/27	1100	8.42

pH	Temperature (degrees C)	Conductivity (micromhos/cm)	Turbidity (NTU)
7.09	12	500	1.41

LEGEND
SURFACE SEAL, GROUT, SEAL, SANDPACK, GRAVEL, SAND, SILT, CLAY, NO RECOVERY

TPC TOP OF PROTECTIVE CASING
TR TOP OF WELL RISER
GS GROUND SURFACE
TBS TOP BENTONITE SEAL
TSP TOP OF SANDPACK
TSC TOP OF SCREEN
BSC BOTTOM OF SCREEN
TD TOTAL DEPTH
POW POINT OF WELL

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COMPLETION REPORT OF WELL No. MW64D-4

COMPLETION REPORT OF WELL No. MW64D-5

PROJECT: SEVEN LOW PRIORITY AOCs
PROJECT LOCATION: SENECA ARMY DEPOT, ROMULUS NY
DRILLING CONTRACTOR: EMPIRE SOILS INVESTIGATIONS
DRILLING METHOD: HOLLOW STEM AUGER
WELL INSTALLATION STARTED: 06/22/94
WELL INSTALLATION COMPLETED: 06/22/94

WELL LOCATION (N/E): 991371.4 740724.3
REFERENCE COORDINATE SYSTEM: New York State Plane
GROUND SURFACE ELEVATION (ft): 651.0
DATUM: NAD 1983
GEOLOGIST: K.KELLY
CHECKED BY: FO

STRATA MICRO DESCRIPTION (from boring log)	DEPTH (ft)	SYMBOL	WELL DETAILS	DEPTH (ft)		ELEVATION (ft)
					TPC	
					TR	
					TC	
	0			0.0	GS	651.0
ML						
ML						
ML				1.5	TBS	649.5
-						
-						
GM-GC						
ML				3.3	TSP	647.8
ML				3.8	TSC	647.3
GM						
-	5					
SM				6.3	BSC	644.7
-						
-						
GM	7.2			7.2	POW	643.9
-						

WELL CONSTRUCTION DETAILS

PROTECTIVE COVER
Diameter: 4
Type: RISER
Interval: 3.5

RISER
Diameter: 2
Type: SCH. 40-PVC
Interval: 5.9

SCREEN
Diameter: 2
Type: SCH. 40-PVC/0.010
Interval: 1.95

SURFACE SEAL
Type: CEMENT
Interval: 1.5

GROUT
Type: N/A
Interval: N/A

SEAL
Type: BENTONITE PELLETS
Interval: 1.75

SANDPACK
Type: #1, #3
Interval: 3.85

WELL DEVELOPMENT DATA
Date: 7/10/94
Method: BAIL/PUMP
Duration: 10 DAYS
Rate: .411 L/MIN
Final Measurements:

pH	Temperature (degrees C)	Conductivity (micromhos/cm)	Turbidity (NTU)
7.00	13.3	470	15

WATER LEVELS

Date	Time	Depth,TR
6/28	1330	7.26
7/10	1535	6.06
7/10	1635	6.64

LEGEND
SURFACE SEAL
GROUT
SEAL
SANDPACK
GRAVEL
SAND
SILT
CLAY
NO RECOVERY

TPC TOP OF PROTECTIVE CASING
TR TOP OF WELL RISER
GS GROUND SURFACE
TBS TOP BENTONITE SEAL
TSP TOP OF SANDPACK
TSC TOP OF SCREEN
BSC BOTTOM OF SCREEN
TD TOTAL DEPTH
POW POINT OF WELL

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COMPLETION REPORT OF WELL No. MW64D-5

OVERBURDEN MONITORING WELL
COMPLETION REPORT & INSTALLATION DETAIL
ROADWAY BOX - SURFACE COMPLETION

PARSONS ENGINEERING SCIENCE, INC.	CLIENT: USACOE	WELL #: MW TW12-1

PROJECT:	RI FIELD INVESTIGATION	PROJECT NO:	
SWMU # (AREA):	SEAD- 12	INSPECTOR:	McAllister
SOP NO.:		CHECKED BY:	

DRILLING CONTRACTOR:	Nothnagle	POW DEPTH (ft) :	
DRILLER:	Jay.	INSTALLATION STARTED:	
DRILLING COMPLETED:	May 29 2004	INSTALLATION COMPLETED:	
BORING DEPTH:		SURFACE COMPLETION DATE:	
DRILLING METHOD(S):		COMPLETION CONTRACTOR/CREW:	
BORING DIAMETER(S):		BEDROCK CONFIRMED (Y/N?)	

