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October 5, 2011

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

SUBJECT: Final Annual Report and Year Four Review - Ash Landfill Operable Unit at

Seneca Army Depot Activity; W912DY-08-D-0003, Delivery Order 0001

Dear Mr. Nohrstedt:

Parsons Infrastructure & Technology Group, Inc. (Parsons) is pleased to submit the Final Annual Report and Year Four Review for the fourth year of monitoring at the Ash Landfill Operable Unit at Seneca Army Depot Activity (SEDA) in Romulus, New York. This work was performed in accordance with the Scope of Work for Delivery Order 0001 under Contract W912DY-08-D-0003. This Annual Report and Year Four Review provides a review of long-term groundwater monitoring for 2010 and provides recommendations for future long-term monitoring at the site. This document also provides an annual review of the effectiveness of the remedy implemented in 2006. This document recommends the continuation of monitoring on a semi-annual basis for the next year.

USEPA submitted comments on the Draft Annual Report on June 28, 2011. The Army drafted responses, and they are included as Appendix D to the subject document. This Final Annual Report incorporates the responses to USEPA comments.

Parsons appreciates the opportunity to provide you with the Final Annual Report and Year Four Review for this work. Should you have any questions, please do not hesitate to call me at (617) 449-1405 to discuss them.

Sincerely,

Todd Heino, P.E. Program Manager

Enclosures

cc: S. Absolom, SEDA

K. Hoddinott, USACHPPM R. Battaglia, USACE, NY



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October 5, 2011

Mr. Julio Vazquez USEPA Region II Superfund Federal Facilities Section 290 Broadway, 18th Floor New York, NY 10007-1866

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

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

SUBJECT: Final Annual Report and Year Four Review - Ash Landfill Operable Unit at

Seneca Army Depot Activity; EPA Site ID# NY0213820830 and NY Site ID# 8-50-006

Dear Mr. Vazquez/Mr. Gupta/Mr. Sergott:

Parsons Infrastructure & Technology Group, Inc. (Parsons) is pleased to submit the Final Annual Report and Year Four Review for the fourth year of annual monitoring at the Ash Landfill Operable Unit at Seneca Army Depot Activity (SEDA) in Romulus, New York (EPA Site ID# NY0213820830 and NY Site ID# 8-50-006). This Annual Report and Year Four Review provides a review of long-term groundwater monitoring for 2010 and recommendations for future long-term monitoring at the site. This document also provides an annual review of the effectiveness of the remedy implemented in 2006. This document recommends the continuation of monitoring on a semi-annual basis for the next year.

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Sincerely,

Todd Heino, P.E. Program Manager

Enclosures

cc: M. Heaney, TechLaw J. Noh K. Hoddinott, USACHPPM R. Bat

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S. Absolom, SEDA

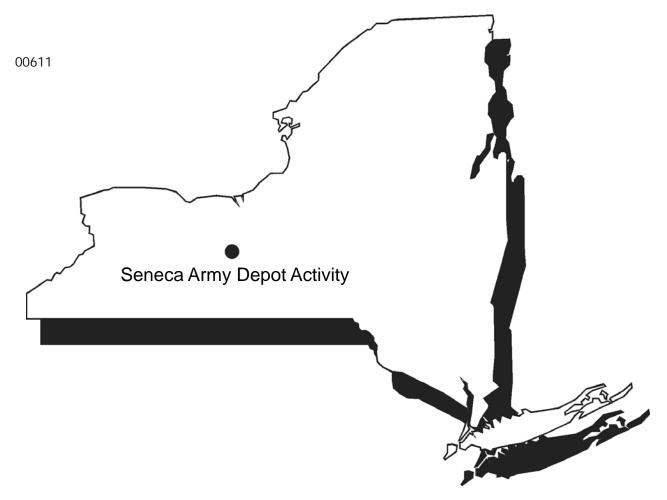


US Army, Engineering & Support Center Huntsville, AL









FINAL ANNUAL REPORT AND YEAR 4 REVIEW

ASH LANDFILL OPERABLE UNIT SENECA ARMY DEPOT ACTIVITY

Contract No. W912DY-08-D-0003 Task Order No. 0001 EPA Site ID# NY0213820830 NY Site ID# 8-50-006

PARSONS

September 2011

FINAL ANNUAL REPORT AND YEAR 4 REVIEW FOR THE ASH LANDFILL OPERABLE UNIT SENECA ARMY DEPOT ACTIVITY, ROMULUS, NEW YORK

Prepared for:

U.S. ARMY CORPS OF ENGINEERS, ENGINEERING AND SUPPORT CENTER HUNTSVILLE, ALABAMA

and

SENECA ARMY DEPOT ACTIVITY ROMULUS, NEW YORK

Prepared by:

PARSONS 100 High Street Boston, MA 02110

Contract Number W912DY-08-D-0003 Task Order No. 0001 EPA Site ID# NY0213820830 NY Site ID# 8-50-006

September 2011

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1.0 INTRODUCTION

This Annual Report is for the Ash Landfill Operable Unit (OU), located at the Seneca Army Depot Activity (SEDA or the Depot) in Romulus, New York (**Figure 1**). This report provides a review of the fourth year of long-term groundwater monitoring of the full-scale biowall system installed in 2006. This report also provides recommendations for future long-term monitoring at the site. This report is based on an annual review of the effectiveness of the remedy implemented in 2006, and includes the following:

- A comparison of the groundwater data to the long-term groundwater monitoring (LTM) objectives, listed below in **Section 1.1**;
- An evaluation of the need to recharge (i.e., add substrate) the biowalls, as outlined in the Remedial Design Report (RDR) (Parsons, 2006c) in **Section 3.4**; and
- An assessment of the remedy's compliance with the United States Environmental Protection Agency's (USEPA's) "Guidance for Evaluation of Federal Agency Demonstrations (Section 12(h)(s))."

A remedial action (RA) was completed in October and November 2006 in accordance with the Record of Decision (ROD) for the Ash Landfill OU (Parsons, 2004), the Remedial Design Work Plan (Parsons, 2006b), and the RDR (Parsons, 2006c), The RA involved the following:

- Installation of three dual biowall systems, A1/A2, B1/B2, and C1/C2, to address volatile organic compounds (VOCs) in groundwater that exceed New York State Department of Environmental Conservation's (NYSDEC's) Class GA groundwater standards;
- Construction and establishment of a 12-inch vegetative cover over the Ash Landfill and the Non-Combustible Fill Landfill (NCFL) to prevent ecological receptors from coming into direct contact with the underlying soils that are contaminated with metals and polycyclic aromatic hydrocarbons (PAHs);
- Excavation and disposal of Debris Piles A, B, and C; and
- Re-grading of the Incinerator Cooling Water Pond to promote positive drainage.

As part of the RA at the Ash Landfill OU, LTM is being performed as part of the post-closure operations. Groundwater monitoring is required as part of the remedial design, which was formulated to comply with the ROD. The first of four rounds of groundwater sampling performed in the first year of LTM was completed between January 3, 2007 and January 4, 2007; the second round was completed between March 15, 2007 and March 17, 2007; the third round was completed between June 5, 2007 and June 7, 2007; and the last round was completed between November 13, 2007 and November 15, 2007.

The analytical and geochemical results were presented in four letter reports, submitted April 12, 2007 (Quarter 1), June 5, 2007 (Quarter 2), September 19, 2007 (Quarter 3), and February 21, 2008 (Quarter 4). The results of the Year 1 LTM were reported and evaluated in the "Annual Report and One-Year Review for the Ash Landfill" (Parsons, 2008a). As part of the Year 1 report, the Army recommended that the frequency of LTM events at the Ash Landfill OU be reduced from quarterly to semi-annually; this recommendation was approved by the USEPA and NYSDEC.

The first round of Year 2 semi-annual monitoring, referred to as Round 5, was completed between June 24, 2008 and June 26, 2008, and the results are presented in the letter report issued on January 12, 2009. Round 6 of the semi-annual monitoring was completed between December 11, 2008 and December 15, 2008, and the results are presented in the letter report issues on April 3, 2009. The results of Year 2 of the LTM program were presented in the "Annual Report and Year Two Review" (Parsons, 2009). The first round of Year 3 semi-annual monitoring, referred to as Round 7, was completed between June 1, 2009 and June 4, 2009, and the results are presented in the letter report issued on August 5, 2009. Round 8 of the semi-annual monitoring was completed between December 14, 2009 and December 18, 2009, and the results are presented in the letter report issued on March 5, 2010. The results of Year 3 of the LTM program were presented in the "Annual Report and Year Three Review" (Parsons, 2010). The first round of Year 4 semi-annual monitoring, referred to as Round 9, was completed between June 28, 2010 and July 2, 2010, and the results are presented in the letter report issued on November 2, 2010. Round 10 of the semi-annual monitoring was completed between December 14, 2010 and December 19, 2010, and the results are presented in the letter report issued on April 5, 2011

This Annual Report reviews the results of the fourth year of the LTM program as part of the ongoing evaluation of the remedy and provides conclusions and recommendations about the effectiveness of the remedial action, including the groundwater remedy and the vegetative landfill covers.

1.1 Long-Term Groundwater Monitoring Objectives

Three types of long-term groundwater monitoring are being performed: 1) plume performance monitoring, 2) biowall process monitoring, and 3) off-site compliance monitoring. On-site performance monitoring is being conducted to measure groundwater contaminant concentrations and to evaluate the effectiveness of the biowall remedy for the Ash Landfill OU. The objectives of performance and compliance monitoring are as follows:

- Confirm that there are no exceedances of groundwater standards for contaminants of concern (COCs) at the off-site compliance monitoring well MW-56;
- Document the effectiveness of the biowalls to remediate and attenuate the chlorinated ethene plume; and

Confirm that groundwater concentrations throughout the plume are decreasing to eventually meet NYSDEC Class GA groundwater standards.

Biowall process monitoring is being conducted at two locations (shown in **Figure 2**) to determine if, and when, any biowall maintenance activities should be performed. The first location is within Biowalls B1/B2 (MWT-27 and MWT-28) in the segment that runs along the pilot-scale biowalls that were installed in July 2005. The second location is within Biowall C2 (MWT-23), the furthest downgradient biowall. The objectives of biowall process monitoring for operations and maintenance (O&M) activities are as follows:

- Monitor the long-term performance and sustainability of the biowalls;
- Monitor substrate depletion and geochemical conditions under which the effectiveness of the biowalls may decline; and
- Determine if, and when, the biowalls need maintenance (i.e., need to be recharge with additional organic substrate).

2.0 SITE BACKGROUND

2.1 Site Description

SEDA is a 10,587-acre former military facility located in Seneca County near Romulus, New York, that was owned by the United States Government and operated by the Department of the Army from 1941 until 2000. In 2000, the Army assumed a caretaker role at the SEDA, and since this time more than 8,500 acres of the property have been transferred to other parties. SEDA is located between Seneca Lake and Cayuga Lake and is bordered by New York State Highway 96 to the east, New York State Highway 96A to the west, and sparsely populated farmland to the north and south.

The location of the Ash Landfill OU, also referred to as the Ash Landfill, is composed of five historic solid waste management units (SWMUs). As shown in Figure 3, the five SWMUs that comprise the Ash Landfill OU are the Incinerator Cooling Water Pond (SEAD-3), the Ash Landfill (SEAD-6), the NCFL (SEAD-8), the former Debris Piles (SEAD-14), and the former Abandoned Solid Waste Incinerator Building (SEAD-15).

Prior to the Army's purchase of land for construction of the SEDA, the area of the Ash Landfill OU was used for farming. From 1941 (the date SEDA was constructed) to 1974, uncontaminated trash was burned in a series of burn pits located near the former abandoned incinerator building (Building 2207). According to the U.S. Army Environmental Hygiene Agency (USAEHA) Interim Final Report, Groundwater Contamination Survey No. 38-26-0868-88 (July 1987), the ash from the refuse burning pits was buried in the Ash Landfill (SEAD-6) from date of inception until the late 1950s or early 1960s.

The incinerator was built in 1974. Between 1974 and 1979, materials intended for disposal were transported to the incinerator. Each week the Depot generated approximately 18 tons of refuse, the

majority of which was incinerated. The source for the refuse was domestic waste from Depot activities and family housing. Large items that could not be burned were disposed at the NCFL (SEAD-8). The NCFL encompasses approximately three acres located southeast of the former incinerator building, immediately south of a SEDA railroad line. The NCFL was used as a disposal site for non-combustible materials, including construction debris, from 1969 until 1977.

Ash and other residue from the former incinerator were temporarily disposed in an unlined cooling pond immediately north of the incinerator building. The cooling pond consisted of an unlined depression approximately 50 feet in diameter and approximately 6 to 8 feet deep. When the pond filled, the fly ash and residues were removed, transported, and buried in the adjacent ash landfill east of the cooling pond. The refuse was dumped in piles and occasionally spread and compacted. No daily or final cover was applied during operation. According to an undated aerial photograph of the incinerator during operation, the active area of the Ash Landfill extended at least 500 feet north of the incinerator building, near a bend in a dirt road. A fire destroyed the incinerator on May 8, 1979, and the landfill was subsequently closed. Post-closure the landfill was apparently covered with native soil of various thicknesses, but was not closed with an engineered cover or cap. Other areas at the site were used as a grease pit and for burning debris.

2.2 Site Geology/Hydrogeology

The site is underlain by a broad north-to-south trending series of rock terraces covered by a mantle of glacial till. As part of the Appalachian Plateau, the region is underlain by a tectonically undisturbed sequence of Paleozoic rocks consisting of shales, sandstones, conglomerates, limestones and dolostones. At the Ash Landfill site, these rocks (the Ludlowville Formation) are characterized by gray, calcareous shales and mudstones and thin limestones with numerous zones of abundant invertebrate fossils. Locally, the shale is soft, gray, and fissile. The shale, which has a thin weathered zone at the top, is overlain by 2 to 3 feet of Pleistocene-age¹ till deposits. The till matrix varies locally, but generally consists of unsorted silt, clay, sand, and gravel.

The thickness of the till at the Ash Landfill OU generally ranges from 4 to 15 feet. At the location of the biowalls, the thickness of the till and weathered shale is approximately 10 to 15 feet. Groundwater is present in both the shallow till/weathered shale layer and in the deeper competent shale layer. In both water-bearing units, the predominant direction of groundwater flow is to the west, toward Seneca Lake. Based on the historical data, the wells at the Ash Landfill site exhibit rhythmic and seasonal fluctuations in the water table and the saturated thickness. Historic data at the Ash Landfill OU indicate that the saturated interval is thin (generally between 1 and 3 feet thick) in the month of September and is thickest (generally between 6 and 8.5 feet thick) between December and March.

¹ The Pleistocene Age, also known as the Late Wisconsin Age, occurred 20,000 years before present.

The average linear velocity of the groundwater in the till/weathered shale layer was calculated during the Remedial Investigation (RI) in 1994 using the following parameters: 1) average hydraulic conductivity of 4.5 x 10⁻⁴ centimeters per second (cm/sec) (1.28 feet per day [ft/day]), 2) estimated effective porosity of 15% to 20%, and 3) groundwater gradient of 1.95 x 10⁻² feet per foot (ft/ft) (Parsons Engineering Science, Inc., 1994). The average linear velocity was calculated as 0.166 ft/day or 60.7 feet per year (ft/yr) at 15% effective porosity and 0.125 ft/day or 45.5 ft/yr at 20% effective porosity. The actual velocity of on-site groundwater may be locally influenced by zones of higher-than-average permeability; these zones are possibly associated with variations in the porosity of the till/weathered shale.

2.3 Soil and Groundwater Impacts

The nature and extent of the COCs at the Ash Landfill OU were evaluated through a comprehensive RI program. It was determined that surface water and sediment were not media of concern and did not require remediation. A groundwater contaminant plume that emanated from the northern end of the Ash Landfill was delineated during the RI. The primary COCs in groundwater at the Ash Landfill are VOCs; the primary COCs in soil at the Ash Landfill are chlorinated and aromatic compounds, semivolatile organic compounds (SVOCs), polycyclic aromatic hydrocarbons (PAHs), and, to a lesser degree, metals. Release of the COCs is believed to have occurred during the former activities at the Ash Landfill OU (described above).

Soil

VOCs, specifically trichloroethene (TCE), were detected in the soil in the "Bend in the Road" area. Located northwest of the Ash Landfill, this area is believed to be the source of the groundwater plume. Between 1994 and 1995, the Army conducted a Non-Time Critical Removal Action (NTCRA), also known as an Interim Removal Measure (IRM), to address VOC and PAH contamination in soil near the "Bend in the Road." The excavation limits of the NTCRA are shown on **Figure 3**. The NTCRA successfully reduced the risk associated with potential exposure to contaminated soil, and prevented continued leaching of VOCs to groundwater. Since the NTCRA, concentrations of VOCs in groundwater near the original source area have decreased by two orders of magnitude. Further remediation for VOCs in the soil at the "Bend in the Road" was not required.

The other COCs detected in the soil were PAHs and metals. PAHs were detected at concentrations above NYSDEC's Technical and Administrative Guidance Memorandum (TAGM #4046) values in the NCFL and the Debris Piles present around the former Ash Landfill. In general, the highest PAH concentrations were detected in the NCFL and small Debris Pile surface soils. The metals that were detected at elevated concentrations (significantly above TAGMs) in soils were copper, lead, mercury, and zinc. These elevated concentrations were found in the Ash Landfill, the NCFL, and the Debris Piles, with the highest concentrations of metals detected at the surface of the Debris Piles. These piles were small, localized, surface features that were visibly discernable and did not extend into the subsurface. The former debris piles were excavated and disposed offsite during the RA in 2006.

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Groundwater

The primary potential impact to human health and the environment is a groundwater contaminant plume containing dissolved chlorinated solvents, primarily TCE, isomers of dichloroethene (DCE), and vinyl chloride (VC). The plume originates in the "Bend in the Road" area near the northwestern edge of the Ash Landfill and is approximately 1,100 feet long by 625 feet wide. The nearest exposure points for groundwater are three farmhouse wells located approximately 1,250 feet from the leading edge of the plume near the farmhouse. The location of the farmhouse relative to the plume at the Ash Landfill is shown on **Figure 4**. Two of the farmhouse wells draw water from the till/weathered shale aquifer and the remaining well draws water from the bedrock aquifer. As discussed in Section 4.4 of the RI (Parsons, 1994), plume profiles were constructed for geologic cross sections at the Ash Landfill; based on these profiles it was determined that the plume is vertically restricted to the upper till/weathered shale aquifer and is not present in the deeper competent shale aquifer. As noted above, the source area of the plume was removed by the NTCRA.

2.4 Summary of the Remedial Action

2.4.1 Biowalls

Three biowall pairs were installed to address groundwater contamination on-site, as documented in the Construction Completion Report (Parsons, 2007). The biowalls were constructed by excavating a linear trench to competent bedrock then backfilling the trench to the ground surface with a mixture of mulch and sand.

Biowalls A1/A2, B1/B2, and C1/C2 (as shown in **Figure 2**) were constructed perpendicular to the chlorinated solvent plume at the locations prescribed in the RDR. The entire length of Biowalls A1/A2 and the northern portion of B1/B2 were combined into a single double-width trench (minimum of 6 feet in width) due to unstable soil conditions that caused trench widening. Approximately 2,840 linear feet (lf) of biowalls were constructed in the areas downgradient of the Ash Landfill at depths ranging from 7 feet below ground surface (bgs) to 18.5 feet bgs.

A 12-inch soil cover was placed over the entire length of the biowalls to impede surface water from preferentially flowing into the biowall trenches. Trench spoils were used as the cover material and were compacted with a backhoe. A site visit in December 2010 confirmed that the mulch backfill in the trenches has settled to ground surface.

2.4.2 Incinerator Cooling Water Pond

As specified in the RDR, the Incinerator Cooling Water Pond (ICWP) was re-graded to meet the surrounding grade to prevent the accumulation of water in this inactive pond. Prior to re-grading, the vegetation on the berms surrounding the ICWP was removed with an excavator. The soil berm was then regraded with a dozer to match the surrounding grade. The ICWP was seeded with a standard meadow mix to promote vegetation and to prevent erosion.

2.4.3 Ash Landfill and NCFL Vegetative Cover

A soil cover comprised of mulch, biowall trench spoils that met the site cleanup criteria, and off-site topsoil was placed over the 2.2 acres of the Ash Landfill. The Ash Landfill was covered with 4,380 cubic yards (cy) of fill to achieve a minimum cover thickness of 12 inches. Biowall trench spoils that met the site cleanup criteria and off-site topsoil were placed over the 3.4 acre NCFL. The NCFL was covered with 6,015 cy of fill to achieve a minimum cover thickness of 12 inches. The purpose of the covers is to prevent terrestrial wildlife from directly contacting or incidentally ingesting metal-impacted soils.

2.4.4 Debris Pile Removal

During the RA, approximately 200 cy of debris was removed from Debris Piles B and C. Approximately 1,000 cy of debris was removed from within and beyond the staked limits of Debris Pile A. The total volume of debris removed was approximately 1,200 cy (1,548 tons).

2.5 Description of Technology Used in Biowalls

Reductive dechlorination is the most important process for natural biodegradation of highly chlorinated solvents (USEPA, 1998) (see **Figure 5**). Complete dechlorination of TCE and other chlorinated solvents is the goal of anaerobic biodegradation via mulch biowall technology.

Biodegradation causes measurable changes in groundwater geochemistry that can be used to evaluate the effectiveness of substrate addition in stimulating biodegradation. For anaerobic reductive dechlorination to be an effective process, generally groundwater must be sulfate-reducing or methanogenic. Thus, groundwater in which anaerobic reductive dechlorination is occurring should have the following geochemical signature:

- Depleted concentrations of dissolved oxygen (DO), nitrate, and sulfate;
- Elevated concentrations of manganese, ferrous iron, methane, carbon dioxide, chloride, and alkalinity; and
- Reduced oxidation reduction potential (ORP).

Treatment of chlorinated ethenes in groundwater using a biowall relies on the flow of groundwater under a natural hydraulic gradient through the biowall to promote contact with slowly-soluble organic matter. As the groundwater flows through the organic matter in the biowall, an anaerobic treatment zone is established in the biowall. The treatment zone may also be established downgradient of the biowall as soluble organic matter migrates with groundwater and stimulates microbial processes.

Solid-phase organic substrates used to stimulate anaerobic biodegradation of chlorinated ethenes include plant mulch and compost. To enhance microbial activity, the mulch may be composted prior

to emplacement to more readily degraded material, or mulch may be mixed with an outside source of compost. Mulch is primarily composed of cellulose and lignin, and contains "green" plant material that provides nitrogen and nutrients for microbial growth. These substrates are mixed with coarse sand and placed in a trench or excavation in a permeable reactive biowall configuration. Biodegradable vegetable oil may be added to the mulch mixture to increase the availability of soluble organic carbon.

Degradation of the organic substrate by microbial processes in the subsurface provides a number of breakdown products, including metabolic acids (e.g., butyric and acetic acids). The breakdown products and acids produced by degradation of mulch in a saturated subsurface environment provide secondary fermentable substrates for the generation of molecular hydrogen, which is the primary electron donor utilized in anaerobic reductive dechlorination of chlorinated ethenes. Thus, a mulch biowall has the potential to stimulate reductive dechlorination of chlorinated ethenes for many years. If necessary, mulch biowalls can be periodically recharged with liquid substrates (e.g., emulsified vegetable oils) to extend the life of the biowall. Vegetable oil is a substrate that is readily available to microorganisms as a carbon source that helps establish and continually develop the microbial population. Used in combination with mulch, vegetable oil has the potential to enhance and extend the duration of organic carbon release.

3.0 LONG-TERM MONITORING DATA ANALYSIS AND GROUNDWATER REMEDY EVALUATION

3.1 Sample Collection

Four rounds of sampling were conducted during the first year of LTM, as follows:

- The first quarter, referred to as 1Q2007, was completed between January 3, 2007 and January 4, 2007;
- The second quarter, referred to as 2Q2007, was completed between March 15, 2007 and March 17, 2007;
- The third quarter, referred to as 3Q2007, was completed between June 5, 2007 and June 7, 2007; and
- The fourth quarter, referred to as 4Q2007, was completed between November 13, 2007 and November 15, 2007.

Two rounds of sampling were conducted during the second year of LTM, as follows:

• Round five, referred to as 5R2008, was completed between June 24, 2008 and June 26, 2008; and

Round six, referred to as 6R2008, was completed between December 11, 2008 and December 15, 2008.

Two rounds of sampling were conducted during the third year of LTM, as follows:

- Round seven, referred to as 7R2009, was completed between June 1, 2009 and June 4, 2009; and
- Round eight, referred to as 8R2009, was completed between December 14, 2009 and December 18, 2009.

Two rounds of sampling were conducted during the fourth year of LTM, as follows:

- Round nine, referred to as 9R2010, was completed between June 28, 2010 and July 2, 2010; and
- Round ten, referred to as 10R2010, was completed between December 14, 2010 and December 19, 2010.

The first year of sampling was quarterly, and at that time, the sampling rounds were identified as xQyyyy, where "x" is the round number, and "yyyy" is the 4 digit year. After the first year, the sample frequency was modified to semiannual. An "R" was used to replace the "Q" to denote the round. The round number has been used sequentially since the first quarterly round.

Groundwater samples were collected using low flow sampling techniques during each of the 2010 sampling rounds. Bladder pumps were used to purge the wells and collect the samples during these rounds. 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, 2006a). Field forms for 9R2010 and 10R2010 are included on a CD in **Appendix A**.

Fourteen monitoring wells were sampled and classified into three groups (listed in **Table 1**): eleven on-site plume performance monitoring wells, one off-site compliance monitoring well, and five biowall process monitoring wells. The off-site performance monitoring well, MW-56, is monitored on a semi-annual basis, and was monitored in January 2007, June 2007, June 2008, December 2008, June 2009, December 2009, June 2010, and December 2010. The well locations are shown on Figure 6.

Three of the biowall process monitoring wells are also plume performance wells (MWT-23, MWT-28, and MWT-29). These five wells are either within or immediately upgradient or downgradient of the biowalls and are used to assess if, and when, the biowalls may require additional substrate. The Annual Report – Year 1 recommended that groundwater samples collected from monitoring wells PT-

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17 and MWT-7 be analyzed for additional geochemical parameters that are included for the process monitoring wells to better monitor the progress of the treatment zone.

As indicated in **Table 1**, samples from the wells in the biowall process monitoring group (MWT-23, MWT-26, MWT-27, MWT-28, and MWT-29) and from two wells from the on-site plume performance group (PT-17 and MWT-7) were submitted to Test America Laboratories, Inc. in Buffalo, New York for Rounds 1 through 8 and to Test America Laboratories, Inc. in Savannah, Georgia for Rounds 9 and 10 to be analyzed for:

- VOCs by USEPA SW846 Method 8260B
- Total organic carbon (TOC) by USEPA SW846 Method 9060A
- Sulfate by USEPA Method 300.1

Samples from these wells were also submitted to Microseeps, Inc. located in Pittsburgh, Pennsylvania for analysis for methane, ethane, and ethene (MEE) by AM20GAX, Microseeps' version of Method RSK 175.

During sampling in the field, the following geochemical parameters were recorded for the duration of low-flow sampling for each groundwater sample:

- pH, ORP, and conductivity were measured with a Horiba U-52 multi-parameter instrument;
- DO and temperature were measured with a YSI 85 meter; and
- Turbidity was measured with a Lamotte 2020 turbidity meter.

In addition, a HACH[®] DR/850 Colorimeter was used in the field to measure manganese and ferrous iron at PT-17, MWT-7, MWT-23, MWT-26, MWT-27, MTW-28, and MWT-29. Manganese and ferrous iron were measured by USEPA Method 8034 and USEPA Method 8146, respectively. A summary of the samples collected is presented in **Table 1**.

3.2 Groundwater Elevations

Historic groundwater elevations and groundwater elevations from the four years of LTM round are presented in **Figure 7** and **Table 2**. Groundwater contours and groundwater flow direction based on tenth round measurements taken on December 13, 2010 are provided in **Figure 8**; these data show that groundwater levels were relatively high during the tenth sampling event

3.3 Geochemical Data

Biodegradation causes measurable changes in groundwater geochemistry that can be used to evaluate the effectiveness of substrate addition in stimulating biodegradation. For anaerobic reductive dechlorination to be an effective process, typically groundwater will be sulfate-reducing or methanogenic. As mentioned above, geochemical parameters collected in the field that also serve as

water quality indicators (i.e., pH, ORP, DO, conductivity, and temperature) were recorded for all the wells in the LTM program. Analysis for the additional geochemical parameters of TOC, sulfate, and MEE, and field tests for ferrous iron and manganese, were completed at PT-18A, MWT-7, MWT-23, MWT-26, MWT-27, MWT-28, and MWT-29. According to USEPA guidance on natural attenuation of chlorinated solvents (USEPA, 1998), analysis of these geochemical parameters conditions are conducive for anaerobic reductive dechlorination to occur if the following geochemical signatures are identified::

- Depleted concentrations of DO and sulfate,
- Elevated concentrations of methane,
- Reduced ORP,
- Elevated concentrations of soluble organic substrate as defined by TOC in groundwater; and
- An increase in the concentrations of ferrous iron and manganese relative to background conditions.

Geochemical parameter results are shown in **Table 3**, which is organized with the most upgradient well listed first and the most downgradient well listed last. A comparison of the geochemical parameters for wells MWT-26 (upgradient of Biowall B1) to MWT-28 (in Biowall B2) for Year 4, summarized below, demonstrates the change in geochemistry across the B1/B2 Biowalls.

Dissolved Oxygen

DO is the most favored electron acceptor (i.e., yields the most energy) used by microbes during biodegradation of organic carbon, and its presence can inhibit the anaerobic degradation of chlorinated ethenes. In the wells sampled within Biowalls B1/B2 and Biowall C2, DO levels are depleted (less than 1.0 milligrams per liter [mg/L]) in both Year 4 events (see **Table 3**). DO is depleted due to the biological activity encouraged by the biowall substrate. The depletion of DO enhances the potential for anaerobic degradation of chlorinated ethenes in groundwater. The data also show that historically DO concentrations are higher in winter than in summer; the increase in DO concentrations between the two Year 4 sampling events, 9R2010 and 10R2010, likely reflects seasonal variation and not a systemic increase in DO.

<u>Sulfate</u>

Sulfate is used as an electron acceptor during sulfate reduction, competing with anaerobic reductive dechlorination for available substrate/electron donor. Sulfate levels lower than 20 mg/L are desired to prevent inhibition of reductive dechlorination of chlorinated ethenes (USEPA, 1998). In Year 4, concentrations were less than 20 mg/L in Biowall B2 (MWT-28) and Biowall C2 (MWT-23). the sulfate levels detected within the biowalls (at MWT-27, MWT-28, and MWT-23) were orders of

magnitude lower than the concentration of sulfate detected upgradient of Biowalls B1/B2 at MWT-26 (see **Table 3**). These conditions indicate that sulfate is being depleted and that sulfate should not inhibit anaerobic dechlorination within the bio walls.

Methane

The presence of methane in groundwater is indicative of strongly reducing methanogenic conditions. An increase in the concentrations of methane indicates that reducing conditions are optimal for anaerobic reductive dechlorination to occur. Methane was detected in the well upgradient of Biowall B1/B2 (MWT-26) at a concentration of 1,600 micrograms per liter (µg/L) in Round 10. Compared to this concentration, concentrations of methane were greater at the process wells located within biowall B2, and were at least an order of magnitude at greater at the process wells located within biowalls B1 and C2 (see **Table 3**). These data demonstrate that there is an increase in the level of methanogenic activity within the biowalls and in downgradient areas, compared to upgradient locations.

Oxidation-Reduction Potential

ORP indicates the level of electron activity in groundwater and the tendency of groundwater to accept or transfer electrons. Low ORP, less than -100 millivolts (mV), is conducive for anaerobic reductive dechlorination to occur (USEPA, 1998). During Round 10, ORP values upgradient of Biowall A1/A2 were significantly higher than ORP values in the wells within the biowalls, which were less than or equal to -100 mV (see **Table 3**). The ORP levels within Biowalls B1/B2 and C2 indicate that reducing conditions within the biowalls are sufficient to support sulfate reduction, methanogenesis, and anaerobic reductive dechlorination.

Total Organic Carbon

The presence of organic substrate is necessary to stimulate and sustain anaerobic degradation processes. In biowalls, organic carbon acts as an energy source for anaerobic bacteria and drives reductive dechlorination. Typically concentrations of TOC greater than 20 mg/L are sufficient to maintain sulfate reducing and methanogenic conditions (USEPA, 1998). As shown in **Table 3**, the TOC concentration in Biowall B1 was greater than the TOC concentrations upgradient of the biowalls. In Biowalls B2 and C2, the TOC concentrations decreased below the threshold value of 20 mg/L, but remained greater than the concentration at upgradient well, MWT-26. Downgradient of Biowall B2 (at MWT-29) and C2 (at PT-17), the concentration of TOC decreased below the threshold value of 20 mg/L. There is a decrease in the concentration of TOC as readily degraded organics (i.e., vegetable oil and cellulose) in the mulch mixture are consumed; however, TOC concentrations on-site remain sufficiently high enough to serve as an energy source for anaerobic bacteria in the biowalls. As discussed below, the change in TOC concentrations appears to have little impact on the efficiency at which chlorinated organics are degraded within the biowalls and does not indicate that the biowalls need to be recharged at this time.

Ferrous Iron and Manganese

As described in USEPA (1998), iron III (ferric iron) is an electron acceptor used by iron-reducing bacteria under anaerobic conditions; Iron II (ferrous iron) is the product. Iron III is relatively insoluble in groundwater relative to Iron II. Therefore, an increase in concentrations of Iron II in groundwater is a clear indication that anaerobic iron reduction is occurring. Similarly, USEPA (1998) states that manganese (IV) is an electron acceptor used by manganese-reducing bacteria under anaerobic environments; soluble manganese (II) is the product. Under anaerobic conditions like those at the Ash Landfill, the presence of manganese and ferrous iron in groundwater at concentrations above the natural background concentrations demonstrates that manganese reduction and iron reduction are occurring at the site. These data support the conclusion that conditions within the biowalls are anaerobic and conducive to the degradation of chlorinated ethenes.

Summary

Monitoring data for wells within the biowalls during the fourth year of LTM indicate the following:

- DO remains below 1.0 mg/L at Biowalls B1/B2 and Biowall C2;
- Concentrations of TOC remain elevated in the biowalls, and greater than at the upgradient well;
- ORP remains low, ranging from -121 mV to -100 mV;
- Sulfate remains low; mostly below 20 mg/L, and ranging from 2.8 to 25.0 mg/L;
- Methane concentrations are 12 mg/L or higher; and
- Ferrous iron concentrations are increasing in the biowalls, indicating that conditions are conducive to the degradation of chlorinated ethenes.

A multiple lines-of-evidence approach that evaluates geochemical parameters together with the analytical data indicates that conditions in the biowalls are sufficient to support anaerobic degradation processes. Substrate in the biowalls has not been significantly depleted and biodegradation continues to occur within the biowalls. Highly anaerobic conditions persist within the biowalls and sufficient levels of organic carbon, ORP, sulfate, and methane are being sustained for effective anaerobic degradation of chlorinated ethenes.

3.4 Chemical Data Analysis and Groundwater Remedy Evaluation

Table 4 summarizes the concentrations of chlorinated ethenes detected in groundwater during the ten rounds of LTM. **Table 4** is organized with the most upgradient well listed first and the most downgradient well listed last. A complete presentation of the groundwater data is provided in **Appendix B**. **Figure 6** presents the chlorinated ethene data for the ten rounds. The discussion below

focuses on data collected during Year 4 (Rounds 9 and 10) of the LTM program, and addresses how the remedial action objectives are being achieved.

Achievement of first performance monitoring objective:

 Confirm that there are no exceedances of groundwater standards for contaminants of concern (COC) at the off-site trigger monitoring well MW-56;

Concentrations of chlorinated ethenes at off-site well MW-56 remain low or non-detect, with concentrations of TCE, cis-DCE, and VC meeting regulatory standards. As shown in **Table 4**, the fourth year of LTM confirmed that there were no exceedances of COC groundwater standards at MW-56. VC and TCE were not detected in any of the rounds at MW-56; cis-DCE was detected at MW-56 below its Class GA groundwater standard (5 μ g/L) during Year 4.

Achievement of second performance monitoring objective:

• Document the effectiveness of the biowalls to remediate and attenuate the chlorinated ethene plume;

TCE remains above the Class GA groundwater standard (5 μ g/L) at PT-18A (upgradient of biowalls). Concentrations of TCE at PT-18A vary from 2,700 μ g/L in the fourth round to 220 μ g/L in the fifth round, rebounding to 2,100 μ g/L in the eighth round, and decreasing to 6.3 μ g/L in the tenth round (see **Table 4**). Concentrations of TCE at well MWT-25 (upgradient of Biowall A) have consistently decreased from 50 μ g/L in the first quarter to below the Class GA groundwater standard at a concentration of 1.9 μ g/L in Round 10.

Concentrations of TCE and cis-DCE within the biowalls at MWT-27 (in Biowall B1), MWT-28 (in Biowall B2), and MWT-23 (in Biowall C2) remain below Class GA standards, which is an expected performance measure. Cis-DCE was reported below Class GA standards in the biowalls in all rounds. Concentrations of VC were recorded above the Class GA standard in Biowalls B1 and C2, and was detected for the first time in Biowall B2. However in Year 4, VC concentrations for all three biowalls remained at or below the VC concentration at the upgradient well, MWT-26. Continued sampling is necessary to confirm any trend for VC at MWT-27 in subsequent monitoring events.

The reduction in concentrations of TCE to below detection, coupled with concentrations of cis-DCE and VC not being elevated within the biowalls, suggests that complete mineralization of chlorinated ethenes is occurring. Therefore, the biowalls are operating as expected with no loss of performance within the biowalls.

Ethene, a final product of reductive dechlorination, is only slightly elevated within the biowalls. This suggests that multiple anaerobic degradation processes may be occurring within in the biowalls. For example, ethene is not produced by anaerobic oxidation of cis-DCE or VC, nor by abiotic transformation of chlorinated ethenes by reduced iron sulfides. Alternatively, concentrations of

ethene may be low since ethene can be further reduced under highly anaerobic conditions or can offgas with carbon dioxide or methane since it is volatile.

The overall trend in the concentrations of TCE, cis-DCE, and VC at well MWT-26 (between Biowalls A1/A2 and Biowalls B1/B2) is decreasing over time. Concentrations of TCE, cis-DCE, and VC at this well decreased during the Summer 2010 monitoring event, and increased in the Winter 2010 event. The area downgradient of MWT-26 is bounded by Biowalls B1/B2 in which the majority of concentrations of TCE, cis-DCE, and VC, except for the VC concentration in Biowall B2, remain non-detect or below their respective Class GA standards. The Army will continue to monitor well MWT-26 to see if an increasing trend in concentrations persists.

Concentrations at MWT-24 (downgradient of Biowall C2) show an overall decline over time, with some seasonal variation in cis-DCE (from 210 μ g/L in the first quarter to 23 μ g/L in the tenth round), and substantial decline in VC (from 45 μ g/L in the second quarter to 4.3 μ g/L in the tenth round). TCE has been at or below the Class GA groundwater standard (5 μ g/L) at MWT-24 in all rounds, with the exception of 6.0 μ g/L in Round 6 that was likely due to seasonal fluctuation (i.e., the effects of desorption during a period with frequent precipitation and subsequent high water levels).

The changes in groundwater concentrations of TCE, DCE, and VC as the groundwater passes through the biowalls are shown in **Figures 9A** through **9J** for Rounds 1 through 10, respectively. These figures show that the concentrations of TCE in groundwater within the biowalls are reduced to concentrations below detection limits. The concentration of TCE rebounds with distance downgradient of Biowalls C1/C2; this increase may be due to residual TCE that is desorbing from aquifer soils or diffusing out of low permeability soils. These results indicate that the biowalls treat the water within the biowalls and create a measurable, albeit slower, improvement in downgradient water quality, as well.

Anaerobic degradation of TCE may also occur in areas of the aquifer formation that are downgradient of the biowalls, where the presence of soluble organic carbon released from the biowalls enhances reductive dechlorination processes. In these downgradient areas, the concentrations of cis-DCE and VC are higher than they are within the biowalls. This suggests that sequential biotic reductive dechlorination of chlorinated organics is the primary degradation process in the downgradient reaction zones, with the presence of low concentrations of TCE being due to desorption from the aquifer matrix or from back diffusion of contaminated groundwater from low permeability soils. The elevated concentration of ethene, 88 μ g/L and 7.9 μ g/L observed at MWT-29 in Round 9 and 10 respectively, as compared to the upgradient concentration of 0.71 μ g/L and 3.3 μ g/L at MWT-26, also indicates that downgradient biotic reductive dechlorination is occurring. Further downgradient, TCE concentrations continued to decrease at MWT-7, which is 310 feet downgradient of Biowalls C1/C2. TCE was detected at a concentration of 330 μ g/L in Round 9 and at 310 μ g/L in Round 10. Additional rounds of data will be evaluated to determine long-term trends in this area.

Achievement of third performance monitoring objective:

• Confirm that groundwater concentrations throughout the plume are decreasing to eventually meet GA standards.

In general, concentrations of TCE, cis-DCE, and VC decreased over the ten sampling events at the wells within and downgradient of the biowalls. Time plots for monitoring wells MWT-25, MWT-26, MWT-27, MWT-28, MWT-29, MWT-22, PT-22, MWT-23, MWT-24, and PT-24 are presented in Figures 10A through 10J, respectively. These plots show an overall decreasing trend for the COCs. Figure 10B shows a decrease in concentrations at MWT-26 in Round 9 and an increase in concentration in Round 10, which may be due to desorption and back diffusion from low permeability soils. Figures 10E, 10F, and 10G show that the concentrations at MWT-29, MWT-22, and PT-22, respectively, which are located downgradient of Biowalls B1/B2, increased in Round 9, then decreased in Round 10 during Year 4 of LTM compared to the previous year. This confirms that the higher concentrations that were observed during the winter monitoring event were likely the result of desorption during periods of seasonal high water levels, and do not reflect an overall increasing concentration trend. The time plots of the downgradient wells (MWT-29, MWT-22, MWT-24, and PT-24) show that TCE concentrations in the wells in the vicinity and downgradient of the biowalls are decreasing over time.

An exponential regression, which models first-order decay typical in biological processes, has been calculated for each monitoring well. The regression serves as a means of estimating the time required for the concentrations of chlorinated organics to meet their respective GA groundwater standards. **Table 5** summarizes the trend for each contaminant in each well and provides an estimate of the date when the standards will be achieved as estimated by the exponential regressions. Time plots with regression lines are included as **Appendix C**.

Table 5 shows that, with the exception of the PT-18A (source area well), PT-17 (downgradient of biowalls), and MWT-7 (immediately upgradient of the ZVI wall), all concentrations at the wells either comply with the Class GA groundwater standard or are expected to comply with their respective standards by 2112, with most reaching the standards by 2023. These dates are intended to provide an indication of the timeframe required for concentrations to reach acceptable levels and are not meant as a time commitment for the remedy.

There may be limiting factors in reaching the groundwater standards by the specified date, such as desorption and back diffusion from low permeability soils, that may drive the actual time required to reach compliance. As an example, the estimates of compliance dates for PT-22 in Year 4 have both increased and decreased as compared to Year 1, Year 2, and Year 3 estimates, with increases likely due to the effect of desorption on the groundwater concentrations observed during winter months when groundwater levels were high.

Time plots of the concentration of TCE, cis-DCE, and VC for wells PT-18A, PT-17, and MWT-7 are provided in **Figures 11A**, **11B**, and **11C**, respectively; these plots include historic data prior to the

installation of the biowalls. Figures 11A, 11B, and 11C indicate that there is an overall decreasing trend for TCE, an overall increasing trend for cis-DCE, and no trend for VC at PT-18A, PT-17, and MWT-7. Since PT-18A is located in the Ash Landfill source area upgradient of all biowalls, decreasing trends at this location reflect natural attenuation processes.

PT-17 and MWT-7 are located 150 ft and 310 ft from Biowalls C1/C2, respectively. As such, it is possible that treatment zones have not been established this far downgradient of the biowalls. Nevertheless, an increasing trend for DCE paired with a decreasing trend for TCE may indicate that reductive dechlorination is occurring at these locations. Dates to achieve compliance at these locations cannot be estimated due to the natural variation in concentrations over time and further monitoring is necessary to determine any trends in chlorinated ethene concentrations at these wells. To date, concentrations at these wells are within historic levels and the Army will continue to evaluate any impacts of the biowalls on this portion of the plume.

Other Compounds

Non-chlorinated organics were detected in the groundwater at the Ash Landfill OU, and the data are presented in Appendix B. Toluene and ethyl benzene were detected in the biowalls in the first four sampling events in Year 1. The maximum concentration of toluene was 580 µg/L at MWT-23 in Quarter 4, and the maximum concentration of ethyl benzene was 1.3 J µg/L at MWT-23 in Quarter 3. The concentrations of toluene and ethyl benzene detected during Year 2 decreased significantly. Toluene was detected at a maximum concentration of 300 µg/L at MWT-23 in Round 5, and ethyl benzene was detected with a maximum concentration of 0.85 J µg/L at MWT-23 in Round 5. In Year 3, concentrations of toluene and ethyl benzene in the biowalls were below their respective Class GA groundwater standards in Round 7, and were compounds were not detected in Round 8. In Year 4, concentrations of ethyl benzene in the biowalls were below their respective Class GA groundwater standards in Rounds 9 and 10. Concentrations of toluene was below the Class GA groundwater standard in Round 9, and was not detected in Round 10. Neither toluene nor ethyl benzene is a historic COC, nor are the detections of toluene and ethyl benzene believed to be associated with historic site operations or degradation products of reductive dechlorination. The four years of data demonstrate that the concentrations of these compounds have decreased to levels below the detection and are no longer of any concern.

Ketones were detected in some monitoring wells at the site, with higher concentrations detected in the wells located within the biowalls (see **Appendix B**). The maximum detections of acetone and methyl ethyl ketone were observed at well MWT-28 (in Biowall B2) in Quarter 1 at concentrations of 2,600 J μg/L and 4,900 J μg/L, respectively. Concentrations of ketones decreased significantly in the Year 2 sampling events. The maximum concentration of acetone was 26 J μg/L at MWT-27 in Round 6 (the associated sample duplicate was below the detection limit), and the maximum concentration of methyl ethyl ketone was 12 μg/L at MWT-23 in Round 5. Concentrations of ketones decreased even further in Year 3, and to concentrations below detection limits in Rounds 9 and 10. The maximum concentration of acetone was 11 J µg/L in MWT-27, and methyl ethyl ketone was not detected in any

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of the biowall wells. Ketones were produced by fermentation reactions in the biowalls when concentrations of soluble organic carbon were high. However, ketones are readily degradable under aerobic conditions, have not persisted at the site, and were not detected within 100 feet of the site boundary.

3.5 Biowall Recharge Evaluation

The RDR calls for a recharge evaluation at the end of each year of monitoring. The evaluations completed at the end of Year 1, Year 2, and Year 3 concluded that recharge was not required and that a recharge evaluation would be performed again at the end of Year 4.

Recharge Evaluation Process

A recharge evaluation, defined on Figure 7-3 of the RDR and described below, is the determination of the need to recharge a biowall segment. The evaluation consists of the following:

- Determining the need to recharge a biowall segment requires a review of chemical concentrations and geochemical parameters by an experienced professional. A specific, absolute set of conditions or parameter values are not appropriate to determine the need to recharge. Rather, a lines-of-evidence approach will be used that correlates a decrease in the efficiency of the system to degrade chloroethenes to geochemical evidence that indicates the cause is due to substrate depletion will be used.
- The following parameters will be evaluated annually using at least two consecutive rounds of sampling data in order to determine if recharge of the biowalls is necessary:
 - COC concentrations in the biowalls (e.g., MWT-27, MWT-28, and MWT-23). If COC concentrations have rebounded by greater than 50% for any single sampling event, this will indicate that recharge should be considered. Concentrations within the biowalls, not at downgradient locations, will be used to make this evaluation so that the effectiveness of the wall itself is being measured without the interference of effects such as desorption and mixing.
 - Geochemical parameters, specifically ORP, TOC, and DO, in the biowalls (e.g., at MWT-27, MWT-28, and MWT-23). Benchmark values will be used initially to evaluate anaerobic conditions in the groundwater. The benchmarks are:
 - ORP < -100 mV
 - TOC > 20 mg/L
 - DO < 1.0 mg/L

Parameters described in the bullets above are intended to be used as guidelines and will be considered in evaluating if, and when, a depletion of bioavailable organic substrate results in a rebound in

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geochemical redox conditions under which effective anaerobic degradation of chlorinated ethenes does not occur.

Recharge Evaluation for Year 4

The recharge evaluation for Year 4 indicates that recharging the biowalls is not necessary at this time.

Section 3.2 presents the geochemical data for Year 4. The values of geochemical parameters measured in Year 4 support the interpretation that reductive dechlorination is occurring in Biowalls A1/A2, B1/B2, and C1/C2. The tables below show that the geochemical parameters for the wells within the biowalls meet the benchmark values and that groundwater conditions remain highly reducing.

Parameter	Benchmark Value	MWT-27 (Qs 1, 2, 3, 4, Rs 5, 6, 7, 8, 9, 10)
ORP (mV)	< -100	-158, -145, -141, -166, -133, -126, -128, -102, -121, -111
TOC (mg/L)	> 20	2050, 1350, 755, 167, 89, 54, 81.7, 50, 61, 32
DO (mg/L)	< 1.0	0.25, 0.08, 0, 0.06, 0.18, 0.13, 0.06, 0.15, 0.05, 0.05

Parameter	Benchmark Value	MWT-28 (Qs 1, 2, 3, 4, Rs 5, 6, 7, 8, 9, 10)
ORP (mV)	< -100	-150, -113, -131, -151, -91, -95, -135, -148, -104, -100
TOC (mg/L)	> 20	1775, 171, 309, 92, 49, 28, 28.2, 25.5, 21, 12
DO (mg/L)	< 1.0	0.16, 0.09, 0, 0.08, 0.15, 0.10, 0.18, 0.29, 0.06, 0.07

Parameter	Benchmark Value	MWT-23 (Qs 1, 2, 3, 4, Rs 5, 6, 7, 8, 9, 10)
ORP (mV)	< -100	-122, -109, -87, -144, -129, -104, -117, -90, -115, -103
TOC (mg/L)	> 20	260, 210, 303, 151, 29, 20, 15.6, 17.4, 11, 5.9
DO (mg/L)	< 1.0	0.26, 0.35, 0, 0.12, 0.15, 0.20, 0.07, 0.63, 0.04, 0.29

Section 3.3 presents the analytical data for Year 4. As shown in the table below, concentrations of TCE, cDCE, and VC in the biowalls remain low and have not rebounded by greater than 50% for any Further, the ability of the biowalls to sustain a high degree of reductive sampling event. dechlorination is well established.

		TCE (μg/L)	cDCE (μg/L)	VC (μg/L)
	Q1	ND	ND	ND
	Q2	ND	ND	ND
	Q3	ND	ND	ND
MWT-27	Q4	ND	ND	ND
IVI VV 1-27	R5	ND	ND	ND
	R6	ND	ND	ND
	R7	ND	ND	ND
	R8	ND	ND	3.1 J

		TCE (µg/L)	cDCE (μg/L)	VC (μg/L)
	R9	ND	0.18 J	ND
	R10	0.51 J	1.1	2.1
	Q1	ND	ND	ND
	Q2	ND	ND	ND
	Q3	ND	ND	ND
	Q4	ND	ND	ND
MWT 20	R5	ND	ND	ND
MWT-28	R6	ND	ND	ND
	R7	ND	ND	ND
	R8	ND	ND	ND
	R9	ND	ND	ND
	R10	ND	0.51 J	0.64 J
	Q1	ND	60	23
	Q2	ND	11	4.8
	Q3	ND	3.1	ND
	Q4	ND	3.6 J	3.65
MWT-23	R5	ND	ND	ND
101 00 1-23	R6	0.4	2.4	2.8
	R7	ND	0.42 J	ND
	R8	ND	0.47 J	ND
	R9	ND	0.41 J	ND
	R10	0.29 J	4.6	5.3

The analytical data at MWT-27 shows the concentration of TCE below the Class GA groundwater standard (5 μ g/L) at an estimated 0.51 J μ g/L. In Round 10, the concentration of cDCE was measured as 1.1 μ g/L below the Class GA groundwater standard. The concentration of VC was measured above the Class GA groundwater standard at a concentration of 2.1 μ g/L; however, this concentration was less than the only other instance of a detected VC concentration at MWT-27 (i.e. - 3.1 J μ g/L in Round 8). The Army will continue to monitor MWT-27 in subsequent monitoring events to determine any trend for VC at this well.

At MWT-28, concentrations of cDCE and VC remain below Class GA groundwater standards, and the concentration of TCE remains below detections limits.

At MWT-23 TCE and cDCE concentrations were below Class GA groundwater standards. In Round 10, the concentrations of TCE and cDCE were measured as 0.29 J μ g/L and 4.6 μ g/L, respectively. This is below the Class GA groundwater standard, and overall cDCE concentrations have decreased from the first monitoring event. The concentration of VC was above the Class GA groundwater standard at 5.3 μ g/L. This was the first VC detection at MWT-23 in the past four monitoring events, and overall VC concentrations have decreased from the first monitoring event. The Army will continue to monitor MWT-23 in subsequent monitoring events to determine any trend for VC at this well.

Overall, the multiple lines-of-evidence approach that evaluates geochemical parameters together with the chemical analytical data indicates that conditions in the biowalls are sufficiently anaerobic to support reductive chlorination of chlorinated ethenes. Substrate in the biowalls has not been significantly depleted and biodegradation continues to occur. Although TOC levels are below the benchmark value at MWT-28 and MWT-23, they remain higher than TOC concentrations in the upgradient well. Low DO concentrations and ORPs indicate that highly reducing conditions are being maintained with the current levels of TOC. Reductions in sulfate and the production of methane further indicate that highly anaerobic conditions are being sustained.

Based on the review of the analytical and geochemical data, the biowalls do not need to be recharged at this time, and the biowall system continues to meet the long-term monitoring objectives established in the RDR (Parsons, 2006).

3.6 Soil Remedy Evaluation

Part of the remedial action was installing a 12-inch vegetative cover over the Ash Landfill and the NCFL. The covers have been inspected and field observations from Year 4 note that the landfills are vegetated with grass and clover. At the NCFL, visual observations noted a small amount of soil erosion and the presence of rodent trails; however, the erosion and the trails cut less than 6 inches into the cover. Therefore, underlying soil has not been exposed to the environment and corrective action is not required. The Army will continue to monitor the integrity of the covers and ensure that the vegetative covers have not been breached and that the underlying soil is not exposed.

3.7 Land Use Controls (LUCs)

The remedy for the Ash Landfill OU requires the implementation and maintenance of land use controls (LUCs). The LUC requirements are detailed in the "Land Use Control Remedial Design for SEAD-27, 66, and 64A, *Addendum 3*" (2008b). The selected LUCs for the Ash Landfill OU are as follows:

- Prevent access to or use of the groundwater until cleanup levels are met;
- Maintain the integrity of any current or future remedial or monitoring system, such as monitoring wells and permeable reactive barriers;
- Prohibit excavation of the soil or construction of inhabitable structures (temporary or permanent) above the area of the existing groundwater plume; and
- Maintain the vegetative soil layer over the ash fill areas and the NCFL to limit ecological contact.

As part of the LTM program, the Army inspected the site 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 other than that needed for monitoring. As discussed in **Section 3.5**, the vegetative covers are limiting ecological contact with the underlying soil.

During 9R2010 and 10R2010, groundwater monitoring wells were inspected by field personnel. The integrity of all wells at the Ash Landfill is intact and each well is viable for groundwater elevation readings and groundwater sampling, where appropriate. Monitoring wells not required as part of the LTM were decommissioned between September 2010 and January 2011.

3.8 Operating Properly and Successfully

The implemented design has met the requirements for "operating properly and successfully" (OPS) as outlined in Section 12(h)(s) of the USEPA "Guidance for Evaluation of Federal Agency Demonstrations" (USEPA, 1996). Parsons submitted a letter on behalf of the Army to USEPA, dated June 6, 2008, declaring that the Army had determined that the remedy met the OPS requirements. The Army submitted a letter under separate cover on February 26, 2009 further certifying that the "information, data and analysis provided in Parsons' June 6, 2008 letter was true and accurate." On March 11, 2009, the USEPA transmitted a letter to the Army approving the Army's OPS demonstration. The data for Year 4 of the LTM program are consistent with the data for Year 1, Year 2, and Year 3 and demonstrate that the remedy is OPS, as described below.

The remedial action is operating "properly."

The USEPA guidance describes that "a remedial action is operating 'properly' if it is operating as designed." The Construction Completion Report (CCR) (Parsons, 2007) details that the vegetative covers were installed as designed, meeting or exceeding the 12-inch of soil cover requirement. **Section 3.5** describes that the covers are intact and effectively prevent ecological contact with the underlying soil; therefore, the vegetative covers are operating properly.

The CCR also details the construction of the biowalls. Deviation from the intended design resulted in wider-than-intended biowalls that required the emplacement of additional mulch; since this is an enhancement of the design, it is fair to say that the biowalls were constructed as designed. The geochemical data presented and discussed in **Section 3.1** indicate that conditions that are favorable to anaerobic reductive dechlorination have been established within and near the biowalls, which was the expectation of the design of the biowall system.

The remedial action is operating "successfully."

A remedial action may receive the USEPA's designation of "operating successfully" (1) if "a system will achieve the cleanup levels or performance goals delineated in the decision document" and (2) if the remedy is protective of human health and the environment. The data presented in **Section 3.3** demonstrate that concentrations of VOCs are decreasing and will eventually meet the Class GA groundwater standards. The time plots presented in **Figures 10A** through **10J** show a decreasing

trend for the COCs at the Ash Landfill OU; **Table 5** summarizes the trends in concentrations of COCs over time and provides time estimates for compliance based on exponential regressions of the time plots. The time estimates do not provide exact dates that Class GA groundwater standards will be achieved; rather they demonstrate that the concentrations in groundwater will eventually meet the groundwater standards.

Recent inspection of the vegetative covers at the Ash Landfill and the NCFL indicate that the covers are preventing ecological receptors from contacting the underlying soil; therefore, there is no threat to the environment. The LUCs have been maintained and no one is accessing the groundwater; therefore, there is no threat to human health. Based on a review of the site data, an inspection of the condition of the vegetative covers, and a confirmation that the LUCs are being maintained, the Army believes that the remedial action is operating successfully.

Based on an assessment of the design and construction of the remedial action, as well as an evaluation of the geochemical and analytical data from the three years of groundwater monitoring, the Army believes that the remedial action at the Ash Landfill meets the requirements to be designated as "operating properly and successfully".

4.0 LONG-TERM MONITORING CONCLUSIONS AND RECOMMENDATIONS

4.1 Conclusions

Based on the results of the long-term monitoring at the Ash Landfill since the installation of the full-scale biowalls, the Army has made the following conclusions:

- TCE within the biowalls remains below or close to detection limits;
- TCE, cis-DCE, and VC are present in the groundwater at the site at concentrations above respective Class GA groundwater standards;
- Chemical results indicate that the concentrations of chlorinated ethenes are decreasing as they pass through the biowall systems;
- Geochemical parameters indicate that groundwater redox conditions are highly conducive for reductive dechlorination to occur within the biowalls;
- Concentrations of chlorinated ethenes at off-site well MW-56 are below Class GA groundwater standards;
- Continued monitoring is required to determine trends in concentrations of COCs at PT-18A, PT-17, and MWT-7;
- Recharge of the biowalls is not necessary at this time;

- The remedial action continues to meets the requirements of the USEPA's "operating properly and successfully" designation; and
- The Army will continue to monitor the performance of the biowall system, including semiannual periodic evaluations of the potential need to recharge the biowalls.

4.2 Recommendations

Based on the first four years of long-term monitoring at the Ash Landfill OU, the Army recommends continuing the semi-annual frequency of monitoring based on the process shown in **Figure 12** (which is also Figure 7-3 of the RDR). The recommendations for LTM during year four of monitoring are as follows:

- Biowall process monitoring wells (MWT-26, MWT-27, MWT-28, MWT-29, and MWT-23) will be monitored on a semi-annual basis. Each year a recharge evaluation will be completed. As stated in the RDR (Parsons, 2006b), if a recharge is conducted, MWT-26, MWT-27, and MWT-29 would be excluded from the LTM program, as detailed in Figure 12. MWT-28 and MWT-23 will continue to be monitored as part of the performance monitoring wells to supplement data that will be used to determine whether additional biowall recharge is required. The recharge evaluation(s) conducted each year after the first biowall recharge would review the chemical and geochemical data at MWT-28 and MWT-23, and determine if the contaminant increase is a result of poor biowall performance or due to other issues such as seasonal variations in groundwater levels, unusual precipitation events, or desorption and back diffusion.
- Performance monitoring wells (PT-17, PT-18A, PT-22, PT-24, MWT-7, MWT-22, MWT-24, and MWT-25) will continue to be monitored on a semi-annual basis in a manner consistent with the Year 3 LTM program. In the four years of LTM events at the Ash Landfill OU, the concentrations of COCs, specifically TCE, in the wells downgradient of the source area (near PT-18A) have decreased.
- The off-site performance monitoring well (MW-56) will continue to be monitored on a semiannual basis.
- The vegetative covers at the Ash Landfill and the NCFL will be inspected annually to ensure that they remain intact and protective of ecological receptors.
- The frequency of monitoring and the need to recharge the biowalls will be reviewed in the annual report submitted after the completion of the fifth year of LTM, based on the process outlined in **Figure 12**.

5.0 **REFERENCES**

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TABLES

Table 1	Groundwater Sample Collection
Table 2	Groundwater Elevations
Table 3	Groundwater Geochemical Data
Table 4	Chlorinated Organics in Groundwater
Table 5	Groundwater Trends

Table 1 Groundwater Sample Collection Ash Landfill Annual Report, Year 4 Seneca Army Depot Activity

	N	Ionitoring Well	Group	Laboratory Analysis				
Monitoring	On-Site	Biowall	Off-Site	VOC	TOC	MEE	Sulfate	
Wells	Plume	Process	Performance	8260B	9060A	RSK-175	EPA 300.1	
PT-18A	X (all)			X (all)				
MWT-25	X (all)			X (all)				
MWT-26		X (all)		X (all)	X (all)	X (all)	X (all)	
MWT-27		X (all)		X (all)	X (all)	X (all)	X (all)	
MWT-28	X (all)	X (all)		X (all)	X (all)	X (all)	X (all)	
MWT-29	X (all)	X (all)		X (all)	X (all)	X (all)	X (all)	
MWT-22	X (all)			X (all)				
PT-22	X (all)			X (all)				
MWT-23	X (all)	X (all)		X (all)	X (all)	X (all)	X (all)	
MWT-24	X (all)			X (all)				
PT-17	X (all)			X (all)	X (5,6,7,8,9,10)	X (5,6,7,8,9,10)	X (5,6,7,8,9,10)	
MWT-7	X (all)			X (all)		X (5,6,7,8,9,10)		
PT-24	X (all)			X (all)	X (7)	X (7)	X (7)	
MW-56			X (1,3,5,6,7,8,9,10)	X (all)				

Notes:

- 1. All samples were analyzed for field parameters including pH, ORP, dissolved oxygen, conductivity, temperature, and turbidity.
- (all) This well was sampled in all rounds of the LTM program.
- (7) This well was sampled in Round 7 of the LTM program.
- (1,3,5,6,7,8,9,10) This well was sampled in Quarters 1 and 3, and Rounds 5 10 of the LTM program.
- (5,6,7,8,9,10) These wells were sampled in Rounds 5 10 of the LTM program.

Table 2 Groundwater Elevation Data Ash Landfill Annual Report, Year 4 Seneca Army Depot Activity

			LTM	R10 - December	2010	Historical Data			
Monitoring	Top of Riser	Well Depth	Saturated Thickness	Depth to Groundwater	Water Level Elevation	Groundwater Elevation (ft)		Well	
Well	Elevation (ft)	(rel. TOC) (ft)	(ft)	(ft)	(ft)	Maximum	Minimum	Range	Depth (ft)
PT-17	640.14	11.65	9.01	2.64	637.50	637.50	629.05	8.45	11.65
PT-18A	659.05	12.85	7.05	5.80	653.25	653.25	649.68	3.57	12.85
PT-22	648.61	11.81	6.68	5.13	643.48	644.30	637.47	6.83	11.81
PT-24	636.40	11.88	7.26	4.62	631.78	632.76	627.80	4.96	11.88
MW-56	630.51	6.88	3.33	3.55	626.96	627.58	621.66	5.92	6.88
MWT-7	638.34	13.64	8.73	4.91	633.43	633.50	626.58	6.92	13.64
MWT-22	650.663	14.9	10.56	4.34	646.32	648.13	642.80	5.33	14.90
MWT-23	646.772	13.7	7.07	6.63	640.14	640.45	637.08	3.37	13.70
MWT-24	641.564	13	6.79	6.21	635.35	635.84	633.19	2.65	13.00
MWT-25	654.507	13.25	9.39	3.86	650.65	650.65	646.76	3.89	13.25
MWT-26	652.191	13.22	9.62	3.60	648.59	648.59	644.98	3.61	13.22
MWT-27	652.993	12.9	8.14	4.76	648.23	648.23	645.06	3.17	12.90
MWT-28	652.685	12.85	8.00	4.85	647.84	647.84	644.74	3.11	12.85
MWT-29	651.816	13.1	8.67	4.43	647.39	647.39	643.58	3.81	13.10

Well ID	Location Description	Sample ID	Sample	рН	Turbidity	Specific	DO	ORP	TOC	Sulfate	Ethane	Ethene	Methane	Manganese	Ferrous
			Round		(NTU)	Conductance (mS/cm)	(mg/L)	(mV)	(mg/L)	(mg/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	lron (ug/L)
PT-18A	upgradient of walls	ALBW20059	1Q2007	6.63	141	1.69	1.33	93							
		ALBW20074	2Q2007	6.44	110	2.87	0.76	-177							
		ALBW20088	3Q2007	6.71	5	1.66	0	-23							
		ALBW20103	4Q2007	6.41	0.0	1.25	0.04	-5							
		ALBW20117	5R2008	6.36	1.9	1.75	0.22	-10						8.2	> 3.3
		ALBW20132	6R2008	6.58	0.56	2.04	1.76	83							
		ALBW20147	7R2009	6.77	0.45	2.01	0.12	66							
		ALBW20162	8R2009	6.71	0.00	2.04	0.62	154							
		ALBW02177	9R2010	6.7	1.00	2.05	0.1	62						1.5	0.15
		ALBW20192	10R2010	6.66	1.50	1.25	0.16	84							
MWT-25	upgradient of Biowall A	ALBW20064	1Q2007	8	9.6	0.29	2.83	63							
		ALBW20079	2Q2007	7.27	14	2.2	2.8	52							
		ALBW20093	3Q2007	7.36	6.2	2.43	4.14	100							
		ALBW20108	4Q2007	6.9	0	1.2	0.21	65							
		ALBW20123	5R2008	6.91	0.52	1.47	0.15	-41						1.4	0.75
		ALBW20138	6R2008	6.69	1.32	1.36	2.91	90							
		ALBW20153	7R2009	7.03	1.6	1.46	0.1	-31							
		ALBW20168	8R2009	7.21	0	0.792	3.35	98							
		ALBW20183	9R2010	7.06	0.7	1.48	0.2	-116							
		ALBW20198	10R2010	7.11	2.59	1.23	0.48	-94							
MWT-26	upgradient of Biowalls B1/B2	ALBW20066	1Q2007	6.89	10	2.01	1.84	-3	3.9 J	958	ND	ND	ND		
		ALBW20081	2Q2007	7.26	9	1.9	0.48	-135	15.2	738	0.4	7.8	210	2.1	> 3.3
		ALBW20095	3Q2007	6.89	2.2	1.94	0.21	-170	10.3	473	1	13	390	3.1	> 3.3
		ALBW20111	4Q2007	7.08	50	1.9	0.89	-40	6.1	1060	0.16	0.4	44	0.0	1.09
		ALBW20126	5R2008	7.05	0.67	1.88	0.31	-71	5.6	600	0.82	2.9	210	1.3	0.81
		ALBW20141	6R2008	7.01	28.7	1.58	3.54	60	4.4	541	0.046	0.028	10	0.6	0.22
		ALBW20156	7R2009	6.95	2.7	1.75	0.34	-11	6.9	570	3.2	2.7	1,100	0.5	0.71
		ALBW20171	8R2009	7.01	10	2.45	4.66	71	5.6	912	2.2	1.8	610	0.7	0.18
		ALBW20186	9R2010	6.99	1.4	2.04	0.14	-81	4.6	680	2.2	0.71	740	1.7	2.67
		ALBW20202	10R2010	6.77	0.6	1.71	0.5	109	5.5	690	3.7	3.3	1600	0	0.13
MWT-27	in Biowall B1	ALBW20067	1Q2007	6.34	120	5.31	0.25	-158	2,050 J	ND	ND	ND			
		ALBW20082	2Q2007	6.65	87	4.37	0.08	-145	1350	ND	0.15	2.7	15,000	> 22	> 3.3
		ALBW20096	3Q2007	6.59	154	3.35	0	-141	755	1.9 J	0.081	0.33	13,500	> 22	> 3.3
		ALBW20112	4Q2007	6.43	58	5.76	0.06	-166	167	31.7	ND	0.014 J	13,000	> 22	2.19
		ALBW20127	5R2008	6.49	40	3.07	0.18	-133	88.9	ND	2.3	0.049	13,000	> 22	3.23
		ALBW20142	6R2008	5.95	24.5	2.59	0.13	-126	53.5	24	1.6	0.13	15,000	> 22	3.05
		ALBW20157	7R2009	6.68	38	2.99	0.06	-128	81.7	0.93 J	5.1	0.15	14,000	22	1.88
		ALBW20172/73	8R2009	6.32	5.1	2.38	0.15	-102	50.0	14.0	4.4	1.2	15,500	9	1.26
		ALBW20187	9R2010	6.52	1.4	2.55	0.05	-121	61	0.95 J	3.8	0.12	13,000	> 22	2.54
		ALBW20203	10R2010	6.42	8.91	2.22	0.05	-111	32	25.0	3.0	0.88	18,000	48	3.30

Notes:

> = The concentration exceeded the range of the Hach DR/850 Colorimeter field kit.

