

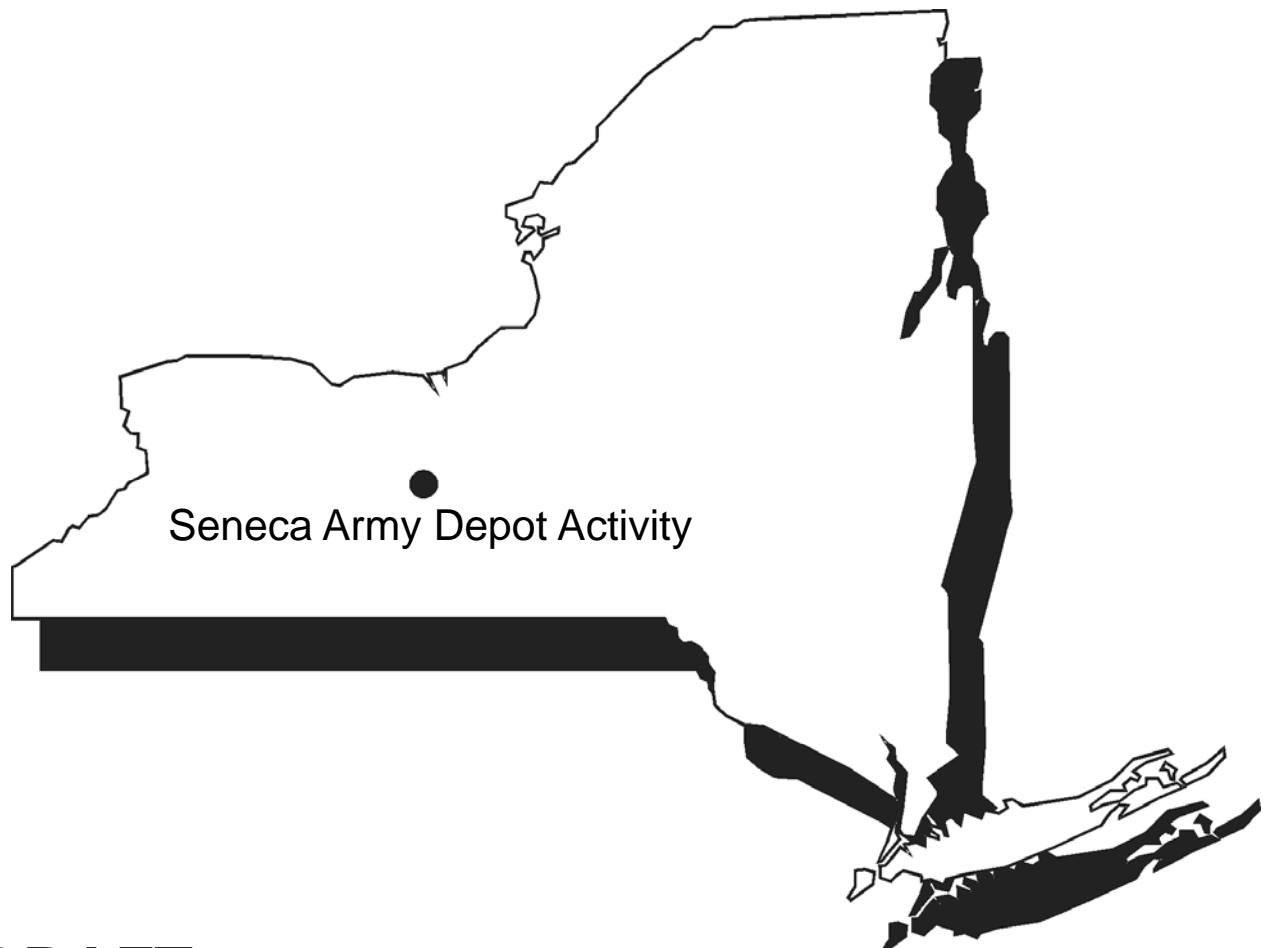


US Army, Engineering & Support Center
Huntsville, AL

00666



Seneca Army Depot Activity
Romulus, NY



DRAFT

ANNUAL REPORT, YEAR 3

FOR THE FIRE TRAINING AND DEMONSTRATION PAD (SEAD-25)
SENECA ARMY DEPOT ACTIVITY

Contract No. DACA87-02-D-0005

Delivery Order No. 0036

EPA Site ID# NY0213820830

NY Site ID# 8-50-006

PARSONS
March 2010

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FOR THE FIRE TRAINING AND DEMONSTRATION PAD (SEAD-25)
SENECA ARMY DEPOT ACTIVITY, ROMULUS, NEW YORK

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MARCH 2010

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ACRONYMS AND ABBREVIATIONS

µg/L	micrograms per liter
bgs	Below ground surface
BTEX	Benzene, Toluene, Ethylbenzene, Xylene
COC	Contaminant of Concern
cy	Cubic yards
DCE	Dichloroethene
ESI	Expanded Site Inspection
LTM	Long-term Monitoring
LUC	Land Use Control
NYSDEC	New York State Department of Environmental Conservation
ORP	Oxidation/reduction potential
PCE	Perchloroethene
RA	Remedial Action
RD	Remedial Design
RI	Remedial Investigation
ROD	Record of Decision
SAP	Sampling and Analysis Plan
SEDA	Seneca Army Depot Activity
SVOC	Semivolatile Organic Carbon
TCE	Trichloroethene
USEPA	U.S. Environmental Protection Agency
VOC	Volatile Organic Carbon

1.0 INTRODUCTION

This Year 3 Annual Report for the Fire Training and Demonstration Pad (SEAD-25) at the Seneca Army Depot Activity (SEDA or the Depot) in Romulus, New York provides a review of long-term groundwater monitoring conducted during the past year and provides recommendations for future long-term monitoring at SEAD-25. This document also provides an annual review of the effectiveness of the remedy implemented at SEAD-25 in 2005.

In accordance with the Record of Decision (ROD) for SEAD-25 and SEAD-26 (Parsons, 2004) and the Remedial Design Work Plan and Design Report (RDR) (Parsons, 2005), a remedial action was completed in November 2005 for both areas of concern (AOCs), and the results of the actions were documented in the "Construction Completion Report for SEAD-25 and SEAD-26, Final" (CCR) (Parsons, 2006). The SEAD-25 remedial action involved the removal of 1,722 cubic yards (cy) of volatile organic compound (VOC) and semivolatile organic compound (SVOC) impacted soil and sediment.

Long-term groundwater monitoring (LTM) is being performed at SEAD-25 as part of the continuing post-closure monitoring and maintenance (PCMM) operations. Groundwater monitoring was initially required at both AOCs as a condition of the ROD since contaminant concentrations found in the groundwater at the AOCs prior to the remedial action exceeded applicable groundwater standards. Groundwater monitoring at SEAD-26 was terminated by the Army, with the approval of the United States Environmental protection Agency (EPA) and the New York State Department of Environmental Conservation (NYSDEC), after Year 1 sampling and analysis indicated that no contaminants of concern (COCs) were present in the groundwater at concentrations above defined cleanup goals. Semi-annual (i.e., twice each year) groundwater monitoring is continuing at SEAD-25.

The Year 1, Round 1 groundwater sampling events for SEAD-25 and SEAD-26 were completed between January 24, 2006 and January 31, 2006, with one sample being re-collected on April 12, 2006, and the results were reported in a memo submitted on May 31, 2006. The Year 1, Round 2 sampling event was performed between August 7, 2006 and August 14, 2006, and the results were reported in a memo submitted on December 7, 2006. The Year 1 Annual Report for SEAD-25 and SEAD-26¹ was submitted on February 2, 2007; as is indicated above, this report concluded that groundwater monitoring at SEAD-26 was no longer required, and future rounds of groundwater monitoring were to be limited to SEAD-25.

The third semi-annual round (Year 2, Round 3) of groundwater sampling at SEAD-25 was completed between June 6, 2007 and June 7, 2007, and the results were reported in a memo submitted on September 10, 2007. A fourth semi-annual round (Year 2, Round 4) of groundwater sampling was

¹ Annual Report for the Fire Training and Demonstration Pad (SEAD-25) and the Fire Training Pit and Area (SEAD-26)
Seneca Army Depot Activity, Parsons, February 2007

completed between March 3, 2008 and March 4, 2008, and the results were reported in a memo submitted on April 18, 2008. The Year 2 Annual Report for the Fire Training and Demonstration Pad (SEAD-25) was submitted on June 18, 2008.

The fifth semi-annual round (Year 3, Round 5) of groundwater sampling was completed between April 28, 2009 and April 29, 2009, and the results were reported in a memo submitted on June 17, 2009. The sixth semi-annual round (Year 3, Round 6) of groundwater sampling was completed between January 11, 2010 and January 14, 2010. A separate event monitoring memo was not prepared to document the Round 6 event; these data are presented and summarized in this report. Data for both Year 3 events (i.e., Round 5 and Round 6) are presented in this document, where they are also assessed along with historic data to show trends and changes over time.

As will be noted from the summary presented above, although semi-annual monitoring (twice each year) is the documented monitoring frequency desired at SEAD-25, adherence to a strict semi-annual schedule has not been achieved. The variation in time between consecutive rounds of groundwater monitoring at SEAD-25 results due to seasonal fluctuations in the local groundwater elevation at the site. SEAD-25 is located very near to a combined topographic and bedrock high within the east-central portion of the former Depot. As such, all recharge to the local groundwater comes from infiltration of storm-event water down through the surface into the underlying aquifer, which competes with surface water run-off into neighboring drainage ditches which conveys much of the water away into lower elevation areas within the Depot. All of the monitoring wells sampled as part of the continuing SEAD-25 long-term monitoring are located in the shallow, overburden aquifer at SEAD-25, where the original groundwater contamination was originally identified during the historic CERCLA site investigations.

The shallow overburden found in the vicinity of SEAD-25 is very thin, consisting of a lens of till and fractured shale ranging from roughly 5 to 15 feet in thickness, which overlies competent shale bedrock. As such, due to the combination of run-off and low infiltration rates during extended dry or low water periods, the overburden water table thins to levels where samples frequently can not be collected from many of the wells, and most frequently from one of more of the three "source" wells (i.e., MW25-2, MW25-3, and MW25-9) which are located in closest proximity to the original burn pad. When such conditions are encountered in the field, event sampling is postponed until adequate water can be collected from the "source" wells to support essential analyses (i.e., volatile organic compounds).

2.0 SITE BACKGROUND

2.1 Site Description

SEDA is a 10,587-acre former military facility located in Seneca County in the towns of Romulus and Varick, New York, which was owned by the United States Government and operated by the Department of the Army between 1941 and 2000. In 1999 SEDA's military mission was terminated

and the installation was closed in 2000. Since 2000, the Army has assumed a caretaker role at the Depot during the close out of environmental investigations, studies, and remedial activities that are required at the former facility. As part of the Depot close out activities, more than 8,250 acres of land within the former Depot has been transferred to new owners for reuse.

SEDA is located between Seneca Lake and Cayuga Lake in Seneca County and is bordered by New York State Highway 96 on the east, New York State Highway 96A on the west, and sparsely populated farmland on the north and south. The Fire Training and Demonstration Pad (SEAD-25) is located in the east-central portion of SEDA. The site is bounded to the east by Administration Avenue beyond which is undeveloped land covered by deciduous trees; to the south by Ordnance Drive beyond which is an open grassy field and a stand of coniferous trees; to the west by a drainage ditch running from the northeast to the southwest with grassland, brush and conifers between the site and the ditch; and, to the north by grassland and a baseball field. A site map of the SEAD-25 area is included as **Figure 1**. SEAD-25 was in use from the late 1960s to the late 1980s. The former pad was used for fire control training. During the 1980s, the pad was used twice for fire fighting demonstrations, once in 1982 or 1983 and again in 1987.

2.2 Site Hydrology

The hydrogeologic setting for SEAD-25 was previously described in detail in Section 3.1.6 of the Final RI Report² dated May 1998. A brief summary of hydrogeologic conditions found in the RI Report is presented below for SEAD-25.

Groundwater contour mapping indicates that shallow groundwater flow is radial below the pad, with a stronger horizontal gradient to the south and west (**Figure 2**). The radial groundwater flow that exists below the pad at SEAD-25 is believed to be a local phenomenon that is present because of the influence of the anthropomorphic bedrock topographic mound located beneath the pad. Groundwater flow in the deeper, competent shale zone is to the west and southwest. The horizontal hydraulic gradients ranged from 0.01 feet per foot (ft/ft) to 0.02 ft/ft in both the shallow saturated zone located in the till/weathered shale bedrock and in the deep saturated zone located in the competent shale bedrock.

Hydraulic conductivities at SEAD-25 were found to range from 1.0×10^{-5} centimeters per second (cm/sec) to 3.4×10^{-3} cm/sec, with an average of 6.1×10^{-4} cm/sec in shale/weathered bedrock. Both downward and upward vertical gradients were calculated for SEAD-25. The magnitude of the downward hydraulic gradients ranged from -0.04 ft/ft to -0.21 ft/ft. The magnitude of the upward hydraulic gradients ranged from 0.01 ft/ft to 0.07 ft/ft.

² Remedial Investigation Report for the Fire Training and Demonstration Pad (SEAD-25) and the Fire Training Pit and Area (SEAD-26) Seneca Army Depot Activity, Parsons Engineering Science, Inc., May 1998

2.3 Soil and Groundwater Impacts

The primary COCs at SEAD-25 are aromatic VOCs, including benzene, toluene, ethyl benzene, and xylene (BTEX), compounds in soil and groundwater, as well as lesser amounts of selected chlorinated compounds (i.e. 1,1,1-trichloroethane, 1,1-dichloroethane, 1,2-dichloroethene, trichloroethene, and chloroform) in groundwater.

The pre-remedial action impacts from BTEX compounds occurred at three soil sample locations (SB25-3, SB25-4, and SB25-5) clustered together in the western half of the pad. The vertical impacts extended from the land surface to a depth of 4 to 6 feet below the surface, which approximately corresponds to the top of competent bedrock (which was encountered at approximately 4.5 feet below ground surface during the removal action). The highest levels of BTEX were detected at soil boring SB25-3, measuring 15,810 micrograms per Kilogram ($\mu\text{g}/\text{Kg}$), 151,500 $\mu\text{g}/\text{Kg}$, and 10,200 $\mu\text{g}/\text{Kg}$ at depth intervals of 0-2 feet, 2-4 feet, and 4-6 feet below ground surface (bgs), respectively. Lower concentrations of BTEX were detected in the surface soil at SB25-3 (4,200 $\mu\text{g}/\text{Kg}$) and SB25-4 (2,900 $\mu\text{g}/\text{Kg}$), respectively.

Based on the RI results, the primary impact to the groundwater is from two overlapping VOC plumes that both originate at the southwestern portion of the Fire Training and Demonstration Pad. BTEX and chlorinated ethenes were not detected in the bedrock wells at SEAD-25. The primary plume observed during the RI was approximately 200 feet long and was composed of aromatic hydrocarbon compounds that are typically associated with gasoline (BTEX). The maximum concentration of total BTEX (i.e., additive sum of benzene, toluene, ethyl benzene, and xylenes) detected in the groundwater during the RI was 6,220 micrograms per Liter ($\mu\text{g}/\text{L}$) at well MW25-2. The maximum concentration of total chlorinated organics, 88 $\mu\text{g}/\text{L}$, was also detected at well MW25-2 during the ESI. The historic SEAD-25 groundwater data are presented in **Table A-1 in Appendix A**.

Impacts to soil in the drainage swales at SEAD-25 were mainly from SVOCs, pesticides, and heavy metals. The most significant impacts from SVOCs and metals were found in the drainage swale northwest of the pad, whereas in the ditch, that runs along the west side of Administration Ave and turns west along Ordnance Drive, the most significant impact from SVOCs was found in a single upgradient location. No COCs were identified in SEAD-25 surface water that required remediation.

2.4 Summary of the Remedial Action

The excavation of the BTEX impacted soil at the SEAD-25 pad began on November 15, 2005 and was completed on December 1, 2005, with soil removal totaling 961 cy. The depth of excavation extended to the top of the competent shale bedrock, approximately 4.5 feet bgs. Ten confirmatory soil samples (plus one duplicate sample) were collected from the sidewalls of the excavation area and analyzed for VOCs and SVOCs. All confirmatory soil samples representative of soil remaining on-site at the pad achieved the site-specific cleanup goals, and the soils at SEAD-25 do not require

further action. The excavation of the soil at the pad removed the source of groundwater contamination.

Excavation of the SVOC impacted soil in the swale at SEAD-25 began on November 7, 2005 and was completed on November 8, 2005. The soil excavation extended to bedrock from the toe of slope on one bank to the toe of slope on the other bank, resulting in the removal and off-site disposal of 761 cy of soil from SEAD-25. After the excavation, the swale bottom consisted of exposed competent bedrock, and since no native overburden soil remained in the swale, no confirmatory samples were collected or analyzed.

A total of 1,722 cy (approximately 2,600 tons) of soil were excavated from the pad and the swale at SEAD-25 and disposed off-site at Ontario County Landfill. The pad excavation was backfilled with approximately 793 cy of on-site fill material and 168 cy of fill material obtained from and off-site source, and restored to the existing grade.

2.5 Natural Attenuation Process Evaluation

One of the purposes of long-term groundwater monitoring at SEAD-25 is to show that continued natural attenuation of the groundwater plumes is occurring. This section gives a brief overview of the natural attenuation process and how the process can be evaluated. Numerous natural processes contribute to the reduction in dissolved phase contaminant concentrations over distance and time and are referred to as natural attenuation. These processes include sorption, dilution, dispersion, volatilization, and biodegradation. Of these, biodegradation is of primary interest because this process destroys the contaminant, and because at many sites, it is the primary attenuation mechanism. USEPA's "Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water" (USEPA, 1998) can be used as guidance in determining that natural attenuation is occurring at SEAD-25.

Numerous laboratory and field studies have shown that many organic compounds are readily biodegraded via naturally occurring processes. Benzene and other petroleum hydrocarbons biodegrade readily under aerobic (oxygen-rich) conditions, and have been shown at multiple sites to biodegrade under anaerobic (oxygen-poor) conditions as well. Chlorinated ethenes biodegrade under anaerobic conditions through a process referred to as reductive dechlorination. Some chlorinated ethenes can also be biodegraded via direct aerobic oxidation (aerobic conditions).

Geochemical data concerning potential electron acceptors, biodegradation byproducts, and related analytes can be used as an indirect measure to show that organic compounds are biodegrading in saturated soil and groundwater. Depressed concentrations, when compared to background levels, of electron acceptors such as nitrate, oxygen, and sulfate that are used by microorganisms to facilitate the oxidation of VOCs within groundwater are geochemical indicators that VOCs are biodegrading. Similarly, elevated concentrations of biodegradation byproducts, such as iron II, in groundwater are

also geochemical indicators that compounds are biodegrading. Depressed oxidation/reduction potential (ORP) may also indicate the occurrence of biodegradation.

Biodegradation of chlorinated organics requires the presence of natural or anthropogenic carbon to create the conditions (anaerobic, low redox potential) necessary to stimulate reductive dechlorination of the more chlorinated solvents such as perchloroethene (PCE) and trichloroethene (TCE). Daughter products of these compounds (dichloroethene [DCE] and vinyl chloride) can be reductively dechlorinated under reducing conditions or directly oxidized under aerobic (oxidizing) conditions. Therefore, indicators of conditions appropriate for chlorinated biodegradation would include those parameters, such as methane, already identified for petroleum biodegradation, as well as the presence of chlorinated daughter products and chloride. It should be noted, however, that the presence of road salt may interfere with chloride data interpretation.

Trends in natural attenuation parameters are more evident when higher concentrations of contaminants are present to naturally attenuate. At SEAD-25, trends in natural attenuation parameters will be difficult to interpret since the contaminant concentrations are currently low, and have remained this way since the completion of the remedial action.

3.0 YEAR 3, ROUND 6 RESULTS

The Year 3 LTM Round 6 sampling event was conducted from January 11, 2010 to January 14, 2010. Samples were collected from nine of the ten scheduled wells; MW25-13 was initially purged but failed to recharge adequately to allow for sample collection during the sampling event. The results for the Round 6 sampling event are presented in **Table 1**. Detail discussion of the Round 6 analytical results is presented in **Section 4** of this report.

4.0 LONG-TERM MONITORING RESULTS

Two rounds of sampling were conducted at SEAD-25 during the Year 3 LTM. The first round (Year 3, Round 5) was completed between April 28, 2009 and April 29, 2009. Two monitoring wells [MW25-10 and MW25-13] scheduled for sampling held insufficient water volume for the required samples. The Year 3 Round 6 sampling was completed between January 11, 2010 and January 14, 2010. Monitoring well MW25-13 scheduled for sampling held less than a foot of water, was purged dry, but failed to recharge during the Round 6 sampling event.

Groundwater samples were collected using low flow sampling techniques in both the April 2009 and the January 2010 sampling rounds. During the Year 3, Round 5 (April 2009) sampling event, a combination of low flow peristaltic/modified bailer and bladder pump methods were used to purge and sample specific wells. The peristaltic pump/modified bailer methods were used on the two wells (i.e., MW25-10 and MW25-13) in which the water level fell below the intake of the bladder pump or where there was less than 2 feet of water contained within the well. In these cases, VOC samples were collected by gently lowering an open length of Teflon lined tubing to the bottom of the well,

capping the end exposed to the atmosphere, extracting the sealed tube length, and releasing the capped end while the sample bottle was beneath the open end of the tubing. Other sample fractions from these wells were collected using the peristaltic pump. All samples fractions from the remaining wells were collected using the low flow bladder pumps.

During the Year 3, Round 6 sampling event, a combination of low flow peristaltic/bailer and bladder pump methods were used to purge and sample specific wells. The peristaltic pump was used on those wells (MW25-8, MW25-9, MW25-10, and MW25-15) in which the water level fell below the intake of the bladder pump or there was less than 2 feet of water inside the well. Teflon lined bailers were used to collect VOC and methane, ethane, and ethene (MEE) samples at wells where the use of the peristaltic pump was necessary. Again other fractions collected from these wells were collected using the peristaltic pump. All samples fractions from the remaining wells where sufficient water existed were collected using the low flow bladder pumps.

Sampling procedures, sample handling and custody, holding times, and collection of field parameters were conducted in accordance with the "Final Sampling and Analysis Plan for Seneca Army Depot Activity (SAP)" (Parsons, 2005).

Groundwater samples were collected from eight monitoring (MW25-2, MW25-3, MW25-8, MW25-9, MW25-15, MW25-17, MW25-18, and MW25-19) during the Year 3, Round 5 sampling event; samples were collected from 9 monitoring wells (MW25-2, MW25-3, MW25-8, MW25-9, MW25-10, MW25-15, MW25-17, MW25-18, and MW25-19) during the Year 3, Round 6 sampling event. Groundwater elevation measurements were collected from all wells located at SEAD-25 during each of the Year 3 sampling events.

The collected groundwater samples were analyzed for the VOCs and natural attenuation parameters. Samples collected during the April 2009 and January 2010 sampling round were submitted to Columbia Analytical Services, Inc. (CAS) in Rochester, New York for the following analyses:

- VOCs by USEPA SW846 Method 8260B
- Methane/Ethane/Ethene by RSK-175
- Nitrate and Nitrite by USEPA Method 353.2
- Chloride by USEPA Method 300.1
- Sulfate by USEPA Method 300.1
- Iron by USEPA SW846 Method 6010B
- Sodium by USEPA SW846 Method 6010B

Analytical results reported for nine primary COCs (i.e., BTEX, and five chlorinated VOCs) were compared to groundwater cleanup goals, which are equivalent to New York's GA groundwater standards. Results of the other analyses conducted are used to assess whether there is evidence that natural attenuation is occurring.

In addition, the following geochemical parameters were measured and recorded in the field for each groundwater sample:

- Sulfide
- Dissolved oxygen
- Temperature
- Turbidity
- pH
- Conductivity
- ORP

The pH, ORP, conductivity, temperature, and turbidity of the groundwater were measured with a Horiba model U-22 water quality meter, and dissolved oxygen content was measured with an YSI Inc. (YSI) model 85 Dissolved Oxygen Meter. The groundwater's sulfide concentration was measured in the field using a Hach model DR850 Colorimeter Kit. The geochemical parameters were measured to assess whether natural attenuation was occurring.

4.1 Groundwater Elevations

SEAD-25 groundwater elevation data were recorded on April 27, 2009 (Round 5) and January 11, 2010 (Round 6). Year 3 monitoring event elevation data and the historic groundwater elevation range are presented on **Table 2**. The groundwater levels from both Year 3 LTM events produced similar groundwater contours. Groundwater contours shown in **Figure 2**, based on the most recent groundwater elevation data (January 2010), are consistent with past groundwater contours that indicate that shallow groundwater flow is radial, with the highest elevations centered in the area of the pad. Groundwater elevation trends for SEAD-25 wells during Years 1, 2, and 3 of LTM are summarized on **Figures 3A** and **Figure 3B**.

4.2 Analytical Data

Thirteen VOCs, including three primary COCs, were detected in SEAD-25 groundwater during the first Year 3 sampling round (April 2009) of monitoring. Five VOCs, including two primary COCs, were detected in samples taken during the second Year 3 sampling round (January 2010) of LTM. The groundwater results are presented in **Table 4**, where they are also compared to the groundwater cleanup goals listed in **Table 3**.

A summary of the range of concentrations found during the SEAD-25 monitoring events for the primary COCs during Year 3 of SEAD-25 LTM is presented below:

Parameter	SEAD-25 LTM Round 5 Concentration Range ($\mu\text{g}/\text{L}$)	SEAD-25 LTM Round 6 Concentration Range ($\mu\text{g}/\text{L}$)	Groundwater Standard ($\mu\text{g}/\text{L}$)
Benzene	ND – 20	ND – 4 J	1
Toluene	ND – 1.3	ND	5
Ethyl benzene	ND – 11	ND	5
Xylene	ND	ND	5
111-TCA	ND	ND	5
11-DCA	ND – 1.4	ND	5
DCE	ND – 3.6	ND – 2.8 J	5
TCE	ND	ND	5

Note: Only detected COCs with site-specific cleanup goals are included in this summary table.

ND = non-detect

J = estimated value

Benzene and ethyl benzene were the only primary COCs and the only VOCs that were observed to exceed the groundwater cleanup goals during either of the Year 3 sampling events. Both of these compounds (20 µg/L for benzene; 11 µg/L for ethyl benzene) were observed at elevated concentrations in the groundwater at well MW25-2 during the Round 5 sampling event. Benzene was also observed at a concentration (4 µg/L; its duplicate was 1.8 U µg/L) above its GA standard in the sample collected from MW25-2 during the Year 3 Round 6 event. Ethyl benzene was not detected in MW25-2 during the Round 6 sampling event.

Benzene was also observed at a concentration of 1.7 µg/L in well MW25-3 during the Round 5 event, but was non-detected in well MW25-3 during the Round 6 event (0.18 U µg/L).

Figure 4 presents a historical summary of the groundwater sampling results for SEAD-25 for the period from November 1995 to January 2010. As may be noted from a review of this figure, BTEX compounds have only been observed in three wells at SEAD-25 (i.e., MW25-2, MW25-3, and MW25-9) since 1995, and since 2006, only at wells MW25-2 and MW25-9. Generally, these data indicate that the pre-remedial (1993 – 1996) action groundwater concentrations of BTEX compounds decreased once the remedial action was completed (2006) and have been somewhat mixed since the 2006 remedial action.

Figure 4 also indicates that the concentrations of total chlorinated organic found in the groundwater at SEAD-25 decreased dramatically once the remedial action was completed in 2006, and have remained low to non-detect since the 2006 action. Two chlorinated organics, 1,1-dichloroethane and cis-1,2-dichloroethene were detected in the groundwater at well MW25-2 during the Round 5 sampling event. One chlorinated organic compound (cis-1,2-dichloroethene) was detected in MW25-2 during the Round 6 sampling event.

4.3 Data Trends and Natural Attenuation Evaluation

There are two main lines of evidence to determine whether natural attenuation is occurring, listed below in order of significance:

1. Reduction in contaminant concentrations; and
2. Indirect geochemical indicators to assess the groundwater's assimilative capacity.

The primary line of evidence, reduction in VOC concentrations, is the only direct measure of the attenuation of the plume. The well locations and concentrations are shown in **Figure 4**. Total BTEX concentrations have decreased from pre-remedial action levels, as shown on **Figure 4** and on the time plots (**Figures 5A, 5B, and 5C**). Similarly, time plots of chlorinated organics concentrations over time in MW25-2, MW25-3, and MW25-9 (**Figures 6A, 6B, and 6C**) demonstrate that chlorinated VOCs have been reduced to levels below the detection limit in MW25-3 and MW25-9. MW25-2 time plot suggests that the chlorinated organics concentrations have been undergoing reduction during Year 3.

The analytical data indicate that the VOCs plume is attenuating. MW25-2 is considered the source well, since it generally has the highest concentrations of the VOCs. The Year 3 sampling rounds concentrations of BTEX compounds found at MW25-2 was two orders of magnitude lower than the historic high value of 6,220 µg/L detected during the sampling events in 1996. Similarly, the total chlorinated VOC concentrations at MW25-2 decreased from 98 µg/L in 1994 and 68 µg/L in 1995 to 5.0 µg/L and 2.4 µg/L in the last two rounds, respectively. Further, the concentration of BTEX detected at MW25-9 decreased from 165 µg/L in 1995 to 0.46 µg/L in Round 5 and non-detect in Round 6. Similarly, the total chlorinated ethene concentrations at MW25-9 decreased by a factor of two from 10 µg/L in 1995 to 4.95 µg/L in January 2006, to non-detect or at the detection limit of 2.0 µg/L in the current sampling.

The geochemical parameters provide an indirect indication of the natural attenuation of the plume. Methane was detected in wells (MW25-2, MW25-3, MW25-8, and MW25-9) sampled during the April 2009 (Year 3, Round 5) sampling event, and only MW25-2 during the January 2010 (Year 3, Round 6) sampling event. The detection of methane is co-located with the maximum detection of BTEX. The detection of methane is an indicator that reductive dechlorination is occurring. Data reported for the other geochemical parameters collected in the field during the Year 3 events varied in an inconsistent manner so no conclusive indication that attenuation is continuing via this route is possible. The geochemical parameters are presented in **Tables 5A** and **5B** for the first round and second round, respectively.

Overall, the direct measurements of aromatic VOC concentrations in the three wells closest to the former source area (MW25-2, MW25-3, and MW25-9) indicate that the plume is attenuating (**Figures 7A, 7B, and 7C**). Comparison of the pre- and post-remedial action groundwater concentrations at these wells shows that the aromatic compound concentrations have decreased significantly since the removal of the source area. Prior to the remedial action, the aggregate aromatic VOC concentration in monitoring well MW25-2 exceeded 5,000 µg/L, with aggregate aromatic VOC concentrations of closer to 200 µg/L in wells MW25-3 and MW25-9. Since the completion of the SEAD-25 remedial action, the aggregate aromatic VOC concentrations in each of these three has fallen to 50µg/L or less. Further, monitoring well MW25-2 is the only well at the site where aromatic VOCs have been detected in all of the consecutive long-term monitoring events, suggesting that the overall groundwater impact is continuing to decrease and aromatic COCs are not migrating.

Historically, the primary aromatic VOC found in the groundwater at SEAD-25 was mixed or total xylenes in conjunction with lesser amounts of toluene, ethyl benzene and benzene, all of which exceeded their respective GA standard concentrations consistently in wells MW25-2, MW25-3, and MW25-9. Since the completion of the remedial action at SEAD-25, benzene and ethyl benzene are the two dominant aromatic VOCs detected in the groundwater near the former SEAD-25 source area, with toluene and mixed/total xylenes frequently absent from the primary wells (MW25-2, MW25-3, and MW25-9). All detections of aromatic VOCs since the beginning of groundwater sampling at SEAD-25 have been limited to MW25-2, MW25-3, and MW25-9, which are thee three wells closest

to the former source, and since the completion of the remedial action aromatics VOCs are now only found repeatedly at concentrations in excess of GA standards in the groundwater at MW25-2, which is the well closest to the former source area.

A review of data from MW25-2 indicates that the fluctuations in benzene concentrations are related to variations in groundwater levels. **Figures 8 and 9** present data comparing benzene concentrations found in monitoring well MW25-2 versus saturated thickness for the post-remedial action monitoring events at SEAD-25. **Figure 8** includes all of the post remediation long-term monitoring data, while **Figure 9** excludes the first post-removal action sampling event. The review of these figures indicates that benzene concentrations in the shallow aquifer tend to fall as the thickness of the saturated layer at the well increases. The correlation of this coincidental behavior is muted by one apparently anomalous reading which shows an elevated concentration of benzene coincident with a saturated thickness in excess of 6 feet. This reading was collected during the first post-remediation long-term sampling event, and may reflect a period of re-equilibration of the aquifer after the removal action excavation was completed and groundwater was allowed to flow back into the open excavation before being pumped out and disposed, and then the excavation was backfilled. **Figure 9** shows the effect of removing this anomalous data point and reflects a direct correlation of a decrease in benzene levels as the saturated thickness increases.

Intuitively, a decrease in groundwater contaminant concentrations is expected as aquifer thickness increases, especially in situations where no continuing source exists as the added clean water dilutes some existing base load of the contaminants in the groundwater. However, if viewed in absence of any consideration of the varying level of aquifer saturated thickness, this phenomenon may also be viewed as an indication that there is a pulsing release of contaminants occurring at the site. This is not the case at SEAD-25 where groundwater concentrations appear to fluctuate due to changes in water levels and not due to the release of additional contaminants. Other data show that there is no evidence of an expanding plume, as other wells remain unaffected or show lesser degrees of impact than was first shown after the remedial action.

5.0 REMEDY EVALUATION

As discussed in **Section 2.4**, 961 cy of VOC impacted soil was removed from the pad located at SEAD-25 as is shown on **Figure 4**. The soil was removed to eliminate the source of VOCs which could have contributed to further groundwater degradation in the area. Long-term groundwater monitoring is now being performed at SEAD-25 to show that the soil removal remedy has effectively eliminated further VOC releases from the vicinity of the former pad, and that natural attenuation of the VOC plumes at SEAD-25 continues to improve the local groundwater quality.

The BTEX and chlorinated organics groundwater concentrations have decreased by more than 99% since the soil removal (shown in the time plots on **Figures 5 and 6**) due to the natural attenuation process and the removal of the source material. The remedy of soil removal has been effective at SEAD-25.

The remedy for SEAD-25 required the implementation and maintenance of land use controls (LUCs) at site. The LUC requirements are detailed Addendum 1 in the “Land Use Control Remedial Design for SEAD 27, 66, 64A, *Final*” (2006). The selected LUCs for SEAD-25 are as follows:

- Prevent residential housing, elementary and secondary schools, childcare facilities and playground activities, and
- Prevent access to and use of groundwater at SEAD-25, for purposes other than required monitoring, until NYS Class GA Groundwater Standards are met.

As part of the LTM program, the Army inspected the areas of SEAD-25 and SEAD-26 to determine that the LUCs are being maintained. While performing the groundwater sampling, it was confirmed that no prohibited facilities have been constructed and no access to or use of groundwater was evident.

6.0 LONG-TERM MONITORING CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

- The concentrations of BTEX in the groundwater at SEAD-25 have decreased by up to three orders of magnitude since 1994;
- Chlorinated VOCs were not detected above cleanup goals;
- The VOC plumes at SEAD-25 are attenuating to levels close to or lower than all applicable groundwater standards;
- The soil excavation remedy at SEAD-25 has been effective; and
- Land and groundwater restrictions imposed at SEAD-25 continue to be maintained, and there are signs of unauthorized use or access.

6.2 Recommendations

Based on the historical data and the results of the Year 3 rounds of semi-annual LTM at SEAD-25, the Army recommends the following:

- Groundwater monitoring will continue on a semi-annual basis at SEAD-25 for 2010. At that time, the LTM program will be re-evaluated.

Table 1
SEAD-25 LTM Round 6 Groundwater Results
SEAD-25 Annual Report, Year 3
Seneca Army Depot Activity

Facility					SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25
Location ID					MW25-10	MW25-15	MW25-17	MW25-18	MW25-19
Matrix					GW	GW	GW	GW	GW
Sample ID					25LM20061	25LM20063	25LM20055	25LM20056	25LM20057
Sample Date					1/13/2010	1/13/2010	1/14/2010	1/14/2010	1/13/2010
QC Code					SA	SA	SA	SA	SA
Study ID					LTM	LTM	LTM	LTM	LTM
Sampling Round					6	6	6	6	6
Parameter	Units	Maximum Value	Frequency of Detection	Cleanup Goal ¹	Number of Exceedances	Number of Times Detected	Number of Samples Analyzed	Value (Q)	Value (Q)
Volatile Organic Compounds									
1,1,1-Trichloroethane	UG/L	0	0%	5	0	0	10	0.32 U	0.32 U
1,1,2,2-Tetrachloroethane	UG/L	0	0%	5	0	0	10	0.09 U	0.09 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	UG/L	0	0%	5	0	0	10	0.4 U	0.4 U
1,1,2-Trichloroethane	UG/L	0	0%	1	0	0	10	0.2 U	0.2 U
1,1-Dichloroethane	UG/L	0	0%	5	0	0	10	0.14 U	0.14 U
1,1-Dichloroethene	UG/L	0	0%	5	0	0	10	0.37 U	0.37 U
1,2,4-Trichlorobenzene	UG/L	0	0%	5	0	0	10	0.19 U	0.19 U
1,2-Dibromo-3-chloropropane	UG/L	0	0%	0.04	0	0	10	0.43 U	0.43 U
1,2-Dibromoethane	UG/L	0	0%	0.0006	0	0	10	0.18 U	0.18 U
1,2-Dichlorobenzene	UG/L	0	0%	3	0	0	10	0.4 U	0.4 U
1,2-Dichloroethane	UG/L	0	0%	0.6	0	0	10	0.14 U	0.14 U
1,2-Dichloropropane	UG/L	0	0%	1	0	0	10	0.15 U	0.15 U
1,3-Dichlorobenzene	UG/L	0	0%	3	0	0	10	0.36 U	0.36 U
1,4-Dichlorobenzene	UG/L	0	0%	3	0	0	10	0.34 U	0.34 U
Acetone	UG/L	0	0%		0	0	10	5 U	5 U
Benzene	UG/L	4	10%	1	1	1	10	0.18 U	0.18 U
Bromodichloromethane	UG/L	0	0%	80	0	0	10	0.17 U	0.17 U
Bromoform	UG/L	0	0%	80	0	0	10	0.2 U	0.2 U
Carbon disulfide	UG/L	0	0%		0	0	10	0.36 U	0.36 U
Carbon tetrachloride	UG/L	0	0%	5	0	0	10	0.36 U	0.36 U
Chlorobenzene	UG/L	0	0%	5	0	0	10	0.26 U	0.26 U
Chlorodibromomethane	UG/L	0	0%	80	0	0	10	0.11 U	0.11 U
Chloroethane	UG/L	0	0%	5	0	0	10	0.21 U	0.21 U
Chloroform	UG/L	0	0%	7	0	0	10	0.16 U	0.16 U
Cis-1,2-Dichloroethene	UG/L	2.8	20%	5	0	2	10	0.14 U	0.14 U
Cis-1,3-Dichloropropene	UG/L	0	0%	0.4	0	0	10	0.14 U	0.14 U
Cyclohexane	UG/L	0	0%		0	0	10	0.14 U	0.14 U
Dichlorodifluoromethane	UG/L	0	0%	5	0	0	10	0.18 U	0.18 U
Ethyl benzene	UG/L	0	0%	5	0	0	10	0.42 U	0.42 U
Isopropylbenzene	UG/L	0	0%	5	0	0	10	0.34 U	0.34 U
Meta/Para Xylene	UG/L	0	0%	5	0	0	10	0.81 U	0.81 U
Methyl Acetate	UG/L	0	0%		0	0	10	0.48 U	0.48 U
Methyl Tertbutyl Ether	UG/L	0	0%		0	0	10	0.13 U	0.13 U
Methyl bromide	UG/L	0	0%	5	0	0	10	0.4 U	0.4 U
Methyl butyl ketone	UG/L	0	0%		0	0	10	0.4 U	0.4 U
Methyl chloride	UG/L	0	0%	5	0	0	10	0.18 U	0.18 U
Methyl cyclohexane	UG/L	0	0%		0	0	10	0.16 U	0.16 U
Methyl ethyl ketone	UG/L	0	0%		0	0	10	1 U	1 U
Methyl isobutyl ketone	UG/L	0	0%		0	0	10	0.34 U	0.34 U
Methylene chloride	UG/L	0	0%	5	0	0	10	0.13 U	0.13 U
Ortho Xylene	UG/L	0	0%	5	0	0	10	0.4 U	0.4 U
Styrene	UG/L	0	0%	5	0	0	10	0.36 U	0.36 U
Tetrachloroethene	UG/L	0	0%	5	0	0	10	0.42 U	0.42 U
Toluene	UG/L	0	0%	5	0	0	10	0.21 U	0.21 U
Trans-1,2-Dichloroethene	UG/L	0	0%	5	0	0	10	0.16 U	0.16 U

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Facility	SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25						
Location ID	MW25-10	MW25-15	MW25-17	MW25-18	MW25-19						
Matrix	GW	GW	GW	GW	GW						
Sample ID	25LM20061	25LM20063	25LM20055	25LM20056	25LM20057						
Sample Date	1/13/2010	1/13/2010	1/14/2010	1/14/2010	1/13/2010						
QC Code	SA	SA	SA	SA	SA						
Study ID	LTM	LTM	LTM	LTM	LTM						
Sampling Round	6	6	6	6	6						
Parameter	Maximum Units	Frequency of Detection	Cleanup Goal ¹	Number of Exceedances	Number of Times Detected	Number of Samples Analyzed	Value (Q)				
Trans-1,3-Dichloropropene	UG/L	0	0%	0.4	0	0	10	0.17 U	0.17 U	0.17 U	0.17 U
Trichloroethene	UG/L	0	0%	5	0	0	10	0.19 U	0.19 U	0.19 U	0.19 U
Trichlorofluoromethane	UG/L	0	0%	5	0	0	10	0.16 U	0.16 U	0.16 U	0.16 U
Vinyl chloride	UG/L	0	0%	2	0	0	10	0.22 U	0.22 U	0.22 U	0.22 U
Inorganics											
Iron	UG/L	2900	100%	300	7	10	10	508	769	86.9 J	122
Sodium	UG/L	28400	100%	20000	1	10	10	6420	3620	4450	28400
Chloride	MG/L	51.7	60%	250000	0	6	10	2.1	0.5 U	2.5	51.7
Ethane	UG/L	0	0%	0	0	0	10	0.21 U	0.16 U	0.21 U	0.16 U
Ethene	UG/L	0	0%	0	0	0	10	0.22 U	0.17 U	0.22 U	0.17 U
Methane	UG/L	22	20%	0	0	2	10	0.14 U	0.14 U	0.14 U	0.14 U
NITRATE	MG/L	0.245	40%	0	0	4	10	0.05 UJ	0.05 UJ	0.245 J	0.2 J
NITRITE	MG/L	0	0%	0	0	0	10	0.007 UJ	0.007 UJ	0.007 UJ	0.007 UJ
Nitrate/Nitrite Nitrogen	MG/L	0.245	40%	10000	0	4	10	0.003 UJ	0.003 UJ	0.245 J	0.2 J
Sulfate	MG/L	182	100%	250000	0	10	10	27.1 J	24.8 J	16.7 J	26.8 J

Notes:

1. The cleanup goal values are NYSDEC Class GA Groundwater Standards (TOGS 1.1.1, June 1998).
2. Shading indicates concentration above cleanup goal.