PROTECTIVE SURFACE CASING

DIAMETER (ft): LENGTH (ft):

RISER

TYPE: PVC TR (ft): 3.29

DIAMETER(in): 2 inch LENGTH (ft): 10.29

SURFACE COLLAR

TYPE: RADIUS (ft):

THICKNESS OF CENTER (ft): THICKNESS OF EDGE (in):

SCREEN

TYPE: PVC TSC (ft): 5.2 ft

DIAMETER (in): 2 SLOT SIZE: 0.010 LENGTH (ft): 5 foot

POINT OF WELL (SILT SUMP)

TYPE: end cap BSC (ft): POW(ft):

GROUT

TYPE: None TG (ft): LENGTH (ft):

SEAL

TYPE: Granular Bentonite TBS (ft): surface LENGTH (ft): 4 ft

SAND PACK

FINE SAND TYPE: #00 TSP (ft): 4.00 LENGTH (ft): 6 ft

COARSE SAND TYPE: TSP (ft): LENGTH (ft):

ACRONYMS

TR	Top of Riser	BSC	Bottom of Screen	TG	Top of Grout
TSC	Top of Screen	POW	Point of Well	TBS	Top of Bentonite Seal
BGD	Background	TSP	Top of Sand Pack		

COMMENTS: Temporary well not yet completed.

* ALL DEPTH MEASUREMENTS REFERENCED TO GROUND SURFACE

SEE PAGE 2 FOR SCHEMATIC

OVERBURDEN MONITORING WELL
COMPLETION REPORT & INSTALLATION DETAIL
ROADWAY BOX - SURFACE COMPLETION

PARSONS ENGINEERING SCIENCE, INC.	CLIENT: USACOE	WELL #: ~~MW~~ TW12-3

PROJECT:	RI FIELD INVESTIGATION	PROJECT NO:	
SWMU # (AREA):	SEAD- 12 RI	INSPECTOR:	McAllister
SOP NO.:	Building 813/814	CHECKED BY:	

DRILLING CONTRACTOR:	Hoffnagle	POW DEPTH (ft) :	9' 10"
DRILLER:		INSTALLATION STARTED:	—
DRILLING COMPLETED:	May 24 2004	INSTALLATION COMPLETED:	—
BORING DEPTH:	10.25	SURFACE COMPLETION DATE:	Temporary
DRILLING METHOD(S):	HSA (6")	COMPLETION CONTRACTOR/CREW:	
BORING DIAMETER(S):	6 inch	BEDROCK CONFIRMED (Y/N?)	Y

PROTECTIVE SURFACE CASING

DIAMETER (ft): _____ LENGTH (ft): _____

RISER

TYPE: 2 inch PVC TR (ft): _____

DIAMETER(in): 2 inch LENGTH (ft): _____

SURFACE COLLAR

TYPE: _____ RADIUS (ft): _____

THICKNESS OF CENTER (ft): _____ THICKNESS OF EDGE (in): _____

SCREEN

TYPE: PVC TSC (ft): 5' 10"

DIAMETER (in): 2 SLOT SIZE: .010 LENGTH (ft): 5 feet

POINT OF WELL (SILT SUMP)

TYPE: end Cap BSC (ft): 9 feet 10 inches POW(ft): 9 feet 10 in

GROUT

TYPE: Chip Bentonite TG (ft): _____ LENGTH (ft): _____

SEAL

TYPE: Chip Bentonite TBS (ft): 4 feet to Surface LENGTH (ft): 4 feet

SAND PACK

FINE SAND TYPE: #00 TSP (ft): 4 feet LENGTH (ft): 5 feet 10 in

COARSE SAND TYPE: _____ TSP (ft): _____ LENGTH (ft): _____

ACRONYMS

TR	Top of Riser	BSC	Bottom of Screen	TG	Top of Grout
TSC	Top of Screen	POW	Point of Well	TBS	Top of Bentonite Seal
BGD	Background	TSP	Top of Sand Pack		

COMMENTS: Temporary well not yet completed

* ALL DEPTH MEASUREMENTS REFERENCED TO GROUND SURFACE

SEE PAGE 2 FOR SCHEMATIC

OVERBURDEN MONITORING WELL
COMPLETION REPORT & INSTALLATION DETAIL
ROADWAY BOX - SURFACE COMPLETION

TW12-4

PARSONS ENGINEERING SCIENCE, INC.		CLIENT: USACOE	WELL #: ~~MW~~
PROJECT:	RI FIELD INVESTIGATION	PROJECT NO:	743156
SWMU # (AREA):	SEAD- 12 RI	INSPECTOR:	McAllister
SOP NO.:	Building 813/814	CHECKED BY:	