J = the reported value is an estimated concentration.

ND = Non-detect.

NS = Not sampled; water level was below the indicator probe.

1Q2007 - First round of LTM (January 2007) 2Q2007 - Second round of LTM (March 2007) 3Q2007 - Third round of LTM (June 2007)

4Q2007 - Fourth round of LTM (November 2007)

5R2008 - Fifth Round of LTM (June 2008)

6R2008 - Sixth Round of LTM (December 2008)

7R2009 - Seventh Round of LTM (June 2009)

8R2009 - Eighth Round of LTM (December 2009)

9R2010 - Ninth Round of LTM (June 2010)

10R2010 - Tenth Round of LTM (December 2010)

Empty cells indicate that the specified analysis was not completed for that well. The bolded and italicized wells are the five wells included in the biowall process monitoring group. Analysis of TOC, sulfate, methane, ethane, and ethene were completed for the biowall process wells only.

Well ID	Location Description	Sample ID	Sample	рН	Turbidity	Specific	DO	ORP	TOC	Sulfate	Ethane	Ethene	Methane	Manganese	Ferrous
			Round		(NTU)	Conductance (mS/cm)	(mg/L)	(mV)	(mg/L)	(mg/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	lron (ug/L)
MWT-28	in Biowall B2	ALBW20068	1Q2007	7.5	163	0.61	0.16	-150	1,775 J	1.7	ND	ND	12,500 J		
		ALBW20083	2Q2007	6.6	21	2.3	0.09	-113	171	ND	0.67	0.48	19,000	7.5	> 3.3
		ALBW20098	3Q2007	6.56	100	2.74	0	-131	309	ND	0.01 J	0.057	11,000	> 22	> 3.3
		ALBW20113	4Q2007	6.48	10	1.72	0.08	-151	92	ND	0.014 J	ND	11,000	> 22	2.15
		ALBW20128	5R2008	6.31	14	2.16	0.15	-91	49.2	ND	0.65	0.044	12,000	> 22	> 3.3
		ALBW20144	6R2008	5.76	17	1.58	0.10	-95	27.9	48.3	2	0.12	19,000	5.3	1.98
		ALBW20158/59	7R2009	6.49	8.5	1.73	0.18	-135	28.2	ND	1.8	0.064	13,000	20.8	2.87
		ALBW20174	8R2009	6.4	10.8	1.88	0.29	-148	25.5	3.16	1.6	0.12	15,000	6.5	2.15
		ALBW20188/89	9R2010	6.36	5.5	1.62	0.06	-104	21	ND	1.6	0.059	13,500	18.6	0.57
		ALBW20204	10R2010	6.28	4.5	0.802	0.07	-100	12	4.8	1.4	0.17	12,000	5.8	2.58
MWT-29	downgradient of Biowall B2	ALBW20070	1Q2007	6.49	7.2	2.1	0.33	-76	25.1 J	113	ND	ND	ND		
		ALBW20084/5	2Q2007	6.8	1.7	2.21	0.39	-53	36.7	173	25	150	8,100	7.5	> 3.3
		ALBW20099	3Q2007	6.64	1.8	1.68	0.11	-79	15.7	151	13	160	2,800	8.1	2.84
		ALBW20114	4Q2007	7.04	12.2	1.88	0.21	-101	20.9	289	19	200	2,600	8.6	> 3.3
		ALBW20129/30	5R2008	6.44	2.7	1.85	0.17	-115	14.1	174	14.5	140	3,100	0.0	> 3.3
		ALBW20145	6R2008	6.57	3.69	1.58	1.32	67	13.6	312	14	19	2,700	3.3	0.20
		ALBW20160	7R2009	6.8	1.9	1.8	0.15	-105	11.8	300	10	47	3,000	6.8	2.97
		ALBW20175	8R2009	6.87	0	2.05	0.58	-75	8.2	644	6.7	12	1,500	6.3	0.96
		ALBW20190	9R2010	6.77	2	1.74	0.06	-86	10	170	18	88	5,400	9.1	2.54
		ALBW20205	10R2010	6.71	1.07	1.31	0.56	22	7.4	300	5.1	7.9	3,100	6.4	2.60
MWT-22	downgradient of Biowall B2	ALBW20071	1Q2007	7.7	4.5	0.13	0.09	-80							
		ALBW20075	2Q2007	6.72	41	2.16	0.3	-65							
		ALBW20100	3Q2007	6.45	2.7	2.03	0.05	-107							
		ALBW20115	4Q2007	6.53	7.5	1.81	0.18	-132							1
		ALBW20121	5R2008	6.38	14	2.21	0.3	-34						18.2	> 3.3
		ALBW20136	6R2008	6.44	8.17	1.86	0.57	-19							1
		ALBW20151	7R2009	6.59	13	2.14	0.31	-91							
		ALBW20166	8R2009	6.5	15	0.898	0.34	-65							1
		ALBW20181	9R2010	6.52	16.8	2.2	0.22	-63							1
		ALBW20196	10R2010	6.39	6.8	1.34	0.07	-58							1
PT-22	between Biowalls B and C	ALBW20060	1Q2007	7.70	4.5	0.13	0.09	-80							
		ALBW20086	2Q2007	6.78	7	1.18	0.78	-54							
		ALBW20089	3Q2007	6.67	0	1.44	0.09	-97							1
		ALBW20104	4Q2007	6.73	5.1	1.26	0.17	-166							[
		ALBW20118	5R2008	6.69	7.4	1.38	0.29	-119						0.3	1.38
		ALBW20133	6R2008	6.79	1.96	1.20	0.69	-37							
		ALBW20148	7R2009	6.76	11	1.53		-123							[
		ALBW20163	8R2009	6.74	6.3	1.45	1.0	-73							
		ALBW20178	9R2010	6.87	3.6	1.39	0.4	-75							[
		ALBW20193	10R2010	6.75	0.8	1.14	0.18	15							[

Notes:

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1Q2007 - First round of LTM (January 2007) 2Q2007 - Second round of LTM (March 2007)

3Q2007 - Third round of LTM (June 2007)

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5R2008 - Fifth Round of LTM (June 2008)

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Empty cells indicate that the specified analysis was not completed for that well. The bolded and italicized wells are the five wells included in the biowall process monitoring group. Analysis of TOC, sulfate, methane, ethane, and ethene were completed for the biowall process wells only.

Well ID	Location Description	Sample ID	Sample	рН	Turbidity	Specific	DO	ORP	TOC	Sulfate	Ethane	Ethene	Methane	Manganese	Ferrous
		· ·	Round	•	(NTU)	Conductance	(mg/L)	(mV)	(mg/L)	(mg/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	Iron
						(mS/cm)									(ug/L)
<i>MWT-23</i>	in Biowall C2	ALBW20065	1Q2007	7.2	5	0.2	0.26	-122	260 J	ND	ND	ND	12,000		
		ALBW20080	2Q2007	6.51	30	1.8	0.35	-109	210	ND	45	5.9	23,000	5.4	2.73
		ALBW20094	3Q2007	6.3	69.3	1.82	0	-87	303	ND	4.1	0.28	18,000	> 22	2.99
		ALBW20109	4Q2007	6.32	21	2.21	0.12	-144	151	2.8	0.58	0.35	16,000	> 22	2.32
		ALBW20125	5R2008	6.27	29	1.54	0.15	-129	28.4	ND	0.53	0.048	18,000	> 22	> 3.3
		ALBW20140	6R2008	6.44	32	1.86	0.20	-104	20.1	6.3	4.6	1.2	19,000	> 22	2.75
		ALBW20155	7R2009	7.72	16	1.5	0.07	-117	15.6	ND	1.6	0.16	21,000	22	2.08
		ALBW20170	8R2009	6.78	10	2.1	0.63	-90	17.4	ND	1	0.058	18,000	7	3.3
		ALBW20185	9R2010	6.38	9	1.57	0.04	-115	11	ND	2.4	0.038	18,000	>22	1.71
		ALBW20200/201	10R2010	6.41	2.8	1.07	0.29	-103	5.9	16	16	2.85	16,000	13	> 3.3
MWT-24	downgradient of Biowalls C1/C2	ALBW20063	1Q2007	7.02	10	0.762	0.27	-160							
		ALBW20078	2Q2007	6.91	59	1.08	0.32	-146							
		ALBW20092	3Q2007	6.8	5.4	1.48	0.03	-115							
		ALBW20107	4Q2007	6.81	134	1.32	0.41	-114							
		ALBW20122	5R2008	6.65	45	1.21	0.35	-43						9.1	1.54
		ALBW20137	6R2008	6.40	10	1.31	0.09	40							
		ALBW20152	7R2009	6.81	6.7	1.34	0.11	-20							
		ALBW20164	8R2009	6.61	23	0.558	1.31	59							
		ALBW20182	9R2010	6.63	6.8	1.45	0.06	-21							
		ALBW20197	10R2010	6.78	8.9	0.919	0.14	10							
PT-17 ¹	downgradient of biowalls	ALBW20058	1Q2007	8	3.8	92	0.23	-111							
		ALBW20073	2Q2007	7.1	14	0.729	0.76	-151							
		ALBW20087	3Q2007	6.99	0.4	0.732	0.9	-157							
		ALBW20102	4Q2007	7.12	8.7	2	NS	-24							
		ALBW20116	5R2008		70		0.24		6	15.2	98	66	5700		
		ALBW20131	6R2008	6.68	0.85	0.796	0.30	26	2.6	45.8	6.9	6.6	380	2.8	0.43
		ALBW20146	7R2009	7.19	0.2	1	0.30	-20	4.9	28	50	56	8300	7.5	0.53
		ALBW20161	8R2009	6.75	4	0.345	0.58	-52	2.4	46.2	9.9	5	1,500	2.1	0.07
		ALBW20176	9R2010	6.73	0.9	0.816	0.11	-13	2.4	36	16	20	4,300	5.8	0.29
		ALBW20191	10R2010	6.72	0.45	0.619	0.21	42	1.5	31	4.8	3.5	900	4.0	0.06
MWT-7	immed. upgradient of ZVI wall	ALBW20062	1Q2007	6.8	19.6	0.581	0.01	62							
		ALBW20077	2Q2007	6.95	8	0.763	0.76	52							
		ALBW20091	3Q2007	6.91	4	0.586	0.19	22							
		ABLW20106	4Q2007	6.88	0	0.9	0.16	14							
		ALBW20120	5R2008	6.85	15	0.974	0.43	37	2.3	29.1	6.7	2	400	0.2	0.09
		ALBW20135	6R2008	6.85	7.37	0.859	0.28	66	29.1	3	11	0.27	670	0.8	0.16
		ALBW20150	7R2009	7.61	2.6	0.786	0.05	16	3.1	27	7.8	0.76	1100	0	0.05
		ALBW20165	8R2009	7.12	0.9	0.555	0.46	32	4.5	29.3	17	0.52	2,900	0.01	0.14
		ALBW20180	9R2010	6.85	1.35	1.04	0.02	-21	1.5	29	9	0.55	1,700	0.2	0.19
		ALBW20195	10R2010	6.85	3.3	0.758	0.06	35	1.3	31	4.5	0.2	400	1.1	0.18

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Well ID	Location Description	Sample ID	Sample	рН	Turbidity	Specific	DO	ORP	TOC	Sulfate	Ethane	Ethene	Methane	Manganese	Ferrous
	·		Round	·	(NTU)	Conductance	(mg/L)	(mV)	(mg/L)	(mg/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	Iron
						(mS/cm)									(ug/L)
PT-24	downgradient of ZVI wall	ALBW20061	1Q2007	8.1	10	70	0.37	-59							
		ALBW20076	2Q2007	7.58	0	0.464	2.2	-59							
		ALBW20090	3Q2007	7.22	1.3	0.557	0.13	-80							
		ALBW20105	4Q2007	7.35	9.7	2.38	0.19	-46							
		ALBW20119	5R2008	6.99	4.3	0.9	0.16	-104						0.5	0.55
		ALBW20134	6R2008	6.84	5.8	0.656	0.11	-10							
		ALBW20149	7R2009	7.14	4.1	0.679	0.05	-101							
		ALBW20164	8R2009	7.32	1	0.41	0.34	-192						1.9	0.2
		ALBW20179	9R2010	7.07	8.3	0.78	0.19	-37							
		ALBW20194	10R2010	7.05	6.14	0.568	0.09	-29							
MW-56	off-site well	ALBW20072	1Q2007	6.85	3.3	0.462	0.37	-102							
		ALBW20101	3Q2007	6.9	0	0.603	NS	-65							
		ALBW20124	5R2008	6.73	2	0.763	0.18	-132						0.4	1.18
		ALBW20139	6R2008	6.85	6	0.545	0.81	-125							
		ALBW20154	7R2009	7.01	0.1	0.623	0.23	-186							
		ALBW20169	8R2009	6.59	7.3	0.311	1.86	-149							
		ALBW20184	9R2010	6.85	3.19	0.403	0.16	-131							
		ALBW20199	10R2010	6.88	1.26	0.659	0.32	-105							

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Table 4
Chlorinated Organics in Groundwater
Ash Landfill Annual Report, Year 4
Seneca Army Depot Activity

	Sample Identification	Class GA S	Sample Date Standard (ug/L)	PCE (ug/L) 5	TCE (ug/L) 5	1,1-DCE (ug/L) 5	cis-DCE (ug/L) 5	trans-DCE (ug/L) 5	VC (ug/L) 2	1,1-DCA (ug/L) 5
Upgradient	PT-18A	upgradient of walls	3-Jan-07	1 U	2000	0.64 J	220	1.6	2.4	1 U
			17-Mar-07	1 U	1000	0.73 J	170	1.4	2.9	1 U
			5-Jun-07	1 U	1100	1.4	430	3.3	3.3	1 U
			15-Nov-07	1 U	2700	2.1	720	3.4	8.2	1 U
			24-Jun-08	1 U	220	1 U	200	0.9 J	1.4	1 U
			12-Dec-08	0.36 U	1400	1.3	510	2.4	4.6	0.75 U
			4-Jun-09	0.36 U	810 J	0.8 J	260	1.8	2.6	0.75 U
			17-Dec-09	1.5 U	2100	1.5 U	630	3.5 J	7.1	2 J
			1-Jul-10	0.15 U	120	0.11 U	28	0.2 U	0.18 U	0.25 U
			19-Dec-10	0.15 U	6.3	0.11 U	0.54 J	0.2 U	0.18 U	0.25 U
	MWT-25	upgradient of Biowall A	3-Jan-07	1 U	50	1 U	41	0.56 J	1.6	1 U
			17-Mar-07	1 U	55	1 U	84	1.2	9.6	1 U
			6-Jun-07	1 U	28	1 U	36	0.5 J	2.1	1 U
			15-Nov-07	1 U	26	1 U	17	1 U	0.64 J	1 U
			24-Jun-08	1 U	19	1 U	17	1 U	1 U	1 U
			15-Dec-08	0.36 U	3.2	0.29 U	0.63 J	0.13 U	0.24 U	0.75 U
			3-Jun-09	0.36 U	12	0.29 U	10	0.13 U	0.24 U	0.75 U
			17-Dec-09	0.36 U	4.2	0.38 U	3.3	0.42 U	0.24 U	0.29 U
			30-Jun-10	0.15 U	7.7	0.11 U	13	0.49 J	0.18 U	0.25 U
			19-Dec-10	0.15 U	1.9	0.11 U	0.97 J	0.2 U	0.18 U	0.25 U
	MWT-26	upgradient of Biowalls B1/B2	3-Jan-07	1 U	10	1 U	19	0.6 J	2	1 U
			17-Mar-07	1 U	11	1 U	17	1	6.1	1 U
			5-Jun-07	1 U	3.2	1 U	11	0.7 J	4.4	1 U
			15-Nov-07	1 U	2.8	1 U	2.8	1 U	1 U	1 U
			24-Jun-08	1 U	1.7	1 U	3.3	1 U	1 U	1 U
			15-Dec-08	0.36 U	1.9	0.29 U	1	0.13 U	0.24 U	0.75 U
			3-Jun-09	0.36 U	3.6	0.29 U	6	0.13 U	3.5	0.75 U
			17-Dec-09	0.36 U	5.8	0.38 U	8.1	0.42 U	4.2	0.29 U
			29-Jun-10	0.15 U	1.7	0.11 U	5.5	0.37 J	0.18 U	0.25 U
		1	19-Dec-10	0.15 U	4.2	0.11 U	12	0.67 J	7.6	0.25 U
	MWT-27	in Biowall B1	3-Jan-07	20 U	20 UJ			20 UJ	20 UJ	
			16-Mar-07	20 U	20 U	20 U	20 U	20 U	20 U	20 U
			5-Jun-07	20 U	20 U	20 U	20 U	20 U	20 U	20 U
			15-Nov-07	10 U	10 U	10 U	10 U	10 U	10 U	10 U
			24-Jun-08	4 U	4 U	4 U	4 U	4 U	4 U	4 U
			15-Dec-08	3.6 U	1.8 U	2.9 U	1.6 U	1.3 U	2.4 U	7.5 U
			3-Jun-09	3.6 U	1.8 U	2.9 U	1.6 U	1.3 U	2.4 U	7.5 U
			16-Dec-09	1.8 U	2.3 U	1.9 U	1.9 U	2.1 U	3.1 J	1.5 U
			29-Jun-10	0.15 U	0.13 U	0.11 U	0.18 J	0.2 U	0.18 U	0.25 U
Ψ		1	20-Dec-10	0.15 U	0.51 J	0.11 U	1.1	0.2 U	2.1	0.25 U

Notes:

^{1.} Sample duplicate pairs were collected at MWT-28 in Jan-07 and June-10; MWT-29 in Mar-07, Jun-08, and Dec-09; MWT-27 in Jun-07, Dec-08, and Dec-09; and MWT-23 in Nov-07 and Dec-10. If an analyte was detected in the sample but not detected in the duplicate (or vice versa) the non-detect value was taken at half the detection limit averaged with the detect value.

^{2.} Wells in bold and italics are the biowall process monitoring wells.

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Sample		Sample	PCE	TCE	1,1-DCE	cis-DCE	trans-DCE	VC	1,1-DCA
Identification		Date	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
MWT-28	in Biowall B2	3-Jan-07	20 U	20 UJ	20 UJ		20 UJ	20 UJ	20 UJ
		16-Mar-07	20 U	20 U	20 U				
		5-Jun-07	20 U	20 U	20 U				
		15-Nov-07	5 U	5 U	5 U	5 U	5 U	5 U	5 U
		25-Jun-08	4 U	4 U	4 U	4 U	4 U	4 U	4 U
		15-Dec-08	3.6 U	1.8 U	2.9 U	1.6 U	1.3 U	2.4 U	7.5 U
		3-Jun-09	0.36 U	0.18 U	0.29 U	0.16 U	0.13 U	0.24 U	0.75 U
		18-Dec-09	1.8 U	2.3 U	1.9 U	1.9 U	2.1 U	1.2 U	1.5 U
		29-Jun-10	0.15 U	0.13 U	0.11 U	0.15 U	0.2 U	0.18 U	0.25 U
		18-Dec-10	0.15 U	0.13 U	0.11 U	0.51 J	0.2 U	0.64 J	0.25 U
MWT-29	downgradient of Biowall B2	3-Jan-07	2 U	22	2 U	280	6.5	140	2 U
		16-Mar-07	4 U	19	4.5 U	220	7.75	165	4.5 U
		5-Jun-07	2 U	7.6	2 U	100	2.1	81	2 U
		14-Nov-07	1 U	4.4	1 U	96	0.83 J	74	1 U
		25-Jun-08	1 U	3.3	1 U	84	0.65 J	74	1 U
		15-Dec-08	0.36 U	6.6	0.29 U	91	0.6 J	80	0.75 U
		3-Jun-09	0.36 U	4.5	0.29 U	61	0.67 J	43	0.75 U
		16-Dec-09	0.36 U	3.5	0.38 U	37	0.65 J	29	0.29 U
		30-Jun-10	0.15 U	1.3	0.26 J	78	1.1	69	0.25 U
		19-Dec-10	0.15 U	2.1	0.4 J	38	0.77 J	27	0.25 U
MWT-22	downgradient of Biowall B2	3-Jan-07	2 U	5.2	2 U	130	2.7	98	2 U
		17-Mar-07	4 U	3.8 J	4 U	90	4 U	64	4 U
		6-Jun-07	1 U	6.5	1 U	120	3.2	81	1 U
		14-Nov-07	1 U	2.6	1 U	99	0.85 J	180	1 U
		25-Jun-08	5 U	3 J	5 U	68	5 U	42	5 U
		15-Dec-08	1.8 U	5.9	1.4 U	160	0.65 U	140	3.8 U
		3-Jun-09	0.36 U	2.2	0.29 U	66	0.77 J	89	0.75 U
		16-Dec-09	1.8 U	2.3 U	1.9 U	57	2.1 U	52	1.5 U
		1-Jul-10	0.15 U	0.6 J	0.12 J	41	1.3	57	0.25 U
PT-22	between Biowalls B and C	17-Dec-10	0.15 U 1 U	1.8	0.66 J	130 57	2.8 0.86 J	98 22	0.25 U 1 U
P1-22	between Biowalls B and C	3-Jan-07 15-Mar-07		11	1 U 1 U				
		5-Jun-07	1 U 1 U	16 8.5	1 U	41 61	0.51 J 0.72 J	13	1 U 1 U
		14-Nov-07	1 U	9.7	1 U	30	0.72 J 0.67 J	32	1 U
		26-Jun-08	1 U	9.7 4.1	1 U		0.67 J	11 13	1 U
		15-Dec-08	0.36 U	35	0.29 U	26 52	0.57 J 0.41 J	1.3	0.75 U
		2-Jun-09	0.36 U	6.9	0.29 U	41	0.41 J	1.3	0.75 U
		16-Dec-09	0.36 U	8.7	0.29 U	29	0.42 U	9.5	0.73 U 0.29 U
		30-Jun-10	0.36 U	4.6	0.36 U 0.11 U	43	0.42 U 0.75 J	11	0.29 U
		17-Dec-10	0.15 U	29	0.11 U	42	0.48 J	2.1	0.25 U
MWT-23	in Biowall C2	3-Jan-07	4 U	4 U	4 U	60	4 U	23	4 U
WW 1-23	III DIOWali Oz	16-Mar-07	4 U	4 U	4 U	11	4 U	4.8	4 U
		6-Jun-07	2 U	2 U	4 U	3.1	2 U	4.6 2 U	4 U
		16-Nov-07	7 U	7 U	2.6 U	3.6 J	7 U	3.7 J	7 U
		25-Jun-08	1 U	1 U	2.6 U	3.6 J 1 U	7 U	3.7 J 1 U	7 U
		12-Dec-08	0.36 U	0.41 J	0.29 U	2.4	0.13 U	2.8	0.75 U
		12-Dec-08 2-Jun-09	0.36 U	0.41 J 0.18 U	0.29 U 0.29 U	2.4 0.42 U	0.13 U 0.13 U	2.8 0.24 U	0.75 U 0.75 U
						0.42 U 0.47 J			
		15-Dec-09	0.36 U	0.46 U	0.38 U		0.42 U	0.24 U	0.29 U
		29-Jun-10 19-Dec-10	0.15 U 0.15 U	0.13 U 0.29 J	0.11 U 0.11 U	0.41 J 4.6	0.2 U	0.18 U 5.3	0.25 U
	I	119-060-10	0.15 0	0.29 J	0.11 0	4.0	0.49 J	0.3	0.52 J

Notes

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MWT-24	downgradient of Biowalls C1/C2	3-Jan-07	1 U	0.94 J	1 U	210	2.1	19	0.81 J
		15-Mar-07	1 U	1 U	1 U	68	0.88 J	45	0.83 J
		5-Jun-07	2 U	2 U	2 U	19	2 U	22	1.1 J
		13-Nov-07	1 U	1.6	1 U	6.7	1 U	3.8	1 U
		26-Jun-08	5 U	5 U	5 U	31	5 U	5 U	5 U
		12-Dec-08	0.36 U	6	0.29 U	52	0.13 U	3.6	0.75 U
		2-Jun-09	0.36 U	4.8	0.29 U	38	0.13 U	7.3	0.75 U
		15-Dec-09	0.36 U	4.7	0.7 J	32	0.42 U	4	0.29 U
		1-Jul-10	0.15 U	5	0.11 U	31	0.41 J	7.5	0.79 J
		17-Dec-10	0.15 U	3.3	0.11 U	23	1	4.3	0.58 J
PT-17	downgradient of biowalls	2-Jan-07	1 U	6	1 U	62	1 U	21	1 U
	_	15-Mar-07	2 U	11	2 U	26	2 U	21	2 U
		5-Jun-07	1 U	3.4	1 U	43	0.77 J	9.9	1 U
		13-Nov-07	1 U	15	1 U	27	0.54 J	22	1 U
		26-Jun-08	1 U	8.5	1 U	21	1 U	23	1 U
		11-Dec-08	0.36 U	9.2	0.29 U	24	0.46 J	10	0.75 U
		2-Jun-09	0.36 U	8	0.29 U	56	1.1	55	0.75 U
		15-Dec-09	0.36 U	7.8	0.38 U	65	1.8	20	0.29 U
		1-Jul-10	0.15 U	3	0.24 J	81	3.2	53	0.25 U
		18-Dec-10	0.15 U	8.1	0.42 J	39	2.2	16	0.25 U
MWT-7	immed. upgradient of ZVI wall	4-Jan-07	1 U	490	1 U	35	1 U	0.51 J	1 U
		15-Mar-07	1 U	440	1 U	42	1 U	9.7	1 U
		5-Jun-07	1 U	410	1 U	61	1 U	18	1 U
		13-Nov-07	1 U	510	1 U	90	1 U	24	1 U
		25-Jun-08	1 U	440	1 U	90	1 U	12	1 U
		15-Dec-08	0.36 U	410	0.29 U	79	0.13 U	13	0.75 U
		2-Jun-09	0.36 U	330	0.29 U	68	0.13 U	9.3	0.75 U
		15-Dec-09	0.36 U	350	0.38 U	140	0.55 J	21	0.48 J
		1-Jul-10	0.15 U	330	0.78 J	170	0.91 J	15	0.25 U
		18-Dec-10	0.15 U	310	0.98 J	120	0.75 J	15	0.25 U
PT-24	downgradient of ZVI wall	2-Jan-07	1 U	4	1 U	54	0.86 J	0.6 J	0.68 J
		15-Mar-07	1 U	2.8	1 U	38	0.81 J	1 U	1 U
		5-Jun-07	1 U	3.1	1 U	60	1.6	2.6	0.75 J
		13-Nov-07	1 U	3.8	1 U	39	1 U	1 U	0.56 J
		26-Jun-08	1 U	2.4	1 U	48	1.1	1.9	0.69 J
		12-Dec-08	0.36 U	2.2	0.29 U	34	0.36 J	0.26 J	0.75 U
		2-Jun-09	0.36 U	1.7	0.29 U	32	0.83 J	2	0.75 U
		15-Dec-09	0.36 U	1.7	0.38 U	28	0.61 J	1.6	0.29 U
		30-Jun-10	0.15 U	0.39 J	0.11 U	33	1.1	3.8	0.54 J
		17-Dec-10	0.15 U	0.53 J	0.11 U	30	1.4	7.7	0.54 J
MW-56	off-site well	4-Jan-07	1 U	1 U	1 U	1.2	1 U	1 U	1 U
		6-Jun-07	1 U	1 U	1 U	1.7	1 U	1 U	1 U
		26-Jun-08	1 U	1 U	1 U	1.3	1 U	1 U	1 U
		11-Dec-08	0.36 U	0.33 J	0.29 U	0.4 J	0.13 U	0.24 U	0.75 U
		4-Jun-09	0.36 U	0.18 U	0.29 U	1	0.13 U	0.24 U	0.75 U
		18-Dec-09	0.36 U	0.46 U	0.38 U	0.56 J		0.24 U	0.29 U
		1-Jul-10	0.15 U	0.13 U	0.11 U	0.61 J		0.18 U	0.25 U
		19-Dec-10	0.15 U	0.13 U	0.11 U	0.86 J		0.18 U	0.25 U

Notes

- 1. Sample duplicate pairs were collected at MWT-28 in Jan-07 and June-10; MWT-29 in Mar-07, Jun-08, and Dec-09; MWT-27 in Jun-07, Dec-08, and Dec-09; and MWT-23 in Nov-07 and Dec-10. If an analyte was detected in the sample but not detected in the duplicate (or vice versa) the non-detect value was taken at half the detection limit averaged with the detect value.
- 2. Wells in bold and italics are the biowall process monitoring wells.
- 3. Grey shading indicates that the concentration was detected above its Class GA groundwater standard. The Class GA Groundwater standard for TCE and cis-DCE is 5 ug/L; for VC the Class GA standard is 2 ug/L.
- 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.

Downgradient

Table 5 Groundwater Trends Ash Landfill Annual Report, Year 4 Seneca Army Depot Activity

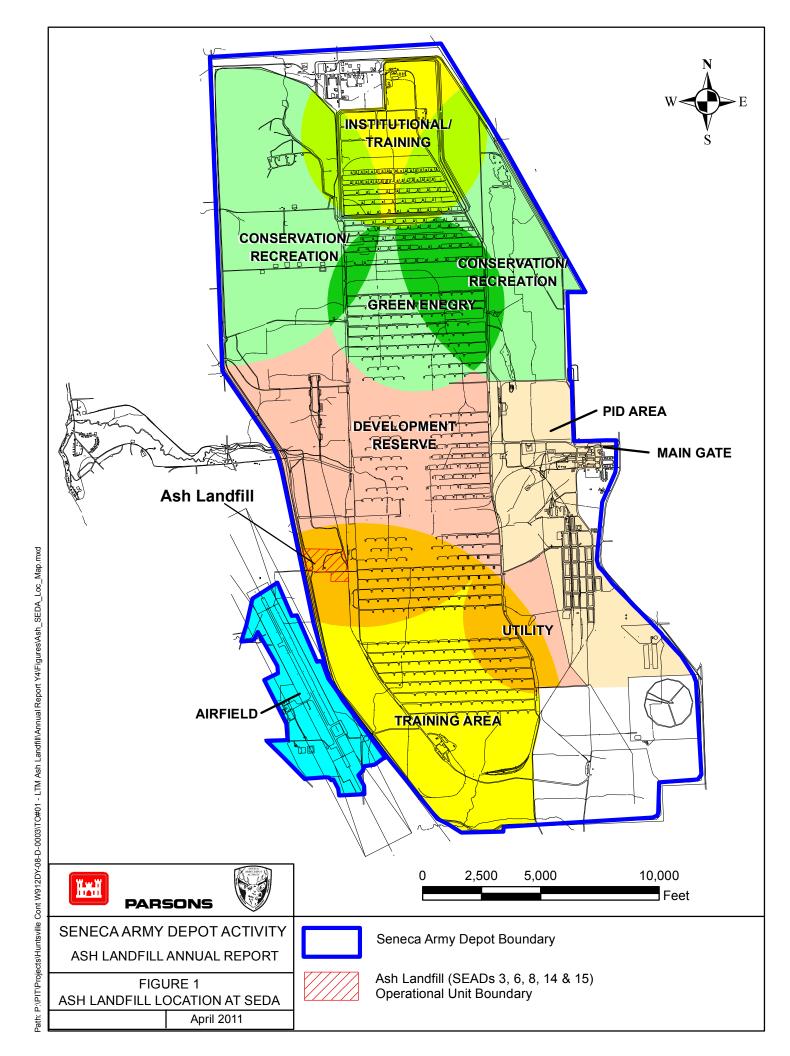
Sampled Wells	Location			TCE	cis-1,2-DCE	vc
PT-18A ¹	upgradient of walls	Sample Date:	19-Dec-10 Trend:	6.3 Decreasing	0.54 J Increasing	0.18 U Decreasing
		Est. Date ² :				
MWT-25	upgradient of Biowall A	Sample Date:	19-Dec-10 Trend:	1.9 Compliant	0.97 J Compliant	0.18 U Compliant
NAVT OO	Land CD's alla D4/D0	Est. Date ² :	40 D 40	4.0	40	7.0
MWT-26	upgradient of Biowalls B1/B2	Sample Date: Est. Date ⁴ :	19-Dec-10 Trend:	4.2 Compliant	12 Decreasing	7.6 No Trend
MWT-27	in Biowall B1	Sample Date:	20-Dec-10 Trend:	0.51 J Compliant	1.1 Compliant	2.1 No Trend
MWT-28	in Biowall B2	Est. Date ² : Sample Date:	18-Dec-10 Trend:	0.13 U Compliant	0.51 J Compliant	0.64 J Compliant
		Est. Date ² :				
MWT-29	downgradient of Biowall B2	Sample Date: Est. Date ² :	19-Dec-10 Trend:	2.1 Compliant	38 Decreasing	27 Decreasing
MWT-22	downgradient of Biowall B2	Sample Date: Est. Date ² :	17-Dec-10 Trend:	1.8 Compliant	130 Decreasing	98 No Trend
PT-22	between Biowalls B and C	Sample Date: Est. Date ² :	17-Dec-10 Trend:	29 Increasing	42 Decreasing	2.1 Decreasing
MWT-23 ³	in Biowall C2	Sample Date: Est. Date ² :	19-Dec-10 Trend:	0.29 J Compliant	4.6 Compliant	5.3 Decreasing
MWT-24	downgradient of Biowalls C1/C2	Sample Date: Est. Date ² :	17-Dec-10 Trend:	3.3 Compliant	23 Decreasing	4.3 Decreasing
PT-17 ¹	downgradient of biowalls	Sample Date: Est. Date ² :	18-Dec-10 Trend:	8.1 Decreasing	39 No Trend	16 No Trend
MWT-7 ¹	immed. Upgradient of ZVI wall	Sample Date: Est. Date ² :	17-Dec-10 Trend:	310 Decreasing	120 Increasing	15 No Trend
PT-24	downgradient of ZVI wall	Sample Date: Est. Date ² :	Trend:	0.53 J Compliant	30 Decreasing	7.7 Increasing
MW-56	off-site well	Sample Date: Est. Date ² :	18-Dec-09 Trend:	0.13 U Compliant	0.86 J Compliant	0.18 U Compliant

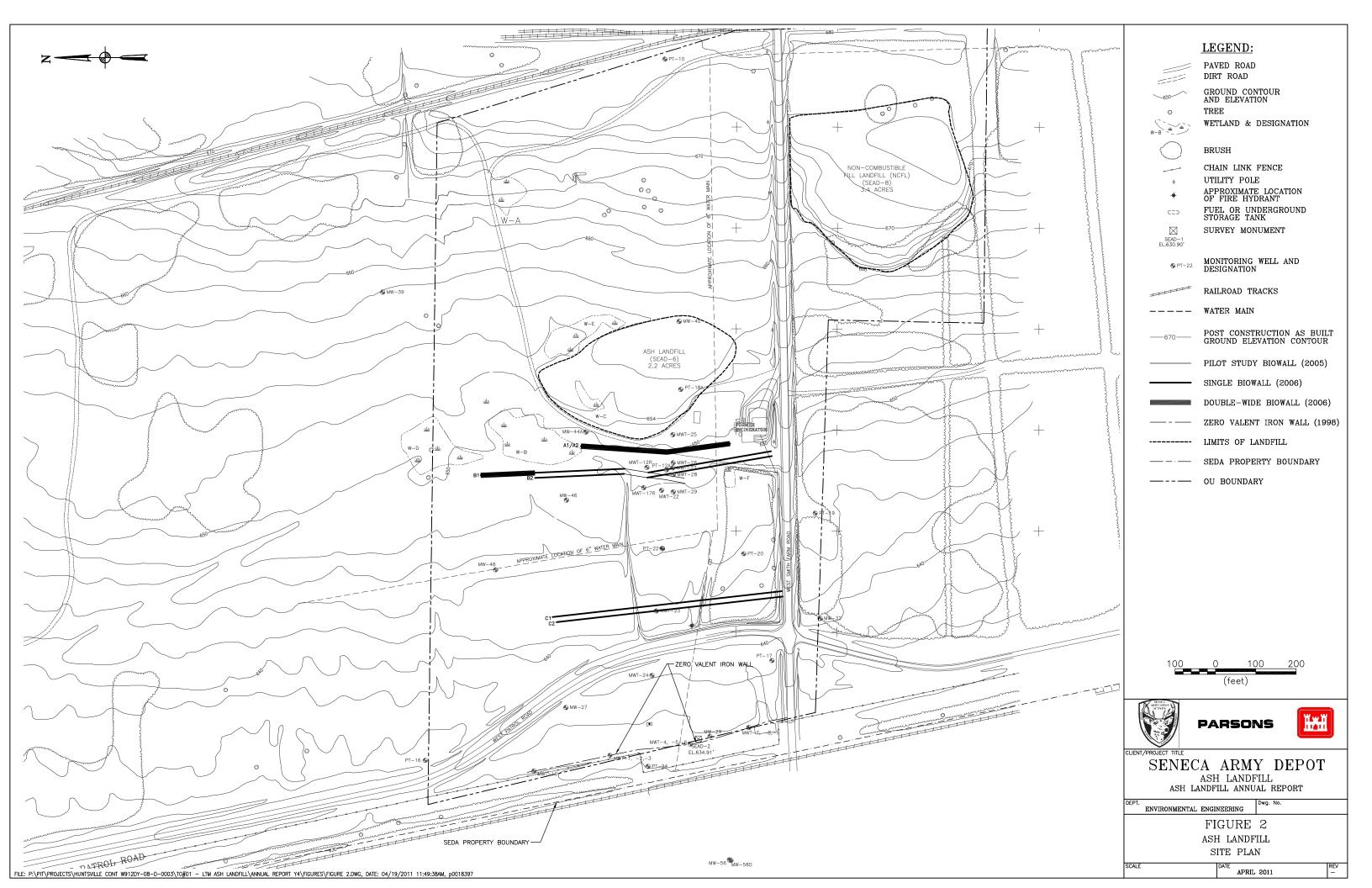
Notes:

- 1. The concentration of TCE at these wells has not been impacted by the biowall system and dates to achieve compliance cannot be estimated at this time due to the natural variation in concentrations over time.
- 2. The date that the groundwater standard will be achieved is estimated based on an exponential regression of the time plots for each well. The dates are rough estimates that indicate that the groundwater concentrations will eventually reach the GA standard and are not intended to represent a definitive timeframe in which the GA standards will be achieved.
- 3. The concentrations presented were an average of the sample duplicate pair.
- 4. Overall concentrations follow a decreasing trend; however further monitoring is needed to elucidate the dates at which compounds can be expected to reach groundwater standards.
- U = compound was not detected.
- J = the reported value is an estimated concentration.

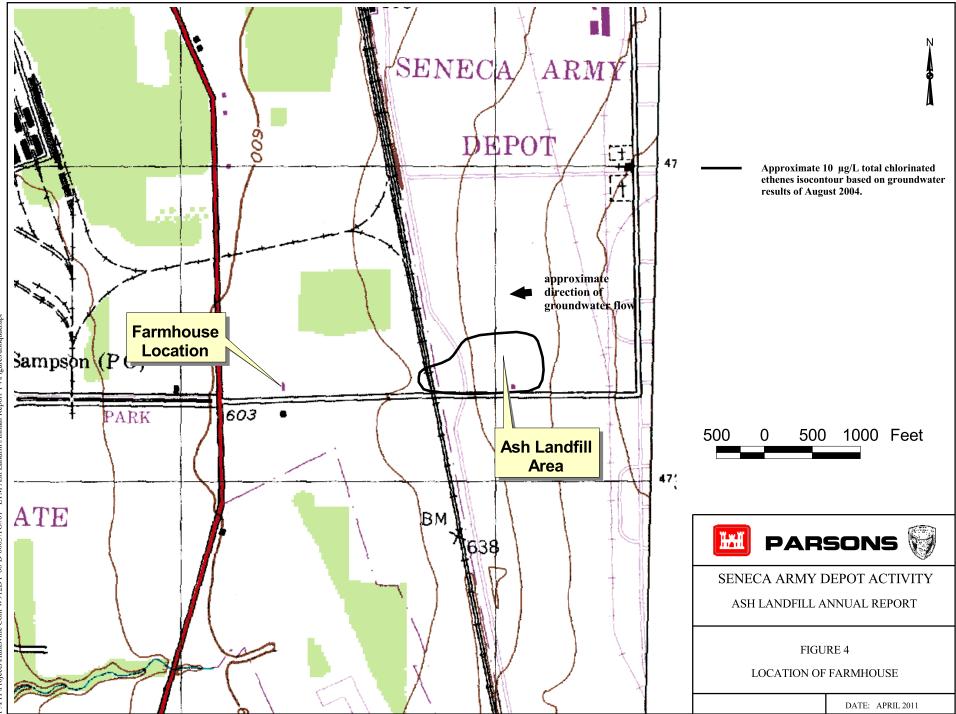
FIGURES

Figure 1	Ash Landfill Location at SEDA
Figure 2	Ash Landfill Site Plan
Figure 3	Ash Landfill Historic Site Map
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Figure 6	Chlorinated Ethenes Concentrations in Groundwater
Figure 7	Groundwater Elevations
Figure 8	Groundwater Contours & Groundwater Flow Direction Dec. 2010
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Figure 9B	Concentrations of VOCs Along the Biowalls - Quarter 2, 2007
Figure 9C	Concentrations of VOCs Along the Biowalls - Quarter 3, 2007
Figure 9D	Concentrations of VOCs Along the Biowalls - Quarter 4, 2007
Figure 9E	Concentrations of VOCs Along the Biowalls - Round 5, 2008
Figure 9F	Concentrations of VOCs Along the Biowalls - Round 6, 2008
Figure 9G	Concentrations of VOCs Along the Biowalls - Round 7, 2009
Figure 9H	Concentrations of VOCs Along the Biowalls - Round 8, 2009
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Figure 10A	Concentrations of Chlorinated Organics Over Time at MWT-25
Figure 10B	Concentrations of Chlorinated Organics Over Time at MWT-26
Figure 10C	Concentrations of Chlorinated Organics Over Time at MWT-27
Figure 10D	Concentrations of Chlorinated Organics Over Time at MWT-28
Figure 10E	Concentrations of Chlorinated Organics Over Time at MWT-29
Figure 10F	Concentrations of Chlorinated Organics Over Time at MWT-22
Figure 10G	Concentrations of Chlorinated Organics Over Time at PT-22
Figure 10H	Concentrations of Chlorinated Organics Over Time at MWT-23
Figure 10I	Concentrations of Chlorinated Organics Over Time at MWT-24
Figure 10J	Concentrations of Chlorinated Organics Over Time at PT-24
Figure 11A	Historic Concentrations of Chlorinated Organics at PT-18A
Figure 11B	Historic Concentrations of Chlorinated Organics at PT-17
Figure 11C	Historic Concentrations of Chlorinated Organics at MWT-7
Figure 12	Decision Diagram



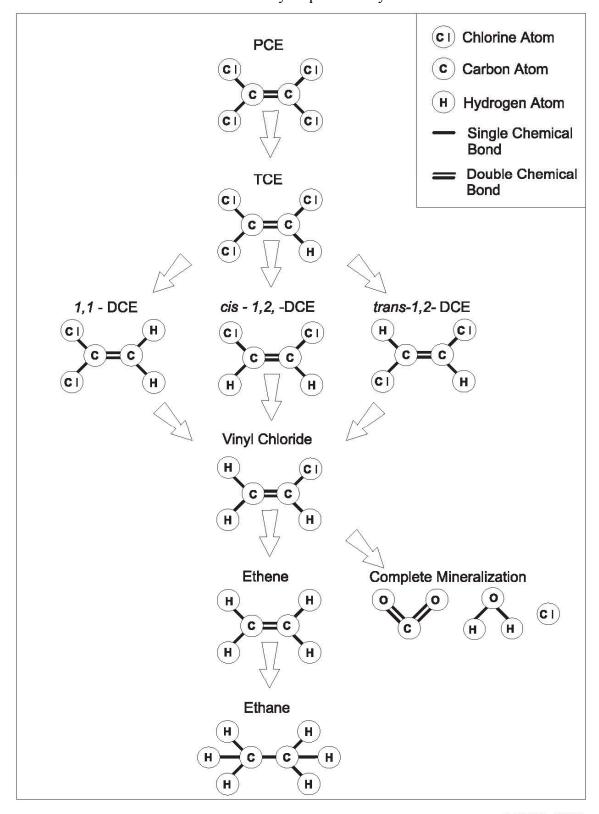






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Figure 5
Reductive Dechlorination of Chlorinated Ethenes
Ash Landfill Annual Report
Seneca Army Depot Activity



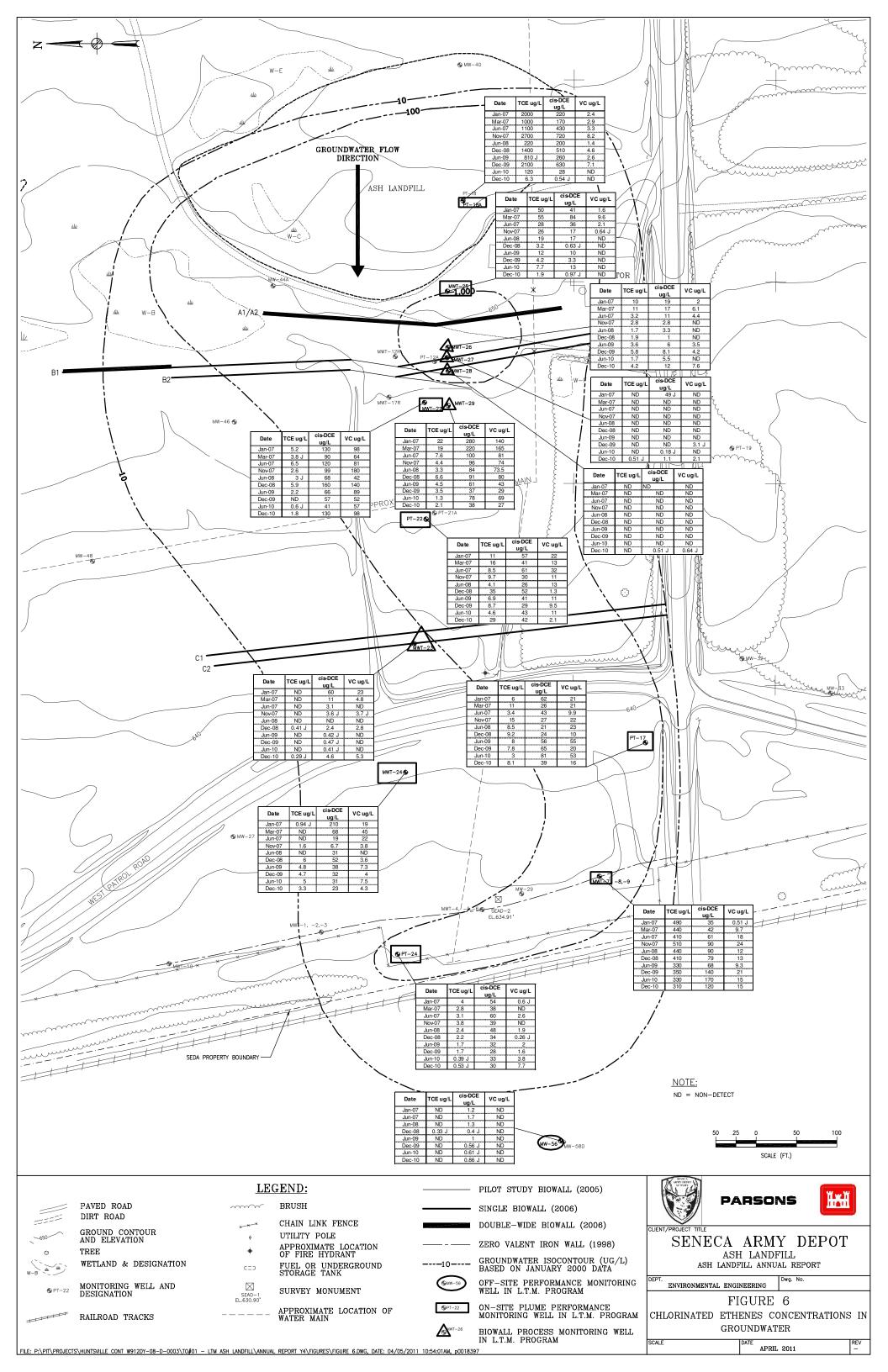
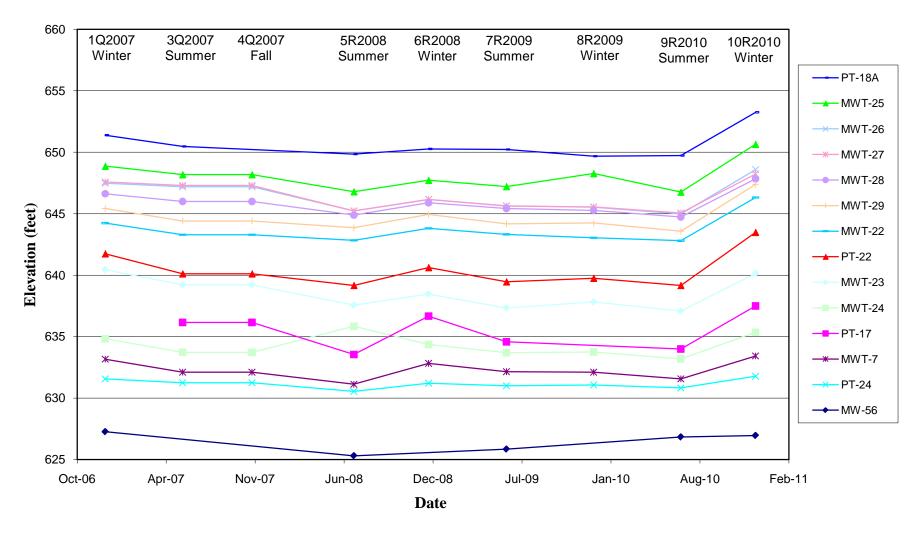


Figure 7 Groundwater Elevations Ash Landfill Annual Report, Year 4 Seneca Army Depot Activity



Note: Groundwater levels were measured on: December 12, 2006; June 4, 2007; November 7, 2007; June 23, 2008; December 23, 2008; June 1, 2009; December 14, 2009; June 28, 2010, and December 13, 2010. Groundwater elevations were not measured at well MW-56 during 3Q2007, 4Q2007, 6R2008, or 8R2009; at PT-17 during 1Q2007 or 8R2008; or at PT-18A during 4Q2007. Groundwater levels were not recorded during 2Q2007.

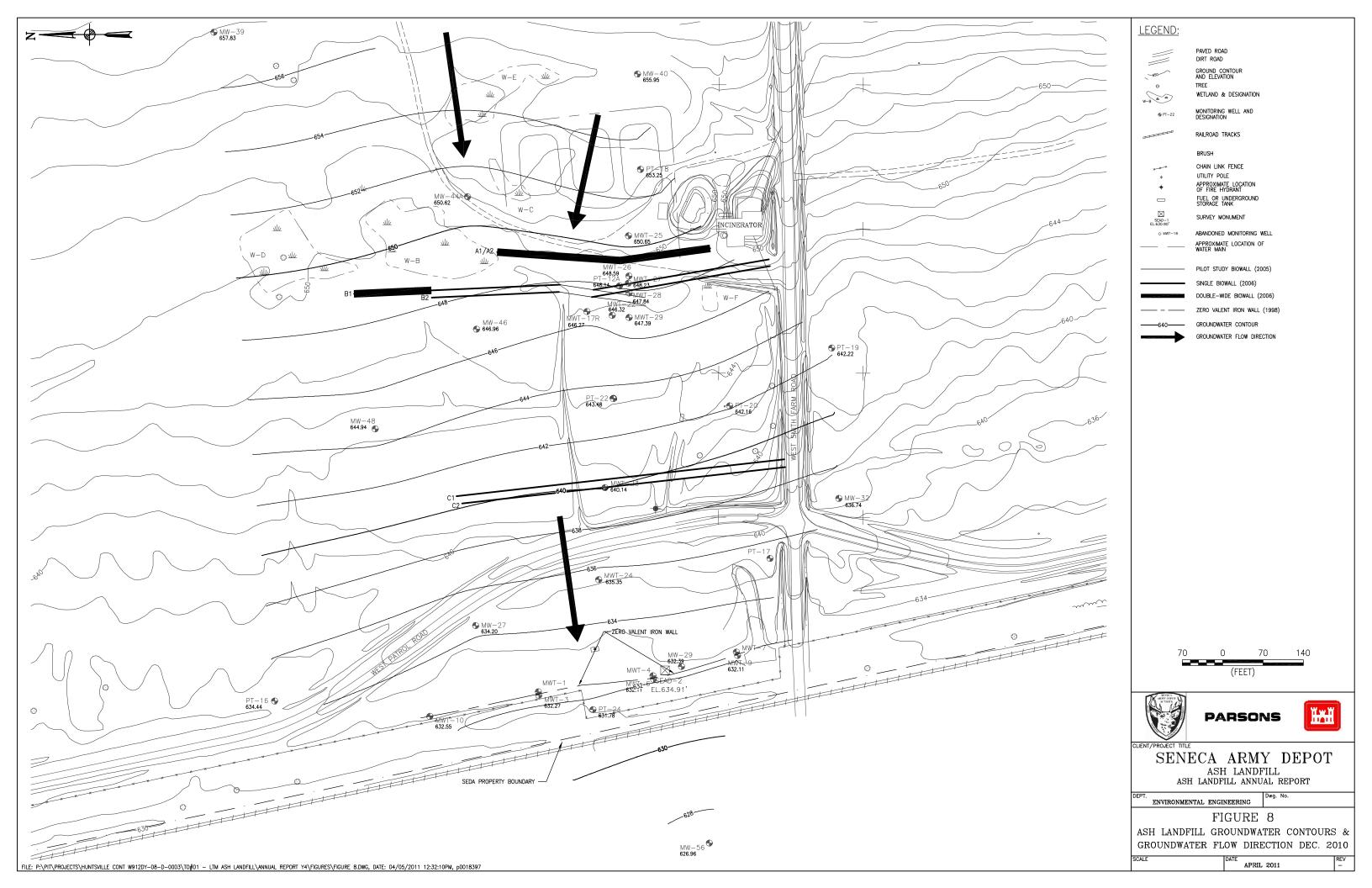


Figure 9A
Concentrations of VOCs Along the Biowalls - Quarter 1, 2007
Ash Landfill Annual Report, Year 4
Seneca Army Depot Activity

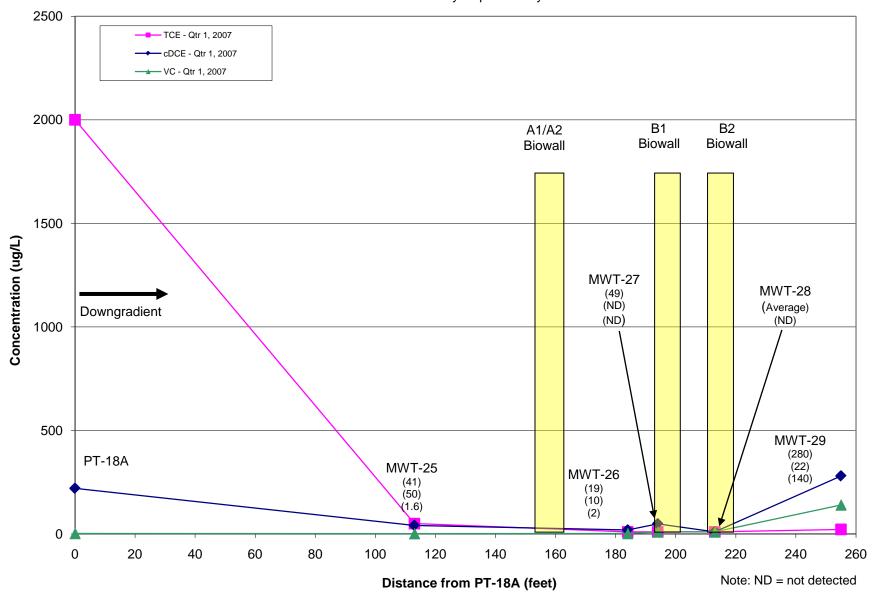


Figure 9B
Concentrations of VOCs Along the Biowalls - Quarter 2, 2007
Ash Landfill Annual Report, Year 4
Seneca Army Depot Activity

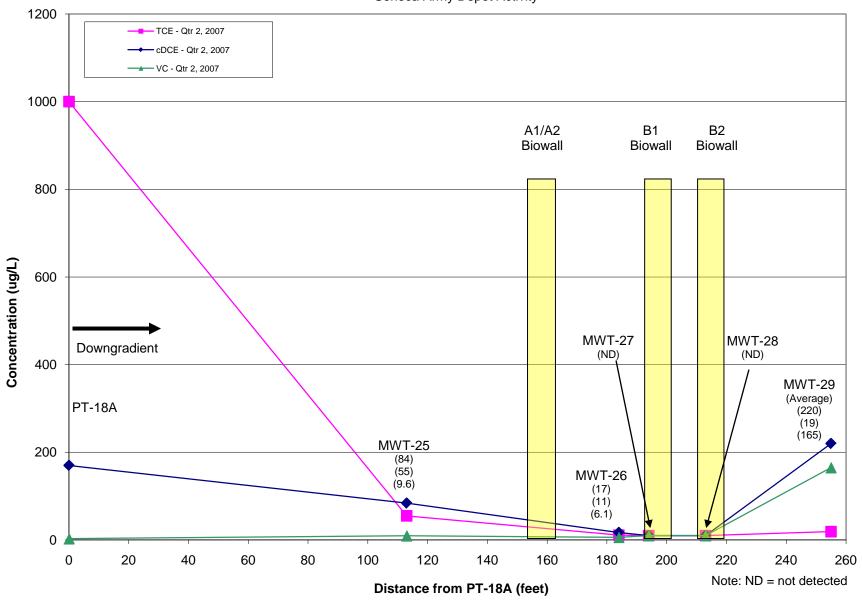


Figure 9C
Concentrations of VOCs Along the Biowalls - Quarter 3, 2007
Ash Landfill Annual Report, Year 4
Seneca Army Depot Activity

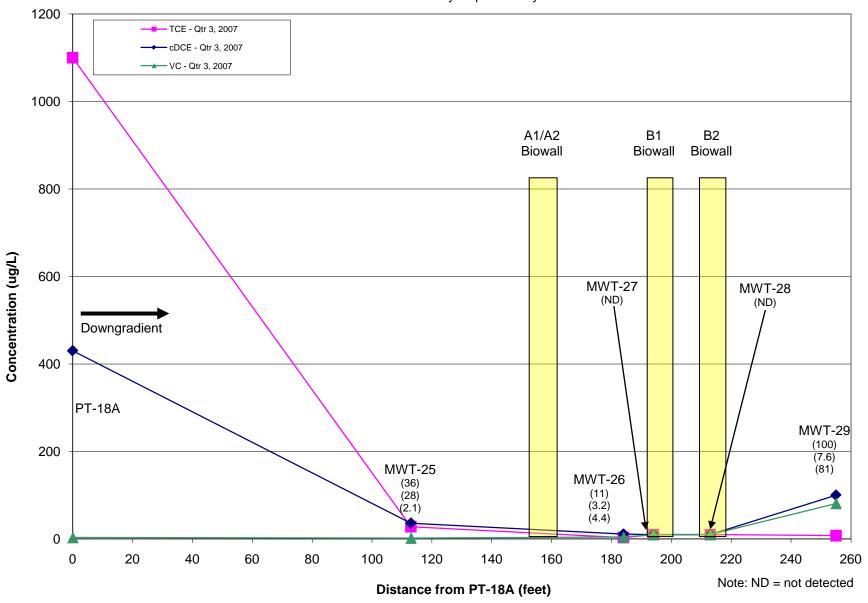


Figure 9D
Concentrations of VOCs Along the Biowalls - Quarter 4, 2007
Ash Landfill Annual Report, Year 4
Seneca Army Depot Activity

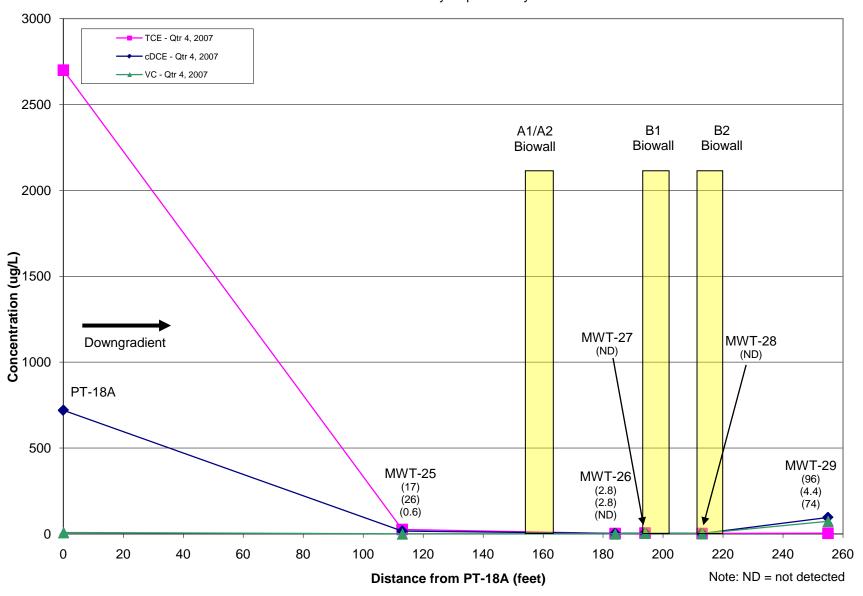


Figure 9E
Concentrations of VOCs Along the Biowalls - Round 5, 2008
Ash Landfill Annual Report, Year 4
Seneca Army Depot Activity

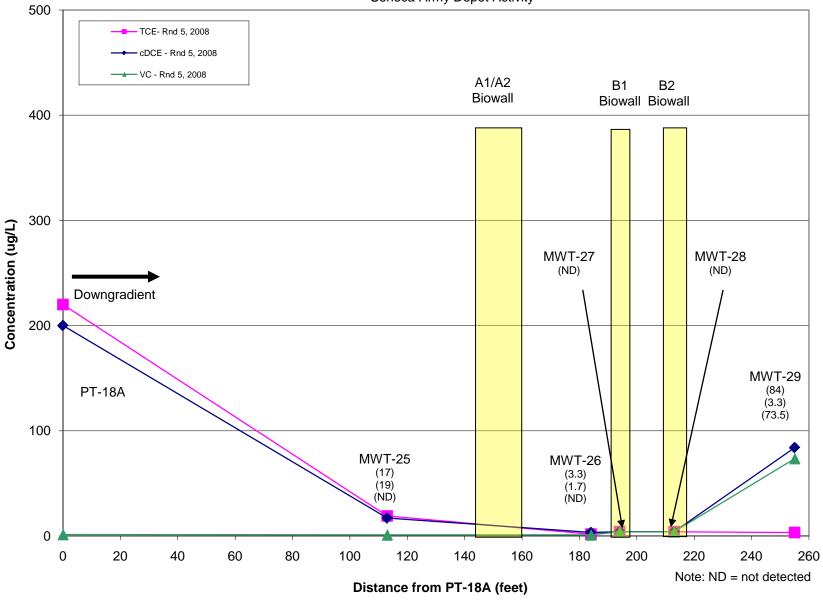


Figure 9F
Concentrations of VOCs Along the Biowalls - Round 6, 2008
Ash Landfill Annual Report, Year 4
Seneca Army Depot Activity

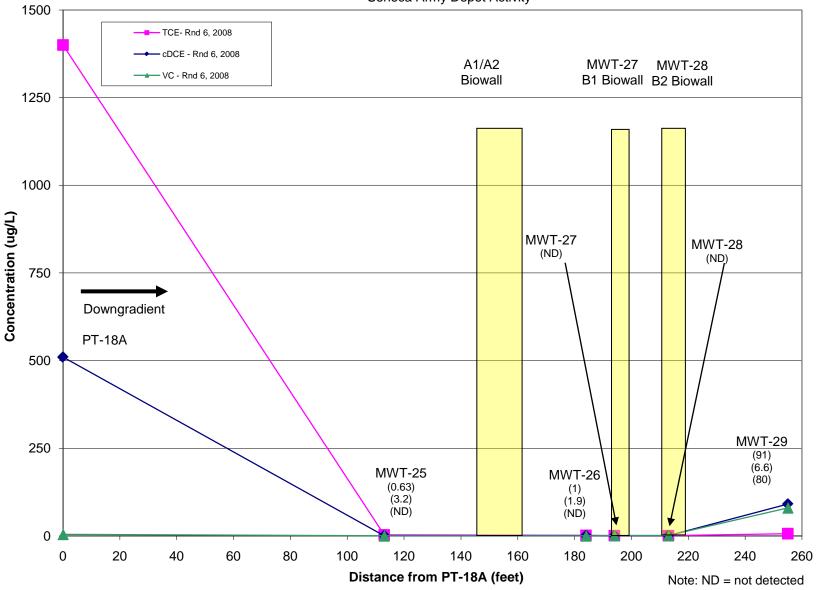


Figure 9G
Concentrations of VOCs Along the Biowalls - Round 7, 2009
Ash Landfill Annual Report, Year 4
Seneca Army Depot Activity

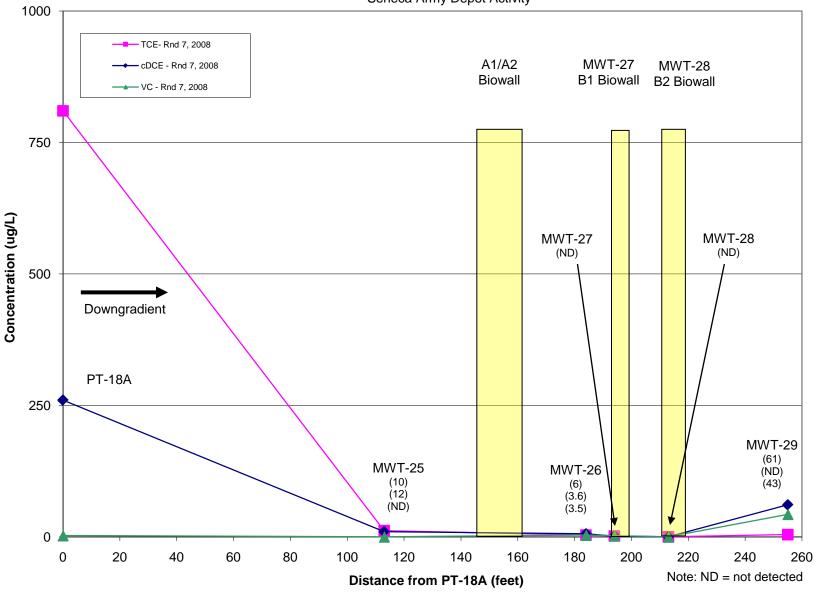


Figure 9H
Concentrations of VOCs Along the Biowalls - Round 8, 2009
Ash Landfill Annual Report, Year 4
Seneca Army Depot Activity

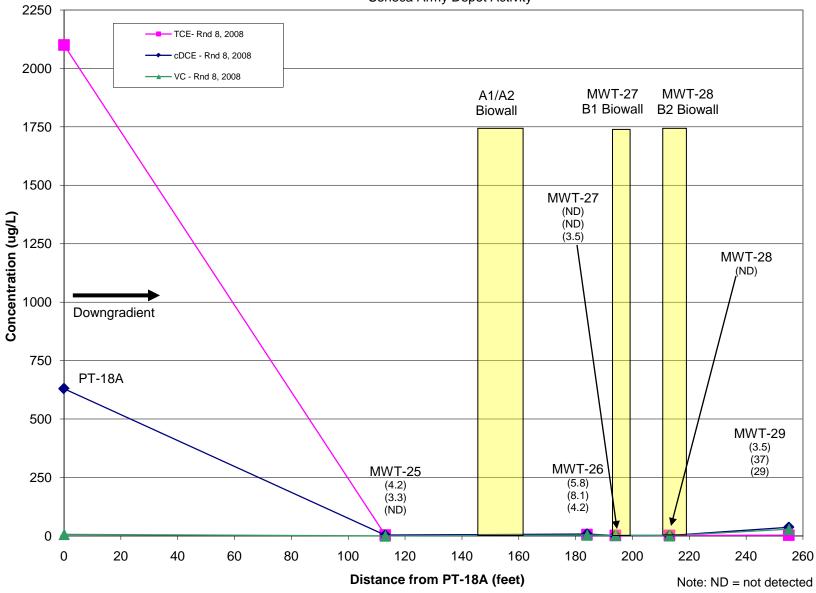


Figure 9I
Concentrations of VOCs Along the Biowalls - Round 9, 2010
Ash Landfill Annual Report, Year 4
Seneca Army Depot Activity

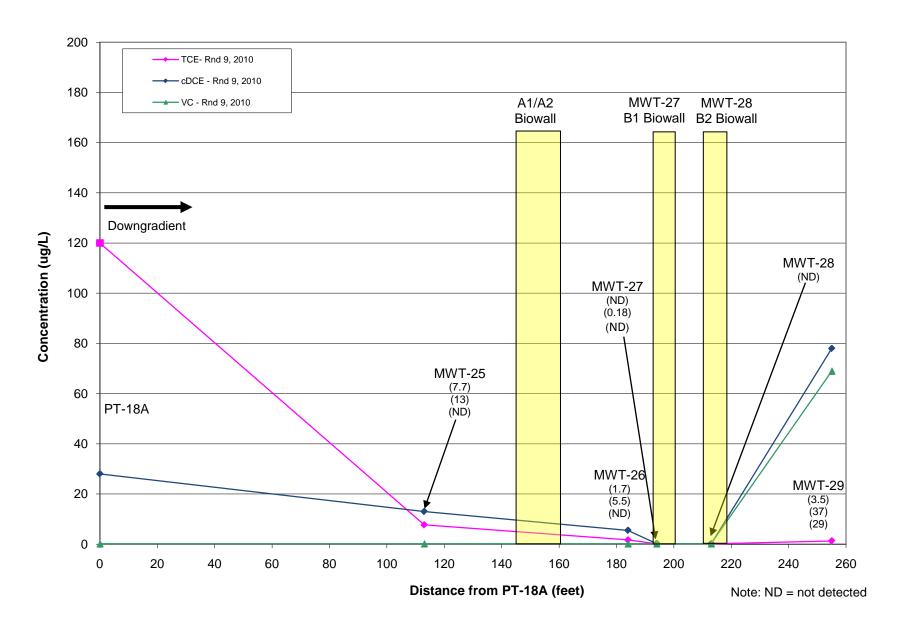


Figure 9J
Concentrations of VOCs Along the Biowalls - Round 10, 2010
Ash Landfill Annual Report, Year 4
Seneca Army Depot Activity

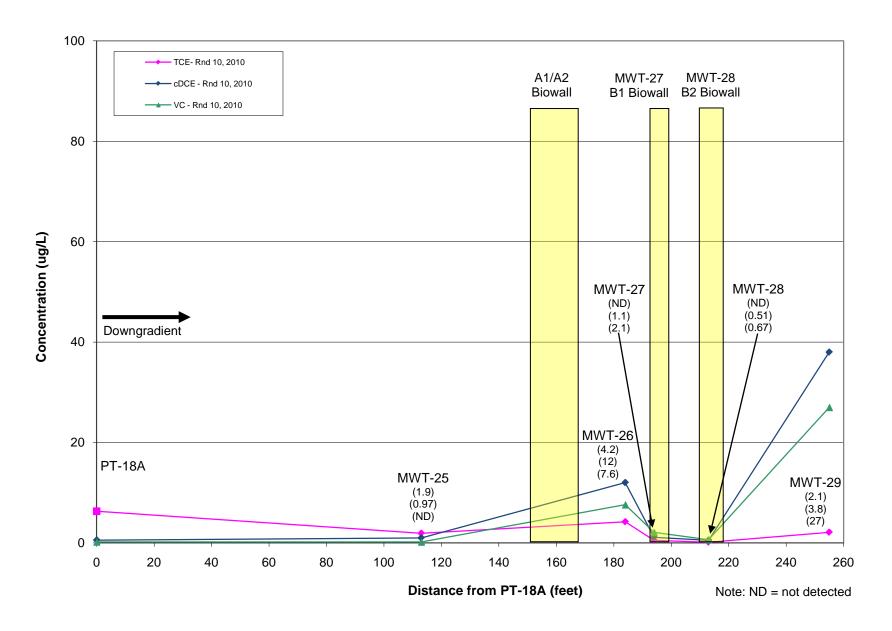
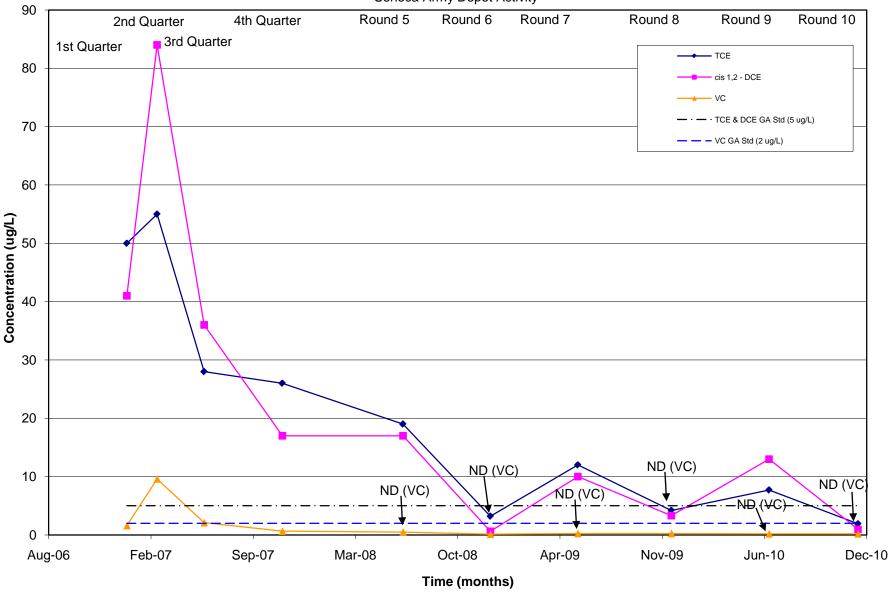
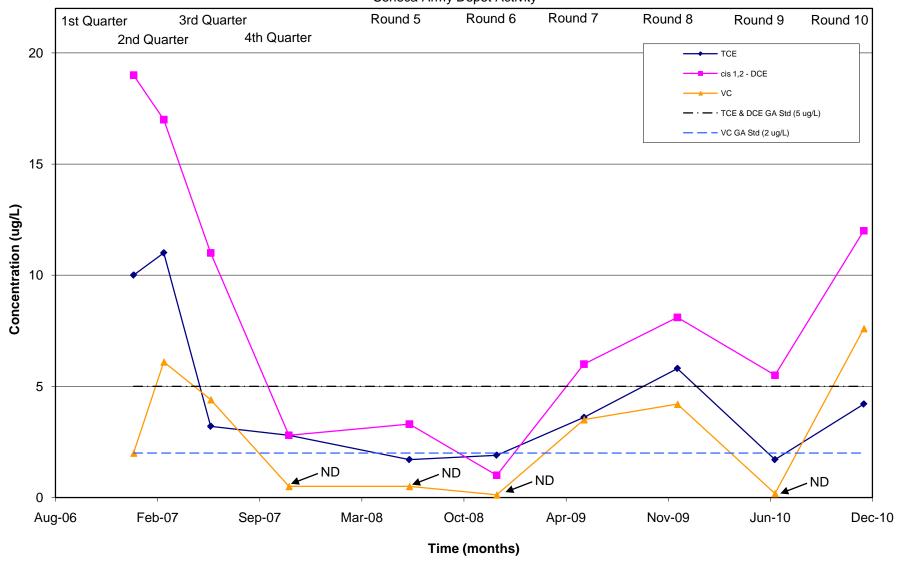


Figure 10A
Concentrations of Chlorinated Organics Over Time at MWT-25
Ash Landfill Annual Report, Year 4
Seneca Army Depot Activity



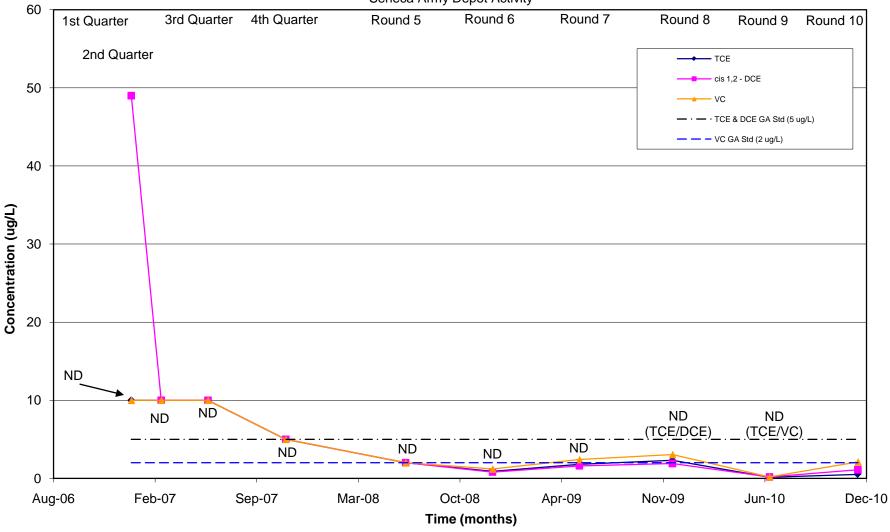
Note: ND = not detected.