U = compound was not detected

J = the reported value is an estimated concentration

UJ = the compound was not detected; the associated reporting limit is approximate

Table 1
SEAD-25 LTM Round 6 Groundwater Results
SEAD-25 Annual Report, Year 3
Seneca Army Depot Activity

Facility					SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25
Location ID					MW25-2	MW25-2	MW25-3	MW25-8	MW25-9
Matrix					GW	GW	GW	GW	GW
Sample ID					25LM20054	25LM20053	25LM20060	25LM20059	25LM20058
Sample Date					1/11/2010	1/11/2010	1/12/2010	1/13/2010	1/12/2010
QC Code					DU	SA	SA	SA	SA
Study ID					LTM	LTM	LTM	LTM	LTM
Sampling Round					6	6	6	6	6
Parameter	Units	Maximum Value	Frequency of Detection	Cleanup Goal ¹	Number of Exceedances	Number of Times Detected	Number of Samples Analyzed	Value (Q)	Value (Q)
Volatile Organic Compounds									
1,1,1-Trichloroethane	UG/L	0	0%	5	0	0	10	3.2 U	3.2 U
1,1,2,2-Tetrachloroethane	UG/L	0	0%	5	0	0	10	0.9 U	0.9 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	UG/L	0	0%	5	0	0	10	4 U	4 U
1,1,2-Trichloroethane	UG/L	0	0%	1	0	0	10	2 U	2 U
1,1-Dichloroethane	UG/L	0	0%	5	0	0	10	1.5 U	1.5 U
1,1-Dichloroethene	UG/L	0	0%	5	0	0	10	3.7 U	3.7 U
1,2,4-Trichlorobenzene	UG/L	0	0%	5	0	0	10	1.9 U	1.9 U
1,2-Dibromo-3-chloropropane	UG/L	0	0%	0.04	0	0	10	4.3 U	4.3 U
1,2-Dibromoethane	UG/L	0	0%	0.0006	0	0	10	1.8 U	1.8 U
1,2-Dichlorobenzene	UG/L	0	0%	3	0	0	10	4 U	4 U
1,2-Dichloroethane	UG/L	0	0%	0.6	0	0	10	1.5 U	1.5 U
1,2-Dichloropropane	UG/L	0	0%	1	0	0	10	1.5 U	1.5 U
1,3-Dichlorobenzene	UG/L	0	0%	3	0	0	10	3.6 U	3.6 U
1,4-Dichlorobenzene	UG/L	0	0%	3	0	0	10	3.5 U	3.5 U
Acetone	UG/L	0	0%		0	0	10	50 U	50 U
Benzene	UG/L	4	10%	1	1	1	10	4 J	4 J
Bromodichloromethane	UG/L	0	0%	80	0	0	10	1.8 U	1.8 U
Bromoform	UG/L	0	0%	80	0	0	10	2 U	2 U
Carbon disulfide	UG/L	0	0%		0	0	10	3.6 U	3.6 U
Carbon tetrachloride	UG/L	0	0%	5	0	0	10	3.6 U	3.6 U
Chlorobenzene	UG/L	0	0%	5	0	0	10	2.6 U	2.6 U
Chlorodibromomethane	UG/L	0	0%	80	0	0	10	1.1 U	1.1 U
Chloroethane	UG/L	0	0%	5	0	0	10	2.1 U	2.1 U
Chloroform	UG/L	0	0%	7	0	0	10	1.6 U	1.6 U
Cis-1,2-Dichloroethene	UG/L	2.8	20%	5	0	2	10	2.8 J	2 J
Cis-1,3-Dichloropropene	UG/L	0	0%	0.4	0	0	10	1.5 U	1.5 U
Cyclohexane	UG/L	0	0%		0	0	10	1.5 U	1.5 U
Dichlorodifluoromethane	UG/L	0	0%	5	0	0	10	1.8 U	1.8 U
Ethyl benzene	UG/L	0	0%	5	0	0	10	4.2 U	4.2 U
Isopropylbenzene	UG/L	0	0%	5	0	0	10	3.5 U	3.5 U
Meta/Para Xylene	UG/L	0	0%	5	0	0	10	8.2 U	8.2 U
Methyl Acetate	UG/L	0	0%		0	0	10	4.7 U	4.7 U
Methyl tertbutyl Ether	UG/L	0	0%		0	0	10	1.3 U	1.3 U
Methyl bromide	UG/L	0	0%	5	0	0	10	4 U	4 U
Methyl butyl ketone	UG/L	0	0%		0	0	10	4 U	4 U
Methyl chloride	UG/L	0	0%	5	0	0	10	1.8 U	1.8 U
Methyl cyclohexane	UG/L	0	0%		0	0	10	1.6 U	1.6 U
Methyl ethyl ketone	UG/L	0	0%		0	0	10	10 U	10 U
Methyl isobutyl ketone	UG/L	0	0%		0	0	10	3.5 U	3.5 U
Methylene chloride	UG/L	0	0%	5	0	0	10	1.3 U	1.3 U
Ortho Xylene	UG/L	0	0%	5	0	0	10	4 U	4 U
Styrene	UG/L	0	0%	5	0	0	10	3.6 U	3.6 U
Tetrachloroethene	UG/L	0	0%	5	0	0	10	4.2 U	4.2 U
Toluene	UG/L	0	0%	5	0	0	10	2.1 U	2.1 U
Trans-1,2-Dichloroethene	UG/L	0	0%	5	0	0	10	1.6 U	1.6 U

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SEAD-25 LTM Round 6 Groundwater Results
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Seneca Army Depot Activity

Facility	SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25						
Location ID	MW25-2	GW	MW25-3	MW25-8	MW25-9						
Matrix	GW	GW	GW	GW	GW						
Sample ID	25LM20054	25LM20053	25LM20060	25LM20059	25LM20058						
Sample Date	1/11/2010	1/11/2010	1/12/2010	1/13/2010	1/12/2010						
QC Code	DU	SA	SA	SA	SA						
Study ID	LTM	LTM	LTM	LTM	LTM						
Sampling Round	6	6	6	6	6						
Parameter	Maximum Units	Frequency of Detection	Cleanup Goal ¹	Number of Exceedances	Number of Times Detected	Number of Samples Analyzed	Value (Q)				
Trans-1,3-Dichloropropene	UG/L	0	0%	0.4	0	0	10	1.8 U	1.8 U	0.17 U	0.17 U
Trichloroethene	UG/L	0	0%	5	0	0	10	1.9 U	1.9 U	0.19 U	0.19 U
Trichlorofluoromethane	UG/L	0	0%	5	0	0	10	1.6 U	1.6 U	0.16 U	0.16 U
Vinyl chloride	UG/L	0	0%	2	0	0	10	2.2 U	2.2 U	0.22 U	0.22 U
Inorganics											
Iron	UG/L	2900	100%	300	7	10	10	2410	2900	702	408
Sodium	UG/L	28400	100%	20000	1	10	10	7720	7880	7370	9740
Chloride	MG/L	51.7	60%	250000	0	6	10	2.8	0.5 U	2.8	0.5 U
Ethane	UG/L	0	0%	0	0	0	10	0.16 U	0.16 U	0.16 U	0.16 U
Ethene	UG/L	0	0%	0	0	0	10	0.17 U	0.17 U	0.17 U	0.17 U
Methane	UG/L	22	20%	0	0	2	10	22	20	0.14 U	0.14 U
NITRATE	MG/L	0.245	40%	0	0	4	10	0.05 UJ	0.199 J	0.05 UJ	0.05 UJ
NITRITE	MG/L	0	0%	0	0	0	10	0.007 UJ	0.007 UJ	0.007 UJ	0.007 UJ
Nitrate/Nitrite Nitrogen	MG/L	0.245	40%	10000	0	4	10	0.003 UJ	0.199 J	0.003 UJ	0.003 UJ
Sulfate	MG/L	182	100%	250000	0	10	10	64.8 J	64.4 J	182 J	35.2 J

Notes:

1. The cleanup goal values are NYSDEC Class GA Groundwater Standards (TOGS 1.1.1, June 1998).
2. Shading indicates concentration above cleanup goal.

U = compound was not detected

J = the reported value is an estimated concentration

UJ = the compound was not detected; the associated reporting limit is approximate

Table 2
 SEAD-25 Groundwater Elevation Data
 SEAD-25 Annual Report, Year 3
 Seneca Army Depot Activity

Monitoring Well	Top of Riser Elevation (ft)	Well Depth (ft)	Year 3, Round 5 - April 2009				Year 3, Round 6 - January 2010				Historical Data ¹		
			Date Measured	Saturated Thickness (ft)	Depth to Groundwater (ft)	Water Level Elevation (ft)	Date Measured	Saturated Thickness (ft)	Depth to Groundwater (ft)	Water Level Elevation (ft)	Groundwater Elevation (ft)		
											Maximum	Minimum	Range
MW25-1	743.00	7.77	4/27/2009	1.68	6.09	736.91	1/11/2010	1.79	5.98	737.02	737.54	736.50	1.04
MW25-2	746.36	11.10	4/27/2009	4.99	6.11	740.25	1/11/2010	5.73	5.37	740.99	742.05	738.54	3.51
MW25-3	745.76	9.00	4/27/2009	2.81	6.19	739.57	1/11/2010	3.86	5.14	740.62	742.67	737.58	5.09
MW25-6	744.44	14.40	4/27/2009	7.97	6.43	738.01	1/11/2010	7.97	6.43	738.01	740.70	735.89	4.81
MW25-8	742.46	5.60	4/27/2009	1.86	3.74	738.72	1/11/2010	2.75	2.85	739.61	740.93	737.46	3.47
MW25-9	742.36	5.60	4/27/2009	1.41	4.19	738.17	1/11/2010	3.10	2.50	739.86	740.95	737.35	3.60
MW25-10	743.01	6.80	4/27/2009	0.89	5.91	737.10	1/11/2010	2.54	4.26	738.75	740.58	737.10	3.48
MW25-11	740.25	7.20	4/27/2009	1.62	5.58	734.67	1/11/2010	1.59	5.61	734.64	737.68	733.40	4.28
MW25-13	739.64	5.70	4/27/2009	0.66	5.04	734.60	1/11/2010	0.79	4.91	734.73	737.15	734.59	2.56
MW25-15	741.00	7.20	4/27/2009	1.75	5.45	735.55	1/11/2010	3.02	4.18	736.82	738.29	735.55	2.74
MW25-17	743.94	11.60	4/27/2009	6.52	5.08	738.86	1/11/2010	6.58	5.02	738.92	741.20	736.49	4.71
MW25-18	744.35	11.00	4/27/2009	5.00	6.00	738.35	1/11/2010	5.09	5.91	738.44	744.20	737.13	7.07
MW25-19	741.95	12.10	4/27/2009	6.60	5.50	736.45	1/11/2010	5.89	6.21	735.74	738.41	732.92	5.49

Notes:

1. Groundwater levels were recorded in April 1994, November 1995, December 1995, March 1996, January 2006, April 2006, August 2006, June 2007, February 2008, April 2009, and January 2010.

2. The bedrock wells are not included as part of the LTM program and are not included in this table.

Table 3
 SEAD-25 Site-Specific Cleanup Goals for Groundwater
 SEAD-25 Annual Report, Year 3
 Seneca Army Depot Activity

Groundwater NYSDEC Class GA Standard¹ ug/L	
Volatile Organic Compounds	
1,1,1-Trichloroethane	5
1,1-Dichloroethane	5
1,2-Dichloroethene (total)	5
Benzene	1
Cis-1,2-Dichloroethene	5
Chloroform	7
Ethyl benzene	5
Toluene	5
Trichloroethene	5
Xylene (total)	5

Notes:

1. NYSDEC AWQS for Class GA waters. From 6 NYCRR Parts 701-705. TOGS 1.1.1, June 1998.

Table 4
SEAD-25 VOC Concentrations in Groundwater
SEAD-25 Annual Report, Year 3
Seneca Army Depot Activity

Facility			SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25
Location ID		MW25-10	MW25-15	MW25-15	MW25-17	MW25-17	MW25-17	MW25-18
Matrix		GW	GW	GW	GW	GW	GW	GW
Sample ID		25LM20061	25LM20052	25LM20063	25LM20043	25LM20055	25LM20044	
Sample Date		1/13/2010	4/29/2009	1/13/2010	4/28/2009	1/14/2010	1/14/2010	4/28/2009
QC Code		SA	SA	SA	SA	SA	SA	SA
Study ID		LTM	LTM	LTM	LTM	LTM	LTM	LTM
Sampling Round		6	5	6	5	6	6	5
Parameter ¹	Units	Maximum Value	Frequency of Detection	Cleanup Goal ²	Number of Exceedances	Number of Times Detected	Number of Samples Analyzed	Value (Q)
Volatile Organic Compounds								
1,1,1-Trichloroethane	UG/L	0	0%	5	0	0	19	0.32 U
1,1-Dichloroethane	UG/L	1.4	11%	5	0	2	19	0.14 U
Benzene	UG/L	20	26%	1	4	5	19	0.18 U
Chloroform	UG/L	0	0%	7	0	0	19	0.16 U
Cis-1,2-Dichloroethene	UG/L	3.6	21%	5	0	4	19	0.14 U
Ethyl benzene	UG/L	11	11%	5	2	2	19	0.42 U
Meta/Para Xylene	UG/L	0	0%	5	0	0	19	0.81 U
Ortho Xylene	UG/L	0	0%	5	0	0	19	0.4 U
Toluene	UG/L	1.3	11%	5	0	2	19	0.21 U
Total Xylene	UG/L	0	0%	5	0	0	19	1.21 U
Trichloroethylene	UG/L	0	0%	5	0	0	19	0.19 U

Notes:

1. Only parameters with site-specific cleanup goals listed in Table 2 are included.
2. The cleanup goal values are NYSDEC Class GA Groundwater Standards (TOGS 1.1.1, June 1998).
3. Shading indicates concentration above cleanup goal.

U = compound was not detected

J = the reported value is an estimated concentration

UJ = the compound was not detected; the associated reporting limit is approximate

Table 4
SEAD-25 VOC Concentrations in Groundwater
SEAD-25 Annual Report, Year 3
Seneca Army Depot Activity

Facility	SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25
Location ID	MW25-18	MW25-19	MW25-19	MW25-2	MW25-2	MW25-2	MW25-2	MW25-2
Matrix	GW	GW	GW	GW	GW	GW	GW	GW
Sample ID	25LM20056	25LM20045	25LM20057	25LM20048	25LM20042	25LM20054	25LM20054	25LM20053
Sample Date	1/14/2010	4/28/2009	1/13/2010	4/29/2009	4/29/2009	1/11/2010	1/11/2010	1/11/2010
QC Code	SA	SA	SA	DU	SA	DU	DU	SA
Study ID	LTM	LTM	LTM	LTM	LTM	LTM	LTM	LTM
Sampling Round	6	5	6	5	5	6	6	6
Parameter ¹	Maximum Value	Frequency of Detection	Cleanup Goal ²	Number of Exceedances	Number of Times Detected	Number of Samples Analyzed	Value (Q)	Value (Q)
Volatile Organic Compounds								
1,1,1-Trichloroethane	UG/L 0	0%	5	0	0	19	0.32 U	1 U
1,1-Dichloroethane	UG/L 1.4	11%	5	0	2	19	0.14 U	1 U
Benzene	UG/L 20	26%	1	4	5	19	0.18 U	1 U
Chloroform	UG/L 0	0%	7	0	0	19	0.16 U	1 U
Cis-1,2-Dichloroethene	UG/L 3.6	21%	5	0	4	19	0.14 U	1 U
Ethyl benzene	UG/L 11	11%	5	2	2	19	0.42 U	1 U
Meta/Para Xylene	UG/L 0	0%	5	0	0	19	0.81 U	2 U
Ortho Xylene	UG/L 0	0%	5	0	0	19	0.4 U	1 U
Toluene	UG/L 1.3	11%	5	0	2	19	0.21 U	1 U
Total Xylene	UG/L 0	0%	5	0	0	19	1.21 U	3 U
Trichloroethene	UG/L 0	0%	5	0	0	19	0.19 U	1 U

Notes:

1. Only parameters with site-specific cleanup goals listed in Table 2 are included.
2. The cleanup goal values are NYSDEC Class GA Groundwater Standards (TOGS 1.1.1, June 1998).
3. Shading indicates concentration above cleanup goal.

U = compound was not detected

J = the reported value is an estimated concentration

UU = the compound was not detected; the associated reporting limit is approximate

Table 4
SEAD-25 VOC Concentrations in Groundwater
SEAD-25 Annual Report, Year 3
Seneca Army Depot Activity

Facility				SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25
Location ID				MW25-3	MW25-3	MW25-8	MW25-8	MW25-9	MW25-9
Matrix				GW	GW	GW	GW	GW	GW
Sample ID				25LM20046	25LM20060	25LM20047	25LM20059	25LM20049	25LM20058
Sample Date				4/29/2009	1/12/2010	4/29/2009	1/13/2010	4/29/2009	1/12/2010
QC Code				SA	SA	SA	SA	SA	SA
Study ID				LTM	LTM	LTM	LTM	LTM	LTM
Sampling Round				5	6	5	6	5	6
Parameter ¹	Units	Maximum Value	Frequency of Detection	Cleanup Goal ²	Number of Exceedances	Number of Times Detected	Number of Samples Analyzed	Value (Q)	Value (Q)
Volatile Organic Compounds									
1,1,1-Trichloroethane	UG/L	0	0%	5	0	0	19	1 U	0.32 U
1,1-Dichloroethane	UG/L	1.4	11%	5	0	2	19	1 U	0.14 U
Benzene	UG/L	20	26%	1	4	5	19	1.7	0.18 U
Chloroform	UG/L	0	0%	7	0	0	19	1 U	0.16 U
Cis-1,2-Dichloroethene	UG/L	3.6	21%	5	0	4	19	1 U	0.14 U
Ethyl benzene	UG/L	11	11%	5	2	2	19	1 U	0.42 U
Meta/Para Xylene	UG/L	0	0%	5	0	0	19	2 U	0.81 U
Ortho Xylene	UG/L	0	0%	5	0	0	19	1 U	0.4 U
Toluene	UG/L	1.3	11%	5	0	2	19	1 U	0.21 U
Total Xylene	UG/L	0	0%	5	0	0	19	3 U	1.21 U
Trichloroethylene	UG/L	0	0%	5	0	0	19	1 U	0.19 U

Notes:

1. Only parameters with site-specific cleanup goals listed in Table 2 are included.
2. The cleanup goal values are NYSDEC Class GA Groundwater Standards (TOGS 1.1.1, June 1998).
3. Shading indicates concentration above cleanup goal.

U = compound was not detected

J = the reported value is an estimated concentration

UU = the compound was not detected; the associated reporting limit is approximate

Table 5
Summary of SEAD-25 Geochemical Parameters
SEAD-25 Annual Report
Seneca Army Depot Activity

Well ID	Date	Round	Dissolved Oxygen (mg/L)	ORP (mV)	Temperature (°C)	Turbidity (NTU)	pH (Std units)	Conductivity (S/m)	Iron (ug/L)	Sodium (ug/L)	Chloride (mg/L)	Nitrate (mg/L-N)	Nitrite (mg/L-N)	Sulfate (mg/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	Sulfide (mg/L)
MW25-10	1/31/06	1	4.22	107	5	1.09	6.97	0.464	62.8	8870	0.73	0.05 U	0.05 U	18.1	2 U	2 U	2 U	0.1
	8/9/06	2	4.23	138.8	21.56	195	6.56	0.701	358	6530 J	0.71 J	0.05 U	0.05 U	18.4	2 U	2 U	2 U	0.28
	3/4/08	4	3.65	130	3.6	2.36	7.31	0.473	100 U	6090	0.2 U	0.102 J	0.102	12.9	1 U	1 U	2 U	0.02
	1/13/10 ³	6	-	230	5.6	3.3	7.19	0.396	508	6420	2.1	0.05 UJ	0.007 UJ	27.1 J	0.21 U	0.22 U	0.14 U	0.09
MW25-13	1/31/06	1	0.94	38	3.8	21	7.27	0.492	320	40600	2.5	0.05 U	0.05 U	15.6	2 U	2 U	2 U	0.02
	8/9/06	2	4.1	-22.2	23.42	100	6.98	0.699	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	3/3/08	4	4.79	97	3	16.4	7.52	0.639	NS	NS	NS	NS	NS	NS	NS	0.639	NS	0
MW25-15	1/31/06	1	2.93	82	5.3	1.1	7.2	0.36	56	3080	0.66	0.05 U	0.05 U	14.4	2 U	2 U	2 U	0
	8/14/06	2	1.99	222.1	18.76	27.4	5.8	0.651	850	6630 J	1.4 J	0.05 U	0.087	17.9	2 U	2 U	2 U	0.8
	3/3/08	4	4.57	139	4.7	3.58	7.25	0.477	100 U	6340	0.2 U	0.16 J	0.16	13.3	1 U	1 U	2 U	0
	4/29/09 ³	5	-	111	14.37	6.1	7	0.283	30 J	3500	0.2 U	0.05 U	0.01 U	20.3	1 U	1 U	2 U	0
	1/13/10 ³	6	-	213	6.1	1.5	7.23	0.38	769	3620	0.5 U	0.05 U	0.007 U	24.8 J	0.16 U	0.17 U	0.14 U	0.17
MW25-17	1/31/06	1	8.46	68	6.3	3.4	7.69	0.462	46.1	4240	0.7	0.05 U	0.05 U	17.2	2 U	2 U	2 U	0.01
	8/11/06	2	5.31	157	18.27	1.7	6.72	0.593	8.8 U	5170 J	1.4 J	0.11	0.05 U	16.3	2 U	2 U	2 U	0
	6/7/07 ¹	3	0.31	134	13.2	12	7.2	0.418	0.44 J	8.5 J	3.6	0.23	1.3	6.55	0.615 UJ	3.44 J	18.5	0.06
	3/4/08 ¹	4	8.24	155	6	2.03	7.3	0.532	100 U	4550	0.2 U	0.798 J	0.798	19.6	1 U	1 U	2 U	0.01
	4/28/09	5	7.45	192	7.2	1.2	7.31	0.379	160	4700	0.2 U	0.05 U	0.01 U	17.3	1 U	1 U	2 U	0
	1/14/10	6	6.79	211	8.1	1.4	7.29	0.418	86.9 J	4450	2.5	0.245 J	0.007 U	16.7 J	0.21 U	0.22 U	0.14 U	0
MW25-18	1/31/06	1	3.99	63	7.2	31.8	7.62	0.494	462	22300	18.6	0.05 U	0.05 U	24.8	2 U	2 U	2 U	0.12
	8/14/06	2	6.21	46	24.41	6.22	7.32	0.858	357	41900 J	55.6	0.32	0.05 U	30.1	2 U	2 U	2 U	0.02
	6/6/07	3	0.96	98	13	11	7.15	0.54	0.5 J	37 J	59	0.024 J	2	2	0.5	1.5 J	31	1.04
	3/5/08	4	4.68	144	4.9	5.04	7.31	0.713	107	20400	18	0.199 J	0.199	16.8	1 U	1 U	2 U	0.01
	1/14/10	6	4.39	237	8	2.78	7.28	0.544	122	28400	51.7	0.2 J	0.007 U	26.8 J	0.16 U	0.17 U	0.14 U	0.06
MW25-3	1/31/06	1	1.19	79	4.3	2.2	7.1	0.49	86	12300	2.1	0.05 U	0.05 U	39.9	2 U	2 U	2 U	0.04
	1/31/06	1	1.19	79	4.3	2.2	7.1	0.49	76.4	12000	2.3	0.05 U	0.05 U	39.8	2 U	2 U	2 U	0.04
	8/11/06	2	3.6	77.9	21.54	1.2	7.02	0.686	3820	11300 J	1.5 J	0.05 U	0.05 U	44.9	2 U	2 U	2 U	0.03
	3/4/08	4	0.87	124	3.5	2	7.15	0.675	107	5540	2.66	0.098 J	0.098	100	1 U	1 U	0.34 J	0.01
	4/29/09	5	0.19	-102	7.9	0.35	7.03	0.627	1570	9000	3.3	0.05 U	0.01 U	122	1 U	1 U	13	0.42
	1/12/10	6	1.78	-63	4.9	3	6.51	0.741	702	7370	2.8	0.05 UJ	0.007 UJ	182 J	0.16 U	0.17 U	0.14 U	0.04
MW25-8	1/31/06	1	0.84	-70	4.1	2.4	7.3	0.494	329	5110	1.4	0.05 U	0.05 U	19.5	2 U	2 U	2 U	0.04
	8/11/06	2	2.92	33.4	25.01	8.7	6.97	0.72	667	7060 J	0.73 J	0.13	0.05 U	28.2	2 U	2 U	2 U	0.09
	3/4/08	4	2.21	61	2.7	5.1	7.46	0.427	349	4180	0.2 U	0.607 J	0.607	17.3	1 U	1 U	0.36 J	0.03
	4/29/09 ^{2,3}	5	-	-	-	-	-	-	620	6000	3.2	0.05 U	0.016	20.7	1 U	1 U	16	0.01
	1/12/10	6	2.67	230	4.7	2.2	7.36	0.342	408	9740	0.5 U	0.05 U	0.007 U	35.2 J	0.16 U	0.17 U	0.14 U	0.03
MW25-9	1/31/06	1	5.33	91	4.8	2.49	7.15	0.535	56.9	14500	1.1	0.05 U	0.05 U	21.8	2 U	2 U	29	0.02
	8/9/06	2	5.22	62.5	23.11	3.38	7.15	0.718	12 U	16400 J	0.99 J	0.1	0.05 U	25.3	2 U	2 U	2 U	0.45
	3/4/08	4	2.02	99	3.3	1.3	7.33	0.59	100 U	8380	0.2 U	0.05 UJ	0.05	24.8	1 U	1 U	2.4 J	0
	4/29/09 ^{2,3}	5	-	-	-	-	-	-	9440	26000	2.7	0.05 U	0.01 U	39.7	1 U	1 U	3.5	0.12
	1/12/10 ³	6	-	-72	3.62	2.8	6.73	0.427	916	16500	0.5 U	0.05 UJ	0.007 UJ	35.3 J	0.16 U	0.17 U	0.14 U	0.01
MW25-2 ¹	4/12/06	1	6.29	-11	10.5	16.1	7.17	0.551	2510	4730	6.5	0.05 U	0.05 U	39.6	2 U	2 U	80 J	0.01
	8/9/06 ¹	2	0.3	-82	26.55	2.3	6.93	0.562	666.5	5600 J	2.2 J	0.05 U	0.05 U	32.1	10 U	10 U	35.5	0.15
	6/6/07	3	0.07	-92	12.4	11	7.11	0.454	2.6 J	6	0.24	4.2	170	0.5	0.5	22		
	3/4/08	4	1.35	-60	3.2	2.78	7.15	0.64	711	3460	0.2 U	0.305 J	0.305	31.1	1 U	1 U	3.2 J	0
	4/29/09 ¹	5	0.11	-115	8.1	0.9	6.84	0.702	15050	7100	2.2	0.05 U	0.01 U	79.2	1 U	1 U	66	0.04
	1/12/10	6	0.41	-151	6.3	1.06	7.25	0.573	2655	7800	2.8	0.199 J	0.007 UJ	64.4 J	0.16 U	0.17 U	20	0.16
MW25-19	6/7/07	3	0.05	117	13.4	17	7.04	0.427	1.2 J	3.8 J	4.5	1.1	4.6	29	0.72 J	1.4 J	23	0.1
	3/3/08	4	5.84	161	5.8	16.4	7.23	0.478	515	4520	0.2 U	0.194 J	0.194	24.3	0.478	2 U	0.01	
	1/13/10	6	4.01	259	8	6.1	7.08	0.445	204	4350	2.3	0.113 J	0.007 UJ	31 J	0.16 U	0.17 U	0.14 U	0.02

Note:

NS = not sampled - = geo parameter was not measured

1. Duplicate samples have been averaged

2. Insufficient water volume to fill flow cell prior to sample collection.

3. Well was pumped dry and sampled the following day after recharge.



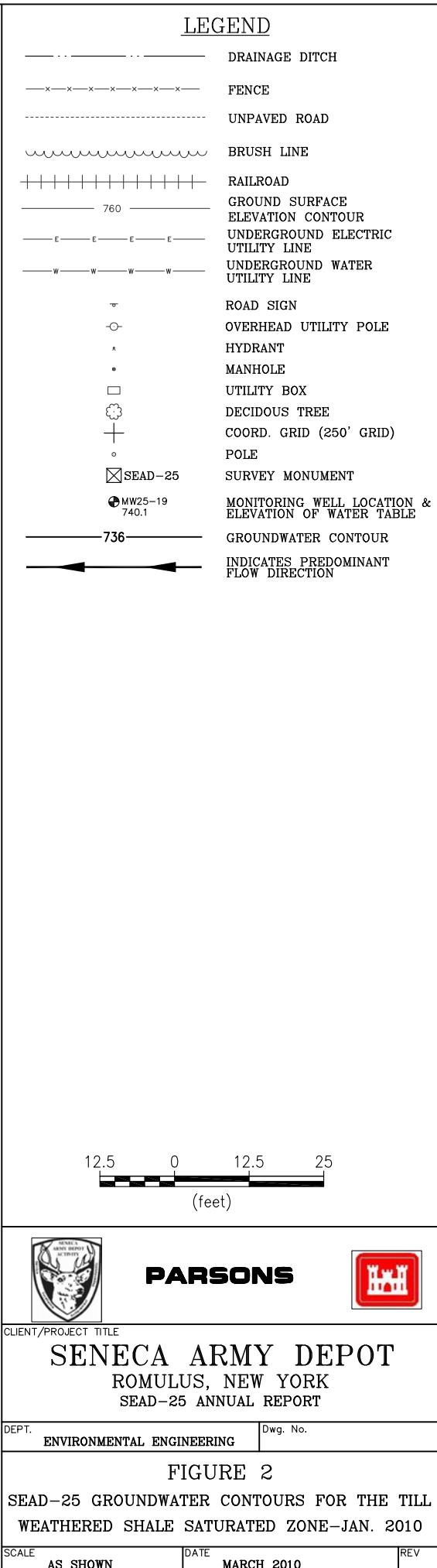
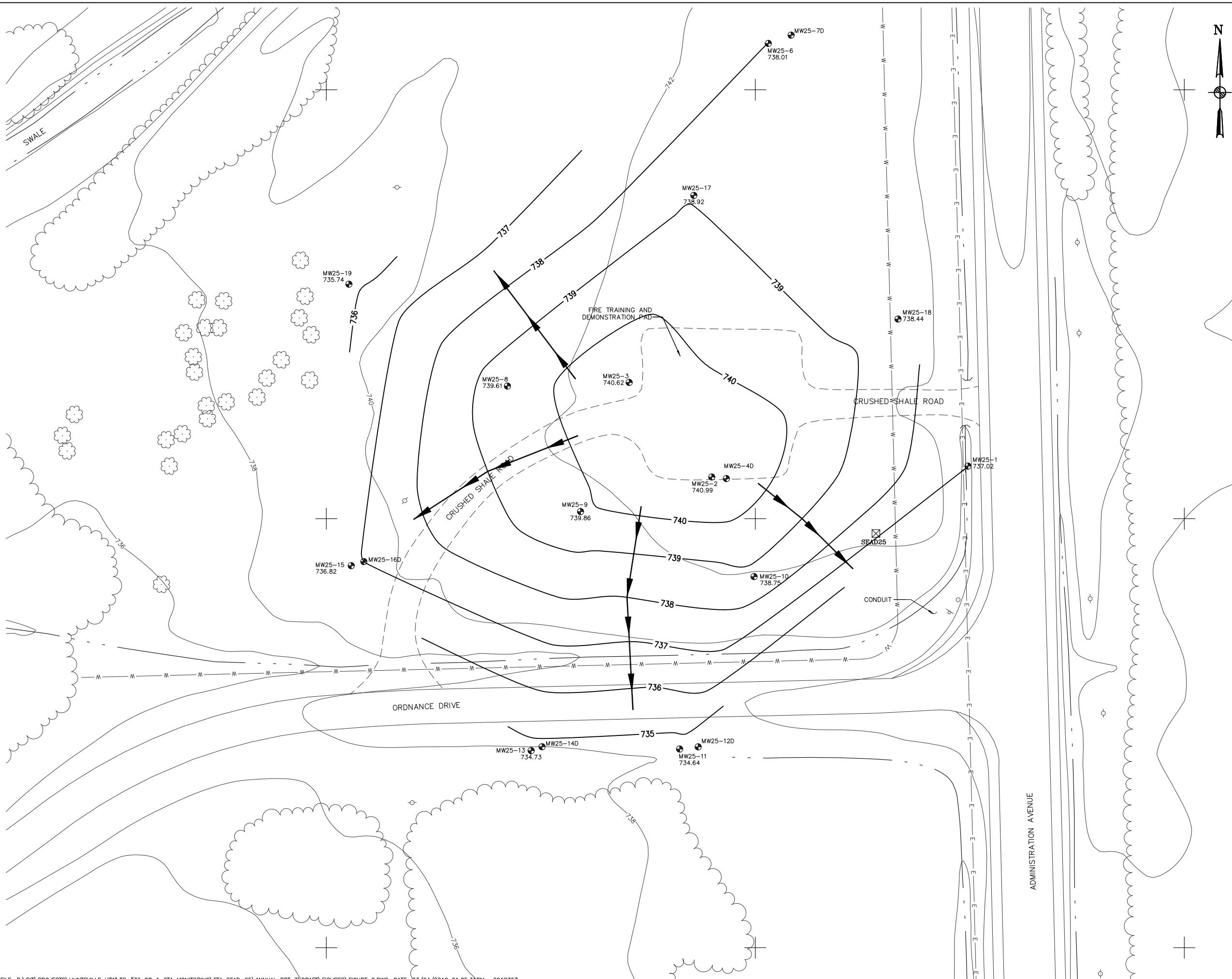
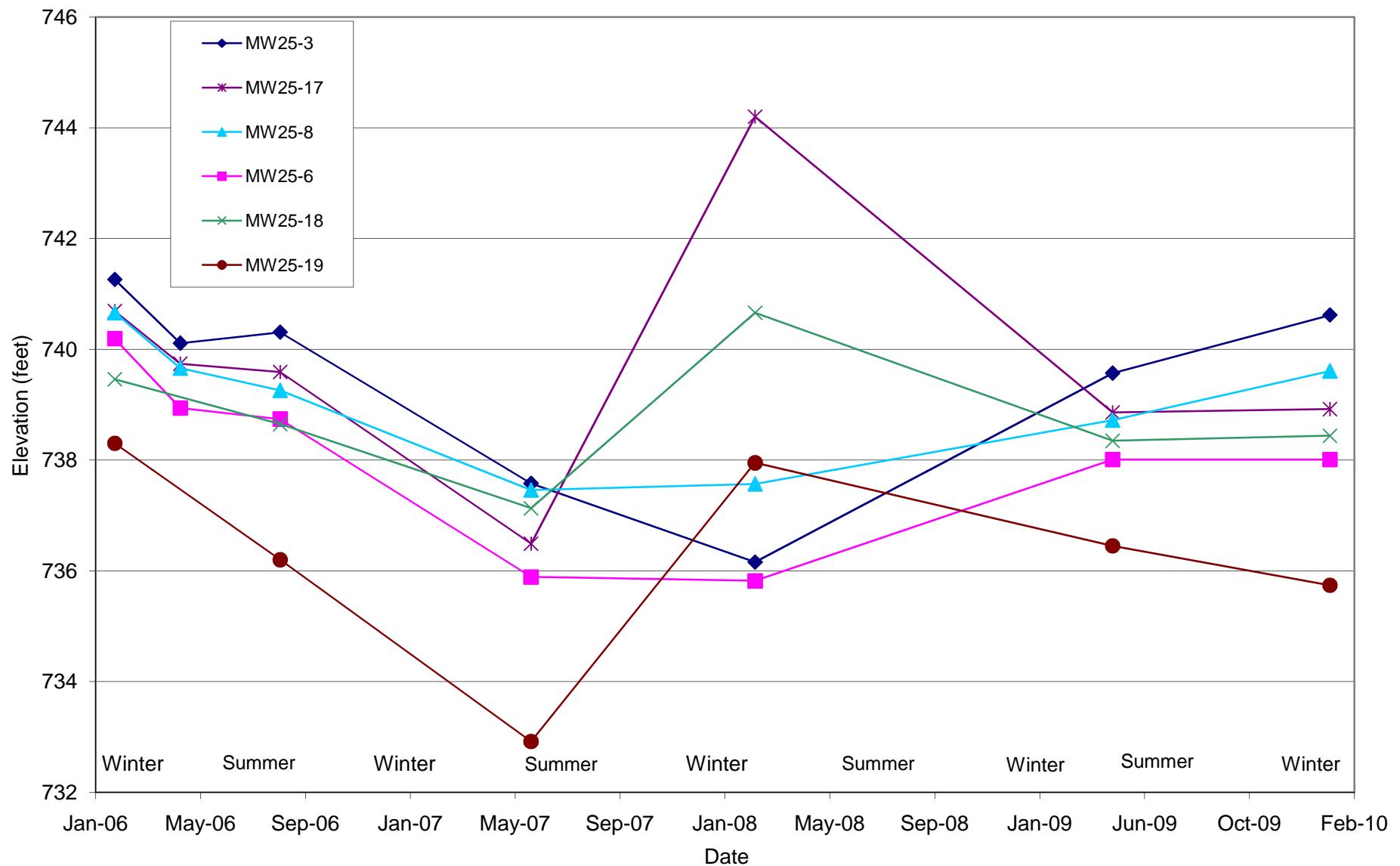


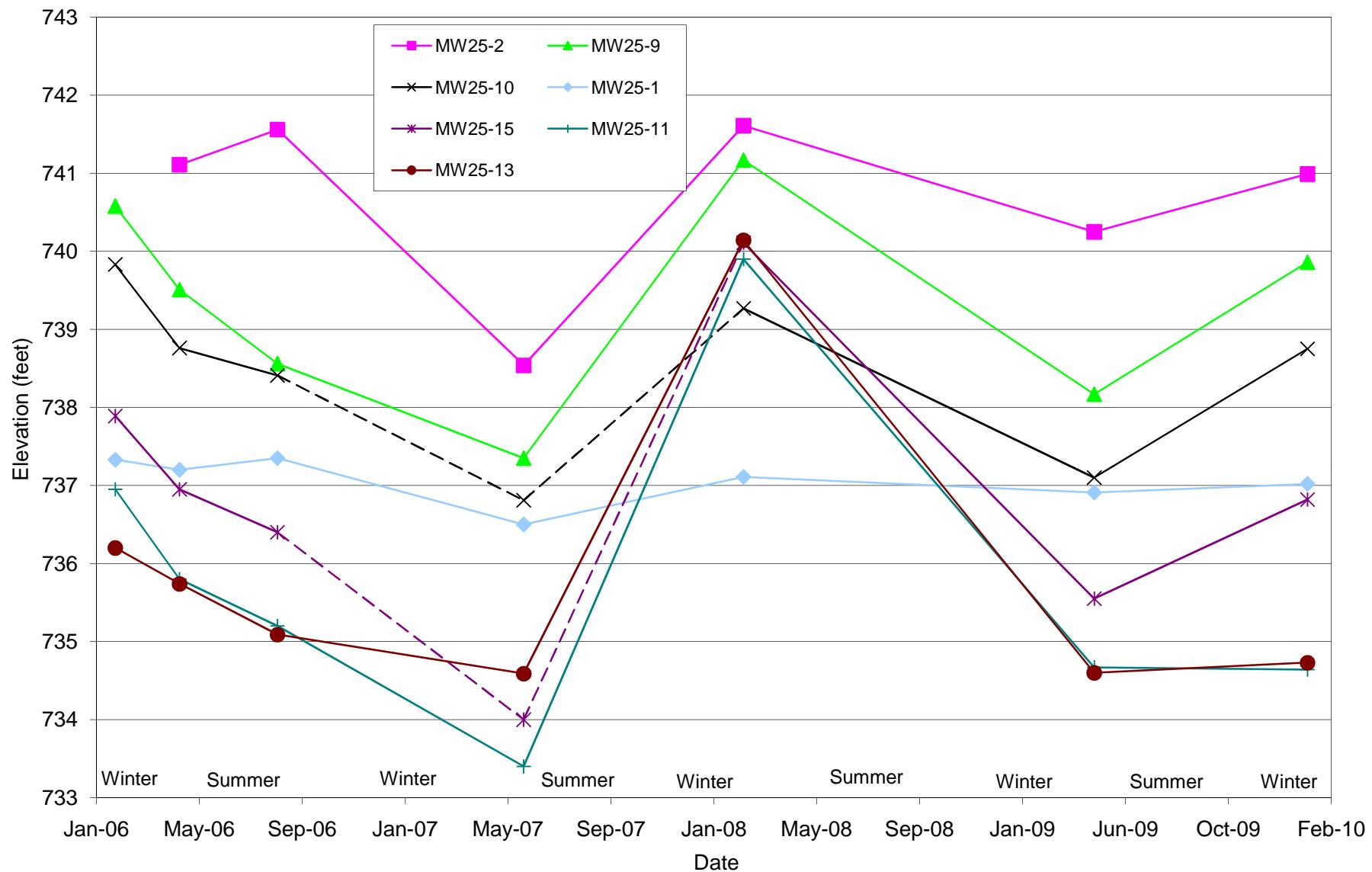
Figure 3A
 SEAD-25 Groundwater Elevation - Northern Profile
 SEAD-25 Annual Report
 Seneca Army Depot Activity



Note: Groundwater elevation was measured on the following dates: January 24, 2006, April 4, 2006, August 9, 2006, June 4, 2007, February 26, 2008, April 27, 2009, and January 11, 2010.