DRILLING CONTRACTOR:	Nothnagle	POW DEPTH (ft) :	8.65
DRILLER:		INSTALLATION STARTED:	
DRILLING COMPLETED:	May 29 2009	INSTALLATION COMPLETED:	
BORING DEPTH:	8.75	SURFACE COMPLETION DATE:	Temporary
DRILLING METHOD(S):	HSA	COMPLETION CONTRACTOR/CREW:	
BORING DIAMETER(S):	6 inch	BEDROCK CONFIRMED (Y/N?)	Y

PROTECTIVE SURFACE CASING

DIAMETER (ft): _____ LENGTH (ft): _____

RISER

TYPE: _____ TR (ft): _____

DIAMETER(in): _____ LENGTH (ft): _____

SURFACE COLLAR

TYPE: _____ RADIUS (ft): _____

THICKNESS OF CENTER (ft): _____ THICKNESS OF EDGE (in): _____

SCREEN

TYPE: PVC TSC (ft): 3.75

DIAMETER (in): 2 inch SLOT SIZE: 0.010 LENGTH (ft): 5 feet

POINT OF WELL (SILT SUMP)

TYPE: end cap BSC (ft): 8.65 POW(ft): 8.65

GROUT

TYPE: _____ TG (ft): _____ LENGTH (ft): _____

SEAL

TYPE: Chip Bentonite TBS (ft): Surface LENGTH (ft): 3 feet

SAND PACK

FINE SAND TYPE: #00 TSP (ft): 3 feet LENGTH (ft): 5.65

COARSE SAND TYPE: _____ TSP (ft): _____ LENGTH (ft): _____

ACRONYMS

TR	Top of Riser	BSC	Bottom of Screen	TG	Top of Grout
TSC	Top of Screen	POW	Point of Well	TBS	Top of Bentonite Seal
BGD	Background	TSP	Top of Sand Pack		

COMMENTS: Temporary well not yet completed

* ALL DEPTH MEASUREMENTS REFERENCED TO GROUND SURFACE

SEE PAGE 2 FOR SCHEMATIC

OVERBURDEN MONITORING WELL
COMPLETION REPORT & INSTALLATION DETAIL
TEMPORARY WELL - SURFACE COMPLETION

PARSONS ENGINEERING SCIENCE, INC.	CLIENT: USACOE	WELL #: MW-TW12-5

PROJECT:	RI FIELD INVESTIGATION	PROJECT NO:	
SWMU # (AREA):	SEAD- 12	INSPECTOR:	McAllister
SOP NO.:		CHECKED BY:	

DRILLING CONTRACTOR:	Nothnagle	POW DEPTH (ft):	
DRILLER:	Jay	INSTALLATION STARTED:	
DRILLING COMPLETED:	May 24 2004	INSTALLATION COMPLETED:	
BORING DEPTH:		SURFACE COMPLETION DATE:	
DRILLING METHOD(S):		COMPLETION CONTRACTOR/CREW:	
BORING DIAMETER(S):		BEDROCK CONFIRMED (Y/N?)	

PROTECTIVE SURFACE CASING

DIAMETER (ft): LENGTH (ft):

RISER

TYPE: PVC TR (ft): 8.65

DIAMETER(in): 2 inch LENGTH (ft): 13.65 inc screen

SURFACE COLLAR

TYPE: RADIUS (ft):

THICKNESS OF CENTER (ft): THICKNESS OF EDGE (in):

SCREEN

TYPE: PVC TSC (ft): 6.5 feet

DIAMETER (in): 2 inch SLOT SIZE: 0.010 LENGTH (ft): 5 foot

POINT OF WELL (SILT SUMP)

TYPE: End Cap BSC (ft): POW(ft):

GROUT

TYPE: None TG (ft): LENGTH (ft):

SEAL

TYPE: Granular Bentonite TBS (ft): Surface LENGTH (ft): 4ft

SAND PACK

FINE SAND TYPE: #00 TSP (ft): 4ft bgs. LENGTH (ft):

COARSE SAND TYPE: TSP (ft): LENGTH (ft):

ACRONYMS

TR	Top of Riser	BSC	Bottom of Screen	TG	Top of Grout
TSC	Top of Screen	POW	Point of Well	TBS	Top of Bentonite Seal
BGD	Background	TSP	Top of Sand Pack		

COMMENTS:

* ALL DEPTH MEASUREMENTS REFERENCED TO GROUND SURFACE

SEE PAGE 2 FOR SCHEMATIC

13.65 overall stickup 2.50

OVERBURDEN MONITORING WELL
COMPLETION REPORT & INSTALLATION DETAIL
TEMPORARY WELL - SURFACE COMPLETION

TW 12-7

PARSONS ENGINEERING SCIENCE, INC.	CLIENT: USACOE	WELL #: MW

PROJECT:	RI FIELD INVESTIGATION	PROJECT NO:	
SWMU # (AREA):	SEAD- 12	INSPECTOR:	McAllister
SOP NO.:		CHECKED BY:	

DRILLING CONTRACTOR:	Nothnagle	POW DEPTH (ft):	
DRILLER:	Jay	INSTALLATION STARTED:	
DRILLING COMPLETED:	May 24 2004	INSTALLATION COMPLETED:	
BORING DEPTH:		SURFACE COMPLETION DATE:	
DRILLING METHOD(S):		COMPLETION CONTRACTOR/CREW:	
BORING DIAMETER(S):		BEDROCK CONFIRMED (Y/N?)	

PROTECTIVE SURFACE CASING

DIAMETER (ft): _____ LENGTH (ft): _____

RISER

TYPE: PVC TR (ft): 2.00 stickup

DIAMETER(in): 2 inch LENGTH (ft): _____

SURFACE COLLAR

TYPE: None RADIUS (ft): _____

THICKNESS OF CENTER (ft): _____ THICKNESS OF EDGE (in): _____

SCREEN

TYPE: PVC TSC (ft): 4 feet

DIAMETER (in): 2 inch SLOT SIZE: 0.01 LENGTH (ft): 5 feet

POINT OF WELL (SILT SUMP)

TYPE: End Cap BSC (ft): 9.0 ft POW(ft): 9.025

GROUT

TYPE: None TG (ft): _____ LENGTH (ft): _____

SEAL

TYPE: Granular Bentonite TBS (ft): Surface LENGTH (ft): 3.5 ft

SAND PACK

FINE SAND TYPE: #1 sand TSP (ft): 3.5 ft bgs LENGTH (ft): 5.5 ft.

COARSE SAND TYPE: _____ TSP (ft): _____ LENGTH (ft): _____

ACRONYMS

TR	Top of Riser	BSC	Bottom of Screen	TG	Top of Grout
TSC	Top of Screen	POW	Point of Well	TBS	Top of Bentonite Seal
BGD	Background	TSP	Top of Sand Pack		

COMMENTS: Depth of hole 9.025 ft
total well length 12.10

* ALL DEPTH MEASUREMENTS REFERENCED TO GROUND SURFACE

SEE PAGE 2 FOR SCHEMATIC

OVERBURDEN MONITORING WELL
COMPLETION REPORT & INSTALLATION DETAIL
ROADWAY BOX - SURFACE COMPLETION

TW12-8

PARSONS ENGINEERING SCIENCE, INC.	CLIENT: USACOE	WELL #: MW

PROJECT:	RI FIELD INVESTIGATION	PROJECT NO:	743156
SWMU # (AREA):	SEAD- 12 RI	INSPECTOR:	McAllister
SOP NO.:		CHECKED BY:	
DRILLING CONTRACTOR:	Nothnagle	POW DEPTH (ft) :	
DRILLER:		INSTALLATION STARTED:	
DRILLING COMPLETED:	May 25 2004	INSTALLATION COMPLETED:	
BORING DEPTH:	10 feet	SURFACE COMPLETION DATE:	
DRILLING METHOD(S):	HSA	COMPLETION CONTRACTOR/CREW:	
BORING DIAMETER(S):	6 inch	BEDROCK CONFIRMED (Y/N?)	

PROTECTIVE SURFACE CASING

DIAMETER (ft): _____ LENGTH (ft): _____

RISER

TYPE: _____ TR (ft): _____

DIAMETER(in): _____ LENGTH (ft): _____

SURFACE COLLAR

TYPE: _____ RADIUS (ft): _____

THICKNESS OF CENTER (ft): _____ THICKNESS OF EDGE (in): _____

SCREEN

TYPE: PVC TSC (ft): 5 feet

DIAMETER (in): 2 inch SLOT SIZE: 0.010 LENGTH (ft): 5 foot

POINT OF WELL (SILT SUMP)

