BROOKHAVEN NATIONAL LABORATORY
2014 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

Prepared by

Brookhaven National Laboratory
Environmental Protection Division
Upton, New York

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Executive Summary

This report documents the Operations and Maintenance activities undertaken during the calendar year 2014 for the Current Landfill (AOC 3) and the Former Landfill Areas (Former Landfill AOC 2A, Interim Landfill AOC 2D, and Slit Trench AOC 2E). Brookhaven National Laboratory is responsible for performing this work to comply with the post-closure O&M requirements specified in 6 New York State Code of Rules and Regulations (NYCRR) Part 360, Solid Waste Management Facilities, effective December 31, 1988. The landfill caps are functioning as designed and the 2014 results are consistent with results from previous years.

GROUNDWATER QUALITY

The groundwater quality at both the Current and Former Landfill Areas remains relatively unchanged from 2012 and 2013. Volatile organic compounds (VOCs) and metals continue to be detected downgradient of the Current Landfill. The most prevalent VOCs detected above standards are chloroethane and benzene, at maximum concentrations of 76 micrograms per liter (μg/L) and 2 μg/L, respectively. These concentrations are naturally attenuating and are not detected at the site boundary above drinking water standards. As with previous years, aluminum, antimony, arsenic, iron, manganese, and sodium were detected downgradient from the Current Landfill at concentrations above applicable standards. Concentrations of these metals were similar to those detected in 2013. Maximum concentrations of aluminum, antimony, arsenic, iron, manganese, and sodium in downgradient wells were 218 μg/L, 6.1 μg/L, 11.5 μg/L, 74,000 μg/L, 4,870 μg/L, and 36,400 μg/L, respectively. These results are an indicator of continued low level leachate generation at this landfill.

Concentrations of parameters detected in wells downgradient of the Former Landfill Area do not indicate the presence of leachate. VOCs were not detected above standards in Former Landfill Area monitoring wells in 2014. Water chemistry parameters and metals concentrations were equivalent to historic background levels.

The groundwater monitoring well networks for the Current Landfill and Former Landfill Areas are adequate at this time. No changes to either monitoring programs are recommended.

WOODED WETLANDS MONITORING

The results of the May 2014 sediment and surface water sampling program indicate no elevated risk to adult tiger salamanders from sediments in the South or North Ponds. Overall, the results obtained from the May 2014 sampling indicate that metals in the sediment and the metals of concern in surface water are within the range of variability as compared to previous years' values. Since metals in water are the primary source of absorption by tiger salamanders, no significant change in dissolved metals indicates that the wooded wetland is not experiencing an increase in metals concentration. The monitoring program will be evaluated as part of the Five-Year Review in 2016.

SOIL-GAS MONITORING

Soil-gas monitoring at the Current Landfill indicates that decomposition is still occurring. However, as with prior years, there is no indication that the vapors are migrating beyond the monitoring well

network. Therefore, there is no potential risk to the nearby National Weather Service building. Soil-gas monitoring at the Former Landfill Area indicates that there is no detection of gasses emanating from the landfill. The soil gas monitoring well networks are sufficient to monitor both landfill areas. The BNL database has been updated to allow for, soil-gas readings to be directly entered into the database from the field eliminating the need for handwritten field logs. Therefore, beginning in 2015, the handwritten field logs will be replaced by printed data tables which will be produced from the database at the conclusion of each sampling event.

MAINTENANCE AND REPAIR

Monthly inspections and maintenance continued throughout 2014. The grass was cut once during the fall at the Current and Former Landfills. Small pine seedlings observed growing on the edge of the Current Landfill were either hand pulled or cut back mechanically. Weeds and small pine seedlings were noted growing in the drainage channels of both landfills throughout the year. Access to the soil-gas monitoring wells are cleared via mechanical weed whacking. Potholes located on the asphalt access road around the Current Landfill will be repaired in Spring 2015. The removal of small pines and weeds in the drainage channels will continue in Spring 2015.

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ACRONYMS

AOC	Area of concern
BNL	Brookhaven National Laboratory
BSA	Brookhaven Science Associates
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CY	Calendar year
DCS	Derived concentration technical standard
DOE	U.S. Department of Energy
DQOs	Data quality objectives
EIMS	Environmental Info. Mgmt. System
HWMF	Former Hazardous Waste Management Facility
LEL	Lower explosive limit
µg/L	Micrograms per liter
mg/L	Milligrams per liter
mrem	Millirems
MS/MSDs	Matrix spike/matrix spike duplicates
NPL	National Priorities List
NYSDEC	NY State Dept. of Environmental Conservation
NYSDOH	NY State Dept. of Health
O&M	Operations and Maintenance
OU	Operable Unit
PCBs	polychlorinated biphenyls
pCi/L	picocuries per liter
QA/QC	Quality Assurance/Quality Control
QAPP	Quality Assurance Project Plan
Sr-90	Strontium 90
TDS	Total dissolved solids
TKN	Total Kjeldahl nitrogen
TSS	Total suspended solids
TVOCs	Total volatile organic compounds
UEL	Upper explosive limit
USEPA	United States Environmental Protection Agency
VOCs	Volatile organic compounds

1.0 INTRODUCTION

This report documents the Operation and Maintenance (O&M) activities conducted during calendar year (CY) 2014 for the Current Landfill (Area of Concern [AOC] 3) and the Former Landfill Areas (Former Landfill AOC 2A, Interim Landfill AOC 2D, and Slit Trench AOC 2E). Brookhaven National Laboratory (BNL) is responsible for performing this work to comply with the post-closure O&M requirements specified in the 6 New York State Code of Rules and Regulations (6NYCRR) Part 360, Solid Waste Management Facilities, effective December 31, 1988. The details of the O&M programs are described in the Final Operations and Maintenance Manuals for the Current Landfill (CDM Federal, 1996a) and the Former Landfill Areas (CDM Federal, 1996b).

The following are the primary objectives of the O&M program:

- Monitor the effectiveness of the impermeable caps in protecting groundwater quality;
- Monitor the potential generation and migration of soil-gas; and
- Maintain and monitor the various components of the closure system (landfill caps, drainage structure, and environmental monitoring systems).

This is the nineteenth year of O&M for the Current Landfill, the eighteenth year for the Former Landfill and Slit Trench, and the seventeenth year for the Interim Landfill.

1.1 Site Description and Project Background

BNL is a 5,265-acre site located in central eastern Long Island, New York. The facility is a federally owned and funded international research and learning center managed by Brookhaven Science Associates (BSA) under contract with the United States Department of Energy (DOE). On December 21, 1989, the site was placed on the United States Environmental Protection Agency's (USEPA's) National Priorities List (NPL), a ranking of hazardous waste sites compiled by the federal government as part of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). Placing BNL on the NPL resulted in the establishment of a remediation task list for

various locations around the facility. The site subsequently was divided into seven separate remediation work areas known as Operable Units (OU). The Current Landfill and Former Landfill Areas are located in OU I, near the south central portion of the BNL site (see Figure 1).

Current Landfill. The Current Landfill consists of one unlined waste-cell that operated from the late 1960s until 1990 for disposing of waste generated at the Laboratory. An impermeable cap covering the cell was completed in November 1995. Additional information about the cap's construction can be obtained from the *Construction Certification Report for the Current Landfill* (CDM Federal, 1996b). Following the installation of the cap, the post-closure groundwater monitoring program was implemented in January 1996, in accordance with 6 NYCRR Part 360 Section 2.15, Solid Waste Management Facilities (effective December 31, 1988).

Groundwater quality near the Current Landfill is monitored under the O&M program for a wide variety of volatile organic compounds (VOCs), metals, radiological, and water chemistry (landfill leachate) parameters. Monitoring in this vicinity was expanded in 1999 to include a wetland area adjacent to the landfill's eastern boundary. This area, known as the Wooded Wetland area, is a two-acre wetland located between the Former Hazardous Waste Management Facility (HWMF) and the Current Landfill. The wetland receives surface runoff from the Current Landfill and usually is flooded during the spring/early summer and dry in late summer/fall. Monitoring of the Wooded Wetland area has been incorporated into the Current Landfill Monitoring Program and consists of sampling and analyzing surface water and sediment every other year to evaluate the potential for leachate migrating into this area, as originally performed under the *OU I Ecological Risk Assessment* (CDM Federal, 1999).

As required under 6 NYCRR Part 360, groundwater quality must be monitored for a minimum of five years, after which the permittee may request modification of the sampling and analysis requirements. In October 2001, BNL submitted the *Five-Year Evaluation Report for the Current Landfill* (BNL, 2001). This report assessed groundwater trends over the five years after capping, and proposed changes to the sampling program. These changes were implemented in CY 2002. In July 2006, and March 2011 BNL issued the additional five-year review reports which discussed all remediation areas at the site. Review of the Current Landfill was included in these reports.

Former Landfill Area. The Former Landfill Area encompasses three closely located landfill units; the Former Landfill, the Slit Trench, and the Interim Landfill. The Former Landfill is an unlined waste-disposal area originally used by the United States Army starting in 1918. Waste disposal operations ceased in 1966, and the landfill was covered with soil. The Interim Landfill also is unlined, and was reportedly used for approximately one year between the time the Former Landfill was closed and the Current Landfill was opened. The Slit Trench is unlined as well, and is believed to have operated between 1960 and 1967 for disposal of construction and demolition debris (CDM Federal, 1996).

The Former Landfill and Slit Trench were capped in November 1996 and the Interim Landfill was capped in October 1997. Additional information about the construction of the caps can be found in the *Construction Certification Report for the Former Landfill* (Roy F. Weston, 1997) and *Construction Certification Report for the Interim Landfill Capping* (PW Grosser, 1997). BNL started O&M activities in December 1996 at the Former Landfill and Slit Trench, and in November 1997 at the Interim Landfill. Under this O&M program, groundwater quality in downgradient wells in the vicinity of the Former Landfill is monitored for VOCs, metals, radionuclides, and landfill-leachate parameters.

In March 2002, BNL submitted a *Five-Year Evaluation Report for the Former Landfill* (P.W. Grosser, 2002), which assessed trends in groundwater quality over the five-year period following capping and proposed changes to the sampling program. These changes were implemented in CY 2003. In July 2006, and March 2011 BNL issued the additional five-year review reports which discussed all remediation areas at the site. Review of the Former Landfill was included in these reports.

1.2 Overview of the Monitoring Program

Groundwater Monitoring

Data quality objectives (DQOs) for each of BNL's groundwater monitoring programs are presented in the *BNL Environmental Monitoring Plan* (BNL, 2014). The design of the data collection network was optimized as part of the process. Such optimization continues annually as part of the O&M

program and is based on the interpretation of new data as well as historical trends. The primary DQO decision identified for the landfill monitoring programs is "Are the controls effectively improving groundwater quality below and downgradient of the landfill?"

Groundwater samples are collected from monitoring wells positioned upgradient and downgradient of each landfill area. Analytical data are reviewed, and determinations are made regarding the effectiveness of landfill controls.

The additional monitoring programs for the landfill areas consist of:

Soil-gas Monitoring. Measurements of methane, Lower Explosive Limit (LEL), and hydrogen sulfide are taken quarterly from monitoring locations surrounding the Current Landfill and annually from monitoring locations surrounding the Former Landfill to evaluate the movement of soil-gas from the landfills.

Wooded Wetland Monitoring. Surface water and sediment in the wooded wetland adjacent to the eastern boundary of the Current Landfill are sampled every two years to evaluate possible effects of landfill leachate on tiger salamander habitats. Samples were collected in 2014 and are scheduled for collection again in 2016.

Routine Visual Inspection, Maintenance, and Repair. Monthly inspections are performed to monitor the structural and/or operational status of the landfill caps, drainage structures, and environmental monitoring systems.

Leachate Discharge. Visual inspections of the landfills are performed monthly to monitor for signs of leachate discharge. If observed, samples of the leachate are collected and analyzed. Leachate was not observed during 2014.

These activities are discussed in greater detail in Sections 2 through 5 of this report. Section 6 contains the conclusions and recommendations. References are included in Section 7.

2.0 GROUNDWATER MONITORING

2.1 Monitoring Well Networks

2.1.1 Current Landfill

Since January 1996, groundwater quality at the Current Landfill has been monitored using ten downgradient wells and one background monitoring well. Figure 2 depicts the location of the monitoring wells. Figure 3 shows the water table contours for this area in December 2014. The depths of the screen intervals for the Current Landfill wells are listed below.

Well ID	Screen Interval (ft BLS)	Screen Zone
087-09*	24–34	Shallow Glacial
087-11	11–21	Shallow Glacial
087-23	25–40	Shallow Glacial
087-24	70–80	Intermediate Glacial
087-26	70–80	Intermediate Glacial
087-27	5–20	Shallow Glacial
088-109	6–21	Shallow Glacial
088-110	10–25	Shallow Glacial
088-21	5–20	Shallow Glacial
088-22	70–80	Intermediate Glacial
088-23	120–130	Deep Glacial

BLS = Below Land Surface

*Background well

Screen zones were determined based on the following characteristics:

- Shallow Glacial Zone: typical water table within 10 ft of the screen zone.
- Intermediate Glacial Zone: typical water table between 10 ft and 100 ft above the screen zone.
- Deep Glacial Zone: typical water table >100 ft above the screen zone.

2.1.2 Former Landfill

Since January 1997, groundwater quality at the Former Landfill area has been monitored using eight shallow monitoring wells (three background and five downgradient). The locations of the eight monitoring wells are presented in Figure 4. This network was supplemented by the transfer of six wells, 106-20, 106-21, 106-43, 106-44, 106-45 and 106-64 from the Chemical/Animal

Holes project to the Former Landfill Area project in 2010. The transfer was made since the analyte of interest detected in these wells (strontium-90) originated from the Former Landfill. The direction of groundwater flow in the OU I area of the site is generally to the south-southeast. Figure 3 shows the December 2014 water table contours for the area. The screen zones for Former Landfill Area wells are summarized below.

Well ID	Screen Interval (ft BLS)	Screen Zone
086-42*	65–75	Intermediate Glacial
086-72*	41.5–56.5	Shallow Glacial
087-22*	43–53	Shallow Glacial
097-17	29–39	Shallow Glacial
097-64	29–44	Shallow Glacial
097-277	40–55	Shallow Glacial
106-02	55–65	Intermediate Glacial
106-30	29–44	Shallow Glacial
106-20	85-95	Intermediate Glacial
106-21	55-65	Shallow Glacial
106-43	43-53	Shallow Glacial
106-44	44-54	Shallow Glacial
106-45	44-55	Shallow Glacial
106-64	30-40	Shallow Glacial

BLS = Below Land Surface
*Background well

Screen zones were determined based on the following characteristics:

- Shallow Glacial Zone: typical water table within 10 ft of the screen zone.
- Intermediate Glacial Zone: typical water table between 10 ft and 100 ft above the screen zone.

2.1.3 Sampling Frequency and Analytical Parameters

The majority of monitoring wells for the Current Landfill were sampled semiannually, during June and November 2014 for VOCs, metals, and water chemistry parameters. A quarterly VOC sampling frequency was maintained for well 088-109, due to the continued presence of elevated levels of chloroethane. Radionuclides were sampled once, in November for wells 087-23, 087-27, 088-21, and 088-109.

Based on changes recommended in the *2012 Environmental Monitoring Report, Current and Former Landfill Areas*, all Former Landfill Area wells except for 106-02 were scheduled to be

sampled every two years. During 2014, all Former Landfill Area monitoring wells were sampled. Water chemistry parameters, VOCs, pesticides, PCBs, metals, and radionuclides were sampled once in wells 086-42, 086-72, 087-22, 097-17, 097-64, 097-277, 106-02, and 106-30. In addition, strontium-90 was sampled once in monitoring wells 106-20, 106-21, 106-43, 106-44, 106-45, and 106-64.

R&C Formation, Ltd. of Babylon, New York conducted the groundwater sampling, and Test America of St. Louis, Missouri analyzed the samples. See Table 1 for a summary of analyses performed, by well and sampling round.

2.1.4 Quality Assurance / Quality Control

The groundwater samples were collected and analyzed in accordance with strict quality assurance/ quality control (QA/QC) requirements as described in the BNL SOPs for groundwater monitoring. The analytical results for groundwater samples collected during 2014 satisfied the data-quality objectives. The sampling team personnel are responsible for assuring that a master calibration/maintenance log is maintained for each field-measuring device (e.g., pH conductivity, turbidity meters). The sample coordinator provided a calibration/maintenance log for equipment supplied to the contractor's sampling teams.

The analytical results of samples collected for the Current and Former Landfill Area projects underwent data verification, using BNL standard operating procedures EM-SOP-203, Chemical Data Verification, and EM-SOP-204, Radiochemical Data Verification. These procedures are designed to verify the accuracy and/or completeness of analytical data. The data verification process is implemented to detect the most common analytical problems that affect the quality of the results. To accomplish this task, QA/QC items such as the following were checked: holding times, matrix spikes, laboratory and field blanks, and field logs. If items are found that can affect the use and interpretation of the data, they are either corrected, as in the case of unreadable information on the field logs, or the data are "qualified," as in the case of contamination of the blanks or violations of the holding time.

Guidance on the collection of QA/QC samples is contained in the QAPP, and in BNL procedure

EM-SOP-200, Collection and Frequency of Field Quality Control Samples. The QA/QC samples collected included trip blanks, field blanks, matrix spike/matrix spike duplicate (MS/MSDs), and blind duplicates.

Trip blanks were analyzed for aqueous VOCs only. One trip blank was shipped to the analytical laboratory with each set of samples submitted for VOC analyses. One duplicate sample was collected from the Current Landfill during the second and fourth quarters, and one duplicate sample was collected during the fourth quarter from the Former Landfill. No errors were detected in the duplicate analyses. Matrix spike/matrix spike duplicate (MS/MSD) samples were collected at the same frequency as the duplicates. Sample results with concentrations of these compounds within the appropriate range of the associated blank value were declared non-detect. The amount of qualified data was within acceptable limits and did not adversely impact the review of the groundwater quality.

2.2 Landfill Groundwater Monitoring Results

This section summarizes the results for VOCs, metals, water-chemistry parameters, and radionuclides detected for both the Current Landfill and Former Landfill Area and the pesticide/PCB results from the Former Landfill Area in 2014. The historical trends in concentrations of key contaminants are assessed and shown graphically in Figures 5 through 12. Summary tables of all 2014 landfill groundwater data are presented in Tables 2 through 10. Detections that exceed groundwater standards are in bold text. The tables include groundwater standards, laboratory results, minimum detection limits, and laboratory data qualifiers.

The groundwater standards used for evaluating nonradiological groundwater data are those contained in the NYSDEC Division of Water Technical and Operational Guidance Series 1.1.1 Ambient Water Quality Standards and Guidance Values (June 1998, with addendums April 2000 and June 2004) (NYSDEC 1998, 2000, and 2004) and 6NYCRR Part 703.5. Groundwater standards for radiological isotopes were supplemented with New York State Department of Health's (NYSDOH's) strontium-90 and tritium standards for drinking water. There were no groundwater standards for the gamma constituents; therefore a Groundwater Screening Level was used. This value is based on a dose equivalent of 4 millirems (mrem)/year and was calculated as 4% of the

DOE Derived Concentration Technical Standards (DCS) (DOE-STD-1196-2011) for the isotope of concern. These values are listed under the "groundwater standards" column in the summary tables and annotated where appropriate. Laboratory results that exceed the lower of the groundwater standards or the Cleanup Goals listed in the Record of Decision (ROD) are highlighted in the data summary tables to facilitate review of the information.

The laboratory data qualifiers included in the tables vary for the different analyses. Explanations for the data qualifiers are included in the notes in each table. Complete 2014 laboratory data reports, chain of custody forms, and well-sampling logs for both landfills are archived and available upon request. In addition, analytical results are stored in the BNL Environmental Information Management System (EIMS) database.

2.2.1 Current Landfill

2.2.1.1 Volatile Organic Compounds (VOCs)

Benzene and chloroethane have historically been the primary groundwater contaminants detected downgradient of the Current Landfill. Benzene was detected above its standard of 1 microgram per liter (μg/L) in three monitoring wells: 087-11, 087-23, and 088-109. Chloroethane and 1,1-dichloroethane were detected above the groundwater standards of 5 μg/L in one downgradient monitoring well, 088-109, during 2014 (Table 2). No other VOCs were detected above groundwater standards during 2014.

Figure 5 plots the concentration trends of total VOCs (TVOC), benzene, and chloroethane. As shown, VOCs remained relatively stable at low concentrations except for chloroethane in well 088-109. Overall, the trend plots also show a distinct decrease in VOC concentrations from the high concentrations seen prior to the installation of the cap. This reflects the positive effects of the capping on the groundwater quality downgradient.

Benzene exceeded the 1 μg/L standard in well 087-11 during the June and November sampling events, in well 087-23 in the June sampling event, and in 088-109 during the January and November sampling events. The highest detection of benzene was 2.3 μg/L during the June event in well 087-11. Chloroethane exceeded the 5 μg/L standard in well 088-109 during all four sampling events.

The maximum chloroethane concentration was 76 µg/L detected in well 088-109 during the November sampling event, which is well below the historic high of 560 ug/L detected in this well in 1998. 1,1-Dichloroethane was detected above the standard of 5 µg/L in well 088-109 during the August and November sampling events. The high concentration of 1,1-dichloroethane was 24.5 µg/L in November 2014. Figure 5 shows VOC concentration spikes in well 088-109 approximately every two years. Even with these spikes, the VOC concentrations are generally stable to decreasing over the last 16 years in this well.

2.2.1.2 Water Chemistry Parameters

Groundwater samples near the Current Landfill were analyzed semi-annually for ammonia, total Kjeldahl nitrogen (TKN), cyanide, sulfate, nitrite, nitrate, total nitrogen, chloride, alkalinity, total dissolved solids (TDS or residue, nonfilterable), and total suspended solids (TSS or residue, filterable) during 2014 (Table 1). The results are provided in Table 3. Elevated levels of these parameters can be indicative of the presence of landfill leachate. During 2014, ammonia was the only water chemistry parameter detected above standards.

Ammonia was detected above the standard of 2 milligrams per liter (mg/L), with exceedances in three downgradient wells (087-11, 087-26, and 088-109), as shown in Table 3. The highest concentration of 3.25 mg/L was reported for well 088-109 in November. The levels of ammonia detected are consistent with historic data.

Chloride was not detected above the standard of 250 mg/L in any wells in 2014. Background well 087-09 had the highest concentration of chloride at 84.2 mg/L in November. Figure 6 plots these trends. The trends for downgradient wells show the low and stable nature of chloride concentrations in the vicinity of the Current Landfill.

Alkalinity, in the form of bicarbonate, is the concentration of anions available to neutralize acid, and is often used as an indicator of leachate contamination. The alkalinity in background well 087-09 ranged from 8.77 to 42.5 mg/L during 2014. The highest alkalinity concentration during 2014 was detected in downgradient, shallow Upper Glacial aquifer well 088-109, at 132 mg/L in November.

There is no groundwater standard for alkalinity. The historical concentration trends plotted in Figure 6 show overall stable to decreasing levels of alkalinity.

During 2014, all sulfate concentrations remained below the groundwater standard of 250 mg/L. The highest sulfate value reported for 2014 was detected in the June sample from monitoring well 088-110 at a concentration of 23.5 mg/L. This is consistent with historic background levels at the Current Landfill.

TDS and TSS results were similar to those from previous years. TDS and TSS concentrations in background well 087-09 ranged from 107 mg/L to 221 mg/L, and 1.47 mg/L to 5.06 mg/L, respectively. The maximum concentrations observed in downgradient wells were 277 mg/L and 26.2 mg/L of TDS and TSS, respectively.

No water chemistry parameters have exceeded groundwater standards in downgradient wells 087-24, 088-22, and 088-23, since 1998. These wells are all screened in the mid to deep-Upper Glacial aquifer to monitor the vertical extent of contamination from the Current Landfill. A comparison of downgradient and background wells shows that leachate continues to be generated from the Current Landfill, albeit at low concentrations. Decreasing to stable trends in concentrations of contaminants indicate that the capping continues to effectively reduce the generation and migration of leachate.

2.2.1.3 Metals

Historically, iron is detected consistently above groundwater standards in the majority of wells surrounding the landfill. Precipitated iron from the BNL Water Treatment Plant was disposed of at the Current Landfill during past operations. Concentrations in upgradient well 87-09 are still lower than in several downgradient wells, suggesting continued leachate migration from the landfill.

During 2014, chromium, iron, manganese, and sodium in the background well, and aluminum, antimony, arsenic, iron, manganese, and sodium in several downgradient wells were detected above their respective groundwater standards (Table 4).

Aluminum was reported above the standard of 200 µg/L in downgradient well 087-24 during November at a concentration of 218 µg/L. All other aluminum concentrations were below the standard.

Antimony was reported above the standard of 3 µg/L in downgradient wells 087-26, 088-109, and 088-21. The highest concentration of antimony was reported in well 088-21 at 6.1 µg/L in June.

Arsenic was reported at slightly above the standard of 10 µg/L in wells 087-23, 088-109 and 088-110 at a high concentration of 11.5 µg/L. Arsenic detections have historically been observed at similar levels in Current Landfill wells.

Iron was reported above the standard of 300 µg/L in all wells except 087-24, and 088-21. The background concentrations ranged up to 851 µg/L while downgradient concentrations ranged up to 74,000 µg/L (well 087-11). Iron trend graphs are plotted on Figure 7.

Manganese ranged from 10.9 µg/L to 394 µg/L in background well 087-09, and up to 4,870 µg/L in the downgradient wells.

Background sodium levels ranged up to 33,200 µg/L; whereas downgradient levels reached a high of 36,400 µg/L.

Chromium was detected above the standards of 50 µg/L in background well 087-09. Chromium in well 087-09 was detected at concentrations up to 152 µg/L. However, chromium was not detected above standard in any of the downgradient wells.

2.2.1.4 Radionuclides

No radionuclides were detected above groundwater standards during 2014 (Table 5). Tritium was the only radionuclide detected during 2014. Tritium was detected significantly below the groundwater standard of 20,000 pCi/L with a maximum value of 692 pCi/L in well 088-109 (Figure 8). Tritium and strontium-90 concentrations have not exceeded groundwater standards in any wells since 1998.

2.2.2 Former Landfill

Based on changes recommended in the *2012 Environmental Monitoring Report, Current and Former Landfill Areas*, all wells except for 106-02 were scheduled to be sampled every two years. Well 106-02 continues to be sampled annually for metals. The Former Landfill Area monitoring wells were sampled during 2014 and are scheduled for their next sampling in 2016.

2.2.2.1 VOCs

There were no detections of VOCs above groundwater standards in Former Landfill Area monitoring wells in 2014. The highest total volatile organic concentration (TVOC) was reported in monitoring well 106-30 at 7.05 µg/L. The trends for VOC results are shown on Figure 9.

2.2.2.2 Water Chemistry Parameters

Groundwater samples were analyzed for ammonia, cyanide, TKN, sulfate, nitrite, nitrate, total nitrogen, chloride, alkalinity, TDS and TSS. During 2014, none of the water chemistry parameters exceeded applicable groundwater standards (Table 7). The trends of the alkalinity and chloride results are shown on Figure 10.

2.2.2.3 Metals

The sampling results are summarized in Table 8, and concentration trend plots for iron are shown on Figure 11. All metal detections were below groundwater standards during 2014 except for sodium in well 086-42. The sodium result for background well 086-42 was above the groundwater standard of 300 µg/L. The sodium concentration in well 086-42 was 37,500 µg/L.

Since December 2008, iron has shown an increasing trend in well 106-02. However, iron is the only parameter in the well to have an increasing trend. All other metals are stable at historic background levels. In an effort to find the source of iron, the pump was pulled and examined from well 106-02. It was determined that the pump was approximately 14 years old. This pump was replaced with a new pump in 2013. The iron concentration in this well decreased from the historic high concentration of 2,190 µg/L in 2012 to 606 µg/L in 2013, and to 148 µg/L in 2014.

2.2.2.4 Pesticides/PCBs

There were no detections of pesticides or polychlorinated biphenyls (PCBs) during 2014. The last detection of pesticides was in July 2002 and the last PCB was detected in December 2008. The sampling results are summarized in Table 9.

2.2.2.5 Radionuclides

Tritium was not detected in any wells during 2014. Strontium-90 was detected in four wells in 2014 below the groundwater standard of 8 pCi/L. Detections ranged from 0.96 pCi/L in well 106-45 to 3.7 pCi/L in well 097-64. Strontium-90 has not been detected above the standard of 8 pCi/L in Former Landfill monitoring wells since May 2001. The 2014 sampling results are summarized in Table 10, and concentration trend plots for strontium-90 are shown on Figure 12. Gross beta activity was detected in well 097-64, at a concentration of 6.59 pCi/L. This result is consistent with the strontium-90 detected in this well..

3.0 WOODED WETLAND MONITORING

Sampling at the Wooded Wetland is performed as part of the compliance monitoring for the Current Landfill. Prior to the capping of the Current Landfill, leachate was periodically observed in the wetland. The monitoring is focused on metal concentrations in the sediment and surface water to evaluate potential risks to the local tiger salamander population. As recommended in the *2008 Environmental Monitoring Report – Current and Former Landfill Areas*, samples are collected on a biennial schedule (BNL 2009). The next scheduled sampling event after 2014 will be in 2016. To determine if sediment or surface water concentrations pose a risk to tiger salamanders, analytical data are compared to benchmark sediment concentrations and critical water concentrations (Appendix A Tables 2A and 2B) that were calculated in the *Ecological Risk Assessment* (CDM, 1999). A benchmark sediment dose is a dose above which an observable toxic effect may occur in adult tiger salamanders. Critical water concentrations are surface water concentrations that have the potential to produce observable adverse effects to larval salamanders. See Appendix A for a detailed discussion of the sampling and analytical results, and associated figures and data tables.

Surface Water

Seven surface water samples from the Southern and Northern Ponds were collected in May 2014. The zinc concentrations were above the critical concentration of 23.8 µg/L for locations SW-6 (27.6 µg/L) and SW-16 (25.1 µg/L). The individual concentrations for all other metals and all the average concentrations of metals for samples from the North and South Ponds were below the critical concentrations for the 2014 sampling event (Appendix A, Table 6).

Metals in water are the primary source of absorption by tiger salamanders. No significant change in dissolved metals indicate that the wooded wetland is not experiencing an increase in metals concentration.

Sediment

Seven sediment samples were collected from the Wooded Wetland Area in May 2014. The results for 2014 indicate that average metals concentrations in sediments in the South Pond are less than the maximum concentration benchmarks (Appendix A, Table 5).

For the North Pond, the average metals concentrations were below the background sediment concentrations for all metals except lead. Lead and mercury had average concentrations slightly above the benchmark maximum sediment concentration. The average lead concentration was 100.6 mg/kg compared with benchmark and background concentrations of 82.9 mg/kg and 97.6 mg/kg, respectively (Appendix A, Table 5). The average mercury concentration was 0.31 mg/kg compared to the benchmark maximum sediment concentration of 0.17 mg/kg.

Overall, the 2014 results are consistent with previous years. Based on the 2014 sampling results, sampling of the Wooded Wetlands should continue once every two years as part of the annual O&M landfills monitoring activities. The monitoring program will be evaluated as part of the Five-Year Review in 2016. A complete copy of the *2014 Wooded Wetlands Report* is included in Appendix A of this report.

4.0 SOIL-GAS MONITORING

4.1 Soil-gas Monitoring Networks

Soil-gas readings were collected from wells surrounding the Current Landfill in February, June, September, and December 2014 and from the Former Landfill in June 2014. Methane, lower explosive limit (LEL), and hydrogen sulfide were measured using a Landtek GEM 2000. The LEL for methane is 5.3% and the upper explosive limit (UEL) is 15%.

4.1.1 Current Landfill

Along the perimeter of the Current Landfill, 58 points were sampled for soil-gas, which includes four outpost soil-gas well clusters, GSGM-1 to GSGM-4, located along the south side of Brookhaven Avenue. The sampling points include 12 soil-gas well clusters consisting of three sampling intervals per cluster, and 11 soil-gas well couplets consisting of two sampling intervals per couplet. Table 11 describes each soil-gas well located adjacent to the landfill. Their locations are illustrated on Figure 13.

4.1.2 Former Landfill Area

Twenty-four sampling points were monitored for the Former Landfill Area. These points include 12 well couplets consisting of two sampling points per couplet. Details of each soil-gas well are given in Table 11 and their locations shown in Figure 14.

4.1.3 Sampling Frequency

Soil-gas was monitored for each landfill in the following months.

Sampling Event	Current Landfill	Former Landfill
Round 1	February 2014	June 2014
Round 2	June 2014	None
Round 3	September 2014	None
Round 4	December 2014	None

4.2 Results of Soil-Gas Monitoring

Action levels for soil-gas are specified in 6 NYCRR Part 360-2.17(f) in terms of percent LEL, which is primarily related to the amount of methane present. This discussion focuses primarily on the methane levels detected during monitoring. Hydrogen sulfide is monitored, but has no regulatory action level. 6 NYCRR Part 360-2.17(f) specifies that active measures to control decomposition gases are required when the concentration of methane or other explosive gases exceeds 25 percent of the LEL (or 1.3% methane) in facility structures, or 100 percent (%) of the LEL (or 5.3% methane) at the site boundary.

4.2.1 Current Landfill

A total of 23 soil-gas monitoring well clusters are positioned around the Current Landfill (Figure 13) and were sampled quarterly during 2014. Potential receptors, or areas where methane can accumulate in the vicinity of the Current Landfill, include the National Weather Service office building located 480 feet north northwest of the Current Landfill on the north side of Brookhaven Avenue. The four outpost soil-gas locations, GSGM-1 to GSGM-4, located along the south side of Brookhaven Avenue, are used to monitor the northern extent of the migration of landfill gas. Should methane extend to the south side of Brookhaven Avenue at concentrations exceeding 25 percent of the LEL (or 1.3% methane), active measures may be required to control its migration. This is a BNL administration limit that would trigger further evaluation.

The results of the soil-gas monitoring for 2014 are summarized in Table 12. Appendix A contains the field notes recorded during the sampling events. Instrument measurements show that methane continues to be generated in several areas of the landfill. The percent of the LEL is elevated along the western side and the southeast boundary of the Current Landfill. In addition, one point, SGM-19, along the northern side of the Current Landfill had elevated LEL readings. The elevated levels in these areas have remained stable since 1996 when monitoring began and the current gas venting system appears to be controlling gas accumulation. These data are consistent with previous years (see Appendix D).

Outpost wells, GSGM-1 to GSGM-4, located along the south side of Brookhaven Avenue showed no methane during 2014, indicating that the methane accumulation and migration does not extend to this area. Should methane at concentrations exceeding 25 percent of the LEL (or 1.3% methane),

extend to these outpost wells on the south side of Brookhaven Avenue, active measures may be required to control its migration.

Hydrogen sulfide is a product of anaerobic decay in landfills and can produce an odor like rotten eggs. It is a nuisance, but rarely a toxicity problem. For reference, the National Institute of Occupational Safety and Health sets an exposure limit of 10 parts per million (ppm) hydrogen sulfide in the breathing zone for an 8-hour period.

Hydrogen sulfide measurements collected from the soil-gas monitoring wells ranged from 0 ppm to 45 ppm. Well SGMW-3C located along the west section of the landfill, had the highest hydrogen sulfide concentration, which was above the 10 ppm exposure limit. However, the measurement was taken from a vapor point screened 20 - 29 ft below the surface and not from the ambient breathing zone. Like methane, receptors to hydrogen sulfide are considered to be in areas such as basements where the gas can accumulate. Based upon the readings obtained from the outpost soil-gas wells along the south side of Brookhaven Avenue (GSGM-1 to GSGM-4), there is no evidence that hydrogen sulfide is migrating toward the National Weather Service building.

4.2.1.1 Trend in Soil-Gas Data

Appendix D contains the results of methane monitoring for the Current Landfill from 1996 through 2013. Generally the levels of methane and hydrogen sulfide in the wells along the northwest landfill boundary and southeast corner have remained elevated but stable.

4.2.2 Former Landfill Area

A total of 12 soil-gas monitoring well clusters are positioned around the Former Landfill Area. During 2014, the well clusters were monitored once. The only existing operating facility within the immediate vicinity of the Former Landfill Area is Building 670, located approximately 650 feet to the southeast. This building houses the Chemical Holes Sr-90 groundwater treatment system. Because this facility does not have a basement, there is minimal potential for hazardous levels of landfill gases to accumulate in this structure.

Based upon the sampling event, there was no methane or hydrogen sulfide detected. Table 13 details the 2014 soil-gas monitoring results for the Former Landfill Area. Appendix B contains the field notes recorded during the sampling events.

4.2.2.1 Trends in Soil-Gas Data

The results of monitoring the Former Landfill Area continue to be consistent with the initial survey of the methane gas migration conducted in 1995, during which concentrations between 0% to 0.1% methane were recorded. Methane has not been detected since 2005. Hydrogen sulfide gas also was measured during this survey. The hydrogen sulfide results are consistent with historic values. Appendix D includes the results of methane monitoring in the Former Landfill Area for 1996 through 2013.

Presently, there is no measured pathway for methane gas migration, nor do the concentrations represent an explosive hazard, as shown by the nondetect readings on the LEL meter. The age of the Former Landfill Area and the types of materials disposed of would likely result in low levels or the absence of methane or hydrogen sulfide.

5.0 MAINTENANCE AND REPAIR

Monthly site inspections were performed by BNL at the Current and Former Landfill areas to monitor the structural and/or operational status of the landfill cap, gas vents, drainage structure, fences and environmental monitoring system (groundwater wells, soil-gas wells) in accordance with the O&M Manuals. A copy of the inspection reports is included in Appendix B. Maintenance and repair work completed by BNL is discussed below.

5.1 Landfill Cap and Gas Vents

To prevent ruts in the landfills caused by the weight of the lawn mowers during periods of above normal precipitation, the cutting of the grass is only conducted when optimal soil conditions are evident. The grass was cut during September at the Current and Former Landfills. A few ruts from the mower were subsequently filled in. Small cracks in the asphalt road next to the Current Landfill were noted on the inspection logs. Also, a couple of potholes were noted along the asphalt road next to the Former Landfill. The cracks and potholes do not impact the structural integrity of the road; however there was vegetation growing in some of the cracks. The potholes will be repaired in the Spring 2015. Phragmites impinging on the asphalt access road at the Current Landfill were cut back. Small pine seedlings observed growing on the edge of the Former Landfill cap were either hand pulled or cut back mechanically. The seedlings only penetrated the top soil cover.

5.2 Drainage Structures

The drainage structures at both the Current and Former Landfill areas were maintained. They were observed to be operational and structurally sound during the site inspections. Small pine seedlings and weeds were noted growing in the drainage channels of both landfills during various times of the year. Vegetation removal is scheduled for Spring 2015.

5.3 Environmental Monitoring System

The monitoring wells and soil-gas monitoring wells associated with the landfills required no significant maintenance. Access to the soil-gas monitoring wells was cleared via mechanical weed whacking prior to each sampling event.

5.4 Related Structures

No structures required maintenance during 2014.

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 Groundwater Monitoring

6.1.1 Conclusions for the Current Landfill

- Benzene was detected in downgradient wells 087-11, 087-23, and 088-109 at concentrations above the groundwater standard with a maximum concentration of 2 µg/L. Chloroethane detected in well 088-109 was the only other VOC detected above groundwater standards. During 2014, chloroethane concentrations ranged up to 76 µg/L indicating that VOCs continue to emanate from the landfill. An analysis of the trends of VOCs indicated the concentrations are stable to decreasing. These concentrations are naturally attenuating and are not detected at the site boundary above the drinking water standard.

- Concentrations of landfill water chemistry parameters and metals such as ammonia and iron in several downgradient wells were above the upgradient values. This suggests that leachate continues to emanate from the landfill, but at low levels.

- Tritium continues to be detected in wells 087-27 and 088-109 downgradient of the Current Landfill, but at concentrations well below groundwater standards. This is consistent with historical observations. There have been no detections of radionuclides above the drinking water standards since 1998.

- Although low levels of contaminants continue to be detected, the landfill controls are effective at reducing the impact of the Current Landfill on groundwater quality as evidenced by the improving quality of groundwater downgradient of the landfill.

6.1.2 Recommendations for the Current Landfill

The groundwater monitoring well network is adequate at this time. No changes to the monitoring frequency are needed.

6.1.3 Conclusions for the Former Landfill Area

- The Former Landfill Area is not a source of VOC contamination. No VOCs were detected above groundwater standards in 2014. VOC concentrations in the downgradient wells were at or near the minimum detectable limits.
- Water chemistry parameters were detected at concentrations approximating those of historic background monitoring well results, indicating that leachate generation is minimal to nonexistent.
- No metals exceeded the groundwater standards in wells downgradient of the Former Landfill Area. After replacing the pump in well 106-02 in 2013, the iron concentration has decreased from an historic high of 2,190 µg/L in 2012 to 148 µg/L in 2014. Therefore, it is concluded that the pump was the source of the iron in well 106-02.
- The Former Landfill Area no longer appears to be a source of strontium-90 contamination. Only trace amounts of strontium-90 were detected near the Former Landfill Area with a maximum concentration of 3.7 pCi/L in well 097-64. The strontium-90 detected in wells 106-44, 106-45 and 106-64 has been decreasing with time and has been below groundwater standards since 2001.
- The implemented landfill controls are effective, as evidenced by the improved quality of groundwater downgradient of the landfill.

6.1.4 Recommendations for the Former Landfill Area

The groundwater monitoring well network is adequate at this time. No changes to the monitoring frequency are needed.

6.2 Soil-Gas Monitoring

6.2.1 Conclusions for the Current Landfill

Methane and hydrogen sulfide levels in wells located along the west landfill boundary and southeast corner have remained stable and have not shown any significant increases or decreases over time.

No gas migration has been observed this year at the outpost soil-gas wells along Brookhaven Avenue.

6.2.2 Recommendations for the Current Landfill

The soil-gas monitoring program is adequate at this time. Methane gas is still being produced and leachate is continuing to discharge from the landfill. The BNL database has been updated to allow for, soil-gas readings to be directly entered into the database from the field eliminating the need for handwritten field logs. Therefore, beginning in 2015, the handwritten field logs will be replaced by printed data tables which will be produced from the database at the conclusion of each sampling event. Each table will be signed by the field sampler, filed with the project records and copies will be submitted with the annual report.

6.2.3 Conclusions for the Former Landfill Area

Methane and hydrogen sulfide levels at the Former Landfill Area continue to show no landfill gas. Methane has not been detected near or above standards since monitoring began in 1996.

6.2.4 Recommendations for the Former Landfill Area

The soil-gas monitoring program is adequate at this time. The BNL database has been updated to allow for, soil-gas readings to be directly entered into the database from the field eliminating the need for handwritten field logs. Therefore, beginning in 2015, the handwritten field logs will be replaced by printed data tables which will be produced from the database at the conclusion of each sampling event. Each table will be signed by the field sampler, filed with the project records and copies will be submitted with the annual report.

6.3 Maintenance and Repair

Maintenance of the landfill caps will continue in accordance with the O&M requirements.

6.3.1 Current Landfill

Monthly inspections and maintenance will continue in accordance with the O&M requirements. Access to the soil-gas monitoring wells will be cleared via mechanical weed whacking. Potholes located on the asphalt access road will be repaired in Spring 2015.