MW25-18 and MW25-19 groundwater elevations were not measured on April 4, 2006.

Figure 3B
 SEAD-25 Groundwater Elevation - Southern Profile
 SEAD-25 Annual Report
 Seneca Army Depot Activity



Note: Groundwater elevation was measured on the following dates: January 24, 2006, April 4, 2006, August 9, 2006, June 4, 2007, February 26, 2008, April 27, 2009, and January 11, 2010.

MW25-10 and MW25-15 were dry during the June 6, 2007 sampling event and the bottom of the well elevation are ~736.8 ft and ~734 ft, respectively.

LEGEND

.....	DRAINAGE DITCH
-x-x-x-x-	FENCE
.....	UNPAVED ROAD
wavy line	BRUSH LINE
	RAILROAD
760	GROUND SURFACE ELEVATION CONTOUR
E-E-E	UNDERGROUND ELECTRIC UTILITY LINE
W-W-W	UNDERGROUND WATER UTILITY LINE
—	ROAD SIGN
○	OVERHEAD UTILITY POLE
*	HYDRANT
●	MANHOLE
□	UTILITY BOX
•	DECIDOUS TREE
COORD. GRID (250' GRID)	COORD. GRID (250' GRID)
+	POLE
SEAD-25	SURVEY MONUMENT
MW25-2	MONITORING WELL DESIGNATION
Nov/Dec 2005	NOV/DEC 2005
██████████	REMEDIED AREAS

CONTAMINANT CONCENTRATIONS OF BTEX (BENZENE, TOLUENE, ETHYL BENZENE AND TOTAL XYLEMES) AND TOTAL CHLORINATED ORGANICS ($\mu\text{g/L}$) APR 96, NOV 95, FEB 94, & JAN 93 ARE PRE-REMEDIATION. ALL OTHER ROUNDS (BOLD) ARE POST-REMEDIATION.

ND

NS

NOT SAMPLED DUE TO LOW GROUNDWATER LEVELS



Figure 5A
Concentrations of BTEX Over Time at MW25-2
SEAD-25 Annual Report
Seneca Army Depot Activity

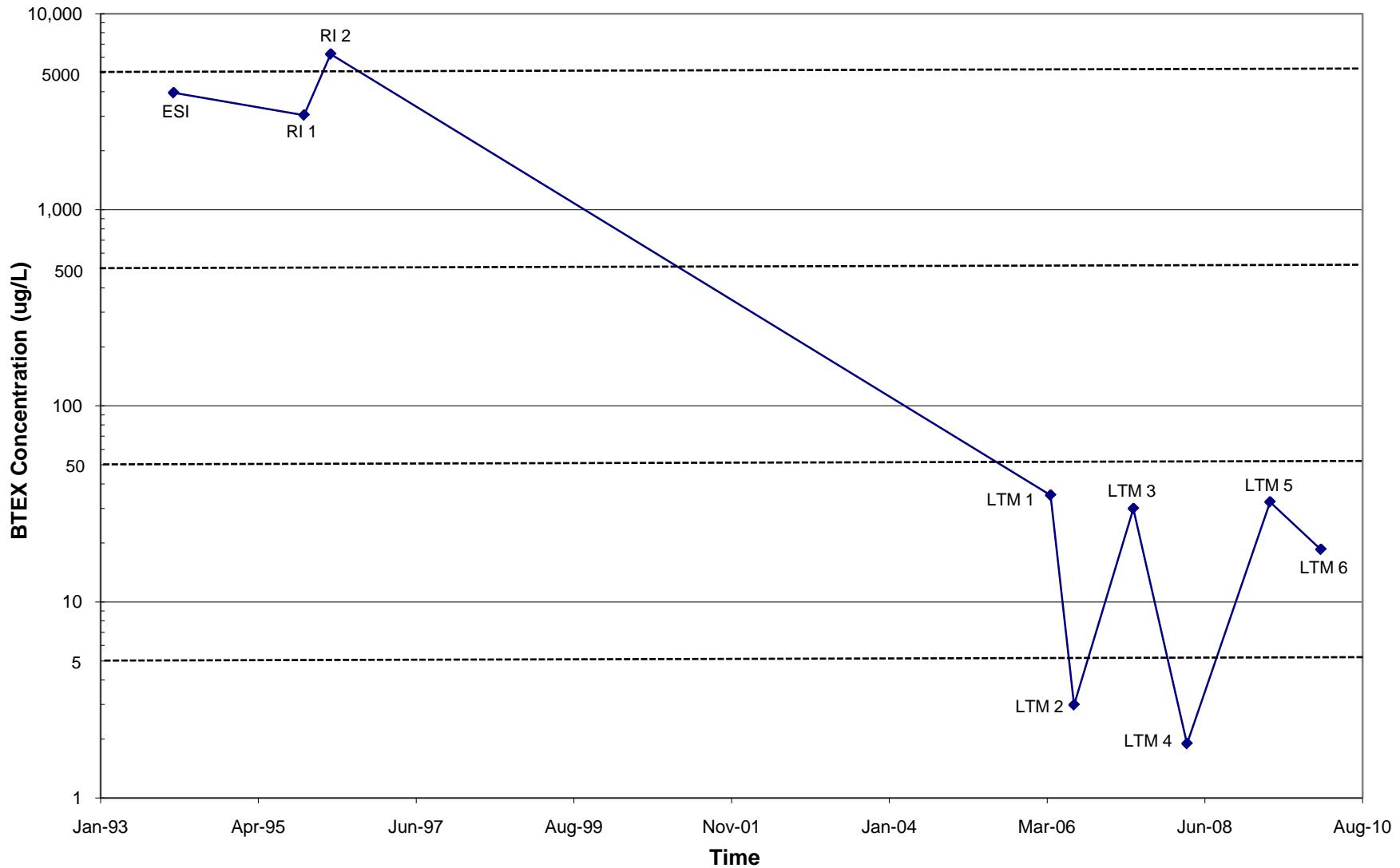


Figure 5B
 Concentrations of BTEX Over Time at MW25-3
 SEAD-25 Annual Report
 Seneca Army Depot Activity

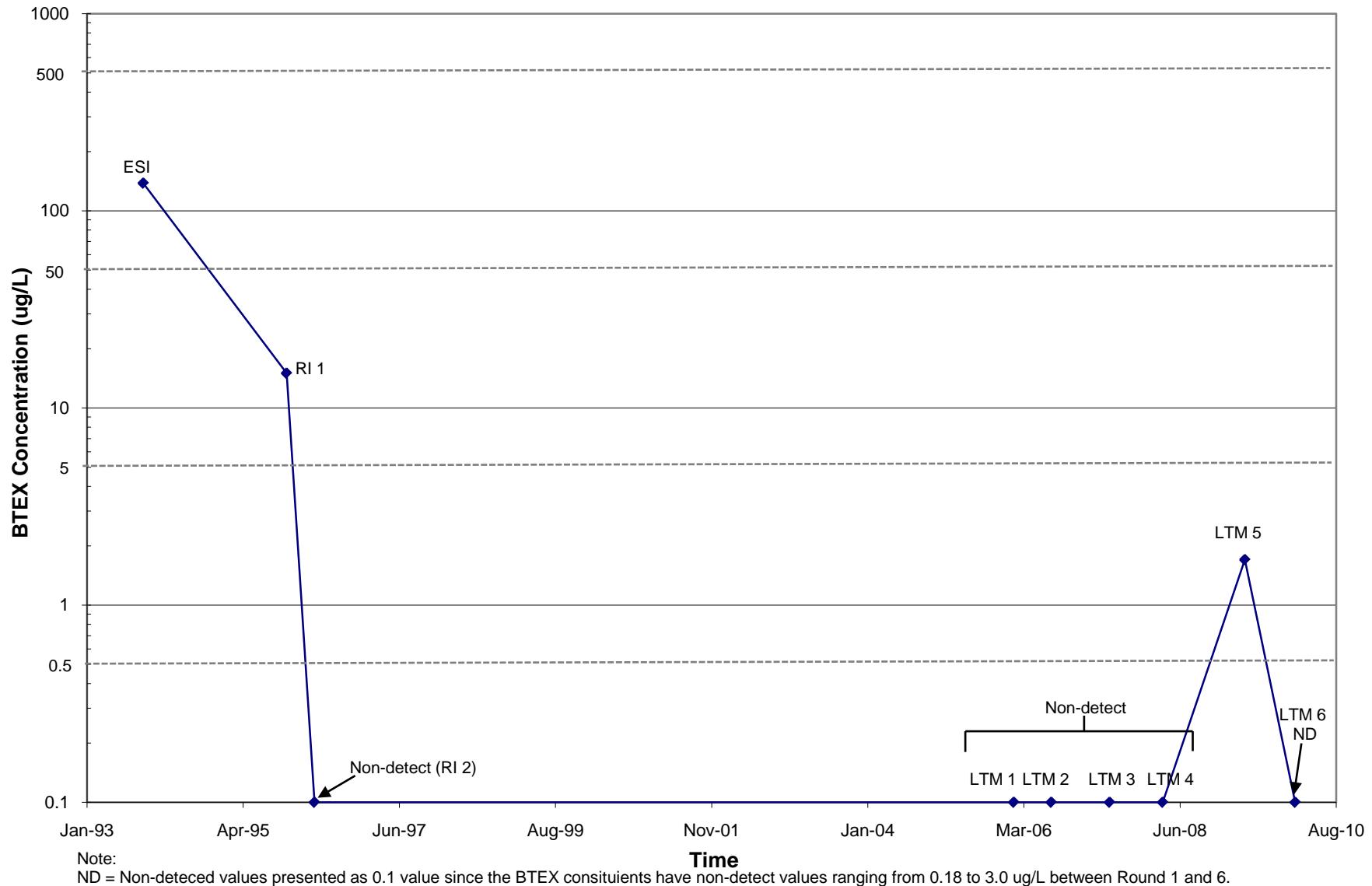


Figure 5C
Concentrations of BTEX Over Time at MW25-9
SEAD-25 Annual Report
Seneca Army Depot Activity

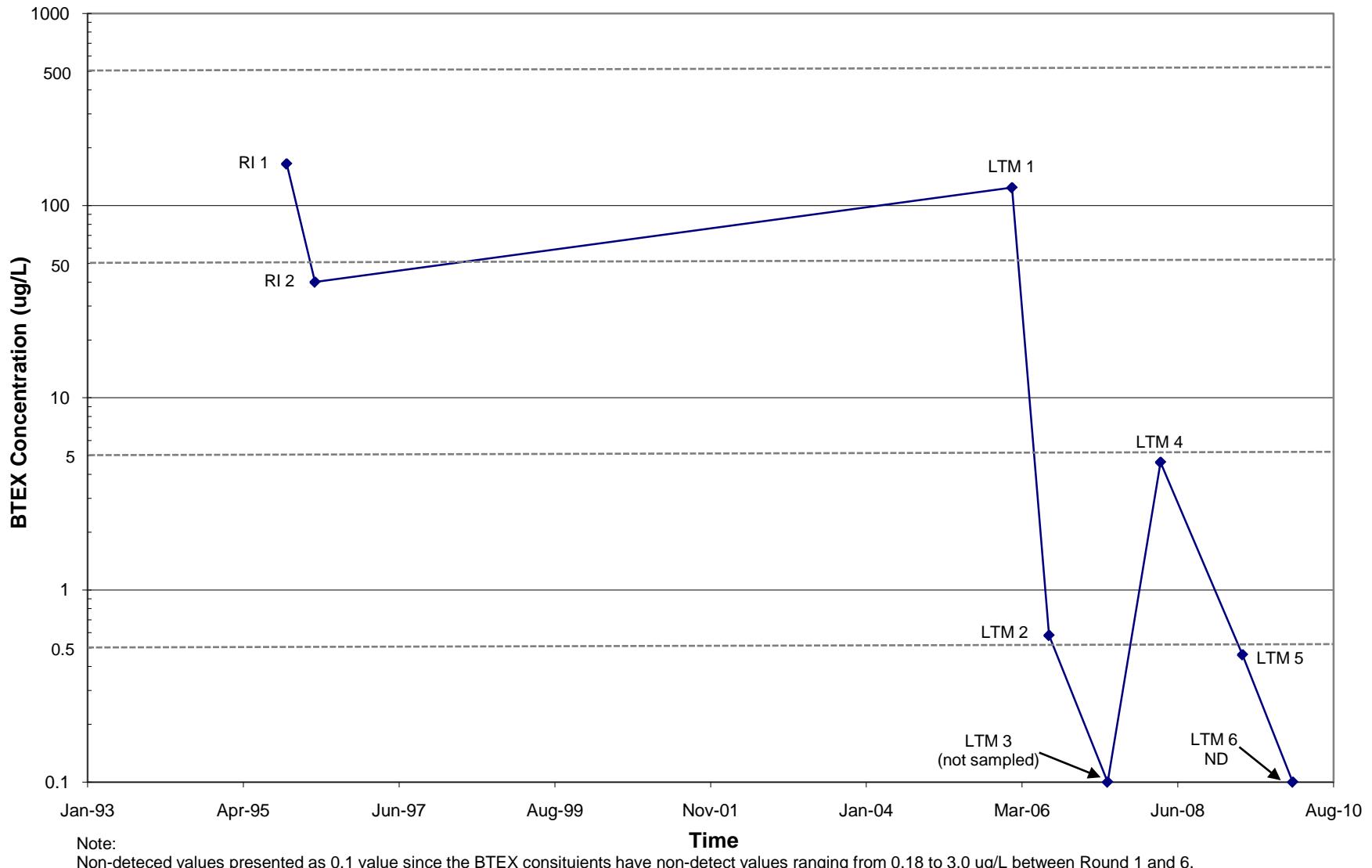
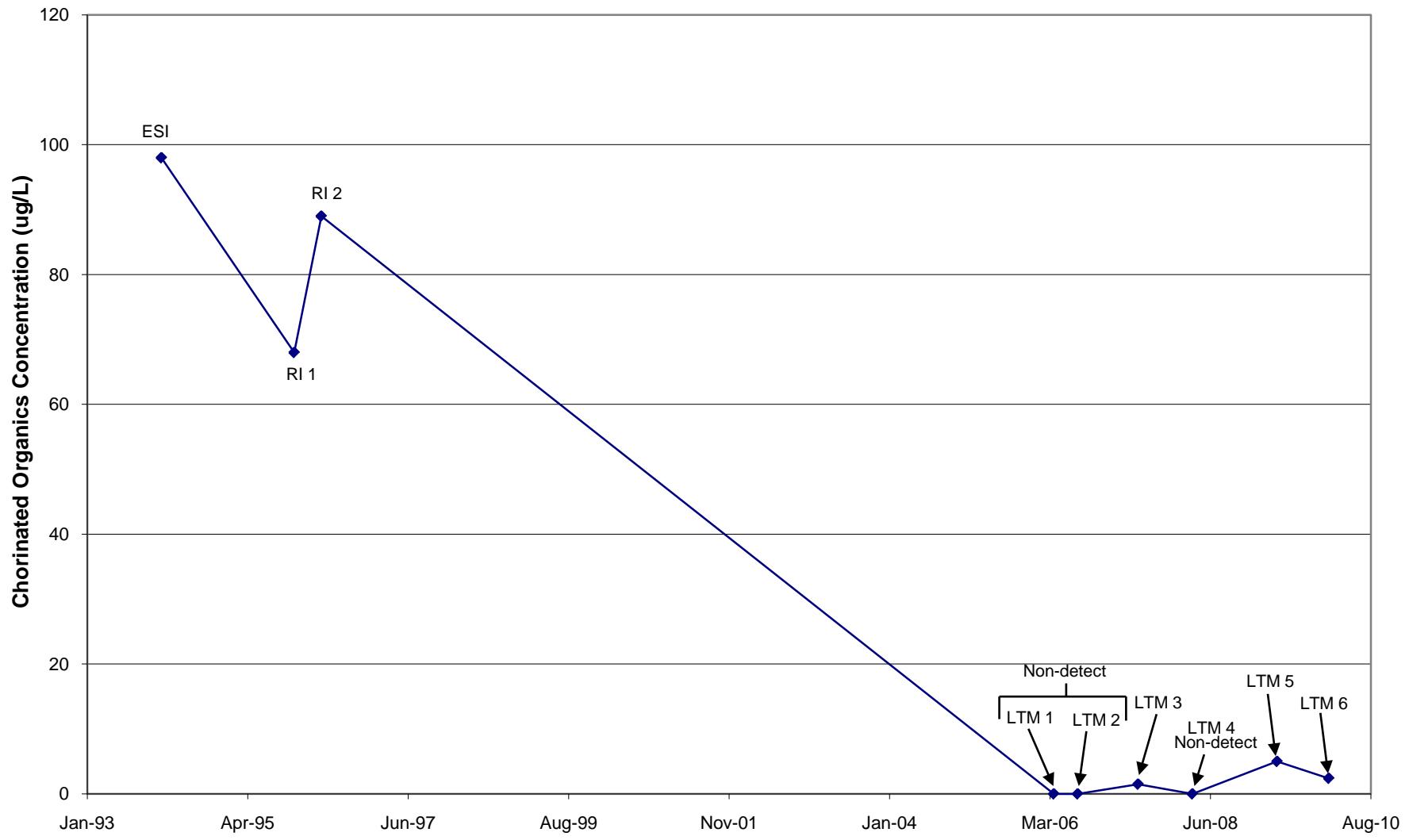


Figure 6A
Chlorinated VOC Concentrations at MW25-2
SEAD-25 Annual Report
Seneca Army Depot Activity



Note:
Non-detected values presented as zero value since multiple analytes make up the Chlorinated Organic concentrations.

Figure 6B
Chlorinated VOC Concentrations at MW25-3
SEAD-25 Annual Report
Seneca Army Depot Activity

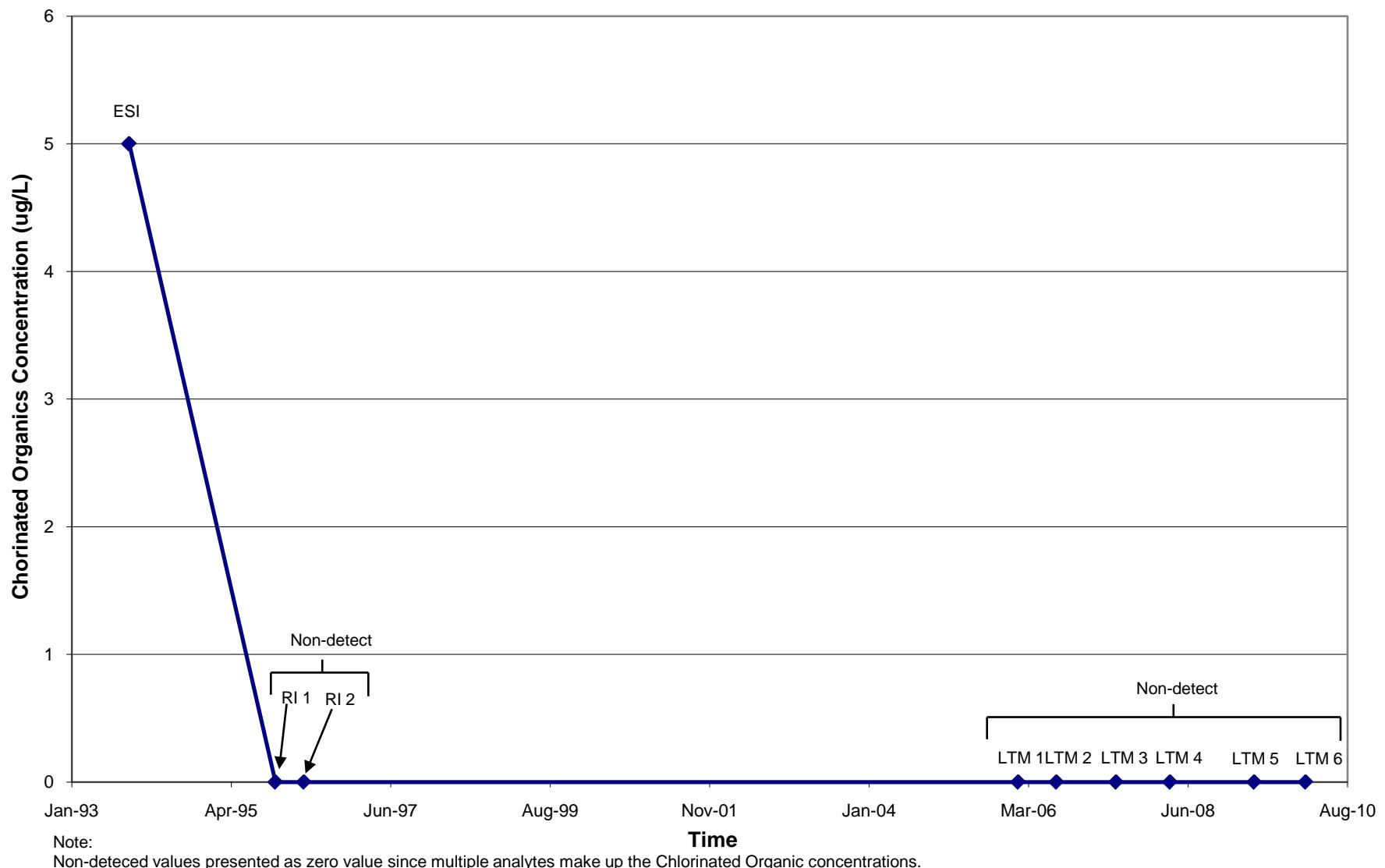
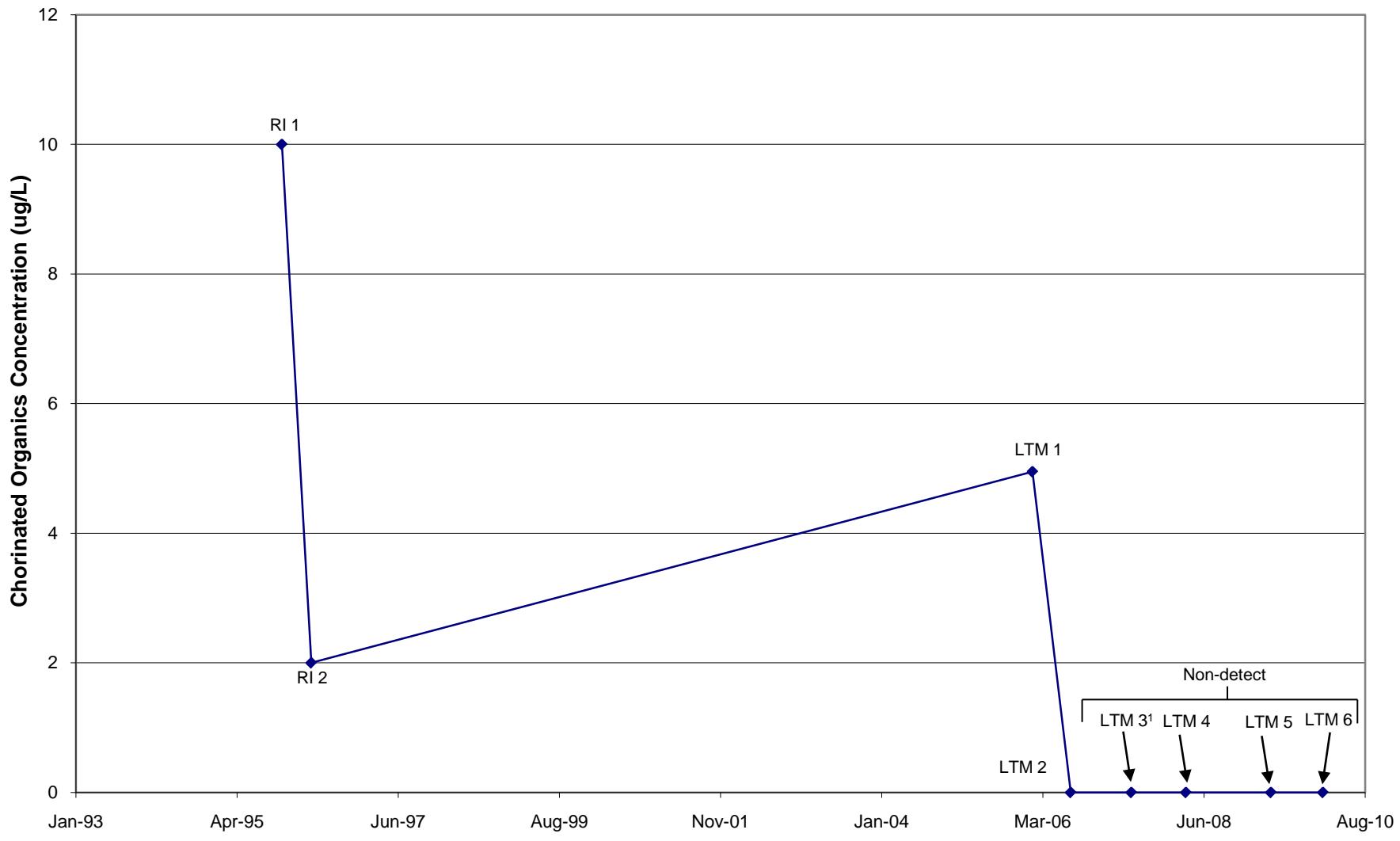


Figure 6C
Chlorinated VOC Concentrations at MW25-9
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Note:

Non-detected values presented as zero value since multiple analytes make up the Chlorinated Organic concentrations.

Note:

1. LTM 3 was not sampled

Figure 7A
 Concentrations of Detected Chemicals of Concern in MW25-2 (Near Former Source)
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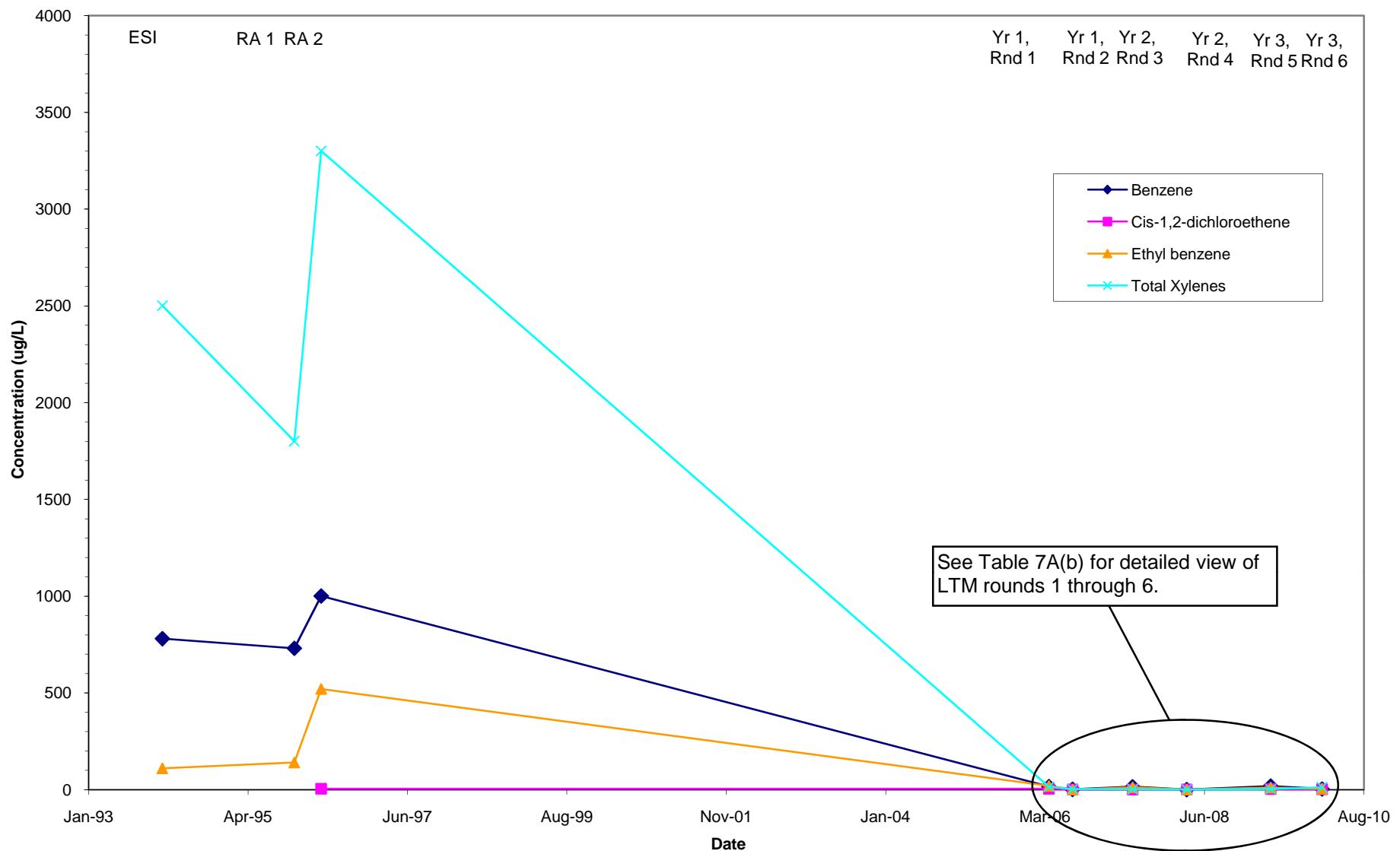


Figure 7A(b)
 Concentrations of Detected Chemicals of Concern in MW25-2 (Near Former Source)
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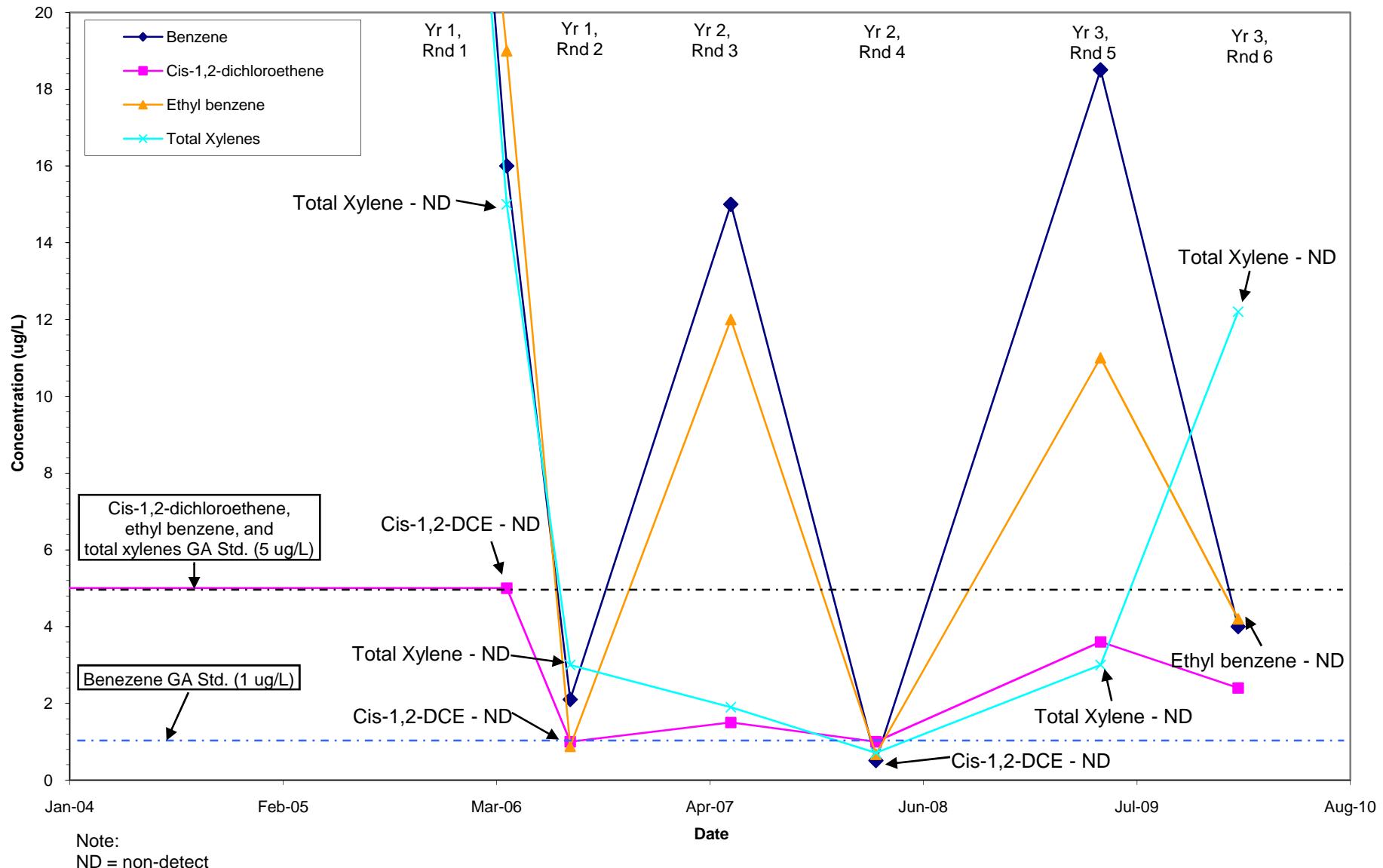
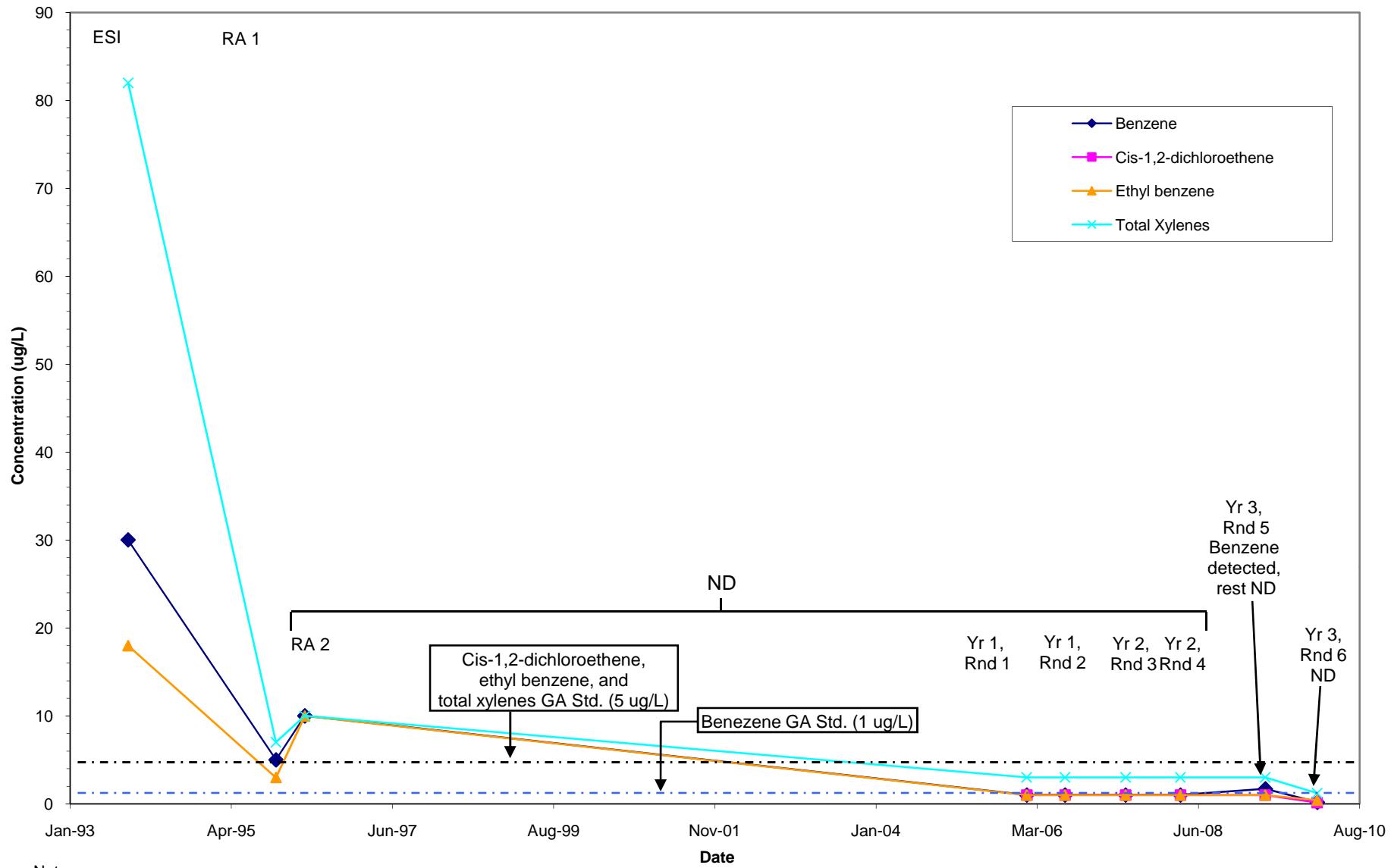