Figure 10B
Concentrations of Chlorinated Organics Over Time at MWT-26
Ash Landfill Annual Report, Year 4
Seneca Army Depot Activity



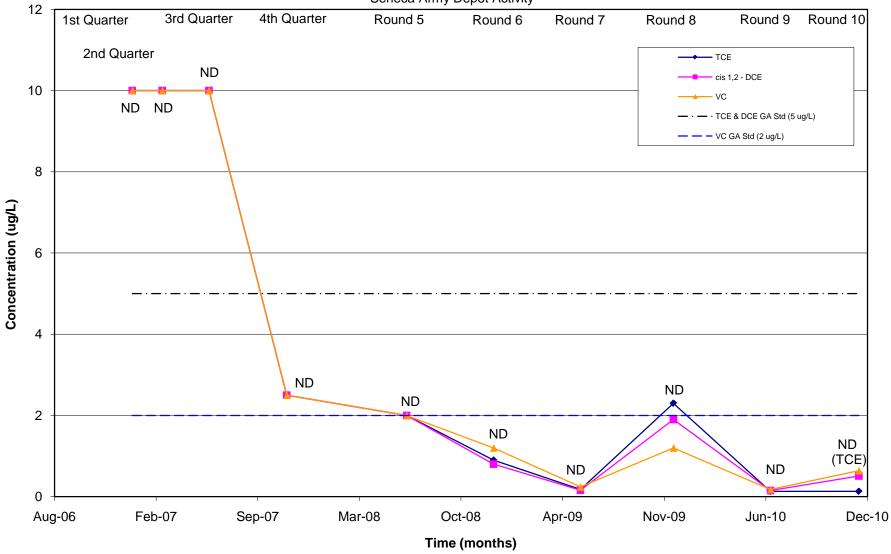
Note: ND = not detected.

Figure 10C
Concentrations of Chlorinated Organics Over Time at MWT-27
Ash Landfill Annual Report, Year 4
Seneca Army Depot Activity



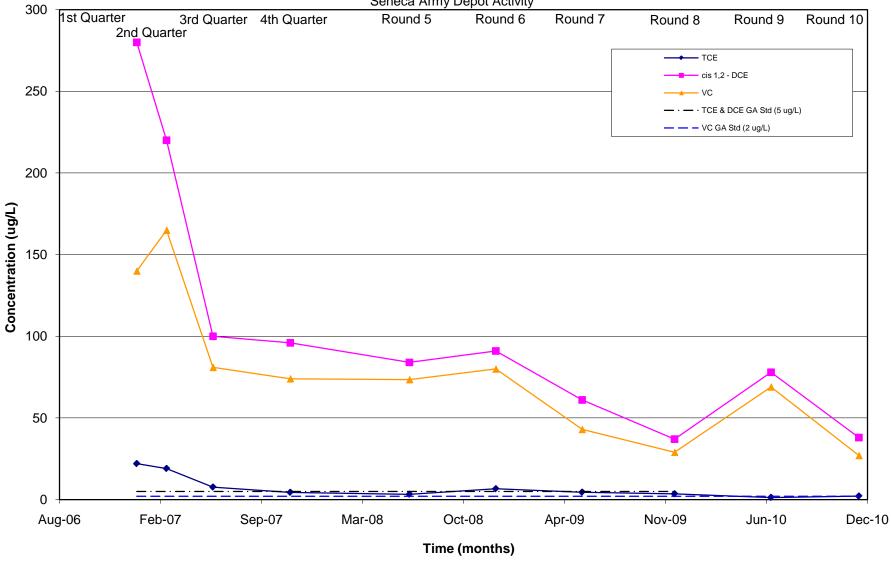
Note: Round 3 and Round 6 data is the average of the sample and its duplicate. ND = not detected.

Figure 10D
Concentrations of Chlorinated Organics Over Time at MWT-28
Ash Landfill Annual Report, Year 4
Seneca Army Depot Activity



Note: Round 3 and Round 6 data is the average of the sample and its duplicate. ND = not detected.

Figure 10E
Concentrations of Chlorinated Organics Over Time at MWT-29
Ash Landfill Annual Report, Year 4
Seneca Army Depot Activity



Note: Round 2 and Round 5 data is the average of the sample and its duplicate.

Figure 10F Concentrations of Chlorinated Organics Over Time at MWT-22 Ash Landfill Annual Report, Year 4 Seneca Army Depot Activity

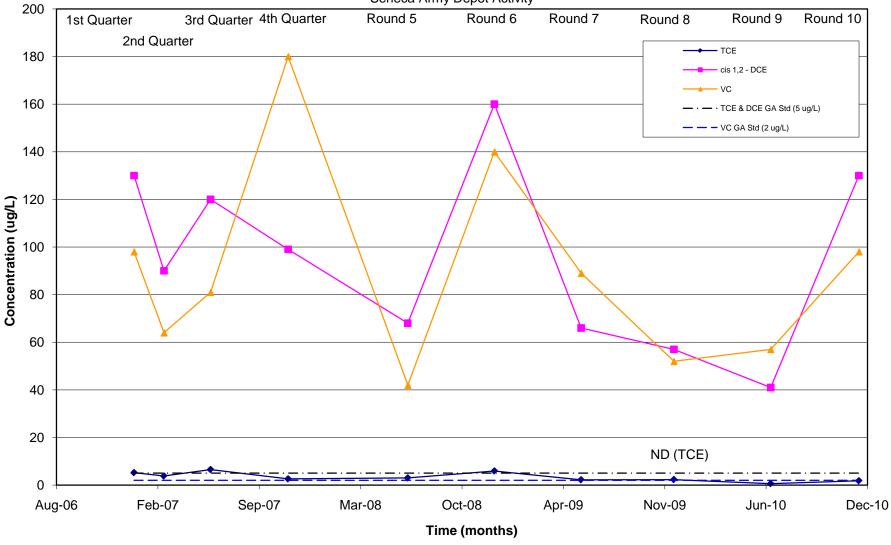
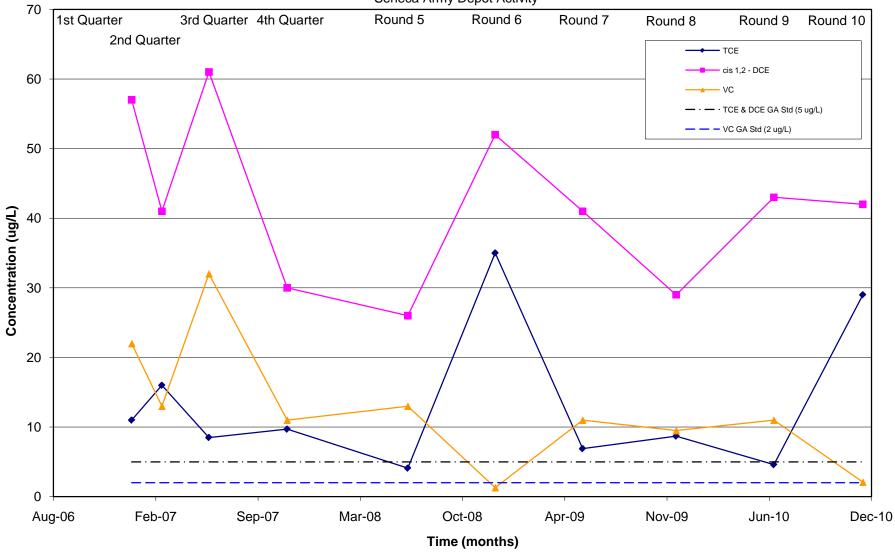
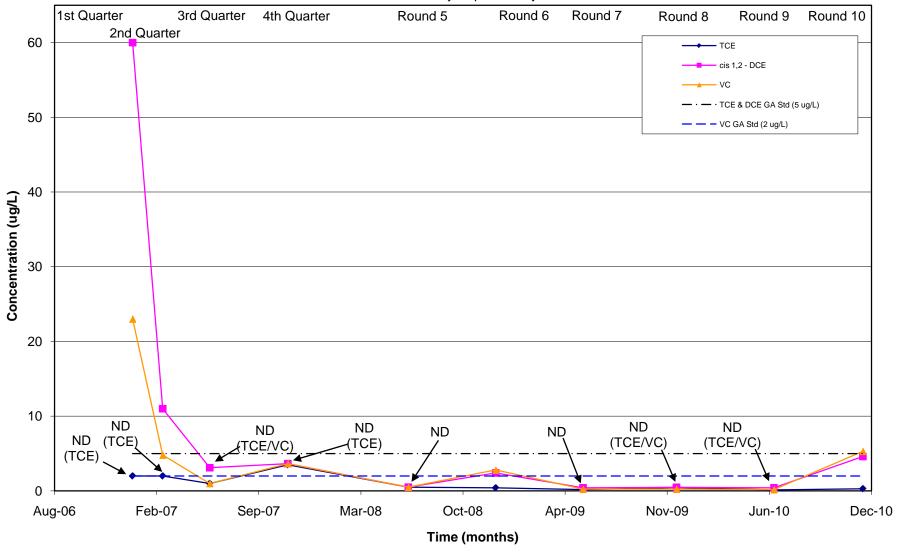


Figure 10G
Concentrations of Chlorinated Organics Over Time at PT-22
Ash Landfill Annual Report, Year 4
Seneca Army Depot Activity



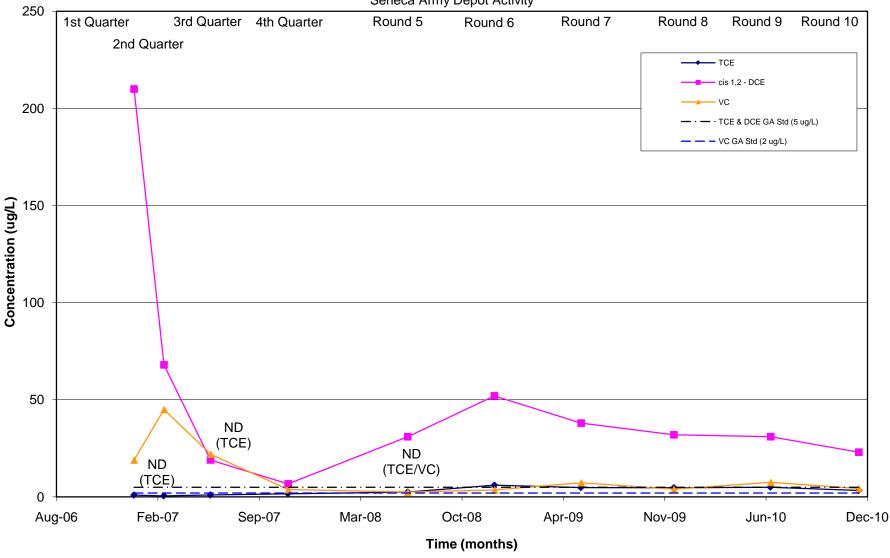
Note: ND= not detected.

Figure 10H
Concentrations of Chlorinated Organics Over Time at MWT-23
Ash Landfill Annual Report, Year 4
Seneca Army Depot Activity



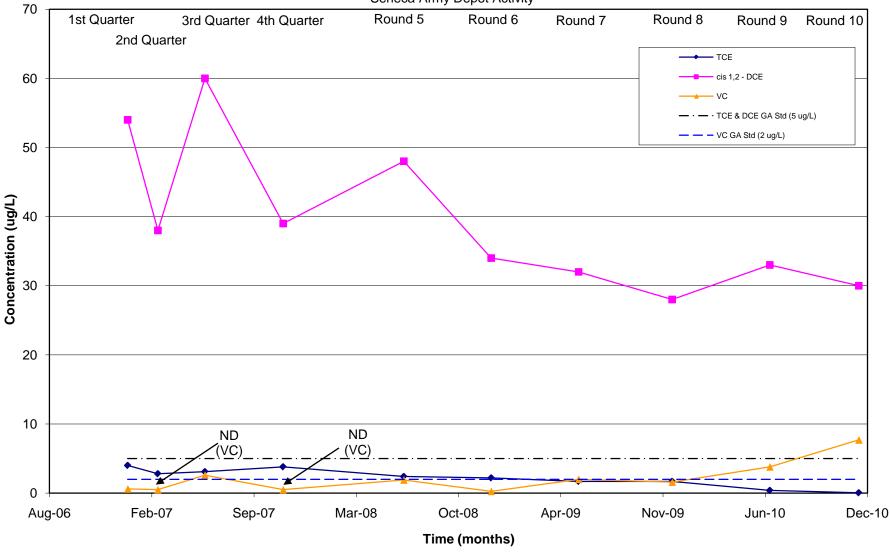
Note: Round 4 data is the average of the sample and its duplicate. ND = not detected.

Figure 10I
Concentrations of Chlorinated Organics Over Time at MWT-24
Ash Landfill Annual Report, Year 4
Seneca Army Depot Activity



Note: ND = not detected.

Figure 10J
Concentrations of Chlorinated Organics Over Time at PT-24
Ash Landfill Annual Report, Year 4
Seneca Army Depot Activity



Note: ND = not detected.

Figure 11A
Historic Concentrations of Chlorinated Organics at PT-18A
Ash Landfill Annual Report, Year 4
Seneca Army Depot Activity

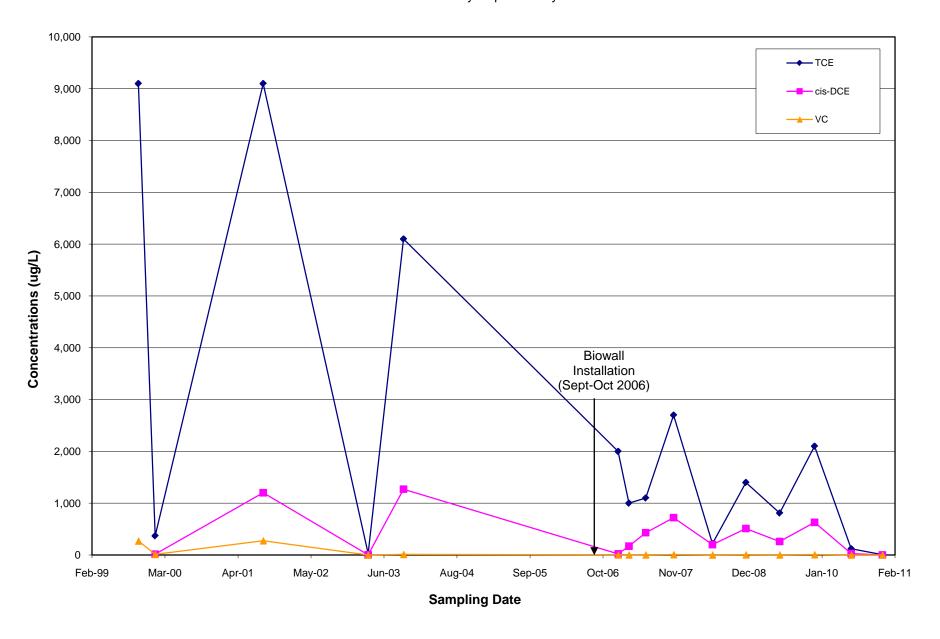


Figure 11B
Historic Concentrations of Chlorinated Organics at PT-17
Ash Landfill Annual Report, Year 4
Seneca Army Depot Activity

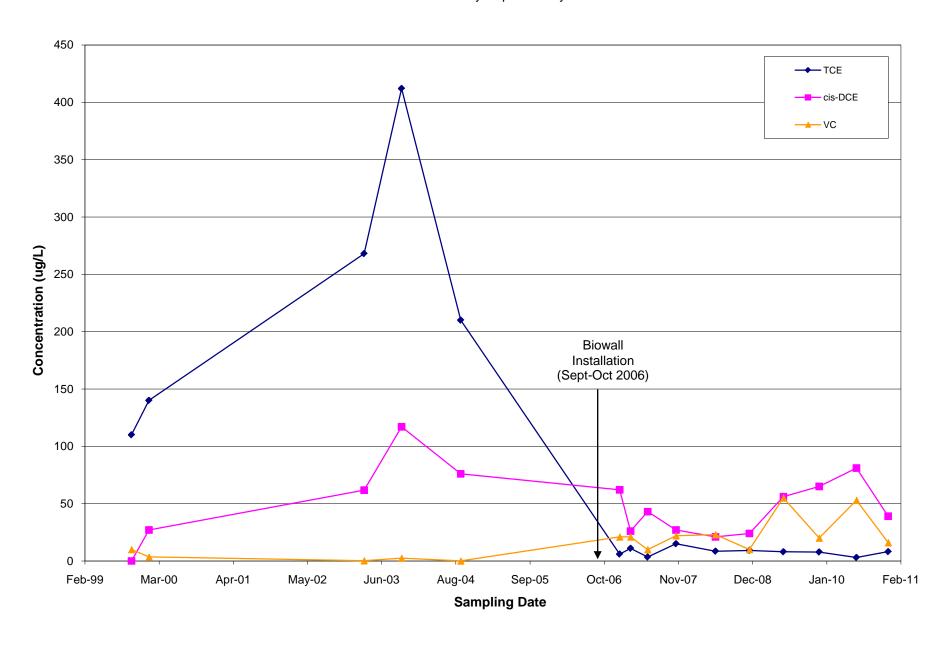
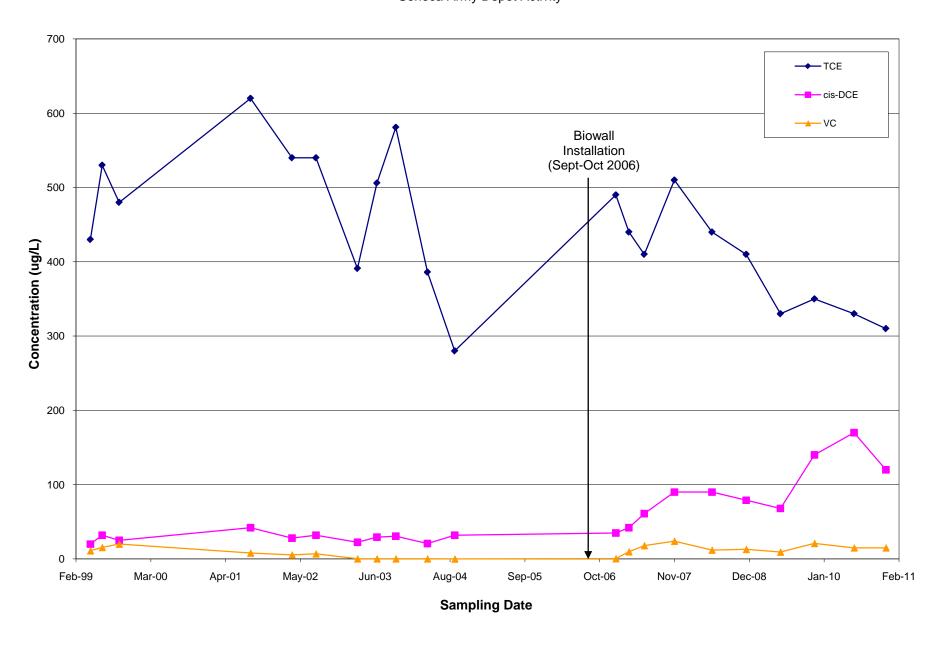
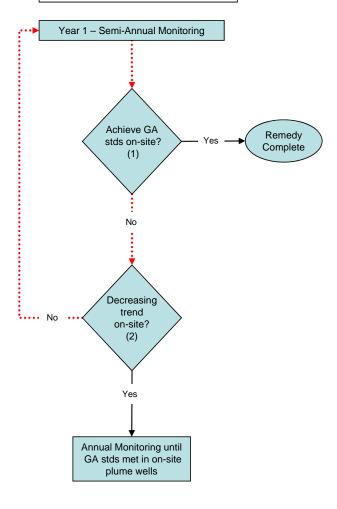


Figure 11C
Historic Concentrations of Chlorinated Organics at MWT-7
Ash Landfill Annual Report, Year 4
Seneca Army Depot Activity



OFF-SITE PERFORMANCE MONITORING WELL

(MW-56)



• Current selected path

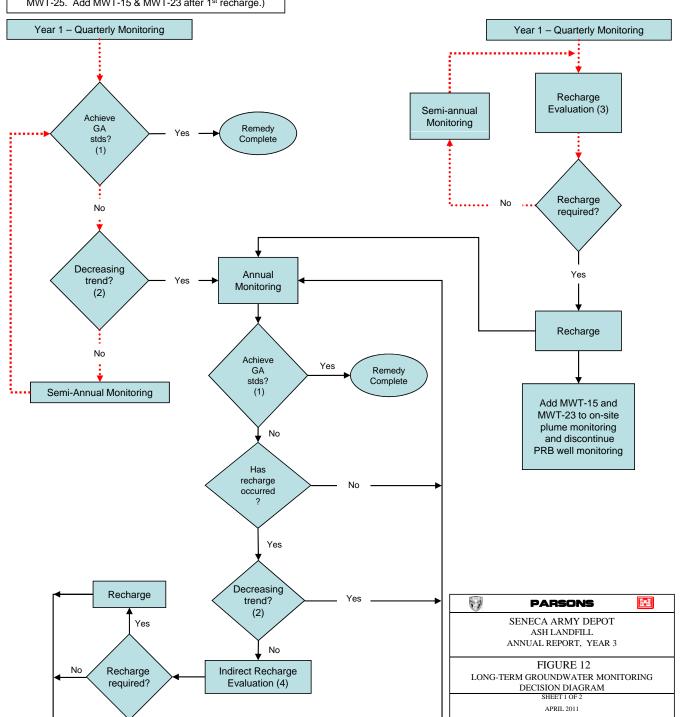
SEE SHEET 2 FOR NOTES

ON-SITE PLUME PERFORMANCE MONITORING WELLS

(PT-17, PT-18, PT-22, PT-24, MWT-7, MWT-22, MWT-24, MWT-25. Add MWT-15 & MWT-23 after 1st recharge.)

BIOWALL PROCESS WELLS

(MWT-26, MWT-27, MWT-28, MWT-29, MWT-23)



NOTES:

- 1. Achieving GA Stds: The condition of achieving GA standards applies to achieving groundwater standards for all COCs in all of the On-Site Plume Wells. If GA standards are achieved in the On-Site Plume Wells for two successive monitoring events, then the remedy is complete and no further monitoring is required at the site.
- 2. Decreasing Trend: After each year of sampling, the Army will review the results to determine if the chemical concentrations of the COCs are increasing, decreasing, or are unchanged. Graphical and statistical analyses will be used as the basis for this determination. For example, data points will be plotted and a best fit line (linear regression) will be graphed. The slope of the best fit line is representative of the trend in concentration; a negative slope indicates a decreasing trend in COC concentrations. A decreasing COC trend indicates that the potential for contaminants to migrate and negatively impact groundwater further downgradient is decreasing, and that the plume is being effectively managed by the remedy. Any evaluation of trends in contaminant concentrations will take into account that historic data at the Ash Landfill shows that there are seasonal fluctuations in contaminant concentrations. Semi-annual monitoring during wet and dry seasons is appropriate until it is established in which season maximum concentrations are observed. Annual monitoring would occur in the season of maximum concentrations.

3. Recharge Evaluation:

- Determining the need to recharge a biowall segment requires a review of chemical concentrations and geochemical parameters by an experienced professional. A specific, absolute set of conditions or parameter values are not appropriate to determine the need to recharge. Rather, a lines-of-evidence approach will be used that correlates a decrease in the efficiency of the system to degrade chloroethenes to geochemical evidence that indicates the cause is due to substrate depletion.
- The following parameters will be evaluated on an annual basis using at least two consecutive rounds of sampling data in order to determine if recharge of the biowalls is necessary:
 - a. COC concentrations in the wall. If COC concentrations have rebounded by greater than 50% for any single sampling event, this will indicate that recharge should be considered. Concentrations within the biowalls, not at downgradient locations, will be used to make this evaluation so that the effectiveness of the wall itself is being measured without the interference of effects such as desorption and mixing.
 - b. Geochemical parameters, specifically ORP, TOC, and DO, in the wall. Benchmark values will be used initially to evaluate anaerobic conditions in the groundwater. These benchmarks are:
 - ORP < -100 Mv
 - TOC > 20 mg/L
 - DO < 1.0 mg/L

Parameters described in a and b above are intended to be used as guidelines and will be considered in the evaluation if, and when, a depletion of bioavailable organic substrate results in a rebound in geochemical redox conditions under which effective biodegradation does not occur.

4. **Indirect Recharge Evaluation**: Once the biowalls are recharged the first time, an indirect recharge evaluation will be conducted if an increasing trend in COC concentrations is observed in the plume performance monitoring wells. An increasing trend is a positive slope on the best-fit line, described in *Note 2* above. Two biowall monitoring wells, MWT-15 and MWT-23, will be added to the Plume Performance Monitoring program after the first recharge is completed. The evaluation will review the chemical and geochemical data and determine if the contaminant increase is a result of poor biowall performance or due to other issues, such as seasonal variations, recent precipitation events, desorption, etc. As stated in Note 2, a rebound in concentrations of COCs of 50% in MWT-15 and MWT-23 in two consecutive monitoring rounds is a major indication that recharge is needed. Once this COC rebound is observed, the geochemical parameter concentrations at MWT-15 and MWT-23 will be reviewed. In addition, conditions at the other plume performance wells will be reviewed and compared to the conditions observed at those wells at the time that the initial recharge was required. The Army will determine if similar conditions in the well provide further proof that carbon source recharge is needed again.

APPENDICES

Appendix A Field Forms for 9R2010 and 10R2010 (CD)

Appendix B Complete Groundwater Data

Appendix C Regression Plots

Appendix D Response to Comments

APPENDIX A

FIELD FORMS FOR 9R2010 and 10R2010 (CD)

		SAIVI	PLIN	GK	EC	UKI	, -	GK	UU	ND	W.	AIL	<		
S	ENEC	A ARMY I	EPOT AC	LIVITY	1		PAR	SON	ıs		WE	LL #: P	T-1	7	
0.000	CATION		Ash	Landfill L	ROM	undwater :	Y		d 9		INSI	DATE: 7 PECTORS: IP #:	130 130	10	
137	EATHE	D / FIELD	CONDITION	e curc	151 IV		ECODIA 5		CHAN	GES)		IPLE ID #:	11	+12	
W	EATHE	R/FIELD	CONDITION	S CHEC	REL.		-		GROUN		AL	BW 201	76		
TI	ME	TEMP	WEATI	HER	HUMIDI	-		ECTION		FACE		MONIT			
(24	HR)	(APPRX)	(APPE	ex)	(GEN) (APP	RX) (0	- 360)	COND	ITIONS	INS	TRUMENT	DI	ETECTOR	
114	6	605	partly o	Coucles		5-1	5 WE	-75W	dry	12854		OVM-580		PID	
				,											
G/	METER (ALLONS / LITERS/F	INCHES): FOOT:	UME CALCULA 0,25 1 0.0026 0.04 0.010 0.15	0.163	3 0.367 0.	4 6 654 1.47 475 5.564	7.	57-	5.67					3 = 5.21	5=6
				TO POINT WELL		TOP OF	SCREEN LENGTH	1	WELL DEVELOPME	ENT	DE	WELL VELOPMENT	Di	WELL EVELOPMENT	
1	HISTORIC	DATA		·27	S	CREEN (TOC)	(FT)		TURBIDIT	Y		pH		SPEC. COND	
		1	7.340	7.57											
DAT	A COLLE			READING ING WELL)		DEPTH STATI WATER LEV	C	WA	DEPTH TO STABILIZE TER LEVEL	D.	DEP	TH TO PUMP INTAKE (TOC)	PU	MPING START TIME	
						5.6	7								
RAD	IATION SO	CREENING		PRIOR TO LING (cps)					PUMP AFTI AMPLING (
	DATA	\$1.50 × 2.60 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3.00 × 3	ITORING			ECTED	DUR		URGI		ERA	TIONS		Letoff	
TIME (min)	WATER LEVEL	PUMPING RATE (ml/min)	CUMULATI (GALLO		EXIST DISS	OLVED EN (mg/L)	00	~3/c	COND	рН		ORP (mV)		TURBIDITY (NTU)	
1157	7.	- 4. 1	W GW	4011	use	^ -	Faltoc	pul	40 +	Dur	-	11-11-			
	700	lect	Geo par	aneta	5 H.	e.a </td <td>rote</td> <td>T</td> <td>4</td> <td>11/20</td> <td>7</td> <td>MD ON</td> <td>-</td> <td>Stabliza</td> <td>2</td>	rote	T	4	11/20	7	MD ON	-	Stabliza	2
	u	nee.	0 1	11	11/	1-	- 1	10	. / .	L		0 - 1 11		Bladele	
1218	E /3	o neto	Started	(0-	stell	+6	reci	asge	- De	ace	+	reristalt	0C C	Didecte	•
1775	7 75	~150	STAL TEN	Crer	0.2		14.0	0-7	-59	67	7	-25		1.7	
1734	5.75	-			0.0		14.0	۸.7	95	6.7	2	-29		2.3	
1239	5.75	-			0.0		14.0	0.1	501	6.7	,	-25		1. 2	
1245	-	-	~2	gals	0.0		_	0.8		6.7		-21		0.85	
1250	-			,	0.0		_	0.8		6.77		-18		0.60	
1255	-		22.15	945	0.3		_	0.8		6.7	-	-17		0.65	
1300				,	0.0			0.8		6.72		-16		0.75	
1305	$\overline{}$		~2.7	Toals			14.1			6.7	_	-15		0.65	
1314			~3.0		0.0		_	0.8		6.71	_	-14		0.70	
1319					0.0			0.8		6.71	-	-14		0.65	
1726					0.1	4		0.8		6.77	_	-13		0.85	
1331			~3.75	gels	0.0	7	13.2	0.2	313	6.7	$\overline{}$	-13		0.95	
1336	5.77	-	24.0		0.	1	13, 2	0.	816	6.7		-13		0.90	
1340	54	apped	Perista	Hoc P	ump	will	low	er t	Slada			into a	ell	E collect	Say
1355			er pany							,	1				
1359		Pump S	terted			+									
1401			Collect	ted	1	2:0	.29	17/L		Mn:	1	5.8	L		

	SAMPLING		PRESE	ERVATIVES	BOTTL	ES	SAMPLE	TIME	CHECKED B
	ORDER		-		COUNT/ VOLUME	TYPE	NUMBER		DATE
1	VOC 8260B		4 deg. C	HCL	3/ 40 ml	VOA	4LBW2017	6 1401	
	MEE (AM20GAX)				1 197		"	1,	
2	MEB (AM20GAX)		4 deg. C	HCL.	2/40 ml	6less4	6 4		1
3	TOC (9060A)	1011	4 deg. C	HCL	2/40 ml	VOA	*	"	
4	37) 05 k Sulfate (EPA 300.1)	N JA	4 deg. C		125 AL 1×250 mt.	HDPE	4	4	
5	Fe+ (HACH)		11000		S. J. 1970.	field			
6	Mn+ (HACH)		45541	s hip my	2-12 NE-5	field	homers h	60s part	371)
7			1000			100			
15.2	5×784.1=	(2).	89,13	Fars -	.5.7			1.24	
		-					1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
							75.0+	7.3	
				1100			40.61		
\vdash					Fa				
					1 40	16			
all co			JI (2 10		yst mi swotch	The Per		to low of	57 rac
all co	red		JI (2 10		ristation p saroteh o rechai	then the	W, well w greatedos allow w	to low 6 ect 6eo nerd to	57 Due coll
is the	undle and poole shows the state of the state	ses o	o puig dobr fueen	ge ble ble ble	riskaltoe p survieh o rechui	then letted the	W, wall w grantedos allow what fel (Person	Pamps Stead	£9'5 80
9666 9666	undle and poole shows the state of the state	ses o	o puig dobr fueen	ge ble ble ble	riskaltoe p survieh o rechui	then letted the	W, wall w grantedos allow what fel (Person	Pamps Stead	52.52 4
offer welcher F	interpretations of the second concerning the	pam Per Per	puig dobr theen 6.73	st grap to ble be	r: Stattoe p survieh o rechar 14.0 0 14.0 0	then lether lether lether co.28	W, well of present of allow when the control of the	Pamps Stead	18 5,67 25 5,75 ^ 34 5,75
is the sold in the	vall and solve sta staltac EBI 25 25 27 29 29 29 21	pom Per	ber pust ber ber ber ber ber 23	1. 426 26. 66. 24. 729 27. 729	ristation processed received in the control of the	then Per letted to 0.28	is on the second of a control of allow when the control of the con	Pump Star	18 5,67 25 5,75 ^ 34 5,75 39 5,75
23 7 22 7 27 7 27 7	101/200/200/200/200/200/200/200/200/200/	Pam Per	clow pured the construction (6.7-3) 6.7-7.	\$ 90%. \$ 20%. \$ 20%. \$ 20%. \$ 20%.	1: Stattoc p Survieh o rectuur 14.0 0 14.0 0 14.0 0	then Per (4) (4) (4) (5) (5) (5) (5) (5) (5) (5) (5) (5) (5	W, woll we present the allow when the control western 2 gals	Pump Star	15 2:42 24 2:42 34 2:42 34 2:42 42 2:43 42 2:43
22 22 23 24 25 25 25 25 25 25 25 25 25 25 25 25 25	101/200/200/200/200/200/200/200/200/200/	Pam Per Per	b.77.6.77	40 64. 40 64. 40 64. 40 7. 40 7.	15 Stattoc p Sarviteh o rectaur 14.0 0 14.0 0 14.0 0 14.0 0	1 then lest to 0.28 0.00 0.00 0.00	W, well of parakedos allow what (Perse	resp star	18 5,64 25 5,75 * 34 5,45 39 5,45 45 5,75 40 5,45
20 22 23 24 25 25 25 25 25 25 25 25 25 25 25 25 25	101/200/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/25 101/2	Part of	color pure large 6.77 6.77 6.77 6.77 6.77	\$ 906. \$ 207. \$	r: Stattoc p sarvited v rectail 14.0 0 14.0 0 14.0 0 14.0 0 14.0 0	1. then lested to 0.28 0.00 0.31	W, well of purate chas allow when the Control 2 gals 2 gals 4.15 945	resp star	18 5,45 * 25 5,75 * 24 5,75 * 25 5,75 * 26 5,75 * 27 5,75 * 27 5,75 * 28 5,75 * 29 5,75 * 20 5,75 *
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		SAM	PLING R	E	CO	RD	- (GR	OU	ND	W	ATER		
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	OJECT	There are	Ash Landfill L	R		US, NY	ampling		19			DATE: $\frac{\mathcal{H}(\underline{I})}{\underline{J}}$ PECTORS: $\underline{\overline{J}}$ MP #:		_
		n / Pipi D	CONDITIONS CHEC	No. of Lot, House, etc., in case, the case, th					CHANG	iES)		APLE ID #:	_ ,	_
WI			CONDITIONS CHEC.		EL.	WIN						BW2017	7	
TI	ME	TEMP	WEATHER		HDITY	VELOC	TTY DIR	ECTION	SURI	ACE		MONITO		
	HR)	(APPRX)			EN)	(APPI	- 1	- 360)	CONDI	TIONS	INS	TRUMENT	DETECT	OR
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GA	AETER (LLONS /	INCHES): FOOT:	0.25 1 0.0026 0.041 0.163 0.010 0.151 0.617	TORS 3 0.367 1.389		6 1,47 5,564			X V	VELL DIAM	ETER	FACTOR (GAL/FT)	<6 x3 =	68
			DEPTH TO POINT			TH TO OP OF	SCREEN LENGTH	D	WELL	NT	Di	WELL EVELOPMENT	WELL DEVELOPM	ENT
н	IISTORIC	DATA	OF WELL (TOC)		1000	EN (TOC)	(FT)		TURBIDIT	50.75		рН	SPEC. CO	
		æ	12.57+0.27	41										
DAT	A COLLE		PID READING (OPENING WELL)		WA	DEPTH I STATIC TER LEVE		WA	DEPTH TO STABILIZE TER LEVEL	D	DE	PTH TO PUMP INTAKE (TOC)	PUMPING S TIME	TART
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RADI	ATION SO	REENING	PUMP PRIOR TO		+	, , ,			PUMP AFT					
	DATA	\	SAMPLING (cps)			CONTRA	DUDI		AMPLING (ED	TIONS		
TIME	WATER	PUMPING	CUMULATIVE VOL		DISSOL	CTED VED	TEMP			NG OF	EKA	ATIONS ORP	TURBI	IDITY
(min)	LEVEL	RATE (ml/min)		0	XYGEN		(C)	W-3. 00	COND	pH	-	(mV)	(NT	
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SA	MPLING	PRESE	RVATIVES	BOTTI	ES	SAMPLE	TIME	CHECKED B.
	ORDER	N		COUNT/ VOLUME	TYPE	NUMBER	the same respective of the	DATE
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	C.8260B	4 deg. C	HCL.		100	4	4 JK	211
	AM20GAX)	4 deg. C	HCL.	2/40 ml	VOA	200		
3 36 C	(9060A)	4 deg. C	HCL	125 ml	Glass A	for u	JK JK	7/1
		4 deg C	The state of	125 al	HDPE	4	* 0	K7/1
		w deg. C		Zarabo nib		and the latest of	1 20 11	
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Land			. 10	75T	\$33Y	4. <i>1.</i> 3	Ros Co	75
1.12 1.22 1.12 1.12 1.00	\$ 50 C	6.55 6.55 6.62 6.62	80.5 30.5 30.5 70.5	12.5 12.5 12.5 12.5	00000000000000000000000000000000000000	fed at 5 gal		740 10.07 545 10.17
1.00	\$ 4000000000000000000000000000000000000	\$ 50.00 \$ 50.0	2.08 2.08 2.03 2.03 2.03 2.05 2.05	75.5 2.6 2.5 2.5 2.5 2.4 2.4 2.4	60000000000000000000000000000000000000		Plany Star nijonin 101 n.	740 (0.07 545 (0.17
1.00	\$ 4000000000000000000000000000000000000	\$ 50.00 \$ 50.0	2.08 2.08 2.03 2.03 2.03 2.05 2.05	12.5 12.5 12.5 12.5	6.000000000000000000000000000000000000			740 (0.07 545 (0.17
S1.1 00.1	\$ 4000000000000000000000000000000000000	6.55 6.55 6.62 6.62	2.08 2.08 2.03 2.03 2.03 2.05 2.05	12.5 12.5 12.5 12.5	00000000000000000000000000000000000000			740 (0.07 745 (0.17
S1.1 00.1	\$ 4000000000000000000000000000000000000	\$ 50.00 \$ 50.0	2.08 2.08 2.03 2.03 2.03 2.05 2.05	12.5 12.5 12.5 12.5	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			740 10.07 545 10.17
S1.1 00.1	\$ 4000000000000000000000000000000000000	\$ 50.00 \$ 50.0	2.08 2.08 2.03 2.03 2.03 2.05 2.05	12.5 12.5 12.5 12.5	\$23 \$2.0 \$1.0 \$1.0 \$1.0 \$1.0 \$1.0 \$1.0 \$1.0 \$1			740 (0.07 545 (0.17
S1.1 00.1	\$ 4000000000000000000000000000000000000	\$ 50.00 \$ 50.0	2.08 2.08 2.03 2.03 2.03 2.05 2.05	12.5 12.5 12.5 12.5	10000000 000000000			70.01.04 345 le.17
S1.1 00.1	\$ 4000000000000000000000000000000000000	\$ 50.00 \$ 50.0	2.08 2.08 2.03 2.03 2.03 2.05 2.05	12.5 12.5 12.5 12.5	\$23 \$2.0 \$1.0 \$1.0 \$1.0 \$1.0 \$1.0 \$1.0 \$1.0 \$1			70.01.04 345 le.17

		SAM	PLING R		CO	RD	-	GR	OU	ND	WA	ATER	3	
S.	ENEÇ	A ARMY I	DEPOT ACTIVITY				PAR	SON	15				T-:	
	ROJEC CATIO		Ash Landfill I			water S .US, NY			d 9			DATE: 6/ ECTORS: 7 P#: Pine	580	15K
W	EATHI	ER/ FIELD	CONDITIONS CHEC	KLIS	r	_	ECORD		1		SAMI	PLE ID #:		
		men en			EL.	WIN	-	ROM)		D/SITE	AL	3W 201		NO.
	IME , ` HR)	(APPRX)	WEATHER (APPRX)		EN)	VELOC (APPI		ECTION - 360)		FACE ITIONS	INST	MONIT RUMENT	_	ETECTOR
122		606	scriffered clark	1		5-1		₹E	0	20255 4		OVM-580		PID
G/	METER ALLONS LITERS/	(INCHES): / FOOT:	UME CALCULATION FAC 0.25 1 2 0.0026 0.041 0.163 0.010 0.151 0.617	TORS 3 0 367 1 389	4 0.654 -2.475	6 1 47 5 564			X 5	WELL DIAM	ETER FA	IZED WATER L CTOR (GAL/FI 6 3 = 0.7	11	3=1.15
1	IIISTORIC	DATA	DEPTH TO POINT OF WELL (TOC)		70	TH TO P OF EN (TOC)	SCREEN LENGTH (FT)	D	WELI EVELOPMI TURBIDIT		DEV	WELL ELOPMENT pH		WELL EVELOPMENT SPEC COND
D. 7		nowith 1.7	= 11.81			DEPTH 1			DEPTH TO STABILIZE			H TO PUMP NTAKE	bf.	MPING START TIME
DAT	WELL:	ECTED AT SITE	PID READING (OPENING WELL)		WA1	TER LEVE			ER LEVEL		,	(TOC)		T (NAIL)
RAD	IATION S DAT	CREENING A	PUMP PRIOR TO SAMPLING (cps)			1			PUMP AFT AMPLING (
		MON	ITORING DATA	СО	LLEC	CTED	DURI	NG P	URGII	NG OP	ERA	rions		
TIME (min)	WATER LEVEL	PUMPING RATE (ml/min)	CUMULATIVE VOL (GALLONS)		DISSOLV XYGEN (i		TEMP (C)	1	COND	ltq ltq		ORP (mV)		TURBIDITY (NTU)
1251	9.16	Puno	tested et		YST	,	RZT							LaMoto
10-4	0.00	Dead 1	into in well			4	0 /	Str	ng	organ	î)dor, 1	שכ)	ed pump
1500	1,50	up due	to gurgle, Rep	1				Rin	9 1	einsev-	red	pump.	_	
1300	9.30	timp	restarted	- #0	17 (B)	aler	level	dow	M H	120	<u> </u>	POM	46	vuv b
1701	4.40	U	Stopped.					1	17		;	rk	_	•
1330		10mp	Kestarted.	3		<u> </u>	12.2	7	10	6.00				i 1
1333	10.27	~64		5	. 6 <i>c</i>	<u>x.</u> Ce	12.2		₹2 ? ø	6.83	$\overline{}$	-103 -94		7.6
	10.33	~28		9) . 6	0	12.2		38 36	6.8	2	- 98		5.9
1249	10.36			7).4	1	12.2		36	6.83		- 84		5.7
1353	ALD	~42			1.4		12.		37	6.8		-81		4.5
1358	ND		v.5gal	7	5.5	4	12		36	6.84	¥			4.0
1402	ND		0	7	1.4	1	12.1	1.3	37	8.89	:	-78 -76	_	3.6
1408				_	3.3	33	[2.[37	6.8		- 76		3.6
1413	ND			1	5.3	3	12.0		38	6.8	6	- 76		3.4
1418		~28	~.Gaal	1	3.4 C	_	12.1	Ti.	39	6.8		-7s		3.6
			~.6 gal		الملن	_	wse	<u> </u>				•		
1423		Sarple	The											
			Collected	3	×V	145	for	VOC	,					
											+			

4	SAMPLING		RESERVATIVE	e R	SOTTLE	25	SAMPLE	TIME	CHECKED BY
	ORDER	'	RESERVATIVE	COUNTING		TYPE	NUMBER	* *******	DATE
1	VOC 8260B	4 deg	С	ICI. 3/40 i		VOA	ALBW 20178	1423	JK 6/30
2 .	4 4 445	4 dej		ICL 2/401	ml	VOA	11	4	
	અંતિ છે વન્યો			1 4 125	5	_	11	1/	
3	TOC (9060A) Sulfate (EPA 300.1)	4 deg	C H	CL	25	VOA	1/	1/	
4	Sulfate (EPA 300.1)	4 des	C	1-x 250	mi.	HDPE	,	*/	$+$ \forall
5	Fe+ (HACH)			11 in 1	7	field	22,12 5 50	The second second	1 7.57
6	Mn+ (HACH)	1.40	The said the said	35-	6	field	(%) () () () () () () () ()	ME WAY NOW	[1] * · · · ·
7							10		
4	27 495			j 411.			•		
_									-
			-					•	
				3 13	9.				
	OMMENTS: (QA/						الله الم	Service Service	1 31. 135 p
	્રાપ્ટ ેલ્લું (જુ. કેલ્લું ક્રમ્પ્ટ) આ માન ક]. elter Jakon	ar uno	eng gr instruction (second	ભારત જો કોઇ જોન્દ	inside epidente ficialiti	* 6 ST 125 2	241 GOS.	
	ાસમાનવે 'ખરક' પ્ર ક્રમામાં ભાષામાં ભાષામાં કહેવા કુંદ્રમાં મુખ્	in einen Inkan	大· 中 · 林	wan sala	estan Shini Del	, 51 a 18;	'n is 87 (25) 1997	anti	
	ાસમાનવે 'ખરક' પ્ર ક્રમામાં ભાષામાં ભાષામાં કહેવા કુંદ્રમાં મુખ્	olies Lakya Marija Taraya	n and the	won (sak)	13-1	(.e.a 18:	'n is 87 (25) 1997	zvi ceri. Godi Gizi emil	# 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	ાસમાનવે 'ખરક' પ્ર ક્રમામાં ભાષામાં ભાષામાં કહેવા કુંદ્રમાં મુખ્	To age	To a defe	won so	13-1	, 51 a 18;	'n is 87 (25) 1997	anti	# 1 (1) (1) (1) (1) (1) (1) (1) (1) (1) (
	ાસમાનવે 'ખરક' પ્ર ક્રમામાં ભાષામાં ભાષામાં કહેવા કુંદ્રમાં મુખ્	To age	n in the	won so	13-1	(.e.a 18:	'n is 87 (25) 1997	est out.	**************************************
	ાસમાનવે 'ખરક' પ્ર ક્રમામાં ભાષામાં ભાષામાં કહેવા કુંદ્રમાં મુખ્	To age	To a defe	won so	13-1	(.e.a 18:	'n is 87 (25) 1997	zvi ceri. Godi Gizi emil	**************************************
	ી સ્થાનવી વિશ્વન્ત ક્લામ પ્ર વિશ્વન્તિ કે ક્લામ પ્	To age	7 m 40 5 - 54 3 - 54 3 - 55 3 - 55	won so	13-1	(.e.a 18:	'n is 87 (25) 1997	est out.	
	ી સ્થાનવી વિશ્વન્ત ક્લામ પ્ર વિશ્વન્તિ કે ક્લામ પ્	To age	7 m 40 5 - 54 3 - 54 3 - 55 4 - 55	won so	13-1	(.e.a 18:	1 6 15 8 7 1.50 2 4 1.00 9 4 1.50 1.50	est out.	
	ી સ્થાનવી વિશ્વન્ત ક્લામ પ્ર વિશ્વન્તિ કે ક્લામ પ્	To age	7 m 40 5 - 54 3 - 54 3 - 55 4 - 55	won so	13-1	(.e.a 18:	'n is 87 (25) 1997	est out.	
	ી સ્થાનવી વિશ્વન્ત ક્લામ પ્ર વિશ્વન્તિ કે ક્લામ પ્	To age	7 m 40 5 - 54 3 - 54 3 - 55 4 - 55	won so	13-1	(.e.a 18:	1 6 15 8 7 1.50 2 4 1.00 9 4 1.50 1.50	est out.	
	ી સ્થાનવી વિશ્વન્ત ક્લામ પ્ર વિશ્વન્તિ કે ક્લામ પ્	To the Second Se		won so	13-1	(.e.a 18:	1 6 15 8 7 1.50 2 4 1.00 9 4 1.50 1.50	est out.	
	ી સ્થાનવી વિશ્વન્ત ક્લામ પ્ર વિશ્વન્તિ કે ક્લામ પ્	To age		won so	13-1	(.e.a 18:	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	The continues of the co	
	ી સ્થાનવી વિશ્વન્ત ક્લામ પ્ર વિશ્વન્તિ કે ક્લામ પ્	To the Second Se		won so	13-1	(.e.a 18:	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	The continues of the co	

		SAM	PLING	REC	COF	SD.	- G	R	OU	ND	W	ATEF	2
Ş	ENEC	A ARMY	DEPOT ACTIV	ITY.		P/	\RSI		15		WI	ELL #: ρ-	T-24
PF	ROJEC'	r:	Ash Land	MILTM G	roundwa	ter Samp	oling - R	Rouna	d 9			DATE: 6/	30/10
LO	CATIO	N:			OMULUS							PECTORS: T	BO ITK
			<u> </u>			FA .	<u> </u>				:	MP#:	11715 reno
W	EATH	ER / FIELD	CONDITIONS CI						CHAN			IPLE ID #:	
	,					WIND.	14				AL	BWZOL	
	IME	TEMP	WEATHER			ELOCITY				FACE	12:0	MONIT	
	(HR)	(APPRX	(APPRX)	/ (G		\PPRX) (0	(0 - 3) マー (ル		COND	ITIONS		TRUMENT	DETECTOR
12		2-3	scattened cla	عاملا		-10	w-7		414	5 14	7_	OVM-580	
	METER ALLONS	(INCHES):	LUME CALCULATION 0.25 1 0.0026 0.041 0	FACTORS 2 3 163 0,367	4 0,654	6 i.47			X	VELL DIAN	IETER	ILIZED WATER L	1
	LITERS/	FOOT		617 1 389		.564 FO SCR		15	WELL	6.5	<u>4 ×</u>	. 163= (.O.	
	HISTORIC	DATA	DEPTH TO PO OF WELL (TOC)		DEPTH' TOP O SCREEN (F LEN			EVELOPME TURBIDIT		DI	EVEL OPMIENT pH	WELL DEVELOPMENT SPEC COND
			= 1	1.93									
DAT	LY COPT	ECTED AT SITE	PID READIN (OPENING WE		S	PTH TO TATIC LEVEL (TO	r)		DEPTH 10 STABILIZE ER LEVEL	D	DE	PTH TO PUMP INTAKE (TOC)	PUMPING START TIME
					5.	39'							
RAD	IATION S DAT	CREENING A	PUMP PRIOR SAMPLING (PUMP AFTI AMPLING (
		MO	NITORING DA	TA CO	LLECT	ED DU	IRING	; P	URGIN	G OF	ERA	TIONS	
TIME	WATER	PUMPING	CUMULATIVE VO		ISSOLVED) (C			COND			ORP	TURBIDITY
(min)	LEVEL	RATE (ml/min	(GALLONS)	- UX	YGEN (mg/L	2004	7		odo R	1 1 a	1.0	ted	(NTU)
746	2.57	rump	Started at		<u>`</u>	40	NI C				-		
20	Dri	sing,	pulled pum	p out	of we	K , a	die	105	s kr	attac	hed	air+wa	ter lines
957	5.43	Pump	Started	مومسا									
1005	A	dusta	flow out	e 9 du	e to	458	· He	'ma	inte	cred	34	te well	floor
		2014-12-6	vole Do	2 42 (/)	n fr	2m 7	.35	40	4.2	5 444	1 .	L-11-1	77 Page 1
1000	7	L	1.00		<u>a</u>		1	<u></u>	4./1	-		A1 54 C	1
1010	1	di		mae .	TAN (3 17016	· 10		35/4		_		
	ننا	ON Pa) and		æ	H	1 4	L No	wp	ren	ρ,	
	Δ	ca Pu	p / he #	- 14	145								
1018	Pu	AP IL	Herted										
	7.	Hied c.	DUMA CI	4 36	re w.	rlea	Illa	و. نا	hec ke	40-	Y 114	as, rep	aced
	3	in Line	U T					1				0.,	
1044		np rest					\top						
17		10	1.	_		+	+	i			\dashv		+
11 -		40 ML	11'		()	-	10	,			\rightarrow		
Hoc	47	unted f	low 13540, 6	ut ma	93I	into c	jeff,	(8	<u>ad IN</u>	3 C	2	istent h	petween 2
	VS:	I will	Monitor For	SHU	deam	ake	Chi	And	es in	00.			
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				<u> </u>									
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			<u> </u>			•	+		_		_		

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	SAMPLING	FRES	ERVATIVES	BOTTL	1365	SAMPLE	TIME	CHECH	
	ORDER			COUNT/ VOLUME	TYPE	NUMBER	930		ATE
1	VOC 8260B	4 deg C	HCI.	3/ 40 ml	VOA	ALBW20179	-HOEV205	JK 6	6/30
2		4 deg C	HCL	2/ 40 ml	VOA	le	"		
~> 3	TOC (9060A)	4 deg. C	HCL	1 ×125	VOA	te	"		
4	Sulfate (EPA 300.1)	4 deg C	<u> </u>	1×125	HDPE	u	- 11	1	<u> </u>
5	Fe+ (HACH)				field		<u>** </u>		- 12 3
6	Mn+ (HACH)	1 X = 1 5	April 18 and	To the street	field	Special in the said	The call of the call	\ \ \	5,
7						×			
ij.	A Secretary of	4 2.11		· . :		1			
\Box									
			_			140-J. F			
Ц									
: O	MMENTS: (QA/Q	·	20.5	THE WEST				9.86.	
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PROJECT:		\$	SAM	PLING	RE	ECO	RD	-	GR	.OU	NDV	VATE	3	-
Note	SE	NECA	ARMY I	DEPOT ACTIV	/ITY			PAR	50h	ıs	V	VELL #:	PT	- 24
REL WIND (FROM) GROUND / SITE ALBU 20 79	1			Ash Lan	anii LTN				- Round	19	12 P	SPECTORS:	BB	01'5K
TIME	WE	ATHE	R/ FIELD		CHECKL								7.0	
CAPPRX C			ТЕМР		.		-	 `					_	
WELL VOLUME CALCULATION FACTORS DIAMETER (INCHES): 0.25 1 2 3 4 6 6 6 6 6 6 6 6 6														
DIAMETER (INCHES): 0.25 1 2 3 4 6												OVM-580		PID
DIAMETER (INCHES): 0.25 1 2 3 4 6			WELLVÍN	TATE CALCILIATIO	N EACTO	De		ONE	WELLVO	DINE (CA)	LE KROW, ST	A DII PYEN WATER I	PVPI	
DEPTH TO POINT DEPTH TO SCREEN WELL WELL WELL OF WELL TOP OF LENGTH DEVELOPMENT DEVELOPMENT DEVELOPMENT	GAL	LONS/	NCHES): FOOT:	0.25 1 0.0026 0.041	2 0.163 0 3	3 4 367 0 654	1 47	ONE	WELL VO		ELL DIAMETE	R FACTOR (GAL/F)		
HISTORIC DATA (TOC) SCREEN(TOC) (FT) TURBIDITY PII SPEC COND	иіс	STORIC	DATA	OF WEL	.L	TOI	P OF		D			DEVELOPMENT	1	EVELOPMENT
11.93	1113	31000	DATA			N NA		(3.1)		Telanoli I		, , , , , , , , , , , , , , , , , , ,		TR COMB
DATA COLLECTED AT PID READING STATIC STABILIZED INTAKE TIME WELL SITE (OPENING WELL) WATER LEVEL (TOC) WATER LEVEL (TOC) (TOC)						WAI	STATIC		1	STABILIZEI)	INTAKE	PU	
5.39'							5.39	/						
RADIATION SCREENING PUMP PRIOR TO PUMP AFTER SAMPLING (cps) SAMPLING (cps)	RADIAT													
MONITORING DATA COLLECTED DURING PURGING OPERATIONS			_		ATA C	COLLEC	TED	DURI			G OPE		1	whote
(min) LEVEL RATE (ml/min) (GALLONS) ONYGEN (mg/L) (C) (umhos) pll (mV) (NTU)		LEVEL	RATE (ml/min)		or A:	OXAGEN (#	ng/L)	ZIEWE						TURBIDITY (NTU)
1109 542 NIO 4.5gal 1.83 13.0 0.772 7.15 -42 130	1109 5	5.42	<u>~110</u>	n. Sgal	2	1.83	>	13.0	0.7	72	7.15	-42	\Box	130
114 5.43 1.57 13.0 0.77 7.14 -36 75	114 5	43							0.7	7-1	7.14	-36	\Box	75
1119 5.45 0.90 13.0 0.772 7.11 -27 70	1119 5	.45				0,9	0	13.0	0.7	72	7.11	- 27		40
124 5.43 0.63 13.1 0.775 7.09 -23 22	1124 5.	.43						13.1	_		7.09	-23	_	22
1129 542 0.47 13.0 0.779 7.09 -25 17	1129 5	242				0.4	17	13.0			7.09	-25		17
1134 5.4 0.42 13.0 0.782 7.08 -27 14		-						•		182		-27	-	14
139 5.43 ~90 0.28 13.0 0.781 7.08 -31 11			~90			_								
1144 5.45 NI. 5 gal 0.24 13.0 0.781 7.08 -33 8.4	1144	5.45		N1.5 g	2									
											7.08	-39	5	8.8
1154 5.44 0.19 13.0 0.780 7.08 -36 9.3			. —		_						4.08			9.2
1159 544 M2.0 gal 0.19 13.0 0.780 7.07 -37 8.3	1159 5	544		~2.0 ga	٤	<u>v.</u>	19	13.0	0.	780	7.07	- 3-	7	8.3
1205 Take Samples	1205		Take	amales										
				\		_							$ \bot $	
				_										
				_										
		_												

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	SAMPLING	I	PRESE	RVATIVES	BOTTL	ES	SAMPLE	TIME	CHECKED B
	ORDER				COUNT/ VOLUME	TYPE	NUMBER		DATE
	VOC 8260B	4	4 deg C	HCL	3/ 40 ml	VOA	ALBW20179	1205	JKGB
2 1	MEE (AM20GAX)		4 deg C	HCL	2/ 40 ml	VOA	11	11	
3 1	TOC (9060A)		4 deg C	HCL	2/ 40 ml	VOA	(1	"	
	Sulfate (EPA 300.1)	Elin ,	4 deg C		1 x 250 mL	HDPE	11		
<u>;</u>	Fe+ (HACH)					field			
4	Mn+ (HACH)					field _	-		
+	*.								
+	• 1	164	e _t e _{te} '						<u> </u>
+							E 19. 1.		
+									
					Fx \$2	. 4			
٠	MMENTS: (QA/				F. 5"				
							الم من الم	in.	
さらこと ここと				686.) 681. °		23.1 23.1 23.0 23.0 23.0 23.0 23.0 23.0 23.0 23.0	Sep 7.	in.	
できること いっこう			n, b	介有代。		63.1 63.1 26.0 64.0 64.0 64.0		in.	50 4 6 504 6 64 68 • 1343 4

-			PLING R				PAR					ELL #: MW	-56
SE	NECA	ARMYL	DEPOT ACTIVITY	74		_	_		7,51/		** 1	DATE: 7/4/	
PR	OJECT	:	Ash Landfill 1					- Roun	d 9		****		
LO	CATION	N:				US, NY						PECTORS: 31 MP #:	4948
		-	2.2		Mark		agona		CHANG	DEC)		MPLE ID #:	7740
WI	EATHE	R / FIELD	CONDITIONS CHEC	KLIST	7,13				GROUN			ALB W201	84
		7	1 -12-						SURF		-	MONITO	
	ME	TEMP	WEATHER		IDITY		DIR ON			336 4676	ING		DETECTOR
	HR)	(APPRX)	(APPRX)	(G	EN)	(APP)		- 360)					
164	0_	60%	nestly Cloudy	-		5-6	3 NE	756	day	Sures	_	OVM-580	PID
												BILIZED WATER LEV	
	METER (INCHES):	0.25 1 2 0.0026 0.041 0.163	0.367	4 0.654	6 1.47						FACOS GALFO!	317 K3 =
	.ITERS/F	TOOT	0.010 0.151 0.617 DEPTH TO POINT	1,389	2.475	5.564 TH TO	SCREEN		WELL			WELL	0.95
			OF WELL		TO	P OF	LENGTH		DEVELOPME		D	EVELOPMENT	DEVELOPMENT
H	ISTORIC	DATA	(TOC)	A 90 P		N (TOC)	(FT)		TURBIDITY			pН	SPEC. COND
			6.284.27	6.3	'								
P-4-7	A COLLE	CTED AT	PID READING			DEPTH STATE			DEPTH TO STABILIZE		DE	PTH TO PUMP INTAKE	PUMPING START TIME
DAT	WELL S	CTED AT	(OPENING WELL)		WAT	ER LEVI	EL (TOC)	WA	TER LEVEL			(TOC)	45.77
					1	7.60	5'						
RADI	ATION SO DATA	CREENING	PUMP PRIOR TO SAMPLING (cps)						PUMP AFTE AMPLING (
		MON	NITORING DATA	со	LLEC	TED	DURI	NG I	PURGIN	NG OF	ER	ATIONS	
TIME	WATER	PUMPING	CUMULATIVE VOL		DISSOLV		TEMP		COND			ORP	TURBIDITY
(min)	AOF	RATE (ml/min)	(GALLONS)	0.	XYGEN (mg/L)	(C)	(III	mhos)	pH		(mV)	(NTU)
711	4.57	ranp	Started at	-	M 2	1 2	17.0	20	100	2 -	,		22 C
+23	4.63	~134		-	0.3		17.2	0.2	.69	6.8		-61	33.6
1728	4.66	~98			0.3	,3	17.2	0.6	273	6.7	5	-82	23.2
1733	4.68				0.3	32	17.1	0.	272	6.7	4	- 98	114.8
1710		MIOG			0.		17.0		287	6.7	$\overline{}$	-119	12.5
717	4.66	wfo b		-				0.				101	
745	4.66			-	0.2		17.0	.0.	308	6.7		-/16	9.87
748	4.68	4109			0.2		17.0	0.	326	6.0	0	-122	6.62
1753	4.68				0.3	23	16.7	0.	345	6.8	1	-126	5.22
1758	4.68	m106			0.		16.8	0.7	364	6.8	2	-128	6.13
	4.68		21521			20	16.8		75	6.8	2	-129	3.5
208	4.67				0.6		16.8		394	6.8			3.19
1813	4 69				0.		16.7		403	6.8		-130 -131	3.19
1012	1.00			-		10	10.7	0.		6.0		131	7.11
1820		Samo	les taker	-							\dashv		_
0		7	J-check	+							\dashv		+
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4 deg. C						
		COUNT/ VOLUME	TYPE	NUMBER		DATE
	12795		***	A . C. 134104	1820	
	HCL.	3/ 40 ml	VOA	ALBW20184	1820	-
X) 4 deg. C	HCL	2/ 40 ml	VOA	4 5	4	
A) 4 ocg. C	HCL.	12501	Ches L			
4 deg. C	HCL	125 ml	Class do	4	-4	
A.B.	12 124 1 12	125 ML 83	7/1	4		
.1) 4 deg. C		1 x 250 mL	HDPE	-		-
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			field	, , , , ,		
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5 1.7 7 1.1	a (2.)	77.00				
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			1	32 50 18	. 1	
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				a septimina		
		1.4.5				
		0.3.	7			
8.0			9.0		154	23 4.63 ~
- 2F.3 - 7F.3 - 08.3	3.387 3.3887 3.26 3.26	0 1.Fl 6 0 0.Fl 6 0.Fl 6 0 0.Fl 6 0.Fl 6 0 0.Fl 6 0.Fl 6 0 0.Fl 6	0.23		48 10 G 10 A	11 4.35 1 28 4.63 ~ 28 4.66 ~ 38 4.66 u 48 4.66 u 53 4.66 ~
- AF.3 - OB.3 - 18.3	308 308 326 345 364 364	0 1.F1 6 0 0.F1 6 0 0.F1 6 0 0.F1 6 8 16.F 0	0.22		48 106 109 109	284.66~ 334.88 384.66 u 434.66 484.65 ~ 534.68
- AF.0 - FF.0 - 00.0 - 18.0 - 28.0	3.35 3.35 3.35 3.35 3.35 3.35 3.35 3.35	1.F. 6 7.0 F. 6 7.0 P. 6 7.0 P. 6 8.8 P. 6 8.8 P. 6	0.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.2200.22000	150	48 106 109 109	284.66~ 334.88 384.66 u 484.66 u 834.66 ~
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	1) 4 deg C	Adeg C	24.700.j 22.9 (A/QC?)	1) 4 deg C L 250 mL HDPE field field	A/QC?)	A/QC?)