TYPE: _____ BSC (ft): _____ POW(ft): _____

GROUT

TYPE: _____ TG (ft): _____ LENGTH (ft): _____

SEAL

TYPE: Chip Bentonite TBS (ft): Surface LENGTH (ft): 4 feet

SAND PACK

FINE SAND TYPE: #00 TSP (ft): 4 feet LENGTH (ft): 6 feet

COARSE SAND TYPE: _____ TSP (ft): _____ LENGTH (ft): _____

ACRONYMS

TR	Top of Riser	BSC	Bottom of Screen	TG	Top of Grout
TSC	Top of Screen	POW	Point of Well	TBS	Top of Bentonite Seal
BGD	Background	TSP	Top of Sand Pack		

COMMENTS: Temporary well

* ALL DEPTH MEASUREMENTS REFERENCED TO GROUND SURFACE

SEE PAGE 2 FOR SCHEMATIC

OVERBURDEN MONITORING WELL

COMPLETION REPORT & INSTALLATION DETAIL

ROADWAY BOX - SURFACE COMPLETION

TW12-9

PARSONS ENGINEERING SCIENCE, INC.		CLIENT: USACOE	WELL #: MW
PROJECT:	RI FIELD INVESTIGATION	PROJECT NO:	743156
SWMU # (AREA):	SEAD- 12 RC	INSPECTOR:	McAllister
SOP NO.:	743156	CHECKED BY:	

DRILLING CONTRACTOR:	Nothnagle	POW DEPTH (ft) :	9.11
DRILLER:		INSTALLATION STARTED:	
DRILLING COMPLETED:	May 25 2004	INSTALLATION COMPLETED:	
BORING DEPTH:	10.2feet	SURFACE COMPLETION DATE:	Temporary.
DRILLING METHOD(S):	HSA	COMPLETION CONTRACTOR/CREW:	
BORING DIAMETER(S):	6 inch	BEDROCK CONFIRMED (Y/N?)	Y

PROTECTIVE SURFACE CASING

DIAMETER (ft): _____ LENGTH (ft): _____

RISER

TYPE: _____ TR (ft): _____

DIAMETER(in): _____ LENGTH (ft): _____

SURFACE COLLAR

TYPE: _____ RADIUS (ft): _____

THICKNESS OF CENTER (ft): _____ THICKNESS OF EDGE (in): _____

SCREEN

TYPE: PVC TSC (ft): 4.11 ft

DIAMETER (in): 2 inch SLOT SIZE: 0.010 LENGTH (ft): 5 foot

POINT OF WELL (SILT SUMP)

TYPE: End Cap BSC (ft): 9.01 POW(ft): 9.1

GROUT

TYPE: _____ TG (ft): _____ LENGTH (ft): _____

SEAL

TYPE: Chip Bentonite TBS (ft): Surface LENGTH (ft): 4.5 ft

SAND PACK

FINE SAND TYPE: #00 TSP (ft): 4.5 ft. LENGTH (ft): 4.5 ft

COARSE SAND TYPE: _____ TSP (ft): _____ LENGTH (ft): _____

ACRONYMS

TR	Top of Riser	BSC	Bottom of Screen	TG	Top of Grout
TSC	Top of Screen	POW	Point of Well	TBS	Top of Bentonite Seal
BGD	Background	TSP	Top of Sand Pack		

COMMENTS: Temporary well No ~~Sand Pack~~ Grout

* ALL DEPTH MEASUREMENTS REFERENCED TO GROUND SURFACE

SEE PAGE 2 FOR SCHEMATIC

OVERBURDEN MONITORING WELL
COMPLETION REPORT & INSTALLATION DETAIL
ROADWAY BOX - SURFACE COMPLETION

TW 12-22

PARSONS ENGINEERING SCIENCE, INC.		CLIENT: USACOE	WELL #: ~~MW~~
PROJECT:	RI FIELD INVESTIGATION	PROJECT NO:	743156
SWMU # (AREA):	SEAD- 12 RI	INSPECTOR:	McAllister
SOP NO.:	Building 813/814	CHECKED BY:	
DRILLING CONTRACTOR:	Nothnagle	POW DEPTH (ft) :	23.5 ft
DRILLER:		INSTALLATION STARTED:	
DRILLING COMPLETED:	June 9 2004	INSTALLATION COMPLETED:	
BORING DEPTH:	24.5	SURFACE COMPLETION DATE:	Temporary
DRILLING METHOD(S):	HSA	COMPLETION CONTRACTOR/CREW:	
BORING DIAMETER(S):	6 inch	BEDROCK CONFIRMED (Y/N?)	Y