Figure 7B
 Concentrations of Detected Chemicals of Concern in MW25-3 (Near Former Source)
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Note:
 ND = Non-detected

Figure 7C
 Concentrations of Detected Chemicals of Concern in MW25-9 (Near Former Source)
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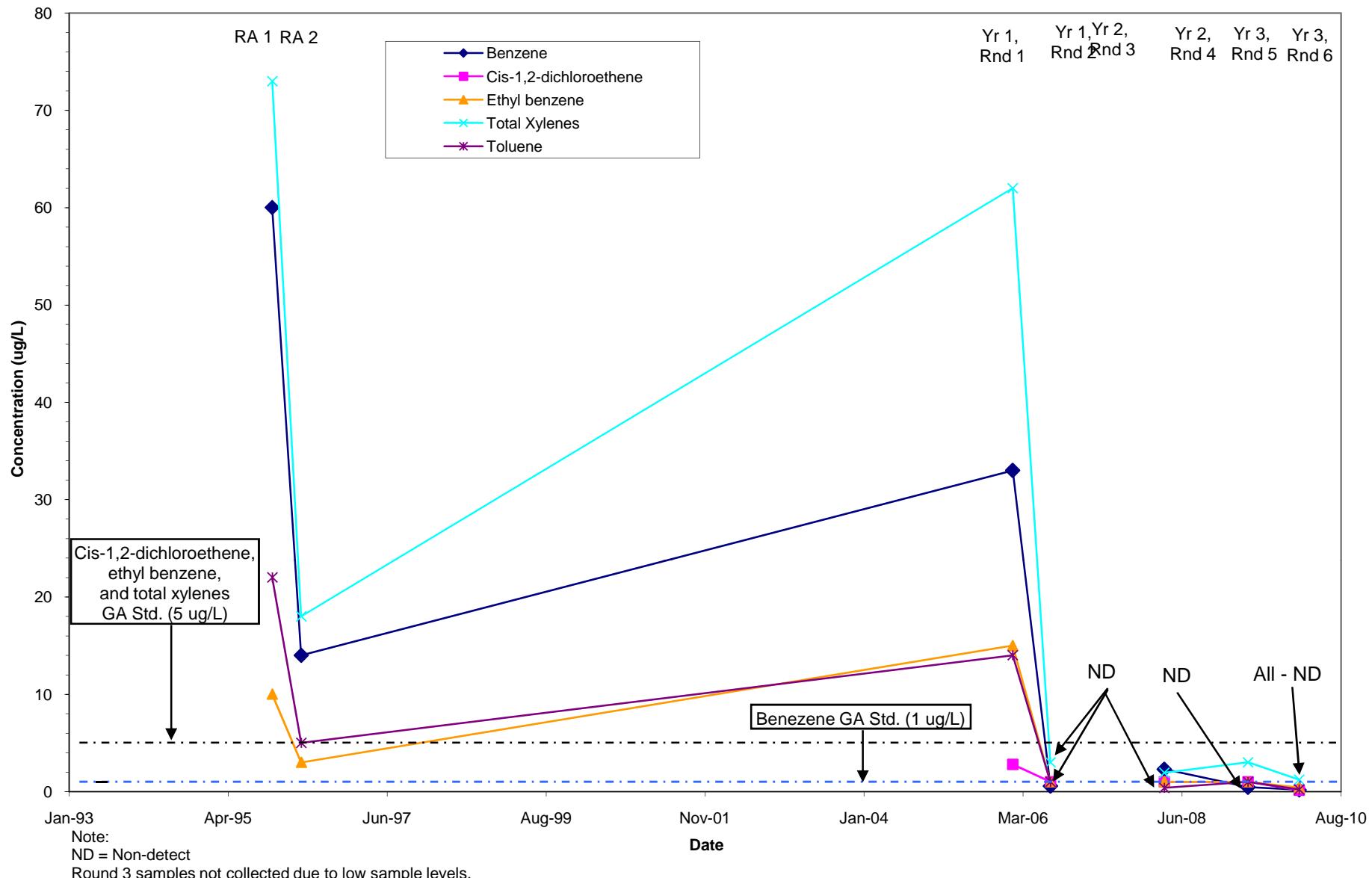


Figure 8
MW25-2 --- Benzene Concentration versus Saturated Thickness

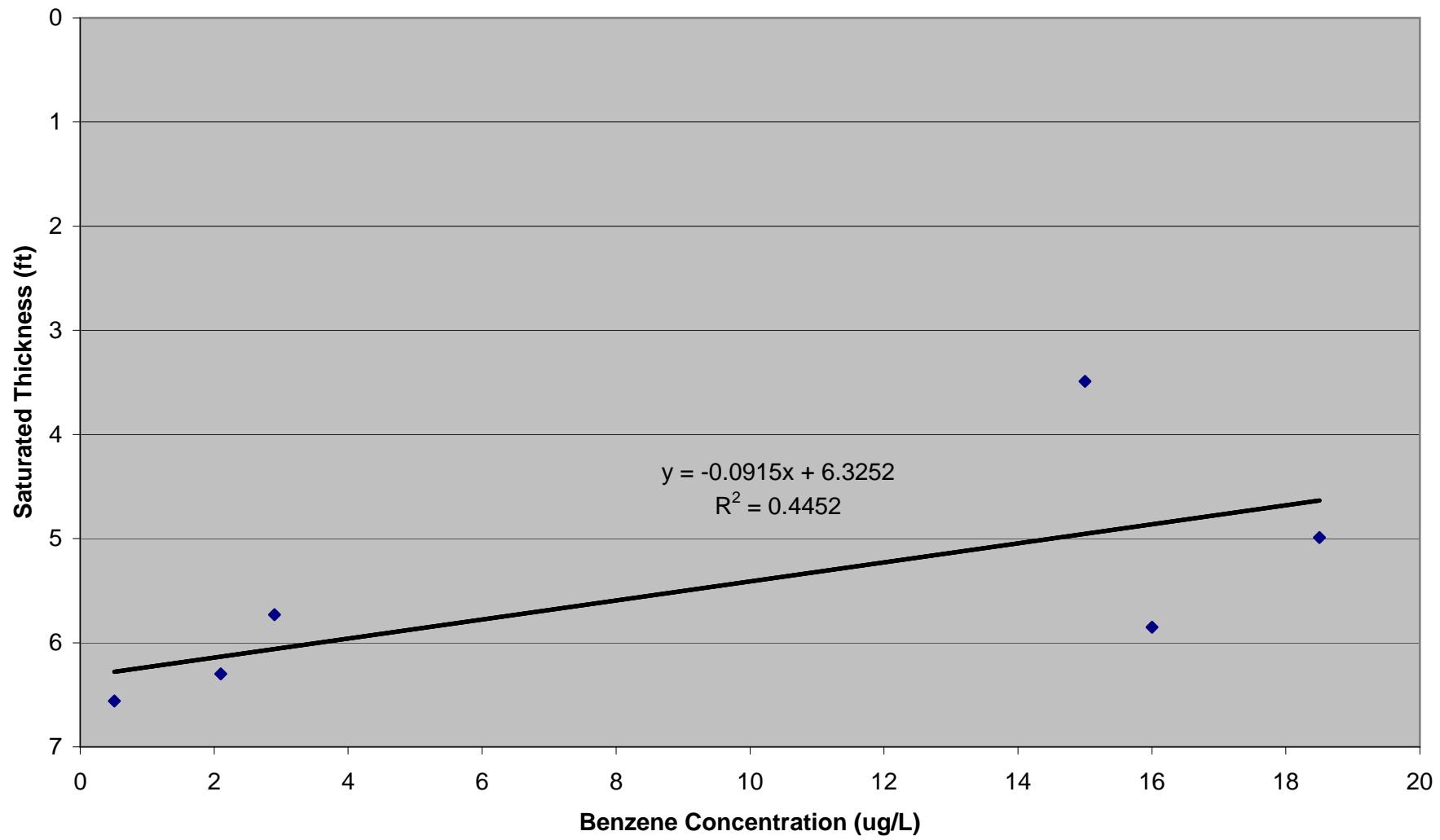


Figure 9
MW25 - 2 --- Benzene Concentration versus Saturated Thickness

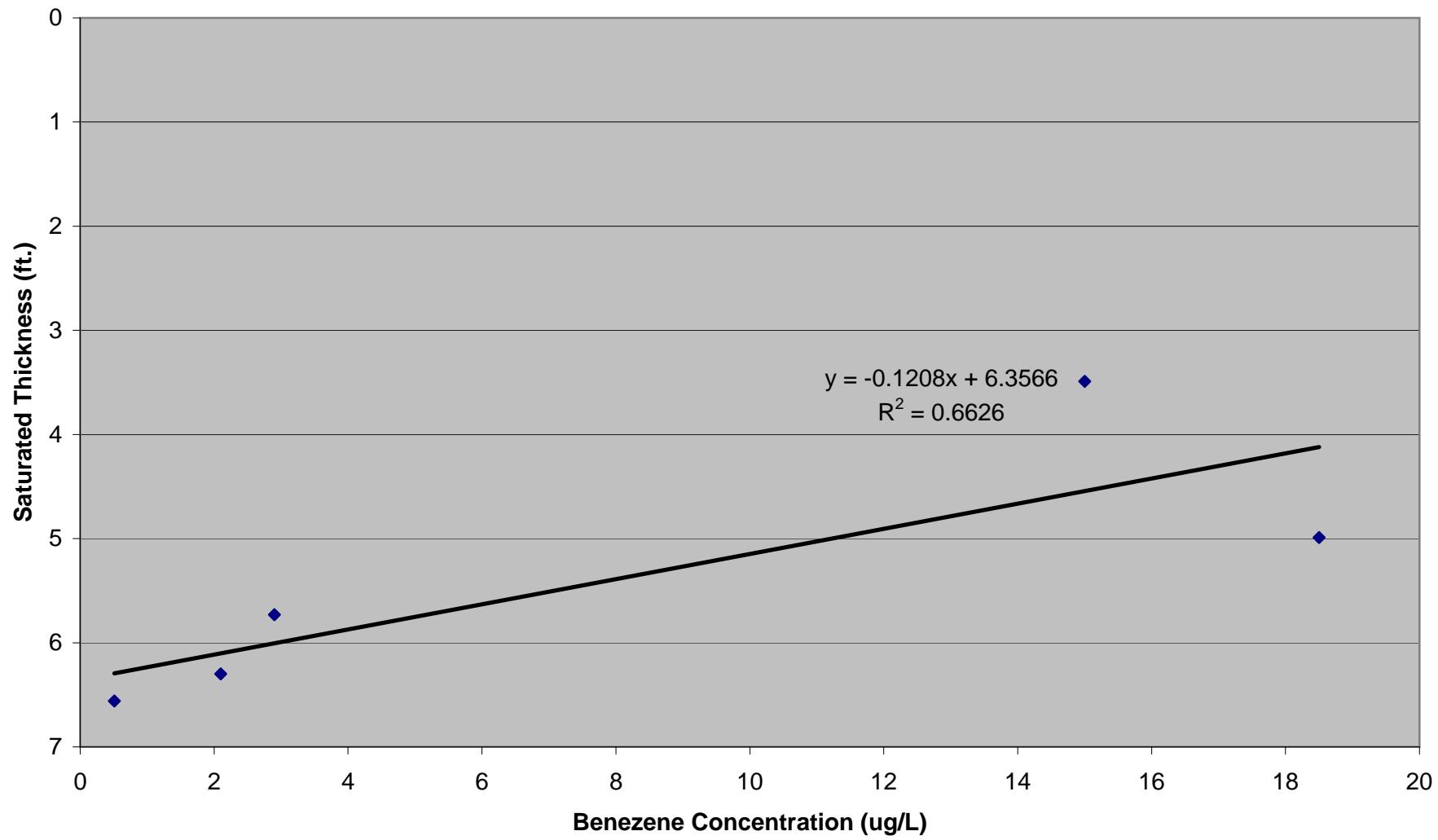


Table A-1
SEAD-25 Historic Groundwater Results
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SITE LOCATION		SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25							
LOCATION ID		MW25-10	MW25-10	MW25-10	MW25-13	MW25-13							
MATRIX		GW	GW	GW	GW	GW							
SAMPLE ID		25LM20005	25LM20015	25LM20039	25LM20061	25LM20006							
TOP OF SAMPLE		0	0	0	0	0							
BOTTOM OF SAMPLE		0.1	0.1	0.1	0.1	0.1							
SAMPLE DATE		1/31/2006	8/9/2006	3/4/2008	1/13/2010	1/30/2006							
QC CODE		SA	SA	SA	SA	SA							
STUDY ID		LTM	LTM	LTM	LTM	LTM							
SAMPLE ROUND		1	2	4	6	1							
Parameter	Units	Maximum Value	Frequency of Detection	Action Level Source	Cleanup Goal ¹	Number of Exceedances	Number of Detected	Number of Samples Analyzed	Value (Q)				
Volatile Organic Compounds													
1,1,1-Trichloroethane	UG/L	0.62	4%	GA	5	0	2	55	1 U	0.53 J	1 U	0.32 U	1 U
1,1,2,2-Tetrachloroethane	UG/L	0	0%	GA	5	0	0	55	1 U	1 U	1 U	0.09 U	1 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	UG/L	0	0%	GA	5	0	0	50	1 U	1 U	1 U	0.4 U	1 U
1,1,2-Trichloroethane	UG/L	0	0%	GA	1	0	0	55	1 U	1 U	1 U	0.2 U	1 U
1,1-Dichloroethane	UG/L	1.4	5%	GA	5	0	3	55	1 U	1 U	1 U	0.14 U	1 U
1,1-Dichloroethene	UG/L	0	0%	GA	5	0	0	55	1 U	1 U	1 U	0.37 U	1 U
1,2,4-Trichlorobenzene	UG/L	0	0%	GA	5	0	0	50	1 U	1 U	1 U	0.19 U	1 U
1,2,4-Trimethylbenzene	UG/L	0	0%	GA	5	0	0	10		1 U			
1,2-Dibromo-3-chloropropane	UG/L	0	0%	GA	0.04	0	0	50	1 U	1 U	2 U	0.43 U	1 U
1,2-Dibromoethane	UG/L	0	0%	GA	0.0006	0	0	55	1 U	1 U	1 U	0.18 U	1 U
1,2-Dichlorobenzene	UG/L	0	0%	GA	3	0	0	50	1 U	1 U	1 U	0.4 U	1 U
1,2-Dichloroethane	UG/L	0.49	2%	GA	0.6	0	1	55	1 U	1 U	1 U	0.14 U	1 U
1,2-Dichloropropane	UG/L	0	0%	GA	1	0	0	55	1 U	1 U	1 U	0.15 U	1 U
1,3,5-Trimethylbenzene	UG/L	0	0%	GA	5	0	0	10		1 U			
1,3-Dichlorobenzene	UG/L	0	0%	GA	3	0	0	50	1 U	1 U	1 U	0.36 U	1 U
1,4-Dichlorobenzene	UG/L	0	0%	GA	3	0	0	50	1 U	1 U	1 U	0.34 U	1 U
Acetone	UG/L	1.4	2%	GA		0	1	55	5 U	5 U	10 UJ	5 U	5 U
Benzene	UG/L	33	24%	GA	1	10	13	55	1 U	1 U	1 U	0.18 U	1 U
Bromodichloromethane	UG/L	0	0%	MCL	80	0	0	55	1 U	1 U	1 U	0.17 U	1 U
Bromoform	UG/L	0	0%	MCL	80	0	0	55	1 U	1 U	1 UJ	0.2 U	1 U
Carbon disulfide	UG/L	0	0%			0	0	55	1 U	1 U	1 U	0.36 U	1 U
Carbon tetrachloride	UG/L	0	0%	GA	5	0	0	55	1 U	1 U	1 U	0.36 U	1 U
Chlorobenzene	UG/L	0	0%	GA	5	0	0	55	1 U	1 U	1 U	0.26 U	1 U
Chlorodibromomethane	UG/L	0	0%	MCL	80	0	0	55	1 U	1 U	1 U	0.11 U	1 U
Chloroethane	UG/L	0.67	4%	GA	5	0	2	55	1 U	1 UJ	2 U	0.21 U	1 U
Chloroform	UG/L	0	0%	GA	7	0	0	55	1 U	1 U	1 U	0.16 U	1 U
Cis-1,2-Dichloroethene	UG/L	3.6	13%	GA	5	0	7	55	1 U	1 U	1 U	0.14 U	1 U
Cis-1,3-Dichloropropene	UG/L	0	0%	GA	0.4	0	0	55	1 U	1 U	1 U	0.14 U	1 U
Cyclohexane	UG/L	8.6	8%			0	4	50	1 U	1 U	1 U	0.14 U	1 UJ
Dichlorodifluoromethane	UG/L	0	0%	GA	5	0	0	50	1 UJ	1 U	1 UJ	0.18 U	1 U
Ethyl benzene	UG/L	19	15%	GA	5	5	8	55	1 U	1 U	1 U	0.42 U	1 U
Isopropylbenzene	UG/L	2.6	7%	GA	5	0	4	55	1 U	1 U	1 U	0.34 U	1 U
Meta/Para Xylene	UG/L	1.9	9%			0	3	35		1 U		0.81 U	
Methyl Acetate	UG/L	0	0%			0	0	50	1 U	1 U	10 U	0.48 U	1 U
Methyl Tertbutyl Ether	UG/L	0	0%			0	0	55	1 U	1 U	1 U	0.13 U	1 U
Methyl bromide	UG/L	0	0%	GA	5	0	0	55	1 U	1 U	2 U	0.4 U	1 U
Methyl butyl ketone	UG/L	0	0%			0	0	55	5 U	5 U	5 U	0.4 U	5 U
Methyl chloride	UG/L	0	0%	GA	5	0	0	55	1 U	1 U	2 U	0.18 U	1 U
Methyl cyclohexane	UG/L	4.2	8%			0	4	50	1 U	1 U	1 U	0.16 U	1 U
Methyl ethyl ketone	UG/L	9	13%			0	7	55	5 U	5 UJ	5 U	1 U	5 U
Methyl isobutyl ketone	UG/L	0	0%			0	0	55	5 U	5 U	5 U	0.34 U	5 U
Methylene chloride	UG/L	0	0%	GA	5	0	0	55	1 U	1 UJ	1 U	0.13 U	1 U
Naphthalene	UG/L	0.23	20%			0	1	5					

Table A-1
SEAD-25 Historic Groundwater Results
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SITE LOCATION					SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25
LOCATION ID					MW25-10	MW25-10	MW25-10	MW25-13	MW25-13
MATRIX					GW	GW	GW	GW	GW
SAMPLE ID					25LM20005	25LM20015	25LM20039	25LM20061	25LM20006
TOP OF SAMPLE					0	0	0	0	0
BOTTOM OF SAMPLE					0.1	0.1	0.1	0.1	0.1
SAMPLE DATE					1/31/2006	8/9/2006	3/4/2008	1/13/2010	1/30/2006
QC CODE					SA	SA	SA	SA	SA
STUDY ID					LTM	LTM	LTM	LTM	LTM
SAMPLE ROUND					1	2	4	6	1
Parameter	Units	Maximum Value	Frequency of Detection	Action Level Source	Cleanup Goal ¹	Number of Exceedances	Number of Times Detected	Number of Samples Analyzed	Value (Q)
Ortho Xylene	UG/L	1.5	3%	GA	5	0	1	35	1 U
Propylbenzene	UG/L	0	0%	GA	5	0	0	10	1 U
Styrene	UG/L	0	0%	GA	5	0	0	55	1 U
Tetrachloroethene	UG/L	0	0%	GA	5	0	0	55	1 U
Toluene	UG/L	14	7%	GA	5	1	4	55	1 U
Total Xylenes	UG/L	62	5%	GA	5	1	1	20	3 U
Trans-1,2-Dichloroethene	UG/L	0	0%	GA	5	0	0	55	1 U
Trans-1,3-Dichloropropene	UG/L	0	0%	GA	0.4	0	0	55	1 U
Trichloroethene	UG/L	0.53	4%	GA	5	0	2	55	1 U
Trichlorofluoromethane	UG/L	0	0%	GA	5	0	0	50	1 UU
Vinyl chloride	UG/L	0	0%	GA	2	0	0	55	1 U
p-Isopropyltoluene	UG/L	0	0%	GA	5	0	0	10	1 U
Semivolatile Organic Compounds									
1,1'-Biphenyl	UG/L	0	0%	GA	5	0	0	18	10 U
2,4,5-Trichlorophenol	UG/L	0	0%	GA	1	0	0	18	10 U
2,4,6-Trichlorophenol	UG/L	0	0%	GA	1	0	0	18	10 U
2,4-Dichlorophenol	UG/L	0	0%	GA	5	0	0	18	10 U
2,4-Dimethylphenol	UG/L	0	0%			0	0	18	10 U
2,4-Dinitrophenol	UG/L	0	0%			0	0	18	48 U
2,4-Dinitrotoluene	UG/L	0	0%	GA	5	0	0	18	10 U
2,6-Dinitrotoluene	UG/L	0	0%	GA	5	0	0	18	10 U
2-Chloronaphthalene	UG/L	0	0%			0	0	18	10 U
2-Chlorophenol	UG/L	0	0%			0	0	18	10 U
2-Methylnaphthalene	UG/L	0	0%			0	0	18	10 U
2-Methylphenol	UG/L	0	0%			0	0	18	10 U
2-Nitroaniline	UG/L	0	0%	GA	5	0	0	18	48 U
2-Nitrophenol	UG/L	0	0%	GA	1	0	0	18	10 U
3,3'-Dichlorobenzidine	UG/L	0	0%	GA	5	0	0	18	19 U
3-Nitroaniline	UG/L	0	0%	GA	5	0	0	18	48 U
4,6-Dinitro-2-methylphenol	UG/L	0	0%	GA	1	0	0	18	48 U
4-Bromophenyl phenyl ether	UG/L	0	0%			0	0	18	10 U
4-Chloro-3-methylphenol	UG/L	0	0%	GA	1	0	0	18	10 U
4-Chloroaniline	UG/L	0	0%	GA	5	0	0	18	10 U
4-Chlorophenyl phenyl ether	UG/L	0	0%			0	0	18	10 U
4-Methylphenol	UG/L	0	0%			0	0	18	10 U
4-Nitroaniline	UG/L	0	0%	GA	5	0	0	18	48 U
4-Nitrophenol	UG/L	0	0%	GA	1	0	0	18	48 U
Acenaphthene	UG/L	0.5	6%			0	1	18	10 U
Acenaphthylene	UG/L	2	22%			0	4	18	1 J
Acetophenone	UG/L	0	0%			0	0	18	10 U
Anthracene	UG/L	1	6%			0	1	18	10 U
Atrazine	UG/L	0	0%	GA	7.5	0	0	18	10 U
Benzaldehyde	UG/L	0	0%			0	0	18	48 U
Benzo(a)anthracene	UG/L	0	0%			0	0	18	10 U

Table A-1
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SITE LOCATION							SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25
LOCATION ID							MW25-10	MW25-10	MW25-10	MW25-13	MW25-13
MATRIX							GW	GW	GW	GW	GW
SAMPLE ID							25LM20005	25LM20015	25LM20039	25LM20061	25LM20006
TOP OF SAMPLE							0	0	0	0	0
BOTTOM OF SAMPLE							0.1	0.1	0.1	0.1	0.1
SAMPLE DATE							1/31/2006	8/9/2006	3/4/2008	1/13/2010	1/30/2006
QC CODE							SA	SA	SA	SA	SA
STUDY ID							LTM	LTM	LTM	LTM	LTM
SAMPLE ROUND							1	2	4	6	1
Parameter	Units	Maximum Value	Frequency of Detection	Action Level Source	Cleanup Goal ¹	Number of Exceedances	Number of Detected	Number of Times Analyzed	Value (Q)	Value (Q)	Value (Q)
Benzo(a)pyrene	UG/L	0	0%	GA	0	0	0	18	10 U	10 U	9 U
Benzo(b)fluoranthene	UG/L	0	0%			0	0	18	10 U	10 U	9 U
Benzo(ghi)perylene	UG/L	0.6	6%			0	1	18	10 U	10 U	9 U
Benzo(k)fluoranthene	UG/L	0	0%			0	0	18	10 U	10 U	9 U
Bis(2-Chloroethoxy)methane	UG/L	0	0%	GA	5	0	0	18	10 U	10 U	9 U
Bis(2-Chloroethyl)ether	UG/L	0	0%	GA	1	0	0	18	10 U	10 U	9 U
Bis(2-Chloroisopropyl)ether	UG/L	0	0%	GA	5	0	0	18	10 U	10 U	9 U
Bis(2-Ethylhexyl)phthalate	UG/L	11	6%	GA	5	1	1	18	10 U	10 U	9 U
Butylbenzylphthalate	UG/L	2	6%			0	1	18	10 U	10 U	9 U
Caprolactam	UG/L	0	0%			0	0	18	10 U	10 U	9 U
Carbazole	UG/L	0	0%			0	0	18	10 U	10 U	9 U
Chrysene	UG/L	0	0%			0	0	18	10 U	10 U	9 U
Di-n-butylphthalate	UG/L	0	0%	GA	50	0	0	18	10 U	10 U	9 U
Di-n-octylphthalate	UG/L	0	0%			0	0	18	10 U	10 U	9 U
Dibenz(a,h)anthracene	UG/L	0	0%			0	0	18	10 U	10 U	9 U
Dibenzofuran	UG/L	0	0%			0	0	18	10 U	10 U	9 U
Diethyl phthalate	UG/L	0	0%			0	0	18	10 U	10 U	9 U
Dimethylphthalate	UG/L	0	0%			0	0	18	10 U	10 U	9 U
Fluoranthene	UG/L	0	0%			0	0	18	10 U	10 U	9 U
Fluorene	UG/L	0	0%			0	0	18	10 U	10 UJ	9 U
Hexachlorobenzene	UG/L	0	0%	GA	0.04	0	0	18	10 U	10 U	9 U
Hexachlorobutadiene	UG/L	0	0%	GA	0.5	0	0	18	10 U	10 U	9 U
Hexachlorocyclopentadiene	UG/L	0	0%	GA	5	0	0	18	43 U	43 U	42 U
Hexachloroethane	UG/L	0	0%	GA	5	0	0	18	10 U	10 U	9 U
Indeno(1,2,3-cd)pyrene	UG/L	0	0%			0	0	18	10 U	10 U	9 U
Isophorone	UG/L	0	0%			0	0	18	10 U	10 U	9 U
N-Nitrosodiphenylamine	UG/L	0	0%			0	0	18	10 U	10 U	9 U
N-Nitrosodipropylamine	UG/L	0	0%			0	0	18	10 U	10 U	9 U
Naphthalene	UG/L	2	6%			0	1	18	10 U	10 U	9 U
Nitrobenzene	UG/L	0	0%	GA	0.4	0	0	18	10 U	10 U	9 U
Pentachlorophenol	UG/L	0	0%	GA	1	0	0	18	48 U	48 U	47 U
Phenanthrene	UG/L	0	0%			0	0	18	10 U	10 U	9 U
Phenol	UG/L	0	0%	GA	1	0	0	18	10 U	10 U	9 U
Pyrene	UG/L	0	0%			0	0	18	10 U	10 U	9 U
Inorganics											
Iron	UG/L	15700	87%	GA	300	31	46	53	62.8 J	358	320 J
Sodium	UG/L	41900	100%	GA	20000	7	53	53	8870	6530 J	6420
Chloride	MG/L	59	72%	GA	250000	0	38	53	0.73	0.71 J	2.1
Ethane	UG/L	1.1	9%			0	5	53	2 U	1 U	0.21 U
Ethene	UG/L	4.6	9%			0	5	53	2 U	2 U	0.22 U
Methane	UG/L	170	38%			0	20	53	2 U	2 U	0.14 U
NITRATE	MG/L	6.4	38%	GA	10000	0	9	24			0.05 UJ
NITRITE	MG/L	0.73	21%			0	5	24			0.007 UJ
Nitrate Nitrogen	MG/L	1	45%			0	13	29	0.05 U	0.102 J	0.05 U

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SITE LOCATION					SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25
LOCATION ID					MW25-10	MW25-10	MW25-10	MW25-13	MW25-13
MATRIX					GW	GW	GW	GW	GW
SAMPLE ID					25LM20005	25LM20015	25LM20039	25LM20061	25LM20006
TOP OF SAMPLE					0	0	0	0	0
BOTTOM OF SAMPLE					0.1	0.1	0.1	0.1	0.1
SAMPLE DATE					1/31/2006	8/9/2006	3/4/2008	1/13/2010	1/30/2006
QC CODE					SA	SA	SA	SA	SA
STUDY ID					LTM	LTM	LTM	LTM	LTM
SAMPLE ROUND						1	2	4	6
Parameter	Units	Maximum Value	Frequency of Detection	Action Level Source	Cleanup Goal ¹	Number of Exceedances	Number of Times Detected	Number of Samples Analyzed	Value (Q)
Nitrate/Nitrite Nitrogen	MG/L	1	65%	GA	10000	0	13	20	0.102
Nitrite Nitrogen	MG/L	0.087	3%	GA		0	1	29	0.05 U
Sulfate	MG/L	182	100%	GA	250000	0	53	53	18.1
Field Parameters									
Conductivity	mS/cm	0.858	100%			0	52	52	0.464
Dissolved Oxygen	MG/L	8.46	100%			0	49	49	4.22
ORP	mV	259	73%			0	38	52	107
Sulfide	MG/L	1.04	84%			0	43	51	0.1
Temperature	deg C	26.55	100%			0	52	52	5
Turbidity	NTU	195	100%			0	52	52	1.09
pH	Std units	7.69	100%			0	52	52	6.97

Notes:

1. The cleanup goal values are NYSDEC Class GA Groundwater Standards (TOGS 1.1.1, June 1998).
2. Shading indicates concentration above cleanup goal.

U = compound was not detected

J = the reported value is an estimated concentration

UJ = the compound was not detected; the associated reporting limit is approximate

Table A-1
SEAD-25 Historic Groundwater Results
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SITE LOCATION		SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25							
LOCATION ID		MW25-13	MW25-15	MW25-15	MW25-15	MW25-15							
MATRIX		GW	GW	GW	GW	GW							
SAMPLE ID		25LM20016	25LM20040	25LM20007	25LM20017	25LM20041							
TOP OF SAMPLE		0	0	0	0	0							
BOTTOM OF SAMPLE		0.1	0.1	0.1	0.1	0.1							
SAMPLE DATE		8/9/2006	3/3/2008	1/31/2006	8/14/2006	3/3/2008							
QC CODE		SA	SA	SA	SA	SA							
STUDY ID		LTM	LTM	LTM	LTM	LTM							
SAMPLE ROUND		2	4	1	2	4							
Parameter	Units	Maximum Value	Frequency of Detection	Action Level Source	Cleanup Goal ¹	Number of Exceedances	Number of Detected	Number of Samples Analyzed	Value (Q)				
Volatile Organic Compounds													
1,1,1-Trichloroethane	UG/L	0.62	4%	GA	5	0	2	55	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	UG/L	0	0%	GA	5	0	0	55	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	UG/L	0	0%	GA	5	0	0	50	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	UG/L	0	0%	GA	1	0	0	55	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	UG/L	1.4	5%	GA	5	0	3	55	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	UG/L	0	0%	GA	5	0	0	55	1 U	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	UG/L	0	0%	GA	5	0	0	50	1 U	1 U	1 U	1 U	1 U
1,2,4-Trimethylbenzene	UG/L	0	0%	GA	5	0	0	10	1 U				1 U
1,2-Dibromo-3-chloropropane	UG/L	0	0%	GA	0.04	0	0	50	1 U	2 U	1 U	1 U	2 U
1,2-Dibromoethane	UG/L	0	0%	GA	0.0006	0	0	55	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	UG/L	0	0%	GA	3	0	0	50	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	UG/L	0.49	2%	GA	0.6	0	1	55	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	UG/L	0	0%	GA	1	0	0	55	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	UG/L	0	0%	GA	5	0	0	10	1 U				1 U
1,3-Dichlorobenzene	UG/L	0	0%	GA	3	0	0	50	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	UG/L	0	0%	GA	3	0	0	50	1 U	1 U	1 U	1 U	1 U
Acetone	UG/L	1.4	2%	GA		0	1	55	7.8 UJ	10 UJ	5 U	12 UJ	10 UJ
Benzene	UG/L	33	24%	GA	1	10	13	55	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	UG/L	0	0%	MCL	80	0	0	55	1 U	1 U	1 U	1 U	1 U
Bromoform	UG/L	0	0%	MCL	80	0	0	55	1 U	1 UJ	1 U	1 U	1 UJ
Carbon disulfide	UG/L	0	0%			0	0	55	1 U	1 U	1 U	1 U	1 U
Carbon tetrachloride	UG/L	0	0%	GA	5	0	0	55	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	UG/L	0	0%	GA	5	0	0	55	1 U	1 U	1 U	1 U	1 U
Chlorodibromomethane	UG/L	0	0%	MCL	80	0	0	55	1 U	1 U	1 U	1 U	1 U
Chloroethane	UG/L	0.67	4%	GA	5	0	2	55	1 UJ	2 U	1 U	1 U	2 U
Chloroform	UG/L	0	0%	GA	7	0	0	55	1 U	1 U	1 U	1 U	1 U
Cis-1,2-Dichloroethene	UG/L	3.6	13%	GA	5	0	7	55	1 U	1 U	1 U	1 U	1 U
Cis-1,3-Dichloropropene	UG/L	0	0%	GA	0.4	0	0	55	1 U	1 U	1 U	1 U	1 U
Cyclohexane	UG/L	8.6	8%			0	4	50	1 U	1 U	1 U	1 U	1 U
Dichlorodifluoromethane	UG/L	0	0%	GA	5	0	0	50	1 U	1 UJ	1 U	1 U	1 UJ
Ethyl benzene	UG/L	19	15%	GA	5	5	8	55	1 U	1 U	1 U	1 U	1 U
Isopropylbenzene	UG/L	2.6	7%	GA	5	0	4	55	1 U	1 U	1 U	1 U	1 U
Meta/Para Xylene	UG/L	1.9	9%			0	3	35		1 U			1 U
Methyl Acetate	UG/L	0	0%			0	0	50	1 U	10 U	1 U	1 U	10 U
Methyl Tertbutyl Ether	UG/L	0	0%			0	0	55	1 U	1 U	1 U	1 U	1 U
Methyl bromide	UG/L	0	0%	GA	5	0	0	55	1 U	2 U	1 U	1 U	2 U
Methyl butyl ketone	UG/L	0	0%			0	0	55	5 U	5 U	5 U	5 U	5 U
Methyl chloride	UG/L	0	0%	GA	5	0	0	55	1 U	2 U	1 U	1 U	2 U
Methyl cyclohexane	UG/L	4.2	8%			0	4	50	1 U	1 U	1 U	1 U	1 U
Methyl ethyl ketone	UG/L	9	13%			0	7	55	5 UJ	5 U	5 U	5 U	5 U
Methyl isobutyl ketone	UG/L	0	0%			0	0	55	5 U	5 U	5 U	5 U	5 U
Methylene chloride	UG/L	0	0%	GA	5	0	0	55	1 UJ	1 U	1 U	1 U	1 U
Naphthalene	UG/L	0.23	20%			0	1	5					

Table A-1
SEAD-25 Historic Groundwater Results
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SITE LOCATION		SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25							
LOCATION ID		MW25-13	GW	GW	MW25-15	GW							
MATRIX		GW		GW	MW25-15	GW							
SAMPLE ID		25LM20016	25LM20040	25LM20007	25LM20017	25LM20041							
TOP OF SAMPLE		0	0	0	0	0							
BOTTOM OF SAMPLE		0.1	0.1	0.1	0.1	0.1							
SAMPLE DATE		8/9/2006	3/3/2008	1/31/2006	8/14/2006	3/3/2008							
QC CODE		SA	SA	SA	SA	SA							
STUDY ID		LTM	LTM	LTM	LTM	LTM							
SAMPLE ROUND		2	4	1	2	4							
Parameter	Units	Maximum Value	Frequency of Detection	Action Level Source	Cleanup Goal ¹	Number of Exceedances	Number of Detected	Number of Samples Analyzed	Value (Q)				
Ortho Xylene	UG/L	1.5	3%	GA	5	0	1	35	1 U				1 U
Propylbenzene	UG/L	0	0%	GA	5	0	0	10	1 U				1 U
Styrene	UG/L	0	0%	GA	5	0	0	55	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	UG/L	0	0%	GA	5	0	0	55	1 U	1 U	1 U	1 U	1 U
Toluene	UG/L	14	7%	GA	5	1	4	55	1 U	1 U	1 U	1 U	1 U
Total Xylenes	UG/L	62	5%	GA	5	1	1	20	3 U				3 U
Trans-1,2-Dichloroethene	UG/L	0	0%	GA	5	0	0	55	1 U	1 U	1 U	1 U	1 U
Trans-1,3-Dichloropropene	UG/L	0	0%	GA	0.4	0	0	55	1 U	1 U	1 U	1 U	1 U
Trichloroethene	UG/L	0.53	4%	GA	5	0	2	55	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane	UG/L	0	0%	GA	5	0	0	50	1 U	1 U	1 UU	1 U	1 U
Vinyl chloride	UG/L	0	0%	GA	2	0	0	55	1 U	1 U	1 U	1 U	1 U
p-Isopropyltoluene	UG/L	0	0%	GA	5	0	0	10	1 U				1 U
Semivolatile Organic Compounds													
1,1'-Biphenyl	UG/L	0	0%	GA	5	0	0	18					9 U
2,4,5-Trichlorophenol	UG/L	0	0%	GA	1	0	0	18					9 U
2,4,6-Trichlorophenol	UG/L	0	0%	GA	1	0	0	18					9 U
2,4-Dichlorophenol	UG/L	0	0%	GA	5	0	0	18					9 U
2,4-Dimethylphenol	UG/L	0	0%			0	0	18					9 U
2,4-Dinitrophenol	UG/L	0	0%			0	0	18					47 U
2,4-Dinitrotoluene	UG/L	0	0%	GA	5	0	0	18					9 U
2,6-Dinitrotoluene	UG/L	0	0%	GA	5	0	0	18					9 U
2-Chloronaphthalene	UG/L	0	0%			0	0	18					9 U
2-Chlorophenol	UG/L	0	0%			0	0	18					9 U
2-Methylnaphthalene	UG/L	0	0%			0	0	18					9 U
2-Methylphenol	UG/L	0	0%			0	0	18					9 U
2-Nitroaniline	UG/L	0	0%	GA	5	0	0	18					47 U
2-Nitrophenol	UG/L	0	0%	GA	1	0	0	18					9 U
3,3-Dichlorobenzidine	UG/L	0	0%	GA	5	0	0	18					19 U
3-Nitroaniline	UG/L	0	0%	GA	5	0	0	18					47 U
4,6-Dinitro-2-methylphenol	UG/L	0	0%	GA	1	0	0	18					47 U
4-Bromophenyl phenyl ether	UG/L	0	0%			0	0	18					9 U
4-Chloro-3-methylphenol	UG/L	0	0%	GA	1	0	0	18					9 U
4-Chloroaniline	UG/L	0	0%	GA	5	0	0	18					9 U
4-Chlorophenyl phenyl ether	UG/L	0	0%			0	0	18					9 U
4-Methylphenol	UG/L	0	0%			0	0	18					9 U
4-Nitroaniline	UG/L	0	0%	GA	5	0	0	18					47 U
4-Nitrophenol	UG/L	0	0%	GA	1	0	0	18					47 U
Acenaphthene	UG/L	0.5	6%			0	1	18					9 U
Acenaphthylene	UG/L	2	22%			0	4	18					0.7 J
Acetophenone	UG/L	0	0%			0	0	18					9 U
Anthracene	UG/L	1	6%			0	1	18					9 U
Atrazine	UG/L	0	0%	GA	7.5	0	0	18					9 U
Benzaldehyde	UG/L	0	0%			0	0	18					47 U
Benzo(a)anthracene	UG/L	0	0%			0	0	18					9 U