6.3.2 Former Landfill Area

Monthly inspections and maintenance will continue in accordance with the O&M requirements. Access to the soil-gas monitoring wells will be cleared via mechanical weed whacking. Continue removal of small pines and weeds in the drainage channel in Spring 2015.

6.4 Wooded Wetlands

Based on the 2014 sampling results, sampling of the Wooded Wetlands should continue once every two years as part of the annual O&M landfills monitoring activities. The monitoring program will be evaluated as part of the Five-Year Review in 2016.

7.0 REFERENCES

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Table 1. Analytical Requirements for Groundwater Samples.

Well ID	Project	Decision Subunit	EPA 524.2 VOCs	Pesticides Method 608	PCBs Method 608	TSS/TDS	Sufates/Chloride/Alkalinity	TK Nitrogen	Total Nitrogen	Nitrates	Nitrites	Ammonia	TAL Metals	Cyanide	EPA 900 Gross Alpha/Beta	EPA 901 Gamma Spec	EPA 906 Tritium	EPA 905 Sr 90	Frequency (events/year)
087-09	CLF	Background	Xb			Xb	Xb	Xb	Xb	Xb	Xb	Xb	Xb	Xb					2f
087-11	CLF	Downgradient	Xb			Xb	Xb	Xb	Xb	Xb	Xb	Xb	Xb	Xb					2f
087-23	CLF	Downgradient	Xb			Xb	Xb	Xb	Xb	Xb	Xb	Xb	Xb	Xb		Xa	Xa	Xa	2f
087-24	CLF	Downgradient	Xa			Xb	Xb	Xb	Xb	Xb	Xb	Xb	Xb	Xb					2f
087-26	CLF	Downgradient	Xb			Xb	Xb	Xb	Xb	Xb	Xb	Xb	Xb	Xb					2f
087-27	CLF	Downgradient	Xb			Xb	Xb	Xb	Xb	Xb	Xb	Xb	Xb	Xb		Xa	Xa	Xa	2f
088-109	CLF	Downgradient	X			Xb	Xb	Xb	Xb	Xb	Xb	Xb	Xb	Xb		Xa	Xa	Xa	4
088-110	CLF	Downgradient	Xb			Xb	Xb	Xb	Xb	Xb	Xb	Xb	Xb	Xb					2f
088-21	CLF	Downgradient	Xb			Xb	Xb	Xb	Xb	Xb	Xb	Xb	Xb	Xb		Xa	Xa	Xa	2f
088-22	CLF	Downgradient	Xa			Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa					1a
088-23	CLF	Downgradient	Xa			Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa					1a
086-42	FLF	Background	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	X	Xa	1c
086-72	FLF	Background	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	1c
087-22	FLF	Background	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	1c
097-17	FLF	Downgradient	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	1c
097-277	FLF	Downgradient	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	1c
097-64	FLF	Downgradient	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	1c
106-02	FLF	Downgradient	Xc	Xc	Xc	Xc	Xc	Xc	Xc	Xc	Xc	Xc	Xa	Xc	Xc	Xc	Xc	Xc	1a
106-20	FLF	Downgradient																Xb	1c
106-21	FLF	Downgradient																Xb	1c
106-30	FLF	Downgradient	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	1c
106-43	FLF	Downgradient																Xb	1c
106-44	FLF	Downgradient																Xb	1c
106-45	FLF	Downgradient																Xb	1c
106-64	FLF	Downgradient																Xb	1c

NOTES:
a: Collect in 4th Quarter only.
b: Collect in 2nd and 4th Quarters.
c: Sample in even numbered years. Next sampling in CY2016.

Table 2. Current Landfill - Summary of 2014 VOC Data

Analtye	Groundwater Standards (ug/L)	087-09 6/2/2014 (ug/L)		087-09 11/24/2014 (ug/L)		087-11 6/2/2014 (ug/L)		087-11 11/24/2014 (ug/L)		087-23 6/2/2014 (ug/L)		087-23 11/24/2014 (ug/L)		087-24 11/24/2014 (ug/L)		087-26 6/2/2014 (ug/L)		087-26 11/24/2014 (ug/L)	
1,1,1,2-Tetrachloroethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	1	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.27	J	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.04	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.6	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	1	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	1	0.5	U	0.5	U	**2.27**		**1.3**		**1.24**		0.39	J	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	--	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	50	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	50	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	5	0.5	U	0.5	U	0.63		0.37	J	0.91		0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	5	0.5	U	0.5	U	4.02		2.37		3.24		1.57		0.5	U	0.5	U	0.5	U
Chloroform	7	0.5	U	0.21	J	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,2-Dichloroethylene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.4	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.04	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.05	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	3	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	5	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	10	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	10	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.53		0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	3	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	3	0.5	U	0.5	U	0.35	J	0.5	U	0.38	J	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.4	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	2	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
524.2 TVOC	--	0		0.21		7.27		4.04		6.57		1.96		0		0		0	

J - Estimated value.
U - Not detected.

Table 2. Current Landfill - Summary of 2014 VOC Data

Analtye	Groundwater Standards (ug/L)	087-27 6/2/2014 (ug/L)		087-27 11/24/2014 (ug/L)		088-109 1/29/2014 (ug/L)		088-109 6/2/2014 (ug/L)		088-109 8/18/2014 (ug/L)		088-109 11/24/2014 (ug/L)		088-110 6/2/2014 (ug/L)		088-110 11/24/2014 (ug/L)		088-21 6/2/2014 (ug/L)		088-21 11/24/2014 (ug/L)		088-22 11/24/2014 (ug/L)		088-23 11/24/2014 (ug/L)	
1,1,1,2-Tetrachloroethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	1	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	5	0.5	U	0.5	U	1.39		0.91		**7.04**		**24.5**		0.35	J	0.36	J	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.04	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.6	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	1	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	1	0.47	J	0.98		**1.26**		0.45	J	0.7		**1.39**		0.43	J	0.62		0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	--	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.17	J	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	50	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	50	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	5	0.31	J	0.49	J	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	5	0.62		1.11		**20.1**		**11**		**58.5**		**76.4**		2.05		3.68		0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	7	0.99	U	0.5	U	0.5	U	0.54	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,2-Dichloroethylene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.4	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.04	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.05	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	3	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	5	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 bromide	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	10	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	5	0.5	U	0.5	U	0.55	U	0.5	U	0.63	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	10	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	3	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	3	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	5	0.5	U	0.22	J	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.4	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	2	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
524.2 TVOC	--	1.4		2.8		22.75		12.36		66.24		102.46		2.83		4.66		0		0		0		0	

J - Estimated value.
U - Not detected.

Table 3. Current Landfill - Summary of 2014 Water Chemistry Data.

Analtye	Groundwater Standards (mg/L)	087-09 6/2/2014 (mg/L)		087-09 11/24/2014 (mg/L)		087-11 6/2/2014 (mg/L)		087-11 11/24/2014 (mg/L)		087-23 6/2/2014 (mg/L)		087-23 11/24/2014 (mg/L)		087-24 6/2/2014 (mg/L)	
Alkalinity (as CaCO3)	--	42.5	J	8.77		36.3	J	131		101	J	68.6		24.6	J
Ammonia (as N)	2	0.61		1.37		**2.85**		1.5		0.556		0.485		0.371	U
Chloride	250	29.3	J	84.2	J	53.5	J	22.6	J	18	J	17.3	J	19.1	J
Cyanide	0.2	0.00167	U	0.00167	U	0.00167	U	0.00167	U	0.00167	U	0.00167	U	0.00167	U
Nitrate (as N)	10	0.525	J	1.59		0.0505	J	0.033	U	0.033	UJ	0.033	U	0.524	J
Nitrite (as N)	1	0.038	UJ	0.038	U	0.038	UJ	0.038	U	0.038	UJ	0.038	U	0.038	UJ
Nitrite + Nitrate-N	10	0.515	J	1.89	J	0.017	UJ	0.0251	J	0.017	UJ	0.0519	J	0.523	J
Nitrogen	--	1.27		1.89		3.62		1.55		0.763		0.642		0.697	
Sulfate	250	14.8		14.9		11.5		8.16		11.9		15.2		12.9	
TDS	--	107	J	221	UJ	239	J	209	UJ	141	J	121	UJ	61.4	J
Total Kjeldahl Nitrogen	--	0.759	J	1.52	J	3.62	J	1.52	J	0.763	J	0.59	J	0.271	J
TSS	--	5.06		1.47	J	13.9		26.2		7.49		3.26		0.57	U

J - Estimated value.

U - Not detected.

Table 3. Current Landfill - Summary of 2014 Water Chemistry Data.

Analtye	**Groundwater Standards (mg/L)**	**087-24 11/24/2014 (mg/L)**		**087-26 6/2/2014 (mg/L)**		**087-26 11/24/2014 (mg/L)**		**087-27 6/2/2014 (mg/L)**		**087-27 11/24/2014 (mg/L)**		**088-109 6/2/2014 (mg/L)**		**088-109 11/24/2014 (mg/L)**	
Alkalinity (as CaCO3)	--	21.7		24.6	J	57.3		69.1	J	109		83.2	HJ	132	
Ammonia (as N)	2	1.56		0.0555	U	**2.28**		1.24		1.26		1.23		**3.25**	
Chloride	250	43.3	J	14.9	J	13.5	J	36.1	J	54.6	J	16.1	J	16.4	J
Cyanide	0.2	0.00167	U	0.00167	U	0.00167	U	0.00167	U	0.00167	U	0.00167	U	0.00167	U
Nitrate (as N)	10	0.492		0.515	J	0.439		0.0413	J	0.033	U	0.033	UJ	0.165	HU
Nitrite (as N)	1	0.038	U	0.038	UJ	0.038	U	0.038	UJ	0.038	U	0.038	UJ	0.038	U
Nitrite + Nitrate-N	10	0.494	J	0.469	J	0.425	J	0.017	UJ	0.0472	J	0.017	UJ	0.0559	J
Nitrogen	--	1.59		0.505		2.38		1.43		1.11		1.23		3.25	
Sulfate	250	13.7		14.7		13.4		12.4		12		15.7		8.26	
TDS	--	120	UJ	62.9	J	88.6	UJ	147	J	277	UJ	103	J	193	UJ
Total Kjeldahl Nitrogen	--	1.16	J	0.0355	J	2.12	J	1.41	J	1.06	J	1.22	J	3.19	J
TSS	--	2.95		1.02	J	0.6	U	8.22		7.79		5.87		26.2	

J - Estimated value.

U - Not detected.

Table 3. Current Landfill - Summary of 2014 Water Chemistry Data.

Analtye	Groundwater Standards (mg/L)	088-110 6/2/2014 (mg/L)		088-110 11/24/2014 (mg/L)		088-21 6/2/2014 (mg/L)		088-21 11/24/2014 (mg/L)		088-21 12/10/2014 (mg/L)		088-22 11/24/2014 (mg/L)		088-23 11/24/2014 (mg/L)	
Alkalinity (as CaCO3)	--	103	J	97.5		26.6	J	24.3				20.6		9.8	
Ammonia (as N)	2	1.08		1.11		0.11	U	0.017	U			0.0289	U	0.0483	U
Chloride	250	56	J	35	J	30.1	J	29.9	J			15.2	J	15.7	J
Cyanide	0.2	0.00167	U	0.00167	U	0.00167	U	0.00167	U			0.00167	U	0.00167	U
Nitrate (as N)	10	0.033	UJ	0.033	U	0.279	UJ			0.639		0.486		0.033	U
Nitrite (as N)	1	0.038	UJ	0.038	U	0.038	UJ			0.038	U	0.038	U	0.038	U
Nitrite + Nitrate-N	10	0.017	UJ	0.0617	J	0.272	J	0.502	J			0.455	J	0.017	UJ
Nitrogen	--	1.49		1.17		0.448		0.572				0.543		0.033	U
Sulfate	250	23.5		17		4.66	J	5.35				13.4		12.5	
TDS	--	211	J	177	UJ	61.4	J	78.6	UJ			67.1	UJ	111	UJ
Total Kjeldahl Nitrogen	--	1.49	J	1.11	J	0.176	J	0.0696	J			0.0878	J	0.033	UJ
TSS	--	23.9		16.6		2.7		0.6	J			3.4		14.1	

J - Estimated value.

U - Not detected.

Table 4. Current Landfill - Summary of 2014 Metals Data.

Analtye	**Groundwater Standards (ug/L)**	**087-09 6/2/2014 (ug/L)**		**087-09 11/24/2014 (ug/L)**		**087-11 6/2/2014 (ug/L)**		**087-11 11/24/2014 (ug/L)**		**087-23 6/2/2014 (ug/L)**		**087-23 11/24/2014 (ug/L)**		**087-24 6/2/2014 (ug/L)**		**087-24 11/24/2014 (ug/L)**		**087-26 6/2/2014 (ug/L)**	
Aluminum	200	114	B	143	B	68	U	191	B	68	U	68	U	68	U	**218**		68	U
Antimony	3	3.5	U	3.5	U	3.5	U	3.5	U	3.5	U	3.5	U	3.5	U	3.5	U	**5.41**	B
Arsenic	10	1.7	U	1.7	U	4.56	B	8.81		**10.2**		**11.2**		1.7	U	1.7	U	1.7	U
Barium	1000	36.9	B	37.6	B	5.71	B	19.8	B	33.7	B	34.6	B	8.79	B	15.9	B	25.7	B
Beryllium	3	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Cadmium	5	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Calcium	--	13900		15500		3200	B	17300		6430		7030		4870	B	8130		6400	
Chromium	50	**152**		**86.7**		1	U	4.68	B	1	U	1	U	1	U	1	U	1	U
Cobalt	--	1.11	B	1	U	1	U	3.79	B	7.49	B	6.74	B	1	U	1.37	B	1.3	B
Copper	200	11.4	B	4.74	B	3	U	7.96	B	3	U	3	U	3	U	3	U	5.94	B
Iron	300	**851**		**453**		**14300**		**74000**		**56500**		**40000**		30	U	208		278	
Lead	25	1.41	B	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Magnesium	35000	3730	B	7290		931	B	6200		2050	B	2450	B	3400	B	5550		4540	B
Manganese	300	**394**		10.9	B	**386**		**2190**		**4870**		**4420**		2	U	3.41	B	3.48	B
Mercury	0.7	0.067	U	0.067	U	0.067	U	0.067	U	0.067	U	0.067	U	0.067	U	0.067	U	0.067	U
Nickel	100	6.92	B	12.3	B	1.5	U	4.45	B	2.68	B	1.54	B	1.5	U	1.5	U	1.5	U
Potassium	--	1840	B	960	B	773	B	2490	B	1310	B	1180	B	1260	B	1570	B	1350	B
Selenium	10	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U
Silver	50	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Sodium	20000	**23700**	NJ	**33200**		5690	NJ	12400		12300	NJ	13800		17800	NJ	**24000**		13100	NJ
Thallium	0.5	0.45	U	0.45	U	0.45	U	0.45	U	0.45	U	0.45	U	0.45	U	0.45	U	0.45	U
Vanadium	--	2.16	B	1.3	B	1	U	4.37	B	1.38	B	1.33	B	1	U	1	U	1	U
Zinc	2000	5.84	B	13.1	B	3.3	U	70.9		4.93	B	7.56	B	3.3	U	6.95	B	3.3	U

U - Not detected.

B - Result between the IDL and MDL.

Table 4. Current Landfill - Summary of 2014 Metals Data.

Analtye	**Groundwater Standards (ug/L)**	**087-26 11/24/2014 (ug/L)**		**087-27 6/2/2014 (ug/L)**		**087-27 11/24/2014 (ug/L)**		**088-109 6/2/2014 (ug/L)**		**088-109 11/24/2014 (ug/L)**		**088-110 6/2/2014 (ug/L)**		**088-110 11/24/2014 (ug/L)**		**088-21 6/2/2014 (ug/L)**	
Aluminum	200	68	U	68	U	68	U	68	U	68	U	68	U	68	U	156	B
Antimony	3	3.5	U	3.5	U	3.5	U	**5.55**	B	3.5	U	3.5	U	3.5	U	**6.06**	B
Arsenic	10	1.7	U	5.05		8.56		1.99	B	**11.5**		9.35		**10.5**		1.7	U
Barium	1000	22.9	B	27.7	B	34.3	B	29.1	B	53.8	B	33.8	B	38.6	B	11.6	B
Beryllium	3	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Cadmium	5	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Calcium	--	6020		18000		22100		18900		31000		22800		22900		3200	B
Chromium	50	1	U	1	U	1	U	1	U	2.08	B	1	U	1	U	1	U
Cobalt	--	1.68	B	1.17	B	2.31	B	1.14	B	1.48	B	3.53	B	2.77	B	1	U
Copper	200	3	U	3	U	3	U	3	U	3	U	3	U	3	U	3	U
Iron	300	**321**		**27900**		**44600**		**14000**		**43300**		**50900**		**46300**		288	
Lead	25	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Magnesium	35000	4350	B	4540	B	5860		4910	B	5770		6320		5910		1610	B
Manganese	300	3.34	B	**723**		**1450**		**896**		**1090**		**3160**		**2980**		140	
Mercury	0.7	0.067	U	0.067	U	0.067	U	0.067	U	0.067	U	0.067	U	0.067	U	0.067	U
Nickel	100	1.5	U	1.61	B	1.5	U	1.86	B	1.81	B	2.04	B	1.5	U	1.5	U
Potassium	--	1240	B	3290	B	3120	B	2650	B	6710		3210	B	3350	B	1260	B
Selenium	10	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U
Silver	50	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Sodium	20000	11200		**26000**	NJ	**36400**		9920	NJ	16400		**29900**	NJ	**20900**		**27900**	NJ
Thallium	0.5	0.45	U	0.45	U	0.45	U	0.45	U	0.45	U	0.45	U	0.45	U	0.45	U
Vanadium	--	1	U	1	U	1.96	B	1	U	2.1	B	1	U	2.2	B	1.05	B
Zinc	2000	5.81	B	36.9		4.96	B	3.3	U	6.01	B	3.3	U	5.6	B	3.3	U

U - Not detected.

B - Result between the IDL and MDL.

Table 4. Current Landfill - Summary of 2014 Metals Data.

Analtye	**Groundwater Standards (ug/L)**	**088-21 11/24/2014 (ug/L)**		**088-22 11/24/2014 (ug/L)**		**088-23 11/24/2014 (ug/L)**	
Aluminum	200	68	U	68	U	68	U
Antimony	3	3.5	U	3.5	U	3.5	U
Arsenic	10	1.7	U	2.85	B	4.49	B
Barium	1000	22.4	B	28.4	B	3.37	B
Beryllium	3	1	U	1	U	1	U
Cadmium	5	1	U	1	U	1	U
Calcium	--	3480	B	7140		4550	B
Chromium	50	1	U	1	U	1	U
Cobalt	--	1	U	2.06	B	1	U
Copper	200	3	U	3	U	3	U
Iron	300	53.5	B	**962**		**7740**	
Lead	25	0.5	U	0.5	U	0.5	U
Magnesium	35000	1850	B	3530	B	1120	B
Manganese	300	13.9	B	105		**1150**	
Mercury	0.7	0.067	U	0.067	U	0.067	U
Nickel	100	1.5	U	1.5	U	1.5	U
Potassium	--	1920	B	1120	B	1170	B
Selenium	10	1.5	U	1.5	U	1.5	U
Silver	50	1	U	1	U	1	U
Sodium	20000	**25800**		12200		12400	
Thallium	0.5	0.45	U	0.45	U	0.45	U
Vanadium	--	1	U	1	U	1	U
Zinc	2000	6.54	B	4.73	B	7.41	B

U - Not detected.

B - Result between the IDL and MDL.

Table 5. Current Landfill - Summary of 2014 Radionuclide Data.

Analtye	Groundwater Standards *pCi/L*	087-23 11/24/2014 pCi/L				087-27 11/24/2014 pCi/L				088-109 11/24/2014 pCi/L			
		Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Americium-241	1.2	2.12	U	6.23	3.92	-6.29	U	3.42	2.13	6.95	U	20.3	13.7
Beryllium-7	40000	-4.97	U	16.1	9.67	3.65	U	20.5	11.3	4.5	U	23.1	13.2
Cesium-134	80	-0.925	U	1.79	1.39	0.672	U	2.16	1.2	-0.161	U	2.37	1.39
Cesium-137	120	0.631	U	1.78	0.974	-0.565	U	2.01	1.18	0.308	U	2.28	1.3
Co-60	200	0.419	U	1.6	0.913	-0.907	U	2.1	1.22	0.764	U	2.36	1.26
Cobalt-57	4000	0.011	U	1.46	0.864	-0.14	U	1.39	0.831	-0.189	U	2.03	1.17
Europium-152	841	0.711	U	5.03	2.88	-3.4	U	5.43	3.83	-0.466	U	6.23	3.99
Europium-154	573	-0.953	U	4.9	2.8	-0.462	U	6.47	4.18	-0.251	U	6.13	3.41
Europium-155	4000	-2.32	U	5.61	3.37	-1.26	U	5.25	3.13	2.89	U	9.13	5.14
Manganese-54	2000	0.0593	U	1.71	0.973	-0.124	U	2.07	1.15	-0.454	U	2.13	1.21
Sodium-22	400	-0.376	U	1.73	0.988	-0.219	U	2.31	1.56	0.0654	U	2.17	1.2
Strontium-90	8	-0.153	U	0.61	0.287	0.135	U	0.675	0.372	-0.225	U	0.762	0.373
Tritium	20000	87.3	U	264	155	655		321	210	692		269	180
Zinc-65	360	-1.79	U	3.69	2.15	1.85	U	5.16	2.93	0.453	U	4.61	2.53

U - Not detected.

Table 5. Current Landfill - Summary of 2014 Radionuclide Data.

Analtye	Groundwater Standards *pCi/L*	088-21 11/24/2014 pCi/L			
		Result	Qual	MDA	Error
Americium-241	1.2	-10.5	U	17.9	14.2
Beryllium-7	40000	-10.7	U	18.2	11.1
Cesium-134	80	0.0912	U	2.02	1.12
Cesium-137	120	0.986	U	1.94	1.02
Co-60	200	-0.282	U	2	1.16
Cobalt-57	4000	0.191	U	1.84	1.1
Europium-152	841	0.831	U	5.6	3.28
Europium-154	573	-0.908	U	5.17	2.99
Europium-155	4000	1.83	U	7.65	4.49
Manganese-54	2000	0.467	U	1.89	1.03
Sodium-22	400	-0.0162	U	1.84	1.04
Strontium-90	8	0.625	U	0.766	0.479
Tritium	20000	-7	U	262	150
Zinc-65	360	-1.01	U	4.02	2.35

U - Not detected.

Table 6. Former Landfill - Summary of 2014 VOC Data.

Analtye	Groundwater Standards (ug/L)	086-42 11/25/2014 (ug/L)		086-72 11/25/2014 (ug/L)		087-22 11/25/2014 (ug/L)		097-17 11/25/2014 (ug/L)		097-277 11/25/2014 (ug/L)		097-64 11/25/2014 (ug/L)		106-02 11/25/2014 (ug/L)		106-30 11/25/2014 (ug/L)	
1,1,1,2-Tetrachloroethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	2.79	
1,1,2,2-Tetrachloroethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.84	
1,1,2-Trichloroethane	1	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	2.34	
1,1-Dichloroethylene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.04	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.6	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	1	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	1	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	--	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	50	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	50	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	7	1.63		1.99		0.56		1.41		1.53		0.5		0.41	J	0.27	J
cis-1,2-Dichloroethylene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.4	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.04	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.05	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	3	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	5	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	10	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	5	0.5	U	0.27	J	0.36	J	0.63		0.6		0.72		0.5	U	0.5	U
n-Butylbenzene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	10	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	3	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	3	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.4	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.81	
Trichlorofluoromethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	2	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
524.2 TVOC	--	1.63		2.26		0.92		2.04		2.13		1.22		0.41		7.05	

J - Estimated value.

U - Not detected.

Table 7. Former Landfill - Summary of 2014 Water Chemistry Data.

Analtye	Groundwater Standards (mg/L)	086-42 11/25/2014 (mg/L)		086-72 11/25/2014 (mg/L)		087-22 11/25/2014 (mg/L)		097-17 11/25/2014 (mg/L)		097-277 11/25/2014 (mg/L)		097-64 11/25/2014 (mg/L)		106-02 11/25/2014 (mg/L)		106-30 11/25/2014 (mg/L)	
Alkalinity (as CaCO3)	--	30.4		4.64		4.13		5.68		5.16		11.9		10.8		22.2	
Ammonia (as N)	2	0.654		0.0357	J	0.0178	J	0.811		0.329		0.0424	J	0.017	U	1.93	
Chloride	250	55.4	J	12	J	9.6	J	18.8	J	16	J	9.47	J	11.4	J	25.1	J
Cyanide	0.2	0.00167	U	0.00167	U	0.00167	U	0.00167	U	0.00167	U	0.00167	U	0.00167	U	0.00167	U
Nitrate (as N)	10	0.939		0.259		0.57		0.167		0.186		0.402		0.433		0.794	
Nitrite (as N)	1	0.038	U	0.038	U	0.038	U	0.038	U	0.038	U	0.038	U	0.038	U	0.038	U
Nitrite + Nitrate-N	10	1.11		0.236		0.511		0.14		0.217		0.375		0.352		0.791	
Nitrogen	--	1.25		0.251		0.546		0.377		0.309		0.412		0.373		2.03	
Sulfate	250	15.9		10.1		7.64		6.52		22		11.4		11		11.6	
TDS	--	147	J	51.4	UJ	44.3	UJ	65.7	UJ	72.9	UJ	92.9	UJ	42.9	UJ	77.1	UJ
Total Kjeldahl Nitrogen	--	0.278		0.033	U	0.0353	J	0.314		0.144	U	0.0369	J	0.033	U	1.24	
TSS	--	1.7	J	1.06	J	0.57	U	2	J	0.57	U	1.15	J	3.1		0.9	J

J - Estimated value.

U - Not detected.

Table 8. Former Landfill - Summary of 2014 Metals Data.

Analtye	Groundwater Standards (ug/L)	086-42 11/25/2014 (ug/L)		086-72 11/25/2014 (ug/L)		087-22 11/25/2014 (ug/L)		097-17 11/25/2014 (ug/L)		097-277 11/25/2014 (ug/L)		097-64 11/25/2014 (ug/L)		106-02 11/25/2014 (ug/L)		106-30 11/25/2014 (ug/L)	
Aluminum	200	110	B	68	U	68	U	68	U	68	U	68	U	76.2	B	143	B
Antimony	3	3.5	U	3.5	U	3.5	U	3.5	U	3.5	U	3.5	U	3.5	U	3.5	U
Arsenic	10	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U
Barium	1000	19.2	B	14.8	B	16.6	B	15.4	B	13.5	B	15.9	B	11.7	B	17.3	B
Beryllium	3	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Cadmium	5	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Calcium	--	10600		2540	B	3120	B	3580	B	4130	B	6620		7330		10100	
Chromium	50	1.36	B	1.51	B	1	U	1	U	1	U	1	U	1	U	1	U
Cobalt	--	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Copper	200	3	U	3	U	3	U	3	U	3	U	3	U	3	U	3	U
Iron	300	108		69	B	30	U	46.5	B	30	U	35.3	B	148		86.9	B
Lead	25	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Magnesium	35000	2500	B	1900	B	2000	B	1600	B	2510	B	1470	B	1440	B	2920	B
Manganese	300	4.5	B	10.9	B	2.82	B	13.9	B	55		7.34	B	4.87	B	13.5	B
Mercury	0.7	0.067	U	0.067	U	0.067	U	0.067	U	0.067	U	0.067	U	0.067	U	0.067	U
Nickel	100	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U
Potassium	--	1790	B	779	B	1180	B	897	B	1140	B	797	B	1300	B	1120	B
Selenium	10	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U
Silver	50	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Sodium	20000	**37500**		7620		4790	B	10500		13600		6900		6420		14700	
Thallium	0.5	0.45	U	0.45	U	0.45	U	0.45	U	0.45	U	0.45	U	0.45	U	0.45	U
Vanadium	--	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Zinc	2000	4.89	B	6.89	B	4.39	B	4.93	B	3.64	B	4.46	B	7.98	B	5.68	B

J - Estimated value.

U - Not detected.

B - Result between the IDL and MDL.

Table 9. Former Landfill - Summary of 2014 Pesticide/PCB Data.

Analtye	Groundwater Standards (ug/L)	086-42 11/25/2014 (ug/L)		086-72 11/25/2014 (ug/L)		087-22 11/25/2014 (ug/L)		097-17 11/25/2014 (ug/L)		097-277 11/25/2014 (ug/L)		097-64 11/25/2014 (ug/L)		106-02 11/25/2014 (ug/L)		106-30 11/25/2014 (ug/L)	
4,4''-DDD	0.3	0.00404	U	0.00396	U	0.004	U	0.00392	U	0.00388	U	0.00388	U	0.00385	U	0.00385	U
4,4''-DDE	0.2	0.00404	U	0.00396	U	0.004	U	0.00392	U	0.00388	U	0.00388	U	0.00385	U	0.00385	U
4,4''-DDT	0.2	0.00404	U	0.00396	U	0.004	U	0.00392	U	0.00388	U	0.00388	U	0.00385	U	0.00385	U
Aldrin	0	0.00202	U	0.00198	U	0.002	U	0.00196	U	0.00194	U	0.00194	U	0.00192	U	0.00192	U
alpha-BHC	0.01	0.00202	U	0.00198	U	0.002	U	0.00196	U	0.00194	U	0.00194	U	0.00192	U	0.00192	U
Aroclor 1016	0.09	0.0505	U	0.0495	U	0.05	U	0.049	U	0.0485	U	0.0485	U	0.0481	U	0.0481	U
Aroclor 1221	0.09	0.0505	U	0.0495	U	0.05	U	0.049	U	0.0485	U	0.0485	U	0.0481	U	0.0481	U
Aroclor 1232	0.09	0.0505	U	0.0495	U	0.05	U	0.049	U	0.0485	U	0.0485	U	0.0481	U	0.0481	U
Aroclor 1242	0.09	0.0505	U	0.0495	U	0.05	U	0.049	U	0.0485	U	0.0485	U	0.0481	U	0.0481	U
Aroclor 1248	0.09	0.0505	U	0.0495	U	0.05	U	0.049	U	0.0485	U	0.0485	U	0.0481	U	0.0481	U
Aroclor 1254	0.09	0.0505	U	0.0495	U	0.05	U	0.049	U	0.0485	U	0.0485	U	0.0481	U	0.0481	U
Aroclor 1260	0.09	0.0505	U	0.0495	U	0.05	U	0.049	U	0.0485	U	0.0485	U	0.0481	U	0.0481	U
beta-BHC	0.01	0.00202	U	0.00198	U	0.002	U	0.00196	U	0.00194	U	0.00194	U	0.00192	U	0.00192	U
Chlordane	0.05	0.0253	U	0.0248	U	0.025	U	0.0245	U	0.0243	U	0.0243	U	0.024	U	0.024	U
delta-BHC	0.04	0.00202	U	0.00198	U	0.002	U	0.00196	U	0.00194	U	0.00194	U	0.00192	U	0.00192	U
Dieldrin	0.004	0.00404	U	0.00396	U	0.004	U	0.00392	U	0.00388	U	0.00388	U	0.00385	U	0.00385	U
Endosulfan I	0.009	0.00202	U	0.00198	U	0.002	U	0.00196	U	0.00194	U	0.00194	U	0.00192	U	0.00192	U
Endosulfan II	--	0.00404	U	0.00396	U	0.004	U	0.00392	U	0.00388	U	0.00388	U	0.00385	U	0.00385	U
Endosulfan sulfate	--	0.00404	U	0.00396	U	0.004	U	0.00392	U	0.00388	U	0.00388	U	0.00385	U	0.00385	U
Endrin	0	0.00404	U	0.00396	U	0.004	U	0.00392	U	0.00388	U	0.00388	U	0.00385	U	0.00385	U
Endrin aldehyde	5	0.00404	U	0.00396	U	0.004	U	0.00392	U	0.00388	U	0.00388	U	0.00385	U	0.00385	U
Heptachlor	0.04	0.00202	U	0.00198	U	0.002	U	0.00196	U	0.00194	U	0.00194	U	0.00192	U	0.00192	U
Heptachlor epoxide	0.03	0.00202	U	0.00198	U	0.002	U	0.00196	U	0.00194	U	0.00194	U	0.00192	U	0.00192	U
Lindane	0.05	0.00202	U	0.00198	U	0.002	U	0.00196	U	0.00194	U	0.00194	U	0.00192	U	0.00192	U
Toxaphene	0.06	0.0505	U	0.0495	U	0.05	U	0.049	U	0.0485	U	0.0485	U	0.0481	U	0.0481	U

U - Not detected.

Table 10. Former Landfill - Summary of 2014 Radionuclide Data.

Analtye	Groundwater Standards pCi/L	086-42 11/25/2014 pCi/L				086-72 11/25/2014 pCi/L				087-22 11/25/2014 pCi/L			
		Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Americium-241	1.2	2.47	U	13.3	8.25	2.75	U	18.4	11.7	-1.57	U	4.46	3.15
Beryllium-7	40000	0.0775	U	17.4	9.97	3.76	U	19.2	10.9	-0.265	U	25.5	14.6
Cesium-134	80	0.741	U	1.93	1.16	0.52	U	2.09	1.12	-0.776	U	2.78	1.87
Cesium-137	120	0.0524	U	1.86	1.03	0.0329	U	1.86	1.02	0.362	U	2.72	1.55
Co-60	200	0.431	U	1.94	1.02	0.291	U	2.19	1.25	1.31	U	2.98	1.58
Cobalt-57	4000	0.115	U	1.63	0.947	-0.207	U	1.91	1.14	-0.276	U	1.84	1.07
Europium-152	841	-0.713	U	5.14	3.05	-0.868	U	5.46	3.16	-1.78	U	6.89	4.63
Europium-154	573	1.77	U	5.16	2.75	0.533	U	5.85	3.13	0.335	U	7.53	4.19
Europium-155	4000	1.85	U	6.9	3.94	-1.96	U	7.73	5.35	0.832	U	7.2	4.25
Gross Alpha	15	-0.726	U	1.97	0.834	-0.457	U	1.98	0.94	1.15	U	2	1.22
Gross Beta	1000	2.1	J-N2	1.49	0.977	0.444	U	1.48	0.875	0.783	U	1.8	1.07
Manganese-54	2000	1.27	U	2.06	1.09	-1.39	U	1.69	1.62	0.34	U	2.65	1.46
Sodium-22	400	0.628	U	1.83	0.972	0.223	U	2.08	1.11	0.199	U	2.67	1.48
Strontium-90	8	0.0284	U	0.53	0.278	0.133	U	0.527	0.294	-0.111	U	0.495	0.236
Tritium	20000	-3.82	U	281	161	48.1	U	280	162	40.6	U	270	157
Zinc-65	360	1.39	U	3.64	2.28	0.551	U	4.27	2.37	-0.402	U	5.91	3.35

J - Estimated value.

U - Not detected.

N2- Probable false positive result.

Table 10. Former Landfill - Summary of 2014 Radionuclide Data.

Analtye	Groundwater Standards pCi/L	097-17 11/25/2014 pCi/L				097-277 11/25/2014 pCi/L				097-64 11/25/2014 pCi/L				106-02 11/25/2014 pCi/L			
		Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Americium-241	1.2	-1.69	U	17.1	9.78	-17.3	U	16.9	10	-5.2	U	18.5	11.9	5.96	U	13.4	8.08
Beryllium-7	40000	-9.5	U	20.8	12.6	-4.58	U	21.1	12.6	-9.4	U	18.9	11.4	-0.509	U	17.7	10.1
Cesium-134	80	-0.376	U	2.13	1.23	1.07	U	2.38	1.28	0.738	U	2.32	1.24	-0.449	U	1.86	1.06
Cesium-137	120	-1.28	U	2.16	1.61	-0.427	U	2.16	1.24	-0.0852	U	1.97	1.09	-0.325	U	1.7	0.955
Co-60	200	-0.886	U	2.15	1.27	-0.0852	U	2.45	1.39	-0.131	U	2.06	1.13	0.155	U	2.04	1.1
Cobalt-57	4000	0.466	U	1.93	1.12	0.159	U	1.77	1.03	0.31	U	1.71	0.99	-0.476	U	1.63	1.07
Europium-152	841	1.53	U	6.25	3.52	-1.22	U	5.92	3.46	3.16	U	6.34	3.47	1.52	U	5.54	3.07
Europium-154	573	-0.422	U	6.34	4.13	1.27	U	6.6	3.58	-2.73	U	5.61	3.27	0.329	U	5.57	3.01
Europium-155	4000	-2.81	U	7.68	4.56	3.63	U	7.42	4.16	2.55	U	7.02	4.43	3.22	U	7.01	3.92
Gross Alpha	15	-1.23	U	1.97	0.835	-0.488	U	1.95	0.932	-0.528	U	1.98	0.982	-1.05	U	1.95	0.844
Gross Beta	1000	-0.0883	U	1.46	0.816	2.38	J-N2	2.01	1.28	6.59		1.47	1.3	0.486	U	1.89	1.1
Manganese-54	2000	1.76	U	2.01	2.14	-0.807	U	2.14	1.28	-0.68	U	1.78	1.04	-0.287	U	1.78	1.01
Sodium-22	400	-0.2	U	2.23	1.46	0.0618	U	2.33	1.3	-0.908	U	2.01	1.16	0.195	U	2	1.07
Strontium-90	8	0.148	U	0.601	0.339	-0.00403	U	0.547	0.285	3.66		0.582	0.627	-0.0425	U	0.594	0.305
Tritium	20000	89.4	U	276	162	4.03	U	281	161	95.7	U	277	163	14	U	281	162
Zinc-65	360	0.733	U	4.53	2.81	-1.99	U	4.51	2.66	0.477	U	4.34	2.77	0.759	U	3.95	2.51

J - Estimated value.

U - Not detected.

N2- Probable false positive result.

Table 10. Former Landfill - Summary of 2014 Radionuclide Data.

Analtye	Groundwater Standards pCi/L	106-20 11/25/2014 pCi/L				106-21 11/25/2014 pCi/L				106-30 11/25/2014 pCi/L			
		Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Americium-241	1.2									-4.99	U	13.2	8.72
Beryllium-7	40000									6.49	U	24.4	13.4
Cesium-134	80									-0.147	U	2.17	1.25
Cesium-137	120									0.509	U	2.45	1.37
Co-60	200									0.396	U	2.41	1.31
Cobalt-57	4000									1.35	U	2.1	1.22
Europium-152	841									1.06	U	6.75	3.89
Europium-154	573									1.47	U	6.58	3.54
Europium-155	4000									2.48	U	8.31	4.87
Gross Alpha	15									-0.356	U	1.96	0.877
Gross Beta	1000									0.898	U	1.44	0.872
Manganese-54	2000									-0.318	U	2.18	1.27
Sodium-22	400									0.531	U	2.33	1.26
Strontium-90	8	-0.256	U	0.531	0.24	0.241	U	0.555	0.325	0.258	U	0.521	0.309
Tritium	20000									-51.9	U	280	158
Zinc-65	360									0.562	U	4.91	2.69

J - Estimated value.

U - Not detected.

N2- Probable false positive result.

Table 10. Former Landfill - Summary of 2014 Radionuclide Data.

Analtye	Groundwater Standards pCi/L	106-43 11/25/2014 pCi/L				106-44 11/25/2014 pCi/L				106-45 11/25/2014 pCi/L				106-64 11/25/2014 pCi/L			
		Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Americium-241	1.2																
Beryllium-7	40000																
Cesium-134	80																
Cesium-137	120																
Co-60	200																
Cobalt-57	4000																
Europium-152	841																
Europium-154	573																
Europium-155	4000																
Gross Alpha	15																
Gross Beta	1000																
Manganese-54	2000																
Sodium-22	400																
Strontium-90	8	0.559	U	0.774	0.474	2.03		0.697	0.554	0.962		0.464	0.372	3.07		0.772	0.662
Tritium	20000																
Zinc-65	360																

J - Estimated value.

U - Not detected.

N2- Probable false positive result.