		SAM	PLING R	E	CO	RD	-	GR	OU	ND	W	ATER		
SI	ENECA	ARMY I	DEPOT-ACTIVITY		3		PAR	50N	ıs		WI	ELL #: Mu	JT.	-7
	OJECT CATION		Ash Landfill L	R	OMUL	US, NY			d 9			DATE: 7/ PECTORS: _	TK	
W	EATHE	R PRIELDS	CONDITIONS OHEA	REIS	Tapy.		CORD		CHANG	GES)	SAN	MPLE ID #:		8814
,,,,	1/4		4	RI	EL.	WIN	D= 2(E	ROM)	GROUN	D/SITE	A	BW2013	_	
	ME	TEMP			IDITY	VELOC (APPE	TTY DIR	- 360)		FACE ITIONS	INS	MONITO		NG ETECTOR
	HR)	(APPRX)	Partly	(6.	EN)	5-1		-> SW		yursy	1140	OVM-580	171	PID
110	•													
GA	METER (I LLONS / LITERS/F	INCHES): FOOT:	0.25 1 0.0026 0.041 2 0.010 0.151 0.617	TORS 3 0.367 1.389	4 0.654 2.475	6 1.47 5.564	13	. 71 –	6-68	L) - [(POW- WELL DIAM = 7.11	STAR ETER X.	FACTOR (GALFT)	S &	3=48
			DEPTH TO POINT OF WELL			TH TO P OF	SCREEN LENGTH	Г	WELL DEVELOPME	ENT	D	WELL EVELOPMENT		WELL EVELOPMENT
H	IISTORIC	DATA	13.44+0.27	-	SCREE	N (TOC)	(FT)		TURBIDIT	Y	_	pH		SPEC. COND
			= 13.71			DEPTH T	70		DEPTH TO	,	DE	PTH TO PUMP	PU	MPING START
DAT	A COLLE		PID READING (OPENING WELL)		WA	STATIC TER LEVE		WA	STABILIZE TER LEVEL	D		INTAKE (TOC)		TIME
						6.60	,							
RADI	ATION SO DATA	REENING	PUMP PRIOR TO SAMPLING (cps)						PUMP AFT AMPLING (
		MON	NITORING DATA	со	LLEC	CTED	DURI		URGI	NG OP	ER	ATIONS		
TIME (min)	WATER LEVEL	PUMPING RATE (ml/min)	CUMULATIVE VOL (GALLONS)		DISSOLV XYGEN (TEMP (C)	~5/5	COND	pH		ORP (mV)		TURBIDITY (NTU)
1150 -	540	Pump	Started at		Y5:	I	Z8Y							Latetto
	JK41	~95m	Vmir											
1205	6.68			0	.0	7	12.0		04	6.80	$\overline{}$	-46		11.2
1210	6.68			0	.0°		12.0		03	6.70	_	-42		8.54
1215	6.69			0			11.9		05	6.8	_	-37		4.15
1220	6.70	~130		0			11.9		05	6.83	$\overline{}$	-32	_	3.59
1225				7			12.0	-	04	6.82		-28		3.37
1238	6.70				0-0	3	119		.03	6.8		-2 <u>5</u>		1.41
1240	6.69				0.0		11.9	1	03	6.82	4	-22	,	1.44
1246	C 69	n100	11.2 gol		0.0		11.9	1	04	6.8	Ś	- 2		1.44
1010	6.61	100	1100		0.0		11.1	1		0.0	,,			17
1255		Started	Samplin g											
1-20			7 0							Fe+	: 0	19 mg/		
										Mat	· C	.19 mg/	L	
												0		
				_			-	-						
				1										

	SAMPLING		PRESER	RVATIVES	BOTT	LES	SAMPLE	TIM	IE	CHECKI	.D D1
	ORDER				COUNT/ VOLUME	TYPE	NUMBER			DAT	Е
1	VQC 8260B	4 d	leg. C	HCL	3/ 40 ml	VOA	4LBW 2018	12	55	0	
2	MEE (AM20GAX)	4 d	leg C	HCL.	2/40 ml	VOA	4LBW20180	1255	- JK	7/1	
3	TOC (9060A)	4 d	leg, C	HCL	125ml	Glassing	PALBUZO180	1255	JK	7/1	i in
4	Sulfate (EPA 300.1)	ALD 44	leg, C	THE PLAN	125 ml	HDPE	8102NB14	1255	JK	7/1	
5	Fe+ (HACH)	700	/our			field			1995		Į,
6	Mn+ (HACH)	1	Sendi	your wid	6-31 SI-	field	7)	bart	300	T	2 11
7						of the state of the					
84	. E 13 1 1 4 5	. m 2 a X 13	ते व	O 60 - 10 - 1	r.()						
							17.7				
							45.04H	1.21			
					, 0,	6.0					
COM	MENTS: (QA	/QC?)		yen	18027 15 11		A110 11				
COM		/QC?)		moss	₹		to bot	on K	Pamp	Seg.	- 0;
off o	Lak -46 II.	0	3.0	1.04	52.0 52.54	13Y	to bot	on.R rifallo	Pamp ~951	80.0	₹¢.
10 TO	Lake -46 11.	0	F.0	1.04	7.0 2.0 2.0	I3Y	to bet	en.K nimilin	Pamp ~931	83.0	01.
45 CF 75	Lake 1142 8374	0) P	F.0	1.04 [.03 [.05	75.5 2.0 2.0 2.0	T3Y F0.0	to bot			83.0	SI 011 Ga
10 TO	11. 42 1132 4.	50 00 00 00	F. 0 1.0 1.0 1.0	1.04 [.03 [.05	5.3 2.3 2.0 2.3 2.0 2.0 2.0 2.0 2.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3	YST 6.0.0 0.00 0.00 0.00 0.00	to bot			6.68 6.68 6.69 6.69	10 0 10 0 10 0 10 0 10 0 10 0 10 0 10
4. CAN 10.	11. 42 1132 4.	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	6.000	0.000000000000000000000000000000000000	7.5.4 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0 7.0.0	T3Y 50.00.00.00.00.00.00.00.00.00.00.00.00.0	to bot			6.68	22. 57. 57. 50.
45 4 6 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4	1 3 3 4 8 1. 1. 2 2 3 4 8 . 1. 2 2 2 2 2 4 2 2 2 2 2 2 2 2 2 2 2 2 2		F. 200.00	0.000000000000000000000000000000000000	XSX Y Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z	75.000000000000000000000000000000000000	to bot			6.68	00000000000000000000000000000000000000
4. CANORETA	1. 1. 2.2. 2.4. 2. 1. 1. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2.		F. 200.00	4 W W & & & & & & & & & & & & & & & & &	1.9 1.9 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	7.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00			osiv	6.68	10 00 11 0 00 11 0 00 11 0 00 11 0 00 11 0 00 11 0 00 11 0 00 11 0 00 11 0 00 11 0 00 11 0 00 11 0 0 00 11 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
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	S	SAMI	PLING R	EC	CO	RD	- (GR	OU	ND	W.	ATER		
er.			EPOT ACTIVITY				ARS				WE	LL #: Mh	/[-	
PRO LOC	OJECT:	(= 1)	Ash Landfill I	TM G	DMUL	US, NY	00.	1)			PUN	IP#: Pre	1/11 BB 49	0 0 (JK 45
WE	ATHE	R / FIELD	CONDITIONS CHEC	KLISI	n.				CHANG			APLE ID #:	2 10	,
		- 19	4	RI	EL.	WIN	Das de	ROM)	GROUNI			4L 13W 20		
TI	ME	TEMP	WEATHER	HUM	IDITY	VELOC	ITY DIRE	CTION	SURF		-	MONITO		
(24	HR)	(APPRX)	(APPRX)	(G	EN)	(APPR		- 360)	CONDI	TIONS	INS	TRUMENT	DE	TECTOR
94	2	60%	party dady			54	5 NE-	756	dry	50004	_	OVM-580		PID
GA	LLONS/	NCHES): FOOT:	0.25 1 2 0.0026 0.041 0.163	TORS 3 0,367 1.389	4 0.654 2.475	6 1.47 5.564			X V	VELL DIAM	IETER	FACTOR (GAL/FT)	1	×3=03
I	.ITERS/F	OOT	0.010 0.151 0.617 DEPTH TO POINT	1.389	-	TH TO	SCREEN		WELL		П	WELL		WELL
11	ISTORIC	DATA	OF WELL (TOC)		1000	P OF EN (TOC)	LENGTH (FT)	D	EVELOPME TURBIDITY		D	eVELOPMENT pH		PEC. COND
			14.65+0.27	2										
DAT	A COLLEG		PID READING (OPENING WELL)		_	DEPTH T STATIC TER LEVE	L (TOC)	WA	DEPTH TO STABILIZE TER LEVEL	D	DE	PTH TO PUMP INTAKE (TOC)	PUN	MPING START TIME
					8	.72	.'					7.000		
RADI	ATION SC	CREENING	PUMP PRIOR TO SAMPLING (cps)						PUMP AFTI AMPLING (
		MON	NITORING DATA	СО	LLE	CTED	DURI			NG OI	PER	ATIONS		
TIME	WATER	PUMPING	CUMULATIVE VOL	92	DISSOL		TEMP (C)		mhos)	рН		ORP (mV)		TURBIDITY (NTU)
0955	LEVEL	RATE (ml/min)	- 1 1 1	_	O. T	mg/1.)	13.0				-	-12		100-
	3.85	Nap	dented at	+	0./	1	13.0	2.		6.3		-63		19
1019	9.25	* 77		+	0.12		13.1	2.:			34	-60	\neg	15
024	9.66			+	0 . /4		13.1		18		38	-61		13
029	9.90			1		7	13.1		27	6.4	Z	-63		12.
034	1018			-	2.5	0	13.0	2.	26	6.4	5	-64		12.2
1037	10.34			(0.6	1	12.8		24	6.4		-65		13.6
1044	10.35	492	~0.5 sels	(2.4	4	12.7	2.	24	6.4	A-0.0	-66		14,5
1049	10.35	~100		C	3:	3	12.6	2.	21	6.5		-67		16.4
	10.35				5.2		12.0		.19	6.3		-67		18.6
		~90	1	1	0.2	-1	11.9		18	6.5	5	-66	_	21.1
		~12	21,25 gals		5.5	43	11.8	_	.19	6.5		-64		18.6
1109	10.40		1115 5als	_	0.9		11.8		.20	6.5		-63	5	16,8
1115		Jamp/	no Started	1	Total	N P	usc	Vol	ve l	.550	els			
			-	+										
				+	_								-	
				-										
				+						<u> </u>				

1 2/1 (VOC 8260B MEE (AM20GAX) TOC (9060A) Sulfate (EPA 300.1)	4 deg. C 4 deg. C 4 deg. C	HCL HCL	3/ 40 ml 2/ 40 ml	VOA VOA	NUMBER ALBW 2018	1110	DATE 7/1
1 21 C	VOC 8260B MEE (AM20GAX) TOC (9060A)	4 deg. C	HCL	2/40 ml	VOA	41	4 3	TK 7/1
3	MEE (AM20GAX) TOC (9060A)	4 deg. C	HCL	2/40 ml	VOA		4	TK 7/1
3	TOC (9060A)	4 deg. C		125 ml	OLOS AL			TK 7/1
3	TOC (9060A)	1.4	HCI.		Glassin	4		
4		1.4	HCL		7.53.540			
	Sulfate (EPA 300.1)	1.7		0	10.1	0.6101.0011	321 B. B. B. B.	
		4 deg. C		125 ml	HDPE	4		
5								
	Fe+ (HACH)	1700	w. 13	:स्वर्ग <u>र</u> ाम्ड	field		100	322
6	Mn+ (HACH)	10.73	1	4	field	Cass	605 parte	
						TILL ASSETT	C. PT. THE	
7	52 = 110th = 51	1.x 5 3 5 5.	2.8-6	e 111				
50.5		1.00	110 3	,				
		1997	7,41-			1715		
						\$5.0+2D	.43	
						25.0+50		
						The first series		
					-			
				124	0			
P-4	1 59-	14.0		18.0		dast	half gad	155 年 1.16 平 円 8.86 ~
- 2	50 1	6.34	82.5	15.1 2	0.12			2017 PI
2	11 13-	86.0						JOST 1-3
١.	-68 12	6.42	F5.5	1.5	2.27			der es
0								810, 23
								37 10.34
						5126.00		44 16.35
1	ol Fa-				£5.0		001-	49 11.35 0
3.	di fa-	6.50	11.5		0.22			84 1435
		oz, ∂ c <	31.5	P.11	15.0		00.	SA 1.3C .
1	F 5 1 2 1 2 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1)N:	n: -	. 3.11	50.0	250010	10 21	
IDW	INFORMATIC	799 7	**	3.11				
IDW	INFORMATIC		P1.5				956	040 040
IDW 8,	INFORMATIO	1.5 540 0.53 1.52 540	04.8	8.1. 5	3.6.0	5 275 S	10	ofto, po
19000	-63 /2 -64 .2 -65 /3 -65 /4	6.42	4.2.2	13.1 13.0 13.0 12.8 12.8	0.50	0.5 seis		5 5 5

		SAI	\mathbf{M}	PLING	RF		\mathbf{O}	RD	-		GR	OU	ND	V	ATER	
S	ENEC	A ARM	ΥD	EPOT ACTIVIT	N4				PAI	75	ON	is		W	'ELL #: /ኅ(JT-23
PF	(OJEC	Т:		Ash Landfil	ILTN	1 Gro	undw	ater S	amplir	ıg -	Rounc	19			DATE: 6/	28/2010
LO	CATIO	N: _	<u>i</u>	1.50		ROM	1ULU	is, ny	•			-		IN	SPECTORS: R	10/1K,
						8 140	w	1	25m	_3	1			PU	MP 6/30 1	tion in
W	EATHI	ER / FIE	LD (CONDITIONS CHI	CKL							CHAN			MPLE ID #:	
				i ₂ 11		REL.	. -	WIN	IDA : 3	(FF	(OM)		D/SITE	A	LBM501.	
	IME	TEN	1P,	WEATHER		UMIDI		VELOC			CTION		FACE		MONIT	
	HR)	(APP)	RX)	(APPRX)		(GEN)	(APPI			360)	COND	ITIONS	IN	STRUMENT	DETECTOR
8	270	10	180	state con	4		_	5-1	0	-7	E	day	SPERY		OVM-580	PID
<i>y</i>	7															
DIA!	METER	WELL (INCHES):	VOL	UME CALCULATION E 0,25 1 2			4	6				X	VELL DIAM	ETE	BILIZED WATER LE R FACTOR (GAL/FT)	1
	ALLONS LITERS/	FOOT:		0 0026 0.041 0 16			654 475	1,47 5,564	(3	.73	-9.6	4=4	.0	1x,163 =	0.66 83 5
	LITERS/	root		DEPTH TO POIN	_		DEPTI		SCREET	_		WELL			WELI.	WELL
	HETABLE	DATA		OF WELL (TOC)			TOP		LENGT! (FT)	ı		EVELOPME TURBIDIT		I	DEVELOPMENT	DEVELOPMENT SPEC COND
	HISTORIC	DATA	ŀ	(3.46+0.2	7 -	30	REEN	(IOC)	(1-1)	+		TORBITI	•	_	pH .	SPIX COND
				().46+012	15.	7.7										
DAT	ra colli	ECTED AT		PID READING			ſ	DEPTH T				DEPTH TO STABILIZE		D	EPTH TO PUMP INTAKE	PUMPING START TIME
D.11	WELL			(OPENING WELL	.)	_	WATE	R LEVE		4		LR LEVEL			(TOC)	
							1.	64	′							
RAD	IATION S DAT	CREENING A		PUMP PRIOR TO SAMPLING (cps								PUMP AFTI AMPLING (
			ON	ITORING DAT	A C	OLL	E.	ren	DUR	IN	G P	HRGIN	NG OP	ER	ATIONS	
TIME	WATER	PUMPIN		CUMULATIVE VOL	100			Ten		T		COND			ORP	TURBIDITY
(min)	LEVEL	RATE (ml/	ពារ់ត}	(GALLONS)	٠,	OXYG	EN (mg	/L) 7	(C)	_/^	43/ES	10037	pН		(mV)	(NTU)
848	1.56		~	Storted	1	SE	1		مابطا	١			/ -		11.4	whote
867	10.03	~150	_		_	1.21	 -	2.8	14.4	<u> </u>	116	1	630	2_	-110	20
102	10.10				(). 05	1	12.7	14.5	7	1.58	3	6.24		-105	19
907	11.01				Ia	1.04		17.7	14.5	6	1.5	7	6.2	6	-106	15
217	10.15	N 130		0.5),02	$\overline{}$	177	145	ζ	1.5	-	6.30		-109	11
917	10.17		\dashv	<u> </u>		0.04		2.6	17 Y	1	1.5	2	6.33		- 117	9.5
			\dashv						14.6	4	_				-114	9.1
922			-				2	2.5	1 1 1	1		57	6.3			
927	10.16		_	1.55als	1	.04	1 1	2.3	14.4	4	4	57	6.3	28	- <u> 15</u>	9.0
				_												
936	5	annl	, (Collected			1			Γ						
		,		3x VOAs 4	-	YOC					F	رايخ	1.71	mg	1/4	
			19	2x- V645. f	니 /	7 E E		, A			ŗ	erian	ZZ.	0	m7/L 0	ver limit
		6 41 -	, 4	125 ml And	5	FR	-1	TOC		١.	1 19	A Comment	Ja 🧸	199 (
			\neg	125 ml Plas		Cur			كلو	†						
			\dashv	in the link		4	+		-11	+				-		+ -
-		- 1		. /1			+			+						
		Sample	_ #	D: ALBWZ	0 113	2.2	\perp			\perp						
							ı									
													_			
			\dashv							+					_	
			\rightarrow		+					+						
					\perp					4						

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	PR	ESERVATIVES	BOTTL	ES	SAMPLE	TIME	CHECKED
ORDER		_	COUNT/ VOLUME	TYPE	NUMBER		DATE
VOC 8260B	4 deg (HCL	3/ 40 ml	VOA	YEBM 50 182	936	JK 6/2
MEE (AM20GAX)	4 deg (HCL	2/ 40 ml	VOA	(1	11	
The Winds of the State of the S	. 4 000 (nc.	IK (ZSAL	Gl-35 AN	- "	11	
I IUU IYUUAI	I I4 deg (HCL	-2/40 m l	VO/	74 -1	• • • • • • • • • • • • • • • • • • • •	
Sulfate (EPA 300.1)	4 deg (14125ml 1 ×250 ml	HDPE	lr .	4	
Fe+ (HACH)				field	, ii	1.71~7/	
Mn+ (HACH)	1/200	Negation	34-6 0 -5	field	33-0	172.0 M	2 over
					• H		
<u>.</u> ६४३३,८७%,३५%	₹ (# 1)	32 0 5		_			
d 13 48 51 1 2 48 5 7 48 6 3	,,,,,,,	(N. +)	,,		4		
					20 1 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	1. 6	
+			_	1 3/5			
			W	* 4			
OMMENTS: (QA	(OC?)						
	,			19:40 7	, ii		
	· AT	SAN	Marij Tan Ma	20			0.00 S
	· AT				J	i sa	0.0
3							
DW INFORMATIO			wpgrd	ut o		in of	
DW INFORMATIO			wpgrd	ent of	f. the	Since Son	

		SAM	PLING R	E	CO	RD	-	GR	OU	ND	W	ATER	
SI	ENEC	A ARMY,J	DEPOT ACTIVITY	4			PAF	150N	us.		W	ELL #: MC	UT-24
	OJECT		Ash Landfill I	R	OMUL	US, NY			d 9			DATE: 7-1 SPECTORS: 7 MP #:	The state of the s
w	FATUE	D / FIELD	CONDITIONS CHEC				_		CHAN	GES)		MPLE ID #:	10017
"	EATHE	K/ FIELD	CONDITIONS CHEC		EL.	_	-	EROM)	GROUN			BW2018	72
т	ME	TEMP	WEATHER					RECTION	-	FACE		MONIT	
	HR)	(APPRX)	(APPRX)	(G	EN)	(APPE	(XS)	0 - 360)	COND	ITIONS	IN	STRUMENT	DETECTOR
0	810	6015	Sunny			5-1	0	NE	Dry G	1358 Y		OVM-580	PID
	0		- '						1	,			
G/	METER (ALLONS)	(INCHES): / FOOT:	0.25 1 0.0026 0.041 0.163 0.010 0.151 0.617	TORS 3 0.367 1.389	4 0.654 2.475	6 1.47 5.564	ON H	€ WELL VO {.92 -	8.37	WELL DIAM	ETER	BILIZED WATER LA REACTOR (GAL/FT) .163 = [
			DEPTH TO POINT OF WELL		DEPT	TH TO OF	LENGTI		WELL DEVELOPME	ENT	D	WELL DEVELOPMENT	WELL DEVELOPMENT
1	HISTORIC	DATA	14.65+0.27			N (TOC)	(FT)	1	TURBIDIT	Y 7. 7	2-	pH	SPEC. COND 3 = 0-76 &
			= 14-27 PL	0,		12.9			7 12.1	.0-013	1-	4.6(N.10	= 2.25
DAT	A COLLE	ECTED AT SITE	PID READING (OPENING WELL)	,	WAT	DEPTH T STATIC ER LEVE	O L (TOC)	WA	DEPTH TO STABILIZE TER LEVEL	D	DI	EPTH TO PUMP INTAKE (TOC)	PUMPING START TIME
					8	37							
RAD	DAT.	CREENING A	PUMP PRIÓR TO SAMPLING (cps)						PUMP AFT SAMPLING (
			ITORING DATA	-	LLEC			_		NG OP	ER	ATIONS	
TIME (min)	WATER	PUMPING RATE (ml/min)	(GALLONS)		DISSOLVI XYGEN (m	2000	TEMP (C)	~X	COND	рН		ORP (mV)	(NTU)
	8.46	Pum	Started		YSI		YSI						totall
		n/10											Larotto
0831	8.45			0	1.2	0	13.0	1.	44	6.19	7	-/3	7-5
0836				0	1.19	8	13.2	. 1.	44	6.2	4	-/4	50
0841	8.45			0	. 10	6	13.2	1.	43	6.3	5	-/8	32
0846	845			C	9.1	3	13.	2 /	44	6.40		-21	23
0851	3.45	N 108		0). C	१	13.	3	.44	6.9		-22	
0856	8.45				0.0		13. 3	3 1	.45	6.5		-21	10
0901	8.46				0.0	06	13.4	1.	45	6.5	7	-21	8.7
0906			41.0 gal		0 . 0		13.4	1.	45	6.60	2	-22	7.6
0911	8.46		~1.25 gels		0.0	30	13.4	1.	45	6.63	3	-21	6.8
0920		Samp	ing Start								_		1 -1 7
		Sarp	E ID; ALT	ωz	018	2							
		Sump	6 Tre: 920										
		Collec	led 3x VOA	\$ -	ar 1	VOC		-					

Ce

SA	MPLING	PRESE	RVATIVES	BOTT	LES	SAMPLE	TIME	CHECKED BY
	ORDER			COUNT/ VOLUME	TYPE	NUMBER		DATE
1 3-1 1 VQ	C 8269B	4 deg. C	HCL.	3/ 40 ml	VOA	ALBWZOIZ	920	L 149
	M20GAX)	4 deg. C	HCL.	2/ 40 ml	VOA	4	- JI	7/1
\$15 C		4 deg C	HCL	125ml	Flass Anbay	. 4	-11-	
4 Sulfate	EPA 300.1)	4 deg. C	Santa Li	125ml	HDPE	47	77	
	(HACH)	The state			field	17.37914		
6 Mn+	(HACH)	1 382	710	an 01-	field	hermy	5,79	0180
7								
2 3 44	3.1 = 2.01.3	11 3/2 2	75.2-2	3.41.				
					1			
2.25	C91. X 19.1-	712-8	7.51	23. 22.9+	77.7	Str 25-11 =	. P	
				\ •-				
	VTS: (QA/QC	?)	M3)		3.3		711111	
Polsal.	VTS: (QA/QC	?)	M.C.M.	ts. in		Started	Rimp	821 8AC
the later la				133.A Ew	Ts.)	Started	Rmp	
46 1979 1979 1979	ε'	6.19	1.44	0.21 IX	177 0.20	Started	Pemp	83/ 8.45
50 16% 16% 16% 16%	-/3	6.19	1.44	757 75.0 73.0	177 0.20	Started	P.mp	837 8.45 836 6.1 6
######################################	=/:3 =/:4 -/8	6.19 6.24 6.85	1.44 1.44 1.43	724 3.0 3.2 3.2 13.2	137 07.0 01.0	Started	9m9	83/ 845 836 64 6 541 545
telet Landle 16	-/3 -/4 -/8 -2/	6.19 6.24 6.35 6.55	1.44 1.44 1.43	13.0 13.2 13.2 13.2 13.2	177 01.00.10 01.00.10 01.00.10	Started		83 845 836 64 6 54 545 845
######################################	-/3 -/4 -/8 -2/	6.19 6.24 6.85	1.44	13.0 13.2 13.2 13.2 13.2 13.2	130 00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Started		83 845 886 646 541 545 646 845 881 8.65
######################################	-/3 -/4 -/8 -2/	6.19 6.824 6.85 6.96 6.97 6.97	1.44 1.44 1.43	13.2 13.2 13.2 13.2 13.2 13.2	12 00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Started		83 845 836 846 541 \$45 646 845 851 8.6 856 8.6
######################################	-/3 -/4 -/8 -2/	6.19 6.824 6.85 6.96 6.97 6.97	1.44	AN WAY	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00		8017	85/845 886 2.16 541 545 546 845 851 2.65 856 2.65 101 2.66
45 15 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	5!- -28/- -29/- -29/- -29/-	6.19 6.24 6.35 6.55	1.44	AN WAY		Sep 0.1	8017	83 845 886 646 541 545 646 845 881 8.65
45 45 50 50 50 50 50 50 50 50 50 50 50 50 50	-/3 -/4 -/8 -2/	6.19 6.824 6.85 6.96 6.97 6.97	1.44	AN WAY		Sap 0.1	8017	88/845 886 246 541 545 541 545 881 3.6 881 3.6 901 3.6 901 3.6
45 15 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	5!- -28/- -29/- -29/- -29/-	6.19 6.824 6.85 6.96 6.97 6.97	1.44	AN WAY	\$ 0.00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2000.1. 2007.3.	201/201/201/201/201/201/201/201/201/201/	85 845 856 845 541 545 541 545 856 845 901 846 900 845 900 845
45 15 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	5!- -28/- -29/- -29/- -29/-	6.19 6.824 6.85 6.96 6.97 6.97	1.44	13.0 13.0 13.2 13.2 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5	28105	Sap 0.1	108 2017 pling	85 845 886 2.16 541 545 546 845 851 2.65 101 2.65 101 2.65 11 846 120

		SAM	PLING R	E(CO	RD	-	GR	OU	ND	W	ATE	3	
. S .	eneg.	A ARMY I	DEPOT ACTIVITY				PAF	1501	JS		W	ELL #: /(L	JT	-25
	ROJECT CATIO		Ash Landfill I		_	water S US, NY			d 9		INS	DATE: &/ SPECTORS: * MP#: /!u &	32 87	0/10 0/5K
	EATHE	CR / FIELD	CONDITIONS CHEC	KLIST	r	/RI			CHAN	GES)		MPLE ID #:		-14
,,,	13, 11111,	11131317	CONDITIONS CHEC		EL.		D (1	D/SITE		LBWZO	8	3
Т	IME	ТЕМР	WEATHER	нем	IDITY	VELOC	TTY DI	RECTION	SUR	FACE		MONIT	OR	ING
-	HR)	(APPRX)		(G	EN)	(APPI	_	- 360)		ITIONS	INS	STRUMENT	•	ETECTOR
7:	43	608	clear shys			0-5	<u>ν</u> ω	ラモ	MY S	1254		OVM-580	_	PID
		WELL VOI	LUME CALCULATION SAC	TORS		<u> </u>	loni	WELL VO	LUME (GA	L)= KPOW	- STAI	BILIZED WATER I	EVEL)
G.	METER (ALLONS / LITERS/I	(INCHES): / FOOT:	0.25 1 2 0.0026 0.041 0.163 0.010 0.151 0.617	3 0,367 1,389	4 0.654 2.475	6 1.47 5.564			X 1	WELL DIAM	LTED	factor (gal/ft <.163=.92	Ct 1	
	HISTORIC		DEPTH TO POINT OF WELL (TOC)		10	TH TO P OF N (TOC)	SCREEN LENGTH (FT)		WELL DEVELOPME TURBIDIT	ENT		WELL EVELOPMENT pH	13	WELL DEVELOPMENT SPEC COND
· ·	inst Orde	DATA	0.27+13.00=	7	BC 1423		(1.7)					122		
DAT	ra colle Well 8		PID READING (OPENING WELL)		$\overline{}$	DEPIH I STATIC TER LEVE	L (<u>TOC)</u>	-WA	DEPTH TO STABILIZE TER LEVEL	.D	DE	EPTIL TO PUMP INTAKE (TOC)	Pl	MPING START TIME
					7	2.60	2		F17 12 15 A F17				<u></u>	
RAD	DATA	CREENING A	PUMP PRIOR TO SAMPLING (cps)						PUMP AFT AMPLING I					
		MON	ITORING DATA			TED	DUR		URGII	NG OP	ER	ATIONS		
TIME (min)	WATER LEVEL	PUMPING RATE (ml/min)	CUMULATIVE VOL (GALLONS)		ISSOLV Y GEN (r		YS(C)	SPEC	COND	рН		ORP (mV)		TURBIDITY (NTU)
254	7.79	Purp				· ·								LaMoto
802	7.96	Adres	in flow rate	0	.zc	>	13.2	1.3	72	7.0	2_	-32		_
814	8115	~100			<u>. 53</u>		13.5	1.5		7.0		-30		_
819	8.23	~ laz	_	_	.44		13.6	1.5	70	7.03	_	-48		1.8
824	8.43			0.	34		13.7	1.4	17	7,03		-61		1.2
329	8.56	N 102	n. Sgal	0.	29		13.7		15	7.01		-73		1.0
834	8.63		0	0	28		13.8	1.4	16	7.04	F	- 86		1.0
839			~ 1.0921	0	.26	2	138	1.4	17	7.05	<u> </u>	-96		0.75
844	8.88	104			. 26		13.8			7.09		-108		0.75
849	9.10				.20		13.8	1	49	9,00	,	-114		0.75
854			~ 1.4 gal	0	, 2	0	13.9	1.	48	7.06		-116	<u>.</u>	0.70
905		T. Va	samples "	era in 1	5Q 3	5.7% Fr	* 'y N	Pa, "11"	* 003	. 20 92	5	10 for 10 11		= q l ₂ '
107		Sami	(ID ALB	w	zol	83								1
			ole Tine: 90			·								
			Collected 3x	VO	15	for	V	اح_			4			
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	MPLING	PRESE	RVATIVES	BOTTL	LES	SAMPLE	TIME	CHECKED B
	ORDER			COUNT/ VOLUME	TYPE	NUMBER		DATE
1 .VO	8260B	4 deg C	HCL	3 <u>/ 40 ml</u>	VOA	ALBW20183	905	JK 6/30
2 MEE (M20GAX)	4 deg C	IICL	2/ 40 ml	VOA	11	9	
3 TOC	(9060A)	4 deg C	HCL.	\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \	VOA	11	11	
4 Sulfate	EPA 300.1)	4 deg C		1 x 125	HDPE	11	61	
5 Fe+	(НАСН)				field			
	(НАСН)	ं सम्बद्ध	LAP :	الإملي والعاد	field	हुकु विद्वी अ	1947 S. J. S. J. S.	1 33.1
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# 508x	750 - 3 1	444.4	n, i	8.27		1		
						= 00.E; ; \$ 5. E;	¥4.6	
						7 34 (1		1
				69	3			<u> </u>
OMMEN	TS: (QA/QC	72)		- W	, , <u> </u>			
		,						
			MAS	Roy Way	70 17	w /		
attalla:				, ,			turnes against	87.543
ato!to!			57	5.6,	35.0	77 45	tures 2 squared	1 1.5 4.3 1.4 6
	08	10.7	77.	3.8.	55.0 87.0	THE NAME OF	(%)	~ 51.9 01
8	2 h -	50.7	77.	1 5.2. 1 7.5. 1 4.51	0.53 0.44	TO THE SECOND	(%)	(0 5.15 ~
8	58 - 10 -	20.5 20.5		1 5.2. 1 72.5. 1 3.51	0.53 0.44 0.44	יים ריים איני איני ריים ליני	(%) 501	(0 6.15 ~ 10 6.15 ~ 10 6.23 A
8	25 - 25 - 25 -	20.5 20.5		5.8. 17.8. 18.8. 18.8. 18.8.	55.0 6.53 44.0 33.0	יים ריים איני איני ריים ליני	(%)	10 6.15 ~ 10 6.23 ^ 14 5.43 15 5.43
5° S.1	58 - 10 -	20.5 20.5			0.53 0.44 0.44	The said	199 192 194 - A. G	(0 6.15 ~ 10 6.15 ~ 10 6.23 A
5 /. S.I	25 - 25 - 25 -	20.5 20.5		5.5. 3.5. 3.7. 7.8. 7.8.	55.0 6.53 44.0 33.0	The said	199 192 194 - A. G	10 6.15 ~ 10 6.23 ^ 14 5.43 15 5.43
\$ \$! \$!	58 - 58 - 58 -	10.4 20.7 23.7 23.7 23.7 24.7 24.7 24.7		3.5. 3.5. 3.5. 3.7. 3.7. 3.7. 3.7. 3.7.	55.0 6.53 95.0 5.09 5.09	יים ריים איני איני ריים ליני	192) 192 194 - A. S	(i) 6.15" ~ (ii) 8.23" ^ (iii) 5.43 (iii) 6.65 (iii) 6.65 (iii) 6.73
\$ \$! \$!	08 - 10 - 27 - 08 -	20.5 20.5		3.5. 3.5. 3.5. 3.7. 3.7. 3.7. 3.7. 3.7.	55.0 PF.0 PS.3 85.3 55.0 55.0 62.0	The said	192) 192 194 - A. S	(i) 6.15" ~ (ii) 6.15" ^ (iii) 5.43 (iii) 6.63 (iii) 6.63 (iii) 6.63
\$ \$! \$!				3.5. 3.5. 3.5. 3.5. 3.5. 3.5. 4.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 13.5. 1	55.0 PF.0 PF.0 PE.3 02.0 55.0	The said	(%) 201 3 ,4 (%) 1 -4 (%)	10 5.15 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.25 ~ 10 5.2
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		SAM	PLING R	E	CO	RI) -	GR	OU	IND	W	ATER	2		
S	EŅĘC.	A ARMY,	DEPOT ACTIVITY				PA	750r	1 5		W	ELL #: /4(JT-Z	-6]
PF	ROJECT		Ash Landfill l	TM G	round	lwater !	Samplii	ıg - Roun	d 9			DATE: 4/	29/16		1
Lo	CATIO	N: 33				LUS, N				_		SPECTORS:	B130/	IK	PILE
1 11	TE ATTITU	an / Elet D	CONDITIONS CHEC		774		ECORI	MAJOF	CLIAN	GE67		MP#: MPLE ID #5	0 0 24		11715
7	EATHE	ER/ FIELD	CONDITIONS CHEC	RE				(FROM)		ND/SITE	A	LBWZOI	86	_	
[T	IME	ТЕМР	WEATHER	HUMI	DITY	VELO		RECTION	1	FACE		MONIT	ORING]
	HR)	(APPRX)	(APPRX)	(GE	EN)	(APP		(0 - 360)	COND	ITIONS	IN	STRUMENT	DETE	CTOR	1
-	384	70x	-partly clerky			2-10	5 6	ノーフモ	24	June		OVM-580		PID	
DIA Ga	METER (ALLONS	WELL VOI (INCHES): / FOOT:	UME CALCULATION FAC 0.25 1 2 0.0026 0.041 0.163 0.010 0.151 0.617	TORS 3 0.367 1.389	4 0 654 2 475	6 1.47 5 564			×	WELL DIAM	1FTER	BILIZED WATER LI R FACTOR (GAL/FT) X.LG3 = L	1	*3 =	3.1
			DEPTH TO POINT OF WELL		10	TH TO OP OF	SCREE LENGT		WELL DEVELOPM		Г	WELL DEVELOPMENT	WE DEVELO	PMENT	,,,,
'	HISTORIC	DATA	12.95 +0.27	_	SCREI	EN (TOC)	(FT)	+-	TURBIDIT	Y		ltq.	- SPI C	COND	1
DAT	FA COLLE	CTED AT	PID READING (OPENING WELL)	.2	WA	DEPTH STATE TER LEVI	C	WA	DEPTH TO STABILIZE TER LEVEL	ED	Di	EPTH TO PUMP INTAKE (TOC)	PUMPING 119		1
					6	.8	7								
RAD	IATION S DAT.	CREENING A	PUMP PRIOR TO SAMPLING (cps)						PUMP AFT AMPLING						
		MON	ITORING DATA	COL	LEC	CTED	DUR	ING F	URGI	NG OF	er.	ATIONS			
TIME (min)	WATER LEVEL	PUMPING RATE (ml/min)	CUMULATIVE VOL (GALLONS)	D ON'	ISSOLA YGEN (TED mg/L)	TEMP (C)		. COND mhos)	pli		ORP (mV)		RBIDITY (NTU)]
547	657	Starke	19 Pumping	VS:			Horil	N .					La	Motto	
1558	7.45	4/50	0 1 8	0.14	4	4.9	15.70	2.	31	6.84	-	-70		12]
603	7.74			0.{2	- 1	5.1	16.0	7 2	.12	6.0	9	-76		5.0	}
1603	7.89			0.0	1 1	5.2	16.29	1 2	15	6.94	+	-80		2.9	
1813	797	w130	n1 gel	0.1	0 1	5.2	16.6	1 2	-09	6.9	4	-89		21	
1818	8.08	4/20	0	0.1		5.2	16.6	5 3	2.08	6.91	3	- 8:	٦_	1.8	
1623	8.18			0.1	0 1	5.2			04	6.9	ष्ठ	-82	l	.8	
				0.1	2 1	5.	16.73		04	6.9	9	- 82		. 6	
1628 1633 1638	8.39			0.1	3	15. (16.8	_	09	6.9	٩	-82		.4	
1638	8.48		~ 2.25 gals	0.[4	7	15.1	16.5		04	6.90	1	-81		4	
1645		Start	Samplin			·									1
177			ple ID: ALB	UZO	18	6				Fe Z.	F :	2,67	2/4		
		500	HE-TRE SALE	į5.	torkil,	·ks	24	V 77 W	(a) 😽	som.		1.7 mg	11: 5	Ts.	1
			103		1	_	7 1		19.91			1 110	wice		
		Calla	that the foll	oersa	5:		, 14	***	रव दि	1904		J			
			3 x voAs for	Voc					_						
			ZK VOAS for	KEF							\exists	_			1
			1x 125 ml 50	205 4	6,6	~ A	5	CL	toc					_	1
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			1	-		- 0	-,,-	1	-						
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SAMPLING	PRESERVATIVES	BOTTL	ES	SAMPLE	TIME	CHECKED BY
ORDER		COUNT/ VOLUME	TYPÉ	NUMBER		DATE
VQC \$260B	4 deg C BCL	3/ 40 ml	VOA	ALBW20186	1645	JK 6/2
MEP(AM20GAX)	4 deg C HCL	2/ 40 ml	VOA	4	1645	
PT(50 (9)(60A)	4 deg C ÄCL	[K125~1 2/40 mi	SINT.	t/	11	
Sulfate (EPA 300.1)	4 deg C	1X(25~l	HDPE	11	4	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
Fe+ (HACH)			field	1	2.677/	
Mn+ (HACH)	13416 M. F.	\$ 7.50	field	1.430	エチークル	tuice V
				. 1		
The state of the s	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	20 64				
				7 2 4 4 7 P	.5.	
			ā			<u> </u>
OMMENTS: (QA/QC	?)				-	
	180 711. 180 21			4	A production for	
3	A San Andrews				The second se	10.6 P. 10.6 10.6

Ash Landfill LTM Groundwater Sampling - Round 9

ROMULUS, NY

13600

REL.

HUMIDITY

PARSONS

(RECORD MAJOR CHANGES)

GROUND/SITE

SURFACE

24 72151

WIND 3 (PROM)

VELOCITY DIRECTION

SAMPLING RECORD

SENECA ARMY DEPOT ACTIVITY

TEMP

WEATHER / FIELD CONDITIONS CHECKLIST

WEATHER

PROJECT:

LOCATION:

TIME

(APPRX) APPRX (0 - 360)CONDITIONS (GEN) (24 HR) (APPRX) 349 440 10 mgh W-DE TO ALL ONE WELL VOLUME (GAL) = [(POW - STABILIZED WATER LEVEL) WELL VOLUME CALCULATION X WELL DIAMETER FACTOR (GALAFT)] 29 = 5.14 x. (63 = 0.837.43 DIAMETER (INCHES): 0.25 0,367 0.654 GALLONS / FOOT: 0.0026 0.041 0.163 1.47 LITERS/FOOT 0.010 0.151 1.389 2 475 5 564 DEPTH TO POINT DEPTH TO SCREEN WELL. LENGTH DEVELOPMENT DEVELOPMENT OF WELL SCREEN (TOC) (FT) TURBIDITY HISTORIC DATA (TOC) 12,56+0.27 = 12.83 DEPTH TO PUMP DEPTH TO DEPTH TO PID READING STABILIZED DATA COLLECTED AT STATIC WELL SITE (OPENING WELL) WATER LEVEL (TOC) WATER LEVEL (TOC) PUMP AFTER SAMPLING (cps) RADIATION SCREENING PUMP PRIOR TO SAMPLING (cps) **DURING PURGING OPERATIONS** MONITORING DATA COLLECTED SPEC_COND DISSOLVED WATER PUMPING CUMULATIVE VOL TEMP TIME ONYGEN (mg/L) **(C)** LEVEL RATE (ml/min) (GALLONS) YSI 1353 00 Harik W TO 4 50 20.0 15.5 0.04 15.5 .04 15.4 7.47 6.50 6.50 2.51 w 240 2.52 WINDELS JUN 2.52 458 J. Off 73. Zi tin SdOR Browpis wat 54mg/L 187 Mn: 22 Dmg/L, over limit JX VO分 1510 ZX UOAT 13C 25 rd C:\Documents and Settings\c0010112\My Documents\Field Forms\Field Forms for OB & S-25 GW.xls 6/24/2010

	SA.			PRESE				SAMPLE			
		ORDER				COUNT/ VOLUME	ТҮРЕ	NUMBER		DATE	
1	voc	2260B		4 deg C	нсі	3/ 40 ml	VOA	ALBUZOIST	1510	JK 6/7	
2)	MEB (A	M20GAX)		4 deg C	HCL	2/ 40 ml	VOA	"	Le	, ,	
3	L TOC	(9060A)		4 deg C	HCL	KIでいる人名	Elegi P	r "	4		
4	Sulfate (EPA 300.1)	MA.	4 deg C		1 X 125mL	HDPE	4/	"		
5		НАСН)					field		2.547/		
6	Mn+	(НАСН)		ASTA !	41/2 3	- 13 94VO	l field	د و زندهمرات	22001	Dier :	
7								e)c			
5 7 2 53	F2 3 .	ः १३%	Ψ,,	3 - 4 - 5	3. 4.8	4.51					
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						73 -					
CO					* ₁₉₃) Dead	se may be thereof	A Sala Ca	
	* 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		Ratio Control of the								
	WINFO	RMATIO	PART OF THE PART O						. J.v.		
	WINFO	RMATIO	DN:	Pur	3e: We		S. P.	d upgre	on one of dient of		
	WINFO	RMATIO	DN:	Pur			Si Politica di Cara di	d upgre	on one of dient of		
	WINFO	RMATIO LO Sels	DN: ,	Pour	3e: We			Lupsre	Jan and Adent of		
IDV	WINFO	RMATIO	DN: ,	in pur	3e: We			L upgra	dient of		

		SAM	PLING R	EC	CORD	-	GR	OU	ND	WA	TER	2
, SI	ENEÇ	A ARM¥ į	DEPOTACTIVITY	k)		PAR	SON	is		WEL	L #: 146	17-28
	OJEC'		Ash Landill I		oundwater S MULUS, NY		- Rounc	19			ATE: 4/2	27/2016 BO/TH
LU	CATIO					. T et	٠.			PUMP		57 8814 H
W	EATHE	ER / FIELD	CONDITIONS CHEC			ECORD		CHANG	GES)	SAMP		1
	1		1 12	REI		W. Z.10			D/SITE			8/ALBWZA
Tı	ME	TEMP	WEATHER	помп	OITY VELOC	TTY DIR	ECTION	SURI			MONIT	
(24	HR)	(APPRX)	(APPRX)	(GE	N) (APPI	RX) (0	- 360)	CONDI	TIONS	INSTR	UMENT	DETECTOR
110	99	701	antly cloudy		5-1	0 W.	75	dog	SPESSY		OVM-580	PID
	1	उद्धर 'स	797 , 3, /									
GA	METER (ALLONS LITERS/	(INCHES); / FOOT:	UME CALCULATION FAC 0.25 1 2 0.0026 0.041 0.163 0.010 0.151 0.617) 3 0,367	4 6 0.654 1.47 2.475 5.564			XV	VELL DIAME	TER FAC	ED WATER LI TOR (GAL/FT)	
-	LITERSI	rooi	DEPTH TO POINT	1,507	DEPTH TO	SCRFEN		WELL.	1	//	HL	WILL
١,	IISTORIC	DATA	OF WELL (TOC)		TOP OF SCREEN (TOC)	LENGTH (FI)		E VELOPME TURBIDITY			OPMENT pH	DEVELOPMENT SPEC COND
1			0.27+12,59			,,					,	
	_		= 12.86		DENTIL			DEBTH TO		TAPPELL	TO BUILD	DIDABNIC CTART
DAT		ECTED AT	PID READING		STATIO	DEPTH TO STATIC		DEPTH TO STABILIZED		DEPTH TO PUMP INTAKE		PUMPING START TIME
	WELL 3	SITE	(OPENING WELL)	-	WATER LEVE	L (TOC)	WAT	ER LEVEL	(TOC)	ı ı	TOC)	1170
					7.7	<u> </u>						1128
RADI	DAT	CREENING A	PUMP PRIOR TO SAMPLING (cps)					UMP AFTE				
	_	MON	ITORING DATA	COL	LECTED	DUBL			G OP	PRAT	ON2	\^ ←
TIME (min)	WATER LEVEL	PUMPING RATE (ml/min)	CUMULATIVE VOL	Most z	GEN (A-UC)	TEMP	~SPEC	COND	На	_	ORP (m)	TÜRBIDITY (NTU)
1128	7.68	Pare	thertal	AZ	ysia	Horbs	3-476				197500	La Moto
1136	8.28	140 M	in	0.10	14.4	6.20	1.6	0	6.2	7	-85	21
1(4)	8.33	'		0.18	14.8	16.39	1.5	50	6.2	3	-77	2
1147	8.46			0.19	14.8	16.25	1.3	37	6.25	;	- 74	5
1152	8.48			0.18	14.7	16.09	1.	37	6.76	'	-76	
1157	8.40			0.14	1 14.6	15.98	1.3	39	6.27	1	-79	9.0
1202				0.11	14.5	1/4 38	1.4	41	6.2	2	-83	7.1
1207	4 41			۵.0°				45	6.30		-88	
1211	0.1	~130	~ 1.6 3015		714.4	16.89			6.3		-91	5.7
1217	7.44	,- ()-	[. 2)40	0.08		16.01		18	6.3		-43	2.1
1222	8.44			0.07	1. 4. 5.	16A5	1.5		6.3		-95	4.8
1227	8.44	1.3		0.06	14.4	16.73	1.5	<u> </u>	6.34		-98	4.7
1232		,	**************************************	0.07		6.81	7	-ja-u	6.35		100	
1237	1.40	~ 100	n 2.5gal	0.07	14.5	16.85	1.6	S	.6.36	_	-:101	4.9
1242	8.41	1,70	- 0	0.06		16.91	1.6		6.36		-/02	5.1
1247	8.40			0.06	14.4	16.67	1.6		6.36		-109	5.5
1254			W 3.0 gal		Supple							
	76	nk ID	ALR6 201	8	1254		1	=e+	0.5	7/2	7/1	
			ALBW 2017		1254			12+	18.	6 ~	1/1	
			ALBW 2017	8/15	125	1			'			
		Duo	ALRW 20 18		1304		И,		10			

7.7. Ju

GAX) (A) (H) (H)	<u> </u>	HCL HCL HCL	3/40 ml 2/40 ml 2/40 ml 2/40 ml 2/40 ml X 125 ~ 2 1 × 250 mL		NUMBER ALBUZO (88 ALBUZO (79 4) 4	1304 11 "1 0.57 ~7/L	JK 6/2
GAX) 300.1)	4 deg C	HCL HCL	2/40 ml 1/25 ml 2/40 ml X 1/25 ml	VOA VOA LOA HDPE field	4 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1	1304 11 "1 0.57 ~7/L	
GAX) 300.1)	4 deg C	HCL	k (25 ml 2/40 ml X 125 ml 1×250 ml	VOA HDPE	eq eq	" 0.57 ~7/L	
300.1) CH)	4 dog C	HCL	X 125al 1×250ml	HDPE	e ₁	0.57 ~9/L	
CH)	<u> </u>	area 3 T	1 × 250 m 1.	field	***	0.57 ~9/1	
CH)	<u> </u>		नहा अपर			A	
ZH)	-		न्या का वर	fjeld	1.344	ונייל ב בייון	7 (11)
						10.0	V
121.24					¢.		
	5 = 1 5	Sec. 25.					
			-		-	SILV	
						45.5	
					7, 4, 1, 20		
			7 Fa 1.2	pr.	<u> </u>		
(OA/OC2)			1 1 4				
H E	** · · · · · · · · · · · · · · · · · ·	00.1 00.1	03.3 (5.) PS.A. S.A	3.0	,	Million for the	27.0
	0.00		1.01		ā		
	**	C. 3.	ાંડેફ્લા કરફ સ્વાર કે		•		
9 8					n		14. N 30
<u> </u>	T. G		(1.5), The	11/20.0	.1		is it is
10 ~ S		311	f8.3; 14.3		i trații.	(f 037) -	20 to 10
	2.3	스 (1 시) - 사고 (1)	Marie I'm		1		भूगाय क्षा स्टब्स
49 a.			33447				
ATION:	.5.5	0	100.11 6	M. 63.	1.	1 .F	100
Sails we	or da	ped o	in the 5	1 8 7 1 7 7 7	upgrada		
sails we	os dur	ped o	m the 3	saud.	0		
BZ (المان المانية العالمان العالمان		m the 3		5 80.03 G		103
BZ (الماسة لا	ped o	m the 3		5 80.03 G) w	
				(QA/QC?) ted MS/ASD for Sample A ted Duplicate CALBW2018		(QA/QC?) Led M/ASD for Sample ALBWZO(88, Led Duplacate CALBWZO(88) for Sample Admin 12	(QA/QC?) ted M(MSD) for Sample ALBWZO(88, ted Duplacate CALBWZO(88) for Sample ALBWZO(8 AdM): 121 121 121 121 121 121 121 1

		SAM	PLING R	E(CO	RD	-	GR	OU	ND	W	ATER	2	
. SI	ENEC	A ARMY I	DEPOT ACTIVITY				PAR	SON	IS		W	ELL #: /1	UT	-27
	CATIO		Ash Landfill I			US, NY	í		J 9			DATE: 93		-
	r a Tije	מוצון / פו	CONDITIONS CHEC	k1 101	•	-	ECORD		CHANG	7557		MP #: MPLE ID #:	10	1214
"	EATH	K/ FIELD	CONDITIONS CHEC		EL.		D (F			D/SITE	321		w:	20190
TI	ME	ТЕМР	WEATHER	ним	IDITY	VELOC	TTY DIR	ECTION	SURI	FACE		MONIT	_	
	HR)	(APPRX)	(APPRX)	(G	EN)	(APPI	RX) (0	- 360)	COND	TIONS	IN	STRUMENT	D	ETECTOR
14	47	608	partly clardy			5-1	0 10	->E	day :	1457		OVM-580		PID
			<u> </u>											
GA	METER (ALLONS) LITERS/I	(INCHES): / FOOT:	UME CALCULATION FAC 0.25 1 2 0.0026 0.041 0.163 0.010 0.151 0.617	TORS 3 0 367 1 389	4 0 654 2.475	6 1 47 5 564	ONE	%ELL VO 3.12 ·	XV	VELL DIAMI	ETER	BILIZED WATER LI LFACTOR (GAL/FT) * , 63 = (1	
			DEPTH TO POINT			H TO OF	SCREEN LENGTH	T)	WELL EVELOPME			WELL DEVELOPMENT		WELI EVELOPMENT
1:	HSTORIC	DATA	OF WELL. (TOC) 0.27 + 12, 85			N (TOC)	(FT)	ı,	TURBIDITY		ı	pH		SPEC COND
			0.27+12.85 = 13.12											
DAT	A COLLE	CTED AT	PID READING (OPENING WELL)		NA T	DEPTILI STATIC ER LEVE			DEPTH TO STABILIZE TR LEVEL	D	DI	EPTH TO PUMP INTAKE (TOC)	PU	MPING START TIME
	111567	, , , , , , , , , , , , , , , , , , ,	(Or II.VIIVO VELLE)		9	2.11	2,(100)	.,,,,,	1.10 1.00	1		1,	П	
RADI	ATION S	CREENING A	PUMP PRIOR TO SAMPLING (cps)			,,,,			PUMP AFTI AMPLING (
		MON	ITORING DATA	CO	LLEC	TED	DURI		URGIN	G OPI	ER.	ATIONS		LaMoto
TIME (min)	WATER LEVEL	PUMPING RATE (ml/min)	CUMULATIVE VOL (GALLONS)		DISSOLVI A'GEN (π	ED YSI DE/L)	TEMP(C)	SPEC.	COND	plt		ORP (m\)		TURBIDITY (NTU)
1807	4 - 1	Puns	Starfalat		0.3		13.0		78	6.7		7-7		₹.
1517	8.35	7100			0.3		13.0	1.	78	6.7	7	- 77		6.0
1522	8.50				0.3	Z	13.2	1.=	77	6.69	7	-30		7.0
1527	8.63				0.3	3	/3.3	1.7	15	6.6	9	-84		7.9
1532	8.72				0.3	30	13.5	1.	72	6.71		- 87		7.3
1537	8.88	2/10	7.5gal		0.8	26	13.5	1.	73	6.75	\sum	-87	Ц	4.9
1547	893		•	(0.6	90	13.5		73	6.7	7	-9 2	Ц	3.4
1547					0.1	6	13.5	1.=	73	6.77		- 94		3.4 2.8 2.0
1552	9.17	_		(9.1	4	13.5	1.3	73	6.78		-96		2.0
1557	9.21	N (00			<u>0. l</u>	2	13.4	1.3	13	6.76	_	-97	-	1.9
1602	9.31				0.1		13.4		72	6.79		- 95		2.1
1607	9.32				0,0	_	13.3		73	6.7		-93		1.8
1612	9.49				0.0		13.3		74	6.7		-90	_	1.7
1617	9.57	•			0,0		13.3		74	6.7	7			1.7
622	9.60				0,0	6	13.3		73	67		-97		1.7
1627	9,68		NZ.0 3265		0.6	6	13.3	1.	74	6.77	Щ	- 86		2.0
										1		0		
1634		Surple	5 Cullected.							<i>F</i> e⁴	:		8/4	-
		•	Collected 3x1	roks	ARI	10c,	2x Vot	S for f	MEE	mn:		9.1 mg/	_	
			125 m = Am						m/	(astic		FOR SULPE	1/0	,
		Shaht	Organic Od											

6/24/2010

2	PLING PRE	SERVATIVES	BOTTL	.ES	SAMPLE	Т	IME	CHECKED E
NOC 3720B see c nict 3740 ml VOA 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2 C 7 7 165 7 V 115 W 2			COUNT/ VOLUME	TYPE	NUMBER			DATE
2 (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	268B 4 deg C	пст.	3/ 40 <u>m1</u>	VOA	ALBWZO	190	1634	JK 6/3
4 Sulfate (EPA 300.1) 5 Fe+ (HACH) 6 Mn+ (HACH) 7 COMMENTS: (QA/QC?)	20GAX) 4 deg C	H <u>C</u> I.		VOA	11	11		
4 Sulfate (EPA 300.1) 5 Fe+ (HACH) 6 Mn+ (HACH) 7 COMMENTS: (QA/QC?)	060A) 4 deg C	IICL	1×125m1	VOA	10	"		
5 Fe+ (HACH) 6 Mn+ (HACH) 7 COMMENTS: (QA/QC?)			× 125m -1 × 250 mk	HDPE	11	11		
6 Mn+ (HACI) 7 7 COMMENTS: (QA/QC?) DW INFORMATION:	ACH)			field				
COMMENTS: (QA/QC?)	1.36.67	C WAY 3	(=0) 01-7	field	4000 3 4	F1318	900	45.51
COMMENTS: (QA/QC?) DW INFORMATION:					*0			
COMMENTS: (QA/QC?) DWINFORMATION:	1000 000		e					
COMMENTS: (QA/QC?) DWINFORMATION:								
DW INFORMATION:								
DW INFORMATION:					غ ما و اه الله	1004		
DW INFORMATION:	·		* *	<u> </u>	<u> </u>			
DW INFORMATION:	S: (OA/OC?)			- 45	<u> </u>			
		7. * *					00.	
	A	re i	9 ,					pl. I
		15 74						
A Francisco de la Companya del Companya de la Companya del Companya de la Company		2 1.	4 5 5 7					40 to 10
	1777 - ALT	I Int		10. 3	ting "	1		GA CON
Figure 1 To the second of the second					7 7 7 8 Cm 4		n ge an al e	10.7 a3.5
Law with the state of the second of the seco	- de	3 35A 435	Private in	1.1191 23				
marin the wind fine of the grown of the first the first				1 82 A 2	The second secon			

S	AM	PLING R	E	CO	RD	- (GR	OU	NDV	WATER	:
SENECA	ARMY I	DEPOT ACTIVITY				PAF	SON	ıs		WELL #: PT	-17
PROJECT:		Ash Landfill L	TM G	roundy	vater S	ampling	- Round	110		DATE: /2	118/10
LOCATION:			R	OMUL	US, NY	ĭ				INSPECTORS:	illan.
WEATHER	/ FIFLD	CONDITIONS CHEC	KLIS	г	(RI	ECORD	MAJOR	CHAN		PUMP #: 11 7 (<u>5</u> SAMPLE ID #:	Bladder
WEATHER	TILLD	CONDITIONS CHEC		EL.	WIN		FROM)			ALBWZOT	91
TIME	TEMP	WEATHER	HUM	IDITY	VELOC	TTY DII	RECTION	SUR	FACE	MONITO	
(24 HR)	(APPRX)	(APPRX)	(G	EN)	(APP	-	- 360)	-		INSTRUMENT	DETECTOR
9:40	20'5	portly cloudy			5-/1	D .	5-5W	Braz	en	OVM-580	PID
	WELL VOL	UME CALCULATION FAC	TODE			lovi	ALPET I NO				
DIAMETER (INC	CHES):	0.25 1 2 0.0026 0.041 0.163	3 0.367	4 0.654	6 1.47	ONI		X	WELL DIAME	STABILIZED WATER LEV TER FACTOR (GAL/FT) [
LITERS/FO		0.010 0.151 0.617	1.389	2.475	5.564		0.6	85	als X3	= 2.059	als (3 Val
	#152	DEPTH TO POINT OF WELL		1777	FH TO P OF	SCREEN LENGTH	D	WELL. EVELOPMI	ENT	WELL DEVELOPMENT	WELL. DEVELOPMENT
Lettotto # 6	7403	(TOC)		SCREE	N (TOC)	(FT)		TURBIDIT		pH	SPEC. COND
YST 85#	3210	11-65-7	1								
DATA COLLECT	ED AT	PID READING			DEPTH T			DEPTH TO STABILIZE		DEPTH TO PUMP INTAKE	PUMPING START TIME
WELL SITI	E	(OPENING WELL)			ER LEVE	L (TOC)	WAT	TER LEVEL		(TOC)	11.11.
				2	.91						
RADIATION SCRI DATA	EENING	PUMP PRIOR TO SAMPLING (cps)						PUMP AFT AMPLING (7 2 2 2 1 2	
	MON	ITORING DATA	co	LLEC	TED	DUR	NG P	URGI	NG OPE	ERATIONS	
	PUMPING ATE (ml/min)	CUMULATIVE VOL (GALLONS)	2000	OISSOLV CYGEN (n		TEMP (C)	1000	COND		ORP	TURBIDITY
01:44 7.90		A D. Challes	9:0		451		m\$	C ML	pН	(mV)	La Motto
01-1	150	1000		0.2		8.9	0.6	41	6.66	7 158	
9:56 2.92	120	14		0.3	3	8.7		141	6.61	143	
1000 2.92	80			134		8.6		40	6.6	-	9,3
1015 7.92	50			0,37)	1.6	A 6		6.60	127	8.5
1010 292	112			0.2	-	9.5	0.6		6.69	135	7.1
1015 2.92	116			7.2		8.6	0.6		6.68		
	12			118		8.7	0.0	39	6.68	172	4.1
1025 293 ~						8.7	0.0	10	6.69		
	-112	~ 1.6 gml		0.31		9.6	0.6	37	6.69		3.4
- A	116	110 541		6,3		8,6		36	6.69		3.0
	116			0.30		8.6	0.6		6.70	79	2.5
	116	22.1 gal		0.2		8,6	6,6		6.70		1,8
1050 2.93	116	==1 751		0,2	5	8.6			6.70		1.6
1055 193	116			0,2		8.7		29	6.71		1.3
1100 2.93	116			6.2		8.7	0,1	28	6.71	60	1.2
1165 2.77	116	- 2.9 gal		0.2		8.7	0.0	27	6.71	57	1.0
	16	. 7		0.2		8.7	0.	624	672		0.70
1/15/293	16			0.2	2	5.7	0.	623	6.72		0.60
1120 27	116	-3.5 gus		6.1		8.7	0.0	.22	6.72	47	0.45
1125 2.93	116			0,2	-1	8.7	0.6	21	6072		0.45

		SAIVI	PLING R	ECC	JKD	- G1	KUU	שמ	WAII	ER 962
S	ENEC	A ARMY I	DEPOT ACTIVITY		P	ARSO	NS		WELL #:	PT-17
	ROJEC	100 m	Ash Landfill L		dwater Sam LUS, NY	oling - Rou	nd 10		INSPECTOR	
- 11	EATH	ED / FIELD	CONDITIONS CHEC	KLIST	(DECC	ORD MAJO	D CHAN	CES	PUMP#: /	
- ''	EATIN	EK/ FIELD	COMMITTORS CHEC	REL.	WIND		GROUN		ALBW Z	
Т	IME	TEMP	WEATHER	HUMIDITY	VELOCITY	DIRECTIO	N SUR	FACE		ONITORING
(24	(HR)	(APPRX)	(APPRX)	(GEN)	(APPRX)	(0 - 360)	COND	ITIONS	INSTRUME	NT DETECTOR
									OVM	-580 PID
G.	METER ALLONS LITERS/	(INCHES): / FOOT:	UME CALCULATION F AC 0.25 1 2 0.0026 0.041 0.163 0.010 0.151 0.617	TORS 3 4 0.367 0.654 1.389 2.47		ONE WELL V			- STABILIZED WAY	
Her.le	~ U-5	2#152	94 DEPTH TO POINT OF WELL			REEN NGTH	WELL	ENT	WELL DEVELOPMEN	WELL DEVELOPMENT
		OZ403	(TOC)			FT)	TURBIDIT		pH pH	SPEC. COND
		# 3210	~7.(
	SZCO-SZ	ECTED AT	PID READING (OPENING WELL)	W	DEPTH TO STATIC ATER LEVEL (TO	OC) W	DEPTH TO STABILIZE ATER LEVEL	D	DEPTH TO PUN INTAKE (TOC)	MP PUMPING START TIME
					2.91					
RAD	IATION S DAT	CREENING A	PUMP PRIOR TO SAMPLING (cps)				PUMP AFTI SAMPLING (7 7 7 7
		MON	ITORING DATA	COLLE	CTED D	URING			PERATIONS	
TIME (min)	WATER LEVEL	PUMPING RATE (ml/min)	CUMULATIVE VOL (GALLONS)	DISSOI OXYGEN	12 15 15 15 15 15 15 15 15 15 15 15 15 15	EMP SPE	C. COND	- No.	OR	TURBIDITY
1130	2.73	116	30.1				umhos)	6.7	2 43	
110	2.93		1.0 gar	0,7	0.0	100000000000000000000000000000000000000	620	6.7	_	
1122			U.I a. I	0.2		-				
1140		llect sur	1-6 1146	0.2	-		619	6.7:		0.45
1145	Co	nect su	plefor VOCS	MME	TOC	17414	etc,	field	Fe MA	
_						_		,	1.	
							e = 0.	-	ng/L	Ferrary Iron 1
						_ M	1 = 4	,0	ng/L 1	Menganese, High
			The state of the s							
										21
				1						
		130		91.0						
						-				
					_	_				