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SITE LOCATION					SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25
LOCATION ID					MW25-13	MW25-15	MW25-15	MW25-15	MW25-15
MATRIX					GW	GW	GW	GW	GW
SAMPLE ID					25LM20016	25LM20040	25LM20007	25LM20017	25LM20041
TOP OF SAMPLE					0	0	0	0	0
BOTTOM OF SAMPLE					0.1	0.1	0.1	0.1	0.1
SAMPLE DATE					8/9/2006	3/3/2008	1/31/2006	8/14/2006	3/3/2008
QC CODE					SA	SA	SA	SA	SA
STUDY ID					LTM	LTM	LTM	LTM	LTM
SAMPLE ROUND					2	4	1	2	4
Parameter	Units	Maximum Value	Frequency of Detection	Action Level Source	Cleanup Goal ¹	Number of Exceedances	Number of Times Detected	Number of Samples Analyzed	Value (Q)
Benzo(a)pyrene	UG/L	0	0%	GA	0	0	0	18	9 U
Benzo(b)fluoranthene	UG/L	0	0%			0	0	18	9 U
Benzo(ghi)perylene	UG/L	0.6	6%			0	1	18	9 U
Benzo(k)fluoranthene	UG/L	0	0%			0	0	18	9 U
Bis(2-Chloroethoxy)methane	UG/L	0	0%	GA	5	0	0	18	9 U
Bis(2-Chloroethyl)ether	UG/L	0	0%	GA	1	0	0	18	9 U
Bis(2-Chloroisopropyl)ether	UG/L	0	0%	GA	5	0	0	18	9 U
Bis(2-Ethylhexyl)phthalate	UG/L	11	6%	GA	5	1	1	18	9 U
Butylbenzylphthalate	UG/L	2	6%			0	1	18	9 U
Caprolactam	UG/L	0	0%			0	0	18	9 U
Carbazole	UG/L	0	0%			0	0	18	9 U
Chrysene	UG/L	0	0%			0	0	18	9 U
Di-n-butylphthalate	UG/L	0	0%	GA	50	0	0	18	9 U
Di-n-octylphthalate	UG/L	0	0%			0	0	18	9 U
Dibenz(a,h)anthracene	UG/L	0	0%			0	0	18	9 U
Dibenzofuran	UG/L	0	0%			0	0	18	9 U
Diethyl phthalate	UG/L	0	0%			0	0	18	9 U
Dimethylphthalate	UG/L	0	0%			0	0	18	9 U
Fluoranthene	UG/L	0	0%			0	0	18	9 U
Fluorene	UG/L	0	0%			0	0	18	9 U
Hexachlorobenzene	UG/L	0	0%	GA	0.04	0	0	18	9 U
Hexachlorobutadiene	UG/L	0	0%	GA	0.5	0	0	18	9 U
Hexachlorocyclopentadiene	UG/L	0	0%	GA	5	0	0	18	42 U
Hexachloroethane	UG/L	0	0%	GA	5	0	0	18	9 U
Indeno(1,2,3-cd)pyrene	UG/L	0	0%			0	0	18	9 U
Isophorone	UG/L	0	0%			0	0	18	9 U
N-Nitrosodiphenylamine	UG/L	0	0%			0	0	18	9 U
N-Nitrosodipropylamine	UG/L	0	0%			0	0	18	9 U
Naphthalene	UG/L	2	6%			0	1	18	9 U
Nitrobenzene	UG/L	0	0%	GA	0.4	0	0	18	9 U
Pentachlorophenol	UG/L	0	0%	GA	1	0	0	18	47 U
Phenanthrene	UG/L	0	0%			0	0	18	9 U
Phenol	UG/L	0	0%	GA	1	0	0	18	9 U
Pyrene	UG/L	0	0%			0	0	18	9 U
Inorganics									
Iron	UG/L	15700	87%	GA	300	31	46	53	56 J
Sodium	UG/L	41900	100%	GA	20000	7	53	53	3080
Chloride	MG/L	59	72%	GA	250000	0	38	53	0.66
Ethane	UG/L	1.1	9%			0	5	53	1.4 J
Ethene	UG/L	4.6	9%			0	5	53	2 U
Methane	UG/L	170	38%			0	20	53	2 U
NITRATE	MG/L	6.4	38%	GA	10000	0	9	24	1 U
NITRITE	MG/L	0.73	21%			0	5	24	2 U
Nitrate Nitrogen	MG/L	1	45%			0	13	29	0.16 J

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SITE LOCATION		SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25							
LOCATION ID		MW25-13	GW	GW	MW25-15	GW							
MATRIX		GW		GW	MW25-15	GW							
SAMPLE ID		25LM20016	25LM20040	25LM20007	25LM20017	25LM20041							
TOP OF SAMPLE		0	0	0	0	0							
BOTTOM OF SAMPLE		0.1	0.1	0.1	0.1	0.1							
SAMPLE DATE		8/9/2006	3/3/2008	1/31/2006	8/14/2006	3/3/2008							
QC CODE		SA	SA	SA	SA	SA							
STUDY ID		LTM	LTM	LTM	LTM	LTM							
SAMPLE ROUND		2	4	1	2	4							
Parameter	Units	Maximum Value	Frequency of Detection	Action Level Source	Cleanup Goal ¹	Number of Exceedances	Number of Times Detected	Number of Samples Analyzed	Value (Q)				
Nitrate/Nitrite Nitrogen	MG/L	1	65%	GA	10000	0	13	20					0.16
Nitrite Nitrogen	MG/L	0.087	3%			0	1	29					0.01 UJ
Sulfate	MG/L	182	100%	GA	250000	0	53	53					13.3
Field Parameters													
Conductivity	mS/cm	0.858	100%			0	52	52	0.699	0.639	0.36	0.651	0.477
Dissolved Oxygen	MG/L	8.46	100%			0	49	49	4.1	4.79	2.93	1.99	4.57
ORP	mV	259	73%			0	38	52	-22.2	97	82	222.1	139
Sulfide	MG/L	1.04	84%			0	43	51		0		0.8	0
Temperature	deg C	26.55	100%			0	52	52	23.42	3	5.3	18.76	4.7
Turbidity	NTU	195	100%			0	52	52	100	16.4	1.1	27.4	3.58
pH	Std units	7.69	100%			0	52	52	6.98	7.52	7.2	5.8	7.25

Notes:

1. The cleanup goal values are NYSDEC Class GA Groundwater Standards (TOGS 1.1.1, June 1998).
2. Shading indicates concentration above cleanup goal.

U = compound was not detected

J = the reported value is an estimated concentration

UJ = the compound was not detected; the associated reporting limit is approximate

Table A-1
SEAD-25 Historic Groundwater Results
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SITE LOCATION		SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25							
LOCATION ID		MW25-15	MW25-17	MW25-17	MW25-17	MW25-17							
MATRIX		GW	GW	GW	GW	GW							
SAMPLE ID		25LM20052	25LM20063	25LM20008	25LM20018	25LM20024							
TOP OF SAMPLE		0	0	0	0	0							
BOTTOM OF SAMPLE		0.1	0.1	0.1	0.1	0.1							
SAMPLE DATE		4/29/2009	1/13/2010	1/30/2006	8/11/2006	6/7/2007							
QC CODE		SA	SA	SA	SA	DU							
STUDY ID		LTM	LTM	LTM	LTM	LTM							
SAMPLE ROUND		5	6	1	2	3							
Parameter	Units	Maximum Value	Frequency of Detection	Action Level Source	Cleanup Goal ¹	Number of Exceedances	Number of Detected	Number of Samples Analyzed	Value (Q)				
Volatile Organic Compounds													
1,1,1-Trichloroethane	UG/L	0.62	4%	GA	5	0	2	55	1 U	0.32 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	UG/L	0	0%	GA	5	0	0	55	1 U	0.09 U	1 U	1 U	1 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	UG/L	0	0%	GA	5	0	0	50	1 U	0.4 U	1 UU	1 U	
1,1,2-Trichloroethane	UG/L	0	0%	GA	1	0	0	55	1 U	0.2 U	1 U	1 U	1 U
1,1-Dichloroethane	UG/L	1.4	5%	GA	5	0	3	55	1 U	0.14 U	1 U	1 U	1 U
1,1-Dichloroethene	UG/L	0	0%	GA	5	0	0	55	1 U	0.37 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	UG/L	0	0%	GA	5	0	0	50	1 U	0.19 U	1 U	1 U	
1,2,4-Trimethylbenzene	UG/L	0	0%	GA	5	0	0	10			1 U		
1,2-Dibromo-3-chloropropane	UG/L	0	0%	GA	0.04	0	0	50	2 U	0.43 U	1 U	1 U	
1,2-Dibromoethane	UG/L	0	0%	GA	0.0006	0	0	55	1 U	0.18 U	1 U	1 U	1 U
1,2-Dichlorobenzene	UG/L	0	0%	GA	3	0	0	50	1 U	0.4 U	1 U	1 U	
1,2-Dichloroethane	UG/L	0.49	2%	GA	0.6	0	1	55	1 U	0.14 U	1 U	1 U	1 U
1,2-Dichloropropane	UG/L	0	0%	GA	1	0	0	55	1 U	0.15 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	UG/L	0	0%	GA	5	0	0	10			1 U		
1,3-Dichlorobenzene	UG/L	0	0%	GA	3	0	0	50	1 U	0.36 U	1 U	1 U	
1,4-Dichlorobenzene	UG/L	0	0%	GA	3	0	0	50	1 U	0.34 U	1 U	1 U	
Acetone	UG/L	1.4	2%			0	1	55	5 U	5 U	5 U	5 U	5 U
Benzene	UG/L	33	24%	GA	1	10	13	55	1 U	0.18 U	1 U	1 U	1 U
Bromodichloromethane	UG/L	0	0%	MCL	80	0	0	55	1 U	0.17 U	1 U	1 U	
Bromoform	UG/L	0	0%	MCL	80	0	0	55	1.2 U	0.2 U	1 U	1 U	2 U
Carbon disulfide	UG/L	0	0%			0	0	55	1 U	0.36 U	1 U	1 U	1 U
Carbon tetrachloride	UG/L	0	0%	GA	5	0	0	55	1 U	0.36 U	1 U	1 U	
Chlorobenzene	UG/L	0	0%	GA	5	0	0	55	1 U	0.26 U	1 U	1 U	1 U
Chlorodibromomethane	UG/L	0	0%	MCL	80	0	0	55	1 U	0.11 U	1 U	1 U	1 U
Chloroethane	UG/L	0.67	4%	GA	5	0	2	55	1 U	0.21 U	1 U	1 U	1 U
Chloroform	UG/L	0	0%	GA	7	0	0	55	1 U	0.16 U	1 U	1 U	
Cis-1,2-Dichloroethene	UG/L	3.6	13%	GA	5	0	7	55	1 U	0.14 U	1 U	1 U	1 U
Cis-1,3-Dichloropropene	UG/L	0	0%	GA	0.4	0	0	55	1 U	0.14 U	1 U	1 U	
Cyclohexane	UG/L	8.6	8%			0	4	50	1 U	0.14 U	1 UU	1 U	
Dichlorodifluoromethane	UG/L	0	0%	GA	5	0	0	50	1 U	0.18 U	1 U	1 U	
Ethyl benzene	UG/L	19	15%	GA	5	5	8	55	1 U	0.42 U	1 U	1 U	1 U
Isopropylbenzene	UG/L	2.6	7%	GA	5	0	4	55	1 U	0.34 U	1 U	1 U	1 U
Meta/Para Xylene	UG/L	1.9	9%			0	3	35	2 U	0.81 U			2 U
Methyl Acetate	UG/L	0	0%			0	0	50	2 U	0.48 U	1 U	1 U	
Methyl Tertbutyl Ether	UG/L	0	0%			0	0	55	1 U	0.13 U	1 U	1 U	1 U
Methyl bromide	UG/L	0	0%	GA	5	0	0	55	1 UU	0.4 U	1 U	1 UJ	1 U
Methyl butyl ketone	UG/L	0	0%			0	0	55	5 U	0.4 U	5 U	5 U	2 U
Methyl chloride	UG/L	0	0%	GA	5	0	0	55	1 U	0.18 U	1 U	1 U	1 U
Methyl cyclohexane	UG/L	4.2	8%			0	4	50	1 U	0.16 U	1 U	1 U	
Methyl ethyl ketone	UG/L	9	13%			0	7	55	5 U	1 U	5 U	5 U	2 U
Methyl isobutyl ketone	UG/L	0	0%			0	0	55	5 U	0.34 U	5 U	5 U	1 U
Methylene chloride	UG/L	0	0%	GA	5	0	0	55	1 U	0.13 U	1 U	1 U	1 U
Naphthalene	UG/L	0.23	20%			0	1	5					1 U

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SITE LOCATION					SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25
LOCATION ID					MW25-15	MW25-17	MW25-17	MW25-17	MW25-17
MATRIX					GW	GW	GW	GW	GW
SAMPLE ID					25LM20052	25LM20063	25LM20008	25LM20018	25LM20024
TOP OF SAMPLE					0	0	0	0	0
BOTTOM OF SAMPLE					0.1	0.1	0.1	0.1	0.1
SAMPLE DATE					4/29/2009	1/13/2010	1/30/2006	8/11/2006	6/7/2007
QC CODE					SA	SA	SA	SA	DU
STUDY ID					LTM	LTM	LTM	LTM	LTM
SAMPLE ROUND					5	6	1	2	3
Parameter	Units	Maximum Value	Frequency of Detection	Action Level Source	Cleanup Goal ¹	Number of Exceedances	Number of Times Detected	Number of Samples Analyzed	Value (Q)
Ortho Xylene	UG/L	1.5	3%	GA	5	0	1	35	1 U
Propylbenzene	UG/L	0	0%	GA	5	0	0	10	
Styrene	UG/L	0	0%	GA	5	0	0	55	1 U
Tetrachloroethene	UG/L	0	0%	GA	5	0	0	55	1 U
Toluene	UG/L	14	7%	GA	5	1	4	55	1 U
Total Xylenes	UG/L	62	5%	GA	5	1	1	20	
Trans-1,2-Dichloroethene	UG/L	0	0%	GA	5	0	0	55	1 U
Trans-1,3-Dichloropropene	UG/L	0	0%	GA	0.4	0	0	55	1 U
Trichloroethene	UG/L	0.53	4%	GA	5	0	2	55	1 U
Trichlorofluoromethane	UG/L	0	0%	GA	5	0	0	50	1 U
Vinyl chloride	UG/L	0	0%	GA	2	0	0	55	1 U
p-Isopropyltoluene	UG/L	0	0%	GA	5	0	0	10	
Semivolatile Organic Compounds									
1,1'-Biphenyl	UG/L	0	0%	GA	5	0	0	18	
2,4,5-Trichlorophenol	UG/L	0	0%	GA	1	0	0	18	9 U
2,4,6-Trichlorophenol	UG/L	0	0%	GA	1	0	0	18	9 U
2,4-Dichlorophenol	UG/L	0	0%	GA	5	0	0	18	9 U
2,4-Dimethylphenol	UG/L	0	0%			0	0	18	9 U
2,4-Dinitrophenol	UG/L	0	0%			0	0	18	47 U
2,4-Dinitrotoluene	UG/L	0	0%	GA	5	0	0	18	9 U
2,6-Dinitrotoluene	UG/L	0	0%	GA	5	0	0	18	9 U
2-Chloronaphthalene	UG/L	0	0%			0	0	18	9 U
2-Chlorophenol	UG/L	0	0%			0	0	18	9 U
2-Methylnaphthalene	UG/L	0	0%			0	0	18	9 U
2-Methylphenol	UG/L	0	0%			0	0	18	9 U
2-Nitroaniline	UG/L	0	0%	GA	5	0	0	18	47 U
2-Nitrophenol	UG/L	0	0%	GA	1	0	0	18	9 U
3,3'-Dichlorobenzidine	UG/L	0	0%	GA	5	0	0	18	19 U
3-Nitroaniline	UG/L	0	0%	GA	5	0	0	18	47 U
4,6-Dinitro-2-methylphenol	UG/L	0	0%	GA	1	0	0	18	47 U
4-Bromophenyl phenyl ether	UG/L	0	0%			0	0	18	9 U
4-Chloro-3-methylphenol	UG/L	0	0%	GA	1	0	0	18	9 U
4-Chloroaniline	UG/L	0	0%	GA	5	0	0	18	9 U
4-Chlorophenyl phenyl ether	UG/L	0	0%			0	0	18	9 U
4-Methylphenol	UG/L	0	0%			0	0	18	9 U
4-Nitroaniline	UG/L	0	0%	GA	5	0	0	18	47 U
4-Nitrophenol	UG/L	0	0%	GA	1	0	0	18	47 UJ
Acenaphthene	UG/L	0.5	6%			0	1	18	9 U
Acenaphthylene	UG/L	2	22%			0	4	18	9 U
Acetophenone	UG/L	0	0%			0	0	18	9 U
Anthracene	UG/L	1	6%			0	1	18	9 U
Atrazine	UG/L	0	0%	GA	7.5	0	0	18	9 U
Benzaldehyde	UG/L	0	0%			0	0	18	47 U
Benzo(a)anthracene	UG/L	0	0%			0	0	18	9 U

Table A-1
SEAD-25 Historic Groundwater Results
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SITE LOCATION								SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25
LOCATION ID							MW25-15	MW25-15	MW25-17	MW25-17	MW25-17	
MATRIX							GW	GW	GW	GW	GW	
SAMPLE ID							25LM20052	25LM20063	25LM20008	25LM20018	25LM20024	
TOP OF SAMPLE							0	0	0	0	0	
BOTTOM OF SAMPLE							0.1	0.1	0.1	0.1	0.1	
SAMPLE DATE							4/29/2009	1/13/2010	1/30/2006	8/11/2006	6/7/2007	
QC CODE							SA	SA	SA	SA	DU	
STUDY ID							LTM	LTM	LTM	LTM	LTM	
SAMPLE ROUND							5	6	1	2	3	
Parameter	Units	Maximum Value	Frequency of Detection	Action Level Source	Cleanup Goal ¹	Number of Exceedances	Number of Detected	Number of Times Analyzed	Value (Q)	Value (Q)	Value (Q)	Value (Q)
Benzo(a)pyrene	UG/L	0	0%	GA	0	0	0	18		9 U	10 U	
Benzo(b)fluoranthene	UG/L	0	0%			0	0	18		9 U	10 U	
Benzo(ghi)perylene	UG/L	0.6	6%			0	1	18		9 U	10 U	
Benzo(k)fluoranthene	UG/L	0	0%			0	0	18		9 U	10 U	
Bis(2-Chloroethoxy)methane	UG/L	0	0%	GA	5	0	0	18		9 U	10 U	
Bis(2-Chloroethyl)ether	UG/L	0	0%	GA	1	0	0	18		9 U	10 U	
Bis(2-Chloroisopropyl)ether	UG/L	0	0%	GA	5	0	0	18		9 U	10 U	
Bis(2-Ethylhexyl)phthalate	UG/L	11	6%	GA	5	1	1	18		9 U	10 U	
Butylbenzylphthalate	UG/L	2	6%			0	1	18		9 U	10 U	
Caprolactam	UG/L	0	0%			0	0	18		9 U	10 U	
Carbazole	UG/L	0	0%			0	0	18		9 U	10 U	
Chrysene	UG/L	0	0%			0	0	18		9 U	10 U	
Di-n-butylphthalate	UG/L	0	0%	GA	50	0	0	18		9 U	10 U	
Di-n-octylphthalate	UG/L	0	0%			0	0	18		9 U	10 U	
Dibenz(a,h)anthracene	UG/L	0	0%			0	0	18		9 U	10 U	
Dibenzofuran	UG/L	0	0%			0	0	18		9 U	10 U	
Diethyl phthalate	UG/L	0	0%			0	0	18		9 U	10 U	
Dimethylphthalate	UG/L	0	0%			0	0	18		9 U	10 U	
Fluoranthene	UG/L	0	0%			0	0	18		9 U	10 U	
Fluorene	UG/L	0	0%			0	0	18		9 U	10 U	
Hexachlorobenzene	UG/L	0	0%	GA	0.04	0	0	18		9 U	10 U	
Hexachlorobutadiene	UG/L	0	0%	GA	0.5	0	0	18		9 U	10 U	
Hexachlorocyclopentadiene	UG/L	0	0%	GA	5	0	0	18		42 U	44 U	
Hexachloroethane	UG/L	0	0%	GA	5	0	0	18		9 U	10 U	
Indeno(1,2,3-cd)pyrene	UG/L	0	0%			0	0	18		9 U	10 U	
Isophorone	UG/L	0	0%			0	0	18		9 U	10 U	
N-Nitrosodiphenylamine	UG/L	0	0%			0	0	18		9 U	10 U	
N-Nitrosodipropylamine	UG/L	0	0%			0	0	18		9 U	10 U	
Naphthalene	UG/L	2	6%			0	1	18		9 U	10 U	
Nitrobenzene	UG/L	0	0%	GA	0.4	0	0	18		9 U	10 U	
Pentachlorophenol	UG/L	0	0%	GA	1	0	0	18		47 U	49 U	
Phenanthrene	UG/L	0	0%			0	0	18		9 U	10 U	
Phenol	UG/L	0	0%	GA	1	0	0	18		9 U	10 U	
Pyrene	UG/L	0	0%			0	0	18		9 U	10 U	
Inorganics												
Iron	UG/L	15700	87%	GA	300	31	46	53	30 J	769	46.1	8.8 U
Sodium	UG/L	41900	100%	GA	20000	7	53	53	3500	3620	4240	5170 J
Chloride	MG/L	59	72%	GA	250000	0	38	53	0.2 U	0.5 U	0.7	1.4 J
Ethane	UG/L	1.1	9%			0	5	53	1 U	0.16 U	2 U	2 U
Ethene	UG/L	4.6	9%			0	5	53	1 U	0.17 U	2 U	2 U
Methane	UG/L	170	38%			0	20	53	2 U	0.14 U	2 U	2 U
NITRATE	MG/L	6.4	38%	GA	10000	0	9	24	0.05 U	0.05 UJ		6.4 J
NITRITE	MG/L	0.73	21%			0	5	24	0.01 U	0.007 UJ		0.73 J
Nitrate Nitrogen	MG/L	1	45%			0	13	29			0.05 U	0.11

Table A-1
SEAD-25 Historic Groundwater Results
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SITE LOCATION		SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25							
LOCATION ID		MW25-15	GW	GW	MW25-17	GW							
MATRIX		GW		GW	GW	GW							
SAMPLE ID		25LM20052	25LM20063	25LM20008	25LM20018	25LM20024							
TOP OF SAMPLE		0	0	0	0	0							
BOTTOM OF SAMPLE		0.1	0.1	0.1	0.1	0.1							
SAMPLE DATE		4/29/2009	1/13/2010	1/30/2006	8/11/2006	6/7/2007							
QC CODE		SA	SA	SA	SA	DU							
STUDY ID		LTM	LTM	LTM	LTM	LTM							
SAMPLE ROUND		5	6	1	2	3							
Parameter	Units	Maximum Value	Frequency of Detection	Action Level Source	Cleanup Goal ¹	Number of Exceedances	Number of Times Detected	Number of Samples Analyzed	Value (Q)				
Nitrate/Nitrite Nitrogen	MG/L	1	65%	GA	10000	0	13	20	0.003 UJ				
Nitrite Nitrogen	MG/L	0.087	3%			0	1	29		0.05 U	0.05 U		
Sulfate	MG/L	182	100%	GA	250000	0	53	53	20.3	24.8 J	17.2	16.3	19
Field Parameters													
Conductivity	mS/cm	0.858	100%			0	52	52		0.38	0.462	0.593	0.418
Dissolved Oxygen	MG/L	8.46	100%			0	49	49			8.46	5.31	0.31
ORP	mV	259	73%			0	38	52			68	157	134
Sulfide	MG/L	1.04	84%			0	43	51	0	0.17	0.01		0.06
Temperature	deg C	26.55	100%			0	52	52			6.1	6.3	18.27
Turbidity	NTU	195	100%			0	52	52			1.5	3.4	1.7
pH	Std units	7.69	100%			0	52	52			7.23	7.69	6.72

Notes:

1. The cleanup goal values are NYSDEC Class GA Groundwater Standards (TOGS 1.1.1, June 1998).
2. Shading indicates concentration above cleanup goal.

U = compound was not detected

J = the reported value is an estimated concentration

UJ = the compound was not detected; the associated reporting limit is approximate

Table A-1
SEAD-25 Historic Groundwater Results
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SITE LOCATION					SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25
LOCATION ID					MW25-17	MW25-17	MW25-17	MW25-17	MW25-17
MATRIX					GW	GW	GW	GW	GW
SAMPLE ID					25LM20028	25LM20032	25LM20033	25LM20043	25LM20055
TOP OF SAMPLE					0	0	0	0	0
BOTTOM OF SAMPLE					0.1	0.1	0.1	0.1	0.1
SAMPLE DATE					6/7/2007	3/4/2008	3/4/2008	4/28/2009	1/14/2010
QC CODE					SA	DU	SA	SA	SA
STUDY ID					LTM	LTM	LTM	LTM	LTM
SAMPLE ROUND					3	4	4	5	6
Parameter	Units	Maximum Value	Frequency of Detection	Action Level Source	Cleanup Goal ¹	Number of Exceedances	Number of Times Detected	Number of Samples Analyzed	Value (Q)
Volatile Organic Compounds									
1,1,1-Trichloroethane	UG/L	0.62	4%	GA	5	0	2	55	1 U
1,1,2,2-Tetrachloroethane	UG/L	0	0%	GA	5	0	0	55	1 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	UG/L	0	0%	GA	5	0	0	50	1 U
1,1,2-Trichloroethane	UG/L	0	0%	GA	1	0	0	55	1 U
1,1-Dichloroethane	UG/L	1.4	5%	GA	5	0	3	55	1 U
1,1-Dichloroethene	UG/L	0	0%	GA	5	0	0	55	1 U
1,2,4-Trichlorobenzene	UG/L	0	0%	GA	5	0	0	50	1 U
1,2,4-Trimethylbenzene	UG/L	0	0%	GA	5	0	0	10	1 U
1,2-Dibromo-3-chloropropane	UG/L	0	0%	GA	0.04	0	0	50	2 U
1,2-Dibromoethane	UG/L	0	0%	GA	0.0006	0	0	55	1 U
1,2-Dichlorobenzene	UG/L	0	0%	GA	3	0	0	50	1 U
1,2-Dichloroethane	UG/L	0.49	2%	GA	0.6	0	1	55	1 U
1,2-Dichloropropane	UG/L	0	0%	GA	1	0	0	55	1 U
1,3,5-Trimethylbenzene	UG/L	0	0%	GA	5	0	0	10	1 U
1,3-Dichlorobenzene	UG/L	0	0%	GA	3	0	0	50	1 U
1,4-Dichlorobenzene	UG/L	0	0%	GA	3	0	0	50	1 U
Acetone	UG/L	1.4	2%	GA		0	1	55	5 U
Benzene	UG/L	33	24%	GA	1	10	13	55	10 UJ
Bromodichloromethane	UG/L	0	0%	MCL	80	0	0	55	1 U
Bromoform	UG/L	0	0%	MCL	80	0	0	55	1 UJ
Carbon disulfide	UG/L	0	0%			0	0	55	1 U
Carbon tetrachloride	UG/L	0	0%	GA	5	0	0	55	1 U
Chlorobenzene	UG/L	0	0%	GA	5	0	0	55	1 U
Chlorodibromomethane	UG/L	0	0%	MCL	80	0	0	55	1 U
Chloroethane	UG/L	0.67	4%	GA	5	0	2	55	1 U
Chloroform	UG/L	0	0%	GA	7	0	0	55	1 U
Cis-1,2-Dichloroethene	UG/L	3.6	13%	GA	5	0	7	55	1 U
Cis-1,3-Dichloropropene	UG/L	0	0%	GA	0.4	0	0	55	1 U
Cyclohexane	UG/L	8.6	8%			0	4	50	1 U
Dichlorodifluoromethane	UG/L	0	0%	GA	5	0	0	50	1 UJ
Ethyl benzene	UG/L	19	15%	GA	5	5	8	55	1 U
Isopropylbenzene	UG/L	2.6	7%	GA	5	0	4	55	1 U
Meta/Para Xylene	UG/L	1.9	9%			0	3	35	2 U
Methyl Acetate	UG/L	0	0%			0	0	50	10 U
Methyl Tertbutyl Ether	UG/L	0	0%			0	0	55	10 U
Methyl bromide	UG/L	0	0%	GA	5	0	0	55	1 U
Methyl butyl ketone	UG/L	0	0%			0	0	55	2 U
Methyl chloride	UG/L	0	0%	GA	5	0	0	55	5 U
Methyl cyclohexane	UG/L	4.2	8%			0	4	50	2 U
Methyl ethyl ketone	UG/L	9	13%			0	7	55	0.75 J
Methyl isobutyl ketone	UG/L	0	0%			0	0	55	0.93 J
Methylene chloride	UG/L	0	0%	GA	5	0	0	55	5 U
Naphthalene	UG/L	0.23	20%			0	1	5	1 U

Table A-1
SEAD-25 Historic Groundwater Results
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SITE LOCATION					SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25
LOCATION ID					MW25-17	MW25-17	MW25-17	MW25-17	MW25-17
MATRIX					GW	GW	GW	GW	GW
SAMPLE ID					25LM20028	25LM20032	25LM20033	25LM20043	25LM20055
TOP OF SAMPLE					0	0	0	0	0
BOTTOM OF SAMPLE					0.1	0.1	0.1	0.1	0.1
SAMPLE DATE					6/7/2007	3/4/2008	3/4/2008	4/28/2009	1/14/2010
QC CODE					SA	DU	SA	SA	SA
STUDY ID					LTM	LTM	LTM	LTM	LTM
SAMPLE ROUND					3	4	4	5	6
Parameter	Units	Maximum Value	Frequency of Detection	Action Level Source	Cleanup Goal ¹	Number of Exceedances	Number of Times Detected	Number of Samples Analyzed	Value (Q)
Ortho Xylene	UG/L	1.5	3%	GA	5	0	1	35	1 U
Propylbenzene	UG/L	0	0%	GA	5	0	0	10	1 U
Styrene	UG/L	0	0%	GA	5	0	0	55	1 U
Tetrachloroethene	UG/L	0	0%	GA	5	0	0	55	1 U
Toluene	UG/L	14	7%	GA	5	1	4	55	1 U
Total Xylenes	UG/L	62	5%	GA	5	1	1	20	1 U
Trans-1,2-Dichloroethene	UG/L	0	0%	GA	5	0	0	55	1 U
Trans-1,3-Dichloropropene	UG/L	0	0%	GA	0.4	0	0	55	1 U
Trichloroethene	UG/L	0.53	4%	GA	5	0	2	55	1 U
Trichlorofluoromethane	UG/L	0	0%	GA	5	0	0	50	1 U
Vinyl chloride	UG/L	0	0%	GA	2	0	0	55	1 U
p-Isopropyltoluene	UG/L	0	0%	GA	5	0	0	10	1 U
Semivolatile Organic Compounds									
1,1'-Biphenyl	UG/L	0	0%	GA	5	0	0	18	
2,4,5-Trichlorophenol	UG/L	0	0%	GA	1	0	0	18	
2,4,6-Trichlorophenol	UG/L	0	0%	GA	1	0	0	18	
2,4-Dichlorophenol	UG/L	0	0%	GA	5	0	0	18	
2,4-Dimethylphenol	UG/L	0	0%			0	0	18	
2,4-Dinitrophenol	UG/L	0	0%			0	0	18	
2,4-Dinitrotoluene	UG/L	0	0%	GA	5	0	0	18	
2,6-Dinitrotoluene	UG/L	0	0%	GA	5	0	0	18	
2-Chloronaphthalene	UG/L	0	0%			0	0	18	
2-Chlorophenol	UG/L	0	0%			0	0	18	
2-Methylnaphthalene	UG/L	0	0%			0	0	18	
2-Methylphenol	UG/L	0	0%			0	0	18	
2-Nitroaniline	UG/L	0	0%	GA	5	0	0	18	
2-Nitrophenol	UG/L	0	0%	GA	1	0	0	18	
3,3-Dichlorobenzidine	UG/L	0	0%	GA	5	0	0	18	
3-Nitroaniline	UG/L	0	0%	GA	5	0	0	18	
4,6-Dinitro-2-methylphenol	UG/L	0	0%	GA	1	0	0	18	
4-Bromophenyl phenyl ether	UG/L	0	0%			0	0	18	
4-Chloro-3-methylphenol	UG/L	0	0%	GA	1	0	0	18	
4-Chloroaniline	UG/L	0	0%	GA	5	0	0	18	
4-Chlorophenyl phenyl ether	UG/L	0	0%			0	0	18	
4-Methylphenol	UG/L	0	0%			0	0	18	
4-Nitroaniline	UG/L	0	0%	GA	5	0	0	18	
4-Nitrophenol	UG/L	0	0%	GA	1	0	0	18	
Acenaphthene	UG/L	0.5	6%			0	1	18	
Acenaphthylene	UG/L	2	22%			0	4	18	
Acetophenone	UG/L	0	0%			0	0	18	
Anthracene	UG/L	1	6%			0	1	18	
Atrazine	UG/L	0	0%	GA	7.5	0	0	18	
Benzaldehyde	UG/L	0	0%			0	0	18	
Benzo(a)anthracene	UG/L	0	0%			0	0	18	

Table A-1
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SITE LOCATION									SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25
LOCATION ID								MW25-17	MW25-17	MW25-17	MW25-17	MW25-17	
MATRIX								GW	GW	GW	GW	GW	
SAMPLE ID									25LM20028	25LM20032	25LM20033	25LM20043	25LM20055
TOP OF SAMPLE								0	0	0	0	0	0
BOTTOM OF SAMPLE								0.1	0.1	0.1	0.1	0.1	0.1
SAMPLE DATE								6/7/2007	3/4/2008	3/4/2008	4/28/2009	4/28/2009	1/14/2010
QC CODE								SA	DU	SA	SA	SA	SA
STUDY ID								LTM	LTM	LTM	LTM	LTM	LTM
SAMPLE ROUND								3	4	4	5	5	6
Parameter	Units	Maximum Value	Frequency of Detection	Action Level Source	Cleanup Goal ¹	Number of Exceedances	Number of Detected	Number of Times Analyzed	Value (Q)				
Benzo(a)pyrene	UG/L	0	0%	GA	0	0	0	18					
Benzo(b)fluoranthene	UG/L	0	0%			0	0	18					
Benzo(ghi)perylene	UG/L	0.6	6%			0	1	18					
Benzo(k)fluoranthene	UG/L	0	0%			0	0	18					
Bis(2-Chloroethoxy)methane	UG/L	0	0%	GA	5	0	0	18					
Bis(2-Chloroethyl)ether	UG/L	0	0%	GA	1	0	0	18					
Bis(2-Chloroisopropyl)ether	UG/L	0	0%	GA	5	0	0	18					
Bis(2-Ethylhexyl)phthalate	UG/L	11	6%	GA	5	1	1	18					
Butylbenzylphthalate	UG/L	2	6%			0	1	18					
Caprolactam	UG/L	0	0%			0	0	18					
Carbazole	UG/L	0	0%			0	0	18					
Chrysene	UG/L	0	0%			0	0	18					
Di-n-butylphthalate	UG/L	0	0%	GA	50	0	0	18					
Di-n-octylphthalate	UG/L	0	0%			0	0	18					
Dibenz(a,h)anthracene	UG/L	0	0%			0	0	18					
Dibenzofuran	UG/L	0	0%			0	0	18					
Diethyl phthalate	UG/L	0	0%			0	0	18					
Dimethylphthalate	UG/L	0	0%			0	0	18					
Fluoranthene	UG/L	0	0%			0	0	18					
Fluorene	UG/L	0	0%			0	0	18					
Hexachlorobenzene	UG/L	0	0%	GA	0.04	0	0	18					
Hexachlorobutadiene	UG/L	0	0%	GA	0.5	0	0	18					
Hexachlorocyclopentadiene	UG/L	0	0%	GA	5	0	0	18					
Hexachloroethane	UG/L	0	0%	GA	5	0	0	18					
Indeno(1,2,3-cd)pyrene	UG/L	0	0%			0	0	18					
Isophorone	UG/L	0	0%			0	0	18					
N-Nitrosodiphenylamine	UG/L	0	0%			0	0	18					
N-Nitrosodipropylamine	UG/L	0	0%			0	0	18					
Naphthalene	UG/L	2	6%			0	1	18					
Nitrobenzene	UG/L	0	0%	GA	0.4	0	0	18					
Pentachlorophenol	UG/L	0	0%	GA	1	0	0	18					
Phenanthrene	UG/L	0	0%			0	0	18					
Phenol	UG/L	0	0%	GA	1	0	0	18					
Pyrene	UG/L	0	0%			0	0	18					
Inorganics													
Iron	UG/L	15700	87%	GA	300	31	46	53	490 J	100 U	100 U	160	86.9 J
Sodium	UG/L	41900	100%	GA	20000	7	53	53	9300 J	4690	4410	4700	4450
Chloride	MG/L	59	72%	GA	250000	0	38	53	3.7	0.2 U	0.2 U	0.2 U	2.5
Ethane	UG/L	1.1	9%			0	5	53	0.25	1 U	1 U	1 U	0.21 U
Ethene	UG/L	4.6	9%			0	5	53	1.4	1 U	1 U	1 U	0.22 U
Methane	UG/L	170	38%			0	20	53	7	2 U	2 U	2 U	0.14 U
NITRATE	MG/L	6.4	38%	GA	10000	0	9	24	0.48 J			0.05 U	0.245 J
NITRITE	MG/L	0.73	21%			0	5	24	0.5 UJ			0.01 U	0.007 UJ
Nitrate Nitrogen	MG/L	1	45%			0	13	29		0.798 J	1 J		

Table A-1
SEAD-25 Historic Groundwater Results
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Seneca Army Depot Activity

SITE LOCATION		SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25							
LOCATION ID		MW25-17	GW	GW	MW25-17	MW25-17							
MATRIX		GW		GW	GW	GW							
SAMPLE ID		25LM20028	25LM20032	25LM20033	25LM20043	25LM20055							
TOP OF SAMPLE		0	0	0	0	0							
BOTTOM OF SAMPLE		0.1	0.1	0.1	0.1	0.1							
SAMPLE DATE		6/7/2007	3/4/2008	3/4/2008	4/28/2009	1/14/2010							
QC CODE		SA	DU	SA	SA	SA							
STUDY ID		LTM	LTM	LTM	LTM	LTM							
SAMPLE ROUND		3	4	4	5	6							
Parameter	Units	Maximum Value	Frequency of Detection	Action Level Source	Cleanup Goal ¹	Number of Exceedances	Number of Times Detected	Number of Samples Analyzed	Value (Q)				
Nitrate/Nitrite Nitrogen	MG/L	1	65%	GA	10000	0	13	20	0.798	1			0.245 J
Nitrite Nitrogen	MG/L	0.087	3%			0	1	29	0.01 UJ	0.01 UJ			
Sulfate	MG/L	182	100%	GA	250000	0	53	53	18	19.6	19.1	17.3	16.7 J
Field Parameters													
Conductivity	mS/cm	0.858	100%			0	52	52	0.418	0.532	0.532	0.379	0.418
Dissolved Oxygen	MG/L	8.46	100%			0	49	49	0.31	8.24	8.24	7.45	6.79
ORP	mV	259	73%			0	38	52	134	155	155	192	211
Sulfide	MG/L	1.04	84%			0	43	51	0.06	0.01	0.01	0	0
Temperature	deg C	26.55	100%			0	52	52	13.2	6	6	7.2	8.1
Turbidity	NTU	195	100%			0	52	52	12	2.03	2.03	1.2	1.4
pH	Std units	7.69	100%			0	52	52	7.2	7.3	7.3	7.31	7.29

Notes:

1. The cleanup goal values are NYSDEC Class GA Groundwater Standards (TOGS 1.1.1, June 1998).
2. Shading indicates concentration above cleanup goal.