Table 11
Soil Gas Monitoring Well Description

Current Landfill			
Soil Gas Monitoring Well	**Screen Location**	**Top of Screen (Feet BLS)**	**Bottom Screen (Feet BLS)**
SGM-1 PROBE A	**Shallow**	**2.5**	**7.5**
SGM-1 PROBE B	**Intermediate**	**10.5**	**17.5**
SGM-1 PROBE C	**Deep**	**20**	**29.5**
SGM-2 PROBE A	**Shallow**	**2.5**	**7.5**
SGM-2 PROBE B	**Intermediate**	**10.5**	**16**
SGM-2 PROBE C	**Deep**	**19**	**28**
SGM-3 PROBE A	**Shallow**	**2.5**	**7.5**
SGM-3 PROBE B	**Intermediate**	**10.5**	**17**
SGM-3 PROBE C	**Deep**	**20**	**29**
SGM-4 PROBE A	**Shallow**	**2.5**	**7.5**
SGM-4 PROBE B	**Intermediate**	**10.5**	**20**
SGM-4 PROBE C	**Deep**	**23**	**32**
SGM-5 PROBE A	**Shallow**	**2.5**	**7.5**
SGM-5 PROBE B	**Intermediate**	**10.5**	**22**
SGM-5 PROBE C	**Deep**	**25**	**34**
SGM-6 PROBE A	**Shallow**	**2.5**	**7.5**
SGM-6 PROBE B	**Intermediate**	**10.5**	**18.5**
SGM-6 PROBE C	**Deep**	**21.5**	**30.5**
SGM-7 PROBE A	**Shallow**	**2.5**	**7.5**
SGM-7 PROBE B	**Intermediate**	**10.5**	**16**
SGM-7 PROBE C	**Deep**	**19**	**26**
SGM-8 PROBE A	**Shallow**	**2.5**	**7.5**
SGM-8 PROBE B	**Intermediate**	**10.5**	**16.5**
SGM-8 PROBE C	**Deep**	**19.5**	**28.5**
SGM-9 PROBE A	**Shallow**	**2.5**	**7.5**
SGM-9 PROBE B	**Intermediate**	**10.5**	**20.5**
SGM-9 PROBE C	**Deep**	**23.5**	**32.5**
SGM-10 PROBE A	**Shallow**	**2.5**	**7.5**
SGM-10 PROBE B	**Intermediate**	**10.5**	**15.5**
SGM-10 PROBE C	**Deep**	**18.5**	**27.5**
SGM-11 PROBE A	**Shallow**	**2.5**	**7.5**
SGM-11 PROBE B	**Intermediate**	**10.5**	**16**
SGM-12 PROBE A	**Shallow**	**2.5**	**7.5**
SGM-12 PROBE B	**Intermediate**	**10.5**	**15**
SGM-13 PROBE A	**Shallow**	**2.5**	**7.5**
SGM-13 PROBE B	**Intermediate**	**10.5**	**13**
SGM-14 PROBE A	**Shallow**	**2.5**	**7.5**
SGM-14 PROBE B	**Intermediate**	**10.5**	**13**
SGM-15 PROBE A	**Shallow**	**2.5**	**5.5**
SGM-15 PROBE B	**Intermediate**	**8.5**	**11.5**
SGM-16 PROBE A	**Shallow**	**2.5**	**5.5**
SGM-16 PROBE B	**Intermediate**	**8.5**	**11**
SGM-17 PROBE A	**Shallow**	**2.5**	**5.5**

Table 11
Soil Gas Monitoring Well Description

Current Landfill			
Soil Gas Monitoring Well	**Screen Location**	**Top of Screen (Feet BLS)**	**Bottom Screen (Feet BLS)**
SGM-17 PROBE B	**Intermediate**	**8.5**	**11**
SGM-18 PROBE A	**Shallow**	**2.5**	**7.5**
SGM-18 PROBE B	**Intermediate**	**10.5**	**13.5**
SGM-19 PROBE A	**Shallow**	**2.5**	**7.5**
SGM-19 PROBE B	**Intermediate**	**10.5**	**17**

BLS – Below Land Surface

Current Landfill Outpost Wells		
Site ID	**Depth to Bottom from top PVC (feet)**	**PVC Stick Up from Ground (feet)**
GSGM-1A	**12.00**	**2.50**
GSGM-1B	**21.00**	**2.50**
GSGM-1C	**29.40**	**2.50**
GSGM-2A	**14.25**	**2.50**
GSGM-2B	**20.05**	**2.50**
GSGM-2C	**27.00**	**2.50**
GSGM-3A	**13.91**	**2.50**
GSGM-3B	**17.75**	**2.50**
GSGM-4A	**11.50**	**2.50**
GSGM-4B	**15.20**	**2.50**

Table 11
Soil Gas Monitoring Well Description

Former Landfill			
Soil Gas Monitoring Well	**Screen Location**	**Top of Screen (Feet BLS)**	**Bottom Screen (Feet BLS)**
SGM-1 PROBE A	**Shallow**	**2.5**	**10**
SGM-1 PROBE B	**Intermediate**	**15**	**43**
SGM-2PROBE A	**Shallow**	**2.5**	**10**
SGM-2 PROBE B	**Intermediate**	**15**	**40**
SGM-3 PROBE A	**Shallow**	**2**	**9.5**
SGM-3 PROBE B	**Intermediate**	**14.5**	**36**
SGM-4 PROBE A	**Shallow**	**2.5**	**10**
SGM-4 PROBE B	**Intermediate**	**15**	**35.5**
SGM-5 PROBE A	**Shallow**	**2.5**	**10**
SGM-5 PROBE B	**Intermediate**	**15**	**37**
SGM-6 PROBE A	**Shallow**	**2.7**	**10.2**
SGM-6 PROBE B	**Intermediate**	**22**	**37.2**
SGM-7 PROBE A	**Shallow**	**2.8**	**10.3**
SGM-7 PROBE B	**Intermediate**	**15**	**42**
SGM-8 PROBE A	**Shallow**	**2.5**	**10**
SGM-8 PROBE B	**Intermediate**	**15**	**47**
SGM-9 PROBE A	**Shallow**	**2.5**	**10**
SGM-9 PROBE B	**Intermediate**	**15**	**52**
SGM-10 PROBE A	**Shallow**	**2.5**	**10**
SGM-10 PROBE B	**Intermediate**	**15**	**52**
SGM-11 PROBE A	**Shallow**	**2.5**	**10**
SGM-11 PROBE B	**Intermediate**	**15**	**46**
SGM-12 PROBE A	**Shallow**	**2.5**	**10**
SGM-12 PROBE B	**Intermediate**	**15**	**43.5**

BLS – Below Land Surface

Table 12

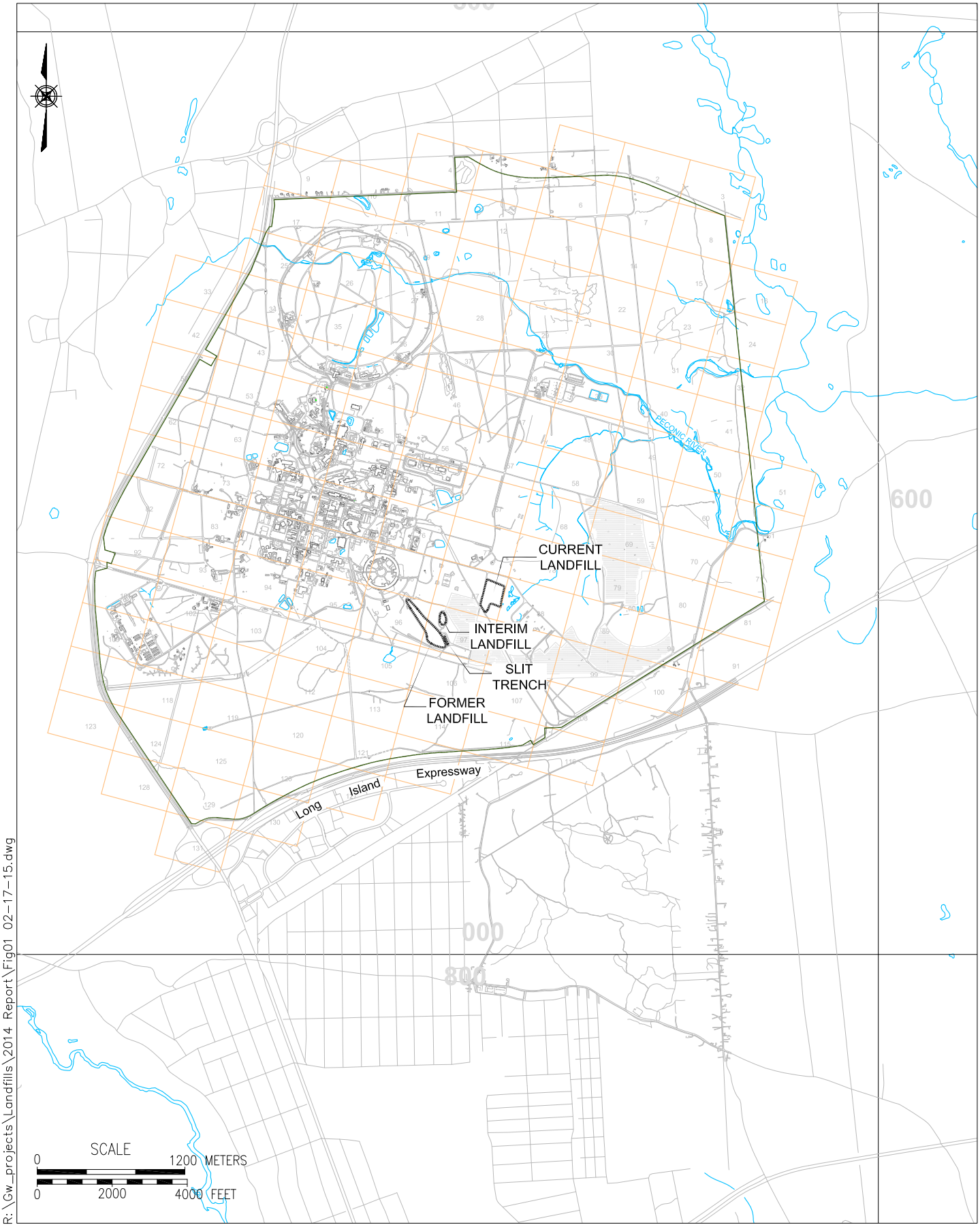
2014 Current Landfill Soil Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume) 2/25-26/14	Methane (% By Volume) 6/10/14	Methane (% By Volume) 9/3/14	Methane (% By Volume) 12/16-17/14	LEL (% By Volume) 2/25-26/14	LEL (% By Volume) 6/10/14	LEL (% By Volume) 9/3/14	LEL (% By Volume) 12/16-17/14	Hydrogen Sulfide (ppm by volume) 2/25-26/14	Hydrogen Sulfide (ppm by volume) 6/10/14	Hydrogen Sulfide (ppm by volume) 9/3/14	Hydrogen Sulfide (ppm by volume) 12/16-17/14	Soil Gas Monitoring Well
SGMW-01A	12.8	16.2	7.9	11.5	>100	>100	>100	>100	1.0	0.0	0.0	2.0	SGMW-01A
SGMW-01B	12.1	13.2	0	11	>100	>100	0	>100	1.0	0.0	0.0	1.0	SGMW-01B
SGMW-01C	10.4	8.9	0	9.5	>100	>100	0	>100	1.0	0.0	0.0	0.0	SGMW-01C
SGMW-02A	45.7	49.7	44.9	45.9	>100	>100	>100	>100	0.0	2.0	0.0	0.0	SGMW-02A
SGMW-02B	11.3	45.5	47.3	33.3	>100	>100	>100	>100	0.0	13	2.0	3	SGMW-02B
SGMW-02C	26.2	47.0	30.8	30.5	>100	>100	>100	>100	4.0	3.0	1.0	1.0	SGMW-02C
SGMW-03A	15.6	31.8	26.1	19.4	>100	>100	>100	>100	0.0	12.0	8.0	2.0	SGMW-03A
SGMW-03B	44.5	46.4	0.0	54.6	>100	>100	0.0	>100	20	0.0	0.0	22.0	SGMW-03B
SGMW-03C	42.1	49.6	0.0	51.7	>100	>100	0.0	>100	16.0	36.0	0.0	45.0	SGMW-03C
SGMW-04A	37.1	48.8	40.8	43.9	>100	>100	>100	>100	0.0	6.0	2.0	0.0	SGMW-04A
SGMW-04B	34.4	44.6	0.0	41.2	>100	>100	0.0	>100	4.0	8.0	0.0	8.0	SGMW-04B
SGMW-04C	25.3	39.5	0.0	33.4	>100	>100	0.0	>100	5.0	6.0	0.0	4.0	SGMW-04C
SGMW-05A	27.0	35.3	1.2	31.6	>100	>100	25	>100	0.0	0.0	0.0	0.0	SGMW-05A
SGMW-05B	25.9	26.5	0	31.3	>100	>100	0	>100	3.0	5.0	0.0	3.0	SGMW-05B
SGMW-05C	19.4	22.8	0.0	24.1	>100	>100	0.0	>100	2.0	2.0	0.0	1.0	SGMW-05C
SGMW-06A	0.4	0.1	0	0.2	8.0	3.0	0	>100	0.0	0.0	0.0	0.0	SGMW-06A
SGMW-06B	30.1	33.3	0	31.8	>100	>100	0	>100	1.0	8.0	0.0	5.0	SGMW-06B
SGMW-06C	29.9	31.8	0	29.5	>100	>100	0	>100	2.0	3.0	0.0	2.0	SGMW-06C
SGMW-07A	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	SGMW-07A
SGMW-07B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-07B
SGMW-07C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-07C
SGMW-08A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-08A
SGMW-08B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-08B
SGMW-08C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-08C
SGMW-09A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-09A
SGMW-09B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-09B
SGMW-09C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-09C
SGMW-10A	6.8	18.5	9.2	13.1	>100	>100	>100	>100	1.0	8.0	6.0	13.0	SGMW-10A
SGMW-10B	7.2	16.7	15.0	13.6	>100	>100	>100	>100	0.0	1.0	0.0	8.0	SGMW-10B
SGMW-10C	6.1	13.8	19.4	11.2	>100	>100	>100	>100	3.0	0.0	0.0	9.0	SGMW-10C
SGMW-11A	3.1	16.1	16.5	12.5	62.0	>100	>100	>100	0.0	10.0	0	8.0	SGMW-11A
SGMW-11B	1.4	15.8	0.0	9.9	28.0	>100	0	0	0.0	3.0	0.0	0.0	SGMW-11B
SGMW-12A	34.2	41.5	36.8	44.4	>100	>100	>100	>100	9.0	0.0	9.0	27.0	SGMW-12A
SGMW-12B	27.5	28.5	33.1	33.8	>100	>100	>100	>100	0.0	0.0	0.0	1.0	SGMW-12B
SGMW-13A	0.2	0.6	17.4	17.1	4.0	13	>100	>100	0.0	0.0	0.0	0.0	SGMW-13A
SGMW-13B	20.2	0.0	0.0	28.0	>100	0.0	0.0	>100	0.0	0.0	0.0	0.0	SGMW-13A
SGMW-14A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-14A
SGMW-14B	0.0	0.0	0.0	3.2	0.0	0.0	0.0	64.0	0.0	0.0	0.0	0.0	SGMW-14B
SGMW-15A	0.1	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-15A
SGMW-15B	6.0	0.0	0.0	33.7	>100	0.0	0.0	>100	0.0	0.0	0.0	2.0	SGMW-15B
SGMW-16A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-16A
SGMW-16B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-16B
SGMW-17A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-17A
SGMW-17B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-17B
SGMW-18A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-18A
SGMW-18B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-18B
SGMW-19A	0.3	22.6	0.0	10.2	0.0	>100	0.0	>100	0.0	14.0	0.0	1.0	SGMW-19A
SGMW-19B	0.4	0.0	0.0	9.8	0.0	0.0	0.0	>100	0.0	0.0	0.0	1.0	SGMW-19B
GSGM-1A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-1A
GSGM-1B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-1B
GSGM-1C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-1C
GSGM-2A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-2A
GSGM-2B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-2B
GSGM-2C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-2C
GSGM-3A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-3A
GSGM-3B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-3B
GSGM-4A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-4A
GSGM-4B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-4B

Table 13

2014 Former Landfill Soil-Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume) 6/10/2014	LEL (% By Volume) 6/10/2014	Hydrogen Sulfide (ppm by volume) 6/10/2014	Soil Gas Monitoring Well
SGMW-01A	0	0	0	SGMW-01A
SGMW-01B	0	0	0	SGMW-01B
SGMW-02A	0	0	0	SGMW-02A
SGMW-02B	0	0	0	SGMW-02B
SGMW-03A	0	0	0	SGMW-03A
SGMW-03B	0	0	0	SGMW-03B
SGMW-04A	0	0	0	SGMW-04A
SGMW-04B	0	0	0	SGMW-04B
SGMW-05A	0	0	0	SGMW-05A
SGMW-05B	0	0	0	SGMW-05B
SGMW-06A	0	0	0	SGMW-06A
SGMW-06B	0	0	0	SGMW-06B
SGMW-07A	0	0	0	SGMW-07A
SGMW-07B	0	0	0	SGMW-07B
SGMW-08A	0	0	0	SGMW-08A
SGMW-08B	0	0	0	SGMW-08B
SGMW-09A	0	0	0	SGMW-09A
SGMW-09B	0	0	0	SGMW-09B
SGMW-10A	0	0	0	SGMW-10A
SGMW-10B	0	0	0	SGMW-10B
SGMW-11A	0	0	0	SGMW-11A
SGMW-11B	0	0	0	SGMW-11B
SGMW-12A	0	0	0	SGMW-12A
SGMW-12B	0	0	0	SGMW-12B



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BROOKHAVEN NATIONAL LABORATORY

ENVIRONMENTAL PROTECTION DIVISION

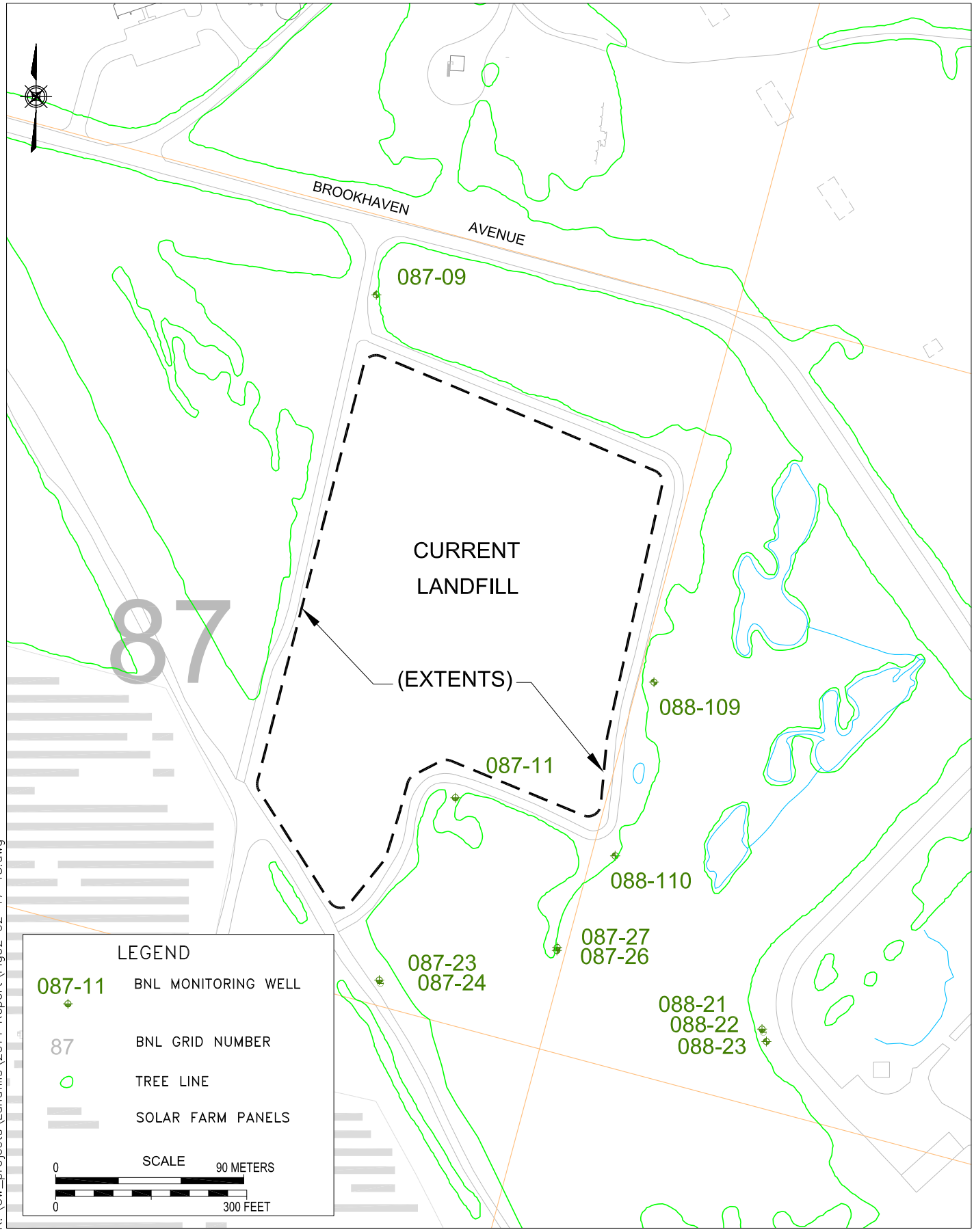
TITLE:

SITE LOCATION MAP

2014 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	02/17/15	–
CHKD:	APPD:	REV.:	NOTES:
JEB	RFH	–	–

FIGURE NO.: 1



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BROOKHAVEN NATIONAL LABORATORY

ENVIRONMENTAL PROTECTION DIVISION

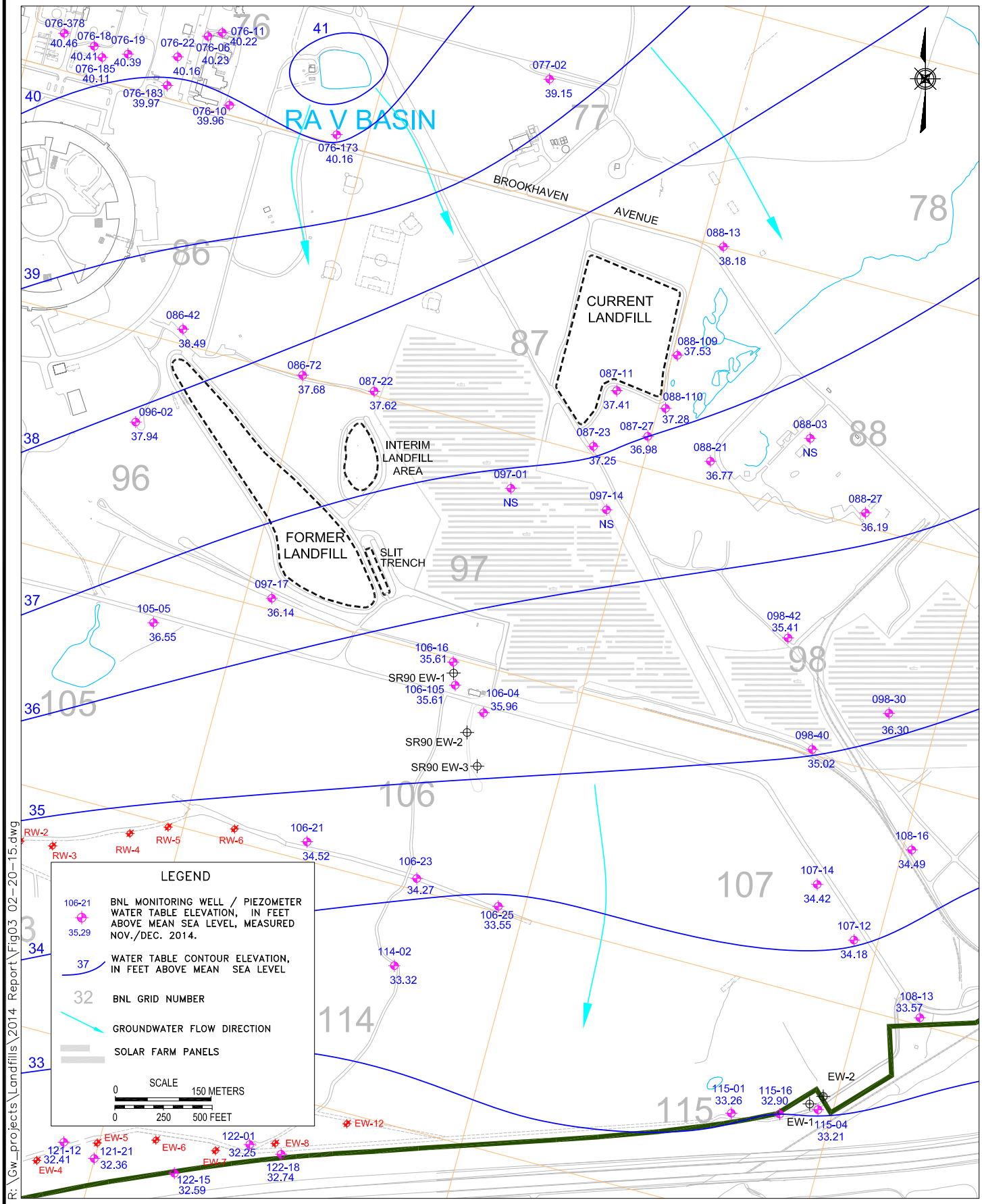
TITLE:

CURRENT LANDFILL MONITORING WELL LOCATIONS

2014 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	02/17/15	–
CHKD:	APPD:	REV.:	NOTES:
WRD	RFH	–	–

FIGURE NO.: 2



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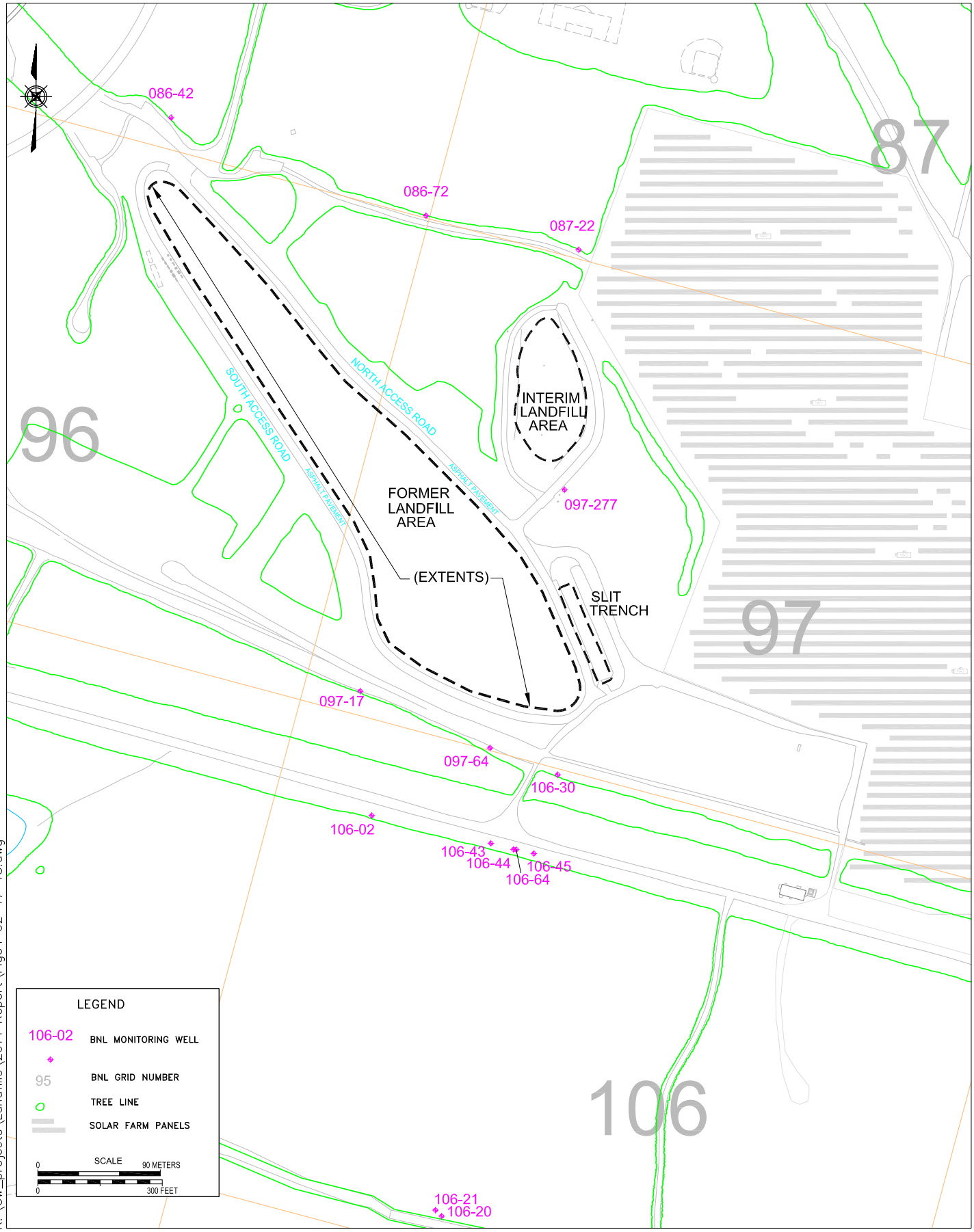
BROOKHAVEN NATIONAL LABORATORY
ENVIRONMENTAL PROTECTION DIVISION

TITLE:

WATER TABLE CONTOUR MAP
2014 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	02/20/15	–
CHKD:	APPD:	REV.:	NOTES:
JEB	RFH	–	–

FIGURE NO.: 3



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BROOKHAVEN NATIONAL LABORATORY

ENVIRONMENTAL PROTECTION DIVISION

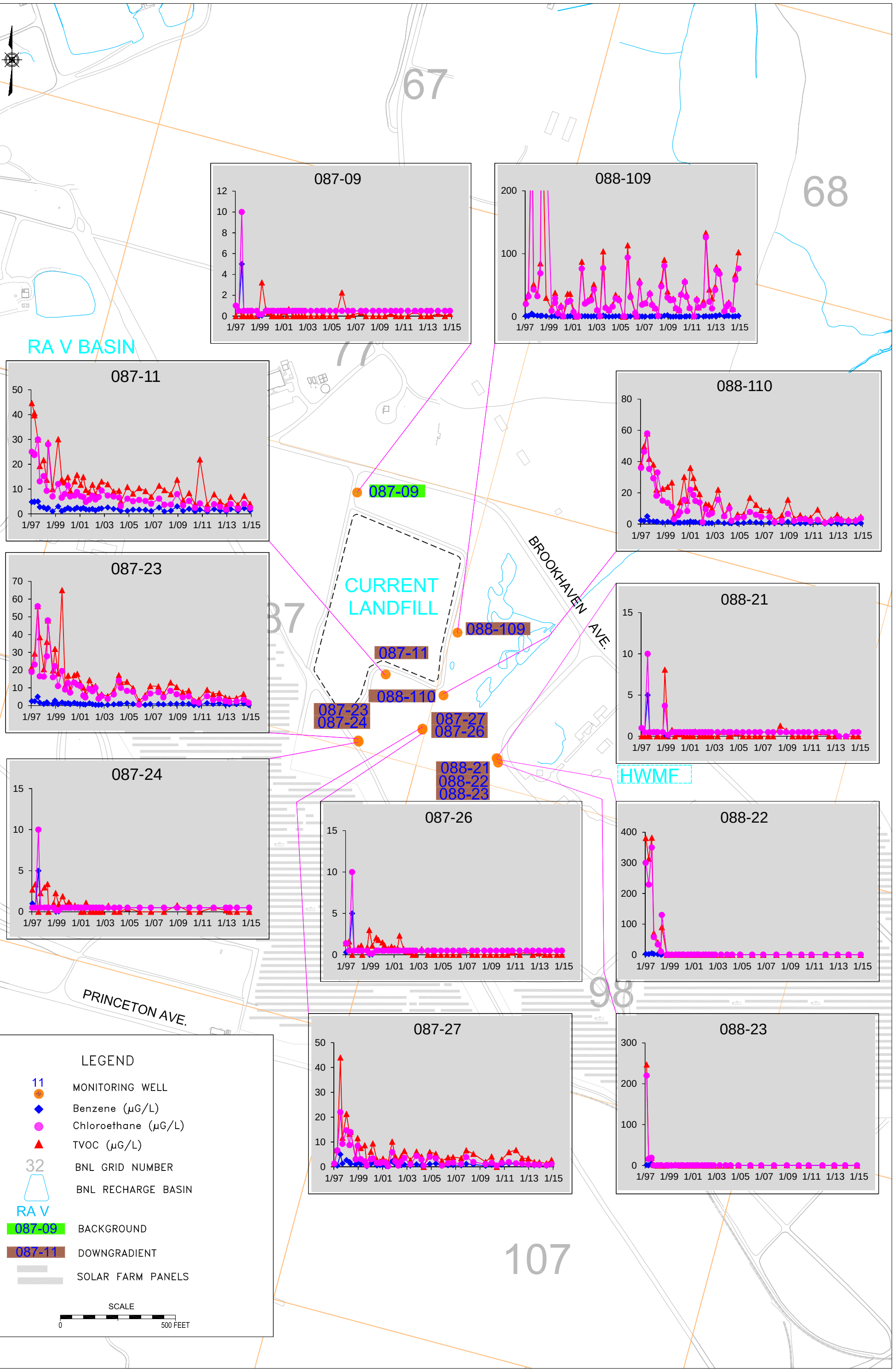
TITLE:

FORMER LANDFILL MONITORING WELL LOCATIONS

2014 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	02/17/15	–
CHKD:	APPD:	REV.:	NOTES:
JEB	RFH	–	–

FIGURE NO.: 4



BROOKHAVEN NATIONAL LABORATORY

ENVIRONMENTAL PROTECTION DIVISION

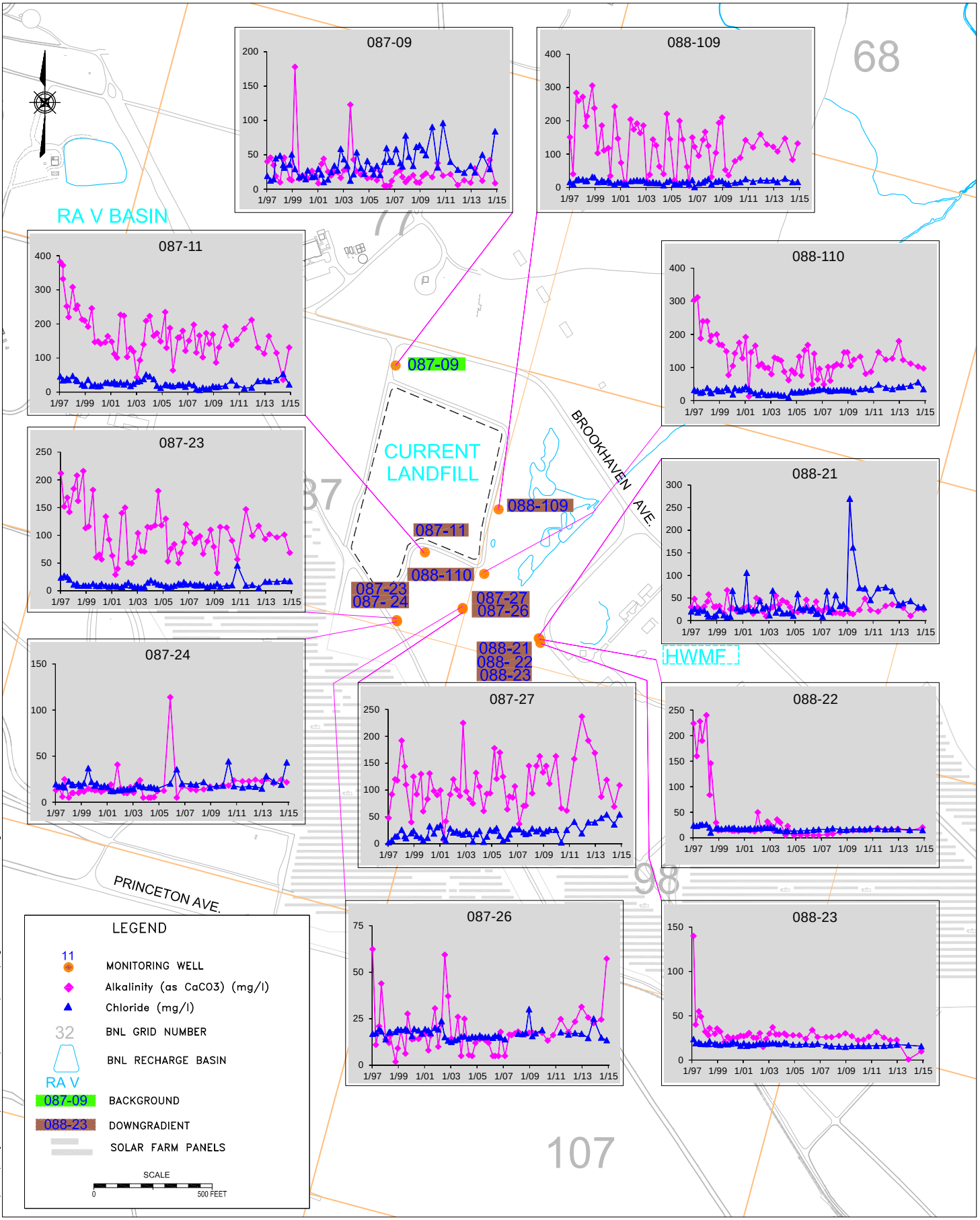
TITLE:

CURRENT LANDFILL VOC TREND PLOTS

2014 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	02/17/15	–
CHKD:	APPD:	REV.:	NOTES:
JEB	RFH	–	–

FIGURE NO.: 5



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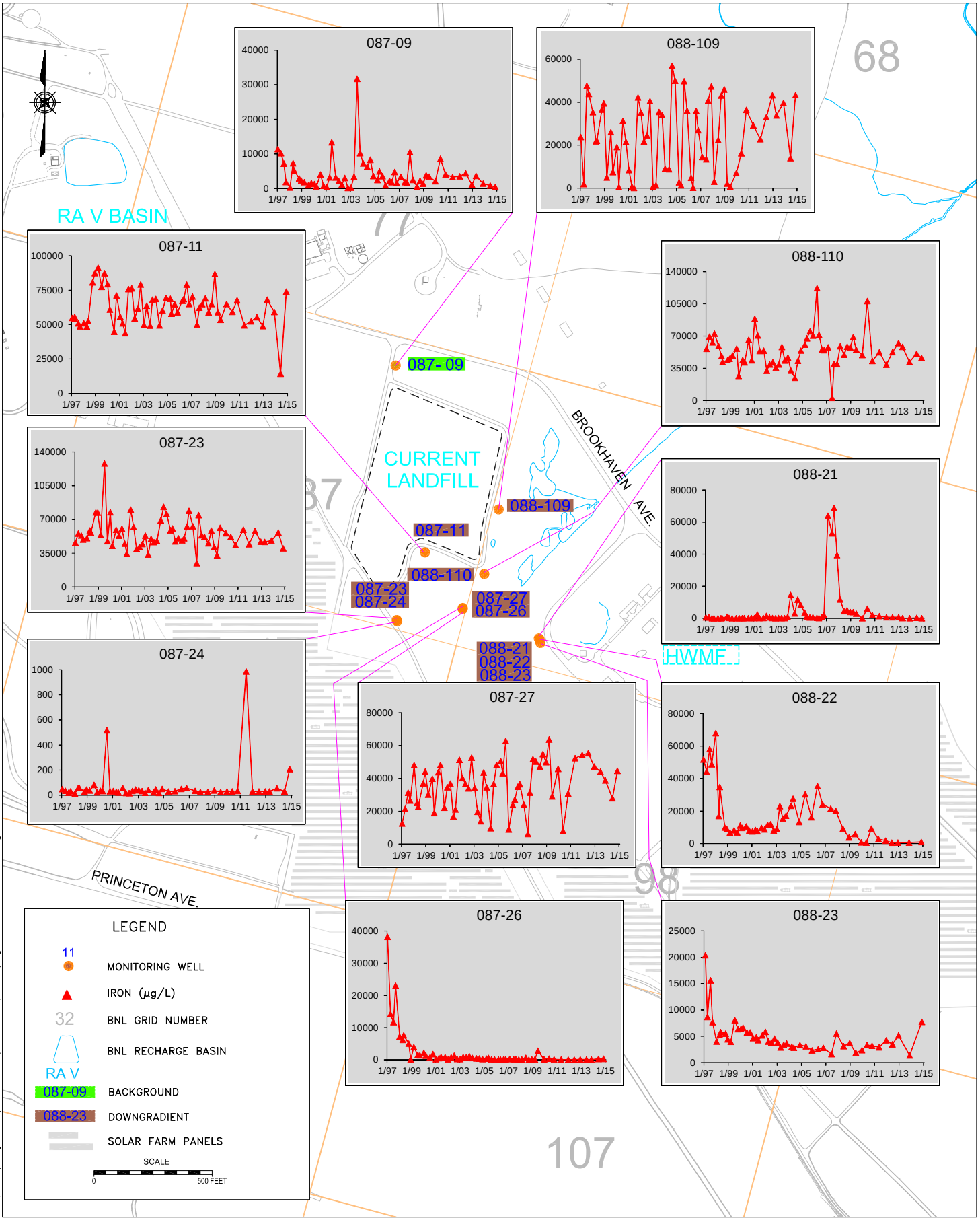
ENVIRONMENTAL PROTECTION DIVISION

TITLE:

CURRENT LANDFILL
ALKALINITY AND CHLORIDE TREND PLOTS
2014 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	02/17/15	–
CHKD:	APPD:	REV.:	NOTES:
JEB	RFH	–	–

FIGURE NO.: 6



BROOKHAVEN NATIONAL LABORATORY
ENVIRONMENTAL PROTECTION DIVISION

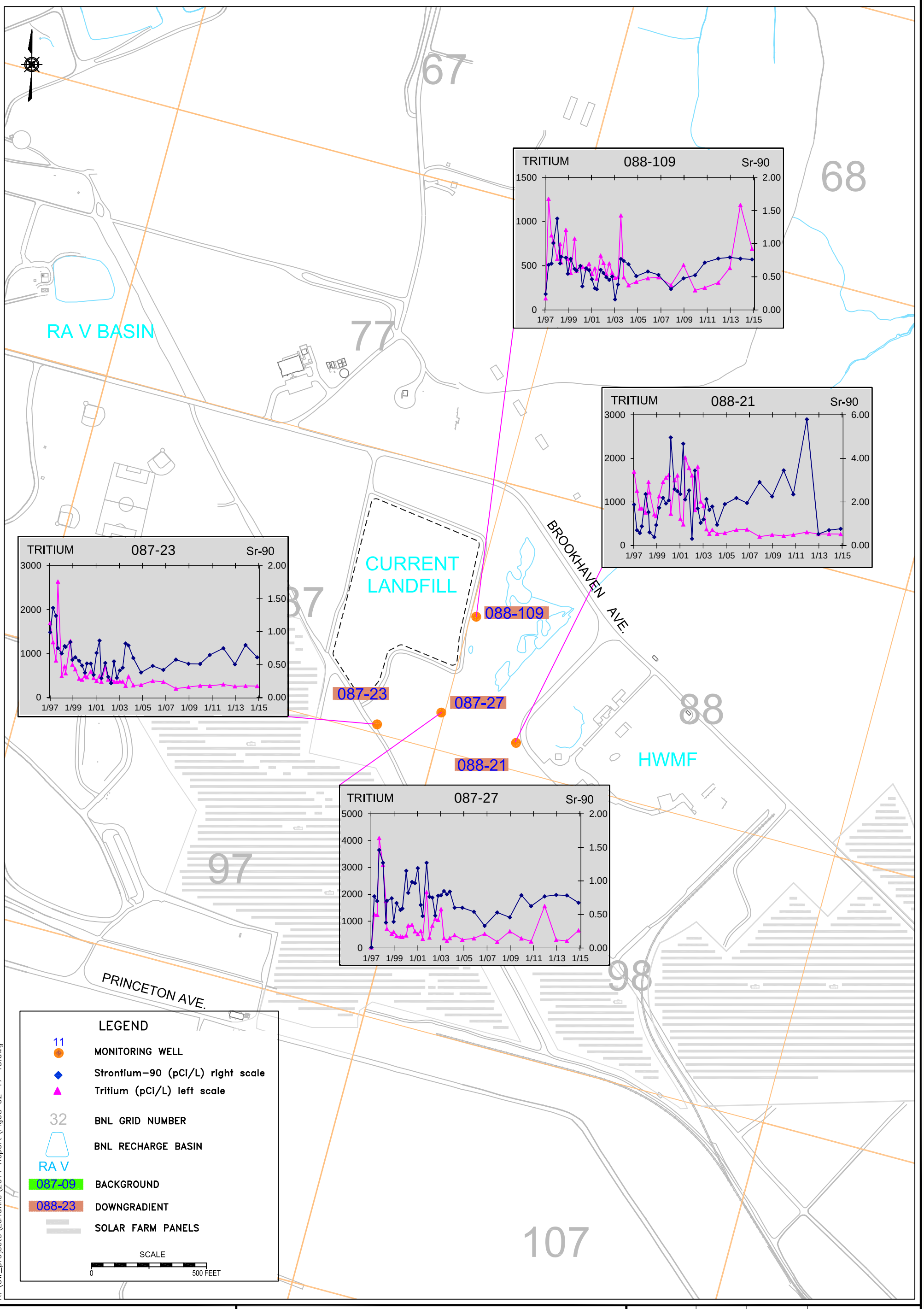
TITLE:

CURRENT LANDFILL IRON TREND PLOTS

2014 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	02/17/15	–
CHKD:	APPD:	REV.:	NOTES:
JEB	RFH	–	–

FIGURE NO.: 7



BROOKHAVEN NATIONAL LABORATORY

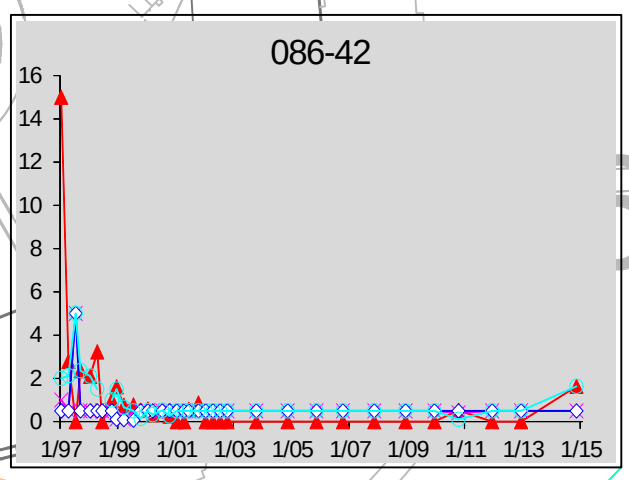
ENVIRONMENTAL PROTECTION DIVISION

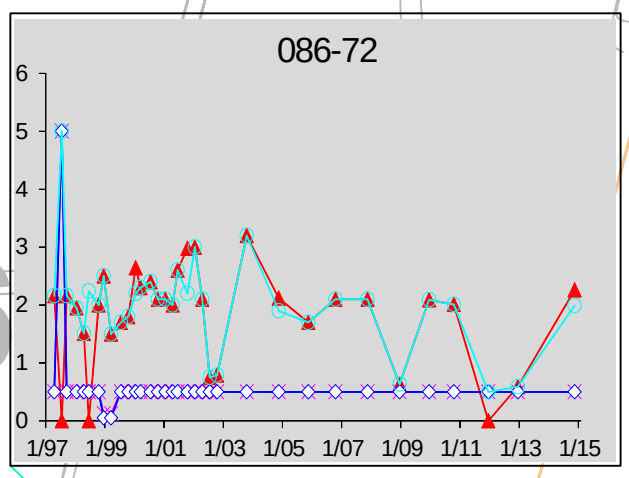
TITLE:

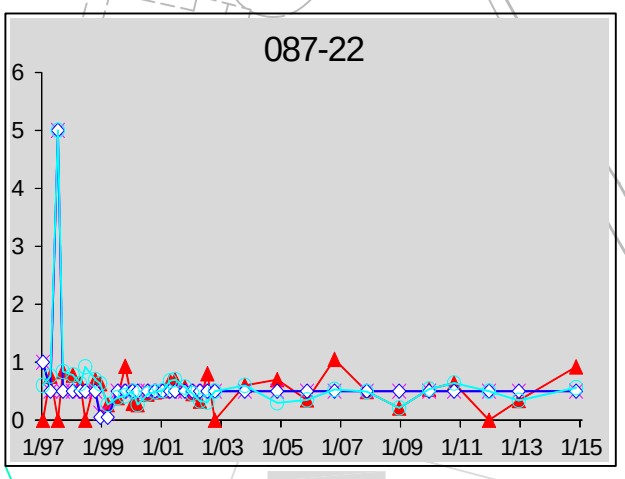
CURRENT LANDFILL
TRITIUM AND SR-90 TREND PLOTS
2014 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

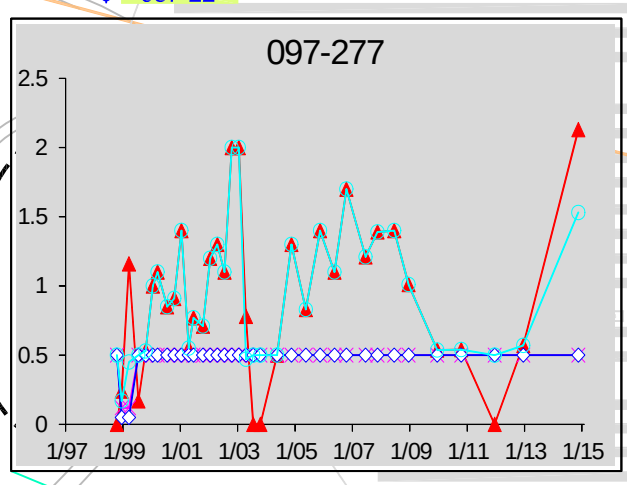
DWN:	VS:HS.:	DATE:	PROJECT NO.:
AJZ	–	02/17/15	–
CHKD:	APPD:	REV.:	NOTES:
JEB	RFH	–	–

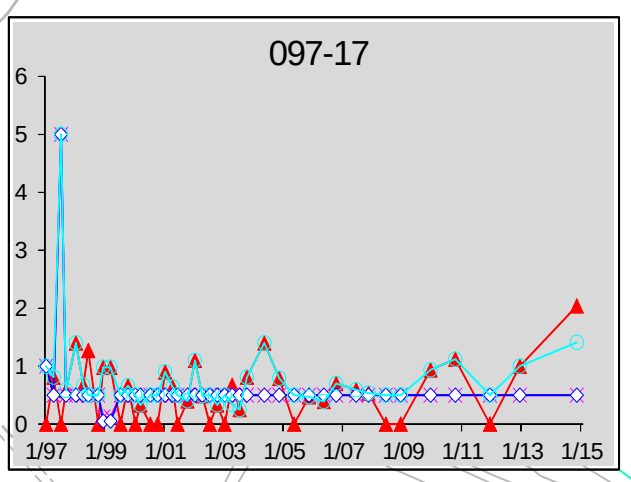
FIGURE NO.: 8

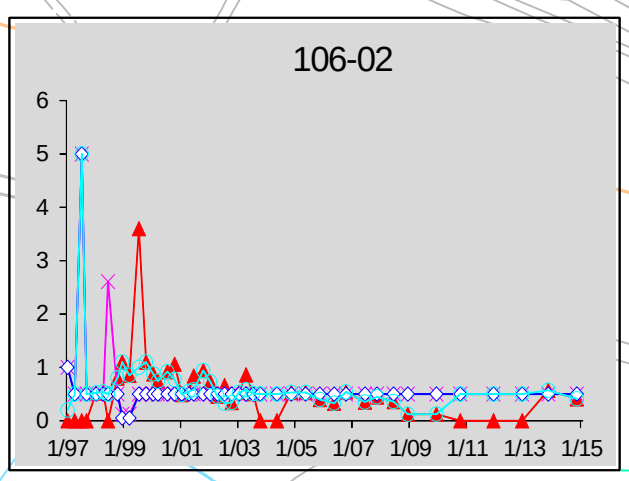












086-42

086-72

087-22

INTERIM LANDFILL

097-277

GLASS HOLES

FORMER LANDFILL

SLIT TRENCH

097-17

097-64

106-30

106-02

PRINCETON AVE.