PROTECTIVE SURFACE CASING

DIAMETER (ft): _____ LENGTH (ft): _____

RISER

TYPE: PVC TR (ft): _____

DIAMETER(in): 2 inch LENGTH (ft): 19 ft

SURFACE COLLAR

TYPE: _____ RADIUS (ft): _____

THICKNESS OF CENTER (ft): _____ THICKNESS OF EDGE (in): _____

SCREEN

TYPE: PVC TSC (ft): 13.5

DIAMETER (in): 2 inch SLOT SIZE: 0.010 LENGTH (ft): 10 foot

POINT OF WELL (SILT SUMP)

TYPE: End Cap BSC (ft): 23.5 POW(ft): 23.5

GROUT

TYPE: C TG (ft): _____ LENGTH (ft): _____

SEAL

TYPE: Chip Bentonite TBS (ft): Surface LENGTH (ft): 4 feet

SAND PACK

FINE SAND TYPE: #00 TSP (ft): 9 feet LENGTH (ft): 12 feet

COARSE SAND TYPE: _____ TSP (ft): _____ LENGTH (ft): _____

ACRONYMS

TR	Top of Riser	BSC	Bottom of Screen	TG	Top of Grout
TSC	Top of Screen	POW	Point of Well	TBS	Top of Bentonite Seal
BGD	Background	TSP	Top of Sand Pack		

COMMENTS: Temporary well

* ALL DEPTH MEASUREMENTS REFERENCED TO GROUND SURFACE

SEE PAGE 2 FOR SCHEMATIC

OVERBURDEN MONITORING WELL
COMPLETION REPORT & INSTALLATION DETAIL
ROADWAY BOX - SURFACE COMPLETION

TW12-23

PARSONS ENGINEERING SCIENCE, INC.		CLIENT: USACOE	~~WELL #: MW~~
PROJECT:	RI FIELD INVESTIGATION	PROJECT NO:	743156
SWMU # (AREA):	SEAD- 12 RI	INSPECTOR:	McAllister
SOP NO.:	743156	CHECKED BY:	
DRILLING CONTRACTOR:	Nothnagle	POW DEPTH (ft) :	23.25
DRILLER:		INSTALLATION STARTED:	
DRILLING COMPLETED:	June 9 2004	INSTALLATION COMPLETED:	
BORING DEPTH:	23.3 ft	SURFACE COMPLETION DATE:	Temporary
DRILLING METHOD(S):		COMPLETION CONTRACTOR/CREW:	
BORING DIAMETER(S):		BEDROCK CONFIRMED (Y/N?)	Y

PROTECTIVE SURFACE CASING

DIAMETER (ft): _____ LENGTH (ft): _____

RISER

TYPE: PVC TR (ft): _____

DIAMETER(in): 2 inch LENGTH (ft): 14 feet

SURFACE COLLAR

TYPE: _____ RADIUS (ft): _____

THICKNESS OF CENTER (ft): _____ THICKNESS OF EDGE (in): _____

SCREEN

TYPE: PVC TSC (ft): 13.3

DIAMETER (in): 2 inch SLOT SIZE: 0.010 LENGTH (ft): 10 feet

POINT OF WELL (SILT SUMP)

TYPE: End Cap BSC (ft): 23.25 POW(ft): 23.3

GROUT

TYPE: _____ TG (ft): _____ LENGTH (ft): _____

SEAL

TYPE: Chip Bentonite TBS (ft): 8.9 ft LENGTH (ft): 2.7

SAND PACK

FINE SAND TYPE: #00 TSP (ft): ~~8.9 ft~~ 11.2 ft LENGTH (ft): 2 feet

COARSE SAND TYPE: _____ TSP (ft): _____ LENGTH (ft): _____

ACRONYMS

TR	Top of Riser	BSC	Bottom of Screen	TG	Top of Grout
TSC	Top of Screen	POW	Point of Well	TBS	Top of Bentonite Seal
BGD	Background	TSP	Top of Sand Pack		

COMMENTS:
Temporary Well

* ALL DEPTH MEASUREMENTS REFERENCED TO GROUND SURFACE

SEE PAGE 2 FOR SCHEMATIC

OVERBURDEN MONITORING WELL

COMPLETION REPORT & INSTALLATION DETAIL

TEMPORARY WELL - SURFACE COMPLETION TW 12-24

PARSONS ENGINEERING SCIENCE, INC.	CLIENT: USACOE	WELL #: MW

PROJECT:	RI FIELD INVESTIGATION	PROJECT NO:	
SWMU # (AREA):	SEAD- 12	INSPECTOR:	
SOP NO.:		CHECKED BY:	

DRILLING CONTRACTOR:	Nothnagle	POW DEPTH (ft) :	
DRILLER:	Jay	INSTALLATION STARTED:	
DRILLING COMPLETED:	June 10 2004	INSTALLATION COMPLETED:	
BORING DEPTH:		SURFACE COMPLETION DATE:	
DRILLING METHOD(S):		COMPLETION CONTRACTOR/CREW:	
BORING DIAMETER(S):		BEDROCK CONFIRMED (Y/N?)	