U = compound was not detected

J = the reported value is an estimated concentration

UJ = the compound was not detected; the associated reporting limit is approximate

Table A-1
SEAD-25 Historic Groundwater Results
SEAD-25 Annual Report, Year 3
Seneca Army Depot Activity

SITE LOCATION		SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25							
LOCATION ID		MW25-18	GW	MW25-18	MW25-18	MW25-18							
MATRIX		GW	GW	GW	GW	GW							
SAMPLE ID		25LM20009	25LM20019	25LM20029	25LM20034	25LM20044							
TOP OF SAMPLE		0	0	0	0	0							
BOTTOM OF SAMPLE		0.1	0.1	0.1	0.1	0.1							
SAMPLE DATE		1/30/2006	8/14/2006	6/6/2007	3/5/2008	4/28/2009							
QC CODE		SA	SA	SA	SA	SA							
STUDY ID		LTM	LTM	LTM	LTM	LTM							
SAMPLE ROUND		1	2	3	4	5							
Parameter	Units	Maximum Value	Frequency of Detection	Action Level Source	Cleanup Goal ¹	Number of Exceedances	Number of Detected	Number of Samples Analyzed	Value (Q)				
Volatile Organic Compounds													
1,1,1-Trichloroethane	UG/L	0.62	4%	GA	5	0	2	55	1 U	1 U	1 UJ	1 U	1 U
1,1,2,2-Tetrachloroethane	UG/L	0	0%	GA	5	0	0	55	1 U	1 U	1 UJ	1 U	1 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	UG/L	0	0%	GA	5	0	0	50	1 UJ	1 U		1 U	1 U
1,1,2-Trichloroethane	UG/L	0	0%	GA	1	0	0	55	1 U	1 U	1 UJ	1 U	1 U
1,1-Dichloroethane	UG/L	1.4	5%	GA	5	0	3	55	1 U	1 U	1 UJ	1 U	1 U
1,1-Dichloroethene	UG/L	0	0%	GA	5	0	0	55	1 U	1 U	1 UJ	1 U	1 U
1,2,4-Trichlorobenzene	UG/L	0	0%	GA	5	0	0	50	1 U	1 U		1 U	1 U
1,2,4-Trimethylbenzene	UG/L	0	0%	GA	5	0	0	10		1 U			
1,2-Dibromo-3-chloropropane	UG/L	0	0%	GA	0.04	0	0	50	1 U	1 U		2 U	2 U
1,2-Dibromoethane	UG/L	0	0%	GA	0.0006	0	0	55	1 U	1 U	1 UJ	1 U	1 U
1,2-Dichlorobenzene	UG/L	0	0%	GA	3	0	0	50	1 U	1 U		1 U	1 U
1,2-Dichloroethane	UG/L	0.49	2%	GA	0.6	0	1	55	1 U	1 U	1 UJ	1 U	1 U
1,2-Dichloropropane	UG/L	0	0%	GA	1	0	0	55	1 U	1 U	1 UJ	1 U	1 U
1,3,5-Trimethylbenzene	UG/L	0	0%	GA	5	0	0	10		1 U			
1,3-Dichlorobenzene	UG/L	0	0%	GA	3	0	0	50	1 U	1 U		1 U	1 U
1,4-Dichlorobenzene	UG/L	0	0%	GA	3	0	0	50	1 U	1 U		1 U	1 U
Acetone	UG/L	1.4	2%	GA		0	1	55	5 U	5 U	5 UJ	10 UJ	5 U
Benzene	UG/L	33	24%	GA	1	10	13	55	1 U	1 U	1 UJ	1 U	1 U
Bromodichloromethane	UG/L	0	0%	MCL	80	0	0	55	1 U	1 U	1 UJ	1 U	1 U
Bromoform	UG/L	0	0%	MCL	80	0	0	55	1 U	1 U	2 UJ	1 UJ	1.1 U
Carbon disulfide	UG/L	0	0%			0	0	55	1 U	1 U	1 UJ	1 U	1 U
Carbon tetrachloride	UG/L	0	0%	GA	5	0	0	55	1 U	1 U	1 UJ	1 U	1 U
Chlorobenzene	UG/L	0	0%	GA	5	0	0	55	1 U	1 U	1 UJ	1 U	1 U
Chlorodibromomethane	UG/L	0	0%	MCL	80	0	0	55	1 U	1 U	1 UJ	1 U	1 U
Chloroethane	UG/L	0.67	4%	GA	5	0	2	55	1 U	1 U	1 UJ	2 U	1 U
Chloroform	UG/L	0	0%	GA	7	0	0	55	1 U	1 U	1 UJ	1 U	1 U
Cis-1,2-Dichloroethene	UG/L	3.6	13%	GA	5	0	7	55	1 U	1 U	1 UJ	1 U	1 U
Cis-1,3-Dichloropropene	UG/L	0	0%	GA	0.4	0	0	55	1 U	1 U	1 UJ	1 U	1 U
Cyclohexane	UG/L	8.6	8%			0	4	50	1 UJ	1 U		1 U	1 U
Dichlorodifluoromethane	UG/L	0	0%	GA	5	0	0	50	1 U	1 U		1 UJ	1 U
Ethyl benzene	UG/L	19	15%	GA	5	5	8	55	1 U	1 U	1 UJ	1 U	1 U
Isopropylbenzene	UG/L	2.6	7%	GA	5	0	4	55	1 U	1 U	1 UJ	1 U	1 U
Meta/Para Xylene	UG/L	1.9	9%			0	3	35			2 UJ	1 U	2 U
Methyl Acetate	UG/L	0	0%			0	0	50	1 U	1 U		10 U	2 U
Methyl Tertbutyl Ether	UG/L	0	0%			0	0	55	1 U	1 U	1 UJ	1 U	1 U
Methyl bromide	UG/L	0	0%	GA	5	0	0	55	1 U	1 U	1 UJ	2 U	1 U
Methyl butyl ketone	UG/L	0	0%			0	0	55	5 U	5 U	2 U	5 U	5 U
Methyl chloride	UG/L	0	0%	GA	5	0	0	55	1 U	1 U	1 UJ	2 U	1 U
Methyl cyclohexane	UG/L	4.2	8%			0	4	50	1 U	1 U		1 U	1 U
Methyl ethyl ketone	UG/L	9	13%			0	7	55	5 U	5 U	2 UJ	0.5 J	5 U
Methyl isobutyl ketone	UG/L	0	0%			0	0	55	5 U	5 U	1 UJ	5 U	5 U
Methylene chloride	UG/L	0	0%	GA	5	0	0	55	1 U	1 U	1 UJ	1 U	1 U
Naphthalene	UG/L	0.23	20%			0	1	5			1 UJ		

Table A-1
SEAD-25 Historic Groundwater Results
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SITE LOCATION					SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25
LOCATION ID					MW25-18	MW25-18	MW25-18	MW25-18	MW25-18
MATRIX					GW	GW	GW	GW	GW
SAMPLE ID					25LM20009	25LM20019	25LM20029	25LM20034	25LM20044
TOP OF SAMPLE					0	0	0	0	0
BOTTOM OF SAMPLE					0.1	0.1	0.1	0.1	0.1
SAMPLE DATE					1/30/2006	8/14/2006	6/6/2007	3/5/2008	4/28/2009
QC CODE					SA	SA	SA	SA	SA
STUDY ID					LTM	LTM	LTM	LTM	LTM
SAMPLE ROUND					1	2	3	4	5
Parameter	Units	Maximum Value	Frequency of Detection	Action Level Source	Cleanup Goal ¹	Number of Exceedances	Number of Times Detected	Number of Samples Analyzed	Value (Q)
Ortho Xylene	UG/L	1.5	3%	GA	5	0	1	35	1 UJ
Propylbenzene	UG/L	0	0%	GA	5	0	0	10	1 U
Styrene	UG/L	0	0%	GA	5	0	0	55	1 U
Tetrachloroethene	UG/L	0	0%	GA	5	0	0	55	1 U
Toluene	UG/L	14	7%	GA	5	1	4	55	1 U
Total Xylenes	UG/L	62	5%	GA	5	1	1	20	3 U
Trans-1,2-Dichloroethene	UG/L	0	0%	GA	5	0	0	55	1 U
Trans-1,3-Dichloropropene	UG/L	0	0%	GA	0.4	0	0	55	1 U
Trichloroethene	UG/L	0.53	4%	GA	5	0	2	55	1 U
Trichlorofluoromethane	UG/L	0	0%	GA	5	0	0	50	1 U
Vinyl chloride	UG/L	0	0%	GA	2	0	0	55	1 U
p-Isopropyltoluene	UG/L	0	0%	GA	5	0	0	10	1 U
Semivolatile Organic Compounds									
1,1'-Biphenyl	UG/L	0	0%	GA	5	0	0	18	10 U
2,4,5-Trichlorophenol	UG/L	0	0%	GA	1	0	0	18	10 U
2,4,6-Trichlorophenol	UG/L	0	0%	GA	1	0	0	18	10 U
2,4-Dichlorophenol	UG/L	0	0%	GA	5	0	0	18	10 U
2,4-Dimethylphenol	UG/L	0	0%			0	0	18	10 U
2,4-Dinitrophenol	UG/L	0	0%			0	0	18	48 U
2,4-Dinitrotoluene	UG/L	0	0%	GA	5	0	0	18	10 U
2,6-Dinitrotoluene	UG/L	0	0%	GA	5	0	0	18	10 U
2-Chloronaphthalene	UG/L	0	0%			0	0	18	10 U
2-Chlorophenol	UG/L	0	0%			0	0	18	10 U
2-Methylnaphthalene	UG/L	0	0%			0	0	18	10 U
2-Methylphenol	UG/L	0	0%			0	0	18	10 U
2-Nitroaniline	UG/L	0	0%	GA	5	0	0	18	48 U
2-Nitrophenol	UG/L	0	0%	GA	1	0	0	18	10 U
3,3-Dichlorobenzidine	UG/L	0	0%	GA	5	0	0	18	19 U
3-Nitroaniline	UG/L	0	0%	GA	5	0	0	18	48 U
4,6-Dinitro-2-methylphenol	UG/L	0	0%	GA	1	0	0	18	48 U
4-Bromophenyl phenyl ether	UG/L	0	0%			0	0	18	10 U
4-Chloro-3-methylphenol	UG/L	0	0%	GA	1	0	0	18	10 U
4-Chloroaniline	UG/L	0	0%	GA	5	0	0	18	10 U
4-Chlorophenyl phenyl ether	UG/L	0	0%			0	0	18	10 U
4-Methylphenol	UG/L	0	0%			0	0	18	10 U
4-Nitroaniline	UG/L	0	0%	GA	5	0	0	18	48 U
4-Nitrophenol	UG/L	0	0%	GA	1	0	0	18	48 U
Acenaphthene	UG/L	0.5	6%			0	1	18	10 U
Acenaphthylene	UG/L	2	22%			0	4	18	10 U
Acetophenone	UG/L	0	0%			0	0	18	10 U
Anthracene	UG/L	1	6%			0	1	18	10 U
Atrazine	UG/L	0	0%	GA	7.5	0	0	18	10 U
Benzaldehyde	UG/L	0	0%			0	0	18	48 U
Benzo(a)anthracene	UG/L	0	0%			0	0	18	48 U

Table A-1
SEAD-25 Historic Groundwater Results
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SITE LOCATION		SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25							
LOCATION ID		MW25-18	GW	GW	MW25-18	MW25-18							
MATRIX		GW	GW	GW	GW	GW							
SAMPLE ID		25LM20009	25LM20019	25LM20029	25LM20034	25LM20044							
TOP OF SAMPLE		0	0	0	0	0							
BOTTOM OF SAMPLE		0.1	0.1	0.1	0.1	0.1							
SAMPLE DATE		1/30/2006	8/14/2006	6/6/2007	3/5/2008	4/28/2009							
QC CODE		SA	SA	SA	SA	SA							
STUDY ID		LTM	LTM	LTM	LTM	LTM							
SAMPLE ROUND		1	2	3	4	5							
Parameter	Units	Maximum Value	Frequency of Detection	Action Level Source	Cleanup Goal ¹	Number of Exceedances	Number of Detected	Number of Times Analyzed	Value (Q)				
Benzo(a)pyrene	UG/L	0	0%	GA	0	0	0	18	10 U	10 U			
Benzo(b)fluoranthene	UG/L	0	0%			0	0	18	10 U	10 U			
Benzo(ghi)perylene	UG/L	0.6	6%			0	1	18	10 U	10 U			
Benzo(k)fluoranthene	UG/L	0	0%			0	0	18	10 U	10 U			
Bis(2-Chloroethoxy)methane	UG/L	0	0%	GA	5	0	0	18	10 U	10 U			
Bis(2-Chloroethyl)ether	UG/L	0	0%	GA	1	0	0	18	10 U	10 U			
Bis(2-Chloroisopropyl)ether	UG/L	0	0%	GA	5	0	0	18	10 U	10 U			
Bis(2-Ethylhexyl)phthalate	UG/L	11	6%	GA	5	1	1	18	10 U	11			
Butylbenzylphthalate	UG/L	2	6%			0	1	18	10 U	2 J			
Caprolactam	UG/L	0	0%			0	0	18	10 U	10 U			
Carbazole	UG/L	0	0%			0	0	18	10 U	10 U			
Chrysene	UG/L	0	0%			0	0	18	10 U	10 U			
Di-n-butylphthalate	UG/L	0	0%	GA	50	0	0	18	10 U	10 U			
Di-n-octylphthalate	UG/L	0	0%			0	0	18	10 U	10 UJ			
Dibenz(a,h)anthracene	UG/L	0	0%			0	0	18	10 U	10 U			
Dibenzofuran	UG/L	0	0%			0	0	18	10 U	10 U			
Diethyl phthalate	UG/L	0	0%			0	0	18	10 U	10 U			
Dimethylphthalate	UG/L	0	0%			0	0	18	10 U	10 U			
Fluoranthene	UG/L	0	0%			0	0	18	10 U	10 U			
Fluorene	UG/L	0	0%			0	0	18	10 U	10 U			
Hexachlorobenzene	UG/L	0	0%	GA	0.04	0	0	18	10 U	10 U			
Hexachlorobutadiene	UG/L	0	0%	GA	0.5	0	0	18	10 U	10 U			
Hexachlorocyclopentadiene	UG/L	0	0%	GA	5	0	0	18	43 U	44 U			
Hexachloroethane	UG/L	0	0%	GA	5	0	0	18	10 U	10 U			
Indeno(1,2,3-cd)pyrene	UG/L	0	0%			0	0	18	10 U	10 U			
Isophorone	UG/L	0	0%			0	0	18	10 U	10 U			
N-Nitrosodiphenylamine	UG/L	0	0%			0	0	18	10 U	10 U			
N-Nitrosodipropylamine	UG/L	0	0%			0	0	18	10 U	10 U			
Naphthalene	UG/L	2	6%			0	1	18	10 U	10 U			
Nitrobenzene	UG/L	0	0%	GA	0.4	0	0	18	10 U	10 U			
Pentachlorophenol	UG/L	0	0%	GA	1	0	0	18	48 U	48 U			
Phenanthrene	UG/L	0	0%			0	0	18	10 U	10 U			
Phenol	UG/L	0	0%	GA	1	0	0	18	10 U	10 U			
Pyrene	UG/L	0	0%			0	0	18	10 U	10 U			
Inorganics													
Iron	UG/L	15700	87%	GA	300	31	46	53	462 J	357 J	500 J	107	100 J
Sodium	UG/L	41900	100%	GA	20000	7	53	53	22300	41900 J	37000 J	20400	19000
Chloride	MG/L	59	72%	GA	250000	0	38	53	18.6	55.6	59	18	16.3
Ethane	UG/L	1.1	9%			0	5	53	2 U	2 U	0.024 J	1 U	1 U
Ethene	UG/L	4.6	9%			0	5	53	2 U	2 U	2	1 U	1 U
Methane	UG/L	170	38%			0	20	53	2 U	2 U	2	2 U	2 U
NITRATE	MG/L	6.4	38%	GA	10000	0	9	24			1.5 J	0.05 U	
NITRITE	MG/L	0.73	21%			0	5	24			0.5	0.01 U	
Nitrate Nitrogen	MG/L	1	45%			0	13	29	0.05 U	0.32		0.199 J	

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SEAD-25 Historic Groundwater Results
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SITE LOCATION		SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25						
LOCATION ID		MW25-18	GW	GW	MW25-18	GW						
MATRIX		GW		GW	GW	GW						
SAMPLE ID		25LM20009	25LM20019	25LM20029	25LM20034	25LM20044						
TOP OF SAMPLE		0	0	0	0	0						
BOTTOM OF SAMPLE		0.1	0.1	0.1	0.1	0.1						
SAMPLE DATE		1/30/2006	8/14/2006	6/6/2007	3/5/2008	4/28/2009						
QC CODE		SA	SA	SA	SA	SA						
STUDY ID		LTM	LTM	LTM	LTM	LTM						
SAMPLE ROUND				1	2	3						
	Maximum Value	Frequency of Detection	Action Level Source	Cleanup Goal ¹	Number of Exceedances	Number of Times Detected	Number of Samples Analyzed	Value (Q)				
Nitrate/Nitrite Nitrogen	MG/L	1	65%	GA	10000	0	13	20				0.199
Nitrite Nitrogen	MG/L	0.087	3%			0	1	29	0.05 U	0.05 U		0.01 UJ
Sulfate	MG/L	182	100%	GA	250000	0	53	53	24.8	30.1	31	16.8
Field Parameters												
Conductivity	mS/cm	0.858	100%			0	52	52	0.494	0.858	0.54	0.713
Dissolved Oxygen	MG/L	8.46	100%			0	49	49	3.99	6.21	0.96	4.68
ORP	mV	259	73%			0	38	52	63	46	98	144
Sulfide	MG/L	1.04	84%			0	43	51	0.12	0.02	1.04	0.01
Temperature	deg C	26.55	100%			0	52	52	7.2	24.41	13	4.9
Turbidity	NTU	195	100%			0	52	52	31.8	6.22	11	5.04
pH	Std units	7.69	100%			0	52	52	7.62	7.32	7.15	7.31

Notes:

1. The cleanup goal values are NYSDEC Class GA Groundwater Standards (TOGS 1.1.1, June 1998).
2. Shading indicates concentration above cleanup goal.

U = compound was not detected

J = the reported value is an estimated concentration

UJ = the compound was not detected; the associated reporting limit is approximate

Table A-1
SEAD-25 Historic Groundwater Results
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Seneca Army Depot Activity

SITE LOCATION		SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25							
LOCATION ID		MW25-18	MW25-19	MW25-19	MW25-19	MW25-19							
MATRIX		GW	GW	GW	GW	GW							
SAMPLE ID		25LM20056	25LM20030	25LM20035	25LM20045	25LM20057							
TOP OF SAMPLE		0	0	0	0	0							
BOTTOM OF SAMPLE		0.1	0.1	0.1	0.1	0.1							
SAMPLE DATE		1/14/2010	6/7/2007	3/3/2008	4/28/2009	1/13/2010							
QC CODE		SA	SA	SA	SA	SA							
STUDY ID		LTM	LTM	LTM	LTM	LTM							
SAMPLE ROUND		6	3	4	5	6							
Parameter	Units	Maximum Value	Frequency of Detection	Action Level Source	Cleanup Goal ¹	Number of Exceedances	Number of Detected	Number of Samples Analyzed	Value (Q)				
Volatile Organic Compounds													
1,1,1-Trichloroethane	UG/L	0.62	4%	GA	5	0	2	55	0.32 U	1 U	1 U	1 U	0.32 U
1,1,2,2-Tetrachloroethane	UG/L	0	0%	GA	5	0	0	55	0.09 U	1 U	1 U	1 U	0.09 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	UG/L	0	0%	GA	5	0	0	50	0.4 U	1 U	1 U	1 U	0.4 U
1,1,2-Trichloroethane	UG/L	0	0%	GA	1	0	0	55	0.2 U	1 U	1 U	1 U	0.2 U
1,1-Dichloroethane	UG/L	1.4	5%	GA	5	0	3	55	0.14 U	1 U	1 U	1 U	0.14 U
1,1-Dichloroethene	UG/L	0	0%	GA	5	0	0	55	0.37 U	1 U	1 U	1 U	0.37 U
1,2,4-Trichlorobenzene	UG/L	0	0%	GA	5	0	0	50	0.19 U	1 U	1 U	1 U	0.19 U
1,2,4-Trimethylbenzene	UG/L	0	0%	GA	5	0	0	10					
1,2-Dibromo-3-chloropropane	UG/L	0	0%	GA	0.04	0	0	50	0.43 U	2 U	2 U	2 U	0.43 U
1,2-Dibromoethane	UG/L	0	0%	GA	0.0006	0	0	55	0.18 U	1 U	1 U	1 U	0.18 U
1,2-Dichlorobenzene	UG/L	0	0%	GA	3	0	0	50	0.4 U	1 U	1 U	1 U	0.4 U
1,2-Dichloroethane	UG/L	0.49	2%	GA	0.6	0	1	55	0.14 U	1 U	1 U	1 U	0.14 U
1,2-Dichloropropane	UG/L	0	0%	GA	1	0	0	55	0.15 U	1 U	1 U	1 U	0.15 U
1,3,5-Trimethylbenzene	UG/L	0	0%	GA	5	0	0	10					
1,3-Dichlorobenzene	UG/L	0	0%	GA	3	0	0	50	0.36 U	1 U	1 U	1 U	0.36 U
1,4-Dichlorobenzene	UG/L	0	0%	GA	3	0	0	50	0.34 U	1 U	1 U	1 U	0.34 U
Acetone	UG/L	1.4	2%	GA		0	1	55	5 U	5 U	10 UJ	1.4 J	5 U
Benzene	UG/L	33	24%	GA	1	10	13	55	0.18 U	1 U	1 U	1 U	0.18 U
Bromodichloromethane	UG/L	0	0%	MCL	80	0	0	55	0.17 U	1 U	1 U	1 U	0.17 U
Bromoform	UG/L	0	0%	MCL	80	0	0	55	0.2 U	2 U	1 UJ	1 U	0.2 U
Carbon disulfide	UG/L	0	0%			0	0	55	0.36 U	1 U	1 U	1 U	0.36 U
Carbon tetrachloride	UG/L	0	0%	GA	5	0	0	55	0.36 U	1 U	1 U	1 U	0.36 U
Chlorobenzene	UG/L	0	0%	GA	5	0	0	55	0.26 U	1 U	1 U	1 U	0.26 U
Chlorodibromomethane	UG/L	0	0%	MCL	80	0	0	55	0.11 U	1 U	1 U	1 U	0.11 U
Chloroethane	UG/L	0.67	4%	GA	5	0	2	55	0.21 U	1 U	2 U	1 U	0.21 U
Chloroform	UG/L	0	0%	GA	7	0	0	55	0.16 U	1 U	1 U	1 U	0.16 U
Cis-1,2-Dichloroethene	UG/L	3.6	13%	GA	5	0	7	55	0.14 U	0.2 J	1 U	1 U	0.14 U
Cis-1,3-Dichloropropene	UG/L	0	0%	GA	0.4	0	0	55	0.14 U	1 U	1 U	1 U	0.14 U
Cyclohexane	UG/L	8.6	8%			0	4	50	0.14 U		1 U	1 U	0.14 U
Dichlorodifluoromethane	UG/L	0	0%	GA	5	0	0	50	0.18 U		1 UJ	1 U	0.18 U
Ethyl benzene	UG/L	19	15%	GA	5	5	8	55	0.42 U	1 U	1 U	1 U	0.42 U
Isopropylbenzene	UG/L	2.6	7%	GA	5	0	4	55	0.34 U	1 U	1 U	1 U	0.34 U
Meta/Para Xylene	UG/L	1.9	9%			0	3	35	0.81 U	2 U	1 U	2 U	0.81 U
Methyl Acetate	UG/L	0	0%			0	0	50	0.48 U		10 U	2 U	0.48 U
Methyl Tertbutyl Ether	UG/L	0	0%			0	0	55	0.13 U	1 U	1 U	1 U	0.13 U
Methyl bromide	UG/L	0	0%	GA	5	0	0	55	0.4 U	1 U	2 U	1 U	0.4 U
Methyl butyl ketone	UG/L	0	0%			0	0	55	0.4 U	2 U	5 U	5 U	0.4 U
Methyl chloride	UG/L	0	0%	GA	5	0	0	55	0.18 U	1 U	2 U	1 U	0.18 U
Methyl cyclohexane	UG/L	4.2	8%			0	4	50	0.16 U		1 U	1 U	0.16 U
Methyl ethyl ketone	UG/L	9	13%			0	7	55	1 U	2 U	5 U	5 U	1 U
Methyl isobutyl ketone	UG/L	0	0%			0	0	55	0.34 U	1 U	5 U	5 U	0.34 U
Methylene chloride	UG/L	0	0%	GA	5	0	0	55	0.13 U	1 U	1 U	1 U	0.13 U
Naphthalene	UG/L	0.23	20%			0	1	5			1 U		

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SEAD-25 Historic Groundwater Results
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SITE LOCATION					SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25
LOCATION ID					MW25-18	MW25-19	MW25-19	MW25-19	MW25-19
MATRIX					GW	GW	GW	GW	GW
SAMPLE ID					25LM20056	25LM20030	25LM20035	25LM20045	25LM20057
TOP OF SAMPLE					0	0	0	0	0
BOTTOM OF SAMPLE					0.1	0.1	0.1	0.1	0.1
SAMPLE DATE					1/14/2010	6/7/2007	3/3/2008	4/28/2009	1/13/2010
QC CODE					SA	SA	SA	SA	SA
STUDY ID					LTM	LTM	LTM	LTM	LTM
SAMPLE ROUND					6	3	4	5	6
Parameter	Units	Maximum Value	Frequency of Detection	Action Level Source	Cleanup Goal ¹	Number of Exceedances	Number of Times Detected	Number of Samples Analyzed	Value (Q)
Ortho Xylene	UG/L	1.5	3%	GA	5	0	1	35	0.4 U
Propylbenzene	UG/L	0	0%	GA	5	0	0	10	
Styrene	UG/L	0	0%	GA	5	0	0	55	0.36 U
Tetrachloroethene	UG/L	0	0%	GA	5	0	0	55	0.42 U
Toluene	UG/L	14	7%	GA	5	1	4	55	0.21 U
Total Xylenes	UG/L	62	5%	GA	5	1	1	20	
Trans-1,2-Dichloroethene	UG/L	0	0%	GA	5	0	0	55	0.16 U
Trans-1,3-Dichloropropene	UG/L	0	0%	GA	0.4	0	0	55	0.17 U
Trichloroethene	UG/L	0.53	4%	GA	5	0	2	55	0.19 U
Trichlorofluoromethane	UG/L	0	0%	GA	5	0	0	50	0.16 U
Vinyl chloride	UG/L	0	0%	GA	2	0	0	55	0.22 U
p-Isopropyltoluene	UG/L	0	0%	GA	5	0	0	10	
Semivolatile Organic Compounds									
1,1'-Biphenyl	UG/L	0	0%	GA	5	0	0	18	
2,4,5-Trichlorophenol	UG/L	0	0%	GA	1	0	0	18	
2,4,6-Trichlorophenol	UG/L	0	0%	GA	1	0	0	18	
2,4-Dichlorophenol	UG/L	0	0%	GA	5	0	0	18	
2,4-Dimethylphenol	UG/L	0	0%			0	0	18	
2,4-Dinitrophenol	UG/L	0	0%			0	0	18	
2,4-Dinitrotoluene	UG/L	0	0%	GA	5	0	0	18	
2,6-Dinitrotoluene	UG/L	0	0%	GA	5	0	0	18	
2-Chloronaphthalene	UG/L	0	0%			0	0	18	
2-Chlorophenol	UG/L	0	0%			0	0	18	
2-Methylnaphthalene	UG/L	0	0%			0	0	18	
2-Methylphenol	UG/L	0	0%			0	0	18	
2-Nitroaniline	UG/L	0	0%	GA	5	0	0	18	
2-Nitrophenol	UG/L	0	0%	GA	1	0	0	18	
3,3-Dichlorobenzidine	UG/L	0	0%	GA	5	0	0	18	
3-Nitroaniline	UG/L	0	0%	GA	5	0	0	18	
4,6-Dinitro-2-methylphenol	UG/L	0	0%	GA	1	0	0	18	
4-Bromophenyl phenyl ether	UG/L	0	0%			0	0	18	
4-Chloro-3-methylphenol	UG/L	0	0%	GA	1	0	0	18	
4-Chloroaniline	UG/L	0	0%	GA	5	0	0	18	
4-Chlorophenyl phenyl ether	UG/L	0	0%			0	0	18	
4-Methylphenol	UG/L	0	0%			0	0	18	
4-Nitroaniline	UG/L	0	0%	GA	5	0	0	18	
4-Nitrophenol	UG/L	0	0%	GA	1	0	0	18	
Acenaphthene	UG/L	0.5	6%			0	1	18	
Acenaphthylene	UG/L	2	22%			0	4	18	
Acetophenone	UG/L	0	0%			0	0	18	
Anthracene	UG/L	1	6%			0	1	18	
Atrazine	UG/L	0	0%	GA	7.5	0	0	18	
Benzaldehyde	UG/L	0	0%			0	0	18	
Benzo(a)anthracene	UG/L	0	0%			0	0	18	

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SITE LOCATION												
LOCATION ID												
MATRIX												
SAMPLE ID												
TOP OF SAMPLE												
BOTTOM OF SAMPLE												
SAMPLE DATE												
QC CODE												
STUDY ID												
SAMPLE ROUND												
Parameter	Units	Maximum Value	Frequency of Detection	Action Level Source	Cleanup Goal ¹	Number of Exceedances	Number of Detected	Number of Times Analyzed	Value (Q)	Value (Q)	Value (Q)	Value (Q)
Benzo(a)pyrene	UG/L	0	0%	GA	0	0	0	18				
Benzo(b)fluoranthene	UG/L	0	0%			0	0	18				
Benzo(ghi)perylene	UG/L	0.6	6%			0	1	18				
Benzo(k)fluoranthene	UG/L	0	0%			0	0	18				
Bis(2-Chloroethoxy)methane	UG/L	0	0%	GA	5	0	0	18				
Bis(2-Chloroethyl)ether	UG/L	0	0%	GA	1	0	0	18				
Bis(2-Chloroisopropyl)ether	UG/L	0	0%	GA	5	0	0	18				
Bis(2-Ethylhexyl)phthalate	UG/L	11	6%	GA	5	1	1	18				
Butylbenzylphthalate	UG/L	2	6%			0	1	18				
Caprolactam	UG/L	0	0%			0	0	18				
Carbazole	UG/L	0	0%			0	0	18				
Chrysene	UG/L	0	0%			0	0	18				
Di-n-butylphthalate	UG/L	0	0%	GA	50	0	0	18				
Di-n-octylphthalate	UG/L	0	0%			0	0	18				
Dibenz(a,h)anthracene	UG/L	0	0%			0	0	18				
Dibenzofuran	UG/L	0	0%			0	0	18				
Diethyl phthalate	UG/L	0	0%			0	0	18				
Dimethylphthalate	UG/L	0	0%			0	0	18				
Fluoranthene	UG/L	0	0%			0	0	18				
Fluorene	UG/L	0	0%			0	0	18				
Hexachlorobenzene	UG/L	0	0%	GA	0.04	0	0	18				
Hexachlorobutadiene	UG/L	0	0%	GA	0.5	0	0	18				
Hexachlorocyclopentadiene	UG/L	0	0%	GA	5	0	0	18				
Hexachloroethane	UG/L	0	0%	GA	5	0	0	18				
Indeno(1,2,3-cd)pyrene	UG/L	0	0%			0	0	18				
Isophorone	UG/L	0	0%			0	0	18				
N-Nitrosodiphenylamine	UG/L	0	0%			0	0	18				
N-Nitrosodipropylamine	UG/L	0	0%			0	0	18				
Naphthalene	UG/L	2	6%			0	1	18				
Nitrobenzene	UG/L	0	0%	GA	0.4	0	0	18				
Pentachlorophenol	UG/L	0	0%	GA	1	0	0	18				
Phenanthrene	UG/L	0	0%			0	0	18				
Phenol	UG/L	0	0%	GA	1	0	0	18				
Pyrene	UG/L	0	0%			0	0	18				
Inorganics												
Iron	UG/L	15700	87%	GA	300	31	46	53	122	1200 J	515	20 J
Sodium	UG/L	41900	100%	GA	20000	7	53	53	28400	3800 J	4520	3500
Chloride	MG/L	59	72%	GA	250000	0	38	53	51.7	4.5	0.2 U	0.2 U
Ethane	UG/L	1.1	9%			0	5	53	0.16 U	1.1	1 U	1 U
Ethene	UG/L	4.6	9%			0	5	53	0.17 U	4.6	1 U	1 U
Methane	UG/L	170	38%			0	20	53	0.14 U	29	2 U	2 U
NITRATE	MG/L	6.4	38%	GA	10000	0	9	24	0.2 J	1.4 J		0.05 U
NITRITE	MG/L	0.73	21%			0	5	24	0.007 UJ	0.72 J		0.01 U
Nitrate Nitrogen	MG/L	1	45%			0	13	29			0.194 J	0.007 UJ

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SITE LOCATION		SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25							
LOCATION ID		MW25-18	MW25-19	MW25-19	MW25-19	MW25-19							
MATRIX		GW	GW	GW	GW	GW							
SAMPLE ID		25LM20056	25LM20030	25LM20035	25LM20045	25LM20057							
TOP OF SAMPLE		0	0	0	0	0							
BOTTOM OF SAMPLE		0.1	0.1	0.1	0.1	0.1							
SAMPLE DATE		1/14/2010	6/7/2007	3/3/2008	4/28/2009	1/13/2010							
QC CODE		SA	SA	SA	SA	SA							
STUDY ID		LTM	LTM	LTM	LTM	LTM							
SAMPLE ROUND		6	3	4	5	6							
Parameter	Units	Maximum Value	Frequency of Detection	Action Level Source	Cleanup Goal ¹	Number of Exceedances	Number of Times Detected	Number of Samples Analyzed	Value (Q)				
Nitrate/Nitrite Nitrogen	MG/L	1	65%	GA	10000	0	13	20	0.2 J	0.194			0.113 J
Nitrite Nitrogen	MG/L	0.087	3%			0	1	29		0.01 UJ			
Sulfate	MG/L	182	100%	GA	250000	0	53	53	26.8 J	23	24.3	30.1	31 J
Field Parameters													
Conductivity	mS/cm	0.858	100%			0	52	52	0.544	0.427	0.478	0.379	0.445
Dissolved Oxygen	MG/L	8.46	100%			0	49	49	4.39	0.05	5.84	3.75	4.01
ORP	mV	259	73%			0	38	52	237	117	161	134	259
Sulfide	MG/L	1.04	84%			0	43	51	0.06	0.1	0.01	0.02	0.02
Temperature	deg C	26.55	100%			0	52	52	8	13.4	5.8	7.1	8
Turbidity	NTU	195	100%			0	52	52	2.78	17	16.4	1.3	6.1
pH	Std units	7.69	100%			0	52	52	7.28	7.04	7.23	7.15	7.08

Notes:

1. The cleanup goal values are NYSDEC Class GA Groundwater Standards (TOGS 1.1.1, June 1998).
2. Shading indicates concentration above cleanup goal.