LEGEND

17 MONITORING WELL

1,1,1–Trichloroethane (µg/L)

1,1–Dichloroethane (µg/L)

Chloroform (µg/L)

TVOC (µg/L)

32 BNL GRID NUMBER

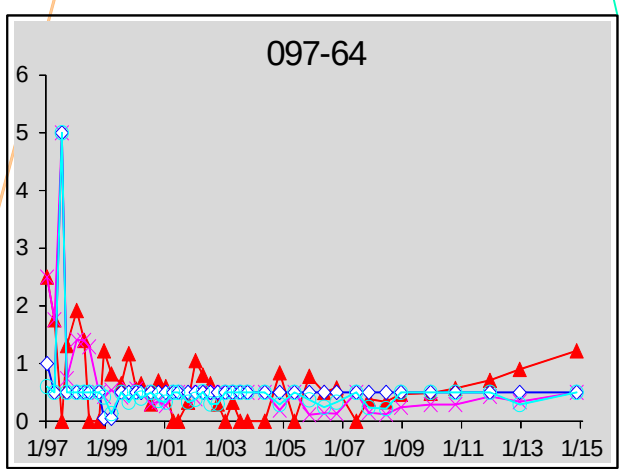
RA V BNL RECHARGE BASIN

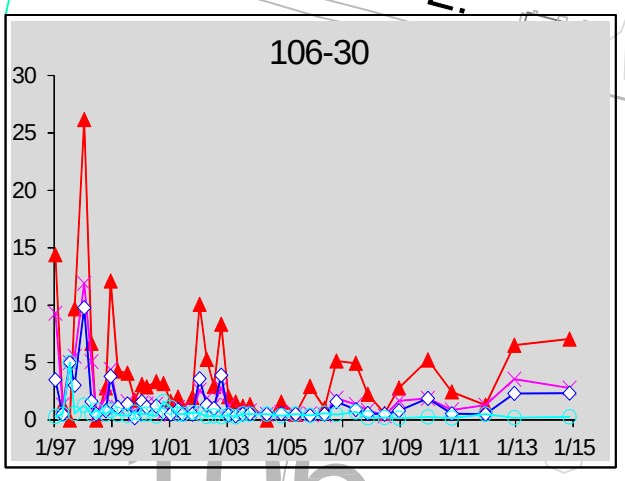
SOLAR FARM PANELS

086-42 BACKGROUND

106-02 DOWNGRADIENT

SCALE 0 250 FEET





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BROOKHAVEN NATIONAL LABORATORY

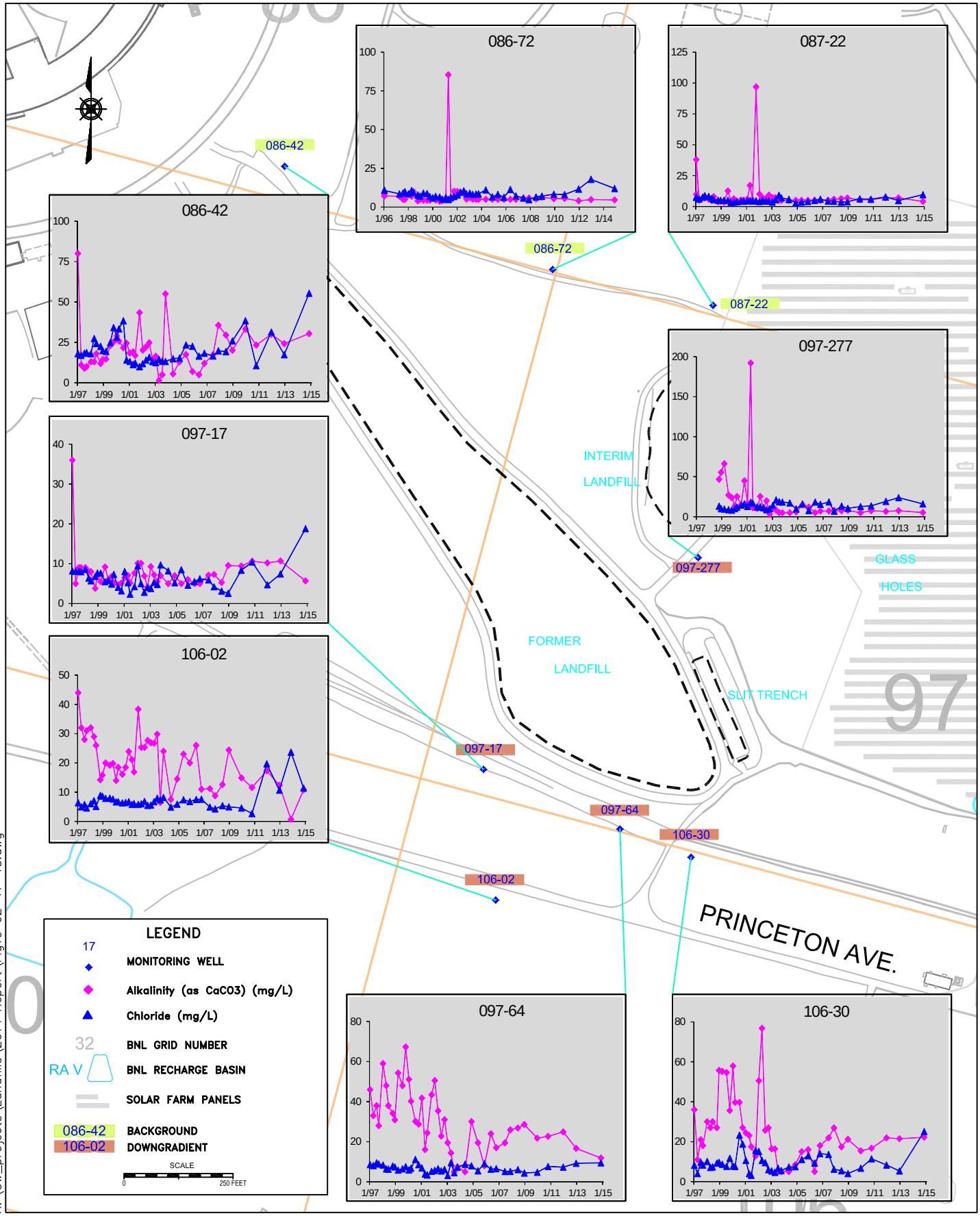
ENVIRONMENTAL PROTECTION DIVISION

TITLE:

FORMER LANDFILL
VOC TREND PLOTS
2014 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	02/17/15	–
CHKD:	APPD:	REV.:	NOTES:
JEB	RFH	–	–

FIGURE NO.: 9



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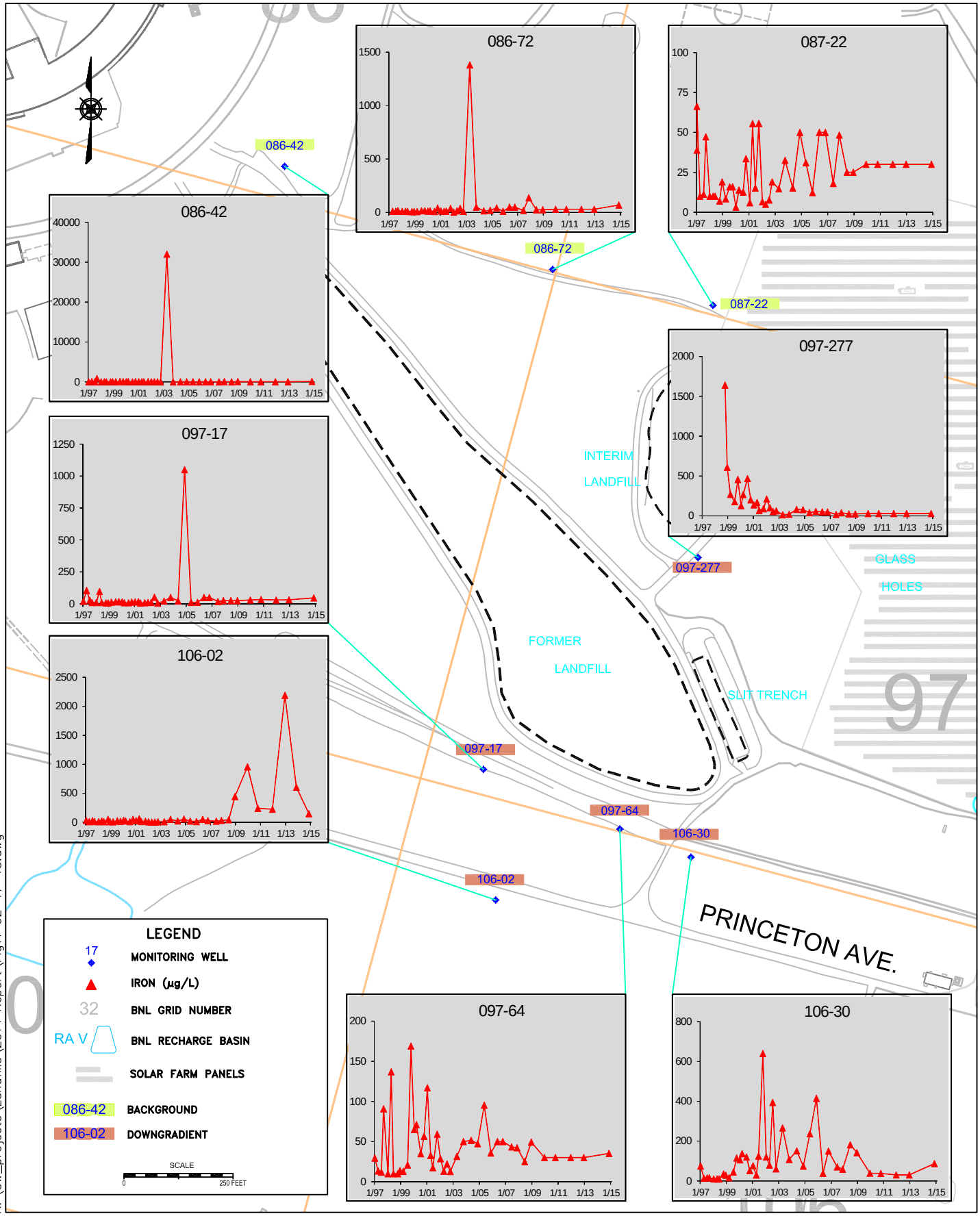
ENVIRONMENTAL PROTECTION DIVISION

TITLE:

FORMER LANDFILL
ALKALINITY AND CHLORIDE TREND PLOTS
2014 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	02/17/15	–
CHKD:	APPD:	REV.:	NOTES:
JEB	RFH	–	–

FIGURE NO.: 10



BROOKHAVEN NATIONAL LABORATORY
ENVIRONMENTAL PROTECTION DIVISION

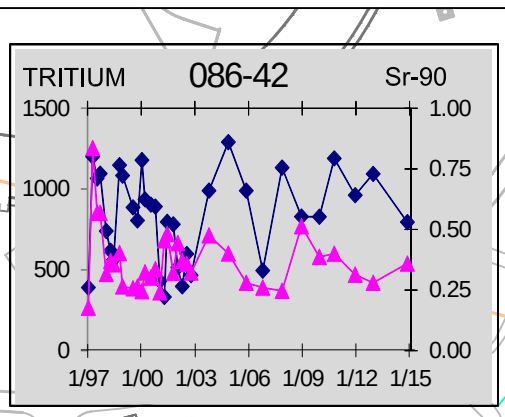
TITLE:

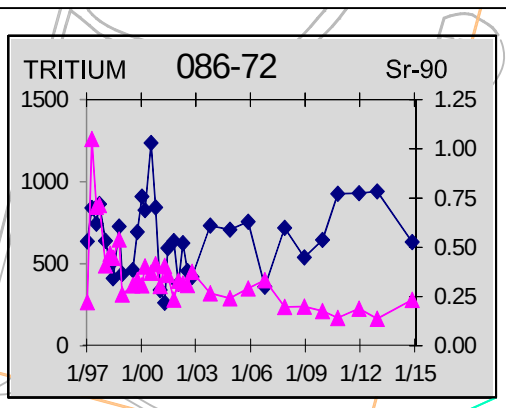
FORMER LANDFILL IRON TREND PLOTS

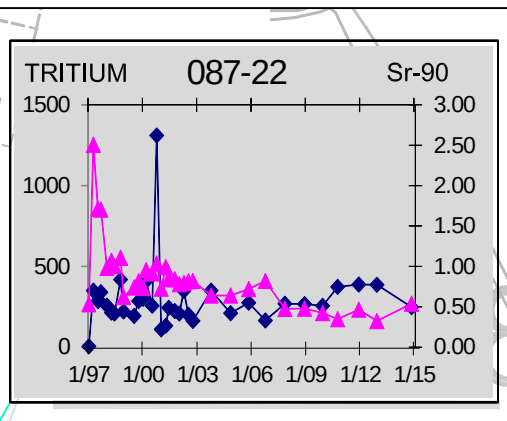
2014 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

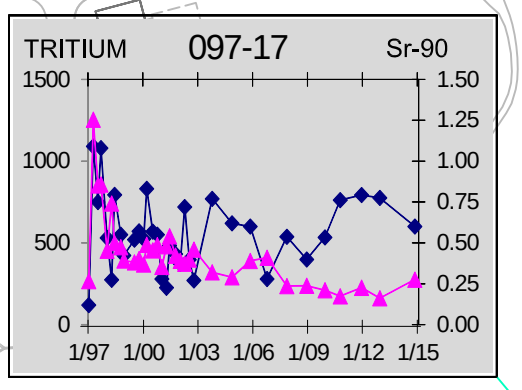
DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	02/17/15	–
CHKD:	APPD:	REV.:	NOTES:
JEB	RFH	–	–

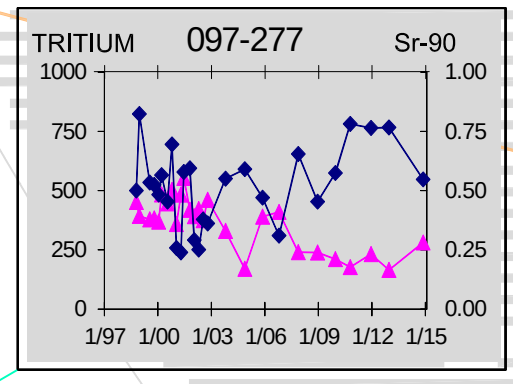
FIGURE NO.: 11

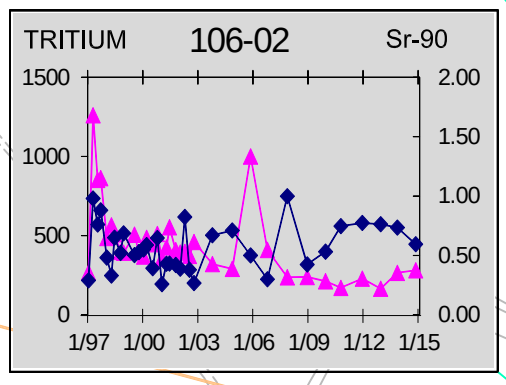


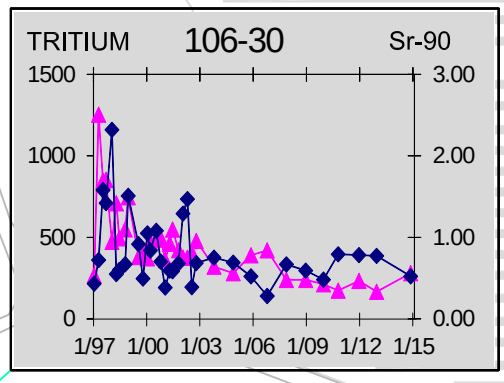


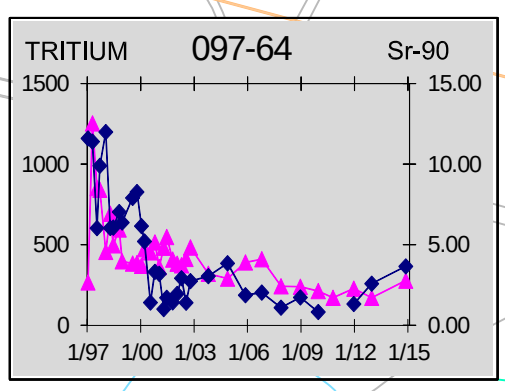


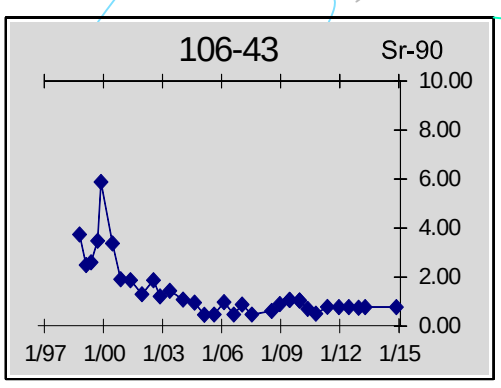


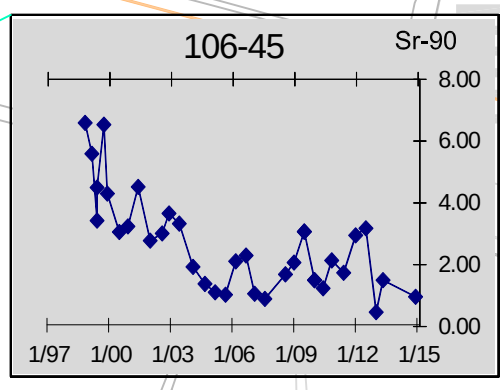


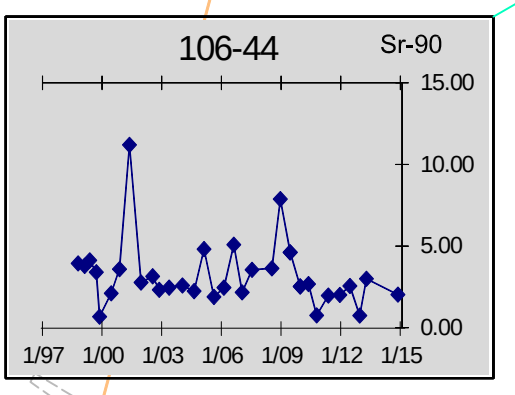


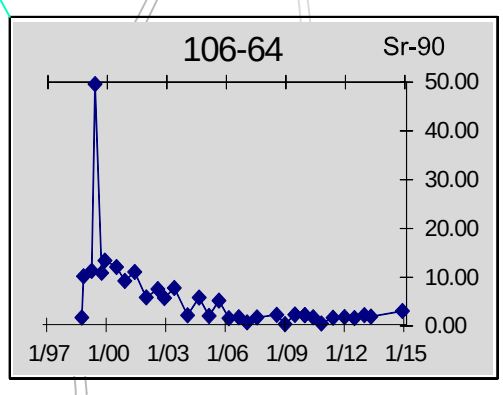


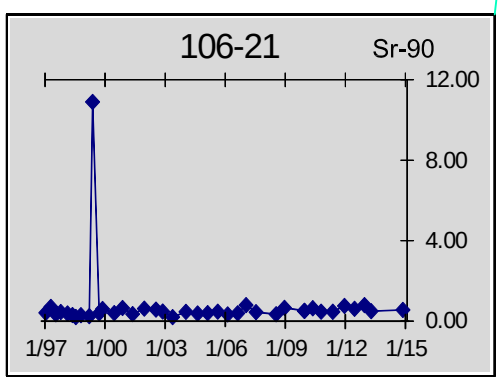


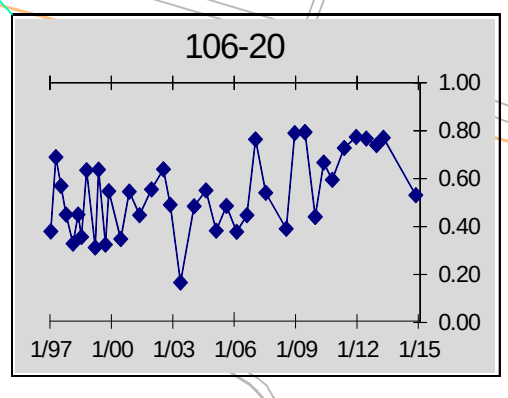












086-42
086-72
087-22
097277
097-17
097-64
106-30
106-02
106-44
106-64
106-43
106-45
106-21
106-20

INTERIM LANDFILL
FORMER LANDFILL
SLIT TRENCH
GLASS HOLES
PRINCETON AVE.

LEGEND

17 MONITORING WELL
Strontium-90 (pCi/L) right scale
Tritium (pCi/L) left scale
32 BNL GRID NUMBER
RA V BNL RECHARGE BASIN
SOLAR FARM PANELS
086-42 BACKGROUND
106-02 DOWNGRADIENT

SCALE
0 250 FEET

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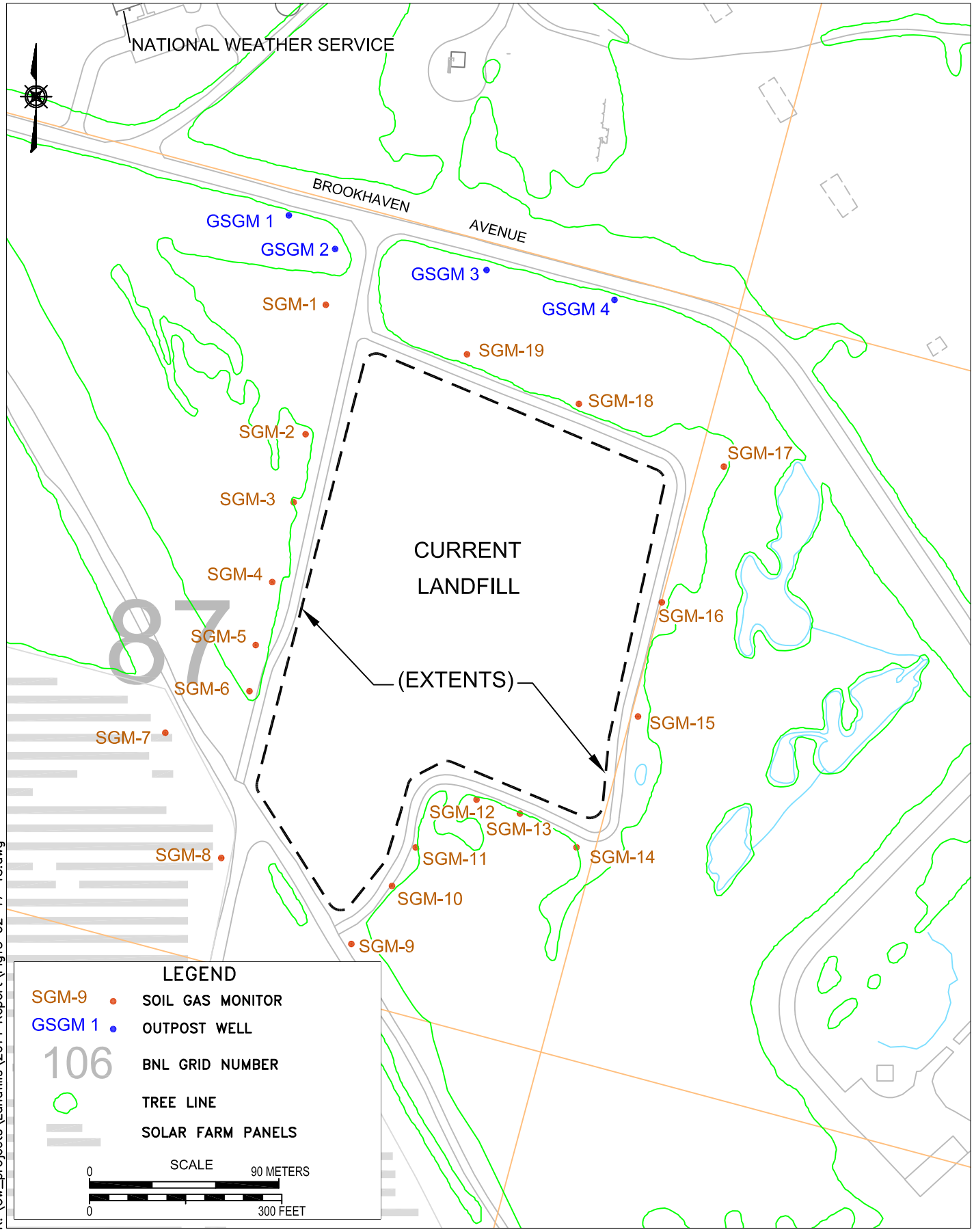
TITLE:
FORMER LANDFILL
TRITIUM AND SR-90 TREND PLOTS
2014 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

DWN:	VS: HS.:	DATE:	PROJECT NO.:
AJZ	–	02/17/15	–
CHKD:	APPD:	REV.:	NOTES:
JEB	RFH	–	–

FIGURE NO.: 12



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BROOKHAVEN NATIONAL LABORATORY
ENVIRONMENTAL PROTECTION DIVISION

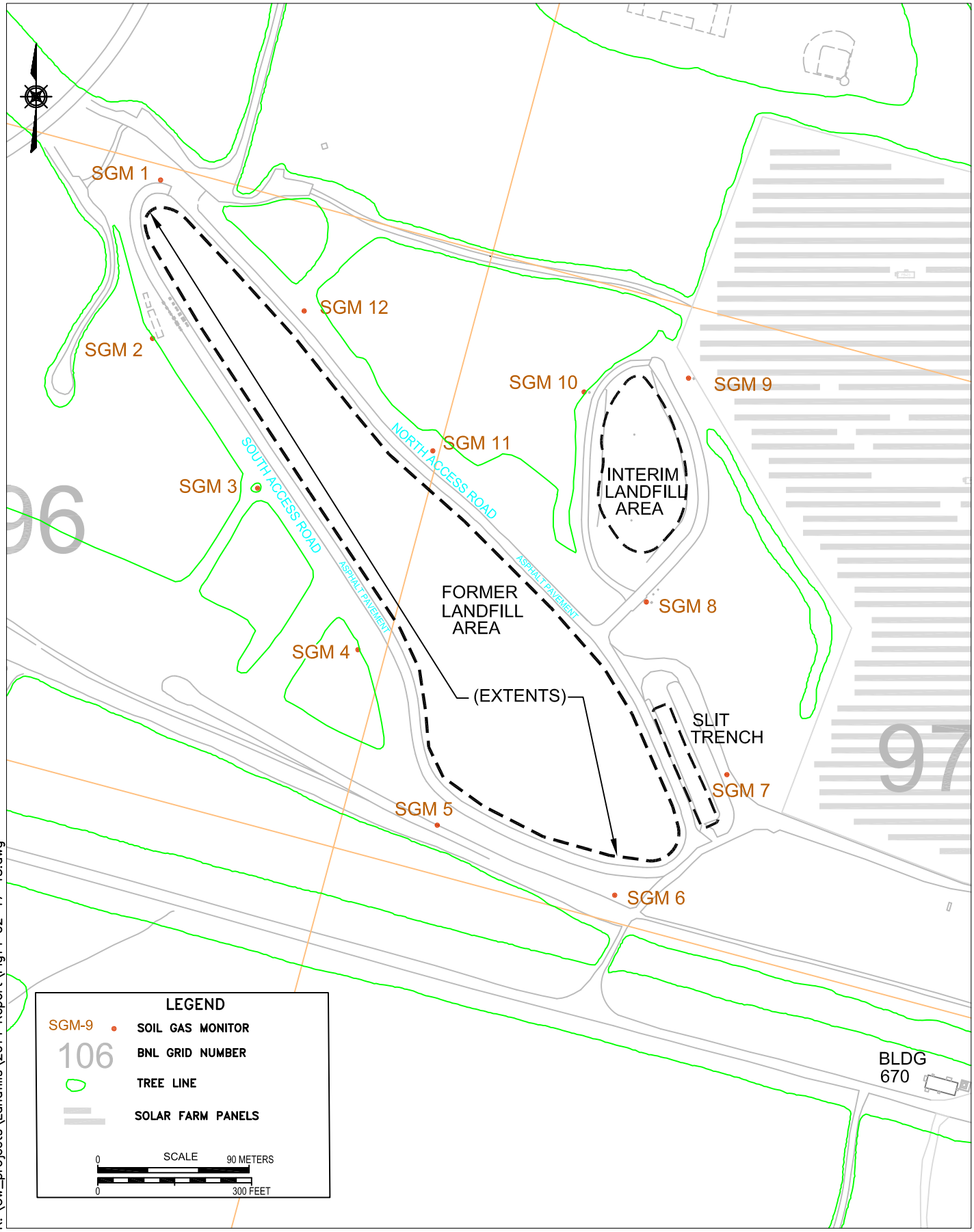
TITLE:

CURRENT LANDFILL SOIL GAS MONITOR LOCATION MAP

2014 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	02/17/15	–
CHKD:	APPD:	REV.:	NOTES:
JEB	RFH	–	–

FIGURE NO.: 13



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BROOKHAVEN NATIONAL LABORATORY

ENVIRONMENTAL PROTECTION DIVISION

TITLE:

FORMER LANDFILL
SOIL GAS MONITOR LOCATION MAP
2014 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	02/17/15	–
CHKD:	APPD:	REV.:	NOTES:
JEB	RFH	–	–

FIGURE NO.: 14

Appendix A

Wooded Wetland Report

WOODED WETLAND REPORT
2014

1.0 INTRODUCTION

This report summarizes and evaluates the 2014 sediment and surface water sampling performed for Operable Unit I (OU I), Wooded Wetland area at Brookhaven National Laboratory, Upton, New York (BNL). The Wooded Wetland is located east of and adjacent to the Current Landfill and has the potential to receive leachate from the landfill. The wetland consists of a North and South pond. The 2014 sampling of the Wooded Wetland follows the recommendations of the *Focused Ecological Risk Assessment Operable Units I/VI* (CDM, 1999b). This report summarizes the results of the sampling conducted in accordance with the 1999 and 2000 *OU I Wooded Wetlands Supplemental Sampling and Analysis Plans* (BNL, 1999 and BNL, 2000). These plans were prepared as an addendum to the *Sampling and Analysis Plan for the Remedial Investigation/Feasibility Study for Operable Unit I* (SAIC, 1993).

The biennial (i.e. once every two years) sampling focuses on analysis of metals in the sediment and surface water to evaluate their potential risks to the local tiger salamander population. Seven sediment and seven surface water samples were collected in May 2014 from two ponds (North and South) in the Wooded Wetland area.

1.1 Background

The Wooded Wetland is a two-acre area located between the Former Hazardous Waste Management Facility and the Current Landfill (Figure 1). The wetland receives surface runoff from the Current Landfill, which was capped in 1995, as well as land runoff from the south. The Wooded Wetland usually is flooded during the spring and early summer, and dry in late summer. In the Current Landfill area, the water table is located approximately 10 to 15 feet (ft) below the Wooded Wetlands; therefore, the wetland area does not receive groundwater recharge. High clay content of the near-surface soils allows for perching of water from precipitation and runoff.

An ecological review and assessment of the Wooded Wetland is provided in the *OU I/VI Preliminary Ecological Risk Screening Report* (CDM, 1996b). As part of the Feasibility Study for OU I, a Focused Ecological Risk Assessment was conducted for this area of concern (CDM, 1999b).

Two surface water samples (SW-4 and SW-5) and 14 sediment samples (SD-10 through SD-17) were collected from this area in 1994 during the OU I Remedial Investigation (CDM, 1996a). At six of the sediment locations, samples were collected from two intervals: 0 to 0.5 ft, and 1 to 1.5 ft. Samples were collected from the surface only at the remaining two locations (SD-10 and SD-11).

A gap was identified in the 1994 data set and supplemental sampling was carried out in December 1997 as part of the Ecological Risk Assessment. Only two surface water and two sediment samples were collected and analyzed for metals during this sampling event due to the dry conditions at that

time. Results from all four locations indicated lower concentrations of contaminants in both the surface water and sediment, compared to the May 1994 locations. Figure 1 shows the benchmark 1994 and 1997 surface water/sediment sample locations, respectively.

The results of the surface water samples from four of the locations (SW-17, SW-5S, SW-5N, and SW-E) indicated that the risk for larval salamanders was low. At location SW-6, the concentration of metals in the surface water sample indicated a moderate risk. Sediment results from the five locations indicated that the risk to adult salamanders is unlikely. (See the Ecological Risk Assessment, CDM, 1999b.)

In August 2000, four surface water samples (two from each pond), and seven sediment samples (four from the South Pond, three from the North Pond) were collected from the Wooded Wetlands Area. The locations are shown in Figure 2. Background and maximum concentration benchmark values for sediment and water are presented in Tables 2A and 2B (CDM 1999a). From 2001 through 2008, and in 2010, 2012 and 2014, seven surface water and seven sediment samples were taken from the ponds (Table 1). Analytical data for all years are provided in Tables 3 through 6. The following discussions focus on the findings of the 2014 sampling season.

2.0 GENERAL PROCEDURES

2.1 Environmental Sampling Procedures

Sampling was conducted by BNL on May 14, 2014, in accordance with the procedures and sampling locations outlined in the *OU I Sampling and Analysis Plan* (SAIC, 1993), supplementary Wooded Wetlands sampling plans (BNL 1999 and 2000) and BNL standard operating procedures for sampling surface water and sediments. Samples of surface water and sediment were collected at seven locations, as shown on Figure 2. These places were chosen based on the locations where samples were collected in 1994 and 1997. Locations SW/SD-5 and SW/SD-6 were near the two 1997 locations. SW/SD-17, SW/SD-12, and SW/SD-13 were close to three of the 1994 sediment sampling locations. Variability in sampling locations and number of samples were related primarily to seasonal drying of the ponds. Table 1 provides the sampling designation for comparison between samples taken since 1994.

Water and sediment samples were sent to an off-site certified laboratory for analysis. The samples were submitted for the EPA Target Analyte List (TAL) of total metals by EPA Methods 6010B, and mercury by EPA Methods 7470 for aqueous samples and 7471 for sediment samples. In accordance with the July 2000 Sampling and Analysis Plan, quality assurance/quality control samples included a blind duplicate (one per matrix), matrix spike/matrix spike duplicate (one per matrix), and one equipment blank.

2.2 Criteria

To determine if sediment or surface water concentrations pose a risk to tiger salamanders, analytical data were compared to benchmark sediment concentrations and critical water concentrations (Tables 2A and 2B) that were calculated in the *Ecological Risk Assessment* (CDM, 1999b). A benchmark sediment dose is a dose above which an observable toxic effect may occur in adult tiger salamanders. Table 2A gives the benchmark sediment concentrations for five metals of concern. BNL background levels are higher than established Benchmark Maximum Sediment Concentrations except for manganese. Critical water concentrations are surface water concentrations that have the potential to produce observable adverse effects to larval salamanders. The ten metals in the surface water that have an estimated critical concentration are summarized in Table 2B. Three of them have benchmark maximum concentrations greater than the critical levels.

2.3 Sample Locations

Seven sediment and seven surface water samples were collected in May 2014 from the North and South Ponds. Four sediment and four surface water samples were taken from the South Pond, and three sediment and three surface water samples were collected from the North Pond. Table 1 list 2014 samples with cross-references of the sampling locations since 1994. Figure 2 shows the sediment and surface water sampling locations.

3.0 SUMMARY OF ANALYTICAL RESULTS

The results from the total metals sample analyses of sediment and surface water for each year are summarized in Tables 3 and 4, respectively. Tables 5 and 6 contain comparisons of average sediment and surface water sample results for contaminants of concern to benchmark maximum contaminant and background concentrations, for each year.

3.1 Sediment

Table 5 summarizes the sediment results for the contaminants of concern, specifically copper, lead, manganese, mercury, and zinc, for the North and South Ponds since 1994. These results are compared with the benchmark maximum and background sediment concentrations from Table 2A.

To evaluate sediment concentrations in the North and South Ponds for metals, annual averages were calculated from the samples collected. The averages were determined to evaluate trends, since the sediment samples were grab samples collected from a number of locations.

The 2014 results from the four South Pond locations, SD-5, SD-6, SD-16, and SD-17, indicate that the individual concentrations and average concentrations of the metals of concern at these locations are below the benchmark maximum contaminant and background concentrations.

The individual results from the North Pond location SD-11 indicate that the individual

concentrations and average concentrations of the metals of concern at this locations are below the benchmark maximum contaminant and background concentrations. The lead results for SD-12 and SD-2001 were above the background value and the benchmark maximum sediment concentration. The mercury result for SD-12 was above the background value and the benchmark maximum sediment concentration and the mercury result for SD-2001 was above the benchmark maximum contaminant but below the background concentration. The average metals concentrations were below the background sediment concentrations for all metals except lead. Lead and mercury had average concentrations slightly above the benchmark maximum sediment concentration. The average lead concentration was 100.6 mg/kg compared with benchmark and background concentrations of 82.9 mg/kg and 97.6 mg/kg, respectively. The average mercury concentration was 0.31 mg/kg compared to the benchmark maximum sediment concentration of 0.17 mg/kg. This result is consistent with historical data.

Overall, the 2014 results are consistent with previous year's average metals concentrations.

3.2 Surface-Water

Table 6 presents the results of the 10 metals of concern for each of the seven surface water samples collected during 2014. Also shown in Table 6, for comparison, are the surface water results from previous monitoring, along with the critical and benchmark water concentrations from Table 2B. Four surface water samples came from the South Pond (SW-5S, SW-6, SW-16 and SW-17) and three samples were collected from the North Pond (SW-4, SW-5N and SW-2001).

The zinc concentrations were above the critical concentration of 23.8 µg/L for locations SW-6 (27.6 µg/L) and SW-16 (25.1 µg/L). The individual concentrations for all other metals and all the average concentrations of metals for samples from the North and South Ponds were below the critical concentrations for the 2014 sampling event.