SAMPLING RECORD - GROUNDWATER WELL #: PTISA PARSONS SENECA ARMY DEPOT ACTIVITY DATE: 12/19/10 PECTORS: 50 Ash Landfill LTM Groundwater Sampling - Round 10 PROJECT: INSPECTORS: ROMULUS, NY LOCATION: PUMP #: BLOCO 3/0 (RECORD MAJOR CHANGES) SAMPLE ID #: WEATHER / FIELD CONDITIONS CHECKLIST ALBW 201 WIND (FROM) GROUND/SITE SURFACE MONITORING VELOCITY DIRECTION WEATHER HUMIDITY TEMP TIME INSTRUMENT DETECTOR (APPRX) (0 - 360)CONDITIONS (GEN) (APPRX) (APPRX) (24 HR) PID OVM-580 ONE WELL VOLUME (GAL) = [(POW - STABILIZED WATER LEVEL) WELL VOLUME CALCULATION FACTORS X WELL DIAMETER FACTOR (GAL/FI)] DIAMETER (INCHES): 0.25 0.041 (0.163) 0.367 0.654 1.47 .163=1.02 x 3=3.06 GALLONS / FOOT: 0.0026 6.25 x 0.617 1.389 2.475 5.564 0.151 LITERS/FOOT 0.010 WELL DEPTH TO POINT Heribu U-52 \$15294 DEVELOPMENT DEVELOPMENT DEVELOPMENT TOP OF LENGTH OF WELL TURBIDITY pH SPEC. COND LHSTORE DATA 403 (TOC) SCREEN (TOC) (FT) 12.85 YST 75 # 3210 DEPTH TO PUMP PUMPING START DEPTH TO DEPTH TO INTAKE STABILIZED DATA COLLECTED AT PID READING STATIC WATER LEVEL (TOC) WATER LEVEL (TOC) (TOC) WELL SITE (OPENING WELL) 6,60 PUMP AFTER PUMP PRIOR TO RADIATION SCREENING DATA SAMPLING (cps) DURING PURGING OPERATIONS MONITORING DATA COLLECTED TURRIDITY CUMULATIVE VOL DISSOLVED TEMP SPEC. COND ORP WATER PUMPING (NTU) (GALLONS) OXYGEN (mg/L) (C) (umhos) nH (mV) LEVEL. RATE (ml/mic (min) Statie 12118 0.19 1,25 116 0.20 6.68 9.3 .25 21 116 6.67 81 9.3 12 0.18 2 0.16 9.2 6.66 6.8 83 116 9.2 83 1305 6.8 0.15 1.26 6.66 6,4 116 2gcl 1315 6.81 6.66 85 16 25 6.81 9.1 1320 6.666 85 1.25 3.2 116 1.25 325 6.8 118 0.15 6.66 85 84 6.81 118 9.1 0.16 1,25 6.66 2.2 1330 0.16 84 1335 6.81 118 1.25 6.66 1.50 VOCS

5	SAM	PLING R	E	CO	RD	-	GR	OU	ND	WA	TEF	3	
SENECA	ARMY I	DEPOT ACTIVITY			ı	PAR	SON	ıs		WELL	#: PT	-2-	2
PROJECT: LOCATION		Ash Landfill L			water Sa US, NY		- Round	110	-	DA INSPEC PUMP #	TE: I TORS:	2 1 1 1311,	1/10
WEATHER	R/ FIELD	CONDITIONS CHEC	KLIS	Γ	(RE	CORD	MAJOR	CHAN	GES)	SAMPL	E ID #:		
			R	EL.	WIN	D (F	ROM)	GROUN	D/SITE	ALTBU	UZOI	93	
TIME	TEMP	WEATHER	1000	IDITY	VELOC		ECTION		FACE		MONIT	T	
(24 HR)	(APPRX)	(APPRX)	(G	EN)	(APPR		- 360)		ITIONS	INSTRU	MENT	DET	ECTOR
1300	209	cieday			5-10	-	J	Fro	zen.	(OVM-580		PID
DIAMETER (II GALLONS / I LITERS/FO	NCHES): FOOT:	UME CALCULATION FAC 0.25 1 2 0.0026 0.041 0.163 0.010 0.151 0.617	TORS 3 0.367 1.389	4 0.654 2.475	6 1.47 5.564	100000		X	WELL DIAM	STABILIZE ETERFACTO 2.60	OR (GAL/FT	01	1,
Harika U-S	52#142	DEPTH TO POINT OF WELL			TH TO	SCREEN LENGTH		WELL EVELOPMI		WE	LL	l v	VELL
Lutoto #		(TOC)			N (TOC)	(FT)	D	TURBIDIT		DEVELO			LOPMENT C. COND
YSE 55 #		11.8/ 24											
DATA COLLEC	TED AT	PID READING (OPENING WELL)		WAT	DEPTH TO STATIC FER LEVEL			DEPTH TO STABILIZE TER LEVEL	D	DEPTH T	AKE		NG START TIME
0.000				6	.39								
RADIATION SCI	REENING	PUMP PRIÓR TO SAMPLING (cps)						PUMP AFT					
DATA	MON	ITORING DATA	со	LLEC	CTED	DURI				ERATIO	MIC	ew to	bing
TIME WATER (min) LEVEL I	PUMPING RATE (ml/min)	CUMULATIVE VOL (GALLONS)	3/55	DISSOLV CYGEN (r	77 37 699	TEMP (C)		COND	рН		ORP (mV)	Т	URBIDITY (NTU)
1315 6.39	Stat.	i Pre	0.	i i de la fi	mg/L)	(0)	MS	cm	ļ ,		(mv)	\neg	(810)
1340 1340	- '	rt Ramp at	131	10	YST	YSI							
1346 6.66	160			0.1	8	9,3	1.1	6	6.79	7	4		
1351 671	160	1		0.2		9.3	1.1	6	6.7		3	\neg	21
1356 6.66	132			0.2		9.2	1.1		6.75		8	$\overline{}$	15
1401 6.66	132			0.2		9.1			6.7		103500	+	-
1406 6.66			-				1.1	6	6.7		17		8.5
				0,2		9.2		-			20		7.7
	130			0,1		9.2			6.75		20	- 4	1.1
1416 6.66	130			0.1		9.2	1.1	_	6.7		6		3.4
1421 6,68	130	1.3 gar 1		6.10		9,2	6.6	5	6.7	7	16		1.6
1426 6.68	128	,		0.1	6	9.2	1.11	4	6.77		16		1.4
	128			0.1	6	9.2	1.1		6.70	0	15	- 8	1.0
	130	~ 2 gal		0.1	3	9.2	[.1		6.7	5	15	1	2.80
	mple	well for V			-					_		- + 6	100
	-mp te	ALBUZO										\pm	
									1				

		SAM	PLING I	KE(CU	KL) -	Gh	KUU	ND	W A	ALEI	<	
S	ENEC	A ARMY I	DEPOT ACTIVIT	Y			PAF	RSOI	VS.		WEI	LL #: P	T-2	4
100000	ROJECT CATIO		Ash Landfill			water S LUS, NY		g - Roun	d 10		INSP	DATE: l ECTORS: P#: # 8	33	0
W	EATHE	R/ FIELD	CONDITIONS CHE	_		(R			R CHAN			PLE ID #:		
	INTE	TEMP	WEATHER		EL.	VELOC		FROM)	GROUN	D/SITE FACE		MONI	FORI	NC
	IME HR)	(APPRX)			EN)	(APPI		0 - 360)	100000	ITIONS	INST	RUMENT	_	ETECTOR
85	50	14	Partly clearly >	Show		10-1	5 W	-7E	Groce	n		OVM-580		PID
				-										
G.	METER (ALLONS : LITERS/	(INCHES): / FOOT:	0.25 1 2 0.0026 0.041 0.162 0.010 0.151 0.617) 3 0.367	2.475	6 1.47 5.564						JZED WATER ACTOR (GAL/F		1
,	HISTORIC	DATA	DEPTH TO POINT OF WELL (TOC)		TÇ	TH TO P OF EN (TOC)	SCREEN LENGTI (FT)		WELL DEVELOPMI TURBIDIT	90,000	DEV	WELL ELÖPMENT pH		WELL EVELOPMENT SPEC. COND
		********	11.88											
DAT	TA COLLE	CTED AT	PID READING (OPENING WELL)		WA	DEPTH T STATIO TER LEVE		WA	DEPTH TO STABILIZE STER LEVEL	D		H TO PUMP INTAKE (TOC)	PU	MPING START TIME
					14	.69	′							
RAD	IATION S DAT	CREENING A	PUMP PRIOR TO SAMPLING (cps)						PUMP AFT SAMPLING (
			ITORING DATA			CTED	DUR		PURGI	NG OP	ERA	ΓIONS		
TIME (min)	WATER LEVEL	PUMPING RATE (ml/min)	CUMULATIVE VOL (GALLONS)		DISSOLV XYGEN (ED Y S	TEMP (C)	A SZ	COND entitios)	рН		ORP (mV)		TURBIDITY (NTU)
	Rep	aced (vator line d	re to	o cr	recks	YSI							
912	4.7	Runp	started											
119	4.71			011	13		9.7		31	6.72		178		
923	Air	compr	ess stopped	400	lesin	, f	POZE	n?,	pleced	air	carry	pressor	2v	
	Vel	ide to	bermup.	Chel	1.5	on	5D	proger	25		••			
7101	4 P	relied rp	gear up un	able	to	Conc	Pect	541	plin	in	this	weather	r,	
								+			+			
				+				-			+			
											+			
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								1		l .	- 1		- 1	

	SAM	PLING R	E (CO	RD) -	GR	OU	ND	W.	ATER	2
SENECA	A ARMY I	DEPOT ACTIVITY				PAR	501	ıs		WE	ELL #: PT	-24
PROJECT LOCATION		Ash Landfill L		roundw OMUL			- Round	1 10		PUN	DATE: (7/ PECTORS: 1 AP#: B	336
WEATHE	R / FIELD	CONDITIONS CHEC	_					CHAN			APLE ID #:	
TIME	TENED	WE LTHER		EL.	WIN		FROM)		D / SITE	AL	BW20196	
TIME (24 HR)	(APPRX)	WEATHER (APPRX)	300000	IDITY EN)	(APPI		RECTION 3 - 360)	100000000000000000000000000000000000000	FACE ITIONS	INS	TRUMENT	DETECTOR
1046	21	Showing	1	22.1)	a-10	-	マモ	from		1110	OVM-580	PID
											0111200	110
DIAMETER (GALLONS/ LITERS/F	INCHES): FOOT: OOT	UME CALCULATION FAC 0.25 1 2 0.0026 0.041 0.16 0.010 0.151 0.617	TORS 3 0.367 1.389	4 0.654 2.475	6 1.47 5.564	3	WELL VO	XV				
Hor.ba U-52		DEPTH TO POINT OF WELL		DEPT TOP	OF	SCREEN LENGTH	р	WELL DEVELOPME		DE	WELL EVELOPMENT	WELL DEVELOPMENT
Lards # 0	2133	11.88'		SCREE	N (TOC)	(FT)		TURBIDIT	Y		pH	SPEC. COND
YST 85 #	6122	11.00			ENERGY .	~						
DATA COLLE WELL S		PID READING (OPENING WELL)		THE A TO	DEPTH T STATIC ER LEVE		337.5	STABILIZE	D	DEF	TH TO PUMP INTAKE	PUMPING START TIME
WELL	ii E	(OPENING WELL)			1.83		WA.	TER LEVEL	(IOC)		(TOC)	
RADIATION SO		PUMP PRIOR TO			110			PUMP AFTI				
DATA	12/5/25/2	SAMPLING (cps)	CO	LLEC	TED	DUDI		AMPLING (EDA	TIONS	LeMollo
TIME WATER	PUMPING	CUMULATIVE VOL	YSt	DISSOLVE		YSTEMP (C)		COND	G OF	EKA	ORP	TURBIDITY
(min) LEVEL	RATE (ml/min)	Balla Pny	0.5	YGEN (m	g/L)	, (C)	- TE CHI	minos)	pH	-	(mV)	(NTU)
1100 4.82	Star tool	-	7	1 73			10 1-	-/ 1	710	_	0.11	
1110 4.84	~114 ~	1647	_	7.23		10.1	0.5		7.12	_	211	17
1115 4.84	114		_	.27		9.9	0.5		7.13	_	189	14
1120 4.84	"	2 T	_	,24		9.8	0.5		7.10	_	180	12
1125 4.84	126	~0,5 gals		.23		9.7	0.5		7.10		149	12
1130 4.83	1/			.22		9.7	0.5		7.00		107	9.4
1175 4.83	124			.21		9.7			7.02		59	8.7
1140 4.83	ч	~1.1 gals	_	.19			0.5		7.0	8	37	8,5
1145 4.83	110		_	17			0.5		7.6	7	20	6.9
1120 4.83	112	21-5gals	_	18		9.7	0.50	65	7.06	,	8	7.47
1155 4.84	//	fluerate V	-	19			0,5		7,06	,	0	6.79
1200 4,84	104	v1.75 gals	_	,14			0.5		7.06		-8	9.50
1205 11	4		_	,20		9.8			7.06	6	-11	8.43
1210 4.84	~109	2.0 gals	0	.13		9.8	0.5	68	7.0	5	-17	7,73
1215 4.83	104		0	11		9.8	0.5	68	7.05		-19	7.27
1220 4.83	102	~2,25gals	0	10		9.8	0.5	68	7.0	5	-22	6. ZZ
1225 4.84	107		0.	10			0.5		7.05	_	-24	5.89
1230 4.84		~Z. Sgals	_	.07	-		0.5		7.09		-25	5.23
12354,84		,		.07			0.50		7.05		-27	5.54
		17751	0	,09			0.5		7.05		-29	6.14
12404.84	11	~2.75yele		101	- 1	10	10.	60	+.0	> 1	-/-	6.14

SENECA	ARMY D	EPOT ACTIVITY		P	AR	SON	5		WELL #: M	N-56
PROJECT:		Ash Landfill L	M Ground	water Sar	mpling	- Round	10	7.82	DATE: 12	/19/10
LOCATION				LUS, NY	0.11			200	INSPECTORS:	BBO
										ly #11709
WEATHER	/ FIELD	CONDITIONS CHEC		_		MAJOR		D/SITE	SAMPLE ID #:	99
	7777.679	WEATHED	REL.	VELOCIT	-	ECTION	SURI	F		FORING
TIME (24 HR)	(APPRX)	WEATHER (APPRX)	(GEN)	(APPR)		- 360)		TIONS	INSTRUMENT	DETECTOR
14(1	30	present	,	24		JUW	froze	29	OVM-580	PID
	-	proces;					nos	non		1 10
		UME CALCULATION FAC		6	ONE	WELL VOI	UME (GA	L) = [(POW -	STABILIZED WATER ETER FACTOR (GAL/F	LEVEL)
GALLONS / F		0.025 1 (2 0.163)	0.367 0.654	1.47	1	.079	els X	3=	3.21 sals (3 Vols)
LITERS/FO		0.010 0.151 0.617	1.389 2.475		SCREEN		WELL		WELL	T WELL
eribe U-5i		OF WELL	T		LENGTH (FT)		VELOPME		DEVELOPMENT	DEVELOPMENT SPEC. COND
HISTORIC D		(TOC)	_	aa(100)	((1)		. CRIMINI		pi.	
ISI 85 #	6122	6.29+0.2	+	DEPTH TO		-	DEPTH TO		DEPTH TO PUMP	PUMPING START
DATA COLLEC		PID READING		STATIC			STABILIZE ER LEVEL	D	INTAKE (TOC)	TIME
WELL SIT	ie a	(OPENING WELL)	3.6		60 M	be	LEVEL	(100)	(100)	
RADIATION SCI	PEFNING	PUMP PRIOR TO	3.8	3 4/	eat	Probe	UMP AFTI	ER		N TO THE REAL PROPERTY.
DATA		SAMPLING (cps)					MPLING (
		ITORING DATA						NG OP	ERATIONS	T TURNING TO
TEME WATER (min) LEVEL B	PUMPING EATE (ml/min)	CUMULATIVE VOL (GALLONS)	DISSOL OXYGEN		(C)	100000000000000000000000000000000000000	COND hos)	рН	ORP (mV)	(NTU)
431 3.68	B(udde	r pump Star	ted, s.	colect	ed a	ar 8	L-cafer	live	due to cr	echs
440 3.80	122		0.8	7	3.3	0.6	74	7.16	-94	8611
445 3.81			0.3	-	3.1		64	6.9		49.8
450 3.84	128		0.5		3.1	0.6	57	6.81		30.3
455 3.84	12/	0.5 52/5	0.3		3.6	0.6	54	6.8	-	19.9
500 3.85	137	0,3545	0.3		3.0	0.6	•	6.7		14.0
505 3.86	170			_				6.8		9,23
		~1.0 946	0.3							
510 3,87			0.3					6.83		25.4
5153,89		~1.25gals						6.88		5,74
520 3.88		~1.5	0,3		-	0.6				4.91
525 3.88			0.3					6.8		4.22
530 3,96	142	~1.75	0.3		2.9	0.6		6.8		3.66
535391	132	2 2.0 92/5	0.3	8	7.9	0.6	57	6.80	-104	3.27
5403,91		la l	0.40		7.9	0.6		6.86	-104	2.66
545 3.91		12.25	0.3		2.9			6.8		
550 3.91		~2.5	0.3			_	-	6.8		
555 391		~2.75	0,3			0.6		6.8		
723 74	126	- 2.73	0, 3	-	1	0.0	31	W. 0	103	1.00
	11	101	1	De	7 ^	100	0	1/4		
	ellect	ed Sample			20	1-67	Co	1600)	
		~2.83.13		_						

SA	AMI	PLING I	RE	CO	KD		011						otz
SENECA AF	RMY D	EPOT ACTIVIT	Y		P	AR	SON	S		WEI	L #: / \	NWT	-7
PROJECT: LOCATION:		Ash Landfill		Groundw ROMUL		pling -	Round	10		INSPI	DATE: U	BB	6
	erer p	COMPLETONS SHE	CVI 10	Tr.	(DEC)	ODD A	(A LOD	CYLLAN	OP(0)				£ 1494!
WEATHER/ F	FIELD C	CONDITIONS CHE		EL.	WIND		MAJOR ROM)	GROUN			LE ID #		-
TIME T	ГЕМР	WEATHER		MIDITY	VELOCITY		ECTION	SURF	li li			ITORI	NG
	APPRX)	(APPRX)	(0	GEN)	(APPRX	1		CONDI	-	INST	RUMENT	r D	ETECTOR
919 2	27	Party			8-10	SW	一种	fuze	n		OVM-58	80	PID
								NU SI	2 5000	nel			
DIAMETER (INCHE GALLONS / FOOT LITERS/FOOT	ES):	0.25 1 2 0.0026 0.041 0.163 0.010 0.151 0.617	3	0.654	6 1.47 5.564	ONEV	1.03	X X	VELL DIAM	ETER FA	ZED WATER CTOR (GAL/ 54()	TO U	
vita U-52#		OF WELL				REEN NGTH	DE	WELL VELOPME	NT		WELL	T p	WELL EVELOPMENT
A HISTORIC DATA	22 #	OZ133 (TOC)			1000	(FT)		URBIDITY	(0.0)	DLVI	pH		SPEC. COND
SI 85#61		11.64											
DATA COLLECTED		PID READING			DEPTH TO STATIC			DEPTH TO TABILIZE			I TO PUMP	PU	MPING STAR
WELL SITE	-	(OPENING WELL)			ER LEVEL (T	0C)		R LEVEL			(TOC)	_	T.M.
				3	5.18								
RADIATION SCREENI DATA	ING	PUMP PRIOR TO SAMPLING (cps)						JMP AFTE MPLING (c					
	MON	ITORING DATA	· co	LLEC	TED D	URIN	NG PU	JRGIN	G OP	ERAT	TONS		
	T. W. C. T. 4.7	HORING DATE			TED D								
	MPING	CUMULATIVE VOL	T	DISSOLVI	ED T	EMP	SPEC.	0.10	3.00		ORP		TURBIDITY
35 5.17 Bloomin 12 Stoppe	MPING (ml/min)		0		ED T	EMP (C)	SPEC. (umb	0.10	pH	erli.	(mV)	place	(NTU)
35 5.17 Blooms tz Stoppe 49 5.05 pu	MPING (ml/min)	CUMULATIVE VOL (GALLONS)	0	DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DIS	ED T	app.	Cree	ch:	n und	erli:	(mV)	place	(NTU)
35 5.17 Blog 12 Stoppe 149 5.05 pu	MPING (ml/min)	CUMULATIVE VOL (GALLONS)	not	DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DIS	ED T	app.	Cree	ch:	r wet	live	(mV)	place	(NTU)
15 5.17 Blooms 149 5.05 pm 153 5toppe 153 5toppe 155 5toppe	MPING (ml/min)	CUMULATIVE VOL (GALLONS)	not	DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DIS	ED T	app.	Cree	ch:	r wet	line (in)	(mV)	place	(NTU)
15 5.17 Blooms 15 5.17 Blooms 15 5.05 pure 1	MPING (ml/min)	constantive vol. (Gallons) responsible upper Still and Checked per again tev, believe	not	DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DIS	ED T	app.	Cree	ch:	r wet	line	(mV)	place	(NTU)
13 Starter 13 S	MPING (mb/min)	complative vol. (GALLONS) For pary St constructed construction cons	not	DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DISSOLVI DIS	ED T	app.	Cree	ch:	r wet	line line	(mV)	place	(NTU)
13 Startes 15 5.17 Blooms 17 Stappe 19 5.05 pu 10 5 5 tartes 13 Startes 23 Startes	MPING (ml/min) -cldes -cldes	complative vol. (Gallons) restarted upper Still and checked per again tev, believe myen again	not he	DISSOLVI DIXYGEN (III Set	coming h	atur atur	Cra Va-	chs.	new yelec	live utli	Bledd	lor	(NTU)
13 Startes	mping (mb/min)	complative vol. (GALLONS) Purps St resterted upm Still and checked pen again tev, believe purps, sept.	not he	DISSOLVI DIXYGEN (III)	comby	ater ater are	on bad	chs.	Mess epolec	live utlin)	Bledd	lup for j	tir ling
13 Startes 13 Startes 14 Startes 15 Startes 15 Startes 15 Startes 16 Startes 17 Startes 18 Startes	MPING (ml/min) -close -p -p -p -p -p -p -p -p -p -	constative vol. (GALLONS) Purps St resterted upm Stell and checked per again tev, believe purps, repl. purps, repl.	not he	pissolvi exygen (m set	coming he comments	atura atura ane	cra vas bad	of #	Mess Cystac 1494 Puny	(ine	Blodd	lup for j	tir line
13 5.25 40 5.26 46	MPING (ml/min) (wlde) (complative vol. (GALLONS) Purps St resterted upm Still and checked pen again tev, believe purps, sept.	not he	set of o	comprise of the seals	are on a	puny bed	of #	Mess Cystee 1494 Pury 7,04	line with	Bledder 11709	lup for j	tir lim
13 Stoppe 14 5.05 pm 14 5.05 pm 15 5toppe 15 5toppe 15 5toppe 15 5toppe 15 5toppe 16 5toppe 17 5toppe 18 5toppe	MPING (ml/min) (wldes ed p plap d pur ded p led p led p	constative vol. (GALLONS) Purps St resterted upm Stell and checked per again tev, believe purps, repl. purps, repl.	not he	set of one of the original of	coming to the control of the control	ap ater ane ane	puny ly. 0.70	of #	1494 Pury 7.04 6.85	line	Bl.dd	lup for j	the lim
13 5 5.17 Blooms 13 5 5.25 10 5.26 16 15 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	MPING (ml/min) (wlde) (constative vol. (GALLONS) Purps St resterted upm Stell and checked per again tev, believe purps, repl. purps, repl.	not he	set of one of the original of	company compan	are in 2	puny bad bad 0.7 0.7	of #	1494 Puny 7,04 6,85	(ine	Bleds 11709 137	lup for j	tir lim
13 5 5.17 Blooms 149 5.05 pm 149 5.05 pm 153 5 fm 15 5 fm 15 5 fm 17 5 fm 18 5	MPING (ml/min) (wlde) (constative vol. (GALLONS) Purps St curps sy n resterted upm Stell and checkes pur again tev, believe purps, sept purps, sept purps, sept flow rate1	not he	5 ct 2 ct	Fings Leg 10	ane ane	puny ly. 0.70	of #	1494 Pury 7,04 6,85 6,85	(ine	Blodd 11709 137 115	lup for j	the lime ased as 75 75 39
13 5 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 100 5.28 10	MPING (ml/min) (relde)	constative vol. (GALLONS) Purps St resterted upm Stell and checked per again tev, believe purps, repl. purps, repl.	not he our	5 ct 2 ct	coming to the seals to the seal	are in in in in in in in in in in	Puny by. 0.7 0.7 0.7 0.7	of	1494 Puny 7,04 6,88 6,88	(ine	Bledi 11709 180 137 115 94	lup for j	tir lim
135 5.17 Bloom 147 Steppe 149 5.05 par 153 Steppe 153 Steppe 153 Steppe 153 Steppe 154 Steppe 154 Steppe 155 5.26 10 150 5.26 10 150 5.27 10 150 5.28 10 150 5.28 10 150 5.28 10 150 5.28 10	MPING (ml/min) (wlde) (constantive vol. (GALLONS) Purps St curps on a curps of a curps on a checker purps again tev, believe purps again purps (replieve purps again flow rate1	not he pure	5 ct 2 ct	Fings Louis Lo	are in and in an	Puny ly. 0.7 0.7 0.7 0.7	61 64 67 65	1494 Pury 7,04 6.88 6.88 6.88	(ine	Bleds 11709 137 115 94 78	lup for j	4 (im d (im d (im d (im d (im d (im) d (im)
13 5 5.17 Blood 13 5 5.28 10 0 5.28 10 0 5.28 10 0 5.28 10 0 5.28 10 0 5.28 10 0 5.28 10 0 5.28 10	MPING (ml/min) (wlde) (wlde) (wlap) (lap)	constative vol. (GALLONS) Purps St curps sy n resterted upm Stell and checkes pur again tev, believe purps, sept purps, sept purps, sept flow rate1	not he pure	5 ct 2 ct	Fings Louis Lo	ane oh Cons O. Z O. 2 O. 1 O. 1 O. 2 O. 4	Puny ly. 0.70 0.70 0.76 0.76	61 64 67 65 67	1494 Pury 7.04 6.85 6.88 6.88 6.88	(ine	Bl.dd 11709 180 137 115 94 78 69	lup for j	tir lim
13 5 5.27 ~ 10 1.5 5.27 ~ 10 1.5 5.27 ~ 10 1.5 5.27 ~ 10 1.5 5.27 ~ 10 1.5 5.27 ~ 10	MPING (ml/min) (relde)	constantive vol. (GALLONS) Purps St curps on a curps of a curps on a checker purps again tev, believe purps again purps (replieve purps again flow rate1	not he cod	500 0- 100 0-	Fines Local Compres Compres	are	Puny Vy. 0.7 0.7 0.7 0.7 0.7 0.7	61 64 67 65 65	1494 Pury 7,04 6.88 6.88 6.88	(ine	11708 11708 1180 137 115 94 78 69 60 54	lup for j	4 (inc d (inc) d (i
13 5 5.17 Blood 13 5 5 10 10 5.28 10 0 5.28 10 0 5.28 10 0 5.28 10 0 5.28 10 0 5.28 10 0 5.28 10 0 5.28 10	MPING (ml/min) (relde)	constantive vol. (GALLONS) Purps St curps on a curps of a curps on a checker purps again tev, believe purps again purps (replieve purps again flow rate1	not he cod	5 ct 2 ct	Fines Local Compres Compres	are	Puny ly. 0.70 0.70 0.76 0.76	61 64 67 65 65	1494 Pury 7.04 6.85 6.88 6.88 6.88	(ine	Bl.dd 11709 180 137 115 94 78 69	lup for j	21, lim 21, lim 21, lim 25, 75 39, 32, 28, 22

SAMPLING RECORD - GROUNDWATER 2 of Z WELL #: MWT-7 SENECA ARMY DEPOT ACTIVITY PARSONS DATE: 12/18/10 Ash Landfill LTM Groundwater Sampling - Round 9 PROJECT: ROMULUS, NY INSPECTORS: BBO LOCATION: PUMP#: Bladder # 14945 SAMPLE ID #: WEATHER / FIELD CONDITIONS CHECKLIST (RECORD MAJOR CHANGES) ALBW 20195 (FROM) GROUND / SITE WIND REL. TIME TEMP WEATHER HUMIDITY VELOCITY DIRECTION SURFACE MONITORING INSTRUMENT (24 HR) (APPRX) (APPRX) (GEN) (APPRX) (0 - 360)CONDITIONS DETECTOR OVM-580 PID WELL VOLUME CALCULATION FACTORS ONE WELL VOLUME (GAL) = |(POW - STABILIZED WATER LEVEL) DIAMETER (INCHES): X WELL DIAMETER FACTOR (GAL/FT)] 6.163 GALLONS / FOOT: 0.0026 0.041 0.367 0.654 1.47 3.16 sals 3 Uc(s) LITERS/FOOT 0.010 0.151 1.389 2 475 WELL WELL Hersten U-52#14200 WELL OF WELL LENGTH TOP OF DEVELOPMENT DEVELOPMENT DEVELOPMENT WIT THORIC DATA (ZZ (TOC) SCREEN (TOC) (FT) TURBIDITY pH SPEC. COND 11.64' aroto #02933 DEPTH TO DEPTH TO DEPTH TO PUMP PUMPING START DATA COLLECTED AT PID READING STABILIZED INTAKE TIME STATIC WATER LEVEL (TOC) WELL SITE (OPENING WELL) WATER LEVEL (TOC) (TOC) 5.18 RADIATION SCREENING DATA PUMP PRIOR TO SAMPLING (cps) PUMP AFTER SAMPLING (cps) Hy dre Hed some 4/10/10 MONITORING DATA COLLECTED DURING PURGING OPERATIONS YS DISSOLVED OXYGEN (mg/L) CUMULATIVE VOL WATER PUMPING TURBIDITY LEVEL RATE (ml/min (GALLONS) (NTU) 122 1.5 gals 0.32 w.3 0.767 6.87 46 15 5.29 1125 0.27 0.772 43 1130K 10.4 6.85 31 14 1135 5,29 -2,0 socts 0.26 10.7 0.768 6.87 128 40 12 0.14 0.8 6.85 1140 29 38 10 ~2.25 zels 5029 145 0.27 10.4 0.763 6.85 37 22 8.1 0,29 37 1150 5,29 23 0.763 6.86 0.23 ~120 10.9 1155 11 6.84 39 ~ 2,75gals 122 0.15 6.88 1200 11 36 6,23 1205 5.28 120 0.14 11.0 6.87 36 122 ~3. (gals 1210 5.29 0.09 (1.0 0.759 6.86 5.57 36 0.08 1215 5.28 120 23.25526 11.1 6.85 4.27 35 0.759 0.760 1220 5,29 0,07 11.1 34 120 6.85 3.9 0,07 118 0.759 225 5.28 11.1 6,86 33 3.6 ~3.75 sals 1230 122 0.06 0.758 11.1 6.85 35 3.3 1239 BW 20195 0.17

5	SAM	PLING R	E	CO	RD) -	GR	OU	ND	WATER	1
SENECA	ARMY I	DEPOT ACTIVITY				PAR	SON	IS		WELL #: MG	JT-22
PROJECT: LOCATION	:	Ash Landfill L			vater Sa US, NY	-	- Round	10		DATE: 12 INSPECTORS: 7 PUMP #: 3 ladd	380
WEATHER	/ FIELD	CONDITIONS CHEC						CHANG		SAMPLE ID #:	
TIME	ТЕМР	WEATHER		EL.	WIN		FROM)	GROUND SURF	F	ALBW 2019	
(24 HR)	(APPRX)	(APPRX)		EN)	(APPI		- 360)	CONDIT	-	INSTRUMENT	DETECTOR
1308	29	Partly sunny			210	W	-7E	fuze	n	OVM-580	PID
DIAMETER (IN GALLONS / F LITERS/FO	CHES):	UME CALCULATION FAC 0.25 1 2 0.0026 0.041 0.163 0.010 0.151 0.617	TORS 3 0,367 1,389	4 0.654 2.475	6 1.47 5.564	3	WELL VO	LUME (GAL) الحاراً العاراً العاراً	= (POW - ELL DIAM)	STABILIZED WATER LE ETER FACTOR (GAL/FT)	7 3 Ve-19,
Har. by U-527 HISTORIC D La Notto # 0	2433	DEPTH TO POINT OF WELL (TOC)		TOI	TH TO OF N (TOC)	SCREEN LENGTH (FT)	D	WELL EVELOPMEN TURBIDITY	т	WELL DEVELOPMENT pH	WELL DEVELOPMENT SPEC. COND
DATA COLLEC WELL ST	TED AT	PID READING (OPENING WELL)		_	DEPTH T STATIC ER LEVE	L (TOC)	1	DEPTH TO STABILIZED TR LEVEL (T	TOC)	DEPTH TO PUMP INTAKE (TOC)	PUMPING START TIME
RADIATION SCR	REENING	PUMP PRIOR TO		5	176	,		PUMP AFTER			
DATA	MON	SAMPLING (cps)	CO	LEG	TED	DUDI	S	AMPLING (cp.	s)	ED LEVONO	
TIME WATER	PUMPING	CUMULATIVE VOL		LLEC DISSOLVI LYGEN (n		DURI PEMP (C)		COND	G OP	ERATIONS ORP	TURBIDITY
	Bladler	pump Starte	_	YGEN (n	ng/L)	(C)	(ma	alano)	pH	(mV)	(NTU)
	104	pump Herte		,19		11.2	1.3	0	6.52	24	52.8
1345 6.98	100			13		11.0			6.47	-	47.6
1350 7.41	102		0	12		10.9	1.3		6.45		45
1355 7.80	-100		0	,13		10.9	1.3	3	6.45		45
	-106		0.	10		10.9	1.3	3	6.44	-54	38
1405 842	105	~0.5gal	0	.09		11.0	1.3		6.44		34
	105			08		11.1	1.3		6.43		29
1415 8,92	108			08		II.Z	1.3	3	6.43		24
14209.11	108	~1.0 sals	_	08		11.3			6.42		23
	108		_	37		11.3	1.3	_	6.42		19
	106	21.255els	_	06		11.3	_		6.41		16
	110			06		11.4	1.3		6.40		12
	104	7 /		07		11.4	1.3		6,40		11
1448 9.86	106	~1.75 gals		07		11.4	1.3		6,40		9.0
	106	2-7 0 /	_	07	_	11.4	1.3		6.39	-	7.5
1458 4.94	-100	~2.0 gals	0.	07		11.4	1.3	4 (6.39	-28	6.8
Samples	(olle			019	6	C 15	63				
		3 VOC Vials	4	-11				-			
		Purged 2.5 ga	()	otel							

1453

SENECA	ARMY D	EPOT ACTIVITY			F	PAR	SON	ıs		WI	ELL #: MG	17	23
PROJECT: LOCATION:		Ash Landfill L								INS	DATE: 1 PECTORS: MP #: B(alle	2	119/10 11man
WEATHER	FIELD (CONDITIONS CHEC	KLIS	Γ	(RE			CHAN		SAN	APLE ID #:		F13 F2
				EL.	WINI	$\overline{}$	ROM)	GROUN	li-	AL	BW 2021	_	
TIME (24 HR)	TEMP (APPRX)	WEATHER (APPRX)		IDITY EN)	VELOCI (APPR		- 360)		TIONS	INS	TRUMENT		NG ETECTOF
(24 HK)	(AFFRA)	(AFFRA)	(6	EN)	(AIIK)	X) (0	- 300)	COND	HONS	1143	OVM-580	171	PID
DIAMETER (INC GALLONS / FO LITERS/FOO	CHES): OOT:	UME CALCULATION FAC 0.25 1 2 0.0026 0.041 162 0.010 0.151 0.617	TORS 3 0.367 1.389	4 0,654 2,475	6 1.47 5.564	ONE	WELL VO				ILIZED WATER LI FACTOR (GAL/FT)		
brilen U-52		Q CF DEPTH TO POINT OF WELL			TH TO	SCREEN LENGTH	D	WELL EVELOPME	NT	DE	WELL EVELOPMENT	DI	WELL
LA HOTTORY DA		(TOC)			N (TOC)	(FT)		TURBIDIT	200	DE	pH		SPEC, COND
LSI 35 # 3	1210	-14.2	1			H							
DATA COLLECTI WELL SITE	ED AT	PID READING (OPENING WELL)		WAT	DEPTH TO STATIC ER LEVEL			DEPTH TO STABILIZE TER LEVEL	D	DEI	PTH TO PUMP INTAKE (TOC)	PU	MPING STAR TIME
Walter Stri	1	(Or Entrol William)		-7	75	1'L		ER LEVEL	(100)		(100)		
RADIATION SCRE	ENING	PUMP PRIOR TO		<u> </u>		-/-		PUMP AFT				-	
DATA	MON	SAMPLING (eps) ITORING DATA	СО	LLEC	TED	DURI		URGIN		ERA	TIONS		
	PUMPING	CUMULATIVE VOL		DISSOLV	ED	TEMP (C)	SPEC.	COND	25.25	T	ORP	П	TURBIDIT
7.75 H15	TE (ml/min)	Level. Ins	616	YGEN (I	ng/L)	100		nhos)	рH / /	,	(mV)	2 5	(NTU)
1425	start !	level, Ins	a) le	45	T	451	or po	mp 19	is tall	1+	Nel II.	- /	
1435 7.98	105	7	-	2.20	_	10.1	1.0	2	6.6	,	-28	\dashv	
	30			0.24			1.0		6.5	-	-47	\dashv	
-	46					16.1			,	$\overline{}$		\dashv	
16.	76			6.19		10.1	1,0		6.50	$\overline{}$	-15	\dashv	310
0,10	72					10.2	- 1.0		6.4.		_(0	\dashv	360
1455 816 1	172		-	0.23	. 7	10.1	1.0		6.46		-69		51
				20.7		10.1	1.0		6,4		=74	\dashv	8.7
	172	25 1	<u> </u>	0.3		10.1	1.00		6.4		-78 -94	\dashv	7.1
	173	2.5 gal		0.4		10.	1.05		6.4	_		\dashv	5.4
	172		-	2.30		10.1			6.4	_	-87		5,1
	172	27 1		0,3		16.2	1.0		6.4	_	-90	-	4.6
	176	3.3 ggl		0.2	_	700	1.0		6.4		-92	\dashv	4.4
1530 8.18 1			-	0.7		10.1	1.0		6.42		-97	-	3.6
	76	-11 1 D		0.3	-	10-1	1.0		6.4		-98		3.7
	76	-4.1 gol		0.2		10.1	1.00		6.4		-100	-	3.4
	16			0.2		10.1	1.0	7	6.4	_	- 102		3.6
1550 8.18	176			0,2		10.1	1.0		6.4		-103		2,8
	176,			0.2		10.2			6.41		- 103		2.8
	ext								fate		FRIM	2	Field
1 R	4/a	red ~5 sels	Fe	113	1.30	m3/L	over	hit					.)

		SAM	PLING R	E	CO	RD	-	GR	OU	ND	W.	ATER	1	
S	ENEC	A ARMY I	DEPOT ACTIVITY				PAR	SON	ıs		WE	LL #: M W	T-	24
2000	CATIO		Ash Landfill L			water S		- Rounc	1 10			DATE: ECTORS:	Z// 1/1/1	man
			company cure			(D)	COORD	MATOR	CILLAN	OPO)	PUM		690	8
W	EATHE	R / FIELD	CONDITIONS CHEC		EL.	WIN		FROM)	GROUN	D/SITE		PLEID #:	286	7
T	IME	TEMP	WEATHER	HUN	HDITY	VELOC		RECTION	SURI	FACE		MONITO	ORIN	G
(24	HR)	(APPRX)	(APPRX)	(G	EN)	(APPI	RX) (0	- 360)	COND	ITIONS	INST	RUMENT	DE	TECTOR
10:	55	203	cloudy, Flurenes			5-10) h	lest	Fr5	zen		OVM-580		PID
		WELLVOI	LUME CALCULATION FAC	TORS			IONI	WELLVO	LUME (CA	L) = 1(POW	STABII	JZED WATER LI	WEL)	
G	METER (ALLONS / LITERS/I	INCHES): FOOT:	0.25 1 2 0.0026 0.041 163 0.010 0.151 0.617	3 0,367 1,389		6 1.47 5.564	Į.					ACTOR (GAL/FT)		
Horse	all	52# 142	OF WELL		100000000000000000000000000000000000000	TH TO P OF	SCREEN LENGTH	D	WELL	INT	DEV	WELL ELOPMENT	DEV	WELL ELOPMENT
Loure	HATORIC	F02403			SCREE	N (TOC)	(FT)		TURBIDIT			pН		EC. COND
		= 3210	13			-								
DAT	TA COLLE		PID READING			DEPTH T	C		DEPTH TO STABILIZE	D		TH TO PUMP INTAKE	PUMP	PING START TIME
	WELL S	SITE	(OPENING WELL)	_	_	6.7	_	WA	TER LEVEL	(TOC)		(TOC)		
RAD	IATION S	CREENING	PUMP PRIOR TO		-	P, T (9		PUMP AFT	ER				
	DATA		SAMPLING (cps)						AMPLING (-			
TIME	WATER	MON	CUMULATIVE VOL		LLEC	ED	DUR		COND	NG OP	ERA	TIONS	_	TURBIDITY
(min)	LEVEL	RATE (ml/min)	(GALLONS)	1 200	XYGEN ((C)		nhos)	pН	+	(mV)	_	(NTU)
	5.65	prep	TOTAL C	700	call	·Fr	eezi	ng w	afer	shot 0	م در		_	
10:55		12/1-	1/10 set back.	10	m w	e11 1	0 10	ge 2	samp	le_	_			
	6.78	Pre pu	my level st	2+	fon	p 0	Du:	12			_		_	
1125	6.93	180		0	1.51		10.0	0,9		6.85	_	58	_	95
11:30	6.90	160		0	1//		9.9	_	32	6.83	3	49	_	110
11 35	6.90	158			.40		9.9		30	6.83	-	43		60
1140	6.90	160		D	,23	3	10,0	0.9		6.8	-	36	\perp	35
	6.90	160		6	.18		10.0	0,9		6.8	2	28		27
1150		160			.19		9.9	0.9		6.80		23	\perp	19
1158		160			.24		10.0	0.9		6.76	,	32		13
1200		160	2.3 gal		0,14		10,0	0.9		6.7	6	21		12
1205		160			6.15		100	6.9	24	6.75	_	17		12
1210		160			119		10.0	0.9		6.86)	13		12
1215		160			0.14		10.0	0.9		6.79	_	12		12
1220		160		(0.13	2	10.0	0.	121	6.79		11		
1225	691	160	3.3 gd		0.1		(0.0		21	6.70		10		1 / 1 I
1238			, .		0.1		10.0	0.9	20	6.7		(0	1	9.9
1245	6.91		3.5 gal		0.1	4	9,9	0,9		6.78		10		8.9
1250	Co	lect so	unale for	10	Cs		1.5%							
			ALBWZ	20	197									
													\top	

	SAIVI	PLING R	EC	UKI				יע		
SENECA	ARMY D	DEPOT ACTIVITY			PAR	SON	IS		WELL #: MU	UT-25
PROJECT:		Ash Landfill L'	TM Grou	indwater S	Sampling	- Round	10		DATE: 12	
LOCATION	:		RON	IULUS, N	Y				INSPECTORS: 1	The same of the sa
*****	N I PIET IN	CONDUCTIONS CHEC	UI IOT	(D	ECODI	MATOR	CHANGES	-	PUMP #: Bladd	47-19-94
WEATHER	(/ FIELD	CONDITIONS CHEC	REL			ROM)	GROUND / S		SAMPLE ID #: ALBW 2619	8
TIME	TEMP	WEATHER	HUMIDI			ECTION	SURFACE	li-	MONIT	
(24 HR)	(APPRX)	(APPRX)	(GEN	(APP	RX) (0	- 360)	CONDITIO	NS	INSTRUMENT	DETECTOR
1117	21	clear shy		-6	54	J-7NE			OVM-580	PID
1214		clouds noval in					Grand No 8 No	_	and the second s	
DIAMETER (E GALLONS / I LITERS/FO	NCHES): FOOT:	0.25 1 2 0.0026 0.041 0.163 0.010 0.151 0.617	3 0.367 0	4 6 .654 1.47 .475 5.564	ONE		X WELL	DIAME	STABILIZED WATER LETER FACTOR (GAL/FT)	1
criba U-5		DEPTH TO POINT		DEPTH TO	SCREEN		WELL		WELL.	WELL
SI OS #		(TOC)		TOP OF CREEN (TOC)	LENGTH- (FT)	D	EVELOPMENT TURBIDITY		DEVELOPMENT pH	DEVELOPMENT SPEC. COND
Latotto # C		12,95+0,27	'							
				DEPTH			DEPTH TO	+	DEPTH TO PUMP	PUMPING STAR
DATA COLLEC WELL SI		PID READING (OPENING WELL)		STATI WATER LEV			STABILIZED FER LEVEL (TOC)		INTAKE (TOC)	TIME
				5,5	5					
RADIATION SCI	REENING	PUMP PRIOR TO SAMPLING (cps)					PUMP AFTER AMPLING (cps)		130V 012	17514060
		ITORING DATA		ECTED		NG P	URGING	OP	ERATIONS	
TIME WATER (min) LEVEL I	PUMPING RATE (ml/min)	CUMULATIVE VOL (GALLONS)	422.4033	SOLVED SEN (mg/L)	TEMP (C)		COND nhos)	рН	ORP (mV)	TURBIDITY (NTU)
500	Bladd	r Purp Ston	14							
129 5.11	Bladder	grans Chul	,							
145 6.27	114	7-77 51-11	2.	13	9.4	1.1	8 I	77	+ 73	108.5
156 6.70	140	flumber		86	9.3	11		.24		84.1
155 691	114	I tocache A		83	9.3	1.1	•	. 27		65.7
7.00	11/2		1.7		-	1.1		_		55.4
200 7.00	110	2075 1	1.7		9.2	1.1		. 23		
	7.20.20.00	~0.75gals	1.3		9.3				-35	46.5
210 7,29	112	01 1 .	1.1		9.3	1.1		17		37.0
215 7.48		flow rate of	1.0		9.3	1.1		.16		29.2
220 7.65		~1.25gals	0.9		9.3	1.2	26 7.	14	-68	25.8
225 7.75	124		0.	72	9.3	1.3	21 7	14	-75	17.3
230 7.85	106	~1.75gals	0.	63	9.3	1.3		141		10.90
	112			60	9.7			.13		10.2
240 8,07	112		0.5		9.3	1.2		.13		8,5
2458.21			0.5		9.3			. 13		7,27
250 8,31		~2.259ds	0.5		9.3			lo		6,4
	106	7003	0.9		9.3	AND DESCRIPTION OF THE PERSON NAMED IN		.10		4,58
300 8.55			0.1		9.3			. 11		
	110	2.75gals								3.73
		- GITSHALS	U.	てナ	9.4	1.6	22 7	.10	-95	3.09
305 8.69	110	12							0	
	110	13.0	0.4		9.5	1.2	-3 7.	11	-94	2.59

SI	ENECA	ARMY DI	EPOT ACTIVITY	7		- 1	PA	RS	ON	s		WE	LL #: M	W	T-26
140.70	OJECT: CATION		Ash Landfill I			us, NY		ng - R	Round	10			DATE: PECTORS: AP #: #85	12/1	9/10 Bladder
W	EATHER	R/ FIELD C	CONDITIONS CHEC	CKLIST	r	(RI	COR			CHANC			PLE ID #		
					EL.	WIN	-	(FR	,	GROUNI	1	AL	BW20	-	
	ME	TEMP	WEATHER (APPRX)		EN)	(APPI		(0 - 3		SURF		INS	MON		ETECTOR
(24	HR)	(APPRX)	(AFFRA)	(6)	511)	(AIII	(1)	(0-5	,00)	COMBI	110110	11.10	OVM-58		PID
														DIFFE	
G/	METER (I	NCHES): FOOT:	ME CALCULATION F4 0.25 1 2 0.0026 0.041 0.163 0.010 0.151 0.617	0.367 1.389	4 0.654 2.475	6 1.47 5.564			-2 %	X W	ELL DIAM	ETER I	FACTOR (GAL	(FT)]	3,5
	u U-	2#152	01010	1,365	DEP	TH TO	SCRE		D	WELL	NT	DE	WELL	T	WELL
		OZ 403	OF WELL (TOC)		0.1000	P OF N (TOC)	(FT			TURBIDITY		DE	pH	+	SPEC. COND
YSD	75 #	-3210	-12,65												
	TA COLLEC		PID READING			DEPTH T	0			DEPTH TO STABILIZED	D	DEI	PTH TO PUMP INTAKE	PU	JMPING START TIME
	WELL SI	TE	(OPENING WELL)		_	.43	L (TOC	+	WAT	ER LEVEL	(TOC)		(TOC)	+	
RAD	IATION SC	REENING	PUMP PRIOR TO			٠٩٥		+		PUMP AFTE			2312 (21)	_	OLV MA
	DATA		SAMPLING (cps)	-		TED	DU			MPLING (ED	ATIONS		
TIME	WATER	PUMPING	TORING DATA CUMULATIVE VOL	_	DISSOLV	ED	TEN			COND	NG OI	EK	ATIONS		TURBIDITY
(min)		RATE (ml/min)	(GALLONS)	03	CYGEN ((C	+	(un	nhos)	/ / 1	-	(mV)	14	(NTU)
1.20	9.79	71010	, re rump	esla		28/	2/	va	p.1	stal	es 5	7	: 33	5/20	Shand
9'65	C96	Tubin	grozen 10	e pia	, 1	6	9.4	/	2.	03	7.16	-	185		
760	6.59	110		+	4 2 -	7 .	9.3		2.		7.2	$\overline{}$	183		120
916	(97	90		+	3.7	6	9.	_		00	7.31	-	102	,	70
920	690	90			3,5	_	9	_	1,	97	7.3	-	183		45
925	7.08	90			3.6		9.	_	1.	95	7.3	_	184	,	37
930	7.13	88			3.3		9.	_		94	7.3	_	183	,	31
935	- 4	88			3.0	7	9,	_		94	7.3		183	3	31
	7.28	96			2,6		9:	_	_	92	7.3		181		24
	1,39	96			2.2		9:			90	7.3		179	8	19
	746	96			7,		9:			88	7.3	3			14
955	1.55	92			1.3		9:			82	7.3	0	176		7.3
	7,60	192			1.1		9:	_	1.7		7,2	7	169		4.2
1005	7.69	92			0,9		9		1.		7.3	2	164		2.4
10 10	7,78	90	~ 2 gal		0.8		9.		40		7.2		162		2.3
1015	7.85	90	,		0.		9	6	1.6		7.1		158		3.6
	7.93	90			0,6	3	90	6	1.0	6	7.1		156		2.2
	7.98		~ 2.5 oal		0,	59	9,		1:6		7.0	9	152		1.7
1025												,			
10 30	8.04	90	/	1	0,	5	9.	6	1.6	>	7.0	/	148		0.50

SENECA	ARMY I	DEPOT ACTIVITY	,			PAF	SON	us .		WE	LL #: M	WT-2
PROJECT LOCATIO		Ash Landfill L			water Sa LUS, NY	mpling	- Roun	d 10	(30)	INSI	DATE: / PECTORS: IP #:3	2/19/10 Dillman
WEATHE	R / FIELD	CONDITIONS CHEC	KLIS	Т	(RE	CORD	MAJOR	CHAN	GES)		IPLE ID #:	7 4 0311
***************************************	TILLED			EL.	WIN				ND / SITE		BWZOZ	OZ
TIME	TEMP	WEATHER	HUM	IIDITY	VELOCI	TY DIE	RECTION	SUR	FACE		MONIT	ORING
(24 HR)	(APPRX)	(APPRX)	(G	EN)	(APPR	X) ((- 360)	COND	ITIONS	INS	TRUMENT	DETECTO
						_					OVM-580	PID
DIAMETER (I GALLONS/ LITERS/F	INCHES); FOOT: FOOT	UME CALCULATION FAC 9.25 1 2 0.0026 0.041 0.163 0.010 0.151 0.617	0,367 1,389	4 0.654 2.475	6 1.47 5.564				WELL DIAM		ILIZED WATER I. ACTOR (GAL/FT)	
Herita U-T	2 # 152	94 DEPTH TO POINT OF WELL			TH TO P OF	SCREEN LENGTH	D	WELL EVELOPMI	ENT	DE	WELL VELOPMENT	WELL DEVELOPMEN
LAMOHO #	DATA CZ HOZ	(TOC)	,	SCREE	N (TOC)	(FT)		TURBIDIT	10.000		pH	SPEC. COND
VSI 85 #	£3710	~12.65										
DATA COLLEG	CTED AT	PID READING (OPENING WELL)		WAT	DEPTH TO STATIC TER LEVEL			DEPTH TO STABILIZE ER LEVEL	ED .	DEP	TH TO PUMP INTAKE (TOC)	PUMPING STA
					5.43	-				2		
RADIATION SC DATA		PUMP PRIOR TO SAMPLING (cps)						PUMP AFT		757	0 = 01 = 8	7/31///17
2/1/4		ITORING DATA	CO	LLEC	TED	DUR	-	URGI		FRA	TIONS	
TIME WATER	PUMPING	CUMULATIVE VOL	1	DISSOLV	ED	TEMP		COND			ORP	TURBIDI
	RATE (ml/min)	(GALLONS)	03	YGEN (r		(C)	-	nhos)	pH		(mV)	(NTU)
040 8.14	U			0,5	96	9.7	1	12	7.0	<u>_</u>	141	20
1045 8.20	90			0,5	4	9,6	1.	62	6.90		137	0.75
1050 9.25	90			0,5	6	9.7	1.	61	6.9	7	133	0.39
1055 8.32	90			0.5	6	9.7	1.6	/	6.9	5	130	1,6
1100 8.37	90		0	1.5	6	47	1.1	1	6.9	3	127	1.6
1105 839	90	- 3.8		.50	2	92	1	2	6.9		125	0.6
1110 8.46	90			1.55	-	07	1/	3	(0	2	122	2 36
1115 8.52	90				1	70	1 . 0		8.8			10017
	10	401	-	154		2.8	1.6	-	6.8.		118	1607
120 8.54	90	4.0 gcl		1.5	-	9.7	1.6		6.8		115	0.4
1125 8.62		•		0.5		9.8			6.8		113	0.55
130 8,68	90			9650		9,8	1.7		6.79		110	0.60
1135 8:14	90	, .	_ (0,5	0	9.8	1.7		6.7	7	109	0.60
145 Cal	lect &	emple for V	UL,	ME	to 9		te	TOC	bus	F, El	ferror	Jan 9
					1		,					
		Fet: 0.13										
		Mn: 0.0	mg	1/								
			/									
										\top		
										+		-
					_					+		

SAMPLING RECORD - GROUNDWATER Lof Z WELL #: MWT- ZF SENECA ARMY DEPOT ACTIVITY PARSONS DATE: 12/18/16 Ash Landfill LTM Groundwater Sampling - Round 10 PROJECT: INSPECTORS: BBO ROMULUS, NY LOCATION: PUMP#: #5516 Bladde WEATHER / FIELD CONDITIONS CHECKLIST (RECORD MAJOR CHANGES) SAMPLE ID #: ALBW 20203 REL. WIND (FROM) GROUND/SITE MONITORING TIME TEMP WEATHER HUMIDITY VELOCITY DIRECTION SURFACE (24 HR) APPRX (APPRX) (GEN) (APPRX) (0 - 360)CONDITIONS INSTRUMENT DETECTOR cloudy 210 SW-TNE frozen 13(OVM-580 PID NO SHOW WELL VOLUME CALCULATION FACTORS ONE WELL VOLUME (GAL) = [(POW - STABILIZED WATER LEVEL) DIAMETER (INCHES): X WELL DIAMETER FACTOR (GAL/FT)] 0.25 0.041 0.163 0.367 0.654 3.29 5als GALLONS / FOOT: 0.0026 1.47 1.07 K3 = 3 Vols LITERS/FOOT 0.010 0.151 0.617 1 389 2.475 5.564 DEPTH TO POINT WELL WELL Herslay U-52#14200 DEVELOPMENT OF WELL TOP OF LENGTH DEVELOPMENT DEVELOPMENT (TOC) SCREEN (TOC) (FT) TURBIDITY pH SPEC. COND 12.9 DEPTH TO DEPTH TO DEPTH TO PUMP PUMPING START DATA COLLECTED AT PID READING STATIC STABILIZED INTAKE TIME WELL SITE (OPENING WELL) WATER LEVEL (TOC) WATER LEVEL (TOC) (TOC) 6.16 PUMP AFTER SAMPLING (cps) PUMP PRIOR TO SAMPLING (cns) RADIATION SCREENING MONITORING DATA COLLECTED DURING PURGING OPERATIONS WATER PUMPING CUMULATIVE VOL DISSOLVED TEMP TIME SPEC, COND TURBIDITY LEVEL RATE (ml/mir (GALLONS) OXYGEN (mg/L) (C) (umhos) pΗ (mV) (NTU) YSI YST alotto เรียร 9.5 0.14 2.49 -86 6.53 60 9.5 2.47 0.09 -84 66 -96 6 2.45 0.06 20.759219 6.50 ~ 1.0 gals 0,07 2.46 -106 0.06 6.46 78.6 ~1.254415 1356 11 0.06 2.47 4 ~1.5 sals 401 0.06 2.43 ~1.75auls 1406 11 0.05 35.5 6.61 ~ 7.0 9963 0.04 2.42 28,3 ~2.25 59/5 1416 6.59 0.04 1421 0.04 6.44 -117 2,37 18.2 14266.60 ~ 2.5 gals 9.8 66 0.04 2.37 6.44 -111 7.0 ~2.75 sals 7.7 1431 11 0.06 2.36 62 -110 8 14366.61 ~3.0 sels 0.05 9.8 -110 2,35 5.3 0.06 61 9.8 2.33 28 -109 5,5 13,254415 0.08 6.61 9.7 2.31 -109 0.07 1451 6.60 ~3,5 5als 9. Z 2.28 12.7 -108 0.07 9.7 6.61 2.29 -109 0.07 9.8 2.28 501 -109 97 0.06 225 1506 -109

SAMPLING RECORD - GROUNDWATER 2062 WELL #: MUT-27 PARSONS SENECA ARMY DEPOT ACTIVITY PROJECT: ASh Land SilseAD-16/17 LTM Groundwater Sampling - Round 4 16 DATE: 12/13/16 INSPECTORS: BBO LOCATION: ROMULUS, NY PUMP #: #8516 Tladde SAMPLE ID #: WEATHER / FIELD CONDITIONS CHECKLIST (RECORD MAJOR CHANGES) ALBWZ0203 REL. WIND (FROM) GROUND/SITE WEATHER MONITORING TIME TEMP HUMIDITY VELOCITY DIRECTION SURFACE (APPRX) (APPRX) (GEN) (APPRX) (0 - 360)CONDITIONS INSTRUMENT (24 HR) DETECTOR OVM-580 PID ONE WELL VOLUME (GAL) = [(POW - STABILIZED WATER LEVEL) DIAMETER (INCHES): 0.25 X WELL DIAMETER FACTOR (GAL/FT)] 0.367 0.041 0.162 0.654 GALLONS / FOOT: 0.0026 1.47 = 3.29 sals 1.09 X3 3 Vols 1.389 LITERS/FOOT 0.010 0.151 2 475 5 564 DEPTH TO POINT DEPTH TO OF WELL TOP OF LENGTH DEVELOPMENT DEVELOPMENT DEVELOPMENT HISTORIC DATA (TOC) SCREEN (TOC) pН (FT) TURBIDITY SPEC COND 12.9 DEPTH TO DEPTH TO DEPTH TO PUMP PUMPING START DATA COLLECTED AT PID READING STABILIZED STATIC INTAKE TIME WELL SITE (OPENING WELL) WATER LEVEL (TOC) WATER LEVEL (TOC) (TOC) RADIATION SCREENING PUMP PRIOR TO PUMP AFTER MONITORING DATA COLLECTED DURING PURGING OPERATIONS YS EDISSOLVED XYGEN (mg/L) TIME WATER PUMPING CUMULATIVE VOL TURBIDITY RATE (ml/min (GALLONS) pН (mV) (NTU) 24.25305 6.61 9.7 1511 166 0.06 6.43 -111 2.24 8.49 1516 2.22 11 0.05 6.47 8.91 ALBW20203 P 1523 VOC Vorels Vouls MEE 3.30 Pursed 24.5 sals Tota

	SA	MP]	LING R	E	CO	RD	-	GR	OU	ND	WATEI	3	
SENE	CA ARM	Y DEP	OT ACTIVITY			-	PAR	SON	IS		WELL #: M	wT-	28
PROJE LOCAT			Ash Landfill L			vater S	-	- Round	10			2//8	110
WEAT	HER/ FIE	LD CO	NDITIONS CHEC						CHAN	GES)	SAMPLE ID #:	0//	
TIME	TEN	AD.	WEATHER		EL.	VELOC		FROM)	GROUN	FACE	ALBW202	ORING	2
(24 HR)	1 3 3 3 3	1000	(APPRX)	177	EN)	(APPI		- 360)	72370	-	INSTRUMENT		ECTOR
											OVM-580		PID
													H. SILVE
GALLO	WELI R (INCHES): NS / FOOT: RS/FOOT		026 0.041 (0.163	0.367 1.389	4 0.654 2.475	6 1.47 5.564	ONE			VELL DIAME	TERFACTOR (GAL/FI	01	3 Vals
Heriba U.	52# L	5290	DEPTH TO POINT OF WELL		100000	FH TO P OF	SCREEN LENGTH	D	WELL	ENT	WELL DEVELOPMENT	5100000	WELL LOPMENT
YST OS	RIC DATA	<u>,</u>	(TOC)	,	SCREE	N (TOC)	(FT)		TURBIDIT	2000	pН	0.5100	C. COND
Lirotto	# 024	03	12.85				- 1	1					
	LLECTED AT		PID READING (OPENING WELL)		WAT	DEPTH T STATIC ER LEVE			DEPTH TO STABILIZE ER LEVEL	D	DEPTH TO PUMP INTAKE (TOC)		NG START TIME
			+		6	.10							
	N SCREENING ATA		PUMP PRIOR TO SAMPLING (cps)						PUMP AFTI AMPLING (
1	N	ONITO	DRING DATA	CO	LLEC	TED	DURI	NG P	URGIN	NG OPE	RATIONS		
TIME WATE (min) LEVI			CUMULATIVE VOL (GALLONS)		YGEN (I		TEMP (C)	V/1003	COND thos)	рН	ORP (mV)	Т	(NTU)
1336 60	6 Pu	me	installed	Pr	e n	Juno	Len	el.					,,,,,
1340		ALT	- pymp	/	6	SE	YSI					4	a Motte
1344 6.3			•	(0.0		10.2	0.5	-68	6.55	-40		
1350 6.3	+			(0.10		10.1		70	6.52	-47	4	17.54
1355 6.61	0 170			0	0.0	7	10.0	0.5	88	646	-57	-	40
1400 6.6		0	1.5 gal	_	.08	,	10.0		00	6.43	-63		30
1405 6.6	2 170		J		5.08	3	10.	0.6	12	6.41	-69		23
1410 6.6	2 170				0,0	7	10.1	0.6	22	6.38	-73		18
1415 6.6		2			0.0	7	10.1	0.6	43	6.36	100 100 100 100		14
M20 6.6	4 172	-		0	.08		10.0		57	6.35			12_
1425 6.6	4 172	-	3 gal.		2-10		10,0	0.67		6.33	- 85		17_
1430 66	4 172	-		- (3,10		10.1	0.6		6.33		91	11
1435 6.6					0.0	8	10.1	0.	101	6.32		9	.8
1440 6.7	-4				,08	3	10.1	0,7	29	6.31	- 91	9	1.7
1445 6.6			- 4ggl	0	.08	,	10.1	0.7	51	6.30			6.8
1450 6.6			,	0	.07		10.1	0.7	66	6.29			6.0
1455 6.6				0	.07		10.2	0.	173	6.29	-96		6.2
1500 6.6)		2	.06		10.2	0.	191	6.28			5.7
1505 6.6			-5gal		.67		10.2	100000000000000000000000000000000000000		6.28	- 99		4.9
1510 6.6			1	C	.07		10.2	0.4	02	6.28	-100	4	4.5.
1515	collect	Sam	le for Voc	-5,1	YEE	7.7	bc,	Sulf	re	Fer	WS Iron &	Myn /	field

C:\Documents and Settings\c0010112\My Documents\Field Forms\Field Forms for OB & S-25 GW.xls

Pursed ~6.0 gas Total

M1 = 5.8

SAMPLING RECORD - GROUNDWATER L. FZ WELL #: MWT-Z9 PARSONS SENECA ARMY DEPOT ACTIVITY DATE: 12/19/10 Ash Landfill LTM Groundwater Sampling - Round 10 PROJECT: INSPECTORS: BBO ROMULUS, NY LOCATION: PUMP #: Bladder # 16908 (RECORD MAJOR CHANGES) SAMPLE ID #: WEATHER / FIELD CONDITIONS CHECKLIST ALBW20205 WIND (FROM) GROUND/SITE MONITORING SURFACE TEMP WEATHER HUMIDITY VELOCITY DIRECTION TIME (APPRX) INSTRUMENT DETECTOR (GEN) (0 - 360)CONDITIONS (APPRX) (APPRX) (24 HR) 24 Frozen clear sky 5-7N PID OVM-580 21 816 lastnaht frost from ONE WELL VOLUME (GAL) = J(POW - STABILIZED WATER LEVEL) WELL VOLUME CALCULATION FACTORS X WELL DIAMETER FACTOR (GAL/FT)] DIAMETER (INCHES): 0.25 (0.163 0.367 0.654 1.47 0.041 1.113els X3 = 3.342els (3 vels) GALLONS / FOOT: 0.0026 5.564 LITERS/FOOT 0.010 0.151 0.617 1 389 2 475 WELL WELL. DEPTH TO POINT U-52# 14206 DEVELOPMENT LENGTH DEVELOPMENT DEVELOPMENT OF WELL TOP OF SPEC. COND TURBIDITY HISTORIC DATA (TOC) SCREEN (TOC) (FT) pH 1. He # 02933 13.1 YSI 85 # 6122 PUMPING START DEPTH TO PUMP DEPTH TO DEPTH TO DATA COLLECTED AT PID READING STATIC STABILIZED INTAKE (OPENING WELL) WATER LEVEL (TOC) WATER LEVEL (TOC) (TOC) WELL SITE 6.281 PUMP AFTER RADIATION SCREENING PUMP PRIOR TO DATA SAMPLING (cps) DURING PURGING OPERATIONS COLLECTED MONITORING DATA TURBIDITY SPEC. COND PUMPING CUMULATIVE VOL DISSOLVED TEMP WATER (C) (mV) (NTU) (GALLONS) OXYGEN (mg/L) (umhos) LEVEL RATE (ml/min (min) 834 6.07 udele creachs 104 848 32 6.96 159 112 6.81 6.94 146 0.98 9.4 3 139 823 7.01 25.4 8587.18 03 6.94 119 18.7 104 **1**692 903 7.30 1.04 112 9.4 6.98 7,36 82 104 908 00 1.5 99 7.39 7.04 11.8 913 148 1.01 ~ 1.0 gals 6.96 918 7.48 108 1.04 9.5 90 9.78 6.98 8.05 923 7.58 124 9.4 84 .15 928 7.64 9.3 6.98 75 5.37 1.10 21.5926 6.96 933 128 0.96 71 3.74 938 7.82 98 0.89 9-3 1.30 7.00 61 2.35 1.29 943 7.89 108 9.3 6.97 54 0.83 230 114 .755als 0.80 9.3 1.29 6.93 48 1.45 948 7.94 0.77 1.25 88 9.4 36 953 8.00 28 89 0.73 958 8.03 9.4 0-79 1.28 6.87 32 0.68 1003 8,13 9.4 6.83 .31 008 8.17 0.61 112 28 24 1.51 6.80 2,25 gals 10138.22 0.67 22 9.4 6,80 1.32 1018 8,27 ~ 2,5 ,als 0,64 19 1.5% 90 9.4 . 29 6.82

		SAM	PLING R	E	CO	RD	-	GR	OU	ND	W	ATER	120	,fz
S	ENEC.	A ARMY I	DEPOT ACTIVITY			F	PAR	SON	IS		WE	ELL #: M	UT-7	29
150%	ROJECT CATIO		Ash Landfill L			water Sar LUS, NY	npling	- Round	10	-	INS PUN	DATE: 12, PECTORS: 7 MP #: 13 lodg	330	
W	EATHE	R/ FIELD	CONDITIONS CHEC			_		MAJOR				APLE ID #:	-	
700	D. CE	TENTO	WE ATTIED		EL.	WIND		ROM)		FACE	AL	BWZOZ MONITO		
6.50	IME (HR)	(APPRX)	WEATHER (APPRX)	-	IDITY EN)	(APPR)		- 360)		ITIONS	INS	TRUMENT		ECTOR
(2)	1111)	(//////////////////////////////////////	(333333)	1		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	-/- \-					OVM-580		PID
G.	METER (ALLONS LITERS/	(INCHES): / FOOT:	0.25 1 2 0.0026 0.041 (.163) 0.010 0.151 0.617	TORS 3 0,367 1,389	4 0.654 2.475	6 1.47 5.564	ONE	WELL VO			ETERI	ILIZED WATER LI FACTOR (GAL/FT) 3.345al	1	Wels)
Herba		5z # 14z			DEP	THE	SCREEN	Б	WELL EVELOPM	ENT		WELL EVELOPMENT	W	ELL. OPMENT
VETE	-	DATA 6122	(TOC)			EN (TOC)	(FT)		TURBIDIT	77.67	DE	pH		COND
		02133	13.1											
		CTED AT	PID READING (OPENING WELL)		(TOC)		DEPTH TO STABILIZI ER LEVEI	ED	DEI	PTH TO PUMP INTAKE (TOC)		IG START IME		
RAD	IATION S DAT	CREENING A	PUMP PRIOR TO SAMPLING (cps)	ER (cps)										
		MON	NITORING DATA	NG OP	ERA	TIONS	La	Tota						
TIME (min)	WATER LEVEL	PUMPING RATE (ml/min)	CUMULATIVE VOL (GALLONS)	121	DISSOLV (YGEN (TEMP (C)	~SPEC	COND	pH		ORP (mV)	T	URBIDITY (NTU)	
1023	8.29	290	2.5 32ls	8	15	8 4	2.5	1.2	9	6.7	7	22	1.	23
1028	8.35	97		0	.5	5	9.5	1.2	9	6.74	+	22	2	20
1033	8.41	104	~2.75 sels	0	.5	8 "	1.5		0	6.79	_	19	1	103
1038	8.43	106	~3.0 gels	0.	56	, (1.5	1.3		6.71		22		07
		3000											<u> </u>	
1043	S	mples	Collected	AL	R6)	202	05	@10	43					
		,							+;	0.7	6	~5/,		
		Queens	23,2 sals	7	Tota	1		140	!	6.4	~7/	1		
		rangen	,,,,,	_		1		, 10			7	-	+	
				1							+			
						_					+		+	
						+					+		-	
											+		-	_
											+		+	
						-					+			
						-					+			
_											+		_	
				-							+			
_														
		1200									_			
										1				

APPENDIX B

COMPLETE GROUNDWATER DATA

Facility Location ID Matrix Sample ID Sample Date QC Code Study ID Sampling Round			Frequency		Number	Number	Number	ASH LANDFILL PT-18A GW ALBW20059 1/3/2007 SA LTM 1	ASH LANDFILL PT-18A GW ALBW20074 3/17/2007 SA LTM 2	ASH LANDFILL PT-18A GW ALBW20088 6/5/2007 SA LTM 3	ASH LANDFILL PT-18A GW ALBW20103 11/15/2007 SA LTM 4	ASH LANDFILL PT-18A GW ALBW20117 6/24/2008 SA LTM 5	ASH LANDFILL PT-18A GW ALBW20132 12/12/2008 SA LTM 6
Parameter	Units	Maximum Value	of Detection	Cleanup Goals ¹	of Exceedances	of Times Detected	of Samples Analyzed	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)
Volatile Organic Compounds									()	(-1,7	(,	(/	(-1,7
1,1,1-Trichloroethane	UG/L	0.76	3%	5	0	4	148	1 U	1 U	1 U	1 U	1 U	0.26 UJ
1,1,2,2-Tetrachloroethane	UG/L	0	0%	5	0	0	148	1 U	1 U	1 U	1 U	1 U	0.21 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	UG/L	0	0%	5	0	0	148	1 U	1 U	1 UJ	1 U	1 UJ	0.31 U
1,1,2-Trichloroethane	UG/L	0	0%	1	0	0	148	1 U	1 U	1 U	1 U	1 U	0.23 U
1,1-Dichloroethane	UG/L	1.1	9%	5	0	14	148	1 U	1 U	1 U	1 U	1 U	0.75 U
1,1-Dichloroethene	UG/L	2.1	11%	5	0	16	148	0.64 J	0.73 J	1.4	2.1	1 U	1.3
1,2,4-Trichlorobenzene	UG/L	0	0%	5	0	0	148	1 U	1 U	1 U	1 U	1 U	0.41 U
1,2-Dibromo-3-chloropropane	UG/L	0	0%	0.04	0	0	148	1 U	1 U	1 U	1 U	1 UJ	1 UJ
1,2-Dibromoethane	UG/L	0	0%	0.0006	0	0	148	1 U	1 U	1 U	1 U	1 U	0.17 U
1,2-Dichlorobenzene	UG/L	0	0%	3	0	0	148	1 U	1 U	1 U	1 U	1 U	0.2 U
1,2-Dichloroethane	UG/L UG/L	5.6	13%	0.6	16	19	148	1 U	1 U	1 U	1 U	1 U	0.21 U
1,2-Dichloropropane 1,3-Dichlorobenzene	UG/L	0 0	0% 0%	3	0 0	0 0	148 148	1 U 1 U	1 U 1 U	1 U 1 U	1 U 1 U	1 U 1 U	0.14 U 0.16 U
1,4-Dichlorobenzene	UG/L	0	0%	3	0	0	148	1 U	1 U	1 U	1 U	1 U	0.16 U
Acetone	UG/L	2600	25%	3	0	37	148	5 U	2 J	7	5 U	5 U	1.3 U
Benzene	UG/L	0	0%	1	0	0	148	1 U	1 U	, 1 U	1 U	1 U	0.16 U
Bromodichloromethane	UG/L	0	0%	80 ^b	0	0	148	1 U	1 U	1 U	1 U	1 U	0.10 U
Bromoform	UG/L	0	0%	80 b	0	0	148	1 U	1 U	1 U	1 U	1 U	0.26 U
Carbon disulfide	UG/L	0	0%	00	0	0	148	1 U	1 U	1 U	1 U	1 U	0.19 U
Carbon tetrachloride	UG/L	0	0%	5	0	0	148	1 U	1 U	1 U	1 U	1 U	0.27 UJ
Chlorobenzene	UG/L	0	0%	5	0	0	148	1 U	1 U	1 U	1 U	1 U	0.18 U
Chlorodibromomethane	UG/L	0	0%	80 ^b	0	0	148	1 U	1 U	1 U	1 U	1 U	0.32 U
Chloroethane	UG/L	1.1	5%	5	0	7	148	1 U	1 U	1 U	1 U	1 UJ	0.32 U
Chloroform	UG/L	27	10%	7	4	15	148	27	13 U	14	8.7	1 U	2.2
Cis-1,2-Dichloroethene	UG/L	720	84%	5	98	124	148	220	170	430	720	200	510
Cis-1,3-Dichloropropene	UG/L	0	0%	0.4	0	0	148			1 U		1 U	0.36 U
Cyclohexane	UG/L	0	0%		0	0	148	1 U	1 U	1 U	1 U	1 U	0.22 U
Dichlorodifluoromethane	UG/L	0	0%	5	0	0	148	1 U	1 U	1 U	1 U	1 U	0.28 UJ
Ethyl benzene	UG/L	1.3	6%	5	0	9	148	1 U	1 U	1 U	1 U	1 U	0.18 U
Isopropylbenzene	UG/L	0	0%	5	0	0	148	1 U	1 U	1 U	1 U	1 U	0.19 U
Methyl Acetate	UG/L	6	1%		0	2	148	1 U	1 UJ	1 U	1 UJ	1 UJ	0.17 U
Methyl Tertbutyl Ether	UG/L	0	0%		0	0	148	1 U	1 U	1 U	1 U	1 U	0.16 U
Methyl bromide	UG/L	0	0%	5	0	0	147	1 U	1 U	1 U	1 U	1 UJ	0.28 U
Methyl butyl ketone	UG/L	0	0%		0	0	148	5 U	5 U	5 U	5 UJ	5 UJ	1.2 U
Methyl chloride	UG/L	0	0%	5	0	0	148	1 U	1 U	1 U	1 U	1 UJ	0.34 U
Methyl cyclohexane	UG/L	0	0%		0	0	148	1 U	1 U	1 U	1 U	1 U	0.22 U
Methyl ethyl ketone	UG/L	4900	14%		0	21	148	5 U	5 U	5 U	5 U	5 UJ	1.3 U
Methyl isobutyl ketone	UG/L	0	0%		0	0	148	5 U	5 U	5 U	5 U	5 UJ	0.91 U
Methylene chloride	UG/L	18	8%	5	7	12	148	1 UJ	1 U	1 U	1 U	1 U	0.44 UJ
Styrene	UG/L	0	0%	5	0	0	148	1 U	1 U	1 U	1 U	1 U	0.18 U
Tetrachloroethene	UG/L	0	0%	5	0	0	148	1 U	1 U	1 U	1 U	1 U	0.36 U
Toluene	UG/L	590	18%	5	16	27	148	1 U	1 U	1 U	1 U	1 U	0.51 U
Total Xylenes	UG/L	0	0%	5	0	0	148	3 U	3 U	3 U	3 U	3 U	0.93 U
Trans-1,2-Dichloroethene	UG/L	8	47%	5	3	69	148	1.6	1.4	3.3	3.4	0.9 J	2.4
Trans-1,3-Dichloropropene	UG/L	0	0%	0.4	0	0	148	1 U	1 U	1 U	1 U	1 U	0.37 U

Facility Location ID Matrix Sample ID Sample Date QC Code Study ID Sampling Round			Frequency		Number	Number	Number	ASH LANDFILL PT-18A GW ALBW20059 1/3/2007 SA LTM 1	ASH LANDFILL PT-18A GW ALBW20074 3/17/2007 SA LTM 2	ASH LANDFILL PT-18A GW ALBW20088 6/5/2007 SA LTM 3	ASH LANDFILL PT-18A GW ALBW20103 11/15/2007 SA LTM 4	ASH LANDFILL PT-18A GW ALBW20117 6/24/2008 SA LTM 5	ASH LANDFILL PT-18A GW ALBW20132 12/12/2008 SA LTM 6
		Maximum	of	Cleanup	of	of Times	of Samples						
Parameter	Units	Value	Detection	Goals 1	Exceedances		Analyzed	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)
Trichloroethene	UG/L	2700	70%	5	55	103	148	2000	1000	1100	2700	220	1400
Trichlorofluoromethane	UG/L	0	0%	5	0	0	148	<u>1</u> U	<u>1</u> U	1_UJ	1 U	1 UJ	0.15 UJ
Vinyl chloride	UG/L	180	66%	2	85	97	148	2.4	2.9	3.3	8.2	1.4	4.6
Other													
Iron	UG/L	296000	100%		11	12	12						
Iron+Manganese	UG/L	352900	100%		12	12	12						
Manganese	UG/L	56900	100%		12	12	12						
Ethane	UG/L	98	90%		0	65	72						
Ethene	UG/L	200	90%		0	65	72						
Methane	UG/L	23000	96%		0	69	72						
Sulfate	MG/L	1060	72%	250000	2	52	72						
Total Organic Carbon	MG/L	2050	100%	200000	0	72	72						

- 1. The cleanup goal values are NYSDEC Class GA GW Standards unless noted otherwise.
- a. NYSDEC Class GA GW Standards (TOGS 1.1.1, June 1998).
- b. Federal Maximum Contaminant Level (http://www.epa.gov/safewater/contaminants/index.html)
- 2. Shading indicates a concentration above the GA GW standard.
- U = compound was not detected
- J = the reported value is and estimated concentration
- UJ= the compound was not detected; the associated reporting limit is approximate.