PROTECTIVE SURFACE CASING

DIAMETER (ft): LENGTH (ft):

RISER

TYPE: PVC TR (ft): 8.01

DIAMETER(in): 2 inch LENGTH (ft):

SURFACE COLLAR

TYPE: RADIUS (ft):

THICKNESS OF CENTER (ft): THICKNESS OF EDGE (in):

SCREEN

TYPE: PVC TSC (ft): 9.3 feet

DIAMETER (in): 2 inch SLOT SIZE: 0.01 LENGTH (ft): 5 feet

POINT OF WELL (SILT SUMP)

TYPE: End Cap BSC (ft): POW(ft):

GROUT

TYPE: None TG (ft): LENGTH (ft):

SEAL

TYPE: Granular Bentonite TBS (ft): Surface LENGTH (ft): 3.1 ft

SAND PACK

FINE SAND TYPE: #1 sand TSP (ft): 3.1 feet LENGTH (ft): 6.2 feet

COARSE SAND TYPE: TSP (ft): LENGTH (ft):

ACRONYMS

TR	Top of Riser	BSC	Bottom of Screen	TG	Top of Grout
TSC	Top of Screen	POW	Point of Well	TBS	Top of Bentonite Seal
BGD	Background	TSP	Top of Sand Pack		

COMMENTS: Auger refusal @ 9.3ft
Screen 5 foot
#1 Sand to 3.1 feet
Granular Bentonite 3.1 to Surface
Total Depth 13.01
Stickup 3.71 feet

* ALL DEPTH MEASUREMENTS REFERENCED TO GROUND SURFACE

SEE PAGE 2 FOR SCHEMATIC

OVERBURDEN MONITORING WELL
COMPLETION REPORT & INSTALLATION DETAIL
ROADWAY BOX - SURFACE COMPLETION

TW12-25

PARSONS ENGINEERING SCIENCE, INC.		CLIENT: USACOE	WELL #: ~~MW~~
PROJECT:	RI FIELD INVESTIGATION	PROJECT NO:	743156
SWMU # (AREA):	SEAD- 12 RI	INSPECTOR:	McAllister
SOP NO.:		CHECKED BY:	

DRILLING CONTRACTOR:	Nothnagle	POW DEPTH (ft) :	12.3ft
DRILLER:		INSTALLATION STARTED:	
DRILLING COMPLETED:	June 9 2009	INSTALLATION COMPLETED:	
BORING DEPTH:	12.3 feet	SURFACE COMPLETION DATE:	Temporary
DRILLING METHOD(S):	HSA	COMPLETION CONTRACTOR/CREW:	
BORING DIAMETER(S):	6 inch	BEDROCK CONFIRMED (Y/N?)	

PROTECTIVE SURFACE CASING

DIAMETER (ft): _____ LENGTH (ft): _____

RISER

TYPE: _____ TR (ft): _____

DIAMETER(in): _____ LENGTH (ft): _____

SURFACE COLLAR

TYPE: _____ RADIUS (ft): _____

THICKNESS OF CENTER (ft): _____ THICKNESS OF EDGE (in): _____

SCREEN

TYPE: PVC TSC (ft): 7.3ft

DIAMETER (in): 2 inch SLOT SIZE: 0.010 LENGTH (ft): 4.85 foot

POINT OF WELL (SILT SUMP)

TYPE: End Cap BSC (ft): 12.25 POW(ft): 12.3

GROUT

TYPE: _____ TG (ft): _____ LENGTH (ft): _____

SEAL

TYPE: Chip Bentonite TBS (ft): 5.2 feet LENGTH (ft): 5.2 feet

SAND PACK

FINE SAND TYPE: #00 TSP (ft): 5.2 feet LENGTH (ft): ~~8.9~~ ft

COARSE SAND TYPE: _____ TSP (ft): _____ LENGTH (ft): _____

ACRONYMS

TR	Top of Riser	BSC	Bottom of Screen	TG	Top of Grout
TSC	Top of Screen	POW	Point of Well	TBS	Top of Bentonite Seal
BGD	Background	TSP	Top of Sand Pack		