4.0 CONCLUSIONS & RECOMMENDATIONS

Overall, the results obtained from the May 2014 sampling indicate that metals in the sediment and the metals of concern in surface water are within the range of variability as compared to previous years' values. The numbers of sediment and water samples collected from the ponds in 2014 were similar to those collected since 2001, so the averages can be directly compared for the parameters analyzed. No substantive effect due to leached metals from the landfill is evident in the sediments or surface water. Therefore, there are no changes to the monitoring program recommended.

Since metals in water are the primary source of absorption by tiger salamanders, no significant change in dissolved metals indicates that the wooded wetland is not experiencing an increase in metals concentration.

All average surface water sample concentrations were below the critical concentrations. There is

considerable uncertainty inherent in establishing the critical water concentrations for these metals and in assigning the actual risk posed to the tiger salamander larvae. This analysis indicates that no significant change has occurred. Since metals in water are the primary source of absorption by tiger salamanders, no significant change in dissolved metals provides indication that the wooded wetland is not experiencing an increase in metals concentration.

5.0 REFERENCES

CDM, 1996a. *Brookhaven National Laboratory Final Remedial Investigation/Risk Assessment Report Operable Unit I.* CDM Federal Programs Corp., June 14, 1996.

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TABLES

Table 1. Crosswalk of sample designation between years for sediment and surface water sampling at the wooded wetland.

Sediment Sample Locations															
Pond Sampled	2014 Sampl Designatior	2012 Sampl Designatior	2010 Sample Designation	2008 Sample Designation	2007 Sample Designation	2006 Sample Designation	2005 Sample Designation	2004 Sample Designation	2003 Sample Designation	2002 Sample Designation	2001 Sample Designation	2000 Sample Designation	1999 Sample Designation	1997 Sample Designation	1994 Sample Designation
South	SD-5	SD-5	SD-5	SD-5	SD-5	SD-5	SD-5	SD-5	SD-5	SD-5	SD-5	SD-5	SD-B	SD-5	NS
South	SD-6	SD-6	SD-6	SD-6	SD-6	SD-6	SD-6	SD-6	SD-6	SD-6	SD-6	SD-6	SD-C	SD-6	NS
South	SD-16	SD-16	SD-16	SD-16	SD-16	SD-16	SD-16	SD-16	SD-16	SD-16	SD-16	SD-16	NS	NS	SD-16
South	SD-17	SD-17	SD-17	SD-17	SD-17	SD-17	SD-17	SD-17	SD-17	SD-17	SD-17	SD-17	SD-A	NS	SD-17
North	SD-11	SD-11	SD-11	SD-11	SD-11	SD-11	SD-11	SD-11	SD-11	SD-11	SD-11	SD-11	NS	NS	SD-11
North	SD-12	SD-12	SD-12	SD-12	SD-12	SD-12	SD-12	SD-12	SD-12	SD-12	SD-12	SD-12	SD-D	NS	SD-12
North	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	SD-13	SD-E	NS	SD-13
North	SD-2001	SD-2001	SD-2001	SD-2001	SD-2001	SD-2001	SD-2001	SD-2001	SD-2001	SD-2001	SD-2001	NS	NS	NS	NS

Surface-Water Sample Locations															
Pond Sampled	2014 Sampl Designatior	2012 Sampl Designatior	2010 Sample Designation	2008 Sample Designation	2007 Sample Designation	2006 Sample Designation	2005 Sample Designation	2004 Sample Designation	2003 Sample Designation	2002 Sample Designation	2001 Sample Designation	2000 Sample Designation	1999 Sample Designation	1997 Sample Designation	1994 Sample Designation
South	SW-5 S	SW-5 S	SW-5 S	SW-5 S	SW-5 S	SW-5 S	SW-5 S	SW-5 S	SW-5 S	SW-5 S	SW-5 S	SW-5	SW-B	SW-5	SW-5
South	SW-6	SW-6	SW-6	SW-6	SW-6	SW-6	SW-6	SW-6	SW-6	SW-6	SW-6	SW-6	SW-C	SW-6	NS
South	SW-16	SW-16	SW-16	SW-16	SW-16	SW-16	SW-16	SW-16	SW-16	SW-16	SW-16	NS	NS	NS	NS
South	SW-17	SW-17	SW-17	SW-17	SW-17	SW-17	SW-17	SW-17	SW-17	SW-17	SW-17	NS	SW-A	NS	NS
North	SW-4	SW-4	SW-4	SW-4	SW-4	SW-4	SW-4	SW-4	SW-4	SW-4	SW-4	SW-4	NS	NS	SW-4
North	SW-5N	SW-5N	SW-5N	SW-5N	SW-5N	SW-5N	SW-5N	SW-5N	SW-5 N	SW-5 N	SW-5 N	SW-5	SW-D	NS	NS
North	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	SW-E	NS	NS
North	SW-2001	SW-2001	SW-2001	SW-2001	SW-2001	SW-2001	SW-2001	SW-2001	SW-2001	SW-2001	SW-2001	NS	NS	NS	NS

NS Not Sampled

Table 2A
Benchmark Sediment Concentrations for Adult Salamanders*

Contaminants of Concern	BNL** Background Concentration (mg/kg)	Benchmark Maximum Sediment Concentration (mg/kg)	Maximum Dose (mg/kg/day)	Benchmark Dose (mg/kg/day)	Hazard Quotient***
Copper	52.5	29.0	0.00903	0.232	0.0389
Lead	97.6	82.9	3.86	151	0.0255
Manganese	84.3	541	0.168	556	0.000302
Mercury	0.41	0.17	0.0000529	0.00958	0.00552
Zinc	158	122	6.49	105	0.0618

NOTES:
*OU I Feasibility Study, Appendix L. Final Focused Ecological Risk Assessment for Operable Unit I/VI, 3/31/99.
** Off-site stream sediment concentrations from the upper Peconic River. OU V Remedial Investigation Report, IT Corp. 1996.
*** Contaminants with hazard quotients greater than 0.0001.

Table 2B
Critical Benchmark Water Concentrations for Larval Salamanders*

Contaminants of Concern	BNL Background Concentration (ug/l) **	Benchmark Maximum Concentration* (ug/l)	Critical Concentration (ug/l) ***
Aluminum	820	762	525
Cadmium	3.5	0.3	12.8
Copper	10.1	8.1	15.0
Cobalt	ND	18.7	50.0
Iron	1,990	4,400	1,000
Lead	ND	4.4	14.6
Mercury	0.18	0.24	2.7
Nickel	ND	3.5	420
Silver	ND	ND	2.4
Zinc	62.9	64.9	23.8

NOTES:
*OU I Feasibility Study, Appendix L. Final Focused Ecological Risk Assessment for Operable Unit I/VI, 3/31/99.
** Based on OU V Remedial Investigatigation Report, IT Corp., 1996 and OU I/VI Remedial Investigatigation Report, CDM Federal Corp., 1996.
***The critical concentration for contaminants of concern in water represents the reported toxic concentration most applicable to salamanders which is adjusted, where necessary, to the equivalent of the No Observable Adverse Effects Levels (NOAEL).

Table 3
Annual Wooded Wetland Report
Sediment Sample Results - Metals Analysis

LOCATION	CONTAMINANT	SAMPLES COLLECTED														
	Units : mg/Kg	1994	1997	Jun-99	Aug-00	Jun-01	May-02	May-03	May-04	May-05	May-06	May-07	May-08	May-10	May-12	May-14
SD-5	Aluminum	NS	4,470	11,600	11,000	8,490	10,200	11,300 *	9,200 *	NS	12,600	8450 *N	9850	12500	10100	9530
(SD-B)	Antimony	NS	1.4 U	0.27 U	0.26 U	0.481 B	0.719 UN	0.485 B	0.632 UN	NS	1 U	2.7	0.485 *	0.992 U	0.612 U	0.632 U
	Arsenic	NS	1.1 B	1.4	1.81	1.39 B	1.66	1.8	1.79	NS	2 B	2.2 B	1.4 U	2.61 B	0.65 B	1.37 B
	Barium	NS	18.4 B	19.4	24.4	25.1 B	26.6	28	26.9	NS	31	19.3 *	23.4 B	31.5	29.2	25.6
	Beryllium	NS	0.15 B	0.23 B	0.364 B	0.34 B	0.327 B	0.406 B	0.401 B	NS	0 B	0.22 B	0.34 *	0.301 U	0.552 B	0.562 B
	Cadmium	NS	0.15 B	0.05 B	0.396 B	0.145 B	0.154 B	0.091 U	0.196 B	NS	0 B	0.164 U	0.156 B	0.301 U	0.186 U	0.197 B
	Calcium	NS	915 B	343 B	432 B	554 B	727 *	394 *N	1110 N	NS	459	294	205 U	777	450	446 N
	Chromium	NS	6.1	9.9	13.9	11.7	11.6	14	10.6 *	NS	16	10.3 *	11.8 N	14.6	12.3	11.2
	Cobalt	NS	1.3 B	1.7 B	3.15 B	3.36 B	1.97	3.53	1.91	NS	3	2	3.2 *	2.44	2.96	2.17
	Copper	NS	4.8 B	8.1	9.59	9.03	9.65	11.7	10.5	NS	10 *	7.2 *	11.8	15.8	6.18	9.09
	Iron	NS	2,560	7,490	7,590	8,670	6,130	8,820 *N	5,700	NS	6,070 EN	5680 N	9550	6520	8210	6060 N
	Lead	NS	28	19.4	13.4	13.0	21.1 N	12.7	30.1 *	NS	16 *	22.2 *	13.1 *N	63.4	25.8	27.1
	Magnesium	NS	487 B	1150	1890	2,240	1,420	2,080 *N	1,310 *	NS	2,110 *	1320	2330 *EN	1650	2250	1470
	Manganese	NS	41.5	45.1	82.4	123	78.7 *	88.3 *N	109 *	NS	89 *	54.4	93.8 *	74.2	94.5	55.9
	Mercury	NS	0.11 U	0.05	0.098	0.053	0.053	0.021	0.052	0.0512	0.047 BN	0.04 B	0.04 *	0.157 B	0.0712 B	0.0773 B
	Nickel	NS	4.1 B	5.7	8.02	9.25	6.74	8.17	7.31 *	NS	8 *	5.9	8.3 B*	9.35	8.49	7.34
	Potassium	NS	238 B	397 B	653 B	891	602	889 N	734 E*N	NS	956	409 *	715	646	850	524
	Selenium	NS	1.3 U	0.36 B	0.896	0.508 B	0.827	0.468 U	0.384 B	NS	1 U	0.985 U	0.789 *	1.5 U	0.604 U	0.566 U
	Silver	NS	0.44 U	0.29 B	0.151 U	0.126 U	0.172 U	0.235 U	0.166 U	NS	0 U	1.1	0.156 U	0.31 B	0.287 B	0.191 U
	Sodium	NS	42.2 B	27.2 B	33.6 B	50.2 B	40.8	44.9	34.5	NS	55	18.9 B	26.6 U	42.5 B	57.6	25 B
	Thallium	NS	1 U	0.82 U	0.34 U	0.561 U	0.748 U	0.502 U	3.18	NS	1 U	0.821 U	0.09	0.201 B	0.11 U	0.149 B
	Vanadium	NS	15.6 B	17.4	24.1	20.4	21.8	22.5	22.3 *	NS	29 *	18.7 *	20 B	30.7	17.2	20.3
	Zinc	NS	22.3	25.1	31.4	29.8	31.9	29.5	26.3 *	NS	34 *	23.1 *	27.6 *	31.7	31.6	31.2
	Cyanide	NS	NA	0.489	NA	NA	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS

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LOCATION	CONTAMINANT	SAMPLES COLLECTED														
	Units : mg/Kg	1994	1997	Jun-99	Aug-00	Jun-01	May-02	May-03	May-04	May-05	May-06	May-07	May-08	May-10	May-12	May-14
SD-6	Aluminum	NS	4,920	9,780	1,670	10,500	1,900	1,390 *	2,000 *	NS	2830	1630 *N	1330 *	1070	2370	1670
(SD-C)	Antimony	NS	1.1 U	0.93 U	0.247 U	0.338 U	0.645 UN	0.417 B	0.481 UN	NS	0.523 U	0.63 B	0.442 U	0.53 U	0.427 U	0.402 U
	Arsenic	NS	0.47 U	1.3 U	0.556 B	1.34	0.535 U	0.372 U	0.366 B	NS	0.785 U	0.785 U	0.433 U	0.607 B	0.266 U	0.359 B
	Barium	NS	15.2 B	21.5	3.57	26.2	4.74	3.27	5	NS	7.1	2.8 *	3.4 *	7.54	5.04	3.33
	Beryllium	NS	0.11 B	0.08 B	0.07 U	0.336	0.045 B	0.033 B	0.082 B	NS	0.131 U	0.131 U	0.142 U	0.161 U	0.213 B	0.123 B
	Cadmium	NS	0.2 B	0.17 U	0.105 U	0.057 B	0.064 B	0.074 U	0.067 U	NS	0.131 U	0.131 U	0.142 U	0.161 U	0.129 U	0.122 U
	Calcium	NS	487 B	774 B	88.3 B	279 B	136 *	51.5 *N	133 N	NS	150	51	95.6 N	501	127	57.5 N
	Chromium	NS	6.1	6.5	1.87	13	2.31	1.47	2.33 *	NS	3.6	1.7 *	1.6 *	0.96	2.63	1.88
	Cobalt	NS	1.4 B	0.81 B	0.344 B	3.68 B	0.308 B	0.397 B	0.393 B	NS	0.65 B	0.32 B	0.31 B	0.263 B	0.535 B	0.367 B
	Copper	NS	4.8 B	7.8	0.72 B	7.27	1.85	0.549 B	1.37	NS	1.7 *	0.73 B*	0.78 B	2.55	0.531 B	0.755 B
	Iron	NS	2,620	5,710	1,040	8,050	1,060	816 *N	1,280	NS	2080 EN	885 N	961 *N	717	1380	936 N
	Lead	NS	19.8	63.5	4.62 B	5.28	9.74 N	1.6	10.3 *	NS	5 *	4.5 *	5.9 *EN	8.54	3.32	4.34
	Magnesium	NS	596 B	568 B	250	2,750	245	214 *N	300 *	NS	503 *	192	218 *	155	338	214
	Manganese	NS	29.3	39.3	10.4	144	13.4 *	9.87 *N	15 *	NS	24 *	8	9.7 *	17.5	13.6	8.99
	Mercury	NS	0.1 U	0.18	0.049	0.004 U	0.011 B	0.006 U	0.019	0.0122 B	0.014 BN	0.026 B	0.017 B*	0.00966 B	0.0105 B	0.0129 B
	Nickel	NS	4.1 B	5.3	1.28	9.9	1.51	1.05	1.84 *	NS	2.1 *	1.1	1.2	1.48	1.97	1.31
	Potassium	NS	273 B	268	103 B	1,240	94	100 N	137 E*N	NS	243	61 *	50.1 *	99	115	76.3
	Selenium	NS	1 U	0.95 B	0.328 U	0.374 U	0.359 U	0.381 U	0.227 U	NS	0.785 U	0.785 U	0.722 U	0.76 U	0.439 U	0.454 U
	Silver	NS	0.34 U	0.44 U	0.143 U	0.111 U	0.155 U	0.191 U	0.126 U	NS	0.131 U	0.2 B	0.142 U	0.161 U	0.129 U	0.122 U
	Sodium	NS	35.1 B	96.9 U	11.5 B	50.9 B	18.6	13.9	11 B	NS	21.2	6.5 B	8.8 B	18.5 B	28 B	8.54 U
	Thallium	NS	0.8 U	2.8 B	0.324 U	0.495 U	0.671 U	0.409 U	1.4 U	NS	0.654 U	0.654 U	0.0578 U	0.0912 U	0.0798 U	0.0826 U
	Vanadium	NS	11.5 B	20.2 U	3.35 B	16 B	4.85	2.35	4.96 *	NS	5.6 *	2.8 *	3.1 *	2.82	4.02	2.69
	Zinc	NS	19.7	26 B	5.86	27.6	6.45	3.98	6.67 *	NS	9.5 *	4.6 *	4.8	7.16	7.01	4.64
	Cyanide	NS	NA	1.27	NA	NA	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS

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LOCATION	CONTAMINANT	SAMPLES COLLECTED														
	Units : mg/Kg	1994	1997	Jun-99	Aug-00	Jun-01	May-02	May-03	May-04	May-05	May-06	May-07	May-08	May-10	May-12	May-14
SD-16	Aluminum	5110 *	NS	NS	1,780	1,240	2,660	716 *	6,120 *	NS	2310	6620 *N	3910 *	6670	3210	2690
	Antimony	8.7 U	NS	NS	0.226 U	0.302 U	0.702 UN	0.568 B	0.859 BN	NS	0.685 U	2 B	0.549 U	0.698 U	0.498 U	0.421 U
	Arsenic	0.59 B	NS	NS	0.566 B	0.377 B	0.582 U	0.357 U	0.411 U	NS	1.03 U	2.3 B	0.74 B	1.33 B	0.436 B	0.574 B
	Barium	7.1 B	NS	NS	5.25	3.6 B	9.13	1.89	28.5	NS	7.7	17.6 *	12.6 *	20	11.5	6.25
	Beryllium	0.25 U	NS	NS	0.064 U	0.036 B	0.071 B	0.023 U	0.23 B	NS	0.171 U	0.28 B	0.177 U	0.212 U	0.259 B	0.169 B
	Cadmium	1.2 U	NS	NS	0.096 U	0.031 U	0.132 B	0.071 U	0.292 B	NS	0.171 U	0.233 U	0.38 B	0.212 U	0.151 U	0.128 U
	Calcium	125 B	NS	NS	216 B	137 B	451 *	62 *N	2160 N	NS	144	619	616 N	525	347	80.3 N
	Chromium	5.5	NS	NS	2.41	1.63	3.21	1.44	5.7 *	NS	3.6	6.9 *	3.9 *	7.68	4.14	3.53
	Cobalt	1.2 U	NS	NS	0.347 B	0.248 B	0.372 B	0.197 B	1	NS	0.42 B	1.5	0.72 B	1.06	1.03	0.62 B
	Copper	1 B	NS	NS	1.48	0.904 B	3.78	0.389 B	8.14	NS	2.2 *	9.5 *	8	11.7	3.2	2.4
	Iron	1,730 *	NS	NS	1,120	817	1320	569 *N	2960	NS	1520 EN	3810 N	2000 *N	2620	2080	1690 N
	Lead	4.4 NJ	NS	NS	9.99	3.19	16.1 N	1.7	39.5 *	NS	8.8 *	15 *	15.7 *EN	70.1	12.5	9.83
	Magnesium	259 B	NS	NS	239 B	185 B	293	109 *N	580 *	NS	357 *	837	378 *	534	532	382
	Manganese	11.5 *	NS	NS	12.4	9.68	17.7 *	8.07 *N	45 *	NS	16.7 *	41.5	25.8 *	19.6	19.9	14.3
	Mercury	0.01 B	NS	NS	0.064	0.003 U	0.033	0.005 U	0.028	0.0336	0.027 BN	0.038 B	0.05 B*	0.0886 B	0.0335 B	0.0251 B
	Nickel	7.5 U	NS	NS	1.43	1.2 B	2.01	0.78	4.74 *	NS	1.6 *	4.5	3.2	5.71	3	2.08
	Potassium	138 U	NS	NS	113 B	114 B	133	54.5 N	414 E*N	NS	225	240 *	131 *	281	252	131
	Selenium	0.25 U,	NS	NS	0.365 B	0.334 U	0.391 U	0.366 U	0.323 U	NS	1.03 U	1.4 U	0.891 U	0.997 U	0.542 U	0.43 U
	Silver	1 U	NS	NS	0.131 U	0.099 U	0.168 U	0.183 U	0.18 U	NS	0.171 U	0.78 B	0.177 U	0.321 B	0.167 B	0.128 U
	Sodium	39 B	NS	NS	14.4 B	17 B	22.9	11.5	17 B	NS	26.5	16.7 B	17.9 B	31 B	39.8	8.93 U
	Thallium	0.25 U,	NS	NS	0.295 U	0.442 U	0.73 U	0.393 U	2.03	NS	0.856 U	1.16 U	0.0712 U	0.12 U	0.0986 U	0.0782 U
	Vanadium	5.1 B	NS	NS	5.26 B	2.39 B	6.58	1.6	15.1 *	NS	6.2 *	15.8 *	11.4 *	21.4	7.97	6.29
	Zinc	4.7 B	NS	NS	7.34	6.48	12.9	2.58	29.1 *	NS	7.3 *	29.9 *	33.5	20.8	18.6	7.24
	Cyanide	3.1 U	NS	NS	NA	NA	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS

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LOCATION	CONTAMINANT	SAMPLES COLLECTED														
	Units : mg/Kg	1994	1997	Jun-99	Aug-00	Jun-01	May-02	May-03	May-04	May-05	May-06	May-07	May-08	May-10	May-12	May-14
SD-17	Aluminum	3550	NS	3,500	2,840	1,440	1,870	2,870 *	1,080 *	NS	11100	4390 *N	2280 *	9370	2140	2080
(SD-A)	Antimony	8.8 U	NS	0.26 U	0.198 U	0.312 U	0.614 UN	0.415 B	0.492 UN	NS	0.577 U	1.7 B	0.569 U	0.501 U	0.428 U	0.461 U
	Arsenic	0.25 U	NS	1.1	0.397 B	0.424 B	0.51 U	0.435 B	0.296 U	NS	1.2 B	1.3 B	0.55 B	1.61	0.276 U	0.322 B
	Barium	8.8 B	NS	21.6	6.32	5.34 B	4.96	5.63	2.96	NS	29.4	15.9 *	11.4 *	21	7.24	6.44
	Beryllium	0.25 U	NS	0.17 B	0.056 U	0.037 B	0.042 B	0.052 B	0.072 U	NS	0.29 B	0.204 U	0.183 U	0.197 B	0.203 B	0.154 B
	Cadmium	1.3 U	NS	0.11 B	0.092 B	0.075 B	0.055 B	0.077 U	0.069 U	NS	0.28 B	0.27 B	0.3 B	0.152 U	0.13 U	0.14 U
	Calcium	80.4 B	NS	785	240 B	136 B	183 *	137 *N	107 N	NS	636	878	1030 N	488	441	297 N
	Chromium	4.4	NS	7.4	2.54	1.98	1.99	2.68	1.21 *	NS	13	4.3 *	2.6 *	9.58	3.69	2.47
	Cobalt	1.3 U	NS	1.1 B	0.209 B	0.196 B	0.166 B	0.504 B	0.114 U	NS	1.8	0.85 B	0.62 B	1.45	0.451 B	0.4 B
	Copper	2.9 B	NS	8.2	1.64	1.41 B	1.42	12.6	1.39	NS	7.1 *	8.9 *	5.9	8.09	2.21	1.52
	Iron	1,590	NS	1,750	757	740	742	1210 *N	614	NS	3580 EN	2260 N	1580 *N	4280	1390	1230 N
	Lead	4.1 NJ	NS	21.3	6.98	6.15	5.29 N	4.71	2.49 *	NS	16.1 *	26 *	23.2 *EN	25.3	7.48	5.06
	Magnesium	389 B	NS	665 B	157 B	162 B	169	280 *N	128 *	NS	1190 *	379	301 *	827	287	276
	Manganese	14.8	NS	40.1	10.9	12.3	9.72 *	16 *N	9.49 *	NS	54.6 *	31.3	27 *	36	14.6	13.3
	Mercury	0.02 B	NS	0.028 U	0.038	0.003 U	0.014	0.012 B	0.012 B	0.0618	0.037 BN	0.064 B	0.067 B*	0.09 B	0.0244 B	0.0114 B
	Nickel	7.6 U	NS	4.3	1.13	1.25 B	1	3.34	0.792 *	NS	5.8 *	3.3	2.7	5.24	1.63	1.57
	Potassium	140 U	NS	216 B	88.7 B	91.6 B	83.2	117 N	69.4 E*N	NS	566	146 *	95 *	268	110	105
	Selenium	0.25 U	NS	0.57 B	0.412 B	0.482 B	0.342 U	0.396 U	0.232 U	NS	0.866 U	1.22 U	0.901 U	0.772 U	0.456 U	0.437 U
	Silver	1 U	NS	0.22 B	0.115 U	0.103 U	0.147 U	0.199 U	0.129 U	NS	0.144 U	0.51 B	0.183 U	0.152 U	0.13 U	0.14 U
	Sodium	16.5 B	NS	31.9 B	9.14 B	19.3 B	17	15.6	5.21 U	NS	42.9	15.8 B	20.8 B	22.1 B	25 B	10.9 B
	Thallium	0.25 U	NS	0.79 U	0.259 U	0.457 U	0.639 U	0.425 U	1.43 U	NS	0.722 U	1.02 U	0.0721 U	0.12 B	0.0829 U	0.0795 U
	Vanadium	4.4 B	NS	12.6	4.52 B	2.99 B	3.19	4.09	1.62 *	NS	19.7 *	11.1 *	8.1 *	16.4	4.7	3.41
	Zinc	8.8	NS	27.5	7.37	4.6	6.37	6.24	3.4 *	NS	33.7 *	32 *	30.1	29.9	10.2	8.1
	Cyanide	3.2 U	NS	0.243	NA	NA	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS

Table 3
Annual Wooded Wetland Report
Sediment Sample Results - Metals Analysis

LOCATION	CONTAMINANT	SAMPLES COLLECTED														
	Units : mg/Kg	1994	1997	Jun-99	Aug-00	Jun-01	May-02	May-03	May-04	May-05	May-06	May-07	May-08	May-10	May-12	May-14
SD-11	Aluminum	4030 *	NS	NS	5,070	12,800	11,400	6,920 *	7,570 *	NS	18500	2710 *N	9280 *	9820	18800	10000
	Antimony	10.9 U	NS	NS	0.311 U	0.532 U	1.51 UN	0.688 U	0.761 UN	NS	1.49 U	1.19 U	1.17 U	2.34 B	1.5 U	1.24 U
	Arsenic	0.31 U,	NS	NS	1.07	0.859 B	2.35	1.81	1.27	NS	3.8 B	1.78 U	2 B	3.79	3.44 B	2.7 B
	Barium	9.3 NB	NS	NS	27.1	53.4	61.1	35.4	34.6	NS	72.9	15 *	36 *	44.1	70	45.6
	Beryllium	0.31 U	NS	NS	0.134 B	0.291 B	0.342 B	0.232 B	0.281 B	NS	0.53 B	0.297 U	0.378 U	0.331 U	1.07 B	0.581 B
	Cadmium	1.6 U	NS	NS	0.135 B	0.06 B	0.232 B	0.144 B	0.152 B	NS	0.49 B	0.297 U	0.378 U	0.331 U	0.456 B	0.445 B
	Calcium	125 B	NS	NS	225 B	389	1750 *	551 *N	467 N	NS	2220	502	907 N	1380	2520	1910 N
	Chromium	4.5	NS	NS	4.99	11.6	10.5	6.48	7.1 *	NS	18.5	1.8 *	8.7 *	8.93	15.7	8.89
	Cobalt	1.6 U	NS	NS	0.221 B	0.258 B	1.9	0.586 B	0.439 B	NS	2.7	0.593 U	1.1 B	1.27 B	2.58	1.19 B
	Copper	R	NS	NS	5.25	7.06	21.3	7.52	7.55	NS	35.8 *	4.9 *	14.5	18.6	33.7	22.2
	Iron	763 *	NS	NS	938	1,260 B	4,920	1,570 *N	1,660	NS	5190 EN	1100 N	2840 *N	3210	6920	3190 N
	Lead	6.3 N	NS	NS	8.41	13.2	85.7 N	17.8	16.9 *	NS	122 *	16.6 *	44.5 *EN	85.7	98.9	56.9
	Magnesium	168 B	NS	NS	118 B	295 B	819	262 *N	293 *	NS	1270 *	112	548 *	457	1210	540
	Manganese	6.6 *	NS	NS	3.74	9.41	33.9 *	10.5 *N	11.4 *	NS	43.1 *	5.3	21.8 *	19.7	42.5	21.9
	Mercury	0.03 B	NS	NS	0.074	0.12	0.198	0.056	0.044	0.0729	0.29 N	0.095 B	0.12 B*	0.122 B	0.304	0.153 B
	Nickel	9.3 U	NS	NS	2	2.77 B	7.51	3.13	3.3 *	NS	12.1 *	1.7	5.4	6.16	12.5	6.33
	Potassium	171 U	NS	NS	131 B	308 B	488	285 N	355 E*N	NS	917	90.2 *	285 *	331	614	333
	Selenium	0.31 B	NS	NS	1.43	2.68	1.59	0.993 B	0.817 B	NS	2.24 U	1.78 U	1.95 U	1.59 U	1.71 B	1.75 B
	Silver	1.2 U	NS	NS	0.198 B	0.175 U	0.363 U	0.338 U	0.2 U	NS	0.373 U	0.297 U	0.378 U	0.492 B	0.956 B	0.375 U
	Sodium	40.9 B	NS	NS	32.2 B	58.4 B	87.2	44.3	21 B	NS	115	19.5 B	52.2 B	52 B	159	52.3 B
	Thallium	0.31 U,	NS	NS	0.723 B	0.779 U	1.57 U	0.724 U	2.22 U	NS	1.86 U	1.48 U	0.32 B	0.191 U	0.296 B	0.248 U
	Vanadium	4.2 B	NS	NS	4.27 B	8.33 B	35.8	9.46	10.3 *	NS	53.3 *	5.9 *	19.8 *	23.4	46.2	23
	Zinc	R	NS	NS	15.4	16.5	61.7	22.3	20.4 *	NS	83 *	13.3 *	32.3	38	78.9	55.6
	Cyanide	3.9 U	NS	NS	NA	NA	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS

Table 3
Annual Wooded Wetland Report
Sediment Sample Results - Metals Analysis

LOCATION	CONTAMINANT	SAMPLES COLLECTED														
	Units : mg/Kg	1994	1997	Jun-99	Aug-00	Jun-01	May-02	May-03	May-04	May-05	May-06	May-07	May-08	May-10	May-12	May-14
SD-12	Aluminum	7,220 *	NS	30,300	4,420	27,900	20,600	13,600 *	10,500 *	NS	9750	31900 *N	37500 *	16300	19400	18900
(SD-D)	Antimony	8.7 U	NS	0.6 U	0.247 U	0.734 B	1.34 BN	1.61 B	1.03 BN	NS	0.804 U	7.2	0.96 U	0.944 U	0.976 U	0.802 U
	Arsenic	0.76 B,	NS	5	0.981	6.58 B	4.46	4.17	2.17	NS	1.9 B	7.8	5.8	9.55	3.35	7.97
	Barium	17.4 B	NS	85.9	32	77.5	68.2	49.5	46.5	NS	49.8	85.9 *	107 *	53.4	59.3	59.1
	Beryllium	0.25 U	NS	0.73 B	0.129 B	0.82 B	0.546 B	0.348 B	0.399 B	NS	0.29 B	0.81 B	1.1 B	0.473 B	0.928 B	1 B
	Cadmium	1.2 U	NS	0.54 B	0.148 B	0.724 B	0.241 B	0.199 B	0.096 U	NS	0.43 B	0.31 B	0.48 B	0.286 U	0.296 U	0.243 U
	Calcium	379 B	NS	1,820	964	2,780	2,020 *	2,260 *N	1,870 N	NS	1500	2310	2170 N	2500	2370	2870 N
	Chromium	7.8	NS	22.1	4.7	27.8	20.3	13.3	10.9 *	NS	10.7	30.3 *	36.1 *	16	19.1	19.3
	Cobalt	2.5 B	NS	5.3 B	0.428 B	6.59 B	3.82	3.09	1.65	NS	1.3	7	8.8	4.32	4.37	5
	Copper	R	NS	44.6	7.41	36.6	26.4	20.2	13.6	NS	11.5 *	38.1 *	48.9	24.4	22.8	30.1
	Iron	5,150	NS	22,000	1,840	18,700	11,700	8,940 *N	5,960	NS	5370 EN	21800 N	26800 *N	11800	13700	14600 N
	Lead	10.4 NJ	NS	86.3	6.11	71.1	59.8 N	42.3	25.5 *	NS	21.8 *	93.6 *	83.4 *EN	113	57.4	135
	Magnesium	943 B	NS	2220	207 B	3,020	1,610	885 *N	672 *	NS	630 *	3530	3970 *	1760	1960	2140
	Manganese	56 *	NS	125	4.12	147	73.3 *	48.4 *N	33.4 *	NS	23 *	134	148 *	97.3	96.7	102
	Mercury	0.03 B	NS	0.37	0.074	0.272	0.215	0.214	0.079	0.203	0.3 N	0.2 B	0.32 *	0.225	0.192 B	0.43
	Nickel	7.5 U	NS	16.5	2.04	19.6	11.6	7.9	5.5 *	NS	5.1 *	20.2	25.1	11.9	12.4	14
	Potassium	292 B	NS	766 B	130 B	1,300 B	774	611 N	570 E*N	NS	551	1000 *	881 *	611	608	531
	Selenium	0.25 U	NS	2.2	1.22	2.01	1.74	1.44	1.23	NS	1.21 U	8.08 U	1.53 U	1.57 B	1.09 B	0.939 B
	Silver	1 U	NS	1.3 B	0.146 B	0.441 U	0.284 U	0.47 U	0.18 U	NS	0.201 U	4.7	0.31 U	0.63 B	0.797 B	0.438 B
	Sodium	29.8 B	NS	106 B	31.4 B	133 B	81.1	69.4	26.5	NS	57.7	81.4	95.4	53.7 B	105	48.3 B
	Thallium	0.25 U	NS	1.8 U	0.323 U	1.03 U	1.23 U	1.01 U	2.46	NS	1.01 U	1.4 B	0.37 B	0.446 B	0.215 B	0.424 B
	Vanadium	10.8 B	NS	54.5	3.49 B	59.9	45.7	31.1	18.7 *	NS	17.2 *	64.7 *	80.6 *	38	41.3	46.7
	Zinc	R	NS	123	5.91	137	70.3	38.4	22.3 *	NS	23.4 *	127 *	179	87.1	76.9	104
	Cyanide	3.1 U	NS	0.708	NA	NA	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS

Table 3
Annual Wooded Wetland Report
Sediment Sample Results - Metals Analysis

LOCATION	CONTAMINANT	SAMPLES COLLECTED														
	Units : mg/Kg	1994	1997	Jun-99	Aug-00	Jun-01	May-02	May-03	May-04	May-05	May-06	May-07	May-08	May-10	May-12	May-14
SD-13	Aluminum	9,100 *	NS	8,360	2,090	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
(SD-E)	Antimony	9.2 U	NS	0.51 U	0.194 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Arsenic	1.2 B,	NS	1 B	0.46 B	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Barium	22.7 B	NS	21.7	10.2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Beryllium	0.26 U	NS	0.08 B	0.055 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Cadmium	1.3 U	NS	0.18 B	0.083 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Calcium	640 B	NS	993 B	264 B	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Chromium	9.1	NS	5.3	2.58	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Cobalt	2.7 B	NS	0.64 B	0.124 B	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Copper	8.1	NS	9.5	1.42	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Iron	7,040 *	NS	3,340	781	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Lead	15.8 NJ	NS	39.9 B	5.14	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Magnesium	1190 B	NS	312	108 B	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Manganese	85 *	NS	16	3.96	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Mercury	0.06 B	NS	0.13	0.054	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nickel	7.9 U	NS	3.2	0.848	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Potassium	300 B	NS	209 B	113 B	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Selenium	0.26 U	NS	0.89 B	0.502 B	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Silver	1.1 U	NS	0.35 B	0.113 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Sodium	48.4 B	NS	76.1 B	14.1 B	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Thallium	0.26 U	NS	1.5 U	0.254 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Vanadium	16.3	NS	14.9	2.99 B	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Zinc	27.9	NS	17.3	4.35	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Cyanide	3.3 U	NS	0.847	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Table 3
Annual Wooded Wetland Report
Sediment Sample Results - Metals Analysis

LOCATION	CONTAMINANT	SAMPLES COLLECTED														
	Units : mg/Kg	1994	1997	Jun-99	Aug-00	Jun-01	May-02	May-03	May-04	May-05	May-06	May-07	May-08	May-10	May-12	May-14
SD-2001	Aluminum	NS	NS	NS	1,780	46,900	15,800	14,900 *	11,600 *	NS	7030	16300 *N	11800 *	46400	5100	17800
	Antimony	NS	NS	NS	0.226 U	0.821 U	1.32 UN	1.44 B	0.953 BN	NS	0.87 U	4	0.932 U	0.811 U	0.533 U	1.22 U
	Arsenic	NS	NS	NS	0.566 B	9.03	4.21	4.4	2.23	NS	1.5 B	5.3	3.8	11.2	0.844 B	5.47
	Barium	NS	NS	NS	5.25	118	52.9	52.1	45.4	NS	56.9	59.1 *	42.7 *	114	37.3	57.9
	Beryllium	NS	NS	NS	0.064 U	1.23 B	0.434 B	0.359 B	0.397 B	NS	0.28 B	0.46 B	0.36 B	1.36	0.365 B	0.935 B
	Cadmium	NS	NS	NS	0.096 U	1.07 B	0.277 B	0.249 B	0.102 U	NS	0.27 B	0.242 U	0.301 U	0.481 B	0.161 U	0.371 U
	Calcium	NS	NS	NS	216 B	2,310 B	1,900 *	1,720 *N	1,430 N	NS	1370	1910	1840 N	2500	1230	2870 N
	Chromium	NS	NS	NS	2.41	45.5	15.7	15.1	11.4 *	NS	7.8	15.3 *	11.2 *	44.6	5.25	17.6
	Cobalt	NS	NS	NS	0.347 B	8.87 B	2.98	3.16	1.7	NS	0.93 B	2.9	2.2	9.21	0.8 B	2.94
	Copper	NS	NS	NS	1.48	52.9	23.3	21.2	11.6	NS	8.5 *	22.4 *	20.1	67.2	7.13	33.3
	Iron	NS	NS	NS	1,120	25,600	8,720	7,180 *N	5,690	NS	2540 EN	9510 N	7130 *N	27700	3410	9140 N
	Lead	NS	NS	NS	9.99	145	57 N	60.8	29.7 *	NS	9 *	59.3 *	76.9 *EN	137	10	110
	Magnesium	NS	NS	NS	239 B	3,940	1,210	853 *N	675 *	NS	315 *	1180	837 *	3810	179	1180
	Manganese	NS	NS	NS	12.4	158	69.3 *	41.2 *N	40.4 *	NS	21.3 *	57.9	41 *	166	16.1	71.3
	Mercury	NS	NS	NS	0.064	0.727	0.192	0.18	0.098	0.116	0.13 BN	0.14 B	0.23 *	0.735	0.0362 B	0.335
	Nickel	NS	NS	NS	1.43	28	10.1	9.12	5.73 *	NS	3.6 *	9.5	7.8	28.5	3.05	11.5
	Potassium	NS	NS	NS	113 B	1,780	603	599 N	570 E*N	NS	354	457 *	327 *	1280	152	524
	Selenium	NS	NS	NS	0.365 B	2.42	1.4	1.31	0.623 B	NS	1.31 U	1.45 U	1.55 U	1.93 B	0.768 B	2.23 B
	Silver	NS	NS	NS	0.131 U	0.689 B	0.316 U	0.441 U	0.192 U	NS	0.218 U	2.1	0.301 U	1.04 B	0.22 B	0.641 B
	Sodium	NS	NS	NS	14.4 B	149 B	74.7	74.9	21.8	NS	51.1	37.5	42.8 B	86.7	37.5 B	76.9 B
	Thallium	NS	NS	NS	0.295 U	1.2 U	1.37 U	0.943 U	3.05	NS	1.09 U	1.6 B	0.27 B	0.405 B	0.101 U	0.376 B
	Vanadium	NS	NS	NS	5.26 B	107	40	41.5	22.6 *	NS	7.9 *	34.7 *	34.5 *	109	7.62	56.7
	Zinc	NS	NS	NS	7.34	186	76.6	42.1	24.2 *	NS	17.7 *	57 *	49.9	203	13.1	75.7
	Cyanide	NS	NS	NS	NA	NA	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS

Table 3
Annual Wooded Wetland Report
Sediment Sample Results - Metals Analysis

LOCATION	CONTAMINANT	SAMPLES COLLECTED														
	Units : mg/Kg	1994	1997	Jun-99	Aug-00	Jun-01	May-02	May-03	May-04	May-05	May-06	May-07	May-08	May-10	May-12	May-14

NOTES:

1994 Samples were collected from 0.0 ' to 0.5'

Number in parenthesis ( ) indicates alternate identification for same location.

NA Not available

NS Not sampled

U Analyte was analyzed for but not detected.

N - Spike sample recovery was not within control limits

J - Estimated value; concentration below method detection limit.

* - Duplicate precision is not within control limits.

B - Concentraion less than the contract required detection limit, but greater than or equal to the instrument detection limit.