Facility Location ID Matrix Sample ID Sample Date QC Code								ASH LANDFILL PT-18A GW ALBW20147 6/4/2009 SA	ASH LANDFILL PT-18A GW ALBW20162 12/17/2009 SA	ASH LANDFILL PT-18A GW ALBW20177 7/1/2010 SA	ASH LANDFILL PT-18A GW ALBW20192 12/19/2010 SA	ASH LANDFILL MWT-25 GW ALBW20064 1/3/2007 SA	ASH LANDFILL MWT-25 GW ALBW20079 3/17/2007 SA
Study ID								LTM	LTM	LTM	LTM	LTM	LTM
Sampling Round			Frequency		Number	Number	Number	7	8	9	10	1	2
Daramatar	l lmita	Maximum Value	of Detection	Cleanup	of Evandance	of Times	of Samples	Value (O)	Value (O)	Value (Q)	Value (Q)	Value (Q)	Value (O)
Parameter Volatile Organic Compounds	Units	value	Detection	Goals 1	Exceedances	Detected	Analyzed	Value (Q)	Value (Q)	value (Q)	value (Q)	value (Q)	Value (Q)
1,1,1-Trichloroethane	UG/L	0.76	3%	5	0	4	148	0.26 U	1.1 U	0.5 U	0.5 U	1 U	1 U
1,1,2,2-Tetrachloroethane	UG/L	0	0%	5	0	0	148	0.21 U	0.85 U	0.18 U	0.18 U	1 U	1 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	UG/L	0	0%	5	0	0	148	0.31 U	1.2 UJ	0.5 U	0.5 U	1 U	1 U
1,1,2-Trichloroethane	UG/L	0	0%	1	0	0	148	0.23 U	0.92 U	0.13 U	0.13 U	1 U	1 U
1,1-Dichloroethane	UG/L	1.1	9%	5	0	14	148	0.75 U	1.5 U	0.25 U	0.25 U	1 U	1 U
1,1-Dichloroethene	UG/L	2.1	11%	5	0	16	148	0.8 J	2 J	0.11 U	0.11 U	1 U	1 U
1,2,4-Trichlorobenzene	UG/L	0	0%	5	0	0	148	0.41 U	1.6 U	0.25 U	0.25 U	1 U	1 U
1,2-Dibromo-3-chloropropane	UG/L	0	0%	0.04	0	0	148	1 U	1.6 U	0.44 U	0.44 U	1 U	1 U
1,2-Dibromoethane	UG/L	0	0%	0.0006	0	0	148	0.17 U	0.66 U	0.25 U	0.25 U	1 U	1 U
1,2-Dichlorobenzene	UG/L	0	0%	3	0	0	148	0.2 U	0.81 U	0.21 U	0.21 U	1 U	1 U
1,2-Dichloroethane	UG/L	5.6	13%	0.6	16	19	148	0.21 U	0.86 U	0.1 U	0.1 U	1 U	1 U
1,2-Dichloropropane	UG/L	0	0%	1	0	0	148	0.14 U	1.3 U	0.13 U	0.13 U	1 U	1 U
1,3-Dichlorobenzene	UG/L	0	0%	3	0	0	148	0.16 U	1.4 U	0.25 U	0.25 U	1 U	1 U
1,4-Dichlorobenzene	UG/L	0	0%	3	0	0	148	0.16 U	1.6 U	0.28 U	0.28 U	1 U	1 U
Acetone	UG/L	2600	25%		0	37	148	1.3 UJ	5.4 U	5 U	5 UJ	5 U	5 U
Benzene	UG/L	0	0%	1	0	0	148	0.16 U	1.6 U	0.25 U	0.25 U	1 U	1 U
Bromodichloromethane	UG/L	0	0%	80 ^b	0	0	148	0.39 U	1.5 U	0.25 U	0.25 U	1 U	1 U
Bromoform	UG/L	0	0%	80 b	0	0	148	0.26 U	1 U	0.5 U	0.5 U	1 U	1 U
Carbon disulfide	UG/L	0	0%		0	0	148	0.19 U	0.78 U	0.6 U	0.6 U	1 U	1 U
Carbon tetrachloride	UG/L	0	0%	5	0	0	148	0.27 U	1.1 U	0.5 U	0.5 U	1 U	1 U
Chlorobenzene	UG/L	0	0%	5	0	0	148	0.32 U	1.3 U	0.25 U	0.25 U	1 U	1 U
Chlorodibromomethane	UG/L	0	0%	80 b	0	0	148	0.32 U	1.3 U	0.1 U	0.1 U	1 U	1 U
Chloroethane	UG/L	1.1	5%	5	0	7	148	0.32 U	1.3 UJ	1 U	1 U	1 U	1 U
Chloroform	UG/L	27	10%	7	4	15	148	9	3.1 J	2.1	0.27 J	1 U	1 U
Cis-1,2-Dichloroethene	UG/L	720	84%	5	98	124	148	260	630	28	0.54 J	41	84
Cis-1,3-Dichloropropene	UG/L	0	0%	0.4	0	0	148	0.36 U	1.4 U	0.11 U	0.11 U	1 U	1 U
Cyclohexane	UG/L	0	0%		0	0	148	0.53 U	2.1 U	0.25 U	0.25 U	1 U	1 U
Dichlorodifluoromethane	UG/L	0	0%	5	0	0	148	0.29 U	1.1 U	0.25 U	0.25 U	1 U	1 U
Ethyl benzene	UG/L	1.3	6%	5	0	9	148	0.18 U	0.74 U	0.11 U	0.11 U	1 U	1 U
Isopropylbenzene	UG/L	0	0%	5	0	0	148	0.19 U	0.77 U	0.1 U	0.1 U	1 U	1 U
Methyl Acetate	UG/L	6	1%		0	2	148	0.17 U	2 U	0.19 U	0.19 U	1 U	1 UJ
Methyl Tertbutyl Ether	UG/L	0	0%		0	0	148	0.16 U	0.64 U	0.2 U	0.8 UJ	1 U	1 U
Methyl bromide	UG/L	0	0%	5	0	0	147	0.28 U	1.1 UJ	0.8 U	1 U	1 U	1 U
Methyl butyl ketone	UG/L	0	0%		0	0	148	1.2 U	5 U	1 U	0.33 U	5 U	5 U
Methyl chloride	UG/L	0	0%	5	0	0	148	0.35 U	1.4 U	0.33 U	0.1 U	1 U	1 U
Methyl cyclohexane	UG/L	0	0%		0	0	148	0.5 U	2 U	0.1 U	1 U	1 U	1 U
Methyl ethyl ketone	UG/L	4900	14%		0	21	148	1.3 U	5.3 U	1 U	1 U	5 U	5 U
Methyl isobutyl ketone	UG/L	0	0%		0	0	148	0.91 U	3.6 U	1 U	0.2 U	5 U	5 U
Methylene chloride	UG/L	18	8%	5	7	12	148	0.44 U	1.8 U	1 U	1 U	1 U	1 U
Styrene	UG/L	0	0%	5	0	0	148	0.18 U	0.74 U	0.11 U	0.11 U	1 U	1 U
Tetrachloroethene	UG/L	0	0%	5	0	0	148	0.36 U	1.5 U	0.15 U	0.15 U	1 U	1 U
Toluene	UG/L	590	18%	5	16	27	148	0.51 U	2 U	0.33 U	0.33 U	1 U	1 U
Total Xylenes	UG/L	0	0%	5	0	0	148	0.66 U	2.6 U	0.2 U	0.2 U	3 U	3 U
Trans-1,2-Dichloroethene	UG/L	8	47%	5	3	69	148	1.8	3.5 J	0.2 U	0.2 U	0.56 J	1.2
Trans-1,3-Dichloropropene	UG/L	0	0%	0.4	0	0	148	0.37 U	1.5 U	0.21 U	0.21 U	1 U	1 U

Facility Location ID Matrix Sample ID Sample Date QC Code Study ID Sampling Round		Maximum	Frequency of	Cleanup	Number of	Number of Times	Number of Samples	ASH LANDFILL PT-18A GW ALBW20147 6/4/2009 SA LTM 7	ASH LANDFILL PT-18A GW ALBW20162 12/17/2009 SA LTM 8	ASH LANDFILL PT-18A GW ALBW20177 7/1/2010 SA LTM 9	ASH LANDFILL PT-18A GW ALBW20192 12/19/2010 SA LTM 10	ASH LANDFILL MWT-25 GW ALBW20064 1/3/2007 SA LTM 1	ASH LANDFILL MWT-25 GW ALBW20079 3/17/2007 SA LTM 2
Parameter	Units	Value	Detection	Goals 1	Exceedances		Analyzed	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)
Trichloroethene	UG/L	2700	70%	5	55	103	148	810 J	2100	120	6.3	50	55
Trichlorofluoromethane	UG/L	0	0%	5	0	0	148	0.15 U	0.61 UJ	0.25 U	0.25 U	1 U	1 U
Vinyl chloride	UG/L	180	66%	2	85	97	148	2.6	7.1	0.18 U	0.18 U	1.6	9.6
Other													
Iron	UG/L	296000	100%		11	12	12						
Iron+Manganese	UG/L	352900	100%		12	12	12						
Manganese	UG/L	56900	100%		12	12	12						
Ethane	UG/L	98	90%		0	65	72						
Ethene	UG/L	200	90%		0	65	72						
Methane	UG/L	23000	96%		0	69	72						
Sulfate	MG/L	1060	72%	250000	2	52	72						
Total Organic Carbon	MG/L	2050	100%		0	72	72						

- 1. The cleanup goal values are NYSDEC Class GA GW Standards unless noted otherwise.
- a. NYSDEC Class GA GW Standards (TOGS 1.1.1, June 1998).
- b. Federal Maximum Contaminant Level (http://www.epa.gov/safewater/contaminants/index.html)
- 2. Shading indicates a concentration above the GA GW standard.
- U = compound was not detected
- J = the reported value is and estimated concentration
- UJ= the compound was not detected; the associated reporting limit is approximate.

Facility Location ID Matrix Sample ID Sample Date QC Code Study ID			Eroguanov		Number	Number	Number	ASH LANDFILL MWT-25 GW ALBW20093 6/6/2007 SA LTM 3	ASH LANDFILL MWT-25 GW ALBW20108 11/15/2007 SA LTM	ASH LANDFILL MWT-25 GW ALBW20123 6/24/2008 SA LTM	ASH LANDFILL MWT-25 GW ALBW20138 12/15/2008 SA LTM 6	ASH LANDFILL MWT-25 GW ALBW20153 6/3/2009 SA LTM	ASH LANDFILL MWT-25 GW ALBW20168 12/17/2009 SA LTM 8
Sampling Round Parameter	Units	Maximum Value	Frequency of Detection	Cleanup Goals ¹	of Exceedances		of Samples Analyzed	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)	value (Q)
Volatile Organic Compounds	Ullits	Value	Detection	Guais	LACEEdances	Detected	Allalyzeu	value (Q)	value (Q)	value (Q)	value (Q)	value (Q)	value (Q)
1,1,1-Trichloroethane	UG/L	0.76	3%	5	0	4	148	1 U	1 U	1 U	0.26 U	0.26 U	0.26 U
1,1,2,2-Tetrachloroethane	UG/L	0	0%	5	0	0	148	1 U	1 U	1 U	0.21 U	0.21 U	0.21 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	UG/L	0	0%	5	0	0	148	1 UJ	1 U	1 UJ	0.31 U	0.31 U	0.31 U
1,1,2-Trichloroethane	UG/L	0	0%	1	0	0	148	1 U	1 U	1 U	0.23 U	0.23 U	0.23 U
1,1-Dichloroethane	UG/L	1.1	9%	5	0	14	148	1 U	1 U	1 U	0.75 U	0.75 U	0.38 U
1,1-Dichloroethene	UG/L	2.1	11%	5	0	16	148	1 U	1 U	1 U	0.29 U	0.29 U	0.29 U
1,2,4-Trichlorobenzene	UG/L	0	0%	5	0	0	148	1 U	1 U	1 U	0.41 U	0.41 U	0.41 U
1,2-Dibromo-3-chloropropane	UG/L	0	0%	0.04	0	0	148	1 U	1 U	1 UJ	1 UJ	1 UJ	0.39 U
1,2-Dibromoethane	UG/L	0	0%	0.0006	0	0	148	1 U	1 U	1 U	0.17 U	0.17 U	0.17 U
1,2-Dichlorobenzene	UG/L	0	0%	3	0	0	148	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U
1,2-Dichloroethane	UG/L	5.6	13%	0.6	16	19	148	1 U	1 U	1 U	0.21 U	0.21 U	0.21 U
1,2-Dichloropropane	UG/L	0	0%	1	0	0	148	1 U	1 U	1 U	0.14 U	0.14 U	0.32 U
1,3-Dichlorobenzene	UG/L	0	0%	3	0	0	148	1 U	1 U	1 U	0.16 U	0.14 U	0.36 U
1,4-Dichlorobenzene	UG/L	0	0%	3	0	0	148	1 U	1 U	1 U	0.16 U	0.16 U	0.39 U
Acetone	UG/L	2600	25%	3	0	37	148	4.5 J	5 U	5 U	1.3 U	1.3 U	1.3 U
Benzene	UG/L	0	0%	1	0	0	148	1 U	1 U	1 U	0.16 U	0.16 U	0.41 U
Bromodichloromethane	UG/L	0	0%	80 ^b	0	0	148	1 U	1 U	1 U	0.38 U	0.39 U	0.39 U
Bromoform	UG/L	0	0%	80 ^b	0	0	148	1 U	1 U	1 U	0.36 U	0.26 UJ	0.26 U
Carbon disulfide	UG/L	0	0%	00	0	0	148	1 U	1 U	1 U	0.19 U	0.19 UJ	0.19 U
Carbon tetrachloride	UG/L	0	0%	5	0	0	148	1 U	1 U	1 U	0.13 U	0.13 U	0.13 U
Chlorobenzene	UG/L	0	0%	5	0	0	148	1 U	1 U	1 U	0.27 U	0.32 U	0.27 U
Chlorodibromomethane	UG/L	0	0%	80 ^b	0	0	148	1 U	1 U	1 U	0.18 U	0.32 U	0.32 U
Chloroethane	UG/L	1.1	5%	5	0	7	148	1 U	1 U	1 UJ	0.32 U	0.32 U	0.32 U
Chloroform	UG/L	27	10%	7	4	, 15	148	1 U	1 U	1 U	0.32 U	0.32 U	0.32 U
Cis-1,2-Dichloroethene	UG/L	720	84%	, 5	98	124	148	36	17	17	0.63 J	10	3.3
Cis-1,3-Dichloropropene	UG/L	0	0%	0.4	90	0	146 [148	<u></u>		1/ 1 U	0.83 J [0.36 U	0.36 U
Cyclohexane	UG/L	0	0%	0.4	0	0	148	1 U	1 U	1 U	0.36 U 0.22 U	0.53 U	0.53 U
Dichlorodifluoromethane	UG/L	•	0%	E	0	0		1 U	1 U	1 U	0.22 U	0.29 U	0.29 U
Ethyl benzene	UG/L	0		5 5	0	9	148 148	1 U	1 U	1 U	0.28 U	0.29 U 0.18 U	0.29 U 0.18 U
•		1.3	6%	ა 5	0	-							
Isopropylbenzene	UG/L UG/L	0	0% 4%	Э	0	0 2	148 148	1 U 1 U	1 U 1 UJ	1 U 1 UJ	0.19 U 0.17 U	0.19 U 0.17 UJ	0.19 U 0.5 U
Methyl Acetate	UG/L	6	1% 0%		0			1 U	1 U	1 U		0.17 UJ 0.16 U	
Methyl Tertbutyl Ether		0		_	0	0	148				0.16 U		0.16 U
Methyl bromide	UG/L	0	0%	5	0	0	147	1 U	1 U	1 UJ	0.28 U	0.28 U	0.28 UR
Methyl butyl ketone	UG/L	0	0%	_	0	0	148	5 U	5 UJ	5 UJ	1.2 U	1.2 U	1.2 U
Methyl chloride	UG/L	0	0%	5	0	0	148	1 U	1 U	1 UJ	0.34 U	0.35 U	0.35 U
Methyl cyclohexane	UG/L	0	0%		0	0	148	1 U	1 U	1 U	0.22 U	0.5 U	0.5 U
Methyl ethyl ketone	UG/L	4900	14%		0	21	148	5 U	5 U	5 UJ	1.3 U	1.3 U	1.3 U
Methyl isobutyl ketone	UG/L	0	0%	_	U _	0	148	5 U	5 U	5 UJ	0.91 U	0.91 U	0.91 U
Methylene chloride	UG/L	18	8%	5	7	12	148	1 U	1 U	1 U	0.44 UJ	0.44 U	0.44 U
Styrene	UG/L	0	0%	5	0	0	148	1 U	1 U	1 U	0.18 U	0.18 U	0.18 U
Tetrachloroethene	UG/L	0	0%	5	0	0	148	1 U	1 U	1 U	0.36 U	0.36 U	0.36 U
Toluene	UG/L	590	18%	5	16	27	148	4.6	1 U	1 U	0.51 U	0.51 U	0.51 U
Total Xylenes	UG/L	0	0%	5	0	0	148	3 U	3 U	3 U	0.93 U	0.66 U	0.66 U
Trans-1,2-Dichloroethene	UG/L	8	47%	5	3	69	148	0.5 J	1 U	1 U	0.13 U	0.13 U	0.42 U
Trans-1,3-Dichloropropene	UG/L	0	0%	0.4	0	0	148	1 U	1 U	1 U	0.37 U	0.37 U	0.37 U

Facility Location ID Matrix Sample ID Sample Date QC Code Study ID Sampling Round		Maximum	Frequency of	Cleanup	Number of	Number of Times	Number of Samples	ASH LANDFILL MWT-25 GW ALBW20093 6/6/2007 SA LTM 3	ASH LANDFILL MWT-25 GW ALBW20108 11/15/2007 SA LTM 4	ASH LANDFILL MWT-25 GW ALBW20123 6/24/2008 SA LTM 5	ASH LANDFILL MWT-25 GW ALBW20138 12/15/2008 SA LTM 6	ASH LANDFILL MWT-25 GW ALBW20153 6/3/2009 SA LTM 7	ASH LANDFILL MWT-25 GW ALBW20168 12/17/2009 SA LTM 8
Parameter	Units	Value	Detection	Goals ¹	Exceedances		Analyzed	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)
Trichloroethene	UG/L	2700	70%	5	55	103	148	28	26	19	3.2	12	4.2
Trichlorofluoromethane	UG/L	0	0%	5	0	0	148	1 UJ	1 U	1 UJ	0.15 U	0.15 U	0.15 UJ
Vinyl chloride	UG/L	180	66%	2	85	97	148	2.1	0.64 J	1 U	0.24 U	0.24 U	0.24 U
Other													
Iron	UG/L	296000	100%		11	12	12						
Iron+Manganese	UG/L	352900	100%		12	12	12						
Manganese	UG/L	56900	100%		12	12	12						
Ethane	UG/L	98	90%		0	65	72						
Ethene	UG/L	200	90%		0	65	72						
Methane	UG/L	23000	96%		0	69	72						
Sulfate	MG/L	1060	72%	250000	2	52	72						
Total Organic Carbon	MG/L	2050	100%		0	72	72						

- 1. The cleanup goal values are NYSDEC Class GA GW Standards unless noted otherwise.
- a. NYSDEC Class GA GW Standards (TOGS 1.1.1, June 1998).
- b. Federal Maximum Contaminant Level (http://www.epa.gov/safewater/contaminants/index.html)
- 2. Shading indicates a concentration above the GA GW standard.
- U = compound was not detected
- J = the reported value is and estimated concentration
- UJ= the compound was not detected; the associated reporting limit is approximate.

Facility Location ID Matrix Sample ID Sample Date QC Code Study ID Sampling Round		Maximum	Frequency of	Cleanup	Number of	Number of Times	Number of Samples	ASH LANDFILL MWT-25 GW ALBW20183 6/30/2010 SA LTM 9	ASH LANDFILL MWT-25 GW ALBW20198 12/19/2010 SA LTM 10	ASH LANDFILL MWT-26 GW ALBW20066 1/3/2007 SA LTM 1	ASH LANDFILL MWT-26 GW ALBW20081 3/17/2007 SA LTM 2	ASH LANDFILL MWT-26 GW ALBW20095 6/5/2007 SA LTM 3	ASH LANDFILL MWT-26 GW ALBW20111 11/15/2007 SA LTM 4
Parameter	Units	Value	Detection	Goals 1	Exceedances		Analyzed	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)
Volatile Organic Compounds	110/1	0.70	20/	_	0	4	4.40	0.5.11	0.5.11	4.11	4.11	4.11	4.11
1,1,1-Trichloroethane 1,1,2,2-Tetrachloroethane	UG/L UG/L	0.76 0	3% 0%	5 5	0 0	4 0	148 148	0.5 U 0.18 U	0.5 U 0.18 U	1 U 1 U	1 U 1 U	1 U 1 U	1 U 1 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	UG/L	0	0%	5 5	0	0	148	0.16 U 0.5 UJ	0.18 U	1 U	1 U	1 UJ	1 U
1,1,2-Trichloroethane	UG/L	0	0%	ე 1	0	0	148	0.5 U 0.13 U	0.5 U 0.13 U	1 U	1 U	1 U	1 U
1,1,2-menioroemane	UG/L	1.1	0% 9%	5	0	14	148	0.13 U 0.25 U	0.13 U 0.25 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	UG/L UG/L	2.1	9% 11%	5 5	0	16	148	0.25 U 0.11 U	0.25 U 0.11 U	1 U	1 U	1 U	1 U
•					-								
1,2,4-Trichlorobenzene 1,2-Dibromo-3-chloropropane	UG/L	0	0%	5 0.04	0	0	148	0.25 U	0.25 U	1 U	1 U	1 U	1 U
	UG/L	0	0%		0	0	148	0.44 U	0.44 U	1 U	1 U	1 U	1 U
1,2-Dibromoethane	UG/L	0	0%	0.0006	0	0	148	0.25 U	0.25 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	UG/L	0	0%	3	0	0	148	0.21 U	0.21 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	UG/L	5.6	13%	0.6	16	19	148	0.1 U	0.1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	UG/L	0	0%	1	0	0	148	0.13 U	0.13 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	UG/L	0	0%	3 3	0	0	148	0.25 U	0.25 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	UG/L	0	0%	3	0	0	148	0.28 U	0.28 U	1 U	1 U	1 U	1 U
Acetone	UG/L	2600	25%	4	0	37	148	5 U	5 UJ	5 U	17	5 U	5 U
Benzene	UG/L	0	0%	80 ^b	0	0	148	0.25 U	0.25 U	1 U	1 U	1 U	1 U
Bromodichloromethane	UG/L	0	0%	80 ^b	0	0	148	0.25 U	0.25 U	1 U	1 U	1 U	1 U
Bromoform	UG/L	0 0	0%	80	0	0	148	0.5 U	0.5 U	1 U	1 U	1 U 1 U	1 U
Carbon disulfide	UG/L	· ·	0%	_	0	0	148	0.6 U	0.6 U	1 U	1 U		1 U
Carbon tetrachloride	UG/L	0	0%	5	0	0	148	0.5 U	0.5 U	1 U	1 U	1 U	1 U
Chlorobenzene	UG/L	0	0%	5 80 ^b	0	0	148	0.25 U	0.25 U	1 U	1 U	1 U	1 U
Chlorodibromomethane	UG/L	0	0%		0	0	148	0.1 U	0.1 U	1 U	1 U	1 U	1 U
Chloroethane	UG/L	1.1	5%	5	0	7	148	1 U	1 UJ	1 U	1 U	1 U	1 U
Chloroform	UG/L	27	10%	7	4	15	148	0.14 U	0.14 U	1 U	1 U	1 U	1 U
Cis-1,2-Dichloroethene	UG/L	720	84%	5	98	124	148	13	0.97 J	19	17	11	2.8
Cis-1,3-Dichloropropene	UG/L	0	0%	0.4	0	0	148	0.11 U	0.11 U	1 U	1 U	1 U	1 U
Cyclohexane	UG/L	0	0%	_	0	0	148	0.25 U	0.25 U	1 U	1 U	1 U	1 U
Dichlorodifluoromethane	UG/L	0	0%	5	0	0	148	0.25 U	0.25 U	1 U	1 U	1 U	1 U
Ethyl benzene	UG/L	1.3	6%	5	0	9	148	0.11 U	0.11 U	1 U	1 U	1 U	1 U
Isopropylbenzene	UG/L	0	0%	5	0	0	148	0.1 U	0.1 U	1 U	1 U	1 U	1 U
Methyl Acetate	UG/L	6	1%		0	2	148	0.19 UJ	0.19 U	1 U	1 UJ	1 U	1 UJ
Methyl Tertbutyl Ether	UG/L	0	0%	_	0	0	148	0.2 U	0.8 U	1 U	1 U	1 U	1 U
Methyl bromide	UG/L	0	0%	5	0	0	147	0.8 UJ	1 U	1 U	1 U	1 U	1 U
Methyl butyl ketone	UG/L	0	0%	_	0	0	148	1 UJ	0.33 U	5 U	5 U	5 U	5 UJ
Methyl chloride	UG/L	0	0%	5	0	0	148	0.33 U	0.1 U	1 U	1 U	1 U	1 U
Methyl cyclohexane	UG/L	0	0%		0	0	148	0.1 U	1 U	1 U	1 U	1 U	1 U
Methyl ethyl ketone	UG/L	4900	14%		0	21	148	1 U	1 U	5 U	15	5 U	5 U
Methyl isobutyl ketone	UG/L	0	0%	_	0	0	148	1 U	0.2 U	5 U	5 U	5 U	5 U
Methylene chloride	UG/L	18	8%	5	7	12	148	1 U	1 U	1 U	1 U	1 U	1 U
Styrene	UG/L	0	0%	5	O Î	0	148	0.11 U	0.11 U	1 U	1 U	1 U	1 U
Tetrachloroethene	UG/L	0	0%	5	0	0	148	0.15 U	0.15 U	1 U	1 U	1 U	1 U
Toluene	UG/L	590	18%	5	16	27	148	0.33 U	0.33 U	1 U	1 U	1 U	1 U
Total Xylenes	UG/L	0	0%	5	0	0	148	0.2 U	0.2 U	3 U	3 U	3 U	3 U
Trans-1,2-Dichloroethene	UG/L	8	47%	5	3	69	148	0.49 J	0.2 U	0.6 J	1	0.7 J	1 U
Trans-1,3-Dichloropropene	UG/L	0	0%	0.4	0	0	148	0.21 U	0.21 U	1 U	1 U	1 U	1 U

Facility								ASH LANDFILL					
Location ID								MWT-25	MWT-25	MWT-26	MWT-26	MWT-26	MWT-26
Matrix								GW	GW	GW	GW	GW	GW
Sample ID								ALBW20183	ALBW20198	ALBW20066	ALBW20081	ALBW20095	ALBW20111
Sample Date								6/30/2010	12/19/2010	1/3/2007	3/17/2007	6/5/2007	11/15/2007
QC Code								SA	SA	SA	SA	SA	SA
Study ID								LTM	LTM	LTM	LTM	LTM	LTM
Sampling Round			Frequency		Number	Number	Number	9	10	1	2	3	4
		Maximum	of	Cleanup	of	of Times	of Samples						
Parameter	Units	Value	Detection	Goals 1	Exceedances	Detected	Analyzed	Value (Q)					
Trichloroethene	UG/L	2700	70%	5	55	103	148	7.7	1.9	10	11	3.2	2.8
Trichlorofluoromethane	UG/L	0	0%	5	0	0	148	0.25 U	0.25 U	1 U	1 U	1_UJ	1 U
Vinyl chloride	UG/L	180	66%	2	85	97	148	0.18 U	0.18 U	2	6.1	4.4	1 U
Other													
Iron	UG/L	296000	100%		11	12	12			275 J	844		
Iron+Manganese	UG/L	352900	100%		12	12	12			1043 J	2464		
Manganese	UG/L	56900	100%		12	12	12			768	1620		
Ethane	UG/L	98	90%		0	65	72			2 U	0.4	1	0.16
Ethene	UG/L	200	90%		0	65	72			2 U	7.8	13	0.4
Methane	UG/L	23000	96%		0	69	72			2 U	210	390	44
Sulfate	MG/L	1060	72%	250000	2	52	72			958	738	473	1060
Total Organic Carbon	MG/L	2050	100%		0	72	72			3.9 J	15.2	10.3	6.1

- 1. The cleanup goal values are NYSDEC Class GA GW Standards unless noted otherwise.
- a. NYSDEC Class GA GW Standards (TOGS 1.1.1, June 1998).
- b. Federal Maximum Contaminant Level (http://www.epa.gov/safewater/contaminants/index.html)
- 2. Shading indicates a concentration above the GA GW standard.
- U = compound was not detected
- J = the reported value is and estimated concentration
- UJ= the compound was not detected; the associated reporting limit is approximate.

Facility Location ID Matrix Sample ID Sample Date QC Code Study ID Sampling Round		•	Frequency		Number	Number	Number	ASH LANDFILL MWT-26 GW ALBW20126 6/24/2008 SA LTM 5	ASH LANDFILL MWT-26 GW ALBW20141 12/15/2008 SA LTM 6	ASH LANDFILL MWT-26 GW ALBW20156 6/3/2009 SA LTM 7	ASH LANDFILL MWT-26 GW ALBW20171 12/17/2009 SA LTM 8	ASH LANDFILL MWT-26 GW ALBW20186 6/29/2010 SA LTM 9	ASH LANDFILL MWT-26 GW ALBW20202 12/19/2010 SA LTM 10
Parameter	Units	Maximum Value	of Detection	Cleanup Goals ¹	of Exceedances	of Times Detected	of Samples Analyzed	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)
Volatile Organic Compounds				_	_								
1,1,1-Trichloroethane	UG/L	0.76	3%	5	0	4	148	1 U	0.26 U	0.26 U	0.26 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane	UG/L	0	0%	5	0	0	148	1 U	0.21 U	0.21 U	0.21 U	0.18 U	0.18 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	UG/L UG/L	0 0	0% 0%	5	0	0 0	148 148	1 U	0.31 U	0.31 U	0.31 UJ	0.5 U	0.5 U
1,1,2-Trichloroethane 1,1-Dichloroethane		1.1	0% 9%	1 5	0	14	148	1 U	0.23 U 0.75 U	0.23 U 0.75 U	0.23 U 0.38 U	0.13 U 0.25 U	0.13 U 0.25 U
1,1-Dichloroethane 1,1-Dichloroethene	UG/L UG/L	2.1	9% 11%	5 5	0	14 16	148	1 U 1 U	0.75 U 0.29 U	0.75 U 0.29 U	0.36 U 0.29 U	0.25 U 0.11 U	0.25 U 0.11 U
1,2,4-Trichlorobenzene	UG/L	0	0%	5 5	0	0	148	1 U	0.29 U 0.41 U	0.29 U 0.41 U	0.29 U 0.41 U	0.11 U 0.25 U	0.11 U 0.25 U
1,2-Dibromo-3-chloropropane	UG/L	0	0%	0.04	0	0	148	1 U	0.41 UJ	0.41 U 1 UJ	0.41 U 0.39 U	0.23 U 0.44 U	0.25 U 0.44 U
1,2-Dibromoethane	UG/L	0	0%	0.006	0	0	148	1 U	0.17 U	0.17 U	0.39 U 0.17 U	0.44 U 0.25 U	0.44 U 0.25 U
1,2-Dictionide trialle 1,2-Dichlorobenzene	UG/L	0	0%	3	0	0	148	1 U	0.17 U 0.2 U	0.17 U	0.17 U 0.2 U	0.25 U	0.23 U
1,2-Dichloroethane	UG/L	5.6	13%	0.6	16	19	148	1 U	0.2 U 0.21 U	0.2 U 0.21 U	0.2 U 0.21 U	0.21 U	0.21 U
1,2-Dichloropropane	UG/L	0	0%	1	0	0	148	1 U	0.21 U	0.21 U	0.21 U	0.13 U	0.13 U
1,3-Dichlorobenzene	UG/L	0	0%	3	0	0	148	1 U	0.14 U	0.14 U	0.36 U	0.13 U 0.25 U	0.13 U
1,4-Dichlorobenzene	UG/L	0	0%	3	0	0	148	1 U	0.16 U	0.16 U	0.39 U	0.28 U	0.23 U
Acetone	UG/L	2600	25%	3	0	37	148	5 U	1.3 U	1.3 U	1.3 U	5 U	5 UJ
Benzene	UG/L	0	0%	1	0	0	148	1 U	0.16 U	0.16 U	0.41 U	0.25 U	0.25 U
Bromodichloromethane	UG/L	0	0%	80 ^b	0	0	148	1 U	0.38 U	0.39 U	0.41 U	0.25 U	0.25 U
Bromoform	UG/L	0	0%	80 ^b	0	0	148	1 U	0.26 U	0.26 UJ	0.26 U	0.5 U	0.5 U
Carbon disulfide	UG/L	0	0%	00	0	0	148	1 U	0.19 U	0.20 UJ	0.19 U	0.6 U	0.6 U
Carbon tetrachloride	UG/L	0	0%	5	0	0	148	1 U	0.13 U	0.13 U	0.13 U	0.5 U	0.5 U
Chlorobenzene	UG/L	0	0%	5	0	0	148	1 U	0.18 U	0.32 U	0.32 U	0.25 U	0.25 U
Chlorodibromomethane	UG/L	0	0%	80 b	0	0	148	1 U	0.32 U	0.32 U	0.32 U	0.1 U	0.1 U
Chloroethane	UG/L	1.1	5%	5	0	7	148	1 UJ	0.32 U	0.32 U	0.32 UJ	1 UJ	1 UJ
Chloroform	UG/L	27	10%	7	4	15	148	1 U	0.34 U	0.34 U	0.34 U	0.14 U	0.14 U
Cis-1,2-Dichloroethene	UG/L	720	84%	5	98	124	148	3.3	1 [6	8.1	5.5	12
Cis-1,3-Dichloropropene	UG/L	0	0%	0.4	0	0	148	1 U	0.36 U	0.36 U	0.36 U	0.11 U	0.11 U
Cyclohexane	UG/L	0	0%	• • • • • • • • • • • • • • • • • • • •	0	0	148	1 U	0.22 U	0.53 U	0.53 U	0.25 U	0.25 U
Dichlorodifluoromethane	UG/L	0	0%	5	0	0	148	1 U	0.28 U	0.29 U	0.29 U	0.25 U	0.25 U
Ethyl benzene	UG/L	1.3	6%	5	0	9	148	1 U	0.18 U	0.18 U	0.18 U	0.11 U	0.11 U
Isopropylbenzene	UG/L	0	0%	5	0	0	148	1 U	0.19 U	0.19 U	0.19 U	0.1 U	0.1 U
Methyl Acetate	UG/L	6	1%		0	2	148	1 UJ	0.17 U	0.17 UJ	0.5 U	0.19 U	0.19 U
Methyl Tertbutyl Ether	UG/L	0	0%		0	0	148	1 U	0.16 U	0.16 U	0.16 U	0.2 U	0.8 U
Methyl bromide	UG/L	0	0%	5	0	0	147	1 UJ	0.28 U	0.28 U	0.28 UJ	0.8 UJ	1 U
Methyl butyl ketone	UG/L	0	0%		0	0	148	5 UJ	1.2 U	1.2 U	1.2 U	1 U	0.33 U
Methyl chloride	UG/L	0	0%	5	0	0	148	1 U	0.34 U	0.35 U	0.35 U	0.33 U	0.1 U
Methyl cyclohexane	UG/L	0	0%		0	0	148	1 U	0.22 U	0.5 U	0.5 U	0.1 U	1 U
Methyl ethyl ketone	UG/L	4900	14%		0	21	148	5 U	1.3 U	1.3 U	1.3 U	1 U	1 U
Methyl isobutyl ketone	UG/L	0	0%		0	0	148	5 U	0.91 U	0.91 U	0.91 U	1 U	0.2 U
Methylene chloride	UG/L	18	8%	5	7	12	148	1 U	0.44 UJ	0.44 U	0.44 U	1 U	1 U
Styrene	UG/L	0	0%	5	0	0	148	1 U	0.18 U	0.18 U	0.18 U	0.11 U	0.11 U
Tetrachloroethene	UG/L	0	0%	5	0	0	148	1 U	0.36 U	0.36 U	0.36 U	0.15 U	0.15 U
Toluene	UG/L	590	18%	5	16	27	148	1 U	0.51 U	0.51 U	0.51 U	0.33 U	0.33 U
Total Xylenes	UG/L	0	0%	5	0	0	148	3 U	0.93 U	0.66 U	0.66 U	0.2 U	0.2 U
Trans-1,2-Dichloroethene	UG/L	8	47%	5	3	69	148	1 U	0.13 U	0.13 U	0.42 U	0.37 J	0.67 J
Trans-1,3-Dichloropropene	UG/L	0	0%	0.4	0	0	148	1 U	0.37 U	0.37 U	0.37 U	0.21 U	0.21 U

Facility Location ID Matrix Sample ID Sample Date QC Code Study ID Sampling Round		Maximum	Frequency of	Cleanup	Number of	Number of Times	Number of Samples	ASH LANDFILL MWT-26 GW ALBW20126 6/24/2008 SA LTM 5	ASH LANDFILL MWT-26 GW ALBW20141 12/15/2008 SA LTM 6	ASH LANDFILL MWT-26 GW ALBW20156 6/3/2009 SA LTM 7	ASH LANDFILL MWT-26 GW ALBW20171 12/17/2009 SA LTM 8	ASH LANDFILL MWT-26 GW ALBW20186 6/29/2010 SA LTM 9	ASH LANDFILL MWT-26 GW ALBW20202 12/19/2010 SA LTM 10
Parameter	Units	Value	Detection	Goals 1	Exceedances		Analyzed	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)
Trichloroethene	UG/L	2700	70%	5	55	103	148	1.7	1.9	3.6	5.8	1.7	4.2
Trichlorofluoromethane	UG/L	0	0%	5	0	0	148	1 UJ	0.15 U	0.15 U	0.15 UJ	0.25 U	0.25_U
Vinyl chloride	UG/L	180	66%	2	85	97	148	1 U	0.24 U	3.5	4.2	0.18 U	7.6
Other													
Iron	UG/L	296000	100%		11	12	12						
Iron+Manganese	UG/L	352900	100%		12	12	12						
Manganese	UG/L	56900	100%		12	12	12						
Ethane	UG/L	98	90%		0	65	72	0.82	0.046	3.2	2.2	2.2	3.7
Ethene	UG/L	200	90%		0	65	72	2.9	0.028	2.7	1.8	0.71	3.3
Methane	UG/L	23000	96%		0	69	72	210	10	1100	610	740	1600
Sulfate	MG/L	1060	72%	250000	2	52	72	600	541	570	912	680	690
Total Organic Carbon	MG/L	2050	100%		0	72	72	5.6	4.4	6.9	5.6	4.6	5.5

- 1. The cleanup goal values are NYSDEC Class GA GW Standards unless noted otherwise.
- a. NYSDEC Class GA GW Standards (TOGS 1.1.1, June 1998).
- b. Federal Maximum Contaminant Level (http://www.epa.gov/safewater/contaminants/index.html)
- 2. Shading indicates a concentration above the GA GW standard.
- U = compound was not detected
- J = the reported value is and estimated concentration
- UJ= the compound was not detected; the associated reporting limit is approximate.

Facility Location ID Matrix Sample ID Sample Date QC Code Study ID Sampling Round		Marrimorm	Frequency	Classon	Number	Number	Number	ASH LANDFILL MWT-27 GW ALBW20067 1/3/2007 SA LTM 1	ASH LANDFILL MWT-27 GW ALBW20082 3/16/2007 SA LTM 2	ASH LANDFILL MWT-27 GW ALBW20097 6/5/2007 DU LTM 3	ASH LANDFILL MWT-27 GW ALBW20096 6/5/2007 SA LTM 3	ASH LANDFILL MWT-27 GW ALBW20112 11/15/2007 SA LTM 4	ASH LANDFILL MWT-27 GW ALBW20127 6/24/2008 SA LTM 5
Parameter	Units	Maximum Value	of Detection	Cleanup Goals ¹	of Exceedances	of Times Detected	of Samples Analyzed	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)
Volatile Organic Compounds							•	,	· · · · · · · · · · · · · · · · · · ·			· /	
1,1,1-Trichloroethane	UG/L	0.76	3%	5	0	4	148	20 UJ	20 U	20 U	20 U	10 U	4 U
1,1,2,2-Tetrachloroethane	UG/L	0	0%	5	0	0	148	20 UJ	20 U	20 U	20 U	10 U	4 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	UG/L	0	0%	5	0	0	148	20 UJ	20 U	20 UJ	20 UJ	10 U	4 U
1,1,2-Trichloroethane	UG/L	0	0%	1	0	0	148	20 UJ	20 U	20 U	20 U	10 U	4 U
1,1-Dichloroethane	UG/L	1.1	9%	5	0	14	148	20 UJ	20 U	20 U	20 U	10 U	4 U
1,1-Dichloroethene	UG/L	2.1	11%	5	0	16	148	20 UJ	20 U	20 U	20 U	10 U	4 U
1,2,4-Trichlorobenzene	UG/L	0	0%	5	0	0	148	20 UJ	20 U	20 U	20 U	10 U	4 U
1,2-Dibromo-3-chloropropane 1,2-Dibromoethane	UG/L	0 0	0%	0.04	0	0 0	148	20 UJ	20 U	20 U	20 U	10 U	4 U
1,2-Dibromoethane 1,2-Dichlorobenzene	UG/L UG/L	0	0% 0%	0.0006 3	0 0	0	148 148	20 UJ 20 UJ	20 U 20 U	20 U 20 U	20 U 20 U	10 U 10 U	4 U 4 U
1,2-Dichlorobenzene 1,2-Dichloroethane	UG/L	5.6	13%	ა 0.6	16	19	148	20 UJ	20 U	20 U	20 U	10 U	4 U
1,2-Dichloropropane	UG/L	0	0%	0.0	0	0	148	20 UJ	20 U	20 U	20 U	10 U	4 U
1,3-Dichlorobenzene	UG/L	0	0%	3	0	0	148	20 UJ	20 U	20 U	20 U	10 U	4 U
1,4-Dichlorobenzene	UG/L	0	0%	3	0	0	148	20 UJ	20 U	20 U	20 U	10 U	4 U
Acetone	UG/L	2600	25%	3	0	37	148	2000 J	1300	1300	1300	30 J	20 U
Benzene	UG/L	0	0%	1	0	0	148	20 UJ	20 U	20 U	20 U	10 U	4 U
Bromodichloromethane	UG/L	0	0%	80 ^b	0	0	148	20 UJ	20 U	20 U	20 U	10 U	4 U
Bromoform	UG/L	0	0%	80 ^b	0	0	148	20 UJ	20 U	20 U	20 U	10 U	4 U
Carbon disulfide	UG/L	0	0%	00	0	0	148	20 UJ	20 U	20 U	20 U	10 U	4 U
Carbon tetrachloride	UG/L	0	0%	5	0	0	148	20 UJ	20 U	20 U	20 U	10 U	4 U
Chlorobenzene	UG/L	0	0%	5	0	0	148	20 UJ	20 U	20 U	20 U	10 U	4 U
Chlorodibromomethane	UG/L	0	0%	80 ^b	0	0	148	20 UJ	20 U	20 U	20 U	10 U	4 U
Chloroethane	UG/L	1.1	5%	5	0	7	148	20 UJ	20 U	20 U	20 U	10 U	4 UJ
Chloroform	UG/L	27	10%	7	4	15	148	20 UJ	20 U	20 U	20 U	10 U	4 U
Cis-1,2-Dichloroethene	UG/L	720	84%	5	98	124	148	49 J	20 U	20 U	20 U	10 U	4 U
Cis-1,3-Dichloropropene	UG/L	0	0%	0.4	0	0	148	20 UJ	20 U	20 U	20 U	10 U	4 U
Cyclohexane	UG/L	0	0%	-	0	0	148	20 UJ	20 U	20 U	20 U	10 U	4 U
Dichlorodifluoromethane	UG/L	0	0%	5	0	0	148	20 UJ	20 U	20 U	20 U	10 U	4 U
Ethyl benzene	UG/L	1.3	6%	5	0	9	148	20 UJ	20 U	20 U	20 U	10 U	4 U
Isopropylbenzene	UG/L	0	0%	5	0	0	148	20 UJ	20 U	20 U	20 U	10 U	4 U
Methyl Acetate	UG/L	6	1%		0	2	148	20 UJ	20 UJ	20 U	20 U	10 UJ	4 UJ
Methyl Tertbutyl Ether	UG/L	0	0%		0	0	148	20 UJ	20 U	20 U	20 U	10 U	4 U
Methyl bromide	UG/L	0	0%	5	0	0	147	20 UJ	20 U	20 U	20 U	10 U	4 UJ
Methyl butyl ketone	UG/L	0	0%		0	0	148	100 UJ	100 U	100 U	100 U	50 UJ	20 UJ
Methyl chloride	UG/L	0	0%	5	0	0	148	20 UJ	20 U	20 U	20 U	10 U	4 U
Methyl cyclohexane	UG/L	0	0%		0	0	148	20 UJ	20 U	20 U	20 U	10 U	4 U
Methyl ethyl ketone	UG/L	4900	14%		0	21	148	4100 J	2200	1700	1800	50 U	20 U
Methyl isobutyl ketone	UG/L	0	0%		0	0	148	100 UJ	100 U	100 U	100 U	50 U	20 U
Methylene chloride	UG/L	18	8%	5	7	12	148	18 J	20 U	13 J	11 J	10 U	4 U
Styrene	UG/L	0	0%	5	0	0	148	20 UJ	20 U	20 U	20 U	10 U	4 U
Tetrachloroethene	UG/L	0	0%	5	0	0	148	20 UJ	20 U	20 U	20 U	10_U	4_U
Toluene	UG/L	590	18%	5	16	27	148	20 UJ	20 U	20 U	20 U	7.3 J	5.9
Total Xylenes	UG/L	0	0%	5	0	0	148	60 UJ	60 U	60 U	60 U	30 U	12 U
Trans-1,2-Dichloroethene	UG/L	8	47%	5	3	69	148	20 UJ	20 U	20 U	20 U	10 U	4 U
Trans-1,3-Dichloropropene	UG/L	0	0%	0.4	0	0	148	20 UJ	20 U	20 U	20 U	10 U	4 U

Facility Location ID Matrix Sample ID Sample Date QC Code Study ID Sampling Round		Maximum	Frequency of	Cleanup	Number of	Number of Times	Number of Samples	ASH LANDFILL MWT-27 GW ALBW20067 1/3/2007 SA LTM 1	ASH LANDFILL MWT-27 GW ALBW20082 3/16/2007 SA LTM 2	ASH LANDFILL MWT-27 GW ALBW20097 6/5/2007 DU LTM 3	ASH LANDFILL MWT-27 GW ALBW20096 6/5/2007 SA LTM 3	ASH LANDFILL MWT-27 GW ALBW20112 11/15/2007 SA LTM 4	ASH LANDFILL MWT-27 GW ALBW20127 6/24/2008 SA LTM 5
Parameter	Units	Value	Detection	Goals ¹	Exceedances	Detected	Analyzed	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)
Trichloroethene	UG/L	2700	70%	5	55	103	148	20 UJ	20 U	20 U	20 U	10 U	4 U
Trichlorofluoromethane	UG/L	0	0%	5	0	0	148	20 UJ	20 U	20 UJ	20 UJ	10 U	4 UJ
Vinyl chloride	UG/L	180	66%	2	85	97	148	20 UJ	20 U	20 U	20 U	10 U	4 U
Other													
Iron	UG/L	296000	100%		11	12	12	296000 J	229000				
Iron+Manganese	UG/L	352900	100%		12	12	12	352900 J	273500				
Manganese	UG/L	56900	100%		12	12	12	56900	44500				
Ethane	UG/L	98	90%		0	65	72	10000 UJ	0.15	0.079	0.082	0.025 U	2.3
Ethene	UG/L	200	90%		0	65	72	10000 UJ	2.7	0.32	0.34	0.014 J	0.049
Methane	UG/L	23000	96%		0	69	72	10000 UJ	15000	13000	14000	13000	13000
Sulfate	MG/L	1060	72%	250000	2	52	72	10 U	10 U	2.7	2 U	31.7	2 U
Total Organic Carbon	MG/L	2050	100%		0	72	72	2050 J	1350	771	738	167	88.9

- 1. The cleanup goal values are NYSDEC Class GA GW Standards unless noted otherwise.
- a. NYSDEC Class GA GW Standards (TOGS 1.1.1, June 1998).
- b. Federal Maximum Contaminant Level (http://www.epa.gov/safewater/contaminants/index.html)
- 2. Shading indicates a concentration above the GA GW standard.
- U = compound was not detected
- J = the reported value is and estimated concentration
- UJ= the compound was not detected; the associated reporting limit is approximate.

Facility Location ID Matrix Sample ID Sample Date QC Code								ASH LANDFILL MWT-27 GW ALBW20143 12/15/2008 DU	ASH LANDFILL MWT-27 GW ALBW20142 12/15/2008 SA	ASH LANDFILL MWT-27 GW ALBW20157 6/3/2009 SA	ASH LANDFILL MWT-27 GW ALBW20173 12/16/2009 DU	ASH LANDFILL MWT-27 GW ALBW20172 12/16/2009 SA	ASH LANDFILL MWT-27 GW ALBW20187 6/29/2010 SA
Study ID								LTM	LTM	LTM	LTM	LTM	LTM
Sampling Round		Maximum	Frequency of	Cleanup	Number of	Number of Times	Number of Samples	6	6	7	8	8	9
Parameter	Units	Value	Detection	Goals 1	Exceedances	Detected	Analyzed	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)
Volatile Organic Compounds								1 5.1.5 (5.4)				7 5.1.0.0 (5.4)	3 3113 3 (44)
1,1,1-Trichloroethane	UG/L	0.76	3%	5	0	4	148	2.6 UJ	2.6 UJ	2.6 U	1.3 U	1.3 U	0.5 U
1,1,2,2-Tetrachloroethane	UG/L	0	0%	5	0	0	148	2.1 UJ	2.1 UJ	2.1 U	1.1 U	1.1 U	0.18 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	UG/L	0	0%	5	0	0	148	3.1 UJ	3.1 UJ	3.1 U	1.5 U	1.5 U	0.5 UJ
1,1,2-Trichloroethane	UG/L	0	0%	1	0	0	148	2.3 UJ	2.3 UJ	2.3 U	1.2 U	1.2 U	0.13 U
1,1-Dichloroethane	UG/L	1.1	9%	5	0	14	148	7.5 U	7.5 U	7.5 U	1.9 U	1.9 U	0.25 U
1,1-Dichloroethene	UG/L	2.1	11%	5	0	16	148	2.9 U	2.9 U	2.9 U	1.5 U	1.5 U	0.11 U
1,2,4-Trichlorobenzene	UG/L	0	0%	5	0	0	148	4.1 UJ	4.1 UJ	4.1 U	2 U	2 U	0.25 U
1,2-Dibromo-3-chloropropane	UG/L	0	0%	0.04	0	0	148	10 UJ	10 UJ	10 UJ	2 U	2 U	0.44 U
1,2-Dibromoethane	UG/L	0	0%	0.0006	0	0	148	1.7 UJ	1.7 UJ	1.7 U	0.83 U	0.83 U	0.25 U
1,2-Dichlorobenzene	UG/L	0	0%	3	0	0	148	2 U	2 U	2 U	1 U	1 U	0.21 U
1,2-Dichloroethane	UG/L	5.6	13%	0.6	16	19	148	2.1 U	2.1 U	2.1 U	1.1 U	1.1 U	0.1 U
1,2-Dichloropropane	UG/L	0	0%	1	0	0	148	1.4 U	1.4 U	1.4 U	1.6 U	1.6 U	0.13 U
1,3-Dichlorobenzene	UG/L	0	0%	3	0	0	148	1.6 U	1.6 U	1.6 U	1.8 U	1.8 U	0.25 U
1,4-Dichlorobenzene	UG/L	0	0%	3	0	0	148	1.6 U	1.6 U	1.6 U	2 U	2 U	0.28 U
Acetone	UG/L	2600	25%		0	37	148	13 UJ	26 J	13 U	6.7 U	6.7 U	11 J
Benzene	UG/L	0	0%	1	0	0	148	1.6 U	1.6 U	1.6 U	2 U	2 U	0.25 U
Bromodichloromethane	UG/L	0	0%	80 ^b	0	0	148	3.8 U	3.8 U	3.9 U	1.9 U	1.9 U	0.25 U
Bromoform	UG/L	0	0%	80 b	0	0	148	2.6 UJ	2.6 UJ	2.6 UJ	1.3 U	1.3 U	0.5 U
Carbon disulfide	UG/L	0	0%		0	0	148	1.9 U	1.9 U	1.9 UJ	0.97 U	0.97 U	0.6 U
Carbon tetrachloride	UG/L	0	0%	5	0	0	148	2.7 UJ	2.7 UJ	2.7 U	1.3 U	1.3 U	0.5 U
Chlorobenzene	UG/L	0	0%	5	0	0	148	1.8 U	1.8 U	3.2 U	1.6 U	1.6 U	0.25 U
Chlorodibromomethane	UG/L	0	0%	80 b	0	0	148	3.2 U	3.2 U	3.2 U	1.6 U	1.6 U	0.1 U
Chloroethane	UG/L	1.1	5%	5	0	7	148	3.2 U	3.2 U	3.2 U	1.6 U	1.6 U	1 U
Chloroform	UG/L	27	10%	7	4	15	148	3.4 U	3.4 U	3.4 U	1.7 U	1.7 U	0.14 U
Cis-1,2-Dichloroethene	UG/L	720	84%	5	98	124	148	1.6 U	1.6 U	1.6 U	1.9 U	1.9 U	0.18 J
Cis-1,3-Dichloropropene	UG/L	0	0%	0.4	0	0	148	3.6 U	3.6 U	3.6 U	1.8 U	1.8 U	0.11 U
Cyclohexane	UG/L	0	0%		0	0	148	2.2 UJ	2.2 UJ	5.3 U	2.7 U	2.7 U	0.25 U
Dichlorodifluoromethane	UG/L	0	0%	5	0	0	148	2.8 U	2.8 U	2.9 U	1.4 U	1.4 U	0.25 U
Ethyl benzene	UG/L	1.3	6%	5	0	9	148	1.8 U	1.8 U	1.8 U	0.92 U	0.92 U	0.11 U
Isopropylbenzene	UG/L	0	0%	5	0	0	148	1.9 U	1.9 U	1.9 U	0.96 U	0.96 U	0.1 U
Methyl Acetate	UG/L	6	1%		0	2	148	1.7 UJ	1.7 UJ	1.7 UJ	2.5 U	2.5 U	0.19 UJ
Methyl Tertbutyl Ether	UG/L	0	0%		0	0	148	1.6 UJ	1.6 UJ	1.6 U	0.8 U	0.8 U	0.2 U
Methyl bromide	UG/L	0	0%	5	0	0	147	2.8 U	2.8 U	2.8 U	1.4 U	1.4 U	0.8 UJ
Methyl butyl ketone	UG/L	0	0%		0	0	148	12 U	12 U	12 U	6.2 U	6.2 U	1 UJ
Methyl chloride	UG/L	0	0%	5	0	0	148	3.4 U	3.4 U	3.5 U	1.7 U	1.7 U	0.33 U
Methyl cyclohexane	UG/L	0	0%		0	0	148	2.2 UJ	2.2 UJ	5 U	2.5 U	2.5 U	0.1 U
Methyl ethyl ketone	UG/L	4900	14%		0	21	148	13 UJ	13 UJ	13 U	6.6 U	6.6 U	1 U
Methyl isobutyl ketone	UG/L	0	0%		0	0	148	9.1 UJ	9.1 UJ	9.1 U	4.5 U	4.5 U	1 U
Methylene chloride	UG/L	18	8%	5	7	12	148	4.4 UJ	4.4 UJ	4.4 U	2.2 U	2.2 U	1 U
Styrene	UG/L	0	0%	5	0	0	148	1.8 U	1.8 U	1.8 U	0.92 U	0.92 U	0.11 U
Tetrachloroethene	UG/L	0	0%	5	0	0	148	3.6 U	3.6 U	3.6 U	1.8 U	1.8 U	0.15 U
Toluene	UG/L	590	18%	5	16	27	148	7.2 J	6.9 J	5.1 U	2.6 U	2.6 U	0.61 J
Total Xylenes	UG/L	0	0%	5	0	0	148	9.3 U	9.3 U	6.6 U	3.3 U	3.3 U	0.2 U
Trans-1,2-Dichloroethene	UG/L	8	47%	5	3	69	148	1.3 U	1.3 U	1.3 U	2.1 U	2.1 U	0.2 U
Trans-1,3-Dichloropropene	UG/L	0	0%	0.4	0	0	148	3.7 U	3.7 U	3.7 U	1.8 U	1.8 U	0.21 U

Facility Location ID Matrix Sample ID Sample Date QC Code Study ID Sampling Round		Maximum	Frequency of	Cleanup	Number of	Number of Times	Number of Samples	ASH LANDFILL MWT-27 GW ALBW20143 12/15/2008 DU LTM 6	ASH LANDFILL MWT-27 GW ALBW20142 12/15/2008 SA LTM 6	ASH LANDFILL MWT-27 GW ALBW20157 6/3/2009 SA LTM 7	ASH LANDFILL MWT-27 GW ALBW20173 12/16/2009 DU LTM 8	ASH LANDFILL MWT-27 GW ALBW20172 12/16/2009 SA LTM 8	ASH LANDFILL MWT-27 GW ALBW20187 6/29/2010 SA LTM 9
Parameter	Units	Value	Detection	Goals 1	Exceedances		Analyzed	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)
Trichloroethene	UG/L	2700	70%	5	55	103	148	1.8 U	1.8 U	1.8 U	2.3 U	2.3 U	0.13 U
Trichlorofluoromethane	UG/L	0	0%	5	0	0	148	1.5 UJ	1.5 UJ	1.5 U	0.76 U	0.76 U	0.25 U
Vinyl chloride	UG/L	180	66%	2	85	97	148	2.4 U	2.4 U	2.4 U	2.9 J	3.2 J	0.18 U
Other													
Iron	UG/L	296000	100%		11	12	12						
Iron+Manganese	UG/L	352900	100%		12	12	12						
Manganese	UG/L	56900	100%		12	12	12						
Ethane	UG/L	98	90%		0	65	72	1.6	1.6	5.1	4.3	4.4	3.8
Ethene	UG/L	200	90%		0	65	72	0.12	0.13	0.15	1.1	1.2	0.12
Methane	UG/L	23000	96%		0	69	72	15000	15000	14000	16000	15000	13000
Sulfate	MG/L	1060	72%	250000	2	52	72	23.8	24.2	0.93 J	14 J	13.9 J	0.95 J
Total Organic Carbon	MG/L	2050	100%		0	72	72	53.1	53.8	81.7	50.9	49	61

Notes:

- 1. The cleanup goal values are NYSDEC Class GA GW Standards unless noted otherwise.
- a. NYSDEC Class GA GW Standards (TOGS 1.1.1, June 1998).
- b. Federal Maximum Contaminant Level (http://www.epa.gov/safewater/contaminants/index.html)
- 2. Shading indicates a concentration above the GA GW standard.