U = compound was not detected

J = the reported value is an estimated concentration

UJ = the compound was not detected; the associated reporting limit is approximate

Table A-1
SEAD-25 Historic Groundwater Results
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SITE LOCATION					SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25
LOCATION ID					MW25-2	MW25-2	MW25-2	MW25-2	MW25-2
MATRIX					GW	GW	GW	GW	GW
SAMPLE ID					25LM20000	25LM20014	25LM20010	25LM20020	25LM20031
TOP OF SAMPLE					0	0	0	0	0
BOTTOM OF SAMPLE					0.1	0.1	0.1	0.1	0.1
SAMPLE DATE					4/12/2006	8/9/2006	8/9/2006	6/6/2007	3/4/2008
QC CODE					SA	DU	SA	SA	SA
STUDY ID					LTM	LTM	LTM	LTM	LTM
SAMPLE ROUND					1	2	2	3	4
Parameter	Units	Maximum Value	Frequency of Detection	Action Level Source	Cleanup Goal ¹	Number of Exceedances	Number of Times Detected	Number of Samples Analyzed	Value (Q)
Volatile Organic Compounds									
1,1,1-Trichloroethane	UG/L	0.62	4%	GA	5	0	2	55	5 U
1,1,2,2-Tetrachloroethane	UG/L	0	0%	GA	5	0	0	55	5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	UG/L	0	0%	GA	5	0	0	50	5 U
1,1,2-Trichloroethane	UG/L	0	0%	GA	1	0	0	55	5 U
1,1-Dichloroethane	UG/L	1.4	5%	GA	5	0	3	55	5 U
1,1-Dichloroethene	UG/L	0	0%	GA	5	0	0	55	5 U
1,2,4-Trichlorobenzene	UG/L	0	0%	GA	5	0	0	50	5 UJ
1,2,4-Trimethylbenzene	UG/L	0	0%	GA	5	0	0	10	1 U
1,2-Dibromo-3-chloropropane	UG/L	0	0%	GA	0.04	0	0	50	5 UJ
1,2-Dibromoethane	UG/L	0	0%	GA	0.0006	0	0	55	5 U
1,2-Dichlorobenzene	UG/L	0	0%	GA	3	0	0	50	5 U
1,2-Dichloroethane	UG/L	0.49	2%	GA	0.6	0	1	55	5 U
1,2-Dichloropropane	UG/L	0	0%	GA	1	0	0	55	5 U
1,3,5-Trimethylbenzene	UG/L	0	0%	GA	5	0	0	10	1 U
1,3-Dichlorobenzene	UG/L	0	0%	GA	3	0	0	50	5 U
1,4-Dichlorobenzene	UG/L	0	0%	GA	3	0	0	50	5 U
Acetone	UG/L	1.4	2%	GA	0	0	1	55	25 U
Benzene	UG/L	33	24%	GA	1	10	13	55	7.6 UJ
Bromodichloromethane	UG/L	0	0%	MCL	80	0	0	55	16
Bromoform	UG/L	0	0%	MCL	80	0	0	55	2.2
Carbon disulfide	UG/L	0	0%			0	0	55	5 U
Carbon tetrachloride	UG/L	0	0%	GA	5	0	0	55	5 U
Chlorobenzene	UG/L	0	0%	GA	5	0	0	55	5 U
Chlorodibromomethane	UG/L	0	0%	MCL	80	0	0	55	5 U
Chloroethane	UG/L	0.67	4%	GA	5	0	2	55	5 UJ
Chloroform	UG/L	0	0%	GA	7	0	0	55	5 U
Cis-1,2-Dichloroethene	UG/L	3.6	13%	GA	5	0	7	55	5 U
Cis-1,3-Dichloropropene	UG/L	0	0%	GA	0.4	0	0	55	5 U
Cyclohexane	UG/L	8.6	8%			0	4	50	8.6
Dichlorodifluoromethane	UG/L	0	0%	GA	5	0	0	50	5 U
Ethyl benzene	UG/L	19	15%	GA	5	5	8	55	19
Isopropylbenzene	UG/L	2.6	7%	GA	5	0	4	55	5 U
Meta/Para Xylene	UG/L	1.9	9%			0	3	35	
Methyl Acetate	UG/L	0	0%			0	0	50	5 UJ
Methyl Tertbutyl Ether	UG/L	0	0%			0	0	55	5 U
Methyl bromide	UG/L	0	0%	GA	5	0	0	55	5 U
Methyl butyl ketone	UG/L	0	0%			0	0	55	25 U
Methyl chloride	UG/L	0	0%	GA	5	0	0	55	5 U
Methyl cyclohexane	UG/L	4.2	8%			0	4	50	4.2 J
Methyl ethyl ketone	UG/L	9	13%			0	7	55	25 U
Methyl isobutyl ketone	UG/L	0	0%			0	0	55	25 U
Methylene chloride	UG/L	0	0%	GA	5	0	0	55	5 U
Naphthalene	UG/L	0.23	20%			0	1	5	

Table A-1
SEAD-25 Historic Groundwater Results
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SITE LOCATION					SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25
LOCATION ID					MW25-2	MW25-2	MW25-2	MW25-2	MW25-2
MATRIX					GW	GW	GW	GW	GW
SAMPLE ID					25LM20000	25LM20014	25LM20010	25LM20020	25LM20031
TOP OF SAMPLE					0	0	0	0	0
BOTTOM OF SAMPLE					0.1	0.1	0.1	0.1	0.1
SAMPLE DATE					4/12/2006	8/9/2006	8/9/2006	6/6/2007	3/4/2008
QC CODE					SA	DU	SA	SA	SA
STUDY ID					LTM	LTM	LTM	LTM	LTM
SAMPLE ROUND					1	2	2	3	4
Parameter	Units	Maximum Value	Frequency of Detection	Action Level Source	Cleanup Goal ¹	Number of Exceedances	Number of Times Detected	Number of Samples Analyzed	Value (Q)
Ortho Xylene	UG/L	1.5	3%	GA	5	0	1	35	1 U
Propylbenzene	UG/L	0	0%	GA	5	0	0	10	1 U
Styrene	UG/L	0	0%	GA	5	0	0	55	1 U
Tetrachloroethene	UG/L	0	0%	GA	5	0	0	55	1 U
Toluene	UG/L	14	7%	GA	5	1	4	55	1 U
Total Xylenes	UG/L	62	5%	GA	5	1	1	20	1 U
Trans-1,2-Dichloroethene	UG/L	0	0%	GA	5	0	0	55	1 U
Trans-1,3-Dichloropropene	UG/L	0	0%	GA	0.4	0	0	55	1 U
Trichloroethene	UG/L	0.53	4%	GA	5	0	2	55	1 U
Trichlorofluoromethane	UG/L	0	0%	GA	5	0	0	50	1 U
Vinyl chloride	UG/L	0	0%	GA	2	0	0	55	1 U
p-Isopropyltoluene	UG/L	0	0%	GA	5	0	0	10	1 U
Semivolatile Organic Compounds									
1,1'-Biphenyl	UG/L	0	0%	GA	5	0	0	18	10 U
2,4,5-Trichlorophenol	UG/L	0	0%	GA	1	0	0	18	10 U
2,4,6-Trichlorophenol	UG/L	0	0%	GA	1	0	0	18	10 U
2,4-Dichlorophenol	UG/L	0	0%	GA	5	0	0	18	10 U
2,4-Dimethylphenol	UG/L	0	0%			0	0	18	10 U
2,4-Dinitrophenol	UG/L	0	0%			0	0	18	49 U
2,4-Dinitrotoluene	UG/L	0	0%	GA	5	0	0	18	10 U
2,6-Dinitrotoluene	UG/L	0	0%	GA	5	0	0	18	10 U
2-Chloronaphthalene	UG/L	0	0%			0	0	18	10 U
2-Chlorophenol	UG/L	0	0%			0	0	18	10 U
2-Methylnaphthalene	UG/L	0	0%			0	0	18	10 U
2-Methylphenol	UG/L	0	0%			0	0	18	10 U
2-Nitroaniline	UG/L	0	0%	GA	5	0	0	18	49 U
2-Nitrophenol	UG/L	0	0%	GA	1	0	0	18	10 U
3,3'-Dichlorobenzidine	UG/L	0	0%	GA	5	0	0	18	20 U
3-Nitroaniline	UG/L	0	0%	GA	5	0	0	18	49 U
4,6-Dinitro-2-methylphenol	UG/L	0	0%	GA	1	0	0	18	49 U
4-Bromophenyl phenyl ether	UG/L	0	0%			0	0	18	10 U
4-Chloro-3-methylphenol	UG/L	0	0%	GA	1	0	0	18	10 U
4-Chloroaniline	UG/L	0	0%	GA	5	0	0	18	10 U
4-Chlorophenyl phenyl ether	UG/L	0	0%			0	0	18	10 U
4-Methylphenol	UG/L	0	0%			0	0	18	10 U
4-Nitroaniline	UG/L	0	0%	GA	5	0	0	18	49 U
4-Nitrophenol	UG/L	0	0%	GA	1	0	0	18	49 U
Acenaphthene	UG/L	0.5	6%			0	1	18	10 U
Acenaphthylene	UG/L	2	22%			0	4	18	10 U
Acetophenone	UG/L	0	0%			0	0	18	10 U
Anthracene	UG/L	1	6%			0	1	18	10 U
Atrazine	UG/L	0	0%	GA	7.5	0	0	18	10 U
Benzaldehyde	UG/L	0	0%			0	0	18	49 U
Benzo(a)anthracene	UG/L	0	0%			0	0	18	48 U
									10 U

Table A-1
SEAD-25 Historic Groundwater Results
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Seneca Army Depot Activity

SITE LOCATION							SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25
LOCATION ID							MW25-2	MW25-2	MW25-2	MW25-2	MW25-2
MATRIX							GW	GW	GW	GW	GW
SAMPLE ID							25LM20000	25LM20014	25LM20010	25LM20020	25LM20031
TOP OF SAMPLE							0	0	0	0	0
BOTTOM OF SAMPLE							0.1	0.1	0.1	0.1	0.1
SAMPLE DATE							4/12/2006	8/9/2006	8/9/2006	6/6/2007	3/4/2008
QC CODE							SA	DU	SA	SA	SA
STUDY ID							LTM	LTM	LTM	LTM	LTM
SAMPLE ROUND							1	2	2	3	4
Parameter	Units	Maximum Value	Frequency of Detection	Action Level Source	Cleanup Goal ¹	Number of Exceedances	Number of Detected	Number of Times Analyzed	Value (Q)	Value (Q)	Value (Q)
Benzo(a)pyrene	UG/L	0	0%	GA	0	0	0	18	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	0	0%			0	0	18	10 U	10 U	10 U
Benzo(ghi)perylene	UG/L	0.6	6%			0	1	18	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	0	0%			0	0	18	10 U	10 U	10 U
Bis(2-Chloroethoxy)methane	UG/L	0	0%	GA	5	0	0	18	10 U	10 U	10 U
Bis(2-Chloroethyl)ether	UG/L	0	0%	GA	1	0	0	18	10 U	10 U	10 U
Bis(2-Chloroisopropyl)ether	UG/L	0	0%	GA	5	0	0	18	10 U	10 U	10 U
Bis(2-Ethylhexyl)phthalate	UG/L	11	6%	GA	5	1	1	18	10 U	10 U	10 U
Butylbenzylphthalate	UG/L	2	6%			0	1	18	10 U	10 U	10 U
Caprolactam	UG/L	0	0%			0	0	18	10 U	10 U	10 U
Carbazole	UG/L	0	0%			0	0	18	10 U	10 U	10 U
Chrysene	UG/L	0	0%			0	0	18	10 U	10 U	10 U
Di-n-butylphthalate	UG/L	0	0%	GA	50	0	0	18	10 U	10 U	10 U
Di-n-octylphthalate	UG/L	0	0%			0	0	18	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	0	0%			0	0	18	10 U	10 U	10 U
Dibenzofuran	UG/L	0	0%			0	0	18	10 U	10 U	10 U
Diethyl phthalate	UG/L	0	0%			0	0	18	10 U	10 U	10 U
Dimethylphthalate	UG/L	0	0%			0	0	18	10 U	10 U	10 U
Fluoranthene	UG/L	0	0%			0	0	18	10 U	10 U	10 U
Fluorene	UG/L	0	0%			0	0	18	10 U	10 UJ	10 UJ
Hexachlorobenzene	UG/L	0	0%	GA	0.04	0	0	18	10 U	10 U	10 U
Hexachlorobutadiene	UG/L	0	0%	GA	0.5	0	0	18	10 U	10 U	10 U
Hexachlorocyclopentadiene	UG/L	0	0%	GA	5	0	0	18	44 U	44 U	43 U
Hexachloroethane	UG/L	0	0%	GA	5	0	0	18	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	UG/L	0	0%			0	0	18	10 U	10 U	10 U
Isophorone	UG/L	0	0%			0	0	18	10 U	10 U	10 U
N-Nitrosodiphenylamine	UG/L	0	0%			0	0	18	10 U	10 U	10 U
N-Nitrosodipropylamine	UG/L	0	0%			0	0	18	10 U	10 U	10 U
Naphthalene	UG/L	2	6%			0	1	18	10 U	10 U	10 U
Nitrobenzene	UG/L	0	0%	GA	0.4	0	0	18	10 U	10 U	10 U
Pentachlorophenol	UG/L	0	0%	GA	1	0	0	18	49 U	49 U	48 U
Phenanthrene	UG/L	0	0%			0	0	18	10 U	10 U	10 U
Phenol	UG/L	0	0%	GA	1	0	0	18	10 U	10 U	10 U
Pyrene	UG/L	0	0%			0	0	18	10 U	10 U	10 U
Inorganics											
Iron	UG/L	15700	87%	GA	300	31	46	53	2510 J	727	606
Sodium	UG/L	41900	100%	GA	20000	7	53	53	4730	5510 J	5690 J
Chloride	MG/L	59	72%	GA	250000	0	38	53	6.5	2.2 J	2.2 J
Ethane	UG/L	1.1	9%			0	5	53	2 U	10 U	10 U
Ethene	UG/L	4.6	9%			0	5	53	2 U	10 U	10 U
Methane	UG/L	170	38%			0	20	53	80 J	35	36
NITRATE	MG/L	6.4	38%	GA	10000	0	9	24			0.5 J
NITRITE	MG/L	0.73	21%			0	5	24			0.5
Nitrate Nitrogen	MG/L	1	45%			0	13	29	0.05 U	0.05 U	0.05 U
											0.305 J

Table A-1
SEAD-25 Historic Groundwater Results
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SITE LOCATION		SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25						
LOCATION ID		MW25-2	MW25-2	MW25-2	MW25-2	MW25-2						
MATRIX		GW	GW	GW	GW	GW						
SAMPLE ID		25LM20000	25LM20014	25LM20010	25LM20020	25LM20031						
TOP OF SAMPLE		0	0	0	0	0						
BOTTOM OF SAMPLE		0.1	0.1	0.1	0.1	0.1						
SAMPLE DATE		4/12/2006	8/9/2006	8/9/2006	6/6/2007	3/4/2008						
QC CODE		SA	DU	SA	SA	SA						
STUDY ID		LTM	LTM	LTM	LTM	LTM						
SAMPLE ROUND				1	2	3						
	Maximum Value	Frequency of Detection	Action Level Source	Cleanup Goal ¹	Number of Exceedances	Number of Times Detected	Number of Samples Analyzed	Value (Q)				
Nitrate/Nitrite Nitrogen	MG/L	1	65%	GA	10000	0	13	20	0.05 U	0.05 U	0.05 U	0.305
Nitrite Nitrogen	MG/L	0.087	3%			0	1	29				0.01 UJ
Sulfate	MG/L	182	100%	GA	250000	0	53	53	39.6	31	33.2	31.1
Field Parameters												
Conductivity	mS/cm	0.858	100%			0	52	52	0.551	0.562	0.562	0.454
Dissolved Oxygen	MG/L	8.46	100%			0	49	49	6.29	0.3	0.3	0.07
ORP	mV	259	73%			0	38	52	-11	-82	-82	-60
Sulfide	MG/L	1.04	84%			0	43	51	0.01	0.15	0.15	0
Temperature	deg C	26.55	100%			0	52	52	10.5	26.55	26.55	12.4
Turbidity	NTU	195	100%			0	52	52	16.1	2.3	2.3	11
pH	Std units	7.69	100%			0	52	52	7.17	6.93	6.93	7.11

Notes:

1. The cleanup goal values are NYSDEC Class GA Groundwater Standards (TOGS 1.1.1, June 1998).
2. Shading indicates concentration above cleanup goal.

U = compound was not detected

J = the reported value is an estimated concentration

UJ = the compound was not detected; the associated reporting limit is approximate

Table A-1
SEAD-25 Historic Groundwater Results
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SITE LOCATION		SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25							
LOCATION ID		MW25-2	MW25-2	MW25-2	MW25-3	MW25-3							
MATRIX		GW	GW	GW	GW	GW							
SAMPLE ID		25LM20048	25LM20042	25LM20054	25LM20053	25LM20001							
TOP OF SAMPLE		0	0	0	0	0							
BOTTOM OF SAMPLE		0.1	0.1	0.1	0.1	0.1							
SAMPLE DATE		4/29/2009	4/29/2009	1/11/2010	1/11/2010	1/31/2006							
QC CODE		DU	SA	DU	SA	DU							
STUDY ID		LTM	LTM	LTM	LTM	LTM							
SAMPLE ROUND		5	5	6	6	1							
Parameter	Units	Maximum Value	Frequency of Detection	Action Level Source	Cleanup Goal ¹	Number of Exceedances	Number of Detected	Number of Samples Analyzed	Value (Q)				
Volatile Organic Compounds													
1,1,1-Trichloroethane	UG/L	0.62	4%	GA	5	0	2	55	1 U	1 U	3.2 U	3.2 U	1 U
1,1,2,2-Tetrachloroethane	UG/L	0	0%	GA	5	0	0	55	1 U	1 U	0.9 U	0.9 U	1 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	UG/L	0	0%	GA	5	0	0	50	1 U	1 U	4 U	4 U	1 U
1,1,2-Trichloroethane	UG/L	0	0%	GA	1	0	0	55	1 U	1 U	2 U	2 U	1 U
1,1-Dichloroethane	UG/L	1.4	5%	GA	5	0	3	55	1.4	1.3	1.5 U	1.5 U	1 U
1,1-Dichloroethene	UG/L	0	0%	GA	5	0	0	55	1 U	1 U	3.7 U	3.7 U	1 U
1,2,4-Trichlorobenzene	UG/L	0	0%	GA	5	0	0	50	1 U	1 U	1.9 U	1.9 U	1 U
1,2,4-Trimethylbenzene	UG/L	0	0%	GA	5	0	0	10					
1,2-Dibromo-3-chloropropane	UG/L	0	0%	GA	0.04	0	0	50	2 U	2 U	4.3 U	4.3 U	1 U
1,2-Dibromoethane	UG/L	0	0%	GA	0.0006	0	0	55	1 U	1 U	1.8 U	1.8 U	1 U
1,2-Dichlorobenzene	UG/L	0	0%	GA	3	0	0	50	1 U	1 U	4 U	4 U	1 U
1,2-Dichloroethane	UG/L	0.49	2%	GA	0.6	0	1	55	1 U	1 U	1.5 U	1.5 U	1 U
1,2-Dichloropropane	UG/L	0	0%	GA	1	0	0	55	1 U	1 U	1.5 U	1.5 U	1 U
1,3,5-Trimethylbenzene	UG/L	0	0%	GA	5	0	0	10					
1,3-Dichlorobenzene	UG/L	0	0%	GA	3	0	0	50	1 U	1 U	3.6 U	3.6 U	1 U
1,4-Dichlorobenzene	UG/L	0	0%	GA	3	0	0	50	1 U	1 U	3.5 U	3.5 U	1 U
Acetone	UG/L	1.4	2%	GA		0	1	55	20 UJ	35 UJ	50 U	50 U	5 U
Benzene	UG/L	33	24%	GA	1	10	13	55	20	17	4 U	1.8 U	1 U
Bromodichloromethane	UG/L	0	0%	MCL	80	0	0	55	1 U	1 U	1.8 U	1.8 U	1 U
Bromoform	UG/L	0	0%	MCL	80	0	0	55	1 U	1 U	2 U	2 U	1 U
Carbon disulfide	UG/L	0	0%			0	0	55	1 U	1 U	3.6 U	3.6 U	1 U
Carbon tetrachloride	UG/L	0	0%	GA	5	0	0	55	1 U	1 U	3.6 U	3.6 U	1 U
Chlorobenzene	UG/L	0	0%	GA	5	0	0	55	1 U	1 U	2.6 U	2.6 U	1 U
Chlorodibromomethane	UG/L	0	0%	MCL	80	0	0	55	1 U	1 U	1.1 U	1.1 U	1 U
Chloroethane	UG/L	0.67	4%	GA	5	0	2	55	0.67 J	0.51 J	2.1 U	2.1 U	1 U
Chloroform	UG/L	0	0%	GA	7	0	0	55	1 U	1 U	1.6 U	1.6 U	1 U
Cis-1,2-Dichloroethene	UG/L	3.6	13%	GA	5	0	7	55	3.6	3.6	2.8 J	2 J	1 U
Cis-1,3-Dichloropropene	UG/L	0	0%	GA	0.4	0	0	55	1 U	1 U	1.5 U	1.5 U	1 U
Cyclohexane	UG/L	8.6	8%			0	4	50	4.8 J	6.7 J	1.5 U	1.5 U	1 U
Dichlorodifluoromethane	UG/L	0	0%	GA	5	0	0	50	1 U	1 U	1.8 U	1.8 U	1 UU
Ethyl benzene	UG/L	19	15%	GA	5	5	8	55	11	11	4.2 U	4.2 U	1 U
Isopropylbenzene	UG/L	2.6	7%	GA	5	0	4	55	1.3 J	1.8 J	3.5 U	3.5 U	1 U
Meta/Para Xylene	UG/L	1.9	9%			0	3	35	2 U	2 U	8.2 U	8.2 U	
Methyl Acetate	UG/L	0	0%			0	0	50	2 U	2 U	4.7 U	4.7 U	1 U
Methyl Tertbutyl Ether	UG/L	0	0%			0	0	55	1 U	1 U	1.3 U	1.3 U	1 U
Methyl bromide	UG/L	0	0%	GA	5	0	0	55	1 UJ	1 UJ	4 U	4 U	1 U
Methyl butyl ketone	UG/L	0	0%			0	0	55	5 U	5 U	4 U	4 U	5 U
Methyl chloride	UG/L	0	0%	GA	5	0	0	55	1 U	1 U	1.8 U	1.8 U	1 U
Methyl cyclohexane	UG/L	4.2	8%			0	4	50	2 J	3.9 J	1.6 U	1.6 U	1 U
Methyl ethyl ketone	UG/L	9	13%			0	7	55	4.3 J	9 J	10 U	10 U	5 U
Methyl isobutyl ketone	UG/L	0	0%			0	0	55	5 U	5 U	3.5 U	3.5 U	5 U
Methylene chloride	UG/L	0	0%	GA	5	0	0	55	1 U	1 U	1.3 U	1.3 U	1 U
Naphthalene	UG/L	0.23	20%			0	1	5					

Table A-1
SEAD-25 Historic Groundwater Results
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SITE LOCATION					SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25
LOCATION ID					MW25-2	MW25-2	MW25-2	MW25-3	MW25-3
MATRIX					GW	GW	GW	GW	GW
SAMPLE ID					25LM20048	25LM20042	25LM20054	25LM20053	25LM20001
TOP OF SAMPLE					0	0	0	0	0
BOTTOM OF SAMPLE					0.1	0.1	0.1	0.1	0.1
SAMPLE DATE					4/29/2009	4/29/2009	1/11/2010	1/11/2010	1/31/2006
QC CODE					DU	SA	DU	SA	DU
STUDY ID					LTM	LTM	LTM	LTM	LTM
SAMPLE ROUND					5	5	6	6	1
Parameter	Units	Maximum Value	Frequency of Detection	Action Level Source	Cleanup Goal ¹	Number of Exceedances	Number of Times Detected	Number of Samples Analyzed	Value (Q)
Ortho Xylene	UG/L	1.5	3%	GA	5	0	1	35	1 U
Propylbenzene	UG/L	0	0%	GA	5	0	0	10	
Styrene	UG/L	0	0%	GA	5	0	0	55	1 U
Tetrachloroethene	UG/L	0	0%	GA	5	0	0	55	1 U
Toluene	UG/L	14	7%	GA	5	1	4	55	1.3
Total Xylenes	UG/L	62	5%	GA	5	1	1	20	1.2
Trans-1,2-Dichloroethene	UG/L	0	0%	GA	5	0	0	55	1 U
Trans-1,3-Dichloropropene	UG/L	0	0%	GA	0.4	0	0	55	1 U
Trichloroethene	UG/L	0.53	4%	GA	5	0	2	55	1 U
Trichlorofluoromethane	UG/L	0	0%	GA	5	0	0	50	1 U
Vinyl chloride	UG/L	0	0%	GA	2	0	0	55	1 U
p-Isopropyltoluene	UG/L	0	0%	GA	5	0	0	10	
Semivolatile Organic Compounds									
1,1'-Biphenyl	UG/L	0	0%	GA	5	0	0	18	
2,4,5-Trichlorophenol	UG/L	0	0%	GA	1	0	0	18	
2,4,6-Trichlorophenol	UG/L	0	0%	GA	1	0	0	18	
2,4-Dichlorophenol	UG/L	0	0%	GA	5	0	0	18	
2,4-Dimethylphenol	UG/L	0	0%			0	0	18	
2,4-Dinitrophenol	UG/L	0	0%			0	0	18	
2,4-Dinitrotoluene	UG/L	0	0%	GA	5	0	0	18	
2,6-Dinitrotoluene	UG/L	0	0%	GA	5	0	0	18	
2-Chloronaphthalene	UG/L	0	0%			0	0	18	
2-Chlorophenol	UG/L	0	0%			0	0	18	
2-Methylnaphthalene	UG/L	0	0%			0	0	18	
2-Methylphenol	UG/L	0	0%			0	0	18	
2-Nitroaniline	UG/L	0	0%	GA	5	0	0	18	
2-Nitrophenol	UG/L	0	0%	GA	1	0	0	18	
3,3'-Dichlorobenzidine	UG/L	0	0%	GA	5	0	0	18	
3-Nitroaniline	UG/L	0	0%	GA	5	0	0	18	
4,6-Dinitro-2-methylphenol	UG/L	0	0%	GA	1	0	0	18	
4-Bromophenyl phenyl ether	UG/L	0	0%			0	0	18	
4-Chloro-3-methylphenol	UG/L	0	0%	GA	1	0	0	18	
4-Chloroaniline	UG/L	0	0%	GA	5	0	0	18	
4-Chlorophenyl phenyl ether	UG/L	0	0%			0	0	18	
4-Methylphenol	UG/L	0	0%			0	0	18	
4-Nitroaniline	UG/L	0	0%	GA	5	0	0	18	
4-Nitrophenol	UG/L	0	0%	GA	1	0	0	18	
Acenaphthene	UG/L	0.5	6%			0	1	18	
Acenaphthylene	UG/L	2	22%			0	4	18	
Acetophenone	UG/L	0	0%			0	0	18	
Anthracene	UG/L	1	6%			0	1	18	
Atrazine	UG/L	0	0%	GA	7.5	0	0	18	
Benzaldehyde	UG/L	0	0%			0	0	18	
Benzo(a)anthracene	UG/L	0	0%			0	0	18	

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SEAD-25 Historic Groundwater Results
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SITE LOCATION								SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25
LOCATION ID							MW25-2	MW25-2	MW25-2	MW25-3	MW25-3	
MATRIX							GW	GW	GW	GW	GW	
SAMPLE ID							25LM20048	25LM20042	25LM20054	25LM20053	25LM20001	
TOP OF SAMPLE							0	0	0	0	0	
BOTTOM OF SAMPLE							0.1	0.1	0.1	0.1	0.1	
SAMPLE DATE							4/29/2009	4/29/2009	1/11/2010	1/11/2010	1/31/2006	
QC CODE							DU	SA	DU	SA	DU	
STUDY ID							LTM	LTM	LTM	LTM	LTM	
SAMPLE ROUND							5	5	6	6	1	
Parameter	Units	Maximum Value	Frequency of Detection	Action Level Source	Cleanup Goal ¹	Number of Exceedances	Number of Detected	Number of Times Analyzed	Value (Q)	Value (Q)	Value (Q)	Value (Q)
Benzo(a)pyrene	UG/L	0	0%	GA	0	0	0	18				9 U
Benzo(b)fluoranthene	UG/L	0	0%			0	0	18				9 U
Benzo(ghi)perylene	UG/L	0.6	6%			0	1	18				9 U
Benzo(k)fluoranthene	UG/L	0	0%			0	0	18				9 U
Bis(2-Chloroethoxy)methane	UG/L	0	0%	GA	5	0	0	18				9 U
Bis(2-Chloroethyl)ether	UG/L	0	0%	GA	1	0	0	18				9 U
Bis(2-Chloroisopropyl)ether	UG/L	0	0%	GA	5	0	0	18				9 U
Bis(2-Ethylhexyl)phthalate	UG/L	11	6%	GA	5	1	1	18				9 U
Butylbenzylphthalate	UG/L	2	6%			0	1	18				9 U
Caprolactam	UG/L	0	0%			0	0	18				9 U
Carbazole	UG/L	0	0%			0	0	18				9 U
Chrysene	UG/L	0	0%			0	0	18				9 U
Di-n-butylphthalate	UG/L	0	0%	GA	50	0	0	18				9 U
Di-n-octylphthalate	UG/L	0	0%			0	0	18				9 U
Dibenz(a,h)anthracene	UG/L	0	0%			0	0	18				9 U
Dibenzofuran	UG/L	0	0%			0	0	18				9 U
Diethyl phthalate	UG/L	0	0%			0	0	18				9 U
Dimethylphthalate	UG/L	0	0%			0	0	18				9 U
Fluoranthene	UG/L	0	0%			0	0	18				9 U
Fluorene	UG/L	0	0%			0	0	18				9 U
Hexachlorobenzene	UG/L	0	0%	GA	0.04	0	0	18				9 U
Hexachlorobutadiene	UG/L	0	0%	GA	0.5	0	0	18				9 U
Hexachlorocyclopentadiene	UG/L	0	0%	GA	5	0	0	18				42 U
Hexachloroethane	UG/L	0	0%	GA	5	0	0	18				9 U
Indeno(1,2,3-cd)pyrene	UG/L	0	0%			0	0	18				9 U
Isophorone	UG/L	0	0%			0	0	18				9 U
N-Nitrosodiphenylamine	UG/L	0	0%			0	0	18				9 U
N-Nitrosodipropylamine	UG/L	0	0%			0	0	18				9 U
Naphthalene	UG/L	2	6%			0	1	18				9 U
Nitrobenzene	UG/L	0	0%	GA	0.4	0	0	18				9 U
Pentachlorophenol	UG/L	0	0%	GA	1	0	0	18				47 U
Phenanthrene	UG/L	0	0%			0	0	18				9 U
Phenol	UG/L	0	0%	GA	1	0	0	18				9 U
Pyrene	UG/L	0	0%			0	0	18				9 U
Inorganics												
Iron	UG/L	15700	87%	GA	300	31	46	53	15700	14400	2410	2900
Sodium	UG/L	41900	100%	GA	20000	7	53	53	7100	7100	7720	7880
Chloride	MG/L	59	72%	GA	250000	0	38	53	2.2	2.2	2.8	0.5 U
Ethane	UG/L	1.1	9%			0	5	53	1 U	1 U	0.16 U	0.16 U
Ethene	UG/L	4.6	9%			0	5	53	1 U	1 U	0.17 U	0.17 U
Methane	UG/L	170	38%			0	20	53	64	68	22	20
NITRATE	MG/L	6.4	38%	GA	10000	0	9	24	0.05 U	0.05 U	0.05 UJ	0.199 J
NITRITE	MG/L	0.73	21%			0	5	24	0.01 U	0.01 U	0.007 UJ	0.007 UJ
Nitrate Nitrogen	MG/L	1	45%			0	13	29				0.05 U

Table A-1
SEAD-25 Historic Groundwater Results
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SITE LOCATION		SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25							
LOCATION ID		MW25-2	MW25-2	MW25-2	MW25-3	MW25-3							
MATRIX		GW	GW	GW	GW	GW							
SAMPLE ID		25LM20048	25LM20042	25LM20054	25LM20053	25LM20001							
TOP OF SAMPLE		0	0	0	0	0							
BOTTOM OF SAMPLE		0.1	0.1	0.1	0.1	0.1							
SAMPLE DATE		4/29/2009	4/29/2009	1/11/2010	1/11/2010	1/31/2006							
QC CODE		DU	SA	DU	SA	DU							
STUDY ID		LTM	LTM	LTM	LTM	LTM							
SAMPLE ROUND		5	5	6	6	1							
Parameter	Units	Maximum Value	Frequency of Detection	Action Level Source	Cleanup Goal ¹	Number of Exceedances	Number of Times Detected	Number of Samples Analyzed	Value (Q)				
Nitrate/Nitrite Nitrogen	MG/L	1	65%	GA	10000	0	13	20		0.003 UJ	0.199 J		
Nitrite Nitrogen	MG/L	0.087	3%			0	1	29				0.05 U	
Sulfate	MG/L	182	100%	GA	250000	0	53	53	82.6	75.8	64.8 J	64.4 J	39.9
Field Parameters													
Conductivity	mS/cm	0.858	100%			0	52	52	0.702	0.702	0.573	0.573	0.49
Dissolved Oxygen	MG/L	8.46	100%			0	49	49	0.11	0.11	0.41	0.41	1.19
ORP	mV	259	73%			0	38	52	-115	-115	-151	-151	79
Sulfide	MG/L	1.04	84%			0	43	51	0.04	0.04	0.16	0.16	0.04
Temperature	deg C	26.55	100%			0	52	52	8.1	8.1	6.3	6.3	4.3
Turbidity	NTU	195	100%			0	52	52	0.9	0.9	1.06	1.06	2.2
pH	Std units	7.69	100%			0	52	52	6.84	6.84	7.25	7.25	7.1

Notes:

1. The cleanup goal values are NYSDEC Class GA Groundwater Standards (TOGS 1.1.1, June 1998).
2. Shading indicates concentration above cleanup goal.

U = compound was not detected

J = the reported value is an estimated concentration

UJ = the compound was not detected; the associated reporting limit is approximate

Table A-1
SEAD-25 Historic Groundwater Results
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SITE LOCATION		SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25							
LOCATION ID		MW25-3	MW25-3	MW25-3	MW25-3	MW25-3							
MATRIX		GW	GW	GW	GW	GW							
SAMPLE ID		25LM20002	25LM20011	25LM20036	25LM20046	25LM20060							
TOP OF SAMPLE		0	0	0	0	0							
BOTTOM OF SAMPLE		0.1	0.1	0.1	0.1	0.1							
SAMPLE DATE		1/31/2006	8/11/2006	3/4/2008	4/29/2009	1/12/2010							
QC CODE		SA	SA	SA	SA	SA							
STUDY ID		LTM	LTM	LTM	LTM	LTM							
SAMPLE ROUND		1	2	4	5	6							
Parameter	Units	Maximum Value	Frequency of Detection	Action Level Source	Cleanup Goal ¹	Number of Exceedances	Number of Detected	Number of Samples Analyzed	Value (Q)				
Volatile Organic Compounds													
1,1,1-Trichloroethane	UG/L	0.62	4%	GA	5	0	2	55	1 U	1 U	1 U	1 U	0.32 U
1,1,2,2-Tetrachloroethane	UG/L	0	0%	GA	5	0	0	55	1 U	1 U	1 U	1 U	0.09 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	UG/L	0	0%	GA	5	0	0	50	1 U	1 U	1 U	1 U	0.4 U
1,1,2-Trichloroethane	UG/L	0	0%	GA	1	0	0	55	1 U	1 U	1 U	1 U	0.2 U
1,1-Dichloroethane	UG/L	1.4	5%	GA	5	0	3	55	1 U	1 U	1 U	1 U	0.14 U
1,1-Dichloroethene	UG/L	0	0%	GA	5	0	0	55	1 U	1 U	1 U	1 U	0.37 U
1,2,4-Trichlorobenzene	UG/L	0	0%	GA	5	0	0	50	1 U	1 U	1 U	1 U	0.19 U
1,2,4-Trimethylbenzene	UG/L	0	0%	GA	5	0	0	10		1 U			
1,2-Dibromo-3-chloropropane	UG/L	0	0%	GA	0.04	0	0	50	1 U	1 U	2 U	2 U	0.43 U
1,2-Dibromoethane	UG/L	0	0%	GA	0.0006	0	0	55	1 U	1 U	1 U	1 U	0.18 U
1,2-Dichlorobenzene	UG/L	0	0%	GA	3	0	0	50	1 U	1 U	1 U	1 U	0.4 U
1,2-Dichloroethane	UG/L	0.49	2%	GA	0.6	0	1	55	1 U	1 U	1 U	1 U	0.14 U
1,2-Dichloropropane	UG/L	0	0%	GA	1	0	0	55	1 U	1 U	1 U	1 U	0.15 U
1,3,5-Trimethylbenzene	UG/L	0	0%	GA	5	0	0	10		1 U			
1,3-Dichlorobenzene	UG/L	0	0%	GA	3	0	0	50	1 U	1 U	1 U	1 U	0.36 U
1,4-Dichlorobenzene	UG/L	0	0%	GA	3	0	0	50	1 U	1 U	1 U	1 U	0.34 U
Acetone	UG/L	1.4	2%	GA		0	1	55	5 U	5.9 UJ	10 UJ	5 U	5 U
Benzene	UG/L	33	24%	GA	1	10	13	55	1 U	1 U	1 U	1 U	0.18 U
Bromodichloromethane	UG/L	0	0%	MCL	80	0	0	55	1 U	1 U	1 U	1 U	0.17 U
Bromoform	UG/L	0	0%	MCL	80	0	0	55	1 U	1 U	1 UJ	1 U	0.2 U
Carbon disulfide	UG/L	0	0%			0	0	55	1 U	1 U	1 U	1 U	0.36 U
Carbon tetrachloride	UG/L	0	0%	GA	5	0	0	55	1 U	1 U	1 U	1 U	0.36 U
Chlorobenzene	UG/L	0	0%	GA	5	0	0	55	1 U	1 U	1 U	1 U	0.26 U
Chlorodibromomethane	UG/L	0	0%	MCL	80	0	0	55	1 U	1 U	1 U	1 U	0.11 U
Chloroethane	UG/L	0.67	4%	GA	5	0	2	55	1 U	1 U	2 U	1 U	0.21 U
Chloroform	UG/L	0	0%	GA	7	0	0	55	1 U	1 U	1 U	1 U	0.16 U
Cis-1,2-Dichloroethene	UG/L	3.6	13%	GA	5	0	7	55	1 U	1 U	1 U	1 U	0.14 U
Cis-1,3-Dichloropropene	UG/L	0	0%	GA	0.4	0	0	55	1 U	1 U	1 U	1 U	0.14 U
Cyclohexane	UG/L	8.6	8%			0	4	50	1 U	1 U	1 U	1 U	0.14 U
Dichlorodifluoromethane	UG/L	0	0%	GA	5	0	0	50	1 UJ	1 U	1 UJ	1 U	0.18 U
Ethyl benzene	UG/L	19	15%	GA	5	5	8	55	1 U	1 U	1 U	1 U	0.42 U
Isopropylbenzene	UG/L	2.6	7%	GA	5	0	4	55	1 U	1 U	1 U	1 U	0.34 U
Meta/Para Xylene	UG/L	1.9	9%			0	3	35		1 U	2 U		0.81 U
Methyl Acetate	UG/L	0	0%			0	0	50	1 U	1 U	10 U	2 U	0.48 U
Methyl Tertbutyl Ether	UG/L	0	0%			0	0	55	1 U	1 U	1 U	1 U	0.13 U
Methyl bromide	UG/L	0	0%	GA	5	0	0	55	1 U	1 UJ	2 U	1 UJ	0.4 U
Methyl butyl ketone	UG/L	0	0%			0	0	55	5 U	5 U	5 U	5 U	0.4 U
Methyl chloride	UG/L	0	0%	GA	5	0	0	55	1 U	1 U	2 U	1 U	0.18 U
Methyl cyclohexane	UG/L	4.2	8%			0	4	50	1 U	1 U	1 U	1 U	0.16 U
Methyl ethyl ketone	UG/L	9	13%			0	7	55	5 U	5 U	5 U	5 U	1 U
Methyl isobutyl ketone	UG/L	0	0%			0	0	55	5 U	5 U	5 U	5 U	0.34 U
Methylene chloride	UG/L	0	0%	GA	5	0	0	55	1 U	1 U	1 U	1 U	0.13 U
Naphthalene	UG/L	0.23	20%			0	1	5					

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SITE LOCATION							SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25
LOCATION ID							MW25-3	MW25-3	MW25-3	MW25-3	MW25-3
MATRIX							GW	GW	GW	GW	GW
SAMPLE ID							25LM20002	25LM20011	25LM20036	25LM20046	25LM20060
TOP OF SAMPLE							0	0	0	0	0
BOTTOM OF SAMPLE							0.1	0.1	0.1	0.1	0.1
SAMPLE DATE							1/31/2006	8/11/2006	3/4/2008	4/29/2009	1/12/2010
QC CODE							SA	SA	SA	SA	SA
STUDY ID							LTM	LTM	LTM	LTM	LTM
SAMPLE ROUND							1	2	4	5	6
Parameter	Units	Maximum Value	Frequency of Detection	Action Level Source	Cleanup Goal ¹	Number of Exceedances	Number of Detected	Number of Times Analyzed	Value (Q)	Value (Q)	Value (Q)
Ortho Xylene	UG/L	1.5	3%	GA	5	0	1	35		1 U	1 U
Propylbenzene	UG/L	0	0%	GA	5	0	0	10		1 U	0.4 U
Styrene	UG/L	0	0%	GA	5	0	0	55	1 U	1 U	1 U
Tetrachloroethene	UG/L	0	0%	GA	5	0	0	55	1 U	1 U	0.42 U
Toluene	UG/L	14	7%	GA	5	1	4	55	1 U	1 U	0.21 U
Total Xylenes	UG/L	62	5%	GA	5	1	1	20	3 U	3 U	
Trans-1,2-Dichloroethene	UG/L	0	0%	GA	5	0	0	55	1 U	1 U	0.16 U
Trans-1,3-Dichloropropene	UG/L	0	0%	GA	0.4	0	0	55	1 U	1 U	0.17 U
Trichloroethene	UG/L	0.53	4%	GA	5	0	2	55	1 U	1 U	0.19 U
Trichlorofluoromethane	UG/L	0	0%	GA	5	0	0	50	1 UJ	1 U	0.16 U
Vinyl chloride	UG/L	0	0%	GA	2	0	0	55	1 U	1 U	0.22 U
p-Isopropyltoluene	UG/L	0	0%	GA	5	0	0	10		1 U	
Semivolatile Organic Compounds											
1,1'-Biphenyl	UG/L	0	0%	GA	5	0	0	18	10 U	10 U	
2,4,5-Trichlorophenol	UG/L	0	0%	GA	1	0	0	18	10 U	10 U	
2,4,6-Trichlorophenol	UG/L	0	0%	GA	1	0	0	18	10 U	10 U	
2,4-Dichlorophenol	UG/L	0	0%	GA	5	0	0	18	10 U	10 U	
2,4-Dimethylphenol	UG/L	0	0%			0	0	18	10 U	10 U	
2,4-Dinitrophenol	UG/L	0	0%			0	0	18	48 U	48 U	
2,4-Dinitrotoluene	UG/L	0	0%	GA	5	0	0	18	10 U	10 U	
2,6-Dinitrotoluene	UG/L	0	0%	GA	5	0	0	18	10 U	10 U	
2-Chloronaphthalene	UG/L	0	0%			0	0	18	10 U	10 U	
2-Chlorophenol	UG/L	0	0%			0	0	18	10 U	10 U	
2-Methylnaphthalene	UG/L	0	0%			0	0	18	10 U	10 U	
2-Methylphenol	UG/L	0	0%			0	0	18	10 U	10 U	
2-Nitroaniline	UG/L	0	0%	GA	5	0	0	18	48 U	48 U	
2-Nitrophenol	UG/L	0	0%	GA	1	0	0	18	10 U	10 U	
3,3-Dichlorobenzidine	UG/L	0	0%	GA	5	0	0	18	19 U	19 U	
3-Nitroaniline	UG/L	0	0%	GA	5	0	0	18	48 U	48 U	
4,6-Dinitro-2-methylphenol	UG/L	0	0%	GA	1	0	0	18	48 U	48 U	
4-Bromophenyl phenyl ether	UG/L	0	0%			0	0	18	10 U	10 U	
4-Chloro-3-methylphenol	UG/L	0	0%	GA	1	0	0	18	10 U	10 U	
4-Chloroaniline	UG/L	0	0%	GA	5	0	0	18	10 U	10 U	
4-Chlorophenyl phenyl ether	UG/L	0	0%			0	0	18	10 U	10 U	
4-Methylphenol	UG/L	0	0%			0	0	18	10 U	10 U	
4-Nitroaniline	UG/L	0	0%	GA	5	0	0	18	48 U	48 U	
4-Nitrophenol	UG/L	0	0%	GA	1	0	0	18	48 UJ	48 U	
Acenaphthene	UG/L	0.5	6%			0	1	18	10 U	10 U	
Acenaphthylene	UG/L	2	22%			0	4	18	10 U	10 U	
Acetophenone	UG/L	0	0%			0	0	18	10 U	10 U	
Anthracene	UG/L	1	6%			0	1	18	10 U	10 U	
Atrazine	UG/L	0	0%	GA	7.5	0	0	18	10 U	10 U	
Benzaldehyde	UG/L	0	0%			0	0	18	48 U	48 U	
Benzo(a)anthracene	UG/L	0	0%			0	0	18	10 U	10 U	