Table 4
Annual Wooded Wetland Report
Surface Water Sample Results - Metals Analysis

Location	Contaminant	SAMPLES COLLECTED															
	UNITS ug/L	1994	1997	Jun-99	Aug-00	Jun-01	May-02	May-03	May-04	May-05	May-06	May-07	May-08	May-10	May-12	May-14
SW-5S	Aluminum	38,600	304	1,240	253	385	445 E	429	434	210	301	305	278	199	184	263
(SWB)	Antimony	35 U	2.5 U	1.9 U	4.14 U	2.65 U	4.79 U	3.46 U	5.08 U	4 U	0.5 U	0.5 U	0.5 U	0.6 U	1 U	1 U
	Arsenic	8.7 B	1.1 U	2.7 U	2.09 U	4.47 B	3.97 U	3.31 U	2.24 U	6 U	1.5 U	1.5 U	1.5 U	1.66 U	1.7 U	1.7 U
	Barium	136 B	11.7 B	19.6	5.32 B	7.7 B	6.32 B	6.91 B	10.2 B	5.1	5	7.8	6.1	6.57	5.52	5.01
	Beryllium	1.2 U	0.1 B	0.14 U	0.46 U	0.158 U	0.185 U	0.21 U	0.158 U	1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.2 U	0.2 U
	Cadmium	5 U	0.2 U	0.44 B	0.69 U	0.274 B	0.21 U	0.66 U	0.313 U	1 U	0.1 U	0.1 U	0.1 U	0.156 B	0.11 U	0.11 U
	Calcium	29,700	8,860	5,520	2,360 B	3,170 B	3,590 B	2,450 B	2,720 B	2,960	2,170	3090	3270	7740	3620	2720
	Chromium	32.1 U	0.7 U	2.8 B	1.03 B	0.774 B	0.781 B	1.69 U	0.892 B	1.3 B	1 U	1.3 B	1 U	1.23 B	2 U	2 U
	Cobalt	18.7 B	1.3 U	1.1 B	0.91 U	0.679 B	0.581 U	1.71 B	0.918 B	1 U	0.46 B	0.53 B	0.52 B	0.472 B	0.256 B	0.282 B
	Copper	56.2	0.9 U	13.4	1.63 U	2.24 B	1.52 B	2.58 B	1.39 U	3 U	1.8	2.8	1.2	2.03	2.57	1.48
	Iron	44,000	347	3,740	1,120	1,100	890	779	1,210	832	757	1220	1170	696	390	506
	Lead	NA	2.2 B	5.3	1.38 U	1.47 U	2.16 B	2.4 U	1.72 U	2.5 U	1.1 B	0.89 B	0.95 B	0.955 B	0.5 U	0.591 B
	Magnesium	12,500	2,460 B	1,560 B	985 B	1,060 B	1,230 B	774 B	848 B	939	768	996 E	1030 E	878	1180	851
	Manganese	1,410	96.1	383	181	339	227	153	176	21	171	215	217	220	174	200
	Mercury	0.25 B	0.1 U	0.13 B	0.05 B	0.057 U	0.04 U	0.095 U	0.047 U	0.05 U	0.06 U	0.06 U	0.03 U	0.066 U	0.067 U	0.067 U
	Nickel	30 U	1.6 U	7.6	1.29 U	1.91 B	2.09 B	1.64 U	1.19 B	3.8 B	1.8 B	2	1.8 B	1.73 B	1.43 B	1.22 B
	Potassium	5,720 B	2,430 B	4,790 B	2,340 B	3,470 B	2,700 B	2,010 B	1,860 B	2,240	2,070	2350	2700	2560	2340	1990
	Selenium	1 U	2.4 U	2.6 B	3.66 U	2.93 U	2.67 U	3.39 U	2.81 U	6 U	2.5 U	2.5 U	1 U	1 U	1.5 U	1.5 U
	Silver	4 U	0.8 U	0.89 U	0.94 U	0.871 U	1.15 U	1.7 U	0.835 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
	Sodium	7,200	3,500 B	4,250 B	1,840 B	2,670 B	2,620 B	2,290 BE	2,530 B	3,020	2,550	3200	3580 N	3040	2790	3310
	Thallium	1 U	1.9 U	5.6 U	2.11 U	3.88 U	4.99 U	3.64 U	10 U	5 U	0.4 U	0.4 U	0.3 U	0.3 U	0.45 U	0.45 U
	Vanadium	74.9 B	3.4 B	9.2 B	1.94 B	2.84 B	2.32 B	4.13 B	2.83 B	1.3 B	2 U	2 U	2 U	2 U	1.07 B	1.29 B
	Zinc	252	47.5	65.8	8.12 B	12.4 B	13.7 B	34.4	15.4 B	12.2	15.1	28.6	13.6	19	13.7	12.1

Table 4
Annual Wooded Wetland Report
Surface Water Sample Results - Metals Analysis

Location	Contaminant	SAMPLES COLLECTED														
	UNITS ug/L	1994	1997	Jun-99	Aug-00	Jun-01	May-02	May-03	May-04	May-05	May-06	May-07	May-08	May-10	May-12	May-14
SW- 6	Aluminum	NS	762	110,000	503	523	541 E	413	346	539	405	284	372	284	287	363
(SW-C)	Antimony	NS	2.5 U	3.7 U	4.14 U	2.65 U	4.79 U	3.46 U	5.08 U	4 U	0.5 U	0.5 U	0.5 U	0.6 U	1 U	1 U
	Arsenic	NS	1.1 U	19.8	2.09 U	2.33 U	3.97 U	3.31 U	2.24 U	6 U	2.4 B	1.5 U	1.5 U	1.66 U	1.7 U	1.7 U
	Barium	NS	13.8 B	507	9.62 B	7.9 B	7.37 B	5.89 B	5.74 B	8	6.5	4.8	6.2	5.61	7.02	6.95
	Beryllium	NS	0.1 B	3.3 B	0.46 U	0.158 U	0.185 U	0.21 U	0.158 U	1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.2 U	0.2 U
	Cadmium	NS	0.1 B	7.4 B	0.69 U	0.272 U	0.21 U	0.66 U	0.313 U	1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.11 U	0.11 U
	Calcium	NS	7,000	28,400	2,660 B	2150 B	2450 B	1540 B	1450 B	2520	1700	1280	2060	2700	2520	2110
	Chromium	NS	0.7 U	99.4	1.41 B	0.779 B	0.533 B	1.69 U	0.643 B	1.2 B	1.3 B	1 U	1 U	1 U	2 U	2 U
	Cobalt	NS	1.3 U	22.7 B	0.91 U	0.419 U	0.581 U	1.33 B	0.738 B	1 U	0.58 B	0.46 B	0.57 B	0.488 B	0.475 B	0.453 B
	Copper	NS	8.1 B	165	1.92 B	2.48 B	1.55 B	1.91 B	1.39 U	3 U	1.8	1	2.9	1.06	2.64	1.81
	Iron	NS	692	77,500	2,140	1,250	725	522	595	1,470	890	928	885	886	668	752
	Lead	NS	4.4	887	1.38 U	1.47 U	1.24 U	2.4 U	1.72 U	2.5 U	0.89 B	0.51 B	0.81 B	0.65 B	0.631 B	0.78 B
	Magnesium	NS	2,690 B	13200	860 B	810 B	982 B	642 B	624 B	883	717	626 E	710 E	635	943	698
	Manganese	NS	256	1,280	107	106	133	78.1	71.6	124	89.3	62.4	92.1	76.9	93.1	93.5
	Mercury	NS	0.1 U	1	0.085 B	0.057 U	0.04 U	0.095 U	0.047 U	0.05 U	0.06 U	0.06 U	0.03 U	0.066 U	0.067 U	0.067 U
	Nickel	NS	3.4 B	121	1.93 B	2.07 B	2.07 B	1.64 U	1.07 B	2.5 B	2.3	1.6 B	4.1	1.78 B	2.04	1.86 B
	Potassium	NS	2,610 B	9,990 B	1,940 B	2,360 B	1,920 B	1,180 B	1,270 B	2,240	1,380	1880	2010	1600	2180	1890
	Selenium	NS	2.4 U	10 B	3.66 U	3.46 B	2.67 U	3.61 B	3.5 B	6 U	2.5 U	2.5 U	1 U	1 U	1.5 U	1.5 U
	Silver	NS	0.8 U	2.3 B	0.94 U	0.871 U	1.15 U	1.7 U	0.835 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
	Sodium	NS	3,330 B	4,350 B	2,070 B	2,920 B	3,180 B	2,270 BE	2,560 B	3,390	2,660	3430	3750 N	2930	3450	3410
	Thallium	NS	1.9 U	11.3 U	2.11 U	3.88 U	4.99 U	3.64 U	10 U	5 U	0.4 U	0.4 U	0.3 U	0.3 U	0.45 U	0.45 U
	Vanadium	NS	9.1 B	348	3.19 B	2.94 B	3.33 B	4.71 B	1.51 B	2 B	2 U	2 U	2 U	2 U	1.29 B	1.91 B
	Zinc	NS	53.2	699	16.8 B	14.1 B	14.4 B	29.9	11.5 B	20.4	14	9.8 B	15.2	11.1	14	27.6

Table 4
Annual Wooded Wetland Report
Surface Water Sample Results - Metals Analysis

Location	Contaminant	SAMPLES COLLECTED														
	UNITS ug/L	1994	1997	Jun-99	Aug-00	Jun-01	May-02	May-03	May-04	May-05	May-06	May-07	May-08	May-10	May-12	May-14
SW- 16	Aluminum	NS	NS	NS	NS	928	521 E	446	543	618	1110	208	245	234	236	335
	Antimony	NS	NS	NS	NS	2.65 U	4.79 U	3.46 U	5.08 U	4 U	0.5 U	0.5 U	0.5 U	0.6 U	1 U	1 U
	Arsenic	NS	NS	NS	NS	2.33 U	3.97 U	3.31 U	2.24 U	6 U	1.5 U	1.5 U	1.5 U	1.66 U	1.7 U	1.7 U
	Barium	NS	NS	NS	NS	27.3 B	11.2 B	8.81 B	11.7 B	9.8	11.6	5.4	7	9.1	8.62	7.04
	Beryllium	NS	NS	NS	NS	0.158 U	0.185 U	0.21 U	0.158 U	1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.2 U	0.2 U
	Cadmium	NS	NS	NS	NS	0.272 U	0.21 U	0.66 U	0.313 U	1 U	0.11 B	0.1 U	0.1 U	0.1 U	0.11 U	0.11 U
	Calcium	NS	NS	NS	NS	5,480	6,040	4,200 B	3,150 B	3,790	3,880	2250	3100	4790	5550	3590
	Chromium	NS	NS	NS	NS	1.31 B	0.723 B	2.07 B	1.26 B	1.5 B	1.9 B	1.1 B	1.1 B	1.26 B	2 U	2 U
	Cobalt	NS	NS	NS	NS	0.627 B	0.581 U	1.69 B	0.812 B	1 U	0.88 B	0.41 B	0.41 B	0.947 B	0.426 B	0.422 B
	Copper	NS	NS	NS	NS	3.3 B	2.21 B	3.09 B	1.39 U	3 U	3.7	0.94 B	1.1	2.38	2.3	2.22
	Iron	NS	NS	NS	NS	2,320	1,330	1,430	1,480	1,820	2,200	1010	985	2820	643	863
	Lead	NS	NS	NS	NS	3.86	1.39 B	2.4 U	1.72 U	2.5 U	3.7	0.52 B	0.85 B	1.03 B	1.07 B	1.11 B
	Magnesium	NS	NS	NS	NS	1,420 B	1,580 B	1,120 B	922 B	1,000	1,180	790 E	839 E	1050	1520	929
	Manganese	NS	NS	NS	NS	156	158	116	83.6	120	136	69	76.3	176	97	109
	Mercury	NS	NS	NS	NS	0.057 U	0.04 U	0.095 U	0.047 U	0.05 U	0.06 U	0.06 U	0.03 U	0.066 U	0.067 U	0.067 U
	Nickel	NS	NS	NS	NS	2.81 B	2.23 B	1.64 U	1.03 B	2.1 B	3.2	1.5 B	1.4 B	1.81 B	1.66 B	1.58 B
	Potassium	NS	NS	NS	NS	2,730 B	2,270 B	1,730 B	1,590 B	1,830	1,990	1620	1580	2060	1830	1680
	Selenium	NS	NS	NS	NS	2.93 U	2.67 U	3.39 U	2.81 U	6 U	2.5 U	2.5 U	1 U	1 U	1.5 U	1.5 U
	Silver	NS	NS	NS	NS	0.871 U	1.15 U	1.7 U	0.835 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
	Sodium	NS	NS	NS	NS	2,520 B	2,680 B	2,170 BE	2,400 B	2,700	2,620	3040	2840 N	4360	2660	3210
	Thallium	NS	NS	NS	NS	3.88 U	4.99 U	3.64 U	10 U	5 U	0.4 U	0.4 U	0.3 U	0.3 U	0.45 U	0.45 U
	Vanadium	NS	NS	NS	NS	4.61 B	2.96 B	5.02 B	3.44 B	4 B	3 B	2 U	2.3 B	2.31 B	1.16 B	2.58 B
	Zinc	NS	NS	NS	NS	15.5 B	14.6 B	34	14.8 B	17.1	28	20.3	10.6	16.4	14.4	25.1

Table 4
Annual Wooded Wetland Report
Surface Water Sample Results - Metals Analysis

Location	Contaminant	SAMPLES COLLECTED														
	UNITS ug/L	1994	1997	Jun-99	Aug-00	Jun-01	May-02	May-03	May-04	May-05	May-06	May-07	May-08	May-10	May-12	May-14
SW-17	Aluminum	NS	NS	1,260	NS	612	441 E	490	485	357	310	163	166	192	168	319
(SW-A)	Antimony	NS	NS	2 U	NS	2.65 U	4.79 U	3.46 U	5.08 U	4 U	0.5 U	0.5 U	0.5 U	0.6 U	1 U	1 U
	Arsenic	NS	NS	2.7 U	NS	3.21 B	3.97 U	3.31 U	2.24 U	6 U	1.5 U	1.5 U	1.5 U	1.66 U	1.7 U	1.7 U
	Barium	NS	NS	21.6	NS	36 B	14.6 B	10.3 B	13 B	8.3	6.6	8	8.8	6.82	8.05	6.35
	Beryllium	NS	NS	0.14 U	NS	0.158 U	0.185 U	0.21 U	0.158 U	1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.2 U	0.2 U
	Cadmium	NS	NS	0.34 U	NS	0.272 U	0.21 U	0.66 U	0.313 U	1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.11 U	0.11 U
	Calcium	NS	NS	8,570	NS	9,120	7,900	6,930	3,920 B	4,820	3,420	3030	4650	4340	8090	3530
	Chromium	NS	NS	3 B	NS	1.73 B	1.16 B	1.69 U	0.984 B	10	1 U	1 U	1 B	1.21 B	2 U	2 U
	Cobalt	NS	NS	1.1 B	NS	1.49 B	0.759 B	1.82 B	0.754 B	1 U	0.54 B	0.39 B	0.37 B	0.548 B	0.37 B	0.358 B
	Copper	NS	NS	5	NS	4.2 B	2.21 B	3.26 B	1.39 U	17.6	1.5	0.7 B	0.95 B	1.02	1.84	1.57
	Iron	NS	NS	5,410	NS	5430	1650	1120	1170	2320	1130	1010	1020	1550	626	762
	Lead	NS	NS	6	NS	3.31	2.04 B	2.4 U	1.72 U	2.5 U	1.1 B	0.5 U	0.72 B	0.607 B	0.506 B	1.13 B
	Magnesium	NS	NS	1,950 B	NS	1,950 B	1,780 B	1,530 B	1,050 B	1,130	964	980 E	1120 E	1020	1760	958
	Manganese	NS	NS	240	NS	469	150	157	102	136	110	71.3	77.9	104	83.9	82.8
	Mercury	NS	NS	0.12 U	NS	0.057 U	0.04 U	0.095 U	0.047 U	0.05 U	0.06 U	0.06 U	0.03 U	0.066 U	0.067 U	0.067 U
	Nickel	NS	NS	6	NS	3.28 B	2.27 B	1.64 U	1.04 B	6.7	1.8 B	1.5 B	1.1 B	1.58 B	1.17 B	1.26 B
	Potassium	NS	NS	2,480 B	NS	3,310 B	2,400 B	1,960 B	1,550 B	1,910	1,810	1600	1520	1570	1510	1420
	Selenium	NS	NS	2.1 B	NS	3 U	3 U	3 U	3 U	6 U	3 U	2.5 U	1 U	1 U	1.5 U	1.5 U
	Silver	NS	NS	0.89 U	NS	0.871 U	1.15 U	1.7 U	0.835 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
	Sodium	NS	NS	3,610 B	NS	2,560 B	2,470 B	2,050 BE	2,220 B	2,580	2,260	2880	2640 N	4030	2650	3130
	Thallium	NS	NS	6 U	NS	3.88 U	4.99 U	3.64 U	10 U	5 U	0.4 U	0.4 U	0.3 U	0.3 U	0.45 U	0.45 U
	Vanadium	NS	NS	6.5 B	NS	7.54 B	4.11 B	4.25 B	2.63 B	3.4 B	2 U	2 U	2.1 B	2 U	1 U	1.55 B
	Zinc	NS	NS	31.5	NS	24	14.2 B	30.1	16.6 B	14	17.5	7 B	11.5	9.78 B	7.11 B	15.3

Table 4
Annual Wooded Wetland Report
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Location	Contaminant	SAMPLES COLLECTED														
	UNITS ug/L	1994	1997	Jun-99	Aug-00	Jun-01	May-02	May-03	May-04	May-05	May-06	May-07	May-08	May-10	May-12	May-14
SW- 4	Aluminum	829	NS	NS	179 B	1,500	1,320 E	326	258	356	461	198	315	217	332	339
	Antimony	35 U	NS	NS	4.14 U	2.65 U	4.79 U	3.46 U	5.08 U	5.1 B	0.5 U	0.5 U	0.5 U	0.6 U	1 U	1 U
	Arsenic	1.3 B	NS	NS	2.09 U	2.33 U	3.97 U	3.31 U	2.24 U	6 U	1.7 B	1.5 U	1.5 U	1.66 U	1.7 U	1.7 U
	Barium	21.9 B	NS	NS	17.4 B	77.9 B	15.1 B	6.39 B	8.11 B	9.9	16.2	8.4	10	14.2	11.2	7.19
	Beryllium	1 U	NS	NS	0.46 U	0.158 U	0.185 U	0.21 U	0.158 U	1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.2 U	0.2 U
	Cadmium	5 U	NS	NS	0.69 U	0.272 U	0.21 U	0.66 U	0.313 U	1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.11 U	0.11 U
	Calcium	8,150	NS	NS	16,400	7,230	5,350	3,630 B	4,300 B	4,290	4,000	5180	4880	5540	4710	4030
	Chromium	5 JUB	NS	NS	0.87 U	1.62 B	1.62 B	1.99 B	0.795 B	4.4 B	1 U	1 U	1.1 B	1 U	2 U	2 U
	Cobalt	5	NS	NS	0.91 U	1.84 B	0.581 U	1.68 B	0.903 B	1 U	0.48 B	0.46 B	0.4 B	0.688 B	0.496 B	0.339 B
	Copper	8.5 B	NS	NS	1.63 U	5.79 B	3.79 B	2.59 B	1.39 U	10.4	3.5	2.7	1.8	1.03	2.54	2.08
	Iron	3930	NS	NS	2,600	3,670	1,760	499	996	1,640	702	1190	1100	1500	966	666
	Lead	NA	NS	NS	1.38 U	5.61	3.53	2.4 U	1.72 U	4.9 B	1.5 B	0.78 B	1.2 B	0.6 B	0.908 B	1.2 B
	Magnesium	4,260 B	NS	NS	2,780 B	2,170 B	1,930 B	1,340 B	1,560 B	1,520	1,490	1850 E	1860 E	2240	1610	1420
	Manganese	146	NS	NS	135	312	69.5	39.6	112	47.2	23.1	36.6	35	47.1	49.8	33.3
	Mercury	0.2 B	NS	NS	0.109 B	0.057 U	0.04 U	0.095 U	0.047 U	0.05 U	0.06 U	0.06 U	0.081 B	0.066 U	0.067 U	0.067 U
	Nickel	30 U	NS	NS	1.29 U	3.5 b	2.14 B	1.64 U	0.69 U	2.2 B	1.3 B	1.8 B	1.4 B	1.5 B	1.44 B	1.21 B
	Potassium	2,130 B	NS	NS	3,350 B	2,980 B	2,200 B	1,380 B	1,560 B	1,920	1,260	1690	1770	1460	1940	1240
	Selenium	1 U	NS	NS	3.66 U	2.93 U	2.67 U	3.84 B	2.81 U	6 U	2.5 U	2.5 U	1 U	1 U	1.5 U	1.5 U
	Silver	4 U	NS	NS	0.94 U	0.871 U	1.15 U	1.8 B	0.835 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
	Sodium	6,850	NS	NS	2,410 B	2,860 B	2,960 B	2,390 BE	2,570 B	2,970	2,320	3920	3690 N	5600	3440	3870
	Thallium	1 U	NS	NS	2.48 B	3.88 U	4.99 U	3.64 U	10 U	5 U	0.4 U	0.4 U	0.3 U	0.404 B	0.45 U	0.45 U
	Vanadium	9 U	NS	NS	2.05 B	6.95 B	4.03 B	4.06 B	1.38 B	2.6 B	2 U	2 U	2.5 B	2 U	1.38 B	1 U
	Zinc	33.3	NS	NS	2.19 U	28	22	55.8	12.2 B	10.7	183	9.9 B	9.4 B	11	11	19.2

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Location	Contaminant	SAMPLES COLLECTED														
	UNITS ug/L	1994	1997	Jun-99	Aug-00	Jun-01	May-02	May-03	May-04	May-05	May-06	May-07	May-08	May-10	May-12	May-14
SW- 5N	Aluminum	NS	NS	945	179 B	575	238 E	1180	133 B	449	394	186	300	189	130	247
(SW-D)	Antimony	NS	NS	1.9 U	4.14 U	2.89 B	4.79 U	3.46 U	5.08 U	4 U	0.5 U	0.5 U	0.5 U	0.6 U	1 U	1 U
	Arsenic	NS	NS	2.7 U	2.09 U	2.33 U	3.97 U	3.31 U	2.24 U	6 U	1.5 U	1.5 U	1.5 U	1.66 U	1.7 U	1.7 U
	Barium	NS	NS	22.8	17.4 B	25.6 B	9.22 B	9.58 B	6.4 B	9.3	6.9	9	9.2	10.4	10.4	7.2
	Beryllium	NS	NS	0.14 U	0.46 U	0.158 U	0.185 U	0.21 U	0.158 U	1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.2 U	0.2 U
	Cadmium	NS	NS	0.34 U	0.69 U	0.272 U	0.21 U	0.66 U	0.313 U	1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.11 U	0.11 U
	Calcium	NS	NS	7,990	16,400	15,700	11,000	10,500	9,730	11,300	7,220	11100	14100	8970	12800	10500
	Chromium	NS	NS	1.4 B	0.87 U	1.06 B	0.532 U	2.12 B	0.558 B	1.7 B	1 U	1 U	1 U	1 U	2 U	2 U
	Cobalt	NS	NS	1.1 B	0.91 U	0.515 B	0.581 U	1.78 B	0.541 U	1 U	0.3 B	0.74 B	0.23 B	0.375 B	0.244 B	0.23 B
	Copper	NS	NS	3.2 B	1.63 U	2.28 B	1.3 U	4.09 B	1.39 U	3 U	3.1	1.9	1.4	1.32	1.72	2.13
	Iron	NS	NS	6,900	2,600	1,290	598	1,070	564	2,000	776	2030	942	1290	734	712
	Lead	NS	NS	3.6 B	1.38 U	2.27 B	1.24 U	2.4 U	1.72 U	2.5 U	0.72 B	0.88 B	1.1 B	0.857 B	0.5 U	0.938 B
	Magnesium	NS	NS	2,560 B	2,780 B	2,850 B	2,110 B	2,010 B	2,010 B	2,000	1,760	2580 E	2560 E	2520	2950	2000
	Manganese	NS	NS	146	135	103	33.2	35.2	18	60	33.8	145	32.2	50.3	61.1	39.4
	Mercury	NS	NS	0.12 U	0.109 B	0.057 U	0.04 U	0.095 U	0.047 U	0.05 U	0.06 U	0.06 U	0.03 U	0.066 U	0.067 U	0.067 U
	Nickel	NS	NS	5 B	1.29 U	1.09 B	0.837 U	1.64 U	0.69 U	1 U	1.1 B	1.5 B	0.9 B	1.24 B	0.945 B	1.2 B
	Potassium	NS	NS	3,910 B	3,350 B	3,160 B	2,210 B	1,600 B	1,370 B	770	1,200	1920	807	908	1430	1000
	Selenium	NS	NS	1.9 U	3.66 U	2.93 U	2.67 U	3.39 U	2.81 U	6 U	2.5 U	2.5 U	1 U	1 U	1.5 U	1.5 U
	Silver	NS	NS	0.89 U	0.94 U	0.871 U	1.15 U	2 B	0.835 U	1.1 B	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
	Sodium	NS	NS	3,870 B	2,410 B	2,280 B	2,160 B	1,650 BE	1,830 B	2,080	2,090	2680	2330 N	3900	2680	2530
	Thallium	NS	NS	5.6 U	2.48 B	3.88 U	4.99 U	3.64 U	10 U	5 U	0.4 U	0.4 U	0.3 U	0.3 U	0.45 U	0.45 U
	Vanadium	NS	NS	4.6 B	2.05 B	2.56 B	1.27 B	4.4 B	1.06 B	4.1 B	2 U	2 U	2.6 B	2 U	1 U	1.75 B
	Zinc	NS	NS	21.9	2.19 U	4.96 B	4.54 B	25.4	7.02 B	5.9 B	8.4 B	6.6 B	3.3 B	5.23 B	4.66 B	16.6

Table 4
Annual Wooded Wetland Report
Surface Water Sample Results - Metals Analysis

Location	Contaminant	SAMPLES COLLECTED														
	UNITS ug/L	1994	1997	Jun-99	Aug-00	Jun-01	May-02	May-03	May-04	May-05	May-06	May-07	May-08	May-10	May-12	May-14
SW- E	Aluminum	NS	NS	1,170	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Antimony	NS	NS	1.9 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Arsenic	NS	NS	2.7 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Barium	NS	NS	30.4	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Beryllium	NS	NS	0.14 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Cadmium	NS	NS	0.34 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Calcium	NS	NS	8,410	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Chromium	NS	NS	3.9 B	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Cobalt	NS	NS	2.3 B	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Cooper	NS	NS	6.4	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Iron	NS	NS	6,970	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Lead	NS	NS	4.5 B	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Magnesium	NS	NS	2,610 B	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Manganese	NS	NS	323	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Mercury	NS	NS	0.12 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nickel	NS	NS	6.7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Potassium	NS	NS	4,140 B	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Selenium	NS	NS	1.9 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Silver	NS	NS	0.89 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Sodium	NS	NS	3,990 B	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Thallium	NS	NS	5.6 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Vanadium	NS	NS	7.5 B	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Zinc	NS	NS	38.2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Table 4
Annual Wooded Wetland Report
Surface Water Sample Results - Metals Analysis

Location	Contaminant	SAMPLES COLLECTED														
	UNITS ug/L	1994	1997	Jun-99	Aug-00	Jun-01	May-02	May-03	May-04	May-05	May-06	May-07	May-08	May-10	May-12	May-14
SW- 2001	Aluminum	NS	NS	NS	NS	466	427 E	4090	119 B	412	1720	1230	85.7	224	109	251
	Antimony	NS	NS	NS	NS	2.65 U	4.79 U	3.46 U	5.08 U	4 U	0.5 U	0.5 U	0.5 U	0.6 U	1 U	1 U
	Arsenic	NS	NS	NS	NS	2.33 U	3.97 U	3.31 U	2.24 U	6 U	1.5 U	1.5 U	1.5 U	1.66 U	1.7 U	1.7 U
	Barium	NS	NS	NS	NS	42.9 B	11.2 B	20.9 B	6.54 B	8.3	16.2	12.4	8.9	14.9	10	7.16
	Beryllium	NS	NS	NS	NS	0.158 U	0.185 U	0.21 U	0.158 U	1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.2 U	0.2 U
	Cadmium	NS	NS	NS	NS	0.272 U	0.21 U	0.66 U	0.313 U	1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.11 U	0.11 U
	Calcium	NS	NS	NS	NS	15,300	11,700	10,400	9,780	10,300	11,000	11200	11200	9610	12200	9300
	Chromium	NS	NS	NS	NS	0.977 B	0.532 U	4.52 B	0.503 U	1.6 B	1 U	1.6 B	1 U	1 U	2 U	2 U
	Cobalt	NS	NS	NS	NS	0.518 B	0.581 U	2.86 B	0.541 U	1 U	1.4	0.7 B	0.19 B	0.551 B	0.299 B	0.325 B
	Copper	NS	NS	NS	NS	1.94 B	2.74 B	7.14 B	1.39 U	3 U	6.4	3	1.2	2	2.08	2.08
	Iron	NS	NS	NS	NS	1,190	753	3,420	558	1,850	1,990	2080	724	853	680	627
	Lead	NS	NS	NS	NS	1.66 B	1.24 U	8.68	1.72 U	2.5 U	3.2	4	0.5 U	0.871 B	0.5 U	0.93 B
	Magnesium	NS	NS	NS	NS	2,760 B	2,180 B	2,320 B	2,020 B	1,940	2,030	2460 E	2190 E	2480	2350	1870
	Manganese	NS	NS	NS	NS	130	103	105	18.9	60.4	328	98.8	27	181	83.9	86
	Mercury	NS	NS	NS	NS	0.057 U	0.04 U	0.095 U	0.047 U	0.05 U	0.06 U	0.06 U	0.088 B	0.066 U	0.067 U	0.067 U
	Nickel	NS	NS	NS	NS	0.815 U	1.08 B	1.64 U	0.69 U	1.9 B	1.8 B	1.9 B	0.89 B	1.33 B	0.846 B	1.04 B
	Potassium	NS	NS	NS	NS	3,050 B	2,130 B	1,960 B	1,360 B	811	1,580	1660	1160	544	1190	975
	Selenium	NS	NS	NS	NS	2.93 U	2.67 U	3.39 U	2.81 U	6 U	2.5 U	2.5 U	1 U	1 U	1.5 U	1.5 U
	Silver	NS	NS	NS	NS	0.871 U	1.15 U	1.7 U	0.835 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
	Sodium	NS	NS	NS	NS	2,270 B	2,230 B	1,800 BE	1,830 B	2,010	1,430	2380	2400 N	2290	2440	2520
	Thallium	NS	NS	NS	NS	3.88 U	4.99 U	3.64 U	10 U	5 U	0.4 U	0.4 U	0.3 U	0.3 U	0.45 U	0.45 U
	Vanadium	NS	NS	NS	NS	2.32 B	2.13 B	12 B	1.03 B	2.9 B	5.1 B	3 B	2 U	2 U	1 U	1.92 B
	Zinc	NS	NS	NS	NS	4.25 B	5.91 B	72.6	7.05 B	7.7 B	72.5	11.4	8.2 B	17	4.12 B	18.8

NOTES:

1994 Samples were collected from 0.0 ' to 0.5'

Number in parenthesis ( ) indicates alternate identification for same location.

NA Not available

NS Not sampled

U Analyte was analyzed for but not detected.

N - Spike sample recovery was not within control limits

J - Estimated value; concentration below method detection limit.

* - Duplicate precision is not within control limits.

B - Concentraion less than the contract required detection limit, but greater than or equal to the instrument detection limit.

Table 5
Wooded Wetlands-Sediment Results and Benchmark Concentrations
Brookhaven National Laboratory, Upton, New York

South Pond

Contaminant	SD-5 (SD-B)														
units mg/Kg	1994	1997	Jun-99	Aug-00	Jun-01	May-02	May-03	May-04	May-05	May-06	May-07	May-08	May-10	May-12	May-14
Copper	NS	4.8 B	8.1	9.59	9.03	9.65	11.7	10.5	NS	10 *	7.2 *	11.8	15.8	6.18	9.09
Lead	NS	28	19.4	13.4	13	21.1 N	12.7	30.1 *	NS	16 *	22.2 *	13.1 *N	63.4	25.8	27.1
Manganese	NS	41.5	45.1	82.4	123	78.7	88.3 *N	109 *	NS	89 *	54.4	93.8 *	74.2	94.5	55.9
Mercury	NS	0.11 U	0.05	0.098	0.053	0.053	0.021	0.052	0.0512	0.047 BN	0.04 B	0.04 *	0.157 B	0.071 B	0.077 B
Zinc	NS	22.3	25.1	31.4	29.8	31.9	29.5	26.3 *	NS	34 *	23.1 *	27.6 *	31.7	31.6	31.2

Contaminant	SD-16														
units mg/Kg	1994	1997	Jun-99	Aug-00	Jun-01	May-02	May-03	May-04	May-05	May-06	May-07	May-08	May-10	May-12	May-14
Copper	1 B	NS	NS	1.48	0.904	3.78	0.389 B	8.14	NS	2.2 *	9.5 *	8	11.7	3.2	2.4
Lead	4.4 NJ	NS	NS	9.99	3.19	16.1 N	1.7	39.5 *	NS	8.8 *	15 *	15.7 *EN	70.1	12.5	9.83
Manganese	11.5	NS	NS	12.4	9.68	17.7	8.07 *N	45 *	NS	16.7 *	41.5	25.8 *	19.6	19.9	14.3
Mercury	0.001 B	NS	NS	0.064	0.003	0.033	0.005 U	0.028	0.0336	0.027 *	0.038 B	0.05 B	0.089 B	0.034 B	0.025 B
Zinc	4.7 B	NS	NS	7.34	6.48	12.9	2.58	29.1 *	NS	7.3 *	29.9 *	33.5	20.8	18.6	7.24

Contaminant	SD-6 (SD-C)														
units mg/Kg	1994	1997	Jun-99	Aug-00	Jun-01	May-02	May-03	May-04	May-05	May-06	May-07	May-08	May-10	May-12	May-14
Copper	NS	4.8 B	7.8	0.72 B	7.27	1.85	0.549 B	1.37	NS	1.7 *	0.73 B*	0.78 B	2.55	0.531 B	0.755 B
Lead	NS	19.8	63.5	4.62	5.28	9.74 N	1.6	10.3 *	NS	5 *	4.5 *	5.9 *EN	8.54	3.32	4.34
Manganese	NS	29.3	39.3	10.4	144	13.4	9.87 *N	15 *	NS	24 *	8	9.7 *	17.5	13.6	8.99
Mercury	NS	0.1 U	0.18	0.049	0.004	0.011 B	0.006 U	0.019	0.0122	0.014 BN	0.026 B	0.017 B*	0.01 B	0.011 B	0.013 B
Zinc	NS	19.7	26	5.86	27.6	6.45	3.98	6.67 *	NS	9.5 *	4.6 *	4.8	7.16	7.01	4.64

Contaminant	SD-17 (SD-A)														
units mg/Kg	1994	1997	Jun-99	Aug-00	Jun-01	May-02	May-03	May-04	May-05	May-06	May-07	May-08	May-10	May-12	May-14
Copper	2.9 B	NS	8.2	1.64	1.41	1.42	12.6	1.39	NS	7.1 *	8.9 *	5.9	8.09	2.21	1.52
Lead	4.1 NJ	NS	21.3	6.98	6.15	5.29 N	4.71	2.49 *	NS	16.1 *	26 *	23.2 *EN	25.3	7.48	5.06
Manganese	14.8	NS	40.1	10.9	12.3	9.72	16 *N	9.49 *	NS	54.6 *	31.3	27 *	36	14.6	13.3
Mercury	0.02 B	NS	0.03 U	0.038	0.003	0.014	0.012 B	0.012 B	0.0618	0.037 BN	0.064 B	0.067 B*	0.09 B	0.024 B	0.011 B
Zinc	8.8	NS	27.5	7.37	4.6	6.37	6.24	3.4 *	NS	33.7 *	32 *	30.1	29.9	10.2	8.1

South Pond Averages

Contaminant														**Max Sediment Conc.[1]**	**Bkg. Sediment Conc.**
units mg/Kg	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	May-10	May-12	May-14		
Copper	8.03	3.36	4.7	4.2	6.3	5.4	NS	5.3	6.6	6.62	9.535	3.03025	3.44125	29	52.5
Lead	34.73	8.75	6.9	13.1	5.2	20.6	NS	11.5	16.9	14.5	41.8	12.3	11.6	82.9	97.6
Manganese	41.50	29.03	72.2	29.9	30.6	44.6	NS	46.1	33.8	39.08	36.83	35.65	23.12	541	84.3
Mercury	0.09	0.06	0.02	0.03	0.01	0.03	0.04	0.03	0.04	0.04	0.09	0.03	0.03	0.17	0.41
Zinc	26.20	12.99	17.1	14.4	10.6	16.4	NS	21.1	22.4	24	22.39	16.8525	12.795	122	158

Table 5
Wooded Wetlands-Sediment Results and Benchmark Concentrations
Brookhaven National Laboratory, Upton, New York

North Pond

Contaminant	SD-11														
units mg/Kg	1994	1997	Jun-99	Aug-00	Jun-01	May-02	May-03	May-04	May-05	May-06	May-07	May-08	May-10	May-12	May-14
Copper	NA	NS	NS	5.25	7.06	21.3	7.52	7.55	NS	35.8 *	4.9 *	14.5	18.6	33.7	22.2
Lead	6.3 N	NS	NS	8.41	13.2	85.7 N	17.8	16.9 *	NS	122 *	16.6 *	44.5 *EN	85.7	98.9	56.9
Manganese	6.6	NS	NS	3.74	9.41	33.9	10.5 *N	11.4 *	NS	43.1 *	5.3	21.8 *	19.7	42.5	21.9
Mercury	0.030 B	NS	NS	0.074	0.120	0.198	0.056	0.044	0.0729	0.29 N	0.095 B	0.12 B*	0.122 B	0.304	0.153 B
Zinc	NA	NS	NS	15.4	16.5	61.7	22.3	20.4 *	NS	83 *	13.3	32.3	38	78.9	55.6

Contaminant	SD-13 (SD-E)														
units mg/Kg	1994	1997	Jun-99	Aug-00	Jun-01	May-02	May-03	May-04	May-05	May-06	May-07	May-08	May-10	May-12	May-14
Copper	8.1	NS	9.5	1.42	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Lead	15.8 NJ	NS	39.9	5.14	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Manganese	85	NS	16.0	4.0	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Mercury	0.08 B	NS	0.13	0.054	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Zinc	27.9	NS	17.3	4.35	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Contaminant	SD-12 (SD-D)														
units mg/Kg	1994	1997	Jun-99	Aug-00	Jun-01	May-02	May-03	May-04	May-05	May-06	May-07	May-08	May-10	May-12	May-14
Copper	NA	NS	45	7.41	37	26.4	20.2	13.6	NS	11.5 *	38.1 *	48.9	24.4	22.8	30.1
Lead	10.4 NJ	NS	86	6.11	71.1	59.8 N	42.3	25.5 *	NS	21.8 *	93.6 *	83.4 *EN	113	57.4	135
Manganese	56	NS	125	4.12	147	73.3	48.4 *N	33.4 *	NS	23 *	134	148 *	97.3	96.7	102
Mercury	0.03 B	NS	####	0.074	0.272	0.215	0.214	0.079	0.203	0.3 N	0.2 B	0.32 *	0.225	0.192 B	0.43
Zinc	NA	NS	123	5.91	137	70.3	38.4	22.3 *	NS	23.4 *	127 *	179	87.1	76.9	104

Contaminant	SD-2001														
units mg/Kg	1994	1997	Jun-99	Aug-00	Jun-01	May-02	May-03	May-04	May-05	May-06	May-07	May-08	May-10	May-12	May-14
Copper	NS	NS	NS	NS	53	23.3	21.2	11.6	NS	8.5 *	22.4 *	20.1	67.2	7.13	33.3
Lead	NS	NS	NS	NS	145	57 N	60.8	29.7 *	NS	9 *	59.3 *	76.9 *EN	137	10	110
Manganese	NS	NS	NS	NS	158	69.3	41.2 *N	40.4 *	NS	21.3 *	57.9	41 *	166	16.1	71.3
Mercury	NS	NS	NS	NS	0.727	0.192	0.18	0.098	0.116	0.13 BN	0.14 B	0.23 *	0.735	0.036 B	0.335
Zinc	NS	NS	NS	NS	186	76.6	42.1	24.2 *	NS	17.7 *	57 *	49.9	203	13.1	75.7

North Pond Averages

NOTES:

Contaminant														**Max Sediment Conc.[1]**	**Bkg. Sediment Conc.**
units mg/Kg	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	May-10	May-12	May-14		
Copper	27.1	4.7	32.2	23.7	16.3	10.9	NS	18.6	21.8	27.8	36.7	21.2	28.5	29	52.5
Lead	63.1	6.6	76.4	67.5	40.3	24.0	NS	50.9	56.5	68.3	111.9	55.4	100.6	82.9	97.6
Manganese	70.5	3.9	104.8	58.8	33.4	28.4	NS	29.1	65.7	70.3	94.3	51.8	65.1	541	84.3
Mercury	0.25	0.07	0.37	0.20	0.15	0.07	0.13	0.24	0.15	0.22	0.36	0.18	0.31	0.17	0.41
Zinc	70.2	8.6	113.2	69.5	34.3	22.3	NS	41.4	65.8	87.1	109.4	56.3	78.4	122	158

Table 5
Wooded Wetlands-Sediment Results and Benchmark Concentrations
Brookhaven National Laboratory, Upton, New York

[1] Final Focused Ecological Risk Assessment for Operable Unit I/VI (CDM 1999)
1994 Samples were collected from 0.0 ' to 0.5'
Number in parenthesis ( ) indicates alternate identification for same location.
NA Not available
NS Not sampled
U Analyte was analyzed for but not detected.
N - Spike sample recovery was not within control limits
J - Estimated value; concentration below method detection limit.
* - Duplicate precision is not within control limits.
B - Concentraion less than the contract required detection limit, but greater than or equal to the instrument detection limit.
E - Exceeded ICP serial dilution.