U = compound was not detected

J = the reported value is and estimated concentration

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

Facility Location ID Matrix Sample ID Sample Date QC Code Study ID Sampling Round			Frequency		Number	Number	Number	ASH LANDFILL MWT-27 GW ALBW20203 12/18/2010 SA LTM 10	ASH LANDFILL MWT-28 GW ALBW20069 1/3/2007 DU LTM	ASH LANDFILL MWT-28 GW ALBW20068 1/3/2007 SA LTM	ASH LANDFILL MWT-28 GW ALBW20083 3/16/2007 SA LTM 2	ASH LANDFILL MWT-28 GW ALBW20098 6/5/2007 SA LTM	ASH LANDFILL MWT-28 GW ALBW20113 11/15/2007 SA LTM
Parameter Sampling Round	Units	Maximum Value		Cleanup Goals ¹	of Exceedances	of Times Detected	of Samples Analyzed	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)
Volatile Organic Compounds	Units	Value	Detection	Guais	LACECUATICES	Detected	Allalyzeu	value (Q)	value (Q)	value (Q)	value (Q)	value (Q)	value (Q)
1,1,1-Trichloroethane	UG/L	0.76	3%	5	0	4	148	0.5 U	20 UJ	20 UJ	20 U	20 U	5 U
1,1,2,2-Tetrachloroethane	UG/L	0	0%	5	0	0	148	0.18 U	20 UJ	20 UJ	20 U	20 U	5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	UG/L	0	0%	5	0	0	148	0.5 U	20 UJ	20 UJ	20 U	20 UJ	5 U
1,1,2-Trichloroethane	UG/L	0	0%	1	0	0	148	0.13 U	20 UJ	20 UJ	20 U	20 U	5 U
1,1-Dichloroethane	UG/L	1.1	9%	5	0	14	148	0.25 U	20 UJ	20 UJ	20 U	20 U	5 U
1,1-Dichloroethene	UG/L	2.1	11%	5	0	16	148	0.11 U	20 UJ	20 UJ	20 U	20 U	5 U
1,2,4-Trichlorobenzene	UG/L	0	0%	5	0	0	148	0.25 U	20 UJ	20 UJ	20 U	20 U	5 U
1,2-Dibromo-3-chloropropane	UG/L	0	0%	0.04	0	0	148	0.44 U	20 UJ	20 UJ	20 U	20 U	5 U
1,2-Dibromoethane	UG/L	0	0%	0.0006	0	0	148	0.25 U	20 UJ	20 UJ	20 U	20 U	5 U
1,2-Dichlorobenzene	UG/L	0	0%	3	0	0	148	0.21 U	20 UJ	20 UJ	20 U	20 U	5 U
1,2-Dichloroethane	UG/L	5.6	13%	0.6	16	19	148	0.1 U	20 UJ	20 UJ	20 U	20 U	5 U
1,2-Dichloropropane	UG/L	0	0%	1	0	0	148	0.13 U	20 UJ	20 UJ	20 U	20 U	5 U
1,3-Dichlorobenzene	UG/L	0	0%	3	0	0	148	0.25 U	20 UJ	20 UJ	20 U	20 U	5 U
1,4-Dichlorobenzene	UG/L	0	0%	3	0	0	148	0.28 U	20 UJ	20 UJ	20 U	20 U	5 U
Acetone	UG/L	2600	25%		0	37	148	5 UJ	2600 J	2500 J	170	520	25 U
Benzene	UG/L	0	0%	1	0	0	148	0.25 U	20 UJ	20 UJ	20 U	20 U	5 U
Bromodichloromethane	UG/L	0	0%	80 ^b	0	0	148	0.25 U	20 UJ	20 UJ	20 U	20 U	5 U
Bromoform	UG/L	0	0%	80 ^b	0	0	148	0.5 U	20 UJ	20 UJ	20 U	20 U	5 U
Carbon disulfide	UG/L	0	0%		0	0	148	0.6 U	20 UJ	20 UJ	20 U	20 U	5 U
Carbon tetrachloride	UG/L	0	0%	5	0	0	148	0.5 U	20 UJ	20 UJ	20 U	20 U	5 U
Chlorobenzene	UG/L	0	0%	5	0	0	148	0.25 U	20 UJ	20 UJ	20 U	20 U	5 U
Chlorodibromomethane	UG/L	0	0%	80 ^b	0	0	148	0.1 U	20 UJ	20 UJ	20 U	20 U	5 U
Chloroethane	UG/L	1.1	5%	5	0	7	148	1 UJ	20 UJ	20 UJ	20 U	20 U	5 U
Chloroform	UG/L	27	10%	7	4	15	148	0.14 U	20 UJ	20 UJ	20 U	20 U	5 U
Cis-1,2-Dichloroethene	UG/L	720	84%	5	98	124	148	1.1	20 UJ	20 UJ	20 U	20 U	5 U
Cis-1,3-Dichloropropene	UG/L	0	0%	0.4	0	0	148	0.11 U	20 UJ	20 UJ	20 U	20 U	5 U
Cyclohexane	UG/L	0	0%		0	0	148	0.25 U	20 UJ	20 UJ	20 U	20 U	5 U
Dichlorodifluoromethane	UG/L	0	0%	5	0	0	148	0.25 U	20 UJ	20 UJ	20 U	20 U	5 U
Ethyl benzene	UG/L	1.3	6%	5	0	9	148	0.11 U	20 UJ	20 UJ	20 U	20 U	5 U
Isopropylbenzene	UG/L	0	0%	5	0	0	148	0.1 U	20 UJ	20 UJ	20 U	20 U	5 U
Methyl Acetate	UG/L	6	1%		0	2	148	0.19 U	20 UJ	20 UJ	20 UJ	20 U	5 UJ
Methyl Tertbutyl Ether	UG/L	0	0%		0	0	148	0.8 U	20 UJ	20 UJ	20 U	20 U	5 U
Methyl bromide	UG/L	0	0%	5	0	0	147	1 U	20 UJ	20 UJ	20 U	20 U	5 U
Methyl butyl ketone	UG/L	0	0%	_	0	0	148	0.33 U	100 UJ	100 UJ	100 U	100 U	25 UJ
Methyl chloride	UG/L	0	0%	5	0	0	148	0.1 U	20 UJ	20 UJ	20 U	20 U	5 U
Methyl cyclohexane	UG/L	0	0%		0	0	148	1 U	20 UJ	20 UJ	20 U	20 U	5 U
Methyl ethyl ketone	UG/L	4900	14%		0	21	148	1 U	4900 J	4900 J	180	510	25 U
Methyl isobutyl ketone	UG/L	0	0%	_	0	0	148	0.2 U	100 UJ	100 UJ	100 U	100 U	25 U
Methylene chloride	UG/L	18	8%	5	/	12	148	1 U	14 J	13 J	20 U	9.3 J	5 U
Styrene	UG/L	0	0%	5	U	0	148	0.11 U	20 UJ	20 UJ	20 U	20 U	5 U
Tetrachloroethene	UG/L	0	0%	5	0	0	148	0.15 U	20 UJ	20 UJ	20 U	20 U	5 U
Toluene	UG/L	590	18%	5	16	27	148	0.33 U	350 J	330 J	160	500	210
Total Xylenes	UG/L	0	0%	5	0	0	148	0.2 U	60 UJ	60 UJ	60 U	60 U	15 U
Trans-1,2-Dichloroethene	UG/L	8	47%	5	3	69	148	0.2 U	20 UJ	20 UJ	20 U	20 U	5 U
Trans-1,3-Dichloropropene	UG/L	0	0%	0.4	0	0	148	0.21 U	20 UJ	20 UJ	20 U	20 U	5 U

Facility Location ID Matrix Sample ID Sample Date QC Code Study ID Sampling Round		Maximum	Frequency of	Cleanup	Number of	Number of Times	Number of Samples	ASH LANDFILL MWT-27 GW ALBW20203 12/18/2010 SA LTM 10	ASH LANDFILL MWT-28 GW ALBW20069 1/3/2007 DU LTM 1	ASH LANDFILL MWT-28 GW ALBW20068 1/3/2007 SA LTM 1	ASH LANDFILL MWT-28 GW ALBW20083 3/16/2007 SA LTM 2	ASH LANDFILL MWT-28 GW ALBW20098 6/5/2007 SA LTM 3	ASH LANDFILL MWT-28 GW ALBW20113 11/15/2007 SA LTM 4
Parameter	Units	Value	Detection	Goals 1	Exceedances		Analyzed	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)
Trichloroethene	UG/L	2700	70%	5	55	103	148	0.51 J	20 UJ	20 UJ	20 U	20 U	5 U
Trichlorofluoromethane	UG/L	0	0%	5	0	0	148	0.25 U	20 UJ	20 UJ	20 U	20 UJ	5 U
Vinyl chloride	UG/L	180	66%	2	85	97	148	2.1	20 UJ	20 UJ	20 U	20 U	5 U
Other													
Iron	UG/L	296000	100%		11	12	12		271000 J	278000 J	33000		
Iron+Manganese	UG/L	352900	100%		12	12	12		301800 J	309800 J	37450		
Manganese	UG/L	56900	100%		12	12	12		30800	31800	4450		
Ethane	UG/L	98	90%		0	65	72	3	10000 UJ	10000 UJ	0.67	0.01 J	0.014 J
Ethene	UG/L	200	90%		0	65	72	0.88	10000 UJ	10000 UJ	0.48	0.057	0.025 U
Methane	UG/L	23000	96%		0	69	72	18000	13000 J	12000 J	19000	11000	11000
Sulfate	MG/L	1060	72%	250000	2	52	72	25	2.3	2 U	2 U	2 U	2 U
Total Organic Carbon	MG/L	2050	100%		0	72	72	32	1730 J	1820 J	171	309	92

Notes:

- 1. The cleanup goal values are NYSDEC Class GA GW Standards unless noted otherwise.
- a. NYSDEC Class GA GW Standards (TOGS 1.1.1, June 1998).
- b. Federal Maximum Contaminant Level (http://www.epa.gov/safewater/contaminants/index.html)
- 2. Shading indicates a concentration above the GA GW standard.

U = compound was not detected

J = the reported value is and estimated concentration

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

Facility Location ID Matrix Sample ID Sample Date QC Code								ASH LANDFILL MWT-28 GW ALBW20128 6/25/2008 SA	ASH LANDFILL MWT-28 GW ALBW20144 12/15/2008 SA	ASH LANDFILL MWT-28 GW ALBW20159 6/3/2009 DU	ASH LANDFILL MWT-28 GW ALBW20158 6/3/2009 SA	ASH LANDFILL MWT-28 GW ALBW20174 12/18/2009 SA	ASH LANDFILL MWT-28 GROUNDWATER ALBW20188 6/29/2010 SA
Study ID Sampling Round			Frequency		Number	Number	Number	LTM 5	LTM 6	LTM 7	LTM 7	LTM 8	LTM 9
Parameter	Units	Maximum Value	of Detection	Cleanup Goals ¹	of Exceedances	of Times Detected	of Samples Analyzed	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)
Volatile Organic Compounds	Ullits	value	Detection	Guais	Exceedances	Detected	Allalyzeu	value (Q)	value (Q)	value (Q)	value (Q)	value (Q)	value (Q)
1,1,1-Trichloroethane	UG/L	0.76	3%	5	0	4	148	4 U	2.6 U	0.26 U	0.26 U	1.3 U	0.5 U
1,1,2,2-Tetrachloroethane	UG/L	0	0%	5	0	0	148	4 U	2.1 U	0.21 U	0.21 U	1.1 U	0.18 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	UG/L	0	0%	5	0	0	148	4 U	3.1 U	0.31 U	0.31 U	1.5 UJ	0.5 UJ
1,1,2-Trichloroethane	UG/L	0	0%	1	0	0	148	4 U	2.3 U	0.23 U	0.23 U	1.2 U	0.13 U
1,1-Dichloroethane	UG/L	1.1	9%	5	0	14	148	4 U	7.5 U	0.75 U	0.75 U	1.9 U	0.25 U
1,1-Dichloroethene	UG/L	2.1	11%	5	0	16	148	4 U	2.9 U	0.29 U	0.29 U	1.5 U	0.11 U
1,2,4-Trichlorobenzene	UG/L	0	0%	5	0	0	148	4 U	4.1 U	0.41 U	0.41 U	2 U	0.25 U
1,2-Dibromo-3-chloropropane	UG/L	0	0%	0.04	0	0	148	4 U	10 UJ	1 UJ	1 UJ	2 U	0.44 U
1,2-Dibromoethane	UG/L	0	0%	0.0006	0	0	148	4 U	1.7 U	0.17 U	0.17 U	0.83 U	0.25 U
1,2-Dichlorobenzene	UG/L	0	0%	3	0	0	148	4 U	2 U	0.2 U	0.2 U	1 U	0.21 U
1,2-Dichloroethane	UG/L	5.6	13%	0.6	16	19	148	4 U	2.1 U	0.21 U	0.21 U	1.1 U	0.1 U
1,2-Dichloropropane	UG/L	0	0%	1	0	0	148	4 U	1.4 U	0.14 U	0.14 U	1.6 U	0.13 U
1,3-Dichlorobenzene	UG/L	0	0%	3	0	0	148	4 U	1.6 U	0.16 U	0.16 U	1.8 U	0.25 U
1,4-Dichlorobenzene	UG/L	0	0%	3	0	0	148	4 U	1.6 U	0.16 U	0.16 U	2 U	0.28 U
Acetone	UG/L	2600	25%		0	37	148	20 U	13 U	1.9 J	1.9 J	6.7 U	6.2 J
Benzene	UG/L	0	0%	1	0	0	148	4 U	1.6 U	0.16 U	0.16 U	2 U	0.25 U
Bromodichloromethane	UG/L	0	0%	80 b	0	0	148	4 U	3.8 U	0.39 U	0.39 U	1.9 U	0.25 U
Bromoform	UG/L	0	0%	80 ^b	0	0	148	4 U	2.6 U	0.26 UJ	0.26 UJ	1.3 U	0.5 U
Carbon disulfide	UG/L	0	0%		0	0	148	4 U	1.9 U	0.19 UJ	0.19 UJ	0.97 U	0.6 U
Carbon tetrachloride	UG/L	0	0%	5	0	0	148	4 U	2.7 U	0.27 U	0.27 U	1.3 U	0.5 U
Chlorobenzene	UG/L	0	0%	5	0	0	148	4 U	1.8 U	0.32 U	0.32 U	1.6 U	0.25 U
Chlorodibromomethane	UG/L	0	0%	80 ^b	0	0	148	4 U	3.2 U	0.32 U	0.32 U	1.6 U	0.1 U
Chloroethane	UG/L	1.1	5%	5	0	7	148	4 UJ	3.2 U	0.32 U	0.32 U	1.6 UJ	1 U
Chloroform	UG/L	27	10%	7	4	15	148	4 U	3.4 U	0.34 U	0.34 U	1.7 U	0.14 U
Cis-1,2-Dichloroethene	UG/L	720	84%	5	98	124	148	4 U	1.6 U	0.16 U	0.16 U	1.9 U	0.15 U
Cis-1,3-Dichloropropene	UG/L	0	0%	0.4	0	0	148	4 U	3.6 U	0.36 U	0.36 U	1.8 U	0.11 U
Cyclohexane	UG/L	0	0%		0	0	148	4 U	2.2 U	0.53 U	0.53 U	2.7 U	0.25 U
Dichlorodifluoromethane	UG/L	0	0%	5	0	0	148	4 U	2.8 U	0.29 U	0.29 U	1.4 U	0.25 U
Ethyl benzene	UG/L	1.3	6%	5	0	9	148	4 U	1.8 U	0.18 U	0.18 U	0.92 U	0.17 J
Isopropylbenzene	UG/L	0	0%	5	0	0	148	4 U	1.9 U	0.19 U	0.19 U	0.96 U	0.1 U
Methyl Acetate	UG/L	6	1%		0	2	148	4 UJ	1.7 U	0.17 UJ	0.17 UJ	2.5 U	0.19 UJ
Methyl Tertbutyl Ether	UG/L	0	0%	_	0	0	148	4 U	1.6 U	0.16 U	0.16 U	0.8 U	0.2 U
Methyl bromide	UG/L	0	0%	5	0	0	147	4 UJ	2.8 U	0.28 U	0.28 U	1.4 UJ	0.8 UJ
Methyl butyl ketone	UG/L	0	0%	_	0	0	148	20 UJ	12 U	1.2 U	1.2 U	6.2 U	1 UJ
Methyl chloride	UG/L	0	0%	5	0	0	148	4 U	3.4 U	0.35 U	0.35 U	1.7 U	0.33 U
Methyl cyclohexane	UG/L	0	0%		0	0	148	4 U	2.2 U	0.5 U	0.5 U	2.5 U	0.1 U
Methyl ethyl ketone	UG/L	4900	14%		0	21	148	20 U	13 U	1.3 U	1.3 U	6.6 U	1 U
Methyl isobutyl ketone	UG/L	0	0%	_	0	0	148	20 U	9.1 U	0.91 U	0.91 U	4.5 U	1 U
Methylene chloride	UG/L	18	8%	5	7	12	148	4 U	4.4 UJ	0.44 U	0.44 U	2.2 U	1 U
Styrene	UG/L	0	0%	5	0	0	148	4 U	1.8 U	0.18 U	0.18 U	0.92 U	0.11 U
Tetrachloroethene	UG/L	0 500	0% 10%	5	ŭ	0	148	4 U	3.6 U	0.36 U	0.36 U	1.8 U	0.15 U
Toluene	UG/L	590	18%	5	16	27	148	53	5.1 U	0.6 J	0.57 J	2.6 U	0.52 J
Total Xylenes	UG/L	0	0% 47%	5	0	0	148	12 U	9.3 U	0.66 U	0.66 U	3.3 U	0.2 U
Trans-1,2-Dichloroethene	UG/L	8		5	3	69	148	4 U	1.3 U	0.13 U	0.13 U	2.1 U	0.2 U
Trans-1,3-Dichloropropene	UG/L	0	0%	0.4	0	0	148	4 U	3.7 U	0.37 U	0.37 U	1.8 U	0.21 U

Facility Location ID Matrix Sample ID Sample Date QC Code Study ID Sampling Round		Maximum	Frequency of	Cleanup	Number of	Number of Times	Number of Samples	ASH LANDFILL MWT-28 GW ALBW20128 6/25/2008 SA LTM 5	ASH LANDFILL MWT-28 GW ALBW20144 12/15/2008 SA LTM 6	ASH LANDFILL MWT-28 GW ALBW20159 6/3/2009 DU LTM 7	ASH LANDFILL MWT-28 GW ALBW20158 6/3/2009 SA LTM 7	ASH LANDFILL MWT-28 GW ALBW20174 12/18/2009 SA LTM 8	ASH LANDFILL MWT-28 GROUNDWATER ALBW20188 6/29/2010 SA LTM 9
Parameter	Units	Value	Detection	Goals 1	Exceedances	Detected	Analyzed	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)
Trichloroethene	UG/L	2700	70%	5	55	103	148	4 U	1.8 U	0.18 U	0.18 U	2.3 U	0.13 U
Trichlorofluoromethane	UG/L	0	0%	5	0	0	148	4 UJ	1.5 U	0.15 U	0.15 U	0.76 UJ	0.25 U
Vinyl chloride	UG/L	180	66%	2	85	97	148	4 U	2.4 U	0.24 U	0.24 U	1.2 U	0.18 U 1.6
Other													
Iron	UG/L	296000	100%		11	12	12						
Iron+Manganese	UG/L	352900	100%		12	12	12						
Manganese	UG/L	56900	100%		12	12	12						
Ethane	UG/L	98	90%		0	65	72	0.65	2	1.7	1.9	1.6	1.6
Ethene	UG/L	200	90%		0	65	72	0.044	0.12	0.066	0.062	0.12	0.057
Methane	UG/L	23000	96%		0	69	72	12000	19000	12000	14000	15000	14000
Sulfate	MG/L	1060	72%	250000	2	52	72	2 U	48.3	0.35 U	0.35 U	3.16	0.5 U
Total Organic Carbon	MG/L	2050	100%		0	72	72	49.2	27.9	27.6	28.7	25.5	21

Notes:

- 1. The cleanup goal values are NYSDEC Class GA GW Standards unless noted otherwise.
- a. NYSDEC Class GA GW Standards (TOGS 1.1.1, June 1998).
- b. Federal Maximum Contaminant Level (http://www.epa.gov/safewater/contaminants/index.html)
- 2. Shading indicates a concentration above the GA GW standard.

U = compound was not detected

J = the reported value is and estimated concentration

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

Facility Location ID Matrix Sample ID Sample Date QC Code Study ID Sampling Round		Maximum	Frequency of	Cleanup	Number of	Number of Times	Number of Samples	ASH LANDFILL MWT-28 GW ALBW20189 6/29/2010 DU LTM 9	ASH LANDFILL MWT-28 GW ALBW20204 12/18/2010 SA LTM 10	ASH LANDFILL MWT-29 GW ALBW20070 1/3/2007 SA LTM 1	ASH LANDFILL MWT-29 GW ALBW20085 3/16/2007 DU LTM 2	ASH LANDFILL MWT-29 GW ALBW20084 3/16/2007 SA LTM 2	ASH LANDFILL MWT-29 GW ALBW20099 6/5/2007 SA LTM 3
Parameter	Units	Value	Detection		Exceedances		Analyzed	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)
Volatile Organic Compounds	110/	0.76	20/	_	0	4	4.40	0.5.11	0.5.11	2.11	4.11	5 U	2.11
1,1,1-Trichloroethane 1,1,2,2-Tetrachloroethane	UG/L UG/L	0.76	3% 0%	5 5	0	4 0	148 148	0.5 U 0.18 U	0.5 U 0.18 U	2 U 2 U	4 U 4 U	5 U	2 U 2 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	UG/L	0	0%	5	0	0	148	0.16 UJ	0.18 U	2 U	4 U	5 U	2 UJ
1,1,2-Trichloroethane	UG/L	0	0%	1	0	0	148	0.3 U	0.5 U	2 U	4 U	5 U	2 U
1,1-Dichloroethane	UG/L	1.1	9%	5	0	14	148	0.15 U	0.15 U	2 U	4 U	5 U	2 U
1,1-Dichloroethene	UG/L	2.1	11%	5	0	16	148	0.23 U	0.23 U	2 U	4 U	5 U	2 U
1,2,4-Trichlorobenzene	UG/L	0	0%	5	0	0	148	0.25 U	0.25 U	2 U	4 U	5 U	2 U
1,2-Dibromo-3-chloropropane	UG/L	0	0%	0.04	0	0	148	0.44 U	0.44 U	2 U	4 U	5 U	2 U
1,2-Dibromoethane	UG/L	0	0%	0.0006	0	0	148	0.44 U	0.44 U	2 U	4 U	5 U	2 U
1,2-Dichlorobenzene	UG/L	0	0%	3	0	0	148	0.21 U	0.21 U	2 U	4 U	5 U	2 U
1,2-Dichloroethane	UG/L	5.6	13%	0.6	16	19	148	0.1 U	0.1 U	2 U	4 U	5 U	2 U
1,2-Dichloropropane	UG/L	0.0	0%	1	0	0	148	0.13 U	0.13 U	2 U	4 U	5 U	2 U
1,3-Dichlorobenzene	UG/L	0	0%	3	0	0	148	0.25 U	0.25 U	2 U	4 U	5 U	2 U
1,4-Dichlorobenzene	UG/L	0	0%	3	0	0	148	0.28 U	0.28 U	2 U	4 U	5 U	2 U
Acetone	UG/L	2600	25%	Ü	0	37	148	5.9 J	5 UJ	10 U	14 J	15 J	5.7 J
Benzene	UG/L	0	0%	1	0	0	148	0.25 U	0.25 U	2 U	4 U	5 U	2 U
Bromodichloromethane	UG/L	0	0%	80 ^b	0	0	148	0.25 U	0.25 U	2 U	4 U	5 U	2 U
Bromoform	UG/L	0	0%	80 ^b	0	0	148	0.5 U	0.5 U	2 U	4 U	5 U	2 U
Carbon disulfide	UG/L	0	0%		0	0	148	0.6 U	0.6 U	2 U	4 U	5 U	2 U
Carbon tetrachloride	UG/L	0	0%	5	0	0	148	0.5 U	0.5 U	2 U	4 U	5 U	2 U
Chlorobenzene	UG/L	0	0%	5	0	0	148	0.25 U	0.25 U	2 U	4 U	5 U	2 U
Chlorodibromomethane	UG/L	0	0%	80 b	0	0	148	0.1 U	0.1 U	2 U	4 U	5 U	2 U
Chloroethane	UG/L	1.1	5%	5	0	7	148	1 U	1 U	2 U	4 U	5 U	2 U
Chloroform	UG/L	27	10%	7	4	15	148	0.14 U	0.14 U	2 U	4 U	5 U	2 U
Cis-1,2-Dichloroethene	UG/L	720	84%	5	98	124	148	0.15 U	0.51 J	280	220	220	100
Cis-1,3-Dichloropropene	UG/L	0	0%	0.4	0	0	148	0.11 U	0.11 U	2 U	4 U	5 U	2 U
Cyclohexane	UG/L	0	0%		0	0	148	0.25 U	0.25 U	2 U	4 U	5 U	2 U
Dichlorodifluoromethane	UG/L	0	0%	5	0	0	148	0.25 U	0.25 U	2 U	4 U	5 U	2 U
Ethyl benzene	UG/L	1.3	6%	5	0	9	148	0.17 J	0.11 U	2 U	4 U	5 U	2 U
Isopropylbenzene	UG/L	0	0%	5	0	0	148	0.1 U	0.1 U	2 U	4 U	5 U	2 U
Methyl Acetate	UG/L	6	1%		0	2	148	0.19 UJ	0.19 U	2 U	4 UJ	5 UJ	2 U
Methyl Tertbutyl Ether	UG/L	0	0%		0	0	148	0.2 U	0.8 UJ	2 U	4 U	5 U	2 U
Methyl bromide	UG/L	0	0%	5	0	0	147	0.8 UJ	1 U	2 U	4 U	5 U	2 U
Methyl butyl ketone	UG/L	0	0%		0	0	148	1 UJ	0.33 U	10 U	20 U	25 U	10 U
Methyl chloride	UG/L	0	0%	5	0	0	148	0.33 U	0.1 U	2 U	4 U	5 U	2 U
Methyl cyclohexane	UG/L	0	0%		0	0	148	0.1 U	1 U	2 U	4 U	5 U	2 U
Methyl ethyl ketone	UG/L	4900	14%		0	21	148	1 U	1 U	10 U	20 U	25 U	10 U
Methyl isobutyl ketone	UG/L	0	0%		0	0	148	1 U	0.2 U	10 U	20 U	25 U	10 U
Methylene chloride	UG/L	18	8%	5	7	12	148	1 U	1 U	2 U	4 U	2.5 J	2 U
Styrene	UG/L	0	0%	5	0	0	148	0.11 U	0.11 U	2 U	4 U	5 U	2 U
Tetrachloroethene	UG/L	0	0%	5	0	0	148	0.15 U	0.15 U	2 U	4 U	5 U	2 U
Toluene	UG/L	590	18%	5	16	27	148	0.48 J	0.33 U	2.6	2.2 J	5 U	2 U
Total Xylenes	UG/L	0	0%	5	0	0	148	0.2 U	0.2 U	<u>6</u> U	12 U	<u>15</u> U	6 U
Trans-1,2-Dichloroethene	UG/L	8	47%	5	3	69	148	0.2 U	0.2 U	6.5	8	7.5	2.1
Trans-1,3-Dichloropropene	UG/L	0	0%	0.4	0	0	148	0.21 U	0.21 U	2 U	4 U	5 U	2 U

Facility								ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL
Location ID								MWT-28	MWT-28	MWT-29	MWT-29	MWT-29	MWT-29
Matrix								GW	GW	GW	GW	GW	GW
Sample ID								ALBW20189	ALBW20204	ALBW20070	ALBW20085	ALBW20084	ALBW20099
Sample Date								6/29/2010	12/18/2010	1/3/2007	3/16/2007	3/16/2007	6/5/2007
QC Code								DU	SA	SA	DU	SA	SA
Study ID								LTM	LTM	LTM	LTM	LTM	LTM
Sampling Round			Frequency		Number	Number	Number	9	10	1	2	2	3
		Maximum	of	Cleanup	of	of Times	of Samples						
Parameter	Units	Value	Detection	Goals 1	Exceedances	Detected	Analyzed	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)
Trichloroethene	UG/L	2700	70%	5	55	103	148	0.13 U	0.13 U	22	19	19	7.6
Trichlorofluoromethane	UG/L	0	0%	5	0	0	148	0.25 U	0.25 U	2 U	4 U	<u>5</u> U	2 UJ
Vinyl chloride	UG/L	180	66%	2	85	97	148	0.18 U	0.64 J	140	170	160	81
Other													
Iron	UG/L	296000	100%		11	12	12			1370 J	2550	2470	
Iron+Manganese	UG/L	352900	100%		12	12	12			8620 J	9050	8750	
Manganese	UG/L	56900	100%		12	12	12			7250	6500	6280	
Ethane	UG/L	98	90%		0	65	72	1.5	1.4	2000 U	25	20	13
Ethene	UG/L	200	90%		0	65	72	0.061	0.17	2000 U	150	120	160
Methane	UG/L	23000	96%		0	69	72	13000	12000	2000 U	8100	6500	2800
Sulfate	MG/L	1060	72%	250000	2	52	72	0.5 U	4.8	113	173	179	151
Total Organic Carbon	MG/L	2050	100%		0	72	72	21	12	25.1 J	36.7	35	15.7

Notes:

- 1. The cleanup goal values are NYSDEC Class GA GW Standards unless noted otherwise.
- a. NYSDEC Class GA GW Standards (TOGS 1.1.1, June 1998).
- b. Federal Maximum Contaminant Level (http://www.epa.gov/safewater/contaminants/index.html)
- 2. Shading indicates a concentration above the GA GW standard.
- U = compound was not detected
- J = the reported value is and estimated concentration
- UJ= the compound was not detected; the associated reporting limit is approximate.

Facility Location ID Matrix Sample ID Sample Date QC Code Study ID Sampling Round			Frequency		Number	Number	Number	ASH LANDFILL MWT-29 GW ALBW20114 11/14/2007 SA LTM 4	ASH LANDFILL MWT-29 GW ALBW20130 6/25/2008 DU LTM 5	ASH LANDFILL MWT-29 GW ALBW20129 6/25/2008 SA LTM 5	ASH LANDFILL MWT-29 GW ALBW20145 12/15/2008 SA LTM 6	ASH LANDFILL MWT-29 GW ALBW20160 6/3/2009 SA LTM 7	ASH LANDFILL MWT-29 GW ALBW20175 12/16/2009 SA LTM 8
Parameter	Units	Maximum Value	of Detection	Cleanup Goals ¹	of Exceedances	of Times Detected	of Samples Analyzed	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)
Volatile Organic Compounds													
1,1,1-Trichloroethane	UG/L	0.76	3%	5	0	4	148	1 U	1 U	1 U	0.26 UJ	0.26 U	0.26 U
1,1,2,2-Tetrachloroethane	UG/L	0	0%	5	0	0	148	1 U	1 U	1 U	0.21 UJ	0.21 U	0.21 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	UG/L	0	0%	5	0	0	148	1 U	1 U	1 U	0.31 UJ	0.31 U	0.31 U
1,1,2-Trichloroethane	UG/L	0	0%	1	0	0	148	1 U	1 U	1 U	0.23 UJ	0.23 U	0.23 U
1,1-Dichloroethane	UG/L	1.1	9%	5	0	14	148	1 U	1 U	1 U	0.75 U	0.75 U	0.38 U
1,1-Dichloroethene	UG/L	2.1	11%	5	0	16	148	1 U	1 U	1 U	0.29 U	0.29 U	0.29 U
1,2,4-Trichlorobenzene	UG/L	0	0%	5	0	0	148	1 U	1 U	1 U	0.41 UJ	0.41 U	0.41 U
1,2-Dibromo-3-chloropropane	UG/L	0	0%	0.04	0	0	148	1 U	1 U	1 U	1 UJ	1 UJ	0.39 U
1,2-Dibromoethane	UG/L	0	0%	0.0006	0	0	148	1 U	1 U	1 U	0.17 UJ	0.17 U	0.17 U
1,2-Dichlorobenzene	UG/L	0	0%	3	0	0	148	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U
1,2-Dichloroethane	UG/L	5.6	13%	0.6	16	19	148	1 U	1 U	1 U	0.21 U	0.21 U	0.21 U
1,2-Dichloropropane	UG/L	0	0%	1	0	0	148	1 U	1 U	1 U	0.14 U	0.14 U	0.32 U
1,3-Dichlorobenzene	UG/L	0	0%	3	0	0	148	1 U	1 U	1 U	0.16 U	0.16 U	0.36 U
1,4-Dichlorobenzene	UG/L	0	0%	3	0	0	148	1 U	1 U	1 U	0.16 U	0.16 U	0.39 U
Acetone	UG/L	2600	25%		0	37	148	5 U	5 U	5 U	1.3 UJ	1.3 U	1.3 U
Benzene	UG/L	0	0%	1	0	0	148	1 U	1 U	1 U	0.16 U	0.16 U	0.41 U
Bromodichloromethane	UG/L	0	0%	80 ^b	0	0	148	1 U	1 U	1 U	0.38 U	0.39 U	0.39 U
Bromoform	UG/L	0	0%	80 ^b	0	0	148	1 U	1 U	1 U	0.26 UJ	0.26 UJ	0.26 U
Carbon disulfide	UG/L	0	0%		0	0	148	1 U	1 U	1 U	0.19 U	0.19 UJ	0.19 U
Carbon tetrachloride	UG/L	0	0%	5	0	0	148	1 U	1 U	1 U	0.27 UJ	0.27 U	0.27 U
Chlorobenzene	UG/L	0	0%	5	0	0	148	1 U	1 U	1 U	0.18 U	0.32 U	0.32 U
Chlorodibromomethane	UG/L	0	0%	80 ^b	0	0	148	1 U	1 U	1 U	0.32 U	0.32 U	0.32 U
Chloroethane	UG/L	1.1	5%	5	0	7	148	1 U	1 UJ	1 UJ	0.32 U	0.32 U	0.32 U
Chloroform	UG/L	27	10%	7	4	15	148	1 U	1 U	1 U	0.34 U	0.34 U	0.34 U
Cis-1,2-Dichloroethene	UG/L	720	84%	5	98	124	148	96	85	83	91	61	37
Cis-1,3-Dichloropropene	UG/L	0	0%	0.4	0	0	148	1 U	1 U	1 U	0.36 U	0.36 U	0.36 U
Cyclohexane	UG/L	0	0%		0	0	148	1 U	1 U	1 U	0.22 UJ	0.53 U	0.53 U
Dichlorodifluoromethane	UG/L	0	0%	5	0	0	148	1 U	1 U	1 U	0.28 U	0.29 U	0.29 U
Ethyl benzene	UG/L	1.3	6%	5	0	9	148	1 U	1 U	1 U	0.18 U	0.18 U	0.18 U
Isopropylbenzene	UG/L	0	0%	5	0	0	148	1 U	1 U	1 U	0.19 U	0.19 U	0.19 U
Methyl Acetate	UG/L	6	1%		0	2	148	1 UJ	1 UJ	1 UJ	0.17 UJ	0.17 UJ	0.5 U
Methyl Tertbutyl Ether	UG/L	0	0%		0	0	148	1 U	1 U	1 U	0.16 UJ	0.16 U	0.16 U
Methyl bromide	UG/L	0	0%	5	0	0	147	1 U	1 UJ	1 UJ	0.28 U	0.28 U	0.28 U
Methyl butyl ketone	UG/L	0	0%		0	0	148	5 UJ	5 UJ	5 UJ	1.2 U	1.2 U	1.2 U
Methyl chloride	UG/L	0	0%	5	0	0	148	1 U	1 U	1 U	0.34 U	0.35 U	0.35 U
Methyl cyclohexane	UG/L	0	0%		0	0	148	1 U	1 U	1 U	0.22 UJ	0.5 U	0.5 U
Methyl ethyl ketone	UG/L	4900	14%		0	21	148	5 U	5 U	5 U	1.3 UJ	1.3 U	1.3 U
Methyl isobutyl ketone	UG/L	0	0%		0	0	148	5 U	5 U	5 U	0.91 UJ	0.91 U	0.91 U
Methylene chloride	UG/L	18	8%	5	7	12	148	1 U	1 U	1 U	0.44 UJ	0.44 U	0.44 U
Styrene	UG/L	0	0%	5	0	0	148	1 U	1 U	1 U	0.18 U	0.18 U	0.18 U
Tetrachloroethene	UG/L	0	0%	5	0	0	148	1 U	1 U	1 U	0.36 U	0.36 U	0.36 U
Toluene	UG/L	590	18%	5	16	27	148	2.1	1 U	1 U	0.51 U	0.51 U	0.51 U
Total Xylenes	UG/L	0	0%	5	0	0	148	3 U	3 U	3 U	0.93 U	0.66 U	0.66 U
Trans-1,2-Dichloroethene	UG/L	8	47%	5	3	69	148	0.83 J	0.68 J	0.62 J	0.6 J	0.67 J	0.65 J
Trans-1,3-Dichloropropene	UG/L	0	0%	0.4	0	0	148	1 U	1 U	1 U	0.37 U	0.37 U	0.37 U

Facility Location ID Matrix Sample ID Sample Date QC Code Study ID Sampling Round		Maximum	Frequency of	Cleanup	Number of	Number of Times	Number of Samples	ASH LANDFILL MWT-29 GW ALBW20114 11/14/2007 SA LTM 4	ASH LANDFILL MWT-29 GW ALBW20130 6/25/2008 DU LTM 5	ASH LANDFILL MWT-29 GW ALBW20129 6/25/2008 SA LTM 5	ASH LANDFILL MWT-29 GW ALBW20145 12/15/2008 SA LTM 6	ASH LANDFILL MWT-29 GW ALBW20160 6/3/2009 SA LTM 7	ASH LANDFILL MWT-29 GW ALBW20175 12/16/2009 SA LTM 8
Parameter	Units	Value	Detection	Goals 1	Exceedances	Detected	Analyzed	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)
Trichloroethene	UG/L	2700	70%	5	55	103	148	4.4	3.3	3.2	6.6	4.5	3.5
Trichlorofluoromethane	UG/L	0	0%	5	0	0	148	1 U	1 UJ	1 UJ	0.15 UJ	0.15 U	0.15 U
Vinyl chloride	UG/L	180	66%	2	85	97	148	74	74	73	80	43	29
Other													
Iron	UG/L	296000	100%		11	12	12						
Iron+Manganese	UG/L	352900	100%		12	12	12						
Manganese	UG/L	56900	100%		12	12	12						
Ethane	UG/L	98	90%		0	65	72	19	14	15	14	10	6.7
Ethene	UG/L	200	90%		0	65	72	200	140	140	19	47	12
Methane	UG/L	23000	96%		0	69	72	2600	3000	3200	2700	3000	1500
Sulfate	MG/L	1060	72%	250000	2	52	72	289	174	173	312	300	644 J
Total Organic Carbon	MG/L	2050	100%		0	72	72	20.9	14	14.2	13.6	11.8	8.2

Notes:

- 1. The cleanup goal values are NYSDEC Class GA GW Standards unless noted otherwise.
- a. NYSDEC Class GA GW Standards (TOGS 1.1.1, June 1998).
- b. Federal Maximum Contaminant Level (http://www.epa.gov/safewater/contaminants/index.html)
- 2. Shading indicates a concentration above the GA GW standard.
- U = compound was not detected
- J = the reported value is and estimated concentration
- UJ= the compound was not detected; the associated reporting limit is approximate.

Facility Location ID Matrix Sample ID Sample Date QC Code Study ID Sampling Round			Frequency		Number	Number	Number	ASH LANDFILL MWT-29 GW ALBW20190 6/30/2010 SA LTM 9	ASH LANDFILL MWT-29 GW ALBW20205 12/19/2010 SA LTM 10	ASH LANDFILL MWT-22 GW ALBW20071 1/4/2007 SA LTM 1	ASH LANDFILL MWT-22 GW ALBW20075 3/17/2007 SA LTM 2	ASH LANDFILL MWT-22 GW ALBW20100 6/6/2007 SA LTM 3	ASH LANDFILL MWT-22 GW ALBW20115 11/14/2007 SA LTM 4
Parameter	Units	Maximum Value	of Detection	Cleanup Goals ¹	of Exceedances	of Times Detected	of Samples Analyzed	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)
Volatile Organic Compounds	110/	0.70	20/	_	0	4	4.40	0.5.11	0.5.11	0.11	4.11	4.11	4.11
1,1,1-Trichloroethane	UG/L	0.76	3% 0%	5 5	0	4 0	148	0.5 U	0.5 U	2 U	4 U	1 U 1 U	1 U
1,1,2,2-Tetrachloroethane	UG/L UG/L	0	0% 0%	5 5	0 0	0	148 148	0.18 U 0.5 UJ	0.18 U 0.5 U	2 U 2 U	4 U 4 U	1 UJ	1 U 1 U
1,1,2-Trichloro-1,2,2-Trifluoroethane 1,1,2-Trichloroethane	UG/L UG/L	0 0	0% 0%	5 1	0	0	148	0.5 UJ 0.13 U	0.5 U 0.13 U	2 U	4 U	1 U	1 U
1,1-Dichloroethane	UG/L	1.1	9%	5	0	14	148	0.13 U	0.13 U 0.25 U	2 U	4 U	1 U	1 U
1,1-Dichloroethane	UG/L	2.1	9 <i>%</i> 11%	5	0	16	148	0.26 J	0.25 U 0.4 J	2 U	4 U	1 U	1 U
1,1-bichloroetherie 1,2,4-Trichlorobenzene	UG/L	0	0%	5	0	0	148	0.25 U	0.4 J 0.25 U	2 U	4 U	1 U	1 U
1,2-Dibromo-3-chloropropane	UG/L	0	0%	0.04	0	0	148	0.44 U	0.23 U 0.44 U	2 U	4 U	1 U	1 U
1,2-Dibromoethane	UG/L	0	0%	0.0006	0	0	148	0.44 U	0.44 U 0.25 U	2 U	4 U	1 U	1 U
1,2-Dibromoetriane 1,2-Dichlorobenzene	UG/L	0	0%	3	0	0	148	0.23 U	0.23 U	2 U	4 U	1 U	1 U
1,2-Dichloroethane	UG/L	5.6	13%	0.6	16	19	148	0.21 U	0.21 U	2 U	4 U	1 U	1 U
1,2-Dichloropropane	UG/L	0	0%	1	0	0	148	0.13 U	0.1 U	2 U	4 U	1 U	1 U
1,3-Dichlorobenzene	UG/L	0	0%	3	0	0	148	0.13 U	0.13 U	2 U	4 U	1 U	1 U
1,4-Dichlorobenzene	UG/L	0	0%	3	0	0	148	0.28 U	0.23 U	2 U	4 U	1 U	1 U
Acetone	UG/L	2600	25%	3	0	37	148	5 U	5 UJ	10 U	18 J	38	5 U
Benzene	UG/L	0	0%	1	0	0	148	0.25 U	0.25 U	2 U	4 U	1 U	1 U
Bromodichloromethane	UG/L	0	0%	80 ^b	0	0	148	0.25 U	0.25 U	2 U	4 U	1 U	1 U
Bromoform	UG/L	0	0%	80 ^b	0	0	148	0.5 U	0.5 U	2 U	4 U	1 U	1 U
Carbon disulfide	UG/L	0	0%	00	0	0	148	0.5 U	0.5 U	2 U	4 U	1 U	1 U
Carbon tetrachloride	UG/L	0	0%	5	0	0	148	0.5 U	0.5 U	2 U	4 U	1 U	1 U
Chlorobenzene	UG/L	0	0%	5	0	0	148	0.25 U	0.25 U	2 U	4 U	1 U	1 U
Chlorodibromomethane	UG/L	0	0%	80 ^b	0	0	148	0.1 U	0.1 U	2 U	4 U	1 U	1 U
Chloroethane	UG/L	1.1	5%	5	0	7	148	1 U	1 U	2 UJ	4 U	1 U	1 U
Chloroform	UG/L	27	10%	7	4	, 15	148	0.14 U	0.14 J	2 U	4 U	1 U	1 U
Cis-1,2-Dichloroethene	UG/L	720	84%	, 5	98	124	148	78	38	130	90	120	99
Cis-1,3-Dichloropropene	UG/L	0	0%	0.4	0	0	148	0.11 U	0.11 U		4 U	120 1 U	
Cyclohexane	UG/L	0	0%	0.4	0	0	148	0.25 U	0.25 U	2 U	4 U	1 U	1 U
Dichlorodifluoromethane	UG/L	0	0%	5	0	0	148	0.25 U	0.25 U	2 U	4 U	1 U	1 U
Ethyl benzene	UG/L	1.3	6%	5	0	9	148	0.11 U	0.11 U	2 U	4 U	1 U	1 U
Isopropylbenzene	UG/L	0	0%	5	0	0	148	0.1 U	0.1 U	2 U	4 U	1 U	1 U
Methyl Acetate	UG/L	6	1%	· ·	0	2	148	0.19 UJ	0.19 U	2 U	4 UJ	1 U	1 UJ
Methyl Tertbutyl Ether	UG/L	0	0%		0	0	148	0.2 U	0.8 UJ	2 U	4 U	1 U	1 U
Methyl bromide	UG/L	0	0%	5	0	0	147	0.8 UJ	1 U	2 U	4 U	1 U	1 U
Methyl butyl ketone	UG/L	0	0%	· ·	0	0	148	1 UJ	0.33 U	10 U	20 U	5 U	5 UJ
Methyl chloride	UG/L	0	0%	5	0	0	148	0.33 U	0.1 U	2 U	4 U	1 U	1 U
Methyl cyclohexane	UG/L	0	0%	-	0	0	148	0.1 U	1 U	2 U	4 U	1 U	1 U
Methyl ethyl ketone	UG/L	4900	14%		0	21	148	1 U	1 U	6 J	20 U	5 U	5 U
Methyl isobutyl ketone	UG/L	0	0%		0	0	148	1 U	0.2 U	10 U	20 U	5 U	5 U
Methylene chloride	UG/L	18	8%	5	7	12	148	1 U	1 U	1.2 J	4 U	1 U	1 U
Styrene	UG/L	0	0%	5	0	0	148	0.11 U	0.11 U	2 U	4 U	1 U	1 U
Tetrachloroethene	UG/L	0	0%	5	0	0	148	0.15 U	0.15 U	2 U	4 U	1 U	1 U
Toluene	UG/L	590	18%	5	16	27	148	0.33 U	0.33 U	2 U	4 U	1 U	1 U
Total Xylenes	UG/L	0	0%	5	0	0	148	0.2 U	0.2 U	6 U	12 U	3 U	3 U
Trans-1,2-Dichloroethene	UG/L	8	47%	5	3	69	148	1.1	0.77 J	2.7	4 U	3.2	0.85 J
Trans-1,3-Dichloropropene	UG/L	0	0%	0.4	0	0	148	0.21 U	0.21 U	2 U	4 U	1 U	1 U

Fac Location Ma Sample Sample D QC Co Study Sampling Rou	ID trix ID ate ode ID	Maximum	Frequency of	Cleanup	Number of	Number of Times	Number of Samples	ASH LANDFILL MWT-29 GW ALBW20190 6/30/2010 SA LTM 9	ASH LANDFILL MWT-29 GW ALBW20205 12/19/2010 SA LTM 10	ASH LANDFILL MWT-22 GW ALBW20071 1/4/2007 SA LTM 1	ASH LANDFILL MWT-22 GW ALBW20075 3/17/2007 SA LTM 2	ASH LANDFILL MWT-22 GW ALBW20100 6/6/2007 SA LTM 3	ASH LANDFILL MWT-22 GW ALBW20115 11/14/2007 SA LTM 4
Parameter	Units	Value	Detection		Exceedances		Analyzed	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)
Trichloroethene	UG/L	2700	70%	5	55	103	148	1.3	2.1	5.2	3.8 J	6.5	2.6
Trichlorofluoromethane	UG/L	0	0%	5	0	0	148	0.25 _U	0.25 U	2 U	<u>4</u> U	1 UJ	<u> </u>
Vinyl chloride	UG/L	180	66%	2	85	97	148	69	27	98	64	81	180
Other													
Iron	UG/L	296000	100%		11	12	12						
Iron+Manganese	UG/L	352900	100%		12	12	12						
Manganese	UG/L	56900	100%		12	12	12						
Ethane	UG/L	98	90%		0	65	72	18	5.1				
Ethene	UG/L	200	90%		0	65	72	88	7.9				
Methane	UG/L	23000	96%		0	69	72	5400	3100				
Sulfate	MG/L	1060	72%	250000	2	52	72	170	300				
Total Organic Carbon	MG/L	2050	100%		0	72	72	10	7.4				

Notes:

- 1. The cleanup goal values are NYSDEC Class GA GW Standards unless noted otherwise.
- a. NYSDEC Class GA GW Standards (TOGS 1.1.1, June 1998).
- b. Federal Maximum Contaminant Level (http://www.epa.gov/safewater/contaminants/index.html)
- 2. Shading indicates a concentration above the GA GW standard.
- U = compound was not detected
- J = the reported value is and estimated concentration
- UJ= the compound was not detected; the associated reporting limit is approximate.

Facility Location ID Matrix Sample ID Sample Date QC Code Study ID Sampling Round		Maximum	Frequency of	Cleanup	Number of	Number of Times	Number of Samples	ASH LANDFILL MWT-22 GW ALBW20121 6/25/2008 SA LTM 5	ASH LANDFILL MWT-22 GW ALBW20136 12/15/2008 SA LTM 6	ASH LANDFILL MWT-22 GW ALBW20151 6/3/2009 SA LTM 7	ASH LANDFILL MWT-22 GW ALBW20166 12/16/2009 SA LTM 8	ASH LANDFILL MWT-22 GW ALBW20181 7/1/2010 SA LTM 9	ASH LANDFILL MWT-22 GW ALBW20196 12/17/2010 SA LTM 10
Parameter	Units	Value	Detection	Goals 1	Exceedances	Detected	Analyzed	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)
Volatile Organic Compounds		0.70	00/	_	•		4.40	- 11	40111	0.00.11	4.0.11	0.5.11	0.5.11
1,1,1-Trichloroethane	UG/L	0.76	3%	5	0	4	148	5 U	1.3 UJ	0.26 U	1.3 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane	UG/L	0	0%	5	0	0	148	5 U	1 UJ	0.21 U	1.1 U	0.18 U	0.18 U
1,1,2-Trichloro-1,2,2-Trifluoroethane 1,1,2-Trichloroethane	UG/L UG/L	0 0	0% 0%	5 1	0	0	148 148	5 UJ	1.6 UJ	0.31 U	1.5 U	0.5 U	0.5 U
1,1-Dichloroethane	UG/L UG/L		0% 9%	•	0	Ū	148	5 U	1.2 UJ 3.8 U	0.23 U 0.75 U	1.2 U 1.9 U	0.13 U 0.25 U	0.13 U
1,1-Dichloroethane 1,1-Dichloroethene	UG/L	1.1 2.1	9% 11%	5 5	0	14 16	148	5 U 5 U	3.6 U 1.4 U	0.75 U 0.29 U	1.5 U	0.25 U 0.12 J	0.25 U 0.66 J
1,1-Dichloroetherie 1,2,4-Trichlorobenzene	UG/L	0	0%	5 5	0	0	148	5 U	1.4 U 2 UJ	0.29 U 0.41 U	1.5 U 2 U	0.12 J 0.25 U	0.06 J 0.25 U
1,2-Dibromo-3-chloropropane	UG/L	0	0%	0.04	0	0	148	5 UJ	2 UJ	0.41 U 1 UJ	2 U	0.23 U 0.44 U	0.25 U 0.44 U
1,2-Dibromoethane	UG/L	0	0%	0.006	0	0	148	5 U	0.85 UJ	0.17 U	0.83 U	0.44 U 0.25 U	0.44 U 0.25 U
1,2-Dibromoetriane 1,2-Dichlorobenzene	UG/L	0	0%	3	0	0	148	5 U	0.65 UJ 1 U	0.17 U	0.63 U 1 U	0.23 U	0.25 U
1,2-Dichloroethane	UG/L	5.6	13%	ა 0.6	16	19	148	5 U	1 U	0.2 U 0.21 U	1.1 U	0.21 U 0.1 U	0.21 U 0.25 J
1,2-Dichloropropane	UG/L	0.0	0%	1	0	0	148	5 U	0.7 U	0.21 U	1.6 U	0.13 U	0.25 J 0.13 U
1,3-Dichlorobenzene	UG/L	0	0%	3	0	0	148	5 U	0.7 U 0.8 U	0.14 U 0.16 U	1.8 U	0.13 U 0.25 U	0.13 U 0.25 U
1,4-Dichlorobenzene	UG/L	0	0%	3	0	0	148	5 U	0.8 U	0.16 U	1.6 U 2 U	0.28 U	0.25 U
Acetone	UG/L	2600	25%	3	0	37	148	25 U	6.5 UJ	2.5 J	6.7 U	5 U	5 UJ
Benzene	UG/L	0	25 % 0%	1	0	0	148	5 U	0.8 U	0.16 U	0.7 U	0.25 U	0.25 U
Bromodichloromethane	UG/L	0	0%	80 ^b	0	0	148	5 U	1.9 U	0.10 U	1.9 U	0.25 U	0.25 U
Bromoform	UG/L	0	0%	80 ^b	0	0	148	5 U	1.3 UJ	0.26 UJ	1.3 U	0.23 U	0.5 U
Carbon disulfide	UG/L	0	0%	00	0	0	148	5 U	0.95 U	0.26 UJ	0.97 U	0.5 U	0.5 U
Carbon tetrachloride	UG/L	0	0%	5	0	0	148	5 U	1.4 UJ	0.19 U	1.3 U	0.5 U	0.5 U
Chlorobenzene	UG/L	0	0%	5	0	0	148	5 U	0.9 U	0.32 U	1.6 U	0.25 U	0.25 U
Chlorodibromomethane	UG/L	0	0%	80 ^b	0	0	148	5 U	1.6 U	0.32 U	1.6 U	0.23 U	0.23 U
Chloroethane	UG/L	1.1	5%	5	0	7	148	5 UJ	1.6 U	0.32 U	1.6 U	1 U	1 U
Chloroform	UG/L	27	10%	7	4	, 15	148	5 U	1.7 U	0.34 U	1.7 U	0.14 U	0.14 U
Cis-1,2-Dichloroethene	UG/L	720	84%	5	98	124	148	68	160	66	57	41	130
Cis-1,3-Dichloropropene	UG/L	0	0%	0.4	0	0	148	<u></u>	1.8 U	0.36 U			0.11 U
Cyclohexane	UG/L	0	0%	0.4	0	0	148	5 U	1.0 UJ	0.53 U	2.7 U	0.25 U	0.11 U
Dichlorodifluoromethane	UG/L	0	0%	5	0	0	148	5 U	1.4 U	0.29 U	1.4 U	0.25 UJ	0.25 U
Ethyl benzene	UG/L	1.3	6%	5	0	9	148	5 U	0.9 U	0.18 U	0.92 U	0.23 U	0.11 U
Isopropylbenzene	UG/L	0	0%	5	0	0	148	5 U	0.95 U	0.19 U	0.96 U	0.1 U	0.1 U
Methyl Acetate	UG/L	6	1%	J	0	2	148	5 UJ	0.85 UJ	0.17 UJ	2.5 U	0.19 U	0.19 U
Methyl Tertbutyl Ether	UG/L	0	0%		0	0	148	5 U	0.8 UJ	0.16 U	0.8 U	0.2 U	0.8 UJ
Methyl bromide	UG/L	0	0%	5	0	0	147	5 UJ	1.4 U	0.28 U	1.4 U	0.8 U	1 U
Methyl butyl ketone	UG/L	0	0%	J	0	0	148	25 UJ	6 U	1.2 U	6.2 U	1 U	0.33 U
Methyl chloride	UG/L	0	0%	5	0	0	148	5 UJ	1.7 U	0.35 U	1.7 U	0.33 U	0.1 U
Methyl cyclohexane	UG/L	0	0%	Ū	0	0	148	5 U	1.1 UJ	0.5 U	2.5 U	0.1 U	1 U
Methyl ethyl ketone	UG/L	4900	14%		0	21	148	25 UJ	6.5 UJ	1.3 U	6.6 U	1 U	1 U
Methyl isobutyl ketone	UG/L	0	0%		0	0	148	25 UJ	4.6 UJ	0.91 U	4.5 U	1 U	0.2 U
Methylene chloride	UG/L	18	8%	5	7	12	148	5 U	2.2 UJ	0.44 U	2.2 U	1 U	1 U
Styrene	UG/L	0	0%	5	0	0	148	5 U	0.9 U	0.18 U	0.92 U	0.11 U	0.11 U
Tetrachloroethene	UG/L	0	0%	5	0	0	148	5 U	1.8 U	0.36 U	1.8 U	0.15 U	0.15 U
Toluene	UG/L	590	18%	5	16	27	148	5 U	2.6 U	0.51 U	2.6 U	0.33 U	0.33 U
Total Xylenes	UG/L	0	0%	5	0	0	148	15 U	4.6 U	0.66 U	3.3 U	0.2 U	0.2 U
Trans-1,2-Dichloroethene		0		•	2	60							
Trans-1,3-Dichloropropene	UG/L	8	47%	5	3	69	148	5 U	0.65 U	0.77 J	2.1 U	1.3	2.8

Facility Location ID Matrix Sample ID Sample Date QC Code Study ID								ASH LANDFILL MWT-22 GW ALBW20121 6/25/2008 SA LTM	ASH LANDFILL MWT-22 GW ALBW20136 12/15/2008 SA LTM	ASH LANDFILL MWT-22 GW ALBW20151 6/3/2009 SA LTM	ASH LANDFILL MWT-22 GW ALBW20166 12/16/2009 SA LTM	ASH LANDFILL MWT-22 GW ALBW20181 7/1/2010 SA LTM	ASH LANDFILL MWT-22 GW ALBW20196 12/17/2010 SA LTM
Sampling Round		Maximum	Frequency of	Cleanup	Number of	Number of Times	Number of Samples	5	6	/	8	9	10
Parameter	Units	Value	Detection	Goals 1	Exceedances	Detected	Analyzed	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)
Trichloroethene	UG/L	2700	70%	5	55	103	148	3 J	5.9	2.2	2.3 U	0.6 J	1.8
Trichlorofluoromethane	UG/L	0	0%	5	0	0	148	<u>5</u> UJ	0.75 UJ	0.15 U	0.76 U	0.25 U	0.25 U
Vinyl chloride	UG/L	180	66%	2	85	97	148	42	140	89	52	57	98
Other													
Iron	UG/L	296000	100%		11	12	12						
Iron+Manganese	UG/L	352900	100%		12	12	12						
Manganese	UG/L	56900	100%		12	12	12						
Ethane	UG/L	98	90%		0	65	72						
Ethene	UG/L	200	90%		0	65	72						
Methane	UG/L	23000	96%		0	69	72						
Sulfate	MG/L	1060	72%	250000	2	52	72						

72

72

Notes:

Total Organic Carbon

1. The cleanup goal values are NYSDEC Class GA GW Standards unless noted otherwise.

MG/L

- a. NYSDEC Class GA GW Standards (TOGS 1.1.1, June 1998).
- b. Federal Maximum Contaminant Level (http://www.epa.gov/safewater/contaminants/index.html)

2050

100%

- 2. Shading indicates a concentration above the GA GW standard.
- U = compound was not detected
- J = the reported value is and estimated concentration
- UJ= the compound was not detected; the associated reporting limit is approximate.

Facility Location ID Matrix Sample ID Sample Date								ASH LANDFILL MWT-7 GW ALBW20077 3/15/2007	ASH LANDFILL MWT-7 GW ALBW20091 6/5/2007	ASH LANDFILL MWT-7 GW ALBW20106 11/13/2007	ASH LANDFILL MWT-7 GW ALBW20120 6/25/2008	ASH LANDFILL MWT-7 GW ALBW20135 12/15/2008	ASH LANDFILL MWT-7 GW ALBW20150 6/2/2009
QC Code								SA	SA	SA	SA	SA	SA
Study ID			-		Manada an	Managhan	NII	LTM	LTM	LTM	LTM	LTM	LTM
Sampling Round		Maximum	Frequency of	Cleanup	Number of	Number of Times	Number of Samples	2	3	4	5	6	1
Parameter	Units	Value	Detection	Goals 1	Exceedances		-	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)
Volatile Organic Compounds	Office	Value	Detection	Coais	LXCCCGGIICCS	Detected	Allalyzea	value (Q)	value (Q)	value (Q)	value (Q)	value (Q)	value (Q)
1,1,1-Trichloroethane	UG/L	0.76	3%	5	0	4	118	1 U	1 U	1 U	1 U	0.26 U	0.26 U
1,1,2,2-Tetrachloroethane	UG/L	0	0%	5	0	0	118	1 U	1 U	1 U	1 U	0.21 U	0.21 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	UG/L	0	0%	5	0	0	118	1 U	1 UJ	1 U	1 UJ	0.31 U	0.31 U
1,1,2-Trichloroethane	UG/L	0	0%	1	0	0	118	1 U	1 U	1 U	1 U	0.23 U	0.23 U
1,1-Dichloroethane	UG/L	1.1	7%	5	0	8	118	1 U	1 U	1 U	1 U	0.75 U	0.75 U
1,1-Dichloroethene	UG/L	2.1	7%	5	0	8	118	1 U	1 U	1 U	1 U	0.29 U	0.29 U
1,2,4-Trichlorobenzene	UG/L	0	0%	5	0	0	118	1 U	1 U	1 U	1 U	0.41 U	0.41 U
1,2-Dibromo-3-chloropropane	UG/L	0	0%	0.04	0	0	118	1 U	1 U	1 U	1 UJ	1 UJ	1 UJ
1,2-Dibromoethane	UG/L	0	0%	0.0006	0	0	118	1 U	1 U	1 U	1 U	0.17 U	0.17 U
1,2-Dichlorobenzene	UG/L	0	0%	3	0	0	118	1 U	1 U	1 U	1 U	0.2 U	0.2 U
1,2-Dichloroethane	UG/L	5.6	11%	0.6	11	13	118	1 U	1 U	1 U	1 U	0.21 U	0.21 U
1,2-Dichloropropane	UG/L	0	0%	1	0	0	118	1 U	1 U	1 U	1 U	0.14 U	0.14 U
1,3-Dichlorobenzene	UG/L	0	0% 0%	3 3	0	0 0	118	1 U	1 U	1 U	1 U 1 U	0.16 U	0.16 U
1,4-Dichlorobenzene	UG/L	0 2600		3	0	34	118 118	1 U 5 U	1 U 5 U	1 U 5 U	5 U	0.16 U	0.16 U
Acetone	UG/L UG/L	2600	29% 0%	1	0	0 0	118	1 U	1 U	1 U	5 U 1 U	1.3 U 0.16 U	1.3 U 0.16 U
Brandiahlaranathana				80 ^b	0	O							
Bromodichloromethane	UG/L	0	0%		0	0	118	1 U	1 U	1 U	1 U	0.38 U	0.39 U
Bromoform	UG/L	0	0%	80 b	0	0	118	1 U	1 U	1 U	1 U	0.26 U	0.26 UJ
Carbon disulfide	UG/L	0	0%	_	0	0	118	1 U	1 U	1 U	1 U	0.19 U	0.19 UJ
Carbon tetrachloride	UG/L	0	0%	5	0	0	118	1 U	1 U	1 U	1 U	0.27 U	0.27 U
Chlorobenzene	UG/L	0	0%	5	0	0	118	1 U	1 U	1 U	1 U	0.18 U	0.32 U
Chlorodibromomethane	UG/L	0	0%	80 b	0	0	118	1 U	1 U	1 U	1 U	0.32 U	0.32 U
Chloroform	UG/L	1.1	6% 5%	5	0	<i>/</i>	118	1 U	1 U	0.65 J	1 UJ	0.93 J	0.61 J
Chloroform Cis-1,2-Dichloroethene	UG/L UG/L	27 720	5% 81%	/ E	4 80	6 96	118 118	1 U 42	1 U	1 U	1 U	0.34 U	0.34 U
Cis-1,2-Dichloropropene	UG/L	0	0%	0.4	00	96	118	1 U	61 1 U	90 1 U	90 1 U	0.36 U	0.36 U
Cyclohexane	UG/L	0	0%	0.4	0	0	118	1 U	1 U	1 U	1 U	0.36 U 0.22 U	0.53 U
Dichlorodifluoromethane	UG/L	0	0%	5	0	0	118	1 U	1 U	1 U	1 U	0.22 U	0.29 U
Ethyl benzene	UG/L	1.3	3%	5	0	4	118	1 U	1 U	1 U	1 U	0.28 U	0.18 U
Isopropylbenzene	UG/L	0	0%	5	0	0	118	1 U	1 U	1 U	1 U	0.19 U	0.19 U
Methyl Acetate	UG/L	6	2%	Ū	0	2	118	1 UJ	1 U	1 UJ	1 UJ	0.17 U	0.17 UJ
Methyl Tertbutyl Ether	UG/L	0	0%		0	0	118	1 U	1 U	1 U	1 U	0.16 U	0.16 U
Methyl bromide	UG/L	0	0%	5	0	Ō	117	1 U	1 U	1 U	1 UJ	0.28 U	0.28 U
Methyl butyl ketone	UG/L	0	0%		0	0	118	5 U	5 U	5 UJ	5 UJ	1.2 U	1.2 U
Methyl chloride	UG/L	0	0%	5	0	0	118	1 U	1 U	1 U	1 UJ	0.34 U	0.35 U
Methyl cyclohexane	UG/L	0	0%		0	0	118	1 U	1 U	1 U	1 U	0.22 U	0.5 U
Methyl ethyl ketone	UG/L	4900	18%		0	21	118	5 U	5 U	5 U	5 UJ	1.3 U	1.3 U
Methyl isobutyl ketone	UG/L	0	0%		0	0	118	5 U	5 U	5 U	5 UJ	0.91 U	0.91 U
Methylene chloride	UG/L	18	10%	5	7	12	118	1 U	1 U	1 U	1 U	0.44 UJ	0.44 U
Styrene	UG/L	0	0%	5	0	0	118	1 U	1 U	1 U	1 U	0.18 U	0.18 U
Tetrachloroethene	UG/L	0	0%	5	0	0	118	1 U	1 U	1 U	1 U	0.36 U	0.36 U
Toluene	UG/L	590	19%	5	16	23	118	1 U	1 U	1 U	1 U	0.51 U	0.51 U
Total Xylenes	UG/L	0	0%	5	0	0	118	3 U	3 U	3 U	3 U	0.93 U	0.66 U
Trans-1,2-Dichloroethene	UG/L	8	42%	5	3	50	118	1 U	1 U	1 U	1 U	0.13 U	0.13 U
Trans-1,3-Dichloropropene	UG/L	0	0%	0.4	0	0	118	1 U	1 U	1 U	1 U	0.37 U	0.37 U
Trichloroethene	UG/L	2700	68%	5	48	80	118	440	410	510	440	410	330
Trichlorofluoromethane	UG/L	0	0%	5	0	0	118	1 U	1 UJ	1 U	1 UJ	0.15 U	0.15 U
Vinyl chloride	UG/L	180	66%	2	67	78	118	9.7	18	24	12	13	9.3

	Facility Location ID Matrix Sample ID Sample Date								ASH LANDFILL MWT-7 GW ALBW20077 3/15/2007	ASH LANDFILL MWT-7 GW ALBW20091 6/5/2007	ASH LANDFILL MWT-7 GW ALBW20106 11/13/2007	ASH LANDFILL MWT-7 GW ALBW20120 6/25/2008	ASH LANDFILL MWT-7 GW ALBW20135 12/15/2008	ASH LANDFILL MWT-7 GW ALBW20150 6/2/2009
	QC Code Study ID								SA LTM	SA LTM	SA LTM	SA LTM	SA LTM	SA LTM
S	Sampling Round			Frequency	01	Number	Number	Number	2	3	4	5	6	7
D		1124-	Maximum		Cleanup	of		of Samples	\	\/-l (0)	\/-l (0)	\/-L (O)	\/-L (O)	\(\frac{1}{2} \text{Loss} \(\frac{1}{2} \text{Loss} \\ \frac{1}{2} \text{Loss} \(\frac{1}{2} \text{Loss} \\ \frac{1}{2} \text{Loss} \\ \frac{1} \text{Loss} \\ \frac{1}{2} \text{Loss} \\ \frac{1}{2} \text{Loss}
Parameter		Units	Value	Detection	Goals '	Exceedances	Detected	Analyzed	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)
Other		110/	000000	4000/		4.4	40	40						
Iron		UG/L	296000	100%		11	12	12						
Iron+Manganese		UG/L	352900	100%		12	12	12						
Manganese		UG/L	56900	100%		12	12	12						
Ethane		UG/L	98	88%		0	49	56				6.7	11	7.8
Ethene		UG/L	200	88%		0	49	56				2	0.27	0.76
Methane		UG/L	23000	95%		0	53	56				400	670	1100
Sulfate		MG/L	1060	70%		0	39	56				29.1	29.1	27
Total Organic Carbon	١	MG/L	2050	100%		0	56	56				2.3	3	3.1

Notes:

- The cleanup goal values are NYSDEC Class GA GW Standards unless noted otherwise.
 a. NYSDEC Class GA GW Standards (TOGS 1.1.1, June 1998).
 b. Federal Maximum Contaminant Level (http://www.epa.gov/safewater/contaminants/index.html)
 Shading indicates a concentration above the GA GW standard.

U = compound was not detected

- J = the reported value is and estimated concentration
- UJ= the compound was not detected; the associated reporting limit is approximate.