COMMENTS: Temporary well to

* ALL DEPTH MEASUREMENTS REFERENCED TO GROUND SURFACE

SEE PAGE 2 FOR SCHEMATIC

OVERBURDEN MONITORING WELL
COMPLETION REPORT & INSTALLATION DETAIL
ROADWAY BOX - SURFACE COMPLETION

TW12-26

PARSONS ENGINEERING SCIENCE, INC.		CLIENT: USACOE	WELL #: ~~MW~~
PROJECT:	RI FIELD INVESTIGATION	PROJECT NO:	743156
SWMU # (AREA):	SEAD- 12 RI	INSPECTOR:	McAllister
SOP NO.:		CHECKED BY:	

DRILLING CONTRACTOR:	Nothnagle	POW DEPTH (ft) :	10.9 ft
DRILLER:		INSTALLATION STARTED:	
DRILLING COMPLETED:	June 9 2004	INSTALLATION COMPLETED:	
BORING DEPTH:	11 feet	SURFACE COMPLETION DATE:	
DRILLING METHOD(S):	HSA	COMPLETION CONTRACTOR/CREW:	
BORING DIAMETER(S):	6 inch	BEDROCK CONFIRMED (Y/N?)	

PROTECTIVE SURFACE CASING

DIAMETER (ft): _____ LENGTH (ft): _____

RISER

TYPE: PVC TR (ft): _____

DIAMETER(in): 2 inch LENGTH (ft): _____

SURFACE COLLAR

TYPE: _____ RADIUS (ft): _____

THICKNESS OF CENTER (ft): _____ THICKNESS OF EDGE (in): _____

SCREEN

TYPE: PVC TSC (ft): 5.9 ft

DIAMETER (in): 2 inch SLOT SIZE: 0.010 LENGTH (ft): 5 foot

POINT OF WELL (SILT SUMP)

TYPE: End Cap BSC (ft): 10.85 ft POW(ft): 10.9 ft

GROUT

TYPE: _____ TG (ft): _____ LENGTH (ft): _____

SEAL

TYPE: Chip Bentonite TBS (ft): Surface LENGTH (ft): 4.9 ft

SAND PACK

FINE SAND TYPE: #00 TSP (ft): 4.9 ft LENGTH (ft): 6 feet

COARSE SAND TYPE: _____ TSP (ft): _____ LENGTH (ft): _____

ACRONYMS

TR	Top of Riser	BSC	Bottom of Screen	TG	Top of Grout
TSC	Top of Screen	POW	Point of Well	TBS	Top of Bentonite Seal
BGD	Background	TSP	Top of Sand Pack		

COMMENTS: Temporary Well

* ALL DEPTH MEASUREMENTS REFERENCED TO GROUND SURFACE

SEE PAGE 2 FOR SCHEMATIC

ATTACHMENT B

PARSONS

150 Federal Street • Boston, Massachusetts 02110-1713 • (617) 946-9400 • Fax: (617) 946-9777 • www.parsons.com

July 30, 2007

Mr. Julio F. Vazquez, Project Manager
U.S. Environmental Protection Agency, Region II
Superfund, Federal Facilities Section
290 Broadway, 18th Floor
New York, NY 10007-1866

Mr. Kuldeep K. Gupta
New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau A, Section C
625 Broadway
Albany, NY 12233-7015

Subject: Seneca Army Depot Activity, Seneca County, New York
Notice of Intent to Proceed
Abandonment of Monitoring Wells, Nine Areas of Concern

Dear Mr. Vazquez and Mr. Gupta:

Parsons Infrastructure & Technology Group Inc. (Parsons) plans to re-initiate well abandonment activities at nine historic solid waste management units (SWMUs) (SEADs 9, 44A, 44B, 58, 62, 64A, 64B, 64C, and 64D) at the Seneca Army Depot during the week of August 6, 2007. Records of Decision (RODs) have been finalized for all nine of these areas of concern.

Parsons is now finalizing project schedules and plans to mobilize necessary personnel and equipment to the depot to complete the necessary work during the week of August 6, 2007. The well abandonment will begin once new monitoring wells are installed at the OB Grounds. Well abandonment work will be performed under this task in accordance with the work plan that was issued and approved back in 2005. Subsequent to the completion of the well abandonment the necessary well abandonment documentation will be summarized and provided.

If you desire to witness or audit the well abandonment activities please notify me so we may adjust schedules to accommodate your schedule. I may be reached at 617-449-1570 of via email at jeff.adams@parsons.com.

Sincerely,

PARSONS

Jeffrey W. Adams
Project Manager