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SITE LOCATION							SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25
LOCATION ID							MW25-3	MW25-3	MW25-3	MW25-3	MW25-3
MATRIX							GW	GW	GW	GW	GW
SAMPLE ID							25LM20002	25LM20011	25LM20036	25LM20046	25LM20060
TOP OF SAMPLE							0	0	0	0	0
BOTTOM OF SAMPLE							0.1	0.1	0.1	0.1	0.1
SAMPLE DATE							1/31/2006	8/11/2006	3/4/2008	4/29/2009	1/12/2010
QC CODE							SA	SA	SA	SA	SA
STUDY ID							LTM	LTM	LTM	LTM	LTM
SAMPLE ROUND							1	2	4	5	6
Parameter	Units	Maximum Value	Frequency of Detection	Action Level Source	Cleanup Goal ¹	Number of Exceedances	Number of Detected	Number of Times Sampled	Value (Q)	Value (Q)	Value (Q)
Benzo(a)pyrene	UG/L	0	0%	GA	0	0	0	18	10 U	10 U	
Benzo(b)fluoranthene	UG/L	0	0%			0	0	18	10 U	10 U	
Benzo(ghi)perylene	UG/L	0.6	6%			0	1	18	10 U	10 U	
Benzo(k)fluoranthene	UG/L	0	0%			0	0	18	10 U	10 U	
Bis(2-Chloroethoxy)methane	UG/L	0	0%	GA	5	0	0	18	10 U	10 U	
Bis(2-Chloroethyl)ether	UG/L	0	0%	GA	1	0	0	18	10 U	10 U	
Bis(2-Chloroisopropyl)ether	UG/L	0	0%	GA	5	0	0	18	10 U	10 U	
Bis(2-Ethylhexyl)phthalate	UG/L	11	6%	GA	5	1	1	18	10 U	10 U	
Butylbenzylphthalate	UG/L	2	6%			0	1	18	10 U	10 U	
Caprolactam	UG/L	0	0%			0	0	18	10 U	10 U	
Carbazole	UG/L	0	0%			0	0	18	10 U	10 U	
Chrysene	UG/L	0	0%			0	0	18	10 U	10 U	
Di-n-butylphthalate	UG/L	0	0%	GA	50	0	0	18	10 U	10 U	
Di-n-octylphthalate	UG/L	0	0%			0	0	18	10 U	10 U	
Dibenz(a,h)anthracene	UG/L	0	0%			0	0	18	10 U	10 U	
Dibenzofuran	UG/L	0	0%			0	0	18	10 U	10 U	
Diethyl phthalate	UG/L	0	0%			0	0	18	10 U	10 U	
Dimethylphthalate	UG/L	0	0%			0	0	18	10 U	10 U	
Fluoranthene	UG/L	0	0%			0	0	18	10 U	10 U	
Fluorene	UG/L	0	0%			0	0	18	10 U	10 U	
Hexachlorobenzene	UG/L	0	0%	GA	0.04	0	0	18	10 U	10 U	
Hexachlorobutadiene	UG/L	0	0%	GA	0.5	0	0	18	10 U	10 U	
Hexachlorocyclopentadiene	UG/L	0	0%	GA	5	0	0	18	44 U	43 U	
Hexachloroethane	UG/L	0	0%	GA	5	0	0	18	10 U	10 U	
Indeno(1,2,3-cd)pyrene	UG/L	0	0%			0	0	18	10 U	10 U	
Isophorone	UG/L	0	0%			0	0	18	10 U	10 U	
N-Nitrosodiphenylamine	UG/L	0	0%			0	0	18	10 U	10 U	
N-Nitrosodipropylamine	UG/L	0	0%			0	0	18	10 U	10 U	
Naphthalene	UG/L	2	6%			0	1	18	10 U	10 U	
Nitrobenzene	UG/L	0	0%	GA	0.4	0	0	18	10 U	10 U	
Pentachlorophenol	UG/L	0	0%	GA	1	0	0	18	48 U	48 U	
Phenanthrene	UG/L	0	0%			0	0	18	10 U	10 U	
Phenol	UG/L	0	0%	GA	1	0	0	18	10 U	10 U	
Pyrene	UG/L	0	0%			0	0	18	10 U	10 U	
Inorganics											
Iron	UG/L	15700	87%	GA	300	31	46	53	76.4 J	3820	107
Sodium	UG/L	41900	100%	GA	20000	7	53	53	12000	11300 J	5540
Chloride	MG/L	59	72%	GA	250000	0	38	53	2.3	1.5 J	2.66
Ethane	UG/L	1.1	9%			0	5	53	2 U	2 U	1 U
Ethene	UG/L	4.6	9%			0	5	53	2 U	2 U	1 U
Methane	UG/L	170	38%			0	20	53	2 U	2 U	0.34 J
NITRATE	MG/L	6.4	38%	GA	10000	0	9	24			0.05 U
NITRITE	MG/L	0.73	21%			0	5	24			0.01 U
Nitrate Nitrogen	MG/L	1	45%			0	13	29	0.05 U	0.05 U	0.098 J

Table A-1
SEAD-25 Historic Groundwater Results
SEAD-25 Annual Report, Year 3
Seneca Army Depot Activity

SITE LOCATION		SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25						
LOCATION ID		MW25-3	MW25-3	MW25-3	MW25-3	MW25-3						
MATRIX		GW	GW	GW	GW	GW						
SAMPLE ID		25LM20002	25LM20011	25LM20036	25LM20046	25LM20060						
TOP OF SAMPLE		0	0	0	0	0						
BOTTOM OF SAMPLE		0.1	0.1	0.1	0.1	0.1						
SAMPLE DATE		1/31/2006	8/11/2006	3/4/2008	4/29/2009	1/12/2010						
QC CODE		SA	SA	SA	SA	SA						
STUDY ID		LTM	LTM	LTM	LTM	LTM						
SAMPLE ROUND				1	2	5						
	Maximum	Frequency of Detection	Action Level	Cleanup Goal ¹	Number of Exceedances	Number of Times Detected	Number of Samples Analyzed	Value (Q)				
Nitrate/Nitrite Nitrogen	MG/L	1	65%	GA	10000	0	13	20		0.098		0.003 UJ
Nitrite Nitrogen	MG/L	0.087	3%		0	1	29	0.05 U	0.05 U	0.01 UJ		
Sulfate	MG/L	182	100%	GA	250000	0	53	53	39.8	44.9	100	122
Field Parameters												
Conductivity	mS/cm	0.858	100%		0	52	52	0.49	0.686	0.675	0.627	0.741
Dissolved Oxygen	MG/L	8.46	100%		0	49	49	1.19	3.6	0.87	0.19	1.78
ORP	mV	259	73%		0	38	52	79	77.9	124	-102	-63
Sulfide	MG/L	1.04	84%		0	43	51	0.04	0.03	0.01	0.42	0.04
Temperature	deg C	26.55	100%		0	52	52	4.3	21.54	3.5	7.9	4.9
Turbidity	NTU	195	100%		0	52	52	2.2	1.2	2	0.35	3
pH	Std units	7.69	100%		0	52	52	7.1	7.02	7.15	7.03	6.51

Notes:

1. The cleanup goal values are NYSDEC Class GA Groundwater Standards (TOGS 1.1.1, June 1998).
2. Shading indicates concentration above cleanup goal.

U = compound was not detected

J = the reported value is an estimated concentration

UJ = the compound was not detected; the associated reporting limit is approximate

Table A-1
SEAD-25 Historic Groundwater Results
SEAD-25 Annual Report, Year 3
Seneca Army Depot Activity

SITE LOCATION					SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25
LOCATION ID					MW25-8	MW25-8	MW25-8	MW25-8	MW25-8
MATRIX					GW	GW	GW	GW	GW
SAMPLE ID					25LM20003	25LM20012	25LM20037	25LM20047	25LM20059
TOP OF SAMPLE					0	0	0	0	0
BOTTOM OF SAMPLE					0.1	0.1	0.1	0.1	0.1
SAMPLE DATE					1/31/2006	8/11/2006	3/4/2008	4/29/2009	1/13/2010
QC CODE					SA	SA	SA	SA	SA
STUDY ID					LTM	LTM	LTM	LTM	LTM
SAMPLE ROUND					1	2	4	5	6
Parameter	Units	Maximum Value	Frequency of Detection	Action Level Source	Cleanup Goal ¹	Number of Exceedances	Number of Times Detected	Number of Samples Analyzed	Value (Q)
Volatile Organic Compounds									Value (Q)
1,1,1-Trichloroethane	UG/L	0.62	4%	GA	5	0	2	55	1 U
1,1,2,2-Tetrachloroethane	UG/L	0	0%	GA	5	0	0	55	1 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	UG/L	0	0%	GA	5	0	0	50	1 U
1,1,2-Trichloroethane	UG/L	0	0%	GA	1	0	0	55	1 U
1,1-Dichloroethane	UG/L	1.4	5%	GA	5	0	3	55	1 U
1,1-Dichloroethene	UG/L	0	0%	GA	5	0	0	55	1 U
1,2,4-Trichlorobenzene	UG/L	0	0%	GA	5	0	0	50	1 U
1,2,4-Trimethylbenzene	UG/L	0	0%	GA	5	0	0	10	1 U
1,2-Dibromo-3-chloropropane	UG/L	0	0%	GA	0.04	0	0	50	1 U
1,2-Dibromoethane	UG/L	0	0%	GA	0.0006	0	0	55	1 U
1,2-Dichlorobenzene	UG/L	0	0%	GA	3	0	0	50	1 U
1,2-Dichloroethane	UG/L	0.49	2%	GA	0.6	0	1	55	1 U
1,2-Dichloropropane	UG/L	0	0%	GA	1	0	0	55	1 U
1,3,5-Trimethylbenzene	UG/L	0	0%	GA	5	0	0	10	1 U
1,3-Dichlorobenzene	UG/L	0	0%	GA	3	0	0	50	1 U
1,4-Dichlorobenzene	UG/L	0	0%	GA	3	0	0	50	1 U
Acetone	UG/L	1.4	2%	GA		0	1	55	5 U
Benzene	UG/L	33	24%	GA	1	10	13	55	1 U
Bromodichloromethane	UG/L	0	0%	MCL	80	0	0	55	1 U
Bromoform	UG/L	0	0%	MCL	80	0	0	55	1 U
Carbon disulfide	UG/L	0	0%			0	0	55	1 U
Carbon tetrachloride	UG/L	0	0%	GA	5	0	0	55	1 U
Chlorobenzene	UG/L	0	0%	GA	5	0	0	55	1 U
Chlorodibromomethane	UG/L	0	0%	MCL	80	0	0	55	1 U
Chloroethane	UG/L	0.67	4%	GA	5	0	2	55	1 U
Chloroform	UG/L	0	0%	GA	7	0	0	55	1 U
Cis-1,2-Dichloroethene	UG/L	3.6	13%	GA	5	0	7	55	1 U
Cis-1,3-Dichloropropene	UG/L	0	0%	GA	0.4	0	0	55	1 U
Cyclohexane	UG/L	8.6	8%			0	4	50	1 U
Dichlorodifluoromethane	UG/L	0	0%	GA	5	0	0	50	1 UJ
Ethyl benzene	UG/L	19	15%	GA	5	5	8	55	1 U
Isopropylbenzene	UG/L	2.6	7%	GA	5	0	4	55	1 U
Meta/Para Xylene	UG/L	1.9	9%			0	3	35	1 U
Methyl Acetate	UG/L	0	0%			0	0	50	1 U
Methyl Tertbutyl Ether	UG/L	0	0%			0	0	55	1 U
Methyl bromide	UG/L	0	0%	GA	5	0	0	55	1 U
Methyl butyl ketone	UG/L	0	0%			0	0	55	5 U
Methyl chloride	UG/L	0	0%	GA	5	0	0	55	1 U
Methyl cyclohexane	UG/L	4.2	8%			0	4	50	1 U
Methyl ethyl ketone	UG/L	9	13%			0	7	55	5 U
Methyl isobutyl ketone	UG/L	0	0%			0	0	55	5 U
Methylene chloride	UG/L	0	0%	GA	5	0	0	55	1 U
Naphthalene	UG/L	0.23	20%			0	1	5	1 U

Table A-1
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SITE LOCATION					SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25
LOCATION ID					MW25-8	MW25-8	MW25-8	MW25-8	MW25-8
MATRIX					GW	GW	GW	GW	GW
SAMPLE ID					25LM20003	25LM20012	25LM20037	25LM20047	25LM20059
TOP OF SAMPLE					0	0	0	0	0
BOTTOM OF SAMPLE					0.1	0.1	0.1	0.1	0.1
SAMPLE DATE					1/31/2006	8/11/2006	3/4/2008	4/29/2009	1/13/2010
QC CODE					SA	SA	SA	SA	SA
STUDY ID					LTM	LTM	LTM	LTM	LTM
SAMPLE ROUND					1	2	4	5	6
Parameter	Units	Maximum Value	Frequency of Detection	Action Level Source	Cleanup Goal ¹	Number of Exceedances	Number of Times Detected	Number of Samples Analyzed	Value (Q)
Ortho Xylene	UG/L	1.5	3%	GA	5	0	1	35	1 U
Propylbenzene	UG/L	0	0%	GA	5	0	0	10	1 U
Styrene	UG/L	0	0%	GA	5	0	0	55	1 U
Tetrachloroethene	UG/L	0	0%	GA	5	0	0	55	1 U
Toluene	UG/L	14	7%	GA	5	1	4	55	1 U
Total Xylenes	UG/L	62	5%	GA	5	1	1	20	3 U
Trans-1,2-Dichloroethene	UG/L	0	0%	GA	5	0	0	55	1 U
Trans-1,3-Dichloropropene	UG/L	0	0%	GA	0.4	0	0	55	1 U
Trichloroethene	UG/L	0.53	4%	GA	5	0	2	55	1 U
Trichlorofluoromethane	UG/L	0	0%	GA	5	0	0	50	1 UJ
Vinyl chloride	UG/L	0	0%	GA	2	0	0	55	1 U
p-Isopropyltoluene	UG/L	0	0%	GA	5	0	0	10	1 U
Semivolatile Organic Compounds									
1,1'-Biphenyl	UG/L	0	0%	GA	5	0	0	18	9 U
2,4,5-Trichlorophenol	UG/L	0	0%	GA	1	0	0	18	9 U
2,4,6-Trichlorophenol	UG/L	0	0%	GA	1	0	0	18	9 U
2,4-Dichlorophenol	UG/L	0	0%	GA	5	0	0	18	9 U
2,4-Dimethylphenol	UG/L	0	0%			0	0	18	9 U
2,4-Dinitrophenol	UG/L	0	0%			0	0	18	47 U
2,4-Dinitrotoluene	UG/L	0	0%	GA	5	0	0	18	9 U
2,6-Dinitrotoluene	UG/L	0	0%	GA	5	0	0	18	9 U
2-Chloronaphthalene	UG/L	0	0%			0	0	18	9 U
2-Chlorophenol	UG/L	0	0%			0	0	18	9 U
2-Methylnaphthalene	UG/L	0	0%			0	0	18	9 U
2-Methylphenol	UG/L	0	0%			0	0	18	9 U
2-Nitroaniline	UG/L	0	0%	GA	5	0	0	18	47 U
2-Nitrophenol	UG/L	0	0%	GA	1	0	0	18	9 U
3,3'-Dichlorobenzidine	UG/L	0	0%	GA	5	0	0	18	19 U
3-Nitroaniline	UG/L	0	0%	GA	5	0	0	18	47 U
4,6-Dinitro-2-methylphenol	UG/L	0	0%	GA	1	0	0	18	47 U
4-Bromophenyl phenyl ether	UG/L	0	0%			0	0	18	9 U
4-Chloro-3-methylphenol	UG/L	0	0%	GA	1	0	0	18	9 U
4-Chloroaniline	UG/L	0	0%	GA	5	0	0	18	9 U
4-Chlorophenyl phenyl ether	UG/L	0	0%			0	0	18	9 U
4-Methylphenol	UG/L	0	0%			0	0	18	9 U
4-Nitroaniline	UG/L	0	0%	GA	5	0	0	18	47 U
4-Nitrophenol	UG/L	0	0%	GA	1	0	0	18	47 U
Acenaphthene	UG/L	0.5	6%			0	1	18	0.5 J
Acenaphthylene	UG/L	2	22%			0	4	18	2 J
Acetophenone	UG/L	0	0%			0	0	18	9 U
Anthracene	UG/L	1	6%			0	1	18	1 J
Atrazine	UG/L	0	0%	GA	7.5	0	0	18	9 U
Benzaldehyde	UG/L	0	0%			0	0	18	47 U
Benzo(a)anthracene	UG/L	0	0%			0	0	18	9 U
									10 U

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SEAD-25 Historic Groundwater Results
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SITE LOCATION							SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25
LOCATION ID							MW25-8	MW25-8	MW25-8	MW25-8	MW25-8
MATRIX							GW	GW	GW	GW	GW
SAMPLE ID							25LM20003	25LM20012	25LM20037	25LM20047	25LM20059
TOP OF SAMPLE							0	0	0	0	0
BOTTOM OF SAMPLE							0.1	0.1	0.1	0.1	0.1
SAMPLE DATE							1/31/2006	8/11/2006	3/4/2008	4/29/2009	1/13/2010
QC CODE							SA	SA	SA	SA	SA
STUDY ID							LTM	LTM	LTM	LTM	LTM
SAMPLE ROUND							1	2	4	5	6
Parameter	Units	Maximum Value	Frequency of Detection	Action Level Source	Cleanup Goal ¹	Number of Exceedances	Number of Detected	Number of Times Analyzed	Value (Q)	Value (Q)	Value (Q)
Benzo(a)pyrene	UG/L	0	0%	GA	0	0	0	18	9 U	10 U	
Benzo(b)fluoranthene	UG/L	0	0%			0	0	18	9 U	10 U	
Benzo(ghi)perylene	UG/L	0.6	6%			0	1	18	0.6 J	10 U	
Benzo(k)fluoranthene	UG/L	0	0%			0	0	18	9 U	10 U	
Bis(2-Chloroethoxy)methane	UG/L	0	0%	GA	5	0	0	18	9 U	10 U	
Bis(2-Chloroethyl)ether	UG/L	0	0%	GA	1	0	0	18	9 U	10 U	
Bis(2-Chloroisopropyl)ether	UG/L	0	0%	GA	5	0	0	18	9 U	10 U	
Bis(2-Ethylhexyl)phthalate	UG/L	11	6%	GA	5	1	1	18	9 U	10 U	
Butylbenzylphthalate	UG/L	2	6%			0	1	18	9 U	10 U	
Caprolactam	UG/L	0	0%			0	0	18	9 U	10 U	
Carbazole	UG/L	0	0%			0	0	18	9 U	10 U	
Chrysene	UG/L	0	0%			0	0	18	9 U	10 U	
Di-n-butylphthalate	UG/L	0	0%	GA	50	0	0	18	9 U	10 U	
Di-n-octylphthalate	UG/L	0	0%			0	0	18	9 U	10 U	
Dibenz(a,h)anthracene	UG/L	0	0%			0	0	18	9 U	10 U	
Dibenzofuran	UG/L	0	0%			0	0	18	9 U	10 U	
Diethyl phthalate	UG/L	0	0%			0	0	18	9 U	10 U	
Dimethylphthalate	UG/L	0	0%			0	0	18	9 U	10 U	
Fluoranthene	UG/L	0	0%			0	0	18	9 U	10 U	
Fluorene	UG/L	0	0%			0	0	18	9 U	10 U	
Hexachlorobenzene	UG/L	0	0%	GA	0.04	0	0	18	9 U	10 U	
Hexachlorobutadiene	UG/L	0	0%	GA	0.5	0	0	18	9 U	10 U	
Hexachlorocyclopentadiene	UG/L	0	0%	GA	5	0	0	18	42 U	44 U	
Hexachloroethane	UG/L	0	0%	GA	5	0	0	18	9 U	10 U	
Indeno(1,2,3-cd)pyrene	UG/L	0	0%			0	0	18	9 U	10 U	
Isophorone	UG/L	0	0%			0	0	18	9 U	10 U	
N-Nitrosodiphenylamine	UG/L	0	0%			0	0	18	9 U	10 U	
N-Nitrosodipropylamine	UG/L	0	0%			0	0	18	9 U	10 U	
Naphthalene	UG/L	2	6%			0	1	18	9 U	10 U	
Nitrobenzene	UG/L	0	0%	GA	0.4	0	0	18	9 U	10 U	
Pentachlorophenol	UG/L	0	0%	GA	1	0	0	18	47 U	49 U	
Phenanthrene	UG/L	0	0%			0	0	18	9 U	10 U	
Phenol	UG/L	0	0%	GA	1	0	0	18	9 U	10 U	
Pyrene	UG/L	0	0%			0	0	18	9 U	10 U	
Inorganics											
Iron	UG/L	15700	87%	GA	300	31	46	53	329 J	667	349
Sodium	UG/L	41900	100%	GA	20000	7	53	53	5110	7060 J	4180
Chloride	MG/L	59	72%	GA	250000	0	38	53	1.4	0.73 J	0.2 U
Ethane	UG/L	1.1	9%			0	5	53	2 U	2 U	1 U
Ethene	UG/L	4.6	9%			0	5	53	2 U	2 U	1 U
Methane	UG/L	170	38%			0	20	53	2 U	2 U	16
NITRATE	MG/L	6.4	38%	GA	10000	0	9	24			0.05 U
NITRITE	MG/L	0.73	21%			0	5	24			0.016
Nitrate Nitrogen	MG/L	1	45%			0	13	29	0.05 U	0.13	0.607 J

Table A-1
SEAD-25 Historic Groundwater Results
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SITE LOCATION		SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25						
LOCATION ID		MW25-8	MW25-8	MW25-8	MW25-8	MW25-8						
MATRIX		GW	GW	GW	GW	GW						
SAMPLE ID		25LM20003	25LM20012	25LM20037	25LM20047	25LM20059						
TOP OF SAMPLE		0	0	0	0	0						
BOTTOM OF SAMPLE		0.1	0.1	0.1	0.1	0.1						
SAMPLE DATE		1/31/2006	8/11/2006	3/4/2008	4/29/2009	1/13/2010						
QC CODE		SA	SA	SA	SA	SA						
STUDY ID		LTM	LTM	LTM	LTM	LTM						
SAMPLE ROUND				1	2	5						
	Maximum	Frequency of Detection	Action Level	Cleanup Goal ¹	Number of Exceedances	Number of Times Detected	Number of Samples Analyzed	Value (Q)				
Nitrate/Nitrite Nitrogen	MG/L	1	65%	GA	10000	0	13	20		0.607		0.003 UJ
Nitrite Nitrogen	MG/L	0.087	3%		0	1	29	0.05 U	0.05 U	0.01 UJ		
Sulfate	MG/L	182	100%	GA	250000	0	53	53	19.5	28.2	17.3	20.7
Field Parameters												
Conductivity	mS/cm	0.858	100%		0	52	52	0.494	0.72	0.427		0.342
Dissolved Oxygen	MG/L	8.46	100%		0	49	49	0.84	2.92	2.21		2.67
ORP	mV	259	73%		0	38	52	-70	33.4	61		230
Sulfide	MG/L	1.04	84%		0	43	51	0.04	0.09	0.03	0.01	0.03
Temperature	deg C	26.55	100%		0	52	52	4.1	25.01	2.7		4.7
Turbidity	NTU	195	100%		0	52	52	2.4	8.7	5.1		2.2
pH	Std units	7.69	100%		0	52	52	7.3	6.97	7.46		7.36

Notes:

1. The cleanup goal values are NYSDEC Class GA Groundwater Standards (TOGS 1.1.1, June 1998).
2. Shading indicates concentration above cleanup goal.

U = compound was not detected

J = the reported value is an estimated concentration

UJ = the compound was not detected; the associated reporting limit is approximate

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SITE LOCATION					SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25
LOCATION ID					MW25-9	MW25-9	MW25-9	MW25-9	MW25-9
MATRIX					GW	GW	GW	GW	GW
SAMPLE ID					25LM20004	25LM20013	25LM20038	25LM20049	25LM20058
TOP OF SAMPLE					0	0	0	0	0
BOTTOM OF SAMPLE					0.1	0.1	0.1	0.1	0.1
SAMPLE DATE					1/31/2006	8/9/2006	3/4/2008	4/29/2009	1/12/2010
QC CODE					SA	SA	SA	SA	SA
STUDY ID					LTM	LTM	LTM	LTM	LTM
SAMPLE ROUND					1	2	4	5	6
Parameter	Units	Maximum Value	Frequency of Detection	Action Level Source	Cleanup Goal ¹	Number of Exceedances	Number of Times Detected	Number of Samples Analyzed	Value (Q)
Volatile Organic Compounds									
1,1,1-Trichloroethane	UG/L	0.62	4%	GA	5	0	2	55	0.62 J
1,1,2,2-Tetrachloroethane	UG/L	0	0%	GA	5	0	0	55	1 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	UG/L	0	0%	GA	5	0	0	50	1 U
1,1,2-Trichloroethane	UG/L	0	0%	GA	1	0	0	55	1 U
1,1-Dichloroethane	UG/L	1.4	5%	GA	5	0	3	55	1
1,1-Dichloroethene	UG/L	0	0%	GA	5	0	0	55	1 U
1,2,4-Trichlorobenzene	UG/L	0	0%	GA	5	0	0	50	1 U
1,2,4-Trimethylbenzene	UG/L	0	0%	GA	5	0	0	10	1 U
1,2-Dibromo-3-chloropropane	UG/L	0	0%	GA	0.04	0	0	50	1 U
1,2-Dibromoethane	UG/L	0	0%	GA	0.0006	0	0	55	1 U
1,2-Dichlorobenzene	UG/L	0	0%	GA	3	0	0	50	1 U
1,2-Dichloroethane	UG/L	0.49	2%	GA	0.6	0	1	55	0.49 J
1,2-Dichloropropane	UG/L	0	0%	GA	1	0	0	55	1 U
1,3,5-Trimethylbenzene	UG/L	0	0%	GA	5	0	0	10	1 U
1,3-Dichlorobenzene	UG/L	0	0%	GA	3	0	0	50	1 U
1,4-Dichlorobenzene	UG/L	0	0%	GA	3	0	0	50	1 U
Acetone	UG/L	1.4	2%	GA	0	0	1	55	5 U
Benzene	UG/L	33	24%	GA	1	10	13	55	63 UJ
Bromodichloromethane	UG/L	0	0%	MCL	80	0	0	55	0.58 J
Bromoform	UG/L	0	0%	MCL	80	0	0	55	2.3
Carbon disulfide	UG/L	0	0%		0	0	0	55	1 U
Carbon tetrachloride	UG/L	0	0%	GA	5	0	0	55	1 U
Chlorobenzene	UG/L	0	0%	GA	5	0	0	55	1 U
Chlorodibromomethane	UG/L	0	0%	MCL	80	0	0	55	1 U
Chloroethane	UG/L	0.67	4%	GA	5	0	2	55	1 U
Chloroform	UG/L	0	0%	GA	7	0	0	55	1 U
Cis-1,2-Dichloroethene	UG/L	3.6	13%	GA	5	0	7	55	2.8
Cis-1,3-Dichloropropene	UG/L	0	0%	GA	0.4	0	0	55	1 U
Cyclohexane	UG/L	8.6	8%		0	0	4	50	8 J
Dichlorodifluoromethane	UG/L	0	0%	GA	5	0	0	50	1 UJ
Ethyl benzene	UG/L	19	15%	GA	5	5	8	55	15
Isopropylbenzene	UG/L	2.6	7%	GA	5	0	4	55	2.6
Meta/Para Xylene	UG/L	1.9	9%		0	0	3	35	0.43 J
Methyl Acetate	UG/L	0	0%		0	0	0	50	1 U
Methyl Tertbutyl Ether	UG/L	0	0%		0	0	0	55	1 U
Methyl bromide	UG/L	0	0%	GA	5	0	0	55	1 U
Methyl butyl ketone	UG/L	0	0%		0	0	0	55	5 U
Methyl chloride	UG/L	0	0%	GA	5	0	0	55	1 U
Methyl cyclohexane	UG/L	4.2	8%		0	0	4	50	1.9 J
Methyl ethyl ketone	UG/L	9	13%		0	0	7	55	5 U
Methyl isobutyl ketone	UG/L	0	0%		0	0	0	55	5 U
Methylene chloride	UG/L	0	0%	GA	5	0	0	55	1 U
Naphthalene	UG/L	0.23	20%		0	0	1	5	1 UJ

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SEAD-25 Historic Groundwater Results
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SITE LOCATION		SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25							
LOCATION ID		MW25-9	MW25-9	MW25-9	MW25-9	MW25-9							
MATRIX		GW	GW	GW	GW	GW							
SAMPLE ID		25LM20004	25LM20013	25LM20038	25LM20049	25LM20058							
TOP OF SAMPLE		0	0	0	0	0							
BOTTOM OF SAMPLE		0.1	0.1	0.1	0.1	0.1							
SAMPLE DATE		1/31/2006	8/9/2006	3/4/2008	4/29/2009	1/12/2010							
QC CODE		SA	SA	SA	SA	SA							
STUDY ID		LTM	LTM	LTM	LTM	LTM							
SAMPLE ROUND		1	2	4	5	6							
Parameter	Units	Maximum Value	Frequency of Detection	Action Level Source	Cleanup Goal ¹	Number of Exceedances	Number of Detected	Number of Times Analyzed	Value (Q)				
Ortho Xylene	UG/L	1.5	3%	GA	5	0	1	35		1.5	1 U		0.4 U
Propylbenzene	UG/L	0	0%	GA	5	0	0	10		1 U			
Styrene	UG/L	0	0%	GA	5	0	0	55	1 U	1 U	1 U	1 U	0.36 U
Tetrachloroethene	UG/L	0	0%	GA	5	0	0	55	1 U	1 U	1 U	1 U	0.42 U
Toluene	UG/L	14	7%	GA	5	1	4	55	14	1 U	0.39 J	1 U	0.21 U
Total Xylenes	UG/L	62	5%	GA	5	1	1	20	62	3 U			
Trans-1,2-Dichloroethene	UG/L	0	0%	GA	5	0	0	55	1 U	1 U	1 U	1 U	0.16 U
Trans-1,3-Dichloropropene	UG/L	0	0%	GA	0.4	0	0	55	1 U	1 U	1 U	1 U	0.17 U
Trichloroethene	UG/L	0.53	4%	GA	5	0	2	55	0.53 J	1 U	1 U	1 U	0.19 U
Trichlorofluoromethane	UG/L	0	0%	GA	5	0	0	50	1 UJ	1 U	1 U	1 U	0.16 U
Vinyl chloride	UG/L	0	0%	GA	2	0	0	55	1 U	1 U	1 U	1 U	0.22 U
p-Isopropyltoluene	UG/L	0	0%	GA	5	0	0	10		1 U			
Semivolatile Organic Compounds													
1,1'-Biphenyl	UG/L	0	0%	GA	5	0	0	18	10 U	10 U			
2,4,5-Trichlorophenol	UG/L	0	0%	GA	1	0	0	18	10 U	10 U			
2,4,6-Trichlorophenol	UG/L	0	0%	GA	1	0	0	18	10 U	10 U			
2,4-Dichlorophenol	UG/L	0	0%	GA	5	0	0	18	10 U	10 U			
2,4-Dimethylphenol	UG/L	0	0%			0	0	18	10 U	10 U			
2,4-Dinitrophenol	UG/L	0	0%			0	0	18	48 U	48 U			
2,4-Dinitrotoluene	UG/L	0	0%	GA	5	0	0	18	10 U	10 U			
2,6-Dinitrotoluene	UG/L	0	0%	GA	5	0	0	18	10 U	10 U			
2-Chloronaphthalene	UG/L	0	0%			0	0	18	10 U	10 U			
2-Chlorophenol	UG/L	0	0%			0	0	18	10 U	10 U			
2-Methylnaphthalene	UG/L	0	0%			0	0	18	10 U	10 U			
2-Methylphenol	UG/L	0	0%			0	0	18	10 U	10 U			
2-Nitroaniline	UG/L	0	0%	GA	5	0	0	18	48 U	48 U			
2-Nitrophenol	UG/L	0	0%	GA	1	0	0	18	10 U	10 U			
3,3-Dichlorobenzidine	UG/L	0	0%	GA	5	0	0	18	19 U	19 U			
3-Nitroaniline	UG/L	0	0%	GA	5	0	0	18	48 U	48 U			
4,6-Dinitro-2-methylphenol	UG/L	0	0%	GA	1	0	0	18	48 U	48 U			
4-Bromophenyl phenyl ether	UG/L	0	0%			0	0	18	10 U	10 U			
4-Chloro-3-methylphenol	UG/L	0	0%	GA	1	0	0	18	10 U	10 U			
4-Chloroaniline	UG/L	0	0%	GA	5	0	0	18	10 U	10 U			
4-Chlorophenyl phenyl ether	UG/L	0	0%			0	0	18	10 U	10 U			
4-Methylphenol	UG/L	0	0%			0	0	18	10 U	10 U			
4-Nitroaniline	UG/L	0	0%	GA	5	0	0	18	48 U	48 U			
4-Nitrophenol	UG/L	0	0%	GA	1	0	0	18	48 U	48 U			
Acenaphthene	UG/L	0.5	6%			0	1	18	10 U	10 U			
Acenaphthylene	UG/L	2	22%			0	4	18	1 J	10 U			
Acetophenone	UG/L	0	0%			0	0	18	10 U	10 U			
Anthracene	UG/L	1	6%			0	1	18	10 U	10 U			
Atrazine	UG/L	0	0%	GA	7.5	0	0	18	10 U	10 U			
Benzaldehyde	UG/L	0	0%			0	0	18	48 U	48 U			
Benz(a)anthracene	UG/L	0	0%			0	0	18	10 U	10 U			

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SITE LOCATION								SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25
LOCATION ID								MW25-9	MW25-9	MW25-9	MW25-9	MW25-9
MATRIX								GW	GW	GW	GW	GW
SAMPLE ID								25LM20004	25LM20013	25LM20038	25LM20049	25LM20058
TOP OF SAMPLE								0	0	0	0	0
BOTTOM OF SAMPLE								0.1	0.1	0.1	0.1	0.1
SAMPLE DATE								1/31/2006	8/9/2006	3/4/2008	4/29/2009	1/12/2010
QC CODE								SA	SA	SA	SA	SA
STUDY ID								LTM	LTM	LTM	LTM	LTM
SAMPLE ROUND								1	2	4	5	6
Parameter	Units	Maximum Value	Frequency of Detection	Action Level Source	Cleanup Goal ¹	Number of Exceedances	Number of Detected	Number of Times Sampled	Value (Q)	Value (Q)	Value (Q)	Value (Q)
Benzo(a)pyrene	UG/L	0	0%	GA	0	0	0	18	10 U	10 U		
Benzo(b)fluoranthene	UG/L	0	0%			0	0	18	10 U	10 U		
Benzo(ghi)perylene	UG/L	0.6	6%			0	1	18	10 U	10 U		
Benzo(k)fluoranthene	UG/L	0	0%			0	0	18	10 U	10 U		
Bis(2-Chloroethoxy)methane	UG/L	0	0%	GA	5	0	0	18	10 U	10 U		
Bis(2-Chloroethyl)ether	UG/L	0	0%	GA	1	0	0	18	10 U	10 U		
Bis(2-Chloroisopropyl)ether	UG/L	0	0%	GA	5	0	0	18	10 U	10 U		
Bis(2-Ethylhexyl)phthalate	UG/L	11	6%	GA	5	1	1	18	10 U	10 U		
Butylbenzylphthalate	UG/L	2	6%			0	1	18	10 U	10 U		
Caprolactam	UG/L	0	0%			0	0	18	10 U	10 U		
Carbazole	UG/L	0	0%			0	0	18	10 U	10 U		
Chrysene	UG/L	0	0%			0	0	18	10 U	10 U		
Di-n-butylphthalate	UG/L	0	0%	GA	50	0	0	18	10 U	10 U		
Di-n-octylphthalate	UG/L	0	0%			0	0	18	10 U	10 U		
Dibenz(a,h)anthracene	UG/L	0	0%			0	0	18	10 U	10 U		
Dibenzofuran	UG/L	0	0%			0	0	18	10 U	10 U		
Diethyl phthalate	UG/L	0	0%			0	0	18	10 U	10 U		
Dimethylphthalate	UG/L	0	0%			0	0	18	10 U	10 U		
Fluoranthene	UG/L	0	0%			0	0	18	10 U	10 U		
Fluorene	UG/L	0	0%			0	0	18	10 U	10 U		
Hexachlorobenzene	UG/L	0	0%	GA	0.04	0	0	18	10 U	10 U		
Hexachlorobutadiene	UG/L	0	0%	GA	0.5	0	0	18	10 U	10 U		
Hexachlorocyclopentadiene	UG/L	0	0%	GA	5	0	0	18	43 U	43 U		
Hexachloroethane	UG/L	0	0%	GA	5	0	0	18	10 U	10 U		
Indeno(1,2,3-cd)pyrene	UG/L	0	0%			0	0	18	10 U	10 U		
Isophorone	UG/L	0	0%			0	0	18	10 U	10 U		
N-Nitrosodiphenylamine	UG/L	0	0%			0	0	18	10 U	10 U		
N-Nitrosodipropylamine	UG/L	0	0%			0	0	18	10 U	10 U		
Naphthalene	UG/L	2	6%			0	1	18	2 J	10 U		
Nitrobenzene	UG/L	0	0%	GA	0.4	0	0	18	10 U	10 U		
Pentachlorophenol	UG/L	0	0%	GA	1	0	0	18	48 U	48 U		
Phenanthrene	UG/L	0	0%			0	0	18	10 U	10 U		
Phenol	UG/L	0	0%	GA	1	0	0	18	10 U	10 U		
Pyrene	UG/L	0	0%			0	0	18	10 U	10 U		
Inorganics												
Iron	UG/L	15700	87%	GA	300	31	46	53	56.9 J	12 U	100 U	9440
Sodium	UG/L	41900	100%	GA	20000	7	53	53	14500	16400 J	8380	26000
Chloride	MG/L	59	72%	GA	250000	0	38	53	1.1	0.99 J	0.2 U	2.7
Ethane	UG/L	1.1	9%			0	5	53	2 U	2 U	1 U	0.5 U
Ethene	UG/L	4.6	9%			0	5	53	2 U	2 U	1 U	0.16 U
Methane	UG/L	170	38%			0	20	53	29	2 U	2.4 J	0.17 U
NITRATE	MG/L	6.4	38%	GA	10000	0	9	24				0.05 U
NITRITE	MG/L	0.73	21%			0	5	24				0.01 U
Nitrate Nitrogen	MG/L	1	45%			0	13	29	0.05 U	0.1	0.05 UJ	0.007 UJ

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SITE LOCATION					SEAD-25	SEAD-25	SEAD-25	SEAD-25	SEAD-25
LOCATION ID					MW25-9	MW25-9	MW25-9	MW25-9	MW25-9
MATRIX					GW	GW	GW	GW	GW
SAMPLE ID					25LM20004	25LM20013	25LM20038	25LM20049	25LM20058
TOP OF SAMPLE					0	0	0	0	0
BOTTOM OF SAMPLE					0.1	0.1	0.1	0.1	0.1
SAMPLE DATE					1/31/2006	8/9/2006	3/4/2008	4/29/2009	1/12/2010
QC CODE					SA	SA	SA	SA	SA
STUDY ID					LTM	LTM	LTM	LTM	LTM
SAMPLE ROUND						1	2	4	5
	Maximum	Frequency of Detection	Action Level Source	Cleanup Goal ¹	Number of Exceedances	Number of Times Detected	Number of Samples Analyzed		
Parameter	Units	Value						Value (Q)	Value (Q)
Nitrate/Nitrite Nitrogen	MG/L	1	65%	GA	10000	0	13	20	0.05 U
Nitrite Nitrogen	MG/L	0.087	3%		0	1	29	0.05 U	0.01 UJ
Sulfate	MG/L	182	100%	GA	250000	0	53	53	21.8
Field Parameters									
Conductivity	mS/cm	0.858	100%		0	52	52	0.535	0.718
Dissolved Oxygen	MG/L	8.46	100%		0	49	49	5.33	5.22
ORP	mV	259	73%		0	38	52	91	2.02
Sulfide	MG/L	1.04	84%		0	43	51	0.02	62.5
Temperature	deg C	26.55	100%		0	52	52	4.8	99
Turbidity	NTU	195	100%		0	52	52	2.49	3.38
pH	Std units	7.69	100%		0	52	52	7.15	1.3
								23.11	3.3
								7.15	7.33
									0.12
									0.01
									-72
									3.62
									2.8
									6.73

Notes:

1. The cleanup goal values are NYSDEC Class GA Groundwater Standards (TOGS 1.1.1, June 1998).
2. Shading indicates concentration above cleanup goal.

U = compound was not detected

J = the reported value is an estimated concentration

UJ = the compound was not detected; the associated reporting limit is approximate