Facility Location ID Matrix Sample ID Sample Date QC Code								ASH LANDFILL MWT-7 GW ALBW20165 12/15/2009 SA	ASH LANDFILL MWT-7 GW ALBW20180 7/1/2010 SA	ASH LANDFILL MWT-7 GW ALBW20195 12/18/2010 SA	ASH LANDFILL PT-24 GW ALBW20061 1/2/2007 SA	ASH LANDFILL PT-24 GW ALBW20076 3/15/2007 SA	ASH LANDFILL PT-24 GW ALBW20090 6/5/2007 SA
Study ID								LTM	LTM	LTM	LTM	LTM	LTM
Sampling Round			Frequency		Number	Number	Number	8	9	10	1	2	3
		Maximum	of	Cleanup	of	of Times	of Samples	}					
Parameter	Units	Value	Detection	Goals 1	Exceedances	Detected	Analyzed	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)
Volatile Organic Compounds							•	` '	\	<u> </u>	` ,	,	· , , , , , , , , , , , , , , , , , , ,
1,1,1-Trichloroethane	UG/L	0.76	3%	5	0	4	118	0.26 U	0.5 U	0.5 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	UG/L	0	0%	5	0	0	118	0.21 U	0.18 U	0.18 U	1 U	1 U	1 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	UG/L	0	0%	5	0	0	118	0.31 U	0.5 U	0.5 U	1 U	1 U	1 UJ
1,1,2-Trichloroethane	UG/L	0	0%	1	0	0	118	0.23 U	0.13 U	0.13 U	1 U	1 U	1 U
1,1-Dichloroethane	UG/L	1.1	7%	5	0	8	118	0.38 U	0.25 U	0.25 U	0.68 J	1 U	0.75 J
1,1-Dichloroethene	UG/L	2.1	7%	5	0	8	118	0.48 J	0.78 J	0.98 J	1 U	1 U	1 U
1,2,4-Trichlorobenzene	UG/L	0	0%	5	0	0	118	0.41 U	0.25 U	0.25 U	1 U	1 U	1 U
1,2-Dibromo-3-chloropropane	UG/L	0	0%	0.04	0	0	118	0.39 U	0.44 U	0.44 U	1 U	1 U	1 U
1,2-Dibromoethane	UG/L	0	0%	0.0006	0	0	118	0.17 U	0.25 U	0.25 U	1 U	1 U	1 U
1,2-Dichlorobenzene	UG/L	0	0%	3	0	0	118	0.2 U	0.21 U	0.21 U	1 U	1 U	1 U
1,2-Dichloroethane	UG/L	5.6	11%	0.6	11	13	118	0.21 U	0.1 U	0.1 U	1 U	1 U	1 U
1,2-Dichloropropane	UG/L	0	0%	1	0	0	118	0.32 U	0.13 U	0.13 U	1 U	1 U	1 U
1,3-Dichlorobenzene	UG/L	0	0%	3	0	0	118	0.36 U	0.25 U	0.25 U	1 U	1 U	1 U
1,4-Dichlorobenzene	UG/L	0	0%	3	0	0	118	0.39 U	0.28 U	0.28 U	1 U	1 U	1 U
Acetone	UG/L	2600	29%		0	34	118	1.3 U	5 U	5 UJ	5 U	5 U	5 U
Benzene	UG/L	0	0%	1	0	0	118	0.41 U	0.25 U	0.25 U	1 U	1 U	1 U
Bromodichloromethane	UG/L	0	0%	80 p	0	0	118	0.39 U	0.25 U	0.25 U	1 U	1 U	1 U
Bromoform	UG/L	0	0%	80 ^b	0	0	118	0.26 UJ	0.5 U	0.5 U	1 U	1 U	1 U
Carbon disulfide	UG/L	0	0%		0	0	118	0.19 UJ	0.6 U	0.6 U	1 U	1 U	1 U
Carbon tetrachloride	UG/L	0	0%	5	0	0	118	0.27 U	0.5 U	0.5 U	1 U	1 U	1 U
Chlorobenzene	UG/L	0	0%	5	0	0	118	0.32 U	0.25 U	0.25 U	1 U	1 U	1 U
Chlorodibromomethane	UG/L	0	0%	80 ^b	0	0	118	0.32 U	0.1 U	0.1 U	1 U	1 U	1 U
Chloroethane	UG/L	1.1	6%	5	0	7	118	0.32 UJ	1 U	1 U	1 U	1 U	1 U
Chloroform	UG/L	27	5%	7	4	6	118	0.34_U	0.14_U	U	1 U	1 U	1 U
Cis-1,2-Dichloroethene	UG/L	720	81%	5	80	96	118	140	170	120	54	38	60
Cis-1,3-Dichloropropene	UG/L	0	0%	0.4	0	0	118	0.36 U	0.11 U	0.11 U	1 U	1 U	1 U
Cyclohexane	UG/L	0	0%		0	0	118	0.53 U	0.25 U	0.25 U	1 U	1 U	1 U
Dichlorodifluoromethane	UG/L	0	0%	5	0	0	118	0.29 U	0.25 UJ	0.25 U	1 U	1 U	1 U
Ethyl benzene	UG/L	1.3	3%	5	0	4	118	0.18 U	0.11 U	0.11 U	1 U	1 U	1 U
Isopropylbenzene	UG/L	0	0%	5	0	0	118	0.19 U	0.1 U	0.1 U	1 U	1 U	1 U
Methyl Acetate	UG/L	6	2%		0	2	118	0.5 U	0.19 U	0.19 U	1 U	1 UJ	1 U
Methyl Tertbutyl Ether	UG/L	0	0%	_	0	0	118	0.16 U	0.2 U	0.8 UJ	1 U	1 U	1 U
Methyl bromide	UG/L	0	0%	5	0	0	117	0.28 U	0.8 U	1 U	1 U	1 U	1 U
Methyl butyl ketone	UG/L	0	0%	_	0	0	118	1.2 U	1 U	0.33 U	5 U	5 U	5 U
Methyl cyclehovers	UG/L	0	0%	5	0	0	118	0.35 UJ	0.33 U	0.1 U	1 U	1 U	1 U
Methyl cyclohexane	UG/L UG/L	0 4900	0%		0	0 21	118 118	0.5 U 1.3 U	0.1 U 1 U	1 U 1 U	1 U 5 U	1 U	1 U 5 U
Methyl ethyl ketone	UG/L UG/L	4900	18% 0%		0	0	118	0.91 U	1 U	0.2 U	5 U	5 U 5 U	5 U
Methyl isobutyl ketone Methylene chloride	UG/L	18	10%	5	7	12	118	0.44 U	1 U	0.2 U 1 U	1 U	1 U	1 U
Styrene	UG/L	0	0%	5	0	0	118	0.44 U 0.18 U	0.11 U	0.11 U	1 U	1 U	1 U
Tetrachloroethene	UG/L	0	0%	5	0	0	118	0.16 U	0.11 U	0.11 U	1 U	1 U	1 U
Toluene	UG/L	590	19%	5	16	23	118	0.51 U	0.33 U	0.33 U	1 U	1 U	1 U
Total Xylenes	UG/L	0	0%	5	0	0	118	0.66 U	0.33 U 0.2 U	0.33 U 0.2 U	3 U	3 U	3 U
Trans-1,2-Dichloroethene	UG/L	8	42%	5 5	3	50	118	0.55 J	0.2 0 0.91 J	0.2 U 0.75 J	0.86 J	0.81 J	1.6
Trans-1,3-Dichloropropene	UG/L	0	0%	0.4	0	0	118	0.37 U	0.21 U	0.73 U	1 U	1 U	1.0 1 U
Trichloroethene	UG/L	2700	68%	5	48	80	118	350	330	310	4	2.8	3.1
Trichlorofluoromethane	UG/L	0	0%	5	0	0	118	0.15 U	0.25 U	0.25 U	1 U	1 U	1 UJ
Vinyl chloride	UG/L	180	66%	2	67	78	118	21	15	15	0.6 J	1 U	2.6

	Facility Location ID Matrix Sample ID Sample Date QC Code Study ID Sampling Round		Maximum		Cleanup	Number of		Number of Samples	ASH LANDFILL MWT-7 GW ALBW20165 12/15/2009 SA LTM 8	ASH LANDFILL MWT-7 GW ALBW20180 7/1/2010 SA LTM 9	ASH LANDFILL MWT-7 GW ALBW20195 12/18/2010 SA LTM 10	ASH LANDFILL PT-24 GW ALBW20061 1/2/2007 SA LTM 1	ASH LANDFILL PT-24 GW ALBW20076 3/15/2007 SA LTM 2	ASH LANDFILL PT-24 GW ALBW20090 6/5/2007 SA LTM 3	,
Parameter		Units	Value	Detection	Goals ¹	Exceedances	Detected	Analyzed	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)	
									1 3.1 3.1 3 (3.1)	1 5.1.5.10 (5.1,)	1 3.3.5 (4)	value (u)	value (u)	1 3.1 3.1 3 (3.1)	-
Other		110/	000000	4000/		4.4	40	•	1 511315 (11)	Tonare (sty	1 d.d.e (d.)	7 d. d. c (d)	value (Q)	1 5.00 (4.0)	_
Iron		UG/L	296000	100%		11	12	12	Tomas (dy	13.000 (4)	78.30 (4)	value (u)	value (u)		_
Iron Iron+Manganese		UG/L	352900	100%		12	12	12 12		13.1.00 (3.)	73.30 (4)	va.se (Q)	74.40 (Q)		_
Iron								12 12 12		33.00 (3)	73.30 (4)	va.se (Q)	74.60 (Q)		_
Iron Iron+Manganese		UG/L	352900	100%		12	12	12 12	17	9	4.5	va.se (Q)	74.60 (Q)		_
Iron Iron+Manganese Manganese		UG/L UG/L	352900 56900	100% 100%		12	12 12	12 12 12	, ,		4.5	va.so (4)	Va.00 (Q)		
Iron Iron+Manganese Manganese Ethane		UG/L UG/L UG/L	352900 56900 98	100% 100% 88%		12	12 12 49	12 12 12 12 56	17	9		Va.30 (Q)	74.60 (Q)		_
Iron Iron+Manganese Manganese Ethane Ethene		UG/L UG/L UG/L UG/L	352900 56900 98 200	100% 100% 88% 88%		12	12 12 49 49	12 12 12 12 56 56	17 0.52	9 0.55	4.5 0.2	va.ac (<u>a</u>)	74.60 (4)		_

Notes:

- The cleanup goal values are NYSDEC Class GA GW Standards unless noted otherwise.
 a. NYSDEC Class GA GW Standards (TOGS 1.1.1, June 1998).
 b. Federal Maximum Contaminant Level (http://www.epa.gov/safewater/contaminants/index.html)
 Shading indicates a concentration above the GA GW standard.
- U = compound was not detected
- J = the reported value is and estimated concentration
- UJ= the compound was not detected; the associated reporting limit is approximate.

Facility Location ID Matrix Sample ID Sample Date								ASH LANDFILL PT-24 GW ALBW20105 11/13/2007	ASH LANDFILL PT-24 GW ALBW20119 6/26/2008	ASH LANDFILL PT-24 GW ALBW20134 12/12/2008	ASH LANDFILL PT-24 GW ALBW20149 6/2/2009	ASH LANDFILL PT-24 GW ALBW20164 12/15/2009	ASH LANDFILL PT-24 GW ALBW20179 6/30/2010
QC Code								SA	SA	SA LTM	SA	SA	SA
Study ID Sampling Round			Eroguenov		Number	Number	Number	LTM	LTM 5	L 1 IVI 6	LTM	LTM 8	LTM 9
Sampling Round		Maximum	Frequency of	Cleanup	of		of Samples	4	S	O	1	0	9
Parameter	Units	Value	Detection	Goals 1	Exceedances		-	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)
Volatile Organic Compounds	<u> </u>	14.40	2010011011	- Coulo		20100104	7a.y_0a	, , , , , , , , , , , , , , , , , , ,	(a)	ναιασ (α)	(a)	ναιασ (α)	value (Q)
1,1,1-Trichloroethane	UG/L	0.76	3%	5	0	4	118	1 U	1 U	0.26 U	0.26 U	0.26 U	0.5 U
1,1,2,2-Tetrachloroethane	UG/L	0	0%	5	0	0	118	1 U	1 U	0.21 U	0.21 U	0.21 U	0.18 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	UG/L	0	0%	5	0	0	118	1 U	1 UJ	0.31 U	0.31 U	0.31 U	0.5 UJ
1,1,2-Trichloroethane	UG/L	0	0%	1	0	0	118	1 U	1 U	0.23 U	0.23 U	0.23 U	0.13 U
1,1-Dichloroethane	UG/L	1.1	7%	5	0	8	118	0.56 J	0.69 J	0.75 U	0.75 U	0.38 U	0.54 J
1,1-Dichloroethene	UG/L	2.1	7%	5	0	8	118	1 U	1 U	0.29 U	0.29 U	0.29 U	0.11 U
1,2,4-Trichlorobenzene	UG/L	0	0%	5	0	0	118	1 U	1 U	0.41 U	0.41 U	0.41 U	0.25 U
1,2-Dibromo-3-chloropropane	UG/L	0	0%	0.04	0	0	118	1 U	1 UJ	1 UJ	1 UJ	0.39 U	0.44 U
1,2-Dibromoethane	UG/L	0	0%	0.0006	0	0	118	1 U	1 U	0.17 U	0.17 U	0.17 U	0.25 U
1,2-Dichlorobenzene	UG/L	0	0%	3	0	0	118	1 U	1 U	0.2 U	0.2 U	0.2 U	0.21 U
1,2-Dichloroethane	UG/L	5.6	11%	0.6	11	13	118	1 U	1 U	0.21 U	0.21 U	0.21 U	0.1 U
1,2-Dichloropropane	UG/L	0	0%	1	0	0	118	1 U	1 U	0.14 U	0.14 U	0.32 U	0.13 U
1,3-Dichlorobenzene	UG/L	0	0%	3	0	0	118	1 U	1 U	0.16 U	0.16 U	0.36 U	0.25 U
1,4-Dichlorobenzene	UG/L	0	0%	3	0	0	118	1 U	1 U	0.16 U	0.16 U	0.39 U	0.28 U
Acetone	UG/L	2600	29%	4	0	34	118	5 U	5 U	1.3 U	1.3 U	1.3 U	5 U
Benzene	UG/L	0	0%	1 DO b	0	0	118	1 U	1 U	0.16 U	0.16 U	0.41 U	0.25 U
Bromodichloromethane	UG/L	0	0%	80 ^b	0	0	118	1 U	1 U	0.38 U	0.39 U	0.39 U	0.25 U
Bromoform	UG/L	0	0%	80 ^b	0	0	118	1 U	1 U	0.26 U	0.26 UJ	0.26 UJ	0.5 U
Carbon disulfide	UG/L	0	0%	_	0	0	118	1 U	1 U	0.19 U	0.19 UJ	0.19 UJ	0.6 U
Carbon tetrachloride	UG/L	0	0%	5	0	0	118	1 U	1 U	0.27 U	0.27 U	0.27 U	0.5 U
Chlorobenzene	UG/L	0	0%	5	0	0	118	1 U	1 U	0.18 U	0.32 U	0.32 U	0.25 U
Chlorodibromomethane	UG/L	0	0%	80 b	0	0	118	1 U	1 U	0.32 U	0.32 U	0.32 U	0.1 U
Chloroethane	UG/L	1.1	6%	5	0	/	118	1 U	1 UJ	0.32 U	0.32 U	0.32 UJ	1 U
Chloroform	UG/L UG/L	27 720	5%	<i>,</i>	4	6	118 118	1 U	1 U	0.34 U	0.34 U	0.34 U	0.14 U
Cis-1,2-Dichloroethene Cis-1,3-Dichloropropene	UG/L UG/L		81% 0%	5 0.4	80 0	96 0	118	39 1 U	48	0.36 U	0.36 U	28 0.36 U	0.11 U
Cyclohexane	UG/L	0 0	0% 0%	0.4	0	0	118	1 U	1 U 1 U	0.36 U 0.22 U	0.53 U	0.56 U 0.53 U	0.11 U 0.25 U
Dichlorodifluoromethane	UG/L	0	0%	5	0	0	118	1 U	1 U	0.22 U	0.33 U 0.29 U	0.33 U 0.29 U	0.25 U
Ethyl benzene	UG/L	1.3	3%	5	0	4	118	1 U	1 U	0.28 U	0.29 U	0.29 U	0.23 U 0.11 U
Isopropylbenzene	UG/L	0	0%	5	0	0	118	1 U	1 U	0.19 U	0.10 U	0.19 U	0.1 U
Methyl Acetate	UG/L	6	2%	Ü	0	2	118	1 UJ	1 UJ	0.17 U	0.17 UJ	0.5 U	0.19 UJ
Methyl Tertbutyl Ether	UG/L	Ö	0%		0	0	118	1 U	1 U	0.16 U	0.16 U	0.16 U	0.2 U
Methyl bromide	UG/L	Ö	0%	5	0	0	117	1 U	1 UJ	0.28 U	0.28 U	0.28 U	0.8 UJ
Methyl butyl ketone	UG/L	0	0%	_	0	0	118	5 UJ	5 UJ	1.2 U	1.2 U	1.2 U	1 UJ
Methyl chloride	UG/L	0	0%	5	0	0	118	1 U	1 UJ	0.34 U	0.35 U	0.35 UJ	0.33 U
Methyl cyclohexane	UG/L	0	0%		0	0	118	1 U	1 U	0.22 U	0.5 U	0.5 U	0.1 U
Methyl ethyl ketone	UG/L	4900	18%		0	21	118	5 U	5 UJ	1.3 U	1.3 U	1.3 U	1 U
Methyl isobutyl ketone	UG/L	0	0%		0	0	118	5 U	5 UJ	0.91 U	0.91 U	0.91 U	1 U
Methylene chloride	UG/L	18	10%	5	7	12	118	1 U	1 U	0.44 UJ	0.44 U	0.44 U	1 U
Styrene	UG/L	0	0%	5	0	0	118	1 U	1 U	0.18 U	0.18 U	0.18 U	0.11 U
Tetrachloroethene	UG/L	0	0%	5	0	0	118	1 U	1 U	0.36 U	0.36 U	0.36 U	0.15 U
Toluene	UG/L	590	19%	5	16	23	118	1 U	1 U	0.51 U	0.51 U	0.51 U	0.33 U
Total Xylenes	UG/L	0	0%	5	0	0	118	3 U	3 U	0.93 U	0.66 U	0.66 U	0.2 U
Trans-1,2-Dichloroethene	UG/L	8	42%	5	3	50	118	1 U	1.1	0.36 J	0.83 J	0.61 J	1.1
Trans-1,3-Dichloropropene	UG/L	0	0%	0.4	0	0	118	1 U	1 U	0.37 U	0.37 U	0.37 U	0.21 U
Trichloroethene	UG/L	2700	68%	5	48	80	118	3.8	2.4	2.2	1.7	1.7	0.39 J
Trichlorofluoromethane	UG/L	0	0%	5	0	0	118	1 U	1 UJ	0.15 U	0.15 U	0.15 U	0.25 U
Vinyl chloride	UG/L	180	66%	2	67	78	118	1 U	1.9	0.26 J	2	1.6	3.8

	Facility Location ID Matrix Sample ID Sample Date QC Code Study ID Sampling Round		Maximum	Frequency of	Cleanup	Number of	Number of Times	Number of Samples	ASH LANDFILL PT-24 GW ALBW20105 11/13/2007 SA LTM 4	ASH LANDFILL PT-24 GW ALBW20119 6/26/2008 SA LTM 5	ASH LANDFILL PT-24 GW ALBW20134 12/12/2008 SA LTM 6	ASH LANDFILL PT-24 GW ALBW20149 6/2/2009 SA LTM 7	ASH LANDFILL PT-24 GW ALBW20164 12/15/2009 SA LTM 8	ASH LANDFILL PT-24 GW ALBW20179 6/30/2010 SA LTM 9
Parameter		Units	Value	Detection	Goals 1	Exceedances	Detected	Analyzed	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)
Othor														
Other														
Iron		UG/L	296000	100%		11	12	12						
		UG/L	296000 352900	100% 100%		11 12	12	12						
Iron								12 12						
Iron Iron+Manganese		UG/L	352900	100%		12	12	12						
Iron Iron+Manganese Manganese		UG/L UG/L	352900 56900	100% 100%		12	12 12	12 12 56						
Iron Iron+Manganese Manganese Ethane		UG/L UG/L UG/L	352900 56900 98	100% 100% 88%		12	12 12 49	12 12						
Iron Iron+Manganese Manganese Ethane Ethene		UG/L UG/L UG/L UG/L	352900 56900 98 200	100% 100% 88% 88%		12	12 12 49 49	12 12 56 56						

- The cleanup goal values are NYSDEC Class GA GW Standards unless noted otherwise.
 a. NYSDEC Class GA GW Standards (TOGS 1.1.1, June 1998).
 b. Federal Maximum Contaminant Level (http://www.epa.gov/safewater/contaminants/index.html)
 Shading indicates a concentration above the GA GW standard.

U = compound was not detected

- J = the reported value is and estimated concentration
- UJ= the compound was not detected; the associated reporting limit is approximate.

Facility Location ID Matrix Sample ID								ASH LANDFILL PT-24 GW ALBW20194	ASH LANDFILL MW-56 GW ALBW20072	ASH LANDFILL MW-56 GW ALBW20101	ASH LANDFILL MW-56 GW ALBW20124	ASH LANDFILL MW-56 GW ALBW20139	ASH LANDFILL MW-56 GW ALBW20154
Sample Date								12/17/2010	1/4/2007	6/6/2007	6/26/2008	12/11/2008	6/4/2009
QC Code								SA	SA	SA	SA	SA	SA
Study ID			_					LTM	LTM	LTM	LTM	LTM	LTM
Sampling Round		NA	Frequency	01	Number	Number	Number	10	1	3	5	6	7
Danamatan	l lucit a	Maximum	Of Datastian	Cleanup	of		of Samples	\/ala (O\	\/alica (0)	\/al (O)	\/al (O)	\/al (O)	\/ala (O)
Parameter Volatile Organia Compounds	Units	Value	Detection	Goals 1	Exceedances	Detected	Analyzed	Value (Q)					
Volatile Organic Compounds 1,1,1-Trichloroethane	UG/L	0.76	3%	5	0	4	118	0.5 U	1 U	1 U	1 U	0.26 UJ	0.26 U
1,1,2,2-Tetrachloroethane	UG/L	0.70	0%	5	0	0	118	0.18 U	1 U	1 U	1 U	0.20 U	0.20 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	UG/L	Ö	0%	5	0	0	118	0.5 U	1 U	1 UJ	1 UJ	0.31 U	0.31 U
1,1,2-Trichloroethane	UG/L	Ö	0%	1	0	0	118	0.13 U	1 U	1 U	1 U	0.23 U	0.23 U
1,1-Dichloroethane	UG/L	1.1	7%	5	0	8	118	0.54 J	1 U	1 U	1 U	0.75 U	0.75 U
1,1-Dichloroethene	UG/L	2.1	7%	5	0	8	118	0.11 U	1 U	1 U	1 U	0.29 U	0.29 U
1,2,4-Trichlorobenzene	UG/L	0	0%	5	0	0	118	0.25 U	1 U	1 U	1 U	0.41 U	0.41 U
1,2-Dibromo-3-chloropropane	UG/L	0	0%	0.04	0	0	118	0.44 U	1 U	1 U	1 UJ	1 UJ	1 U
1,2-Dibromoethane	UG/L	0	0%	0.0006	0	0	118	0.25 U	1 U	1 U	1 U	0.17 U	0.17 U
1,2-Dichlorobenzene	UG/L	0	0%	3	0	0	118	0.21 U	1 U	1 U	1 U	0.2 U	0.2 U
1,2-Dichloroethane	UG/L	5.6	11%	0.6	11	13	118	0.1 U	1 U	1 U	1 U	0.21 U	0.21 U
1,2-Dichloropropane	UG/L	0	0%	1	0	0	118	0.13 U	1 U	1 U	1 U	0.14 U	0.14 U
1,3-Dichlorobenzene	UG/L	0	0%	3	0	0	118	0.25 U	1 U	1 U	1 U	0.16 U	0.16 U
1,4-Dichlorobenzene	UG/L	0	0%	3	0	0	118	0.28 U	1 U	1 U	1 U	0.16 U	0.16 U
Acetone	UG/L	2600	29%		0	34	118	5 UJ	5 U	5 U	5 U	1.3 U	1.3 UJ
Benzene	UG/L	0	0%	1 h	0	0	118	0.25 U	1 U	1 U	1 U	0.16 U	0.16 U
Bromodichloromethane	UG/L	0	0%	80 b	0	0	118	0.25 U	1 U	1 U	1 U	0.38 U	0.39 U
Bromoform	UG/L	0	0%	80 ^b	0	0	118	0.5 U	1 U	1 U	1 U	0.26 U	0.26 U
Carbon disulfide	UG/L	0	0%	_	0	0	118	0.6 U	1 U	1 U	1 U	0.19 U	0.19 U
Carbon tetrachloride	UG/L	0	0%	5	0	0	118	0.5 U	1 U	1 U	1 U	0.27 UJ	0.27 U
Chlorobenzene	UG/L	0	0%	5	0	0	118	0.25 U	1 U	1 U	1 U	0.18 U	0.32 U
Chlorodibromomethane	UG/L	0	0%	80 b	0	0	118	0.1 U	1 U	1 U	1 U	0.32 U	0.32 U
Chloroethane	UG/L	1.1	6%	5	0	7	118	1 U	1 U	1 U	1 UJ	0.32 U	0.32 U
Chloroform	UG/L	27	5%	<i>(</i>	4	6	118	0.16 J	1 U	1 U	1 U	0.34 U	0.34 U
Cis-1,2-Dichloroethene	UG/L	720	81%	5	80	96	118	30	1.2	1.7	1.3	0.4 J	7
Cis-1,3-Dichloropropene Cyclohexane	UG/L UG/L	0 0	0% 0%	0.4	0	0	118 118	0.11 U 0.25 U	1 U 1 U	1 U 1 U	1 U 1 U	0.36 U 0.22 U	0.36 U 0.53 U
Dichlorodifluoromethane	UG/L	0	0%	5	0	0	118	0.25 U	1 U	1 U	1 U	0.22 U 0.28 UJ	0.33 U 0.29 U
Ethyl benzene	UG/L	1.3	3%	5	0	4	118	0.23 U 0.11 U	1 U	1 U	1 U	0.28 U	0.29 U
Isopropylbenzene	UG/L	0	0%	5	0	0	118	0.11 U	1 U	1 U	1 U	0.10 U	0.19 U
Methyl Acetate	UG/L	6	2%	O	0	2	118	0.19 U	1 U	1 U	1 UJ	0.17 U	0.17 U
Methyl Tertbutyl Ether	UG/L	Ö	0%		0	0	118	0.8 UJ	1 U	1 U	1 U	0.16 U	0.16 U
Methyl bromide	UG/L	Ō	0%	5	0	Ō	117	1 U	1 U	1 U	1 UJ	0.28 U	0.28 U
Methyl butyl ketone	UG/L	0	0%		0	0	118	0.33 U	5 U	5 U	5 UJ	1.2 U	1.2 U
Methyl chloride	UG/L	0	0%	5	0	0	118	0.1 U	1 U	1 U	1 UJ	0.34 U	0.35 U
Methyl cyclohexane	UG/L	0	0%		0	0	118	1 U	1 U	1 U	1 U	0.22 U	0.5 U
Methyl ethyl ketone	UG/L	4900	18%		0	21	118	1 U	5 U	5 U	5 UJ	1.3 U	1.3 U
Methyl isobutyl ketone	UG/L	0	0%		0	0	118	0.2 U	5 U	5 U	5 UJ	0.91 U	0.91 U
Methylene chloride	UG/L	18	10%	5	7	12	118	1 U	1 U	1 U	1 U	0.44 UJ	0.44 U
Styrene	UG/L	0	0%	5	0	0	118	0.11 U	1 U	1 U	1 U	0.18 U	0.18 U
Tetrachloroethene	UG/L	0	0%	5	0	0	118	0.15 U	1 U	1 U	1 U	0.36 U	0.36 U
Toluene	UG/L	590	19%	5	16	23	118	0.33 U	1 U	1 U	1 U	0.51 U	0.51 U
Total Xylenes	UG/L	0	0%	5	0	0	118	0.2 U	3 U	3 U	3 U	0.93 U	0.66 U
Trans-1,2-Dichloroethene	UG/L	8	42%	5	3	50	118	1.4	1 U	1 U	1 U	0.13 U	0.13 U
Trans-1,3-Dichloropropene	UG/L	0	0%	0.4 5	0	0	118	0.21 U	1 U	1 U	1 U	0.37 U	0.37 U
Trichloroethene Trichlorofluoromethane	UG/L UG/L	2700	68% 0%	5	48 0	80	118 118	0.53 J	1 U 1 U	1 U 1 UJ	1 U 1 UJ	0.33 J 0.15 UJ	0.18 U 0.15 U
Vinyl chloride	UG/L UG/L	0 180	0% 66%	2	67	0 78	118 [0.25 U 7.7	1 U	1 UJ	1 UJ	0.15 UJ 0.24 U	0.15 U 0.24 U
			· -		-	-						· -	

S Sam	Facility ocation ID Matrix cample ID ople Date QC Code Study ID og Round	Maximum	Frequency of	Cleanup	Number of	Number of Times	Number of Samples	ASH LANDFILL PT-24 GW ALBW20194 12/17/2010 SA LTM 10	ASH LANDFILL MW-56 GW ALBW20072 1/4/2007 SA LTM 1	ASH LANDFILL MW-56 GW ALBW20101 6/6/2007 SA LTM 3	ASH LANDFILL MW-56 GW ALBW20124 6/26/2008 SA LTM 5	ASH LANDFILL MW-56 GW ALBW20139 12/11/2008 SA LTM 6	ASH LANDFILL MW-56 GW ALBW20154 6/4/2009 SA LTM 7
Parameter	Units	Value	Detection	Goals ¹	Exceedances		Analyzed	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)
Other													
Iron	UG/L	296000	100%		11	12	40						
Iron+Manganese							12						
II OHTIMAHYAHESE	UG/L	352900	100%		12	12	12						
Manganese	UG/L UG/L	352900 56900											
_			100%		12	12	12						
Manganese	UG/L	56900	100% 100%		12	12 12	12 12						
Manganese Ethane	UG/L UG/L	56900 98	100% 100% 88%		12	12 12 49	12 12 56						
Manganese Ethane Ethene	UG/L UG/L UG/L	56900 98 200	100% 100% 88% 88%		12	12 12 49 49	12 12 56 56						

- The cleanup goal values are NYSDEC Class GA GW Standards unless noted otherwise.
 a. NYSDEC Class GA GW Standards (TOGS 1.1.1, June 1998).
 b. Federal Maximum Contaminant Level (http://www.epa.gov/safewater/contaminants/index.html)
 Shading indicates a concentration above the GA GW standard.

U = compound was not detected

- J = the reported value is and estimated concentration
- UJ= the compound was not detected; the associated reporting limit is approximate.

Column C	Facility Location ID Matrix Sample ID Sample Date								ASH LANDFILL MW-56 GW ALBW20169 12/18/2009	ASH LANDFILL MW-56 GW ALBW20184 7/1/2010	ASH LANDFILL MW-56 GW ALBW20199 12/19/2010	
Samping Name	•											
Parameter Sampling Round Parameter Vinite Value Va												
Parameter	•			Frequency		Number	Number	Number				
Value Compounds			Maximum		Cleanup				_	-		
Volatile Organic Compounds	Parameter	Units		Detection		Exceedances		•	Value (Q)	Value (Q)	Value (Q)	
1,1-1 Finch force hane										10.100 (44)	1 S. S. S. C. C.	
1.1.2Frienchiorechane 1.1.2Tringlorechane 1.1.2Tringlorechan	•	UG/L	0.76	3%	5	0	4	118	0.26 U	0.5 U	0.5 U	
1,12-Tinchorochane					5							
1,1-Dichibrorethene UGL 1,1 7% 5 0 8 118 0.38 U 0.25 U 0.25 U 0.11 U 0.11 U 1,2-A-Trichiorobervene UGL 0 0% 5 0 0 118 0.41 U 0.25 U 0.2	1,1,2-Trichloro-1,2,2-Trifluoroethane	UG/L	0	0%	5	0		118	0.31 UJ	0.5 U	0.5 U	
1,1-Dehibrorehene	1,1,2-Trichloroethane	UG/L	0	0%	1	0	0	118	0.23 U	0.13 U	0.13 U	
1,2,4-Trichforberzene UG/L 0 0% 5 0 0 118 0.41 U 0.25 U 0.25 U 1,2-Dibromo-chiloropropane UG/L 0 0% 0.0966 0 0 118 0.17 U 0.25 U 0.25 U 0.25 U 1,2-Dibromo-chiloropropane UG/L 0 0% 0.0966 0 0 118 0.17 U 0.25 U 0.25 U 0.25 U 0.25 U 1,2-Dichforopropane UG/L 0 0% 1 0 0 118 0.22 U 0.21 U 0.1 U 0.1 U 1,2-Dichforopropane UG/L 0 0% 1 0 0 118 0.32 U 0.13 U 0.13 U 0.1 U 1,3-Dichforopropane UG/L 0 0% 3 0 0 118 0.32 U 0.13 U 0.13 U 0.13 U 0.1 U 0	1,1-Dichloroethane	UG/L	1.1	7%	5	0	8	118	0.38 U	0.25 U	0.25 U	
12-Dibromo-schloropropone	1,1-Dichloroethene	UG/L	2.1	7%	5	0	8	118	0.29 U	0.11 U	0.11 U	
1.2-Dibromoethane	1,2,4-Trichlorobenzene	UG/L	0	0%	5	0	0	118	0.41 U	0.25 U	0.25 U	
1.2-Dichloroberhane	1,2-Dibromo-3-chloropropane	UG/L	0	0%	0.04	0	0	118	0.39 U	0.44 U	0.44 U	
1.2-Dichloroptepane	1,2-Dibromoethane		0	0%	0.0006	0	0	118		0.25 U	0.25 U	
1.2-Dichloropropane			•			0						
1.3-Dichlorobenzene	1,2-Dichloroethane		5.6	11%	0.6	11	13					
1.4-Dichlorobenzene			0		1	0						
Acetane			ū			-						
Benzene			-		3							
Bromotich promethane UG/L 0						-						
Bromotorm UG/L 0 0% 80 0 0 118 0.26 U 0.5 U 0.5 U 0.5 U Carbon disulfide UG/L 0 0% 5 0 0 118 0.19 U 0.6 U 0.6 U 0.6 U 0.5 U			0		•	0	0					
Carbon disulfide	Bromodichloromethane	UG/L	0	0%		0	0	118		0.25 U	0.25 U	
Carbon tetrachloride UG/L 0 0% 5 0 0 118 0.27 U 0.5 U 0.5 U Chlorobenzene UG/L 0 0% 80 b 0 0 118 0.32 U 0.25 U 0.25 U Chlorodibromomethane UG/L 1.0 0% 80 b 0 0 118 0.32 U 0.1 U 0.1 U Chlorodoffm UG/L 1.1 6% 5 0 7 118 0.32 UJ 1 U 1 U 1 U Cish-12-Dichlororethene UG/L 1.7 8 5 80 96 118 0.56 U 0.61 J 0.86 J Cish-12-Dichloroprehene UG/L 0 0% 0.4 0 0 118 0.55 U 0.61 J 0.08 J Cish-12-Dichlorodifluoromethane UG/L 0 0% 5 0 0 118 0.53 U 0.25 U	Bromoform		0	0%	80 b	0	0					
Chlorodibromomethane	Carbon disulfide		0			0						
Chlorodibromomethane			_									
Chloroethane UG/L 1.1 6% 5 0 7 118 0.32 UJ 1 U 1 UJ Chloroform UG/L 27 5% 7 4 6 118 0.34 U 0.14 U 0.24 J Cis-1,2-Dichloropthene UG/L 0 0% 0 0 118 0.36 U 0.11 U 0.11 U 0.11 U Cis-1,3-Dichloropropene UG/L 0 0% 0 0 118 0.36 U 0.11 U		UG/L	0	0%		0	0	118	0.32 U	0.25 U	0.25 U	
Chilorform	Chlorodibromomethane			0%	80 b	0	0			0.1 U		
Cis-1,2-Dichlorosthene UG/L 720 81% 5 80 96 118 0.56 J 0.61 J 0.86 J Cis-1,3-Dichloropropene UG/L 0 0% 0.4 0 0 118 0.36 U 0.11 U 0.11 U 0.11 U Cyclohexane UG/L 0 0% 5 0 0 118 0.53 U 0.25 U 0.25 U 0.25 U Ethyl benzene UG/L 0 0% 5 0 0 118 0.18 U 0.11 U 0.19 U				6%	5	0	=					
Cis-13-Dichloropropene					7	•						
Cyclohexane UG/L 0 0% 0 0 118 0.53 U 0.25 U 0.25 U Dichlorodiffuoromethane UG/L 0 0% 5 0 0 118 0.29 U 0.25 UJ 0.25 U Ethyl benzene UG/L 1.3 3% 5 0 4 118 0.18 U 0.11 U 0.21 U 0.11 U 0.22 U 0.11 U 0.22 U 0.11 U 0.22 U 0.23 U 0.11 U 0.23 U 0.11 U	Cis-1,2-Dichloroethene	UG/L	720	81%	5	80	96	118	0.56 J		0.86 J	
Dichlorodiffluoromethane	·		-		0.4	-						
Ethyl benzene			•			_						
Sopropylbenzene			-			•	_					
Methyl Åcetate UG/L 6 2% 0 2 118 0.5 U 0.19 U 0.19 U Methyl Ether UG/L 0 0% 0 0 118 0.16 U 0.2 U 0.8 U Methyl bromide UG/L 0 0% 5 0 0 117 0.28 UJ 0.8 U 1 U Methyl butyl ketone UG/L 0 0% 0 0 118 1.2 U 1 U 0.33 U 0.1 U Methyl cyclohexane UG/L 0 0% 5 0 0 118 0.5 U 0.13 U 0.1 U Methyl ethyl ketone UG/L 0 0% 0 0 118 0.5 U 0.1 U 1 U Methyl ethyl ketone UG/L 4900 18% 0 21 118 0.5 U 0.1 U 1 U 1 U Methyl ethyl ketone UG/L 0 0% 5 7 12 118 0.91 U 1 U 1 U <	•					_	-					
Methyl Tertbutyl Ether UG/L 0 0% 0 0 118 0.16 U 0.2 U 0.8 U Methyl bromide UG/L 0 0% 5 0 0 117 0.28 UJ 0.8 U 1 U Methyl butyl ketone UG/L 0 0% 5 0 0 118 1.2 U 1 U 0.33 U 0.11 U Methyl chloride UG/L 0 0% 5 0 0 118 0.5 U 0.1 U 1 U 0.33 U 0.1 U			•		5	•						
Methyl bromide UG/L 0 0% 5 0 0 117 0.28 UJ 0.8 U 1 U Methyl butyl ketone UG/L 0 0% 0 0 118 1.2 U 1 U 0.33 U Methyl cyclohexane UG/L 0 0% 5 0 0 118 0.35 U 0.33 U 0.1 U Methyl cyclohexane UG/L 0 0% 0 0 118 0.5 U 0.1 U 1 U Methyl ethyl ketone UG/L 4900 18% 0 21 118 1.3 U 1 U 1 U Methyl ethyl ketone UG/L 4900 18% 0 21 118 0.5 U 0.1 U 1 U 1 U Methyl ethyl ketone UG/L 4900 18% 0 21 118 0.5 U 0.1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U	•		•			•						
Methyl butyl ketone UG/L 0 0% 0 0 118 1.2 U 1 U 0.33 U Methyl chloride UG/L 0 0% 5 0 0 118 0.35 U 0.33 U 0.1 U Methyl cyclohexane UG/L 0 0% 0 0 118 0.5 U 0.1 U 1 Methyl ethyl ketone UG/L 4900 18% 0 21 118 1.3 U 1 U 1 U Methyl isobutyl ketone UG/L 0 0% 0 0 118 0.91 U 1 U 1 U Methyl isobutyl ketone UG/L 0 0% 0 0 118 0.91 U 1 U 1 U 0.2 U Methyl isobutyl ketone UG/L 0 0% 5 7 12 118 0.91 U 1 U 0 0 0 118 0.91 U 1 U 0 0 0 118 0.18 U 0.11 U 0.11 U 0.11 U			J		-	0						
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Total Xylenes UG/L 0 0% 5 0 0 118 0.66 U 0.2 U 0.2 U 0.2 U Trans-1,2-Dichloroethene UG/L 8 42% 5 3 50 118 0.42 U 0.2 U 0.2 U Trans-1,3-Dichloropropene UG/L 0 0% 0.4 0 0 118 0.37 U 0.21 U 0.21 U Trichloroethene UG/L 2700 68% 5 48 80 118 0.46 U 0.13 U 0.13 U Trichlorofluoromethane UG/L 0 0% 5 0 0 118 0.15 UJ 0.25 U 0.25 U			-		5	-						
Trans-1,2-Dichloroethene UG/L 8 42% 5 3 50 118 0.42 U 0.2 U 0.2 U 0.2 U Trans-1,3-Dichloropropene UG/L 0 0% 0.4 0 0 118 0.37 U 0.21 U 0.21 U Trichloroethene UG/L 2700 68% 5 48 80 118 0.46 U 0.13 U 0.13 U Trichlorofluoromethane UG/L 0 0% 5 0 0 118 0.15 UJ 0.25 U 0.25 U					5							
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Trichlorofluoromethane UG/L 0 0% 5 0 0 118 0.15 UJ 0.25 U 0.25 U	• •		-			-						
	Vinyl chloride		180			67						

Location N Samp Sample QC (Matrix ble ID Date Code dy ID	Maximum	Frequency of	Cleanup	Number of	Number of Times	Number of Samples	ASH LANDFILL MW-56 GW ALBW20169 12/18/2009 SA LTM 8	ASH LANDFILL MW-56 GW ALBW20184 7/1/2010 SA LTM 9	ASH LANDFILL MW-56 GW ALBW20199 12/19/2010 SA LTM 10	
Parameter	Units	Value	Detection	Goals 1	Exceedances	Detected	Analyzed	Value (Q)	Value (Q)	Value (Q)	
Other											
Iron	UG/L	296000	100%		11	12	12				
Iron+Manganese	UG/L	352900	100%		12	12	12				
Manganese	UG/L	56900	100%		12	12	12				
Ethane	UG/L	98	88%		0	49	56				
Ethane Ethene	UG/L UG/L	98 200	88% 88%		0 0	49 49	56 56				
					0 0 0	49	56				
Ethene	UG/L	200	88%		0 0 0 0						

- The cleanup goal values are NYSDEC Class GA GW Standards unless noted otherwise.
 a. NYSDEC Class GA GW Standards (TOGS 1.1.1, June 1998).
 b. Federal Maximum Contaminant Level (http://www.epa.gov/safewater/contaminants/index.html)
 Shading indicates a concentration above the GA GW standard.

U = compound was not detected

- J = the reported value is and estimated concentration
- UJ= the compound was not detected; the associated reporting limit is approximate.

APPENDIX C

REGRESSION PLOTS

Figure C-1
Regression Plot of Well Concentrations At MWT-25
Ash Landfill Annual Report, Year 4

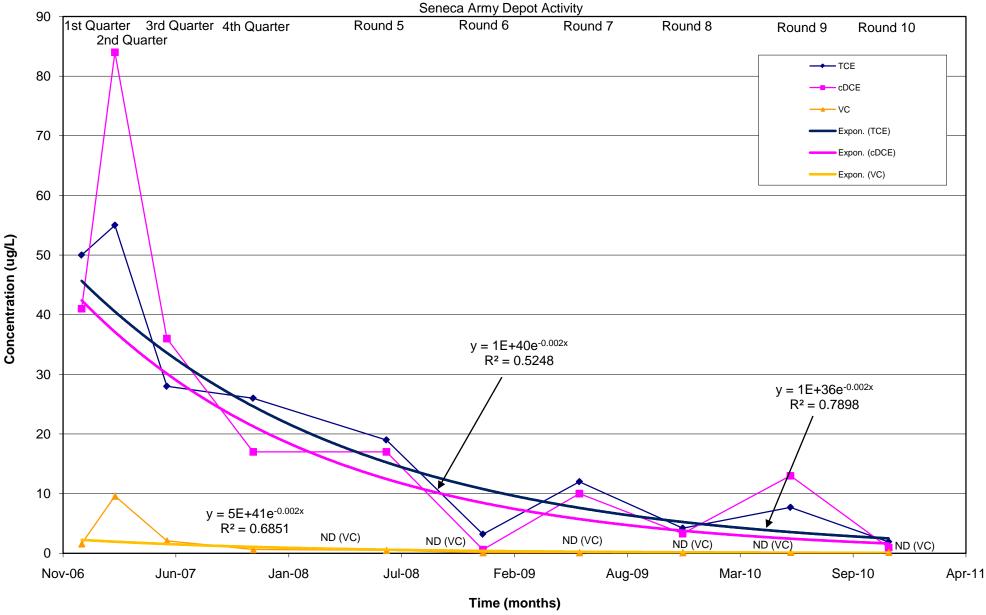


Figure C-2
Regression Plot of Well Concentrations At MWT-26
Ash Landfill Annual Report, Year 4

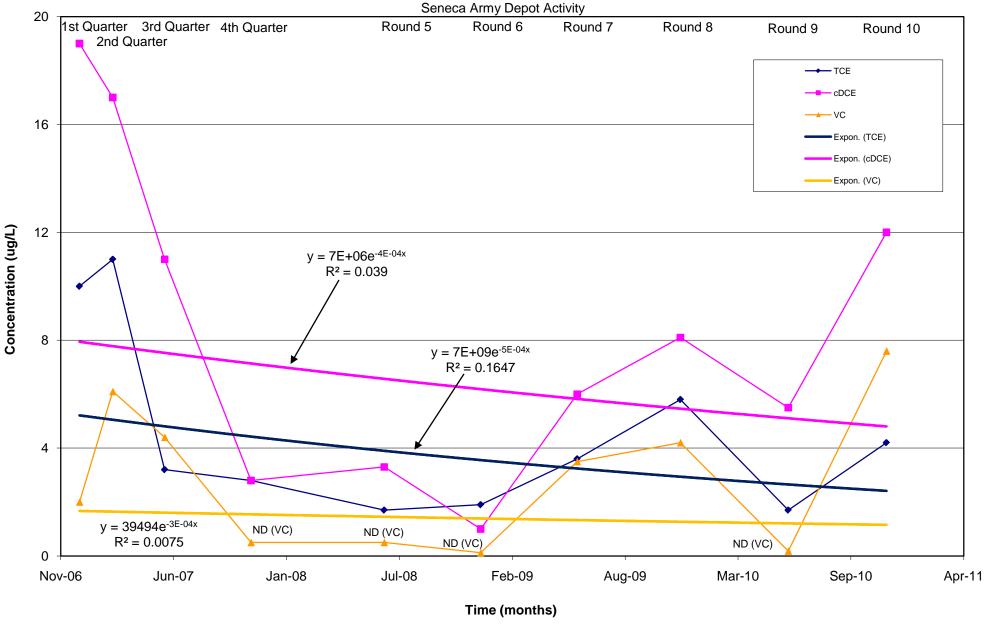


Figure C-3
Regression Plot of Well Concentrations At MWT-27
Ash Landfill Annual Report, Year 4
Seneca Army Depot Activity

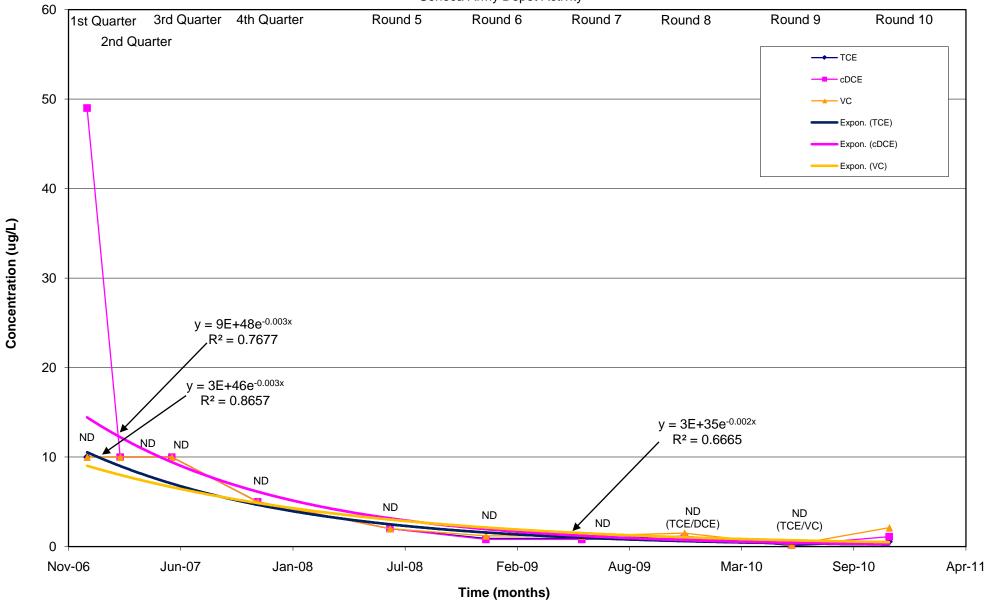


Figure C-4
Regression Plot of Well Concentrations At MWT-28
Ash Landfill Annual Report, Year 4
Seneca Army Depot Activity

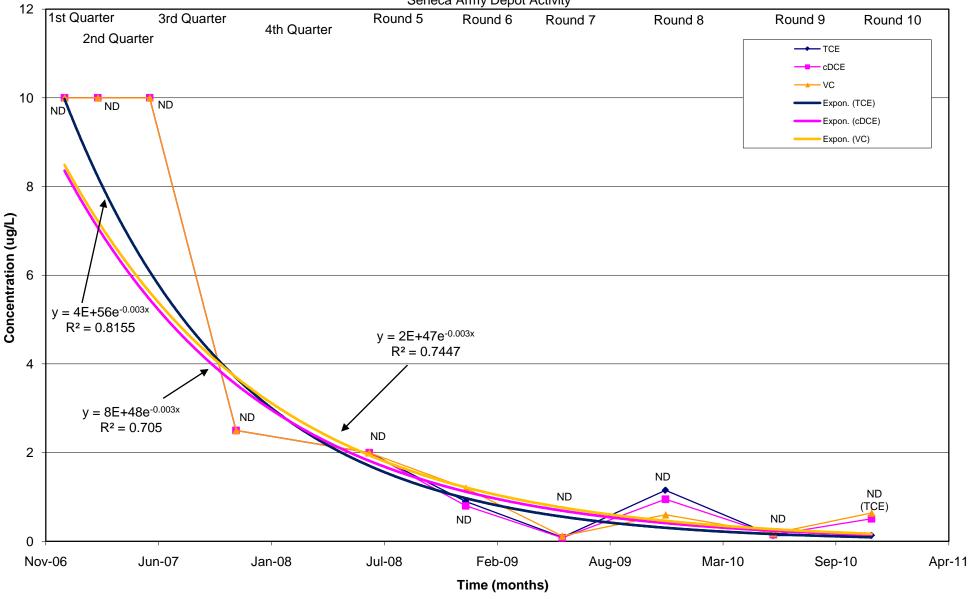


Figure C-5
Regression Plot of Well Concentrations At MWT-29
Ash Landfill Annual Report, Year 4

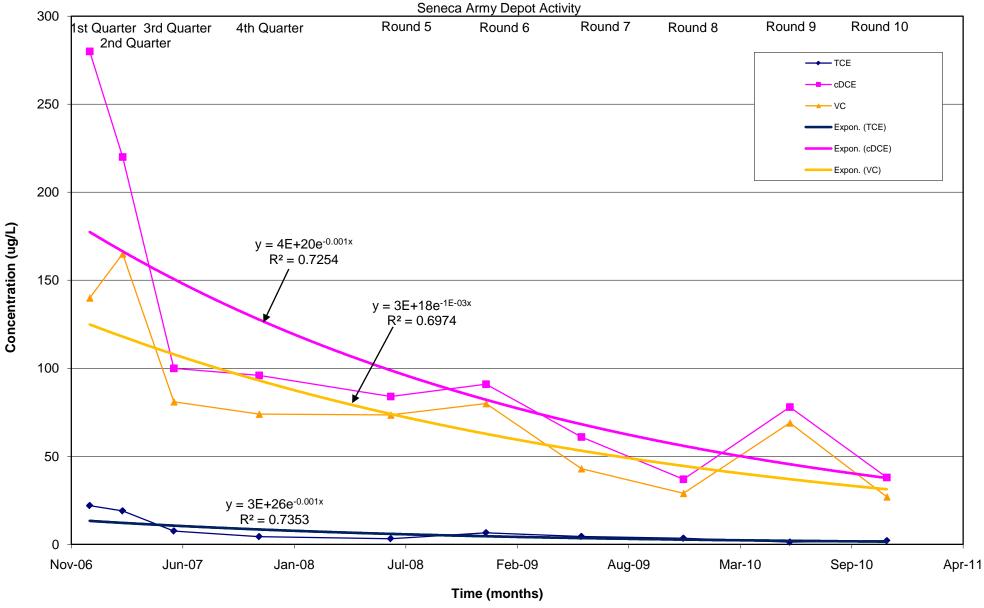


Figure C-6
Regression Plot of Well Concentrations At MWT-22
Ash Landfill Annual Report, Year 4
Seneca Army Depot Activity

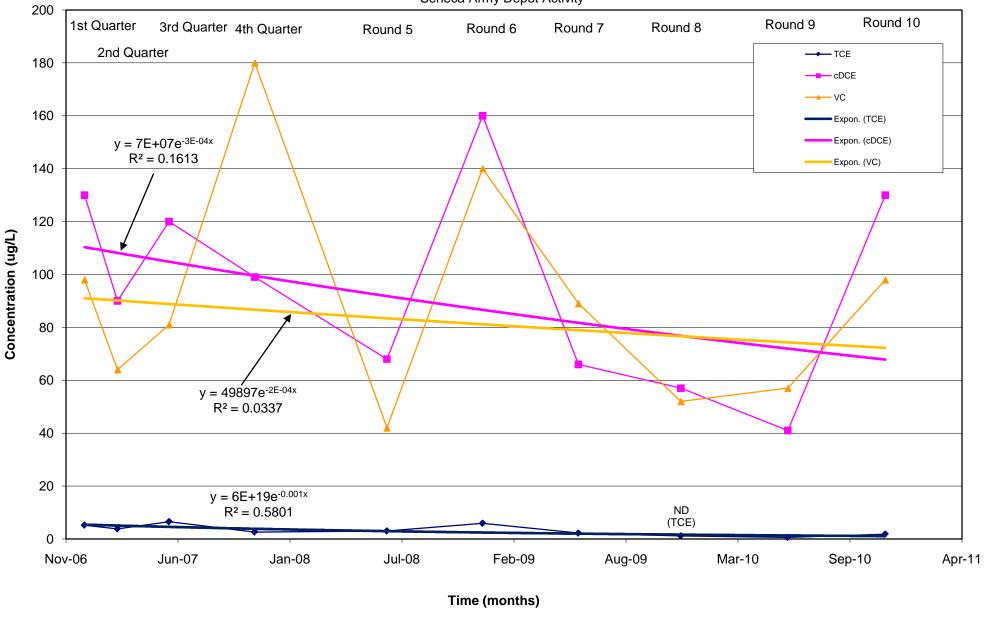


Figure C-7
Regression Plot of Well Concentrations At PT-22
Ash Landfill Annual Report, Year 4
Seneca Army Depot Activity

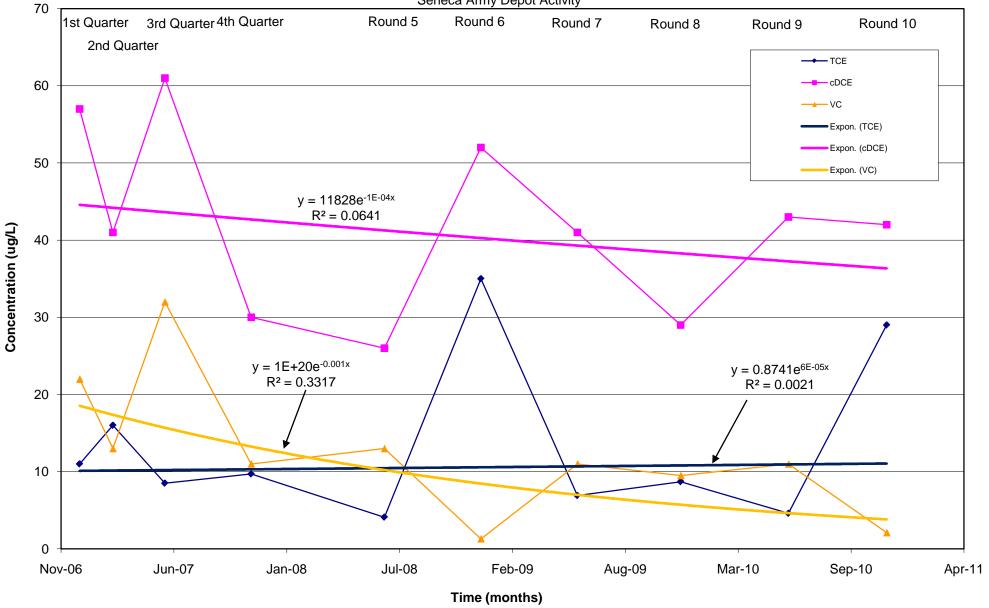


Figure C-8
Regression Plot of Well Concentrations At MWT-23
Ash Landfill Annual Report, Year 4
Seneca Army Depot Activity

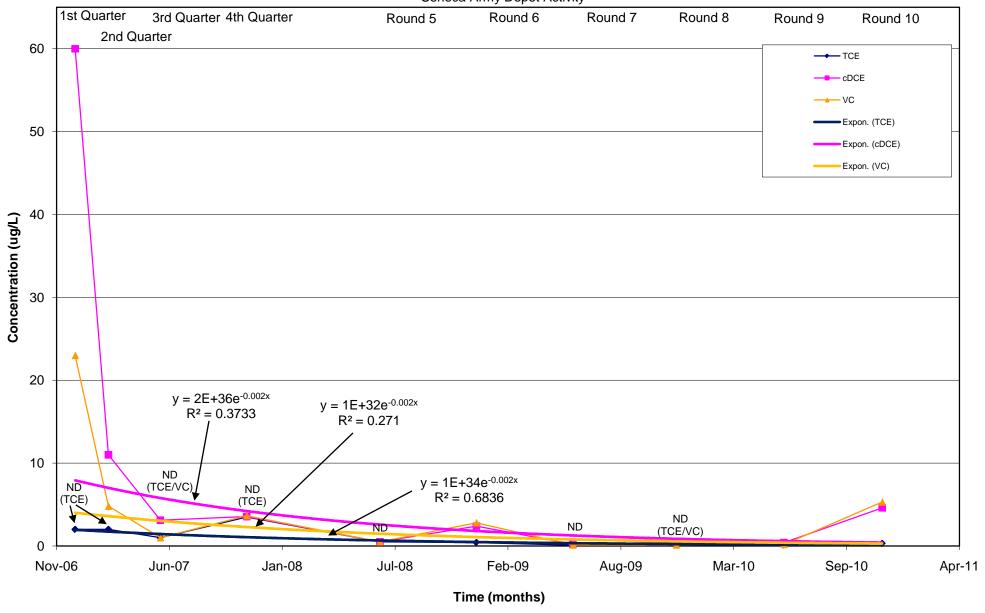


Figure C-9
Regression Plot of Well Concentrations At MWT-24
Ash Landfill Annual Report, Year 4
Seneca Army Depot Activity

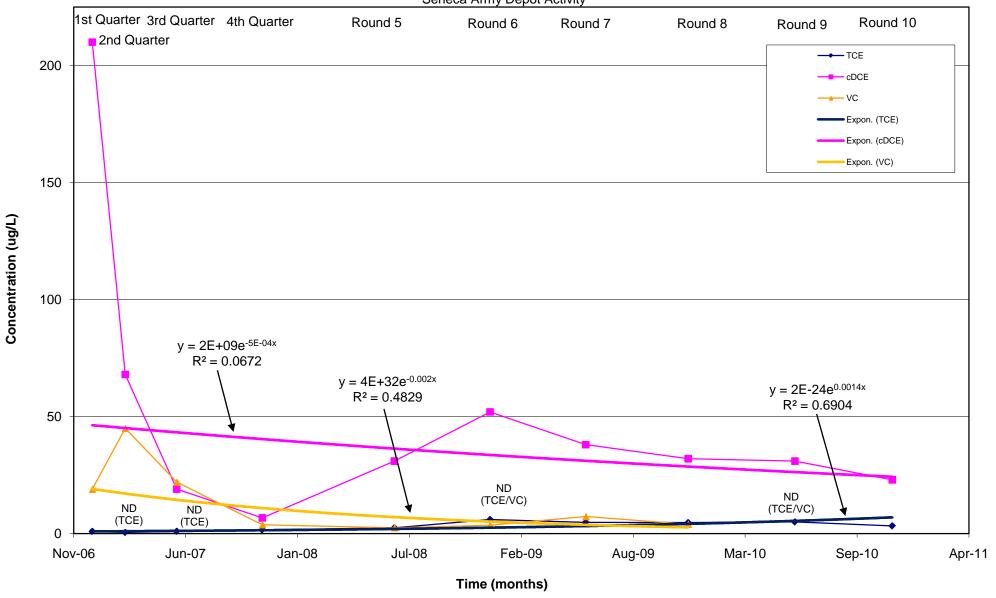
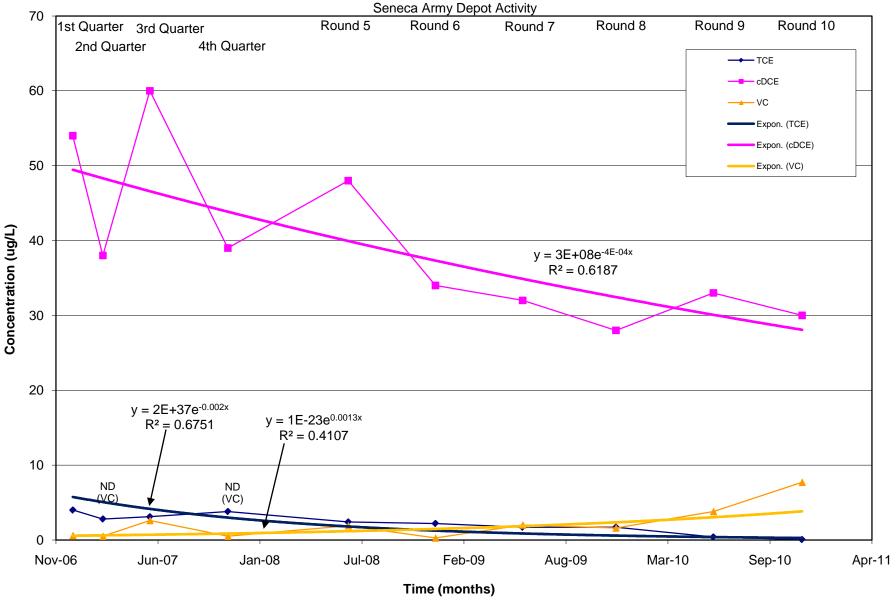


Figure C-10
Regression Plot of Well Comcentrations At PT-24
Ash Landfill Annual Report, Year 4



APPENDIX D

RESPONSE TO COMMENTS

Army's Response to Comments from the United States Environmental Protection Agency

Subject: Draft Annual Report and Year 4 Review
Ash Landfill Operable Unit
Seneca Army Depot
Romulus, New York

Comments Dated: June 28, 2011

Date of Comment Response: October 6, 2011

Army's Response to Comments

GENERAL COMMENTS

Comment 1: The first bullet in Section 3.5, Biowall Recharge Evaluation, states that "A specific, absolute set of conditions or parameter values are not appropriate to determine the need to recharge (the Biowall);" however, a general set of guidelines is presented. Based on the general guidelines for oxidation reduction potential (ORP), total organic carbon (TOC), and dissolved oxygen (DO), some parameters appear to be outside the ideal range of values in recent sampling events. For example, in MWT-28, the ORP value of -100 millivolts (mV) is at the ideal range limit of <-100mV and the TOC value of 12 milligrams per liter (mg/L) is outside the ideal range of >20 mg/L. In MWT-23, the last several quarters of sampling yielded low TOC values, decreasing from 20 mg/L in Round 6, at the ideal range of >20 mg/L, to 5.9 mg/L in Round 10.

Additionally, analytical results are considered for trichloroethene (TCE), cis-1,2-dichloroethene (cDCE) and vinyl chloride (VC) and "If COC concentrations have rebounded by greater than 50% for any single sampling event, this will indicate that recharge should be considered." The baseline comparison for the 50% rebound criteria is not identified; however, in some instances, it appears that an increase of more than 50% was observed from one sampling event to the next. In MWT-27, during Rounds 9 and 10, the cDCE concentration increased from 0.18J ug/L to 1.1 ug/L, and in MWT-23, during rounds 9 and 10, the cDCE concentration increased from 0.41 J ug/L to 4.6 ug/L. While the concentrations may not exceed the groundwater standard, the 50% increase threshold is surpassed in these samples.

While these values in and of themselves may not necessitate a recharge of the biowalls at the current time, the trends displayed in the geochemical parameters (i.e., falling outside the "ideal" ranges) coupled with the increase in constituent of concern (COC) concentrations (especially during Round 10) suggest that recharge of the biowalls may be necessary during the next evaluation period. Revise the Annual Report to discuss and quantify, as much as possible, how much further the referenced parameters must change before recharge for the biowalls will be considered.

Army's Response to USEPA Comments on Draft Annual Report and Year 4 Review for Ash Landfill OU Comments Dated June 28, 2011 Page 2 of 3

Response 1: As discussed in Section 3.5, the recharge evaluation is based on a lines-of-evidence approach; as such, the conclusion that recharge is needed is based on a comprehensive evaluation of multiple factors. There is no singular value that can be specified for any one parameter where crossing that value would indicate the need to recharge; similarly, the evaluation does not lend itself to quantifying how much further a reference parameter must change for recharge to be considered. Based on experience with biowalls at other DoD sites (such as Altus AFB) in the past five years since the RDR was prepared, there is a more advanced understanding of when it may be necessary to recharge a biowall. In these evaluations, the geochemical parameters are used to explain why an increasing trend in contaminant concentrations is observed, and to confirm that the trend is due to substrate depletion rather than relatively slight changes due to natural variation or limits of analytical accuracy. Therefore, both an increasing trend in VOC concentrations and consistent trends in multiple geochemical parameters demonstrating that substrate depletion is the cause of VOC trends should be observed.

A measurement of the percent rebound of concentrations comparing values that are below the detection limit, are estimated concentrations (J-flags), or are below the GA Standard challenges our ability to state with confidence that an increase in concentrations is due to depletion of organic substrate. Given that concentrations are at the lower limits of the analytical method, evaluating concentrations when as increase in consecutive rounds rises above the GA Standard is considered a more practical approach than considering an absolute 50% rebound metric. The current data do not show a consistent increase in VOC concentrations over multiple events and therefore do not constitute an increasing trend. For example, concentrations of cis-DCE at MWT-27 have varied from below detection to $11 \mu g/L$ from March 2007 to December 2010. A singular increase from 0.41 J $\mu g/L$ in June 2010 to 4.6 $\mu g/L$ in December 2010 is notable; however, given the variation in concentration over time at this location (and that the initial concentration of cis-DCE was $60 \mu g/L$) it is advisable to wait for additional monitoring data to confirm that a trend is occurring that it is due to substrate depletion. Overall, TCE and DCE have not been detected above the GA standard of $5 \mu g/L$ and the detections are not consistent or in an increasing pattern.

The concentrations of vinyl chloride have been vacillating between levels below and just above the detection limit. In addition, vinyl chloride is a product of reductive dechlorination, and an increase in vinyl chloride may be an indication that the process is operating properly. Since the concentrations of DCE and TCE remain below the GA standard, the slight increases in concentrations are not a current concern; rather they indicate that further monitoring and evaluation are warranted.

In summary, some of the geochemical parameters have not been as strong in the last couple of monitoring rounds and there is some relatively low variations in VOC concentrations. However, recharge should be considered when conditions are such that consistent trends develop that show the geochemical parameters continue to weaken <u>and</u> that concentrations of TCE and DCE are increasing above the GA standard over more than a single event.

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Comment 2: Section 4.2, Recommendations, indicates that monitoring wells MWT-26, MWT-27, MWT-28, MWT-29, and MWT-23 will be monitored on a semi-annual basis and each year a recharge evaluation will be completed. Revise the Annual Report to discuss how the results of monitoring activities for wells MWT-26 and MWT-29 will be used in conjunction with the information from wells MWT-27, MWT-28, and MWT-23 to perform the biowall recharge evaluation, and why these wells were not used in previous recharge evaluations.

Response 2: The RDR and each annual report specified that data from MWT-27, MWT-28, and MWT-23 are used in the recharge evaluations. Data from all biowall process wells are reviewed and evaluated to fully understand the condition of groundwater quality, the plume, and the remedy. The RDR and Section 3.5 in each annual report details that the need to recharge is evaluated by specifically focusing on the data at MWT-27, MWT-28, and MWT-23. The discussion in this annual report is no different than the text of previous annual reports. Changes to the text are not required.

SPECIFIC COMMENTS

Comment 1: Section 1.1 Long-Term Groundwater Monitoring Objectives, Page 3: The first paragraph at the top of the page states that "Biowall process monitoring is being conducted at two locations (shown in Figure 2) to determine if, and when, any biowall maintenance activities should be performed." One monitoring location is situated in the segment of Biowall B1/B2 and the other monitoring location is within Biowall C2; no monitoring locations are present in Biowall A1/A2. The specific monitoring locations are not stated. In Section 3.5, Biowall Recharge Evaluation, three wells are identified for monitoring – MWT-27, MWT-28 (located near Biowall B1/B2) and MWT-23 (located near Biowall C2). Revise the Annual Report to clarify whether the three monitoring wells (MWT-27, MWT-28, and MWT-23) correspond to the two monitoring locations described in Section 1.1.

Response 1: The text has been revised to read:

Biowall process monitoring is being conducted at two locations (shown in **Figure 2**) to determine if, and when, any biowall maintenance activities should be performed. The first location is within Biowalls B1/B2 (MWT-27 and MWT-28) in the segment that runs along the pilot-scale biowalls that were installed in July 2005. The second location is within Biowall C2 (MWT-23), the furthest downgradient biowall.