Table 6
Wooded Wetlands-Surface Water Results and Critical Water Concentrations
Brookhaven National Laboratory, Upton, New York

South Pond

Contaminant	SW-5S (SW-B)														
units ug/L	1994	1997	Jun-99	Aug-00	Jun-01	May-02	May-03	May-04	May-05	May-06	May-07	May-08	May-10	May-12	May-14
Aluminum	NS	304	1,240	253	385	445 E	429	434	210	301	305	278	199	184	263
Cadmium	NS	0.2 B	0.44 B	0.69 U	0.274 B	0.210 U	0.660 U	0.313 U	1.000 U	0.1 U	0.1 U	0.1 U	0.156 B	0.11 U	0.11 U
Cobalt	NS	1.3 U	1.1 B	0.91 U	0.679 B	0.581 U	1.710 B	0.918 B	1.000 U	0.46 B	0.53 B	0.52 B	0.472 B	2.56 B	0.282 U
Copper	NS	0.9 U	13.4	1.63 U	2.24 B	1.52 B	2.58 B	1.39 U	3 U	1.8	2.8	1.2	2.03	2.57	1.48
Iron	NS	347	3,740	1,120	1,100	890	779	1,210	832	757	1220	1170	696	390	506
Lead	NS	2.2 B	5.3	1.38 U	1.47 U	2.16 B	2.4 U	1.72 U	2.5 U	1.1 B	0.89 B	0.95 B	0.955 B	0.5 U	0.591 B
Mercury	NS	0.1 B	0.13 B	0.05 B	0.057 U	0.04 U	0.10 U	0.05 U	0.05 U	0.06 U	0.06 U	0.03 U	0.066 U	0.067 U	0.067 U
Nickel	NS	1.6 U	7.6	1.29 U	1.91 B	2.09 B	1.64 U	1.19 B	3.8 B	1.8 B	2	1.8 B	1.73 B	1.43 B	1.22 B
Silver	NS	0.8 U	0.89 U	0.94 U	0.871 U	1.15 U	1.70 U	0.84 U	1.00 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Zinc	NS	47.5	65.8	8.12 B	12.4 B	13.7 B	34.4	15.4 B	12.2	15.1	28.6	13.8	19	13.7	12.1

Contaminant	SW-6 (SW-C)														
units ug/L	1994	1997	Jun-99	Aug-00	Jun-01	May-02	May-03	May -04	May-05	May-06	May-07	May-08	May-10	May-12	May-14
Aluminum	NS	762	110,000	503	523	541 E	413	346	539	405	284	372	284	287	363
Cadmium	NS	NA	7.4 B	0.69 U	0.272 U	0.210 U	0.660 U	0.313 U	1.000 U	0.100 U	0.1 U	0.1 U	0.1 U	0.11 U	0.11 U
Cobalt	NS	1.4 B	22.7 B	0.91 U	0.419 U	0.581 U	1.330 B	0.738 B	1.000 U	0.580 B	0.46 B	0.57 B	0.488 B	0.475 B	0.453 B
Copper	NS	8.1 B	165	1.92 B	2.48 B	1.55 B	1.91 B	1.39 U	3 U	1.8	1	2.9	1.06	2.64	1.81
Iron	NS	692	77,500	2,140	1,250	725	522	595	1,470	890	928	885	886	668	752
Lead	NS	4.4	887	1.38 U	1.47 U	1.24 U	2.4 U	1.72 U	2.5 U	0.89 B	0.51 B	0.81 B	0.65 B	0.631 B	0.78 B
Mercury	NS	NA	1	0.085 B	0.057 U	0.04 U	0.10 U	0.05 B	0.05 U	0.06 U	0.06 U	0.03 U	0.066 U	0.067 U	0.067 U
Nickel	NS	NA	121	1.93 B	2.07 B	2.07 B	1.64 U	1.07 B	2.5 B	2.3	1.6 B	4.1	1.78 B	2.04	1.86 B
Silver	NS	NA	2.3 B	0.94 U	0.871 U	1.15 U	1.70 U	0.84 U	1.00 U	0.20 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Zinc	NS	53.2	699	16.8 B	14.1 B	14.4 B	29.9	11.5 B	20.4	14	9.8 B	15.2	11.1	14	27.6

Contaminant	SW-16														
units ug/L	1994	1997	Jun-99	Aug-00	Jun-01	May-02	May-03	May-04	May-05	May-06	May-07	May-08	May-10	May-12	May-14
Aluminum	NS	NS	NS	NS	928	521 E	446	543	618	1110	208	245	234	236	335
Cadmium	NS	NS	NS	NS	0.272 U	0.210 U	0.660 U	0.313 U	1 U	0.11 B	0.1 U	0.1 U	0.1 U	0.11 U	0.11 U
Cobalt	NS	NS	NS	NS	0.627 B	0.581 U	1.690 B	0.812 B	1 U	0.88 B	0.41 B	0.41 B	0.947 B	0.426 B	0.422 B
Copper	NS	NS	NS	NS	3.3 B	2.21 B	3.09 B	1.39 U	3 U	3.7	0.94 B	1.1	2.38	2.3	2.22
Iron	NS	NS	NS	NS	2,320	1,330	1,430	1480	1820	2200	1010	985	2820	643	863
Lead	NS	NS	NS	NS	3.86	1.39 B	2.4 U	1.72 U	2.5 U	3.7	0.52 B	0.85 B	1.03 B	1.07 B	1.11 B
Mercury	NS	NS	NS	NS	0.057 U	0.04 U	0.10 U	0.047 U	0.05 U	0.06 U	0.06 U	0.03 U	0.066 U	0.067 U	0.067 U
Nickel	NS	NS	NS	NS	2.81 B	2.23 B	1.64 U	1.03 B	2.1 B	3.2	1.5 B	1.4 B	1.81 B	1.66 B	1.58 B
Silver	NS	NS	NS	NS	0.871 U	1.15 U	1.70 U	0.835 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Zinc	NS	NS	NS	NS	15.5 B	14.6 B	34	14.8 B	17.1	28	20.3	10.6	16.4	14.4	25.1

Table 6
Wooded Wetlands-Surface Water Results and Critical Water Concentrations
Brookhaven National Laboratory, Upton, New York

Contaminant	SW-17 (SW-A)														
units ug/L	1994	1997	Jun-99	Aug-00	Jun-01	May-02	May-03	May-04	May-05	May-06	May-07	May-08	May-10	May-12	May-14
Aluminum	NS	NS	1,260	NS	612	441 E	490	485	357	310	163	166	192	168	319
Cadmium	NS	NS	0.34 U	NS	0.272 U	0.210 U	0.660 U	0.313 U	1 U	0.100 U	0.1 U	0.1 U	0.1 U	0.11 U	0.11 U
Cobalt	NS	NS	1.1 B	NS	1.49 B	0.759 B	1.820 B	0.754 B	1 U	0.540 B	0.39 B	0.37 B	0.548 B	0.37 B	0.358 B
Copper	NS	NS	5	NS	4.2 B	2.21 B	3.26 B	1.39 U	17.6	1.5	0.7 B	0.95 B	1.02	1.84	1.57
Iron	NS	NS	5,410	NS	5,430	1,650	1,120	1170	2320	1,130	1010	1020	1,550	626	762
Lead	NS	NS	5.7	NS	3.31	2.04 B	2.4 U	1.72 U	2.5 U	1.1 B	0.5 U	0.72 B	0.607 B	0.506 B	1.13 B
Mercury	NS	NS	0.12 U	NS	0.057 U	0.04 U	0.10 U	0.047 U	0.05 U	0.06 U	0.06 U	0.03 U	0.066 U	0.067 U	0.067 U
Nickel	NS	NS	5.5	NS	3.28 B	2.27 B	1.64 U	1.04 B	6.7	1.8 B	1.5 B	1.1 B	1.58 U	1.17 B	1.26 B
Silver	NS	NS	0.89 U	NS	0.871 U	1.15 U	1.70 U	0.835 U	1 U	0.20 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Zinc	NS	NS	32	NS	24	14.2 B	30.1	16.6 B	14	17.5	7 B	11.5	9.78	7.11 B	15.3

South Pond Averages

Contaminant	**Bench-mark[1]**														**Critical**
units ug/L	1994/97	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2010	2012	2014	**Conc.[1]**
Aluminum	762	37,500	378	612	487	445	452	431	532	240	265	227	219	320	525
Cadmium	0.3	2.73	0.69	0.27	0.21	0.66	0.31	1.00	0.10	0.10	0.10	0.11	0.11	0.11	12.8
Cobalt	8.1	8.30	0.91	0.80	0.63	1.64	0.81	1.00	0.62	0.45	0.47	0.61	0.96	0.38	15
Copper	18.7	61.13	1.78	3.06	1.87	2.71	1.39	6.65	2.20	1.36	1.54	1.62	2.34	1.77	50
Iron	4,400	28,883	1,630	2,525	1148.75	963	1,114	1,611	1,244	1,042	1,015	1,488	582	721	1,000
Lead	4.4	299	1.38	2.53	1.71	2.40	1.72	2.50	1.70	0.61	0.83	0.81	0.68	0.90	14.6
Mercury	0.24	0.42	0.07	0.06	0.04	0.10	0.05	0.05	0.06	0.06	0.03	0.07	0.07	0.07	2.7
Nickel	3.5	44.70	1.61	2.52	2.17	1.64	1.08	3.78	2.28	1.65	2.10	1.73	1.58	1.48	420
Silver	ND	1.36	0.94	0.87	1.15	1.70	0.84	1.00	0.20	0.20	0.20	0.20	0.20	0.20	2.4
Zinc	64.9	265.4	12.5	16.5	14.23	32.10	14.6	15.9	18.7	16.4	12.8	14.1	12.3	20.0	23.8

Table 6
Wooded Wetlands-Surface Water Results and Critical Water Concentrations
Brookhaven National Laboratory, Upton, New York

North Pond

Contaminant	SW-4														
units ug/L	1994	1997	Jun-99	Aug-00	Jun-01	May-02	May-03	May-04	May-05	May-06	May-07	May-08	May-10	May-12	May-14
Aluminum	829	NS	NS	193 B	1,500	1320 E	326	258	356	461	198	315	217	332	339
Cadmium	5 U	NS	NS	0.69 U	0.272 U	0.210 U	0.66 U	0.313 U	1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.11 U	0.11 U
Cobalt	5 U	NS	NS	0.91 U	1.84 B	0.581 U	1.68 B	0.903 B	1 U	0.48 B	0.46 B	0.4 B	0.688 B	0.496 B	0.339 B
Copper	8.5 B	NS	NS	1.63 U	5.79 B	3.79 B	2.59 B	1.39 U	3 U	3.5	2.7	1.8	1.03	2.54	2.08
Iron	3,930	NS	NS	2,790	3,670	1,760	499	996	1640	702	1190	1100	1500	966	666
Lead	NA	NS	NS	1.38 U	5.61	3.53	2.4 U	1.72 U	4.9 B	1.5 B	0.78 B	1.2 B	0.6 B	0.908 B	1.2 B
Mercury	0.2 B	NS	NS	0.106 B	0.057 U	0.04 U	0.095 U	0.047 U	0.05 U	0.06 U	0.06 U	0.081 B	0.066 U	0.067 U	0.067 U
Nickel	30 U	NS	NS	1.29 U	3.5 B	2.14 B	1.64 U	0.69 U	2.2 B	1.3 B	1.8 B	1.4 B	1.5 B	1.44 B	1.21 B
Silver	4 U	NS	NS	0.94 U	0.871 U	1.15 U	1.8 B	0.835 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Zinc	33	NS	NS	2.19 U	28	22	55.8	12.2 B	10.7	183	9.9 B	9.4 B	11	11	19.2

Contaminant	SW-E														
units ug/L	1994	1997	Jun-99	Aug-00	Jun-01	May-02	May-03	May-04	May-05	May-06	May-07	May-08	May-10	May-12	May-14
Aluminum	NS	NS	1,170	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cadmium	NS	NS	0.34 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cobalt	NS	NS	2.3 B	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Copper	NS	NS	6.4	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Iron	NS	NS	6,970	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Lead	NS	NS	4.5 B	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Mercury	NS	NS	0.12 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Nickel	NS	NS	6.7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Silver	NS	NS	0.89 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Zinc	NS	NS	38.2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Contaminant	SW-5N (SW-D)														
units ug/L	1994	1997	Jun-99	Aug-00	Jun-01	May-02	May-03	May-04	May-05	May-06	May-07	May-08	May-10	May-12	May-14
Aluminum	38,600	NS	945	179 B	575	238 E	1180	133 B	449	394	186	300	189	130	247
Cadmium	NA	NS	0.34 U	0.69 U	0.272 U	0.210 U	0.66 U	0.313 U	1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.11 U	0.11 U
Cobalt	18.7 B	NS	1.1 B	0.91 U	0.515 B	0.581 U	1.78 B	0.541 U	1 U	0.3 B	0.74 B	0.23 B	0.375 B	0.244 B	0.23 B
Copper	56.2	NS	3.2 B	1.63 U	2.28 B	1.3 U	4.09 B	1.39 U	3 U	3.1	1.9	1.4	1.32	1.72	2.13
Iron	4,400	NS	6,900	2,600	1,290	598	1070	564	2000	776	2030	942	1290	734	712
Lead	NA	NS	3.6 B	1.38 U	2.27	1.24 U	2.4 U	1.72 U	2.5 U	0.72 B	0.88 B	1.1 B	0.857 B	0.5 U	0.938 B
Mercury	0.24 B	NS	0.12 U	0.109 B	0.057 U	0.04 U	0.095 U	0.047 U	0.05 U	0.06 U	0.06 U	0.03 U	0.066 U	0.067 U	0.067 U
Nickel	3.5 B	NS	5 B	1.29 U	1.09 B	0.837 U	1.64 U	0.69 U	1 U	1.1 B	1.5 B	0.9 B	1.24 B	0.945 B	1.2 B
Silver	NA	NS	0.89 U	0.94 U	0.871 U	1.15 U	2 B	0.835 U	1.1 B	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Zinc	252	NS	21.9	2.19 U	4.96 B	4.54 B	25.4	7.02 B	5.9 B	8.4 B	6.6 B	3.3 B	5.23 B	4.66 B	16.6

Table 6
Wooded Wetlands-Surface Water Results and Critical Water Concentrations
Brookhaven National Laboratory, Upton, New York

Contaminant	SW-2001														
units ug/L	1994	1997	Jun-99	Aug-00	Jun-01	May-02	May-03	May-04	May-05	May-06	May-07	May-08	May-10	May-12	May-14
Aluminum	NS	NS	NS	NS	466	427 E	4090	119 B	412	1720	1230	85.7	224	109	251
Cadmium	NS	NS	NS	NS	0.272 U	0.210 U	0.66 U	0.313 U	1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.11 U	0.11 U
Cobalt	NS	NS	NS	NS	0.518 B	0.581 U	2.86 B	0.541 U	1 U	1.4	0.7 B	0.19 B	0.551 B	0.299 B	0.325 B
Copper	NS	NS	NS	NS	1.94 B	2.74 B	7.14 B	1.39 U	3 U	6.4	3	1.2	2	2.08	2.08
Iron	NS	NS	NS	NS	1,190	753	3420	558	1850	1990	2080	724	853	680	627
Lead	NS	NS	NS	NS	1.66 B	1.24 U	8.68	1.72 U	2.5 U	3.2	4	0.5 U	0.871 B	0.5 U	0.93 B
Mercury	NS	NS	NS	NS	0.057 U	0.04 U	0.095 U	0.047 U	0.05 U	0.06 U	0.06 U	0.088 B	0.066 U	0.067 U	0.067 U
Nickel	NS	NS	NS	NS	0.815 U	1.08 B	1.64 U	0.69 U	1.9 B	1.8 B	1.9 B	0.89 B	1.33 B	0.846 B	1.04 B
Silver	NS	NS	NS	NS	0.871 U	1.15 U	1.7 U	0.835 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Zinc	NS	NS	NS	NS	4.25 B	5.91 B	72.6	7.05 B	7.7 B	72.5	11.4	8.2 B	17	4.12 B	18.8

North Pond Averages

Contaminant	**Bench-mark[1]**														**Critical**
units ug/L	1994/97	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2010	2012	2014	**Conc.[1]**
Aluminum	762	945	186	847	662	1,865	170	406	858	538	234	210	190	279	525
Cadmium	0.3	0.34	0.69	0.27	0.21	0.66	0.31	1.00	0.10	0.10	0.10	0.10	0.11	0.11	12.8
Cobalt	8.1	1.10	0.91	0.96	0.58	2.11	0.66	1.00	0.73	0.63	0.27	0.54	0.35	0.30	15
Copper	18.7	3.20	1.63	3.34	2.61	4.61	1.39	3	4.3	2.5	1.5	1.5	2.1	2.1	50
Iron	4,400	6,900	2,695	2,050	1,037	1,663	706	1,830	1,156	1,767	922	1,214	793	668	1,000
Lead	4.4	3.60	1.38	3.18	2.00	4.49	1.72	3.3	1.81	1.89	0.93	0.78	0.64	1.02	14.6
Mercury	0.24	0.12	0.11	0.06	0.04	0.10	0.05	0.05	0.06	0.06	0.07	0.07	0.07	0.07	2.7
Nickel	3.5	5.00	1.29	1.80	1.35	1.64	0.69	1.7	1.4	1.73	1.06	1.36	1.08	1.15	420
Silver	ND	0.89	0.94	0.87	1.15	1.83	0.84	1.03	0.20	0.20	0.20	0.20	0.20	0.20	2.4
Zinc	64.9	21.9	2.2	12.40	10.82	51.27	8.76	8.10	87.97	9.30	6.97	11.08	6.59	18.20	23.8

NOTES:

[1] Final Focused Ecological Risk Assessment (FERA) for Operable Unit I/VI (CDM 8/98)

Number in parenthesis ( ) indicates alternate identification for same location.

NA Not available

NS Not sampled

U Analyte was analyzed for but not detected.

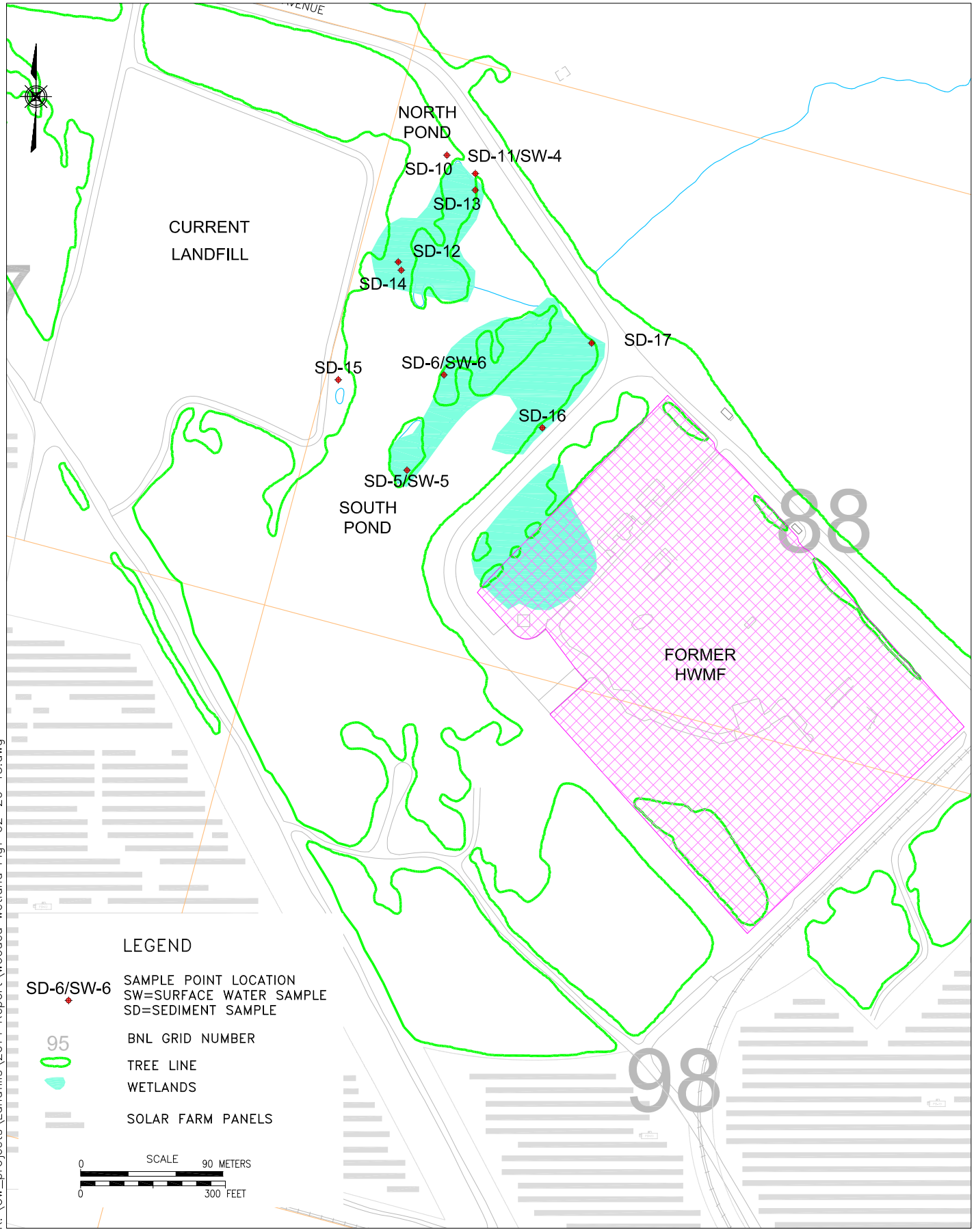
N - Spike sample recovery was not within control limits

J - Estimated value; concentration below method detection limit.

* - Duplicate precision is not within control limits.

B - Concentraion less than the contract required detection limit, but greater than or equal to the instrument detection limit.

FIGURES



BROOKHAVEN NATIONAL LABORATORY

ENVIRONMENTAL PROTECTION DIVISION

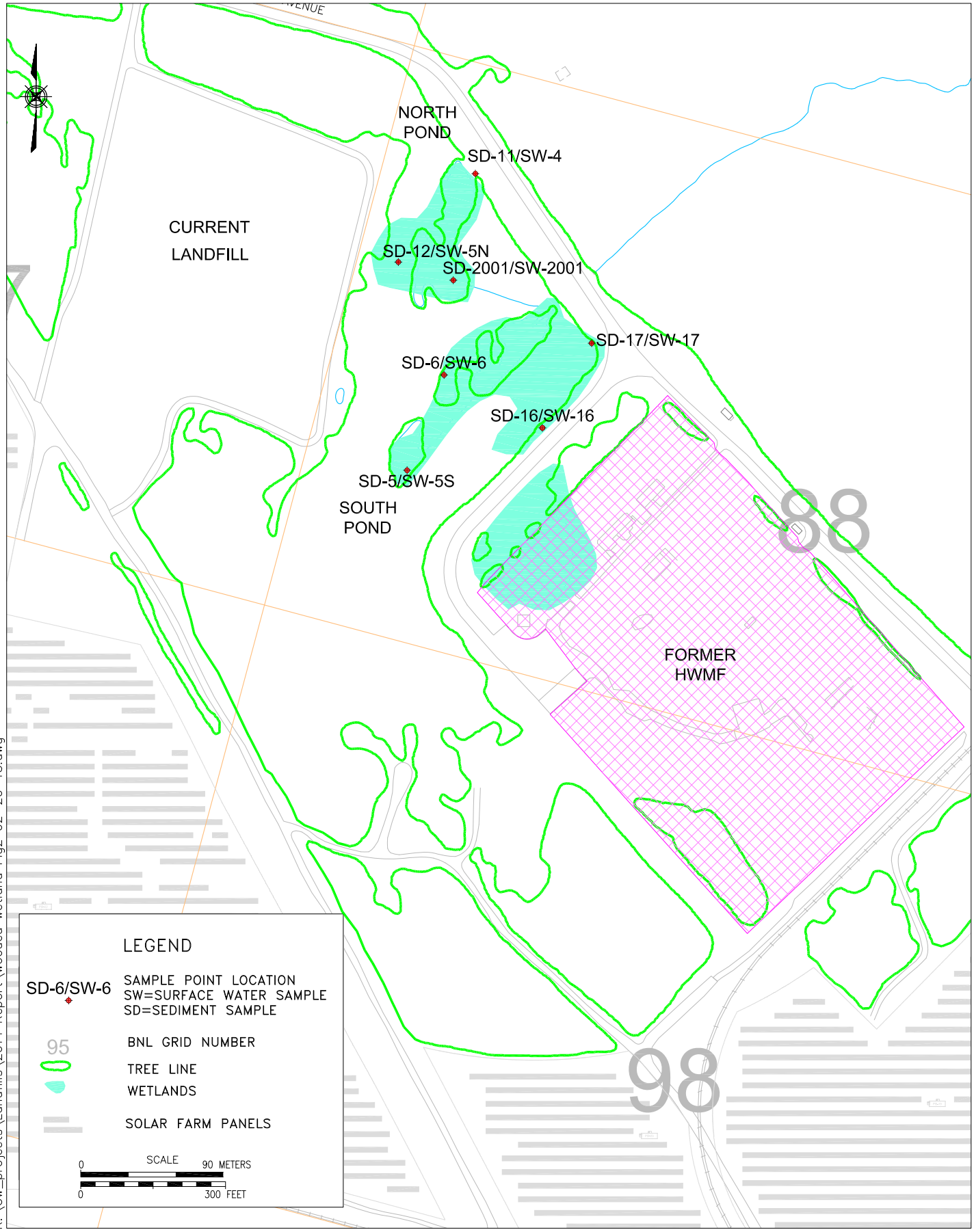
TITLE:

WOODED WETLANDS BENCHMARK SURFACE AND SEDIMENT SAMPLE LOCATIONS FROM ECOLOGICAL RISK ASSESSMENT 1994 – 1997

2014 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	02/20/15	–
CHKD:	APPD:	REV.:	NOTES:
JEB	WRD	–	–

FIGURE NO.: 1



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BROOKHAVEN NATIONAL LABORATORY

ENVIRONMENTAL PROTECTION DIVISION

TITLE:

WOODED WETLANDS SEDIMENT AND SURFACE WATER SAMPLING LOCATIONS

2014 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	02/20/15	–
CHKD:	APPD:	REV.:	NOTES:
JEB	WRD	–	–

FIGURE NO.: 2

Appendix B

Soil-gas Sampling Field Notes

2/25/14 — 29.94 "Hg — Current Landfill — 31° — 44% Humidity

Location	Well ID	CH4 %	LEL %	H2S ppm	Time
SGM-1A	087-62	12.8	>100 256	1	1302
1B	087-78	12.1	>100 242	1	1309
1C	087-79	10.4	>100 208	1	1319
2A	087-63	45.7	>100 914	0	1322
2B	087-80	11.3	>100 226	0	1330
2C	087-81	36.2	>100 724	4	1339
3A	087-64	15.6	>100 312	0	1344
3B	087-82	44.5	>100 890	20	1350
3C	087-83	42.1	>100 842	16	1359
4A	087-65	37.1	>100 742	0	1404
4B	087-84	34.4	>100 688	4	1411
4C	087-85	25.3	>100 506	5	1422
5A	087-66	27.0	>100 540	0	1425
5B	087-86	25.9	>100 518	3	1431
5C	087-87	19.4	>100 388	2	1441
6A	087-67	0.4	8%	0	1444
6B	087-88	30.1	>100 602	1	1450
6C	087-89	29.9	>100 598	2	1459
7A	087-68	0	0	0	2/26/14 1100
7B	087-90	0	0	0	1110
7C	087-91	0	0	0	1121
8A	087-69	0	0	0	1129
8B	087-92	0	0	0	1133
8C	087-93	0	0	0	1145

2/25/14 — 2/26/14 — Current Landfill

Location	Well ID	CH4 %	LEL %	H2S ppm	Time
SGM-9A	087-70	0	0	0	1502
9B	087-94	0	0	0	1508
9C	087-95	0	0	0	1519
10A	087-71	6.8	>100 136	1	1524
10B	087-96	7.2	>100 144	0	1531
10C	087-97	6.1	>100 122	3	1540
11A	087-72	3.1	62%	0	1544
11B	087-98	1.4	28%	0	1550
12A	087-73	34.2	>100 684	9	1554
12B	087-99	27.5	>100 550	0	1559
13A	087-74	0.2	4	0	1607
13B	087-100	20.2	>100 404	0	1615
14A	087-75	0	0	0	2/26/14 0900
14B	087-101	0	0	0	0906
15A	088-111	0.1	2	0	0917
15B	088-114	6.0	>100 120	0	0921
16A	088-112	0.0	0	0	0926
16B	088-115	0.0	0	0	water 0931
17A	088-113	0	0	0	water 0935
17B	088-116	0	0	0	water 0944
18A	087-76	0	0	0	water 0948
18B	087-102	0	0	0	0958
19A	087-77	0.3	7	0	1007
19B	087-103	0.4	8	0	1018

(86) 2/26/14 Current Landfill

Location	Well ID	CH4 %	LEL %	H2S ppm	Time
6569-1A	No ID	0	0	0	1310
1B		0	0	0	1318
1C		0	0	0	1325
2A		0	0	0	1338
2B		0	0	0	1348
2C		0	0	0	1359
3A		0	0	0	1410
3B		0	0	0	1418
4A		0	0	0	1430
4B		0	0	0	1445

(87) 6/10/14 Current Landfill JM

72° 55% 25.90 Hg

	Well ID	CH4 %	LEL %	H2S ppm	
6569-1A	087-62	16.2	>100 324	0	1301
1B	087-78	13.2	>100 264	0	1307
1C	087-79	8.9	>100 178	0	1316
2A	087-63	49.7	>100 994	2	1319
2B	087-80	45.5	>100 910	13	1326
2C	087-81	47.0	>100 940	3	1337
3A	087-64	31.8	>100 636	12	1343
3B	087-82	46.4	>100 928	0	1350
3C	087-83	49.6	>100 992	36	1400
4A	087-65	48.8	>100 976	6	1405
4B	087-84	44.6	>100 892	8	1412
4C	087-85	39.5	>100 790	6	1422
5A	087-66	35.3	>100 706	0	1428
5B	087-86	16.5	>100 330	5	1436
5C	087-87	22.8	>100 456	2	1447
6A	087-67	0.1	B	0	1502
6B	087-88	33.3	>100 666	8	1506
6C	087-89	31.8	>100 636	3	1517
7A	087-68	0	0	0	1110
7B	087-90	0	0	0	1118
7C	087-91	0	0	0	1125
8A	087-69	0	0	0	1133
8B	087-92	0	0	0	1139
8C	087-93	0	0	0	1144

6/11/14 BP

Current Landfill — 6/10/14 – 6/11/14

	Well ID	CH4 %	LEL %	H2S	68° cloudy 30.05 in
Sbm-9A	087-70	0.0	0	0	1507
-9B	087-94	0.0	0	0	1518
-9C	087-95	0.0	0	0	6/10 1528
-10A	087-71	18.5	>100 370	8	1532
-10B	087-96	16.7	>100 334	1	1539
-10C	087-97	13.8	>100 276	0	1549
-11A	087-72	16.1	>100 322	10	1600
-11B	087-98	15.8	>100 316	3	1610
-12A	087-73	41.5	>100 830	0	6/11 0900
-12B	087-99	28.5	>100 570	0	0910
-13A	087-74	0.6	13	0	0917
13B	087-100	0	0	0	0929
14A	087-75	0	0	0	0936
14B	087-101	0	0	0	0944
15A	088-111	0	0	0	0952
15B	088-114	0	0	0	0959
16A	088-112	0	0	0	1008
16B	088-115	0	0	0	water in pipe 1015
17A	088-113	0	0	0	water 1024
17B	088-116	0	0	0	water 1031
18A	087-76	0	0	0	1038
18B	087-102	0	0	0	water 1044
19A	087-77	22.6	>100 452	14	1053
19B	087-103	0	0	0	1059

Current Landfill — 6/11/14

Location	Well ID	CH4 %	LEL %	H2S	Time/comments
656M-1A	No ID	0	0	0	1423
1B		0	0	0	1428
1C		0	0	0	1437
2A		0	0	0	1402
2B		0	0	0	1408
2C		0	0	0	1419
3A		0	0	0	1325
3B		0	0	0	1339
4A		0	0	0	1310
4B		0	0	0	1318

(90)

9/3/14 — Current Landfill — 80° Sunny 29.96" HG

	Well ID	CH4%	LEL%	H2S PPM	Time/Count
Slam-1A	087-62	7.9	>100 158	0	0950
1B	087-78	0.0	0	0	0957
1C	087-79	0.0	0	0	1008
2A	087-63	44.9	>100 898	0	1016
2B	087-80	47.3	>100 946	2	1023
2C	087-81	30.8	>100 616	1	1033
3A	087-64	26.1	>100 522	8	1039
3B	087-82	0.0	0	0	1046
3C	087-83	0.0	0	0	1056
4A	087-65	40.8	>100 816	2	1102
4B	087-84	0.0	0	0	1108
4C	087-85	0.0	0	0	1118
5A	087-66	1.2	25	0	1124
5B	087-86	0	0	0	1131
5C	087-87	0	0	0	1139
6A	087-67	0	0	0	1144
6B	087-88	0	0	0	1150
6C	087-89	0	0	0	1159
7A	087-68	0	0	0	1035
7B	087-90	0	0	0	1040
7C	087-91	0	0	0	1050
8A	087-69	0	0	0	1102
8B	087-92	0	0	0	1115
8C	087-93	0	0	0	1128

Solar Farm 9/3/14

(91)

9/3/14 — Current Landfill

	Well ID	CH4%	LEL%	H2S	Time/Count
Slam-9A	087-70	0	0	0	1310
9B	087-94	0	0	0	1318
9C	087-95	0	0	0	1328
10A	087-71	9.2	>100 184	6	1337
10B	087-96	15.0	>100 300	0	1345
10C	087-97	19.4	>100 398	0	1357
11A	087-72	16.5	>100 330	0	1408
11B	087-98	0	0	0	1417
12A	087-73	36.8	>100 536	9	1427
12B	087-99	33.1	>100 662	0	1437
13A	087-74	17.4	>100 349	0	1444
13B	087-100	0	0	0	1450
14A	087-75	0	0	0	1459
14B	087-101	0	0	0	1510
15A	088-111	0	0	0	1519
15B	088-114	0	0	0	1528
16A	088-112	0	0	0	9/5/14 0909 Water 1PM 0920
16B	088-115	0	0	0	
17A	088-113	0	0	0	0924 Water in PM 0930
17B	088-116	0	0	0	
18A	087-76	0	0	0	0939
18B	087-102	0	0	0	1000
19A	087-77	0	0	0	1010
19B	087-103	0	0	0	1020

(92)

Current Landfill — 9/5/14

	Well ID	CH4 %	LEL %	H2S ppm	Time / comment
GSGM 1A	NO ID	0	0	0	1430
1B		0	0	0	1415
1C		0	0	0	1410
2A		0	0	0	1400
2B		0	0	0	1409
2C		0	0	0	1420
3A		0	0	0	1330
3B		0	0	0	1338
4A		0	0	0	1308
4B		0	0	0	1313

(93)

12/16/14 — Current Landfill — 37° overcast — cal check ✓

	Well ID	CH4 %	LEL %	H2S ppm	Time / comment
Sam – 1A	087-62	11.5	>100 230	2	0905
1B	087-78	11.0	>100 220	1	0912
1C	087-79	9.5	>100 190	0	0922
2A	087-63	45.9	>100 918	0	0926
2B	087-80	33.3	>100 666	3	0933
2C	087-81	30.5	>100 610	1	0943
3A	087-64	19.4	>100 388	2	0948
3B	087-82	54.6	>100 1092	22	0956
3C	087-83	51.7	>100 1034	45	1007
4A	087-65	43.9	>100 878	0	1010
4B	087-84	41.2	>100 824	5	1017
4C	087-85	33.4	>100 668	4	1026
5A	087-66	31.6	>100 632	0	1031
5B	087-86	31.3	>100 626	3	1038
5C	087-87	24.1	>100 482	1	1049
6A	087-67	.2	>100 4	0	1103
6B	087-88	31.8	>100 636	5	1109
6C	087-89	29.5	>100 590	2	1118
7A	087-68	0	0	0	0906
7B	087-90	0	0	0	0910
7C	087-91	0	0	0	0920
8A	087-69	0	0	0	0931
8B	087-92	0	0	0	0934
8C	087-93	0	0	0	0938

30.04 Hg

12/17/14

(94)

12/16/14

Current Level

Location	Well ID	CH4%	LEL%	H2S ppm	Time/comments
SGM - 9A	087-70	0	0	0	1120
9B	087-94	0	0	0	1126
9C	087-95	0	0	0	1137
10A	087-71	13.1	>100 262	13	1145
10B	087-96	13.6	>100 272	8	1152
10C	087-97	11.2	>100 224	9	1203
11A	087-72	12.5	>100 250	8	1303
11B	087-98	9.9	0	0	1313
12A	087-73	44.4	>100 888	27	1322
12B	087-99	33.8	>100 676	1	1328
13A	087-74	17.1	>100 342	0	1324
13B	087-100	28.0	>100 560	0	1332
14A	087-75	0	0	0	1340
14B	087-107	3.2	64	0	1347
15A	088-111	0	0	0	1403
15B	088-114	33.7	>100 674	2	1407
16A	088-112	0	0	0	1410
16B	088-115	0	0	0	water in PPE 1419
17A	088-113	0	0	0	water in PPE 1428
17B	088-116	0	0	0	water in PPE 1440
18A	087-76	0	0	0	1458
18B	087-102	0	0	0	water 1505
19A	087-77	10.2	>100 204	1	1519
19B	087-103	9.8	>100 196	1	1528

(95)

12/17/14

45°

Current Level

85% CH4 | 29.77 LEL% | H2S ppm

Location	Well ID	CH4%	LEL%	H2S ppm	
GSGM - 1A	No-ID	0	0	0	1008
1B		0	0	0	1013
1C		0	0	0	1022
2A		0	0	0	1026
2B		0	0	0	1033
2C		0	0	0	1042
3A		0	0	0	1046
3B		0	0	0	1055
4A		0	0	0	1120
4B		0	0	0	1135

C-1 Chunk Gen 2000 ft

(35)

Former Landfill

6/10/14

70° overcast 95%

29.85" Hg

Location	Well ID	CH4 %	LEL %	H2S PPM	Time/comment
SGm 1A	096-41	0.0	0	0	0910
1B	096-42	0.0	0	0	0918
2A	096-43	0.0	0	0	0925
2B	096-44	0.0	0	0	0933
3A	096-45	0.0	0	0	0939
3B	096-46	0.0	0	0	0944
4A	096-47	0.0	0	0	0949
4B	096-48	0.0	0	0	0956
5A	097-50	0.0	0	0	0959
5B	097-51	0.0	0	0	1007
6A	097-52	0.0	0	0	1011
6B	097-53	0.0	0	0	1018
7A	097-54	0.0	0	0	1025
7B	097-55	0.0	0	0	1033
8A	097-56	0.0	0	0	1039
8B	097-57	0.0	0	0	1044
9A	097-58	0.0	0	0	1053
9B	097-59	0.0	0	0	1059

Jim Milligan

6/10/14

Gen 2000 ft

(36)

Former Landfill

70° overcast 95%

29.85" Hg

Location	Well ID	CH4	LEL	H2S	Time
SGm - 10A	097-60	0.0	0	0	1105
-10B	097-61	0.0	0	0	1110
-11A	097-62	0.0	0	0	1015
-11B	097-63	0.0	0	0	1020
-12A	097-49	0.0	0	0	1028
-12B	096-50	0.0	0	0	1035

6/10/14

Appendix C

Monthly Landfill Site Inspection Forms

BROOKHAVEN NATIONAL LABORATORY
CURRENT LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): ERIC KRAMER

Date of Inspection: 1-31-2014

Purpose of Inspection: ___ Routine ___ Heavy Rainfall ___ Reported Incident

Time on Site: ____

Time off Site: ____

Weather Conditions: SNOW ON GROUND

A. Inspection Checklist

Component		Observed Condition			Further Action Required	
		Excellent	Fair	Poor	Yes	No
1.0	**Landfill Cap:**					
	Vegetation					
	Cap					
	Gas Vents					
2.0	**Drainage Structures:**					
	Toe Drain					
	Drainage Channels					
	French Drains/Outfalls					
	Subsurface Drainage Pipes/Outfalls					
	Manholes					
	Recharge Areas					
	Monitoring System:					
	Soil Gas Wells					
	Groundwater Wells					
4.0	**Site Access:**					
	Asphalt Access Road					
	Crushed-Concrete Access Road					

B. Description of Further Action Requirements:

1. Location: NOTE: LAND FILLS COULD NOT BE INSPECTED DUE TO SNOW COVERING.
Observed Conditions:

Recommendations:

BROOKHAVEN NATIONAL LABORATORY
CURRENT LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 2-27-14

Purpose of Inspection: X Routine ___ Heavy Rainfall ___ Reported Incident

Time on Site: ____

Time off Site: ____

Weather Conditions: Cold/Cloudy

A. Inspection Checklist

	Component	Observed Condition			Further Action Required	
		Excellent	Fair	Poor	Yes	No
1.0	**Landfill Cap:**					
	Vegetation	X				X
	Cap	X				X
	Gas Vents	X				X
2.0	**Drainage Structures:**					
	Toe Drain	X				X
	Drainage Channels	X				X
	French Drains/Outfalls	X				X
	Subsurface Drainage Pipes/Outfalls	X				X
	Manholes	X				X
	Recharge Areas	X				X
3.0	**Monitoring System:**					
	Soil Gas Wells	X				X
	Groundwater Wells	X				X
4.0	**Site Access:**					
	Asphalt Access Road		X			X
	Crushed-Concrete Access Road	X				X

B. Description of Further Action Requirements:

1. Location: Asphalt

Observed Conditions: Some Cracks in black top

Recommendations: Continue to Monitor

BROOKHAVEN NATIONAL LABORATORY
CURRENT LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 3-26-14

Purpose of Inspection: ___ Routine ___ Heavy Rainfall ___ Reported Incident

Time on Site: ____

Time off Site: ____

Weather Conditions:

A. Inspection Checklist

	Component	Observed Condition			Further Action Required	
		Excellent	Fair	Poor	Yes	No
1.0	**Landfill Cap:**					
	Vegetation	X				X
	Cap	X				X
	Gas Vents	X				X
2.0	**Drainage Structures:**					
	Toe Drain	X				X
	Drainage Channels	X				X
	French Drains/Outfalls	X				X
	Subsurface Drainage Pipes/Outfalls	X				X
	Manholes	X				X
	Recharge Areas	X				X
3.0	**Monitoring System:**					
	Soil Gas Wells	X				X
	Groundwater Wells	X				X
4.0	**Site Access:**					
	Asphalt Access Road		X			
	Crushed-Concrete Access Road	X				X

B. Description of Further Action Requirements:

1. Location: Asphalt

Observed Conditions: Some Cracking in blacktop

Recommendations: Continue to monitor

BROOKHAVEN NATIONAL LABORATORY
CURRENT LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 4-24-14

Purpose of Inspection: ___ Routine ___ Heavy Rainfall ___ Reported Incident

Time on Site: _____

Time off Site: _____

Weather Conditions: _____

A. Inspection Checklist

	Component	Observed Condition			Further Action Required	
		Excellent	Fair	Poor	Yes	No
1.0	**Landfill Cap:**					
	Vegetation	X				X
	Cap	X				X
	Gas Vents	X				X
2.0	**Drainage Structures:**					
	Toe Drain	X				X
	Drainage Channels	X				X
	French Drains/Outfalls	X				X
	Subsurface Drainage Pipes/Outfalls	X				X
	Manholes	X				X
	Recharge Areas	X				X
3	**Monitoring System:**					
	Soil Gas Wells					
	Groundwater Wells	X				X
		X				X
4.0	**Site Access:**					
	Asphalt Access Road					
	Crushed-Concrete Access Road	X				X
		X				X

B. Description of Further Action Requirements:

1. Location: Asphalt / Landfill / Culverts

Observed Conditions: Cracking in blacktop. Minor Vegetation Growth on Landfill and Culverts

Recommendations: Continue to Monitor

BROOKHAVEN NATIONAL LABORATORY
CURRENT LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 5-28-14

Purpose of Inspection: X Routine ___ Heavy Rainfall ___ Reported Incident

Time on Site: ___

Time off Site: ___

Weather Conditions: Sunny

A. Inspection Checklist

	Component	Observed Condition			Further Action Required	
		Excellent	Fair	Poor	Yes	No
1.0	**Landfill Cap:**					
	Vegetation		X		X	
	Cap	X				X
	Gas Vents	X				X
2.0	**Drainage Structures:**					
	Toe Drain	X				X
	Drainage Channels	X				X
	French Drains/Outfalls	X				X
	Subsurface Drainage Pipes/Outfalls					
	Manholes	X				X
	Recharge Areas	X				X
						X
	Monitoring System:					
	Soil Gas Wells	X				X
	Groundwater Wells	X				X
4.0	**Site Access:**					
	Asphalt Access Road					
	Crushed-Concrete Access Road	X				X
		X				X

B. Description of Further Action Requirements:

1. Location: Landfill / Culverts / Asphalt

Observed Conditions:
Vegetation Growth in Asphalt Cracks, on Landfill & in Culverts

Recommendations:
Continue to Monitor Cracks

Mow Landfill. Spray Vegetation Killer on Cracks & Culverts

BROOKHAVEN NATIONAL LABORATORY
CURRENT LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 6-30-14

Purpose of Inspection: ___ Routine ___ Heavy Rainfall ___ Reported Incident

Time on Site: ____

Time off Site: ____

Weather Conditions: Sunny

A. Inspection Checklist

	Component	Observed Condition			Further Action Required	
		Excellent	Fair	Poor	Yes	No
1.0	**Landfill Cap:**					
	Vegetation		X		X	
	Cap	X				X
	Gas Vents	X				X
2.0	**Drainage Structures:**					
	Toe Drain	X				X
	Drainage Channels	X				X
	French Drains/Outfalls	X				X
	Subsurface Drainage Pipes/Outfalls	X				X
	Manholes	X				X
	Recharge Areas	X				X
3	**Monitoring System:**					
	Soil Gas Wells	X				X
	Groundwater Wells	X				X
4.0	**Site Access:**					
	Asphalt Access Road		X			
	Crushed-Concrete Access Road	X				X

B. Description of Further Action Requirements:

1. Location: Landfill, Edges of Landfill, Culverts, Blacktop

Observed Conditions: Excessive vegetation growth, saplings on Landfill & in culverts
Cracking in Blacktop

Recommendations: Have grounds remove excessive vegetation.
Continue to monitor cracks in Blacktop

BROOKHAVEN NATIONAL LABORATORY
CURRENT LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 7-19-14
Purpose of Inspection: X Routine ___ Heavy Rainfall ___ Reported Incident
Time on Site: ___
Time off Site: ___
Weather Conditions: SUNNY

A. Inspection Checklist

	Component	Observed Condition: Excellent	Fair	Poor	Further Action Required: Yes	No
1.0	**Landfill Cap:**					
	Vegetation		X		X	
	Cap	X				X
	Gas Vents	X				X
2.0	**Drainage Structures:**					
	Toe Drain	X				X
	Drainage Channels	X				X
	French Drains/Outfalls	X				X
	Subsurface Drainage Pipes/Outfalls	X				X
	Manholes	X				X
	Recharge Areas	X				X
3	**Monitoring System:**					
	Soil Gas Wells	X				X
	Groundwater Wells	X				X
4.0	**Site Access:**					
	Asphalt Access Road		X			X
	Crushed-Concrete Access Road	X				X

B. Description of Further Action Requirements:

1. Location: Landfill, Edges of Landfill, Culverts & BlackTop
Observed Conditions: Excessive Vegetation growth on landfill & culverts
Cracks in BlackTop
Recommendations: PUT in Work order to CUT/remove Vegetation
Monitor Cracking on BlackTop

BROOKHAVEN NATIONAL LABORATORY
CURRENT LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 8-23-14
Purpose of Inspection: X Routine ___ Heavy Rainfall ___ Reported Incident
Time on Site: ___
Time off Site: ___
Weather Conditions: Clear, HOT

A. Inspection Checklist

	Component	Observed Condition: Excellent	Fair	Poor	Further Action Required: Yes	No
1.0	**Landfill Cap:**					
	Vegetation		X		X	
	Cap	X				X
	Gas Vents	X				X
2.0	**Drainage Structures:**					
	Toe Drain	X				X
	Drainage Channels	X				X
	French Drains/Outfalls	X				X
	Subsurface Drainage Pipes/Outfalls	X				X
	Manholes	X				X
	Recharge Areas	X				X
3	**Monitoring System:**					
	Soil Gas Wells	X				X
	Groundwater Wells	X				X
4.0	**Site Access:**					
	Asphalt Access Road		X			
	Crushed-Concrete Access Road	X				X

B. Description of Further Action Requirements:

1. Location: Landfill Cap, Edges, Culverts, Blacktop
Observed Conditions:
Landfill cap needs to be mowed. Other excess vegetation needs removal/spraying

Recommendations:
Work order in for mowing/veg removal

Continue to monitor cracks

BROOKHAVEN NATIONAL LABORATORY
CURRENT LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 9-29-14

Purpose of Inspection: X Routine ___ Heavy Rainfall ___ Reported Incident

Time on Site: ___ ___

Time off Site: ___ ___

Weather Conditions: Cloudy

A. Inspection Checklist

	Component	Observed Condition			Further Action Required	
		Excellent	Fair	Poor	Yes	No
1.0	**Landfill Cap:**					
	Vegetation		X		X	
	Cap	X				X
	Gas Vents	X				X
2.0	**Drainage Structures:**					
	Toe Drain	X				X
	Drainage Channels					X
	French Drains/Outfalls	X				X
	Subsurface Drainage Pipes/Outfalls	X				X
	Manholes					X
	Recharge Areas	X				X
	Monitoring System:					
	Soil Gas Wells	X				X
	Groundwater Wells	X				X
4.0	**Site Access:**					
	Asphalt Access Road		X			X
	Crushed-Concrete Access Road	X				X

B. Description of Further Action Requirements:

1. Location: Culverts, Edges and Blacktop

Observed Conditions: Landfill cap was mowed this month. Edges & culverts need spraying

Cracking in Blacktop

Recommendations:

Contact Grounds about spraying Vegetation

Monitor Cracking in Blacktop.

BROOKHAVEN NATIONAL LABORATORY
CURRENT LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 10-20-14

Purpose of Inspection: X Routine ___ Heavy Rainfall ___ Reported Incident

Time on Site: ___

Time off Site: ___

Weather Conditions: ___

A. Inspection Checklist

	Component	Observed Condition			Further Action Required	
		Excellent	Fair	Poor	Yes	No
1.0	**Landfill Cap:**					
	Vegetation		X		X	
	Cap	X				X
	Gas Vents	X				X
2.0	**Drainage Structures:**					
	Toe Drain	X				X
	Drainage Channels	X				X
	French Drains/Outfalls					
	Subsurface Drainage Pipes/Outfalls	X				X
	Manholes					
	Recharge Areas	X				X
	Monitoring System:					
	Soil Gas Wells	X				X
	Groundwater Wells	X				X
4.0	**Site Access:**					
	Asphalt Access Road		X		X	
	Crushed-Concrete Access Road	X				X

B. Description of Further Action Requirements:

1. Location: Culverts, Edges, Drainage Channels, Blacktop

Observed Conditions: Excessive Vegetation Growth.

Cracks in Blacktop

Recommendations:

Continue to call Grounds to spray Vegetation

Continue to Monitor Blacktop

BROOKHAVEN NATIONAL LABORATORY
CURRENT LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 11-19-14

Purpose of Inspection: X Routine ___ Heavy Rainfall ___ Reported Incident

Time on Site: ___ ___

Time off Site: ___ ___

Weather Conditions: Sunny

A. Inspection Checklist

	Component	Observed Condition			Further Action Required	
		Excellent	Fair	Poor	Yes	No
1.0	**Landfill Cap:**					
	Vegetation		X			X
	Cap	X				X
	Gas Vents	X				X
2.0	**Drainage Structures:**					
	Toe Drain	X				X
	Drainage Channels	X				X
	French Drains/Outfalls	X				X
	Subsurface Drainage Pipes/Outfalls	X				X
	Manholes	X				X
	Recharge Areas	X				X
	Monitoring System:					
	Soil Gas Wells	X				X
	Groundwater Wells	X				X
4.0	**Site Access:**					
	Asphalt Access Road		X			X
	Crushed-Concrete Access Road	X				X

B. Description of Further Action Requirements:

1. Location: Blacktop

Observed Conditions:

Cracking in Blacktop.

Recommendations:

NOTE: Vegetation Stopping to Grow/Die

Will put work order in during Spring to Spray Vegetation.

BROOKHAVEN NATIONAL LABORATORY
CURRENT LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 12-17-14

Purpose of Inspection: X Routine ___ Heavy Rainfall ___ Reported Incident

Time on Site: ___

Time off Site: ___

Weather Conditions: Clear/Cool

A. Inspection Checklist

	Component	Observed Condition			Further Action Required	
		Excellent	Fair	Poor	Yes	No
1.0	**Landfill Cap:**					
	Vegetation		X			X
	Cap	X				X
	Gas Vents	X				X
2.0	**Drainage Structures:**					
	Toe Drain	X				X
	Drainage Channels	X				X
	French Drains/Outfalls	X				X
	Subsurface Drainage Pipes/Outfalls	X				X
	Manholes	X				X
	Recharge Areas	X				X
3	**Monitoring System:**					
	Soil Gas Wells	X				X
	Groundwater Wells	X				X
4.0	**Site Access:**					
	Asphalt Access Road		X			X
	Crushed-Concrete Access Road	X				X

B. Description of Further Action Requirements:

1. Location: Blacktop

Observed Conditions: Cracking in asphalt

Recommendations: Continue to monitor and repair in Spring.

BROOKHAVEN NATIONAL LABORATORY
LTRA SITE INSPECTION FORM

Location (AOC): Current Landfill and Wooded Wetland
Date of Inspection: 5/28/14
Name of Inspector(s): R. Howe, E. Kramer, J. Burke, D. Paquette, W. Dorsch, V. Racaniello
Purpose of Inspection: ☒ Routine (Scheduled Frequency of 2x/yr) ☐ Heavy Rainfall ☐ Reported Incident

A. Inspection Checklist

Component	Observed Condition				Further Action Req'd	
	Excell.	Fair	Poor	Not Applic.	Yes (describe)	No
1. Landfill Cap/Soil Covers/Wetlands:						
Vegetation (e.g. grass)	X				Needs mowing	
Soil (Cap/Cover/Fill)	X				No burrows observed	
Other: _____						
2. Drainage Structures:						
Standing Water	X				Water in Wetland	X
Toe Drain	X					X
Drainage Channels	X				Remove vegetation	
French Drains/Outfalls				X		X
Subsurface Drainage Pipes/Outfalls		X			Minor erosion at outfall	X
Manholes				X		X
Berms				X		X
Roof Drains				X		X
Recharge Areas	X				Basin is dry	X
Other: _____						
3. Monitoring System:						
Soil Gas Wells	X				Needs weed whacking	
Groundwater Wells	X					X
Gas Vents	X				No nests	X
Other: __						
4. Site Access:						
Asphalt Access Road	X				Seal asphalt cracks	
Crushed-concrete Access Road				X		X
Fence	X					X
Gates/locks	X				All locked	X
Radiological Postings				X		X
Other: Stairs access to cap	X					X

5. Evidence of unauthorized work activities and/or unauthorized access has occurred? ☐ Yes ☒ No
If yes, describe evidence: _ _____

B. Description of Other Observations

Observed Conditions/Recommendations: Good vegetative growth on cap, no pine seedlings or animal burrows were observed. A preventative maintenance work order was placed with Facilities and Operations 5/27/14 to mow the grass, weed whack around groundwater and soil gas testing wells, spray/scrape vegetation growing through asphalt road then seal the cracks, add top soil and native grass seed to two bare areas on cap. Significant water in Wooded Wetland and standing water on asphalt access road on north-east side of cap. The recharge basin is dry. Signs in place and all gates locked. LUIC Factsheet Changes: No changes for Current Landfill or Wooded Wetlands.

BROOKHAVEN NATIONAL LABORATORY
LTRA SITE INSPECTION FORM

Location (AOC): Current Landfill and Wooded Wetland
Date of Inspection: 10/10/14
Name of Inspector(s): R. Howe, J. Burke, W. Dorsch, K. Schwager, T. Green
Purpose of Inspection: ☒ Routine (Scheduled Frequency of 2x/yr) ☐ Heavy Rainfall ☐ Reported Incident

A. Inspection Checklist

Component	Observed Condition				Further Action Req'd	
	Excell.	Fair	Poor	Not Applic.	Yes (describe)	No
1. Landfill Cap/Soil Covers/Wetlands:						
Vegetation (e.g. grass)	X				Gars cut mid-Sept.	X
Soil (Cap/Cover/Fill)	X				Fill-in ruts, seed	
Other: _____						
2. Drainage Structures:						
Standing Water	X				Wetland is dry	X
Toe Drain	X					X
Drainage Channels	X				Remove vegetation	
French Drains/Outfalls				X		X
Subsurface Drainage Pipes/Outfalls		X			Minor erosion at outfall	X
Manholes				X		X
Berms				X		X
Roof Drains				X		X
Recharge Areas	X				Basin is dry	X
Other: _____						
3. Monitoring System:						
Soil Gas Wells	X				Needs weed whacking	
Groundwater Wells	X					X
Gas Vents	X				No nests	X
Other: __						
4. Site Access:						
Asphalt Access Road	X				Seal asphalt cracks	
Crushed-concrete Access Road				X		X
Fence	X					X
Gates/locks	X				Replace SW gate chain	
Radiological Postings				X		X
Other: Stairs access to cap	X					X

5. Evidence of unauthorized work activities and/or unauthorized access has occurred? ☐ Yes ☒ No
If yes, describe evidence: _ _____

B. Description of Other Observations

Observed Conditions/Recommendations: The grass on the cap was cut in mid-September. There were a few ruts from the mower that need to be filled-in by Facilities and Operations (F&O) and seeded. No pine seedlings or animal burrows were observed. The phragmites growing adjacent to the asphalt access road was cut back by F&O, and the weeds around the soil gas wells were cut. The phragmites need to be cut back more. Tim Green said that Roundup can be sprayed along the west and north access roads and in the culverts to reduce the weed growth. But the north and east sides cannot be sprayed due to proximity to the wetland. The vegetation growing through asphalt road need to be removed, then the cracks sealed. There was no water in the Wooded Wetland. The recharge basin is dry. Signs in place and all gates locked. Need to replace the rusted chain and lock on the SW gate. LUIC Factsheet Changes: No changes for Current Landfill or Wooded Wetlands.

BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 1-31-14

Purpose of Inspection: ___ Routine ___ Heavy Rainfall ___ Reported Incident

Time on Site:

Time off Site:

Weather Conditions: Snow

A. Inspection Checklist

	Component	Observed Condition			Further Action Required	
		Excellent	Fair	Poor	Yes	No
1.0	**Landfill Cap:**					
	Vegetation					
	Cap					
	Gas Vents					
2.0	**Drainage Structures:**					
	Toe Drain					
	Drainage Channels					
	French Drains/Outfalls					
	Subsurface Drainage Pipes/Outfalls					
	Manholes					
	Recharge Areas					
3.0	**Monitoring System:**					
	Soil Gas Wells					
	Groundwater Wells					
4.0	**Site Access:**					
	Asphalt Access Road					
	Crushed-Concrete Access Road					

B. Description of Further Action Requirements:

1. Location:

Observed Conditions: NOTE: Former landfill could NOT be inspected due to being covered with snow

Recommendations:

BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 2-27-14
Purpose of Inspection: X Routine ___ Heavy Rainfall ___ Reported Incident
Time on Site:
Time off Site:
Weather Conditions: Cold/Cloudy

A. Inspection Checklist

Component		Observed Condition			Further Action Required	
		Excellent	Fair	Poor	Yes	No
1.0	**Landfill Cap:**					
	Vegetation		X		X	
	Cap	X				X
	Gas Vents	X				X
2.0	**Drainage Structures:**					
	Toe Drain	X				X
	Drainage Channels	X				X
	French Drains/Outfalls	X				X
	Subsurface Drainage Pipes/Outfalls	X				X
	Manholes					X
	Recharge Areas	X				X
3.0	**Monitoring System:**					
	Soil Gas Wells	X				X
	Groundwater Wells	X				X
4.0	**Site Access:**					
	Asphalt Access Road	X				
	Crushed-Concrete Access Road	X				X

B. Description of Further Action Requirements:

1. Location: Culvert/Landfill Edges
Observed Conditions: Some Pine Saplings

Recommendations: Remove Saplings in Spring

BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 3-26-14

Purpose of Inspection: ___ Routine ___ Heavy Rainfall ___ Reported Incident

Time on Site:

Time off Site:

Weather Conditions: Cold/Sunny

A. Inspection Checklist

	Component	Observed Condition			Further Action Required	
		Excellent	Fair	Poor	Yes	No
1.0	**Landfill Cap:**					
	Vegetation		X		X	
	Cap	X				X
	Gas Vents	X				X
2.0	**Drainage Structures:**					
	Toe Drain	X				X
	Drainage Channels	X				X
	French Drains/Outfalls	X				X
	Subsurface Drainage Pipes/Outfalls	X				X
	Manholes	X				X
	Recharge Areas	X				X
3.0	**Monitoring System:**					
	Soil Gas Wells	X				X
	Groundwater Wells	X				X
4.0	**Site Access:**					
	Asphalt Access Road	X				X
	Crushed-Concrete Access Road	X				X

B. Description of Further Action Requirements:

1. Location: Culverts/Landfill Edges

Observed Conditions: Some Pine Saplings Growing in Various locations

Recommendations: Remove saplings in Spring

BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 4-24-14

Purpose of Inspection: X Routine ___ Heavy Rainfall ___ Reported Incident

Time on Site: _____

Time off Site: _____

Weather Conditions: _____

A. Inspection Checklist

	Component	Observed Condition			Further Action Required	
		Excellent	Fair	Poor	Yes	No
1.0	**Landfill Cap:**					
	Vegetation		X		X	
	Cap	X				X
	Gas Vents	X				X
2.0	**Drainage Structures:**					
	Toe Drain	X				X
	Drainage Channels	X				X
	French Drains/Outfalls	X				X
	Subsurface Drainage Pipes/Outfalls	X				X
	Manholes	X				X
	Recharge Areas	X				X
3.0	**Monitoring System:**					
	Soil Gas Wells	X				X
	Groundwater Wells	X				X
4.0	**Site Access:**					
	Asphalt Access Road	X				
	Crushed-Concrete Access Road	X				X

B. Description of Further Action Requirements:

1. Location: Culverts / Landfill

Observed Conditions: Some Pine Saplings & Minor Vegetation Growth

Recommendations: Remove Saplings & Monitor Vegetation Growth.

BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 5-28-14

Purpose of Inspection: X Routine ___ Heavy Rainfall ___ Reported Incident

Time on Site:

Time off Site:

Weather Conditions: Sunny

A. Inspection Checklist

	Component	Observed Condition			Further Action Required	
		Excellent	Fair	Poor	Yes	No
1.0	**Landfill Cap:**					
	Vegetation		X		X	
	Cap	X				X
	Gas Vents	X				X
2.0	**Drainage Structures:**					
	Toe Drain	X				X
	Drainage Channels	X				X
	French Drains/Outfalls	X				X
	Subsurface Drainage Pipes/Outfalls	X				X
	Manholes	X				X
	Recharge Areas	X				X
3.0	**Monitoring System:**					
	Soil Gas Wells	X				X
	Groundwater Wells	X				X
4.0	**Site Access:**					
	Asphalt Access Road		X			
	Crushed-Concrete Access Road	X			X	
						X

B. Description of Further Action Requirements:

1. Location: Blacktop / Landfill / Culverts

Observed Conditions:

Some potholes in Blacktop. Saplings on Landfill and in Culverts. Some Vegetation Growth

Recommendations:

Repair Potholes. Remove Saplings. Spray Vegetation Killer

BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 6-30-14

Purpose of Inspection: X Routine ___ Heavy Rainfall ___ Reported Incident

Time on Site:

Time off Site:

Weather Conditions: Sunny

A. Inspection Checklist

	Component	Observed Condition			Further Action Required	
		Excellent	Fair	Poor	Yes	No
1.0	**Landfill Cap:**					
	Vegetation		X		X	
	Cap	X				X
	Gas Vents	X				X
2.0	**Drainage Structures:**					
	Toe Drain	X				X
	Drainage Channels	X				X
	French Drains/Outfalls	X				X
	Subsurface Drainage Pipes/Outfalls	X				X
	Manholes	X				X
	Recharge Areas	X				X
3.0	**Monitoring System:**					
	Soil Gas Wells	X				X
	Groundwater Wells	X				X
4.0	**Site Access:**					
	Asphalt Access Road	X				
	Crushed-Concrete Access Road	X				X

B. Description of Further Action Requirements:

1. Location: Culverts, Edges of landfill, Blacktop, Sides of landfill
Observed Conditions: Excessive Vegetation Growth, Saplings on landfill

Recommendations: Have grounds weed whack, spray Vegetation Killer, pull saplings

BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 7-19-14

Purpose of Inspection: X Routine ___ Heavy Rainfall ___ Reported Incident

Time on Site:

Time off Site:

Weather Conditions: SUNNY

A. Inspection Checklist

	Component	Observed Condition			Further Action Required	
		Excellent	Fair	Poor	Yes	No
1.0	**Landfill Cap:**					
	Vegetation		X		X	
	Cap	X				X
	Gas Vents	X				X
2.0	**Drainage Structures:**					
	Toe Drain	X				X
	Drainage Channels	X				X
	French Drains/Outfalls	X				X
	Subsurface Drainage Pipes/Outfalls	X				X
	Manholes	X				X
	Recharge Areas	X				X
3.0	**Monitoring System:**					
	Soil Gas Wells	X				X
	Groundwater Wells	X				X
4.0	**Site Access:**					
	Asphalt Access Road	X				X
	Crushed-Concrete Access Road	X				X

B. Description of Further Action Requirements:

1. Location: Landfill, Edges, Culverts & Blacktop

Observed Conditions:

Excessive Vegetation Growth, Saplings on landfill

Recommendations:

PUT in Workorder to Spray Vegetation and remove Saplings

BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 8-23-19

Purpose of Inspection: X Routine ___ Heavy Rainfall ___ Reported Incident

Time on Site:

Time off Site:

Weather Conditions: Clear/Hot

A. Inspection Checklist

	Component	Observed Condition			Further Action Required	
		Excellent	Fair	Poor	Yes	No
1.0	**Landfill Cap:**					
	Vegetation		X		X	
	Cap	X				X
	Gas Vents	X				X
2.0	**Drainage Structures:**					
	Toe Drain	X				
	Drainage Channels	X				
	French Drains/Outfalls	X				
	Subsurface Drainage Pipes/Outfalls	X				
	Manholes	X				
	Recharge Areas	X				
3.0	**Monitoring System:**					
	Soil Gas Wells	X				
	Groundwater Wells	X				
4.0	**Site Access:**					
	Asphalt Access Road	X				
	Crushed-Concrete Access Road	X				

B. Description of Further Action Requirements:

1. Location: Landfill, Culverts, Edges and Blacktop

Observed Conditions: Excessive Vegetation Growth,

Recommendations:

Work order has been put in for mowing, Vegetation removal

BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 9-29-14
Purpose of Inspection: X Routine ___ Heavy Rainfall ___ Reported Incident
Time on Site:
Time off Site:
Weather Conditions: ~~Clear~~ Cloudy

A. Inspection Checklist

	Component	Observed Condition: Excellent	Fair	Poor	Further Action Required: Yes	No
1.0	**Landfill Cap:**					
	Vegetation		X		X	
	Cap	X				X
	Gas Vents	X				X
2.0	**Drainage Structures:**					
	Toe Drain	X				X
	Drainage Channels	X				X
	French Drains/Outfalls	X				X
	Subsurface Drainage Pipes/Outfalls	X				X
	Manholes	X				X
	Recharge Areas	X				X
3.0	**Monitoring System:**					
	Soil Gas Wells	X				X
	Groundwater Wells	X				X
4.0	**Site Access:**					
	Asphalt Access Road	X				X
	Crushed-Concrete Access Road	X				X

B. Description of Further Action Requirements:

1. Location: Culverts, Edges, Blacktop
Observed Conditions: Grass on cap was mowed this month.

Recommendations: Edges, Culverts & Blacktop need to be sprayed

CONTact Grounds about Spraying Vegetation

BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 10-20-14

Purpose of Inspection: X Routine ___ Heavy Rainfall ___ Reported Incident

Time on Site:

Time off Site:

Weather Conditions:

A. Inspection Checklist

	Component	Observed Condition			Further Action Required	
		Excellent	Fair	Poor	Yes	No
1.0	**Landfill Cap:**					
	Vegetation		X		X	
	Cap	X				X
	Gas Vents	X				X
2.0	**Drainage Structures:**					
	Toe Drain	X				X
	Drainage Channels	X				X
	French Drains/Outfalls	X				X
	Subsurface Drainage Pipes/Outfalls	X				X
	Manholes	X				X
	Recharge Areas	X				X
3.0	**Monitoring System:**					
	Soil Gas Wells	X				X
	Groundwater Wells	X				X
4.0	**Site Access:**					
	Asphalt Access Road	X				
	Crushed-Concrete Access Road	X				X

B. Description of Further Action Requirements:

1. Location: Culverts, Edges, Blacktop

Observed Conditions: Vegetation needs to be sprayed/removed

Recommendations: Continue to call Grounds about Vegetation removal

BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 11-19-14

Purpose of Inspection: X Routine ___ Heavy Rainfall ___ Reported Incident

Time on Site: _____

Time off Site: _____

Weather Conditions: _____

A. Inspection Checklist

	Component	Observed Condition			Further Action Required	
		Excellent	Fair	Poor	Yes	No
1.0	**Landfill Cap:**					
	Vegetation		X			X
	Cap	X				X
	Gas Vents	X				X
2.0	**Drainage Structures:**					
	Toe Drain	X				X
	Drainage Channels	X				X
	French Drains/Outfalls	X				X
	Subsurface Drainage Pipes/Outfalls	X				X
	Manholes	X				X
	Recharge Areas	X				X
3.0	**Monitoring System:**					
	Soil Gas Wells	X				X
	Groundwater Wells	X				X
4.0	**Site Access:**					
	Asphalt Access Road	X				
	Crushed-Concrete Access Road	X				X

B. Description of Further Action Requirements:

1. Location: Culverts, Edges, Blacktop

Observed Conditions: Excess Vegetation

Recommendations:

Note: Vegetation stopping to Grow/Die

Will put work order in during Spring to spray Vegetation

BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 12-17-14

Purpose of Inspection: X Routine ___ Heavy Rainfall ___ Reported Incident

Time on Site:

Time off Site:

Weather Conditions: Clear/Cool

A. Inspection Checklist

	Component	Observed Condition			Further Action Required	
		Excellent	Fair	Poor	Yes	No
1.0	**Landfill Cap:**					
	Vegetation		X			X
	Cap	X				X
	Gas Vents	X				X
2.0	**Drainage Structures:**					
	Toe Drain	X				X
	Drainage Channels	X				X
	French Drains/Outfalls	X				X
	Subsurface Drainage Pipes/Outfalls	X				X
	Manholes	X				X
	Recharge Areas	X				X
3.0	**Monitoring System:**					
	Soil Gas Wells	X				X
	Groundwater Wells	X				X
4.0	**Site Access:**					
	Asphalt Access Road	X				X
	Crushed-Concrete Access Road	X				X

B. Description of Further Action Requirements:

1. Location: Culverts, Edges

Observed Conditions: Vegetation Growth

Recommendations:

Spray Vegetation in Spring

BROOKHAVEN NATIONAL LABORATORY
SITE INSPECTION FORM

Location (AOC): Former Landfill Area (includes the former and interim landfills and slit trench)
Date of Inspection: 5/19/14
Name of Inspector(s): R. Howe, J. Burke, M. Chuc, T. Green
Purpose of Inspection: ☒ Routine (Scheduled Frequency of 2x/yr) ☐ Heavy Rainfall ☐ Reported Incident

A. Inspection Checklist

Component	Observed Condition				Further Action Req'd	
	Excell.	Fair	Poor	Not Applic.	Yes (describe)	No
1. Landfill Cap/Soil Covers/Wetlands:						
Vegetation (e.g. grass)	X				Good height	
Soil (Cap/Cover/Fill)	X				No burrows, remove pines on FLF/ILF	
Other: _____						
2. Drainage Structures:						
Standing Water	X				Minor water in channels	X
Toe Drain	X					X
Drainage Channels	X				Remove veg. in channels	
French Drains/Outfalls	X					X
Subsurface Drainage Pipes/Outfalls	X					X
Manholes				X		X
Berms				X		X
Roof Drains				X		X
Recharge Areas	X				Significant vegetation	X
Other: _____						
3. Monitoring System:						
Soil Gas Wells	X					X
Groundwater Wells	X					X
Gas Vents	X				No wasp nests	X
Other: _____	X					X
4. Site Access:						
Asphalt Access Road		X			Repair pothole/cracks	
Crushed-concrete Access Road		X				X
Fence				X		X
Gates/locks				X		X
Radiological Postings				X		X
Other: LUIC Signs	X				All signs in place	X

5. Evidence of unauthorized work activities and/or unauthorized access has occurred? ☐ Yes ☒ No
If yes, describe evidence: _____

B. Description of Other Observations

Observed Conditions/Recommendations: Cap is in good condition with one surface erosional area on west slope. Filled-in at time of inspection but needs more soil and grass seed. Grass is at good height (~6-8"). Tim suggests not cutting until early fall to allow bird nesting. Facilities and Operations (F&O) needs to: remove small pines growing along west slope of Former Landfill and on edge of Interim Landfill and Slit Trench; cut the Interim Landfill grass and the grass road around the landfill; trim tree branches along the road; remove/spray vegetation in all the drainage channels, and fill asphalt cracks and pothole. LUIC Factsheet Changes: None.

BROOKHAVEN NATIONAL LABORATORY
SITE INSPECTION FORM

Location (AOC): Former Landfill Area (includes the former and interim landfills and slit trench)
Date of Inspection: 10/8/14
Name of Inspector(s): R. Howe, M. Chuc, W. Dorsch, V. Racaniello, K. Schwager
Purpose of Inspection: ☒ Routine (Scheduled Frequency of 2x/yr) ☐ Heavy Rainfall ☐ Reported Incident

A. Inspection Checklist

Component	Observed Condition				Further Action Req'd	
	Excell.	Fair	Poor	Not Applic.	Yes (describe)	No
1. Landfill Cap/Soil Covers/Wetlands:						
Vegetation (e.g. grass)	X				Grass cut in mid-Sept.	X
Soil (Cap/Cover/Fill)	X				Fill in burrow	
Other: _____						
2. Drainage Structures:						
Standing Water	X				None	X
Toe Drain	X					X
Drainage Channels	X				Remove veg. in channels	
French Drains/Outfalls	X					X
Subsurface Drainage Pipes/Outfalls	X					X
Manholes				X		X
Berms				X		X
Roof Drains				X		X
Recharge Areas	X				Significant vegetation	X
Other: _____						
3. Monitoring System:						
Soil Gas Wells	X					X
Groundwater Wells	X					X
Gas Vents	X				No nests in vents	X
Other: _____	X					X
4. Site Access:						
Asphalt Access Road		X			Repair pothole	
Crushed-concrete Access Road		X				X
Fence				X		X
Gates/locks				X		X
Radiological Postings				X		X
Other: LUIC Signs	X				All signs in place	X

5. Evidence of unauthorized work activities and/or unauthorized access has occurred? ☐ Yes ☒ No
If yes, describe evidence: _____
_____

B. Description of Other Observations

Observed Conditions/Recommendations: Former Landfill cap is in good condition. One woodchuck burrow on west slope needs to be filled-in by Facilities and Operations (F&O). The grass on all three landfills were cut in mid-September. F&O needs to: remove small pines and spray vegetation in all the drainage channels; trim tree branches along the Interim Landfill grass access road; and fill asphalt cracks and pothole. LUIC Factsheet Changes: None.

Appendix D

Historical Soil-gas Monitoring Data

1996 CURRENT LANDFILL SOIL GAS MONITORING SUMMARY TABLE

1998 Environmental Monitoring Report

Current and Former Landfills - Brookhaven National Laboratory

Soil Gas Monitoring Well	Methane (% By Volume)			
	April-96	June-96	July-96	December-96
SGMW-01A	21.6	0	16.5	29.8
SGMW-01B	23.2	0	11	28.9
SGMW-01C	24.1	0	11.4	26.8
SGMW-02A	55.1	55	49.5	64.8
SGMW-02B	55.5	52.7	51.4	59
SGMW-02C	55.6	56.4	43.8	58
SGMW-03A	66	61.2	54	62.8
SGMW-03B	62	59.5	45	61.6
SGMW-03C	57.8	58.1	54	57.9
SGMW-04A	49.7	0	48.9	52.4
SGMW-04B	53	0	49.4	54.3
SGMW-04C	52.8	0	48.6	55.9
SGMW-05A	50.1	49.4	46.5	52
SGMW-05B	50.9	47.5	42	53.7
SGMW-05C	48.7	46.9	30.4	51.6
SGMW-06A	40.1	44.2	0.8	0
SGMW-06B	44	46	41.9	0
SGMW-06C	45.2	46.7	42	0
SGMW-07A	8.6	10.4	14.5	6.2
SGMW-07B	76	71.6	0.2	0.8
SGMW-07C	8.4	11.7	3.2	8.7
SGMW-08A	0	0	0.7	0
SGMW-08B	0	0	0	0
SGMW-08C	0	0	0	0
SGMW-09A	0.3	0	0	2.8
SGMW-09B	1.2	0	0	6.7
SGMW-09C	2.5	0.3	0	5.8
SGMW-10A	16.7	22.8	23	22.7
SGMW-10B	16.6	14.3	15.8	32.5
SGMW-10C	14	18.2	11.4	29.2
SGMW-11A	16.4	26.8	23.5	39.3
SGMW-11B	15.7	25.6	25	29.6
SGMW-12A	57.5	0	36.9	57.2
SGMW-12B	51.3	0	32.3	55.7
SGMW-13A	46.3	0	18.7	0
SGMW-13B	47.5	0	26	0
SGMW-14A	34.9	0	18.2	38.6
SGMW-14B	41.4	44.2	16	0
SGMW-15A	0	0.6	3.6	3.4
SGMW-15B	12.7	0	0	0
SGMW-16A	0	0	0	0
SGMW-16B	0	0	0.7	0
SGMW-17A	0	0	0	0
SGMW-17B	0	0	0	0
SGMW-18A	2.6	0	0	7.1
SGMW-18B	0.6	0	0	0
SGMW-19A	40.8	29	16	52.5
SGMW-19B	36.7	30.1	6.9	46.5
GSGM-1A	NA	<>	0	<>
GSGM-1B	NA	<>	0	<>
GSGM-1C	NA	<>	0	<>
GSGM-2A	NA	0	0	<>
GSGM-2B	NA	0	0	<>
GSGM-2C	NA	0	0	<>
GSGM-3A	NA	0	0	<>
GSGM-3B	NA	0	<>	<>
GSGM-4A	NA	0	0	<>
GSGM-4B	NA	0	0	<>

<> No measurement was recorded.

NA Well was not yet installed.

1997 CURRENT LANDFILL SOIL GAS MONITORING SUMMARY TABLE

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Soil Gas Monitoring Well	Methane (% By Volume)			Hydrogen sulfide (ppm By Volume)		
	March-97	August-97	November-97	March-97	August-97	November-97
SGMW-01A	33.4	17.1	16.4	5	5	8
SGMW-01B	32.5	17.2	15.8	1	4	7
SGMW-01C	34.2	15.9	14.5	1	0	1
SGMW-02A	62.4	47.7	53.2	40	39	137
SGMW-02B	64.7	57	56.7	9	17	43
SGMW-02C	62.6	56.6	55.6	2	0	0
SGMW-03A	65.2	55.7	52.2	3	24	15
SGMW-03B	67.5	55.8	57	7	5	9
SGMW-03C	62.5	55.8	57	3	6	7
SGMW-04A	57.6	53.9	52.5	6	52	6
SGMW-04B	58.2	52.5	55.8	7	29	25
SGMW-04C	58.2	52.5	54.5	6	14	15
SGMW-05A	55.2	47.5	50.5	6	44	29
SGMW-05B	54.4	43.3	45.5	10	21	20
SGMW-05C	53.6	37.5	38.7	3	1	2
SGMW-06A	42.6	44	42.9	7	33	3
SGMW-06B	45	43.5	44.4	10	16	17
SGMW-06C	46	42	43.1	7	13	15
SGMW-07A	10.1	2.3	0	3	0	0
SGMW-07B	8.8	0	0	5	0	6
SGMW-07C	9.9	4.1	0.2	3	0	9
SGMW-08A	0	0	0	1	0	5
SGMW-08B	0	0	0	0	0	9
SGMW-08C	0	0	0	0	0	10
SGMW-09A	0.3	0	0	0	0	15
SGMW-09B	3.4	0	0	0	0	14
SGMW-09C	4.6	0.8	1	0	0	12
SGMW-10A	20.5	28	19	1	19	13
SGMW-10B	19.8	24.5	24	1	0	5
SGMW-10C	0	21.7	20.6	0	0	18
SGMW-11A	24.5	27.6	25.2	20	60	56
SGMW-11B	0	27.8	20.5	0	74	32
SGMW-12A	55.9	48	42	21	89	98
SGMW-12B	0	46.5	44.3	0	0	25
SGMW-13A	28.7	45.2	0.7	2	16	19
SGMW-13B	0	0.4	36.9	0	0	27
SGMW-14A	39.1	20.1	5.2	6	10	24
SGMW-14B	0	0	13.5	0	0	13
SGMW-15A	1.8	0.2	2.5	0	0	14
SGMW-15B	0	0	2.6	0	0	14
SGMW-16A	0	31.7	1.1	0	0	9
SGMW-16B	0	◇	0	0	◇	0
SGMW-17A	0	0	0	0	0	20
SGMW-17B	0	0	0	0	0	0
SGMW-18A	0	0	0	0	0	14
SGMW-18B	0	0	0	0	0	15
SGMW-19A	35.1	22	10.6	41	51	42
SGMW-19B	0	29	17.3	0	30	12
GSGM-1A	0	◇	0	4	◇	0
GSGM-1B	0	◇	0	5	◇	1
GSGM-1C	0	◇	0	6	◇	0
GSGM-2A	0	◇	0	6	◇	0
GSGM-2B	0	◇	0	6	◇	4
GSGM-2C	0	◇	0	6	◇	0
GSGM-3A	0	◇	0	5	◇	0
GSGM-3B	0	◇	0	4	◇	0
GSGM-4A	0	◇	0	5	◇	8
GSGM-4B	0	◇	0	5	◇	0

* Values are calculated, not measured. ◇ No measurement was recorded.

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1998 Current Landfill Soil Gas Monitoring Summary Table.

Soil Gas Monitoring Well	Methane (% By Volume) February-98	Methane (% By Volume) May-98	Methane (% By Volume) August-98	Methane (% By Volume) December-98	Hydrogen sulfide (ppm By Volume) February-98	Hydrogen sulfide (ppm By Volume) May-98	Hydrogen sulfide (ppm By Volume) August-98	Hydrogen sulfide (ppm By Volume) December-98	Soil Gas Monitoring Well
SGMW-01A	25.3	26.1	24.2	20.4	5	0	0	0	SGMW-01A
SGMW-01B	25.1	30.1	28	18.7	4	0	0	4	SGMW-01B
SGMW-01C	24	29	26	17.7	1	2	1	2	SGMW-01C
SGMW-02A	87.8	85.3	78.4	51.1	92	3	4	0	SGMW-02A
SGMW-02B	84.1	69	66	54.8	93	6	5	4	SGMW-02B
SGMW-02C	81.6	84.7	85	53.1	11	0	0	0	SGMW-02C
SGMW-03A	20.4	00	78.8	2.5	10	3	2	1	SGMW-03A
SGMW-03B	76.8	74	74	51.1	23	0	0	0	SGMW-03B
SGMW-03C	85.3	85.5	85.3	41.5	4	3	0	1	SGMW-03C
SGMW-04A	11.3	84.2	85	0.4	9	7	4	0	SGMW-04A
SGMW-04B	86.8	85.8	88	38.1	6	4	3	0	SGMW-04B
SGMW-04C	80.8	87.6	87.6	0	17	6	2	0	SGMW-04C
SGMW-05A	48.1	62.4	60	48.8	3	6	5	2	SGMW-05A
SGMW-05B	64	52.1	55.4	47.7	3	4	3	3	SGMW-05B
SGMW-05C	48	50.3	48	41.5	8	3	2	0	SGMW-05C
SGMW-06A	27.2	44.1	38.3	17.6	2	7	0	0	SGMW-06A
SGMW-06B	44.6	46.5	7.8	47.2	15	0	0	1	SGMW-06B
SGMW-06C	46.3	48	8.4	0	0	0	3	0	SGMW-06C
SGMW-07A	2.2	0.9	7.2	0	0	2	4	0	SGMW-07A
SGMW-07B	0	0.6	7	0	0	4	3	0	SGMW-07B
SGMW-07C	4.0	0.5	0.6	0.1	1	0	0	0	SGMW-07C
SGMW-08A	0	0	0	0	2	0	0	0	SGMW-08A
SGMW-08B	0	0	0	0	3	3	3	0	SGMW-08B
SGMW-08C	0	0	0	0	4	1	1	0	SGMW-08C
SGMW-09A	0	0	0	0	0	0	0	0	SGMW-09A
SGMW-09B	0.7	1.4	1.2	0	2	0	0	0	SGMW-09B
SGMW-09C	3	2.7	2.5	0.7	5	2	1	0	SGMW-09C
SGMW-10A	17.0	28.7	28	28.2	0	0	0	0	SGMW-10A
SGMW-10B	23.5	26.4	28.3	26	2	0	0	0	SGMW-10B
SGMW-10C	20.7	24	23	23.7	0	0	0	0	SGMW-10C
SGMW-11A	22.0	31	29.4	17.0	16	0	0	0	SGMW-11A
SGMW-11B	10.0	20	26.3	26.4	0	0	0	0	SGMW-11B
SGMW-12A	53.7	57.2	60.1	33.0	37	2	1	3	SGMW-12A
SGMW-12B	60.3	0.2	3	38.2	11	3	4	0	SGMW-12B
SGMW-13A	7	61.6	59	0	0	0	0	0	SGMW-13A
SGMW-13B	0.1	0.1	0	0	0	0	0	0	SGMW-13B
SGMW-14A	17.1	21	20	1.2	0	1	2	0	SGMW-14A
SGMW-14B	0	0	15	0	0	0	2	0	SGMW-14B
SGMW-15A	1	1.2	0	0	6	0	0	0	SGMW-15A
SGMW-15B	0	0	0.7	0	0	0	0	0	SGMW-15B
SGMW-16A	0	0	0	0	0	0	0	0	SGMW-16A
SGMW-16B	0	0	0	0	0	1	0	0	SGMW-16B
SGMW-17A	0	0	0	0	0	0	0	0	SGMW-17A
SGMW-17B	0	0	0	0	0	0	0	0	SGMW-17B
SGMW-18A	0.2	0	0	0	0	0	2	0	SGMW-18A
SGMW-18B	0	0	0	0	0	0	0	0	SGMW-18B
SGMW-19A	37.1	47.2	30.4	0.7	60	0	0	1	SGMW-19A
SGMW-19B	38.7	1	1	12	8	1	1	1	SGMW-19B

Soil Gas Monitoring Well	Methane (% By Volume) February-00	Methane (% By Volume) May-00	Methane (% By Volume) August-00	Methane (% By Volume) December-00
GSGM-1A	0	0	0	0
GSGM-1B	0	0	0	0
GSGM-1C	0	0	0	0
GSGM-2A	0	0	0	0
GSGM-2B	0	0	20.1	0
GSGM-2C	0	0	0	0
GSGM-3A	0	0	0	0
GSGM-3B	0	0	0	0
GSGM-4A	0	0	0	0
GSGM-4B	0	0	0	0

Hydrogen sulfide (ppm By Volume) February-00	Hydrogen sulfide (ppm By Volume) May-00	Hydrogen sulfide (ppm By Volume) August-00	Hydrogen sulfide (ppm By Volume) December-00	Soil Gas Monitoring Well
0	0	0	0	GSGM-1A
1	0	0	0	GSGM-1B
0	0	0	0	GSGM-1C
0	0	0	0	GSGM-2A
0	0	1	0	GSGM-2B
2	0	0	0	GSGM-2C
0	0	0	0	GSGM-3A
0	0	0	0	GSGM-3B
0	0	0	0	GSGM-4A
2	0	0	0	GSGM-4B

* Values are calculated, not measured.
<> No measurement was recorded.

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1999 Current Landfill Soil Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume) June-99	Methane (% By Volume) October-99	Methane (% By Volume) December-99	LEL (% By Volume) June-99	LEL (% By Volume) October-99	LEL (% By Volume) December-99	Hydrogen sulfide (ppm By Volume) June-99	Hydrogen sulfide (ppm By Volume) October-99	Hydrogen sulfide (ppm By Volume) December-99	Soil Gas Monitoring Well
SGMW-01A	16.5	17.0	16.0	390	380	394	0	< 1	2	SGMW-01A
SGMW-01B	16.6	16.1	15.6	370	382	372	0	< 1	3	SGMW-01B
SGMW-01C	17.2	14.2	15.7	344	200	334	0	< 1	1	SGMW-01C
SGMW-02A	52.4	52.0	55.0	1040	1062	1110	13	< 5	25	SGMW-02A
SGMW-02B	54.4	55	58.7	1060	1100	1134	3	< 5	11	SGMW-02B
SGMW-02C	55.3	55.2	57.5	1108	1104	1150	0	< 5	3	SGMW-02C
SGMW-03A	56.8	41.5	2.9	1102	830	60	3	< 1	1	SGMW-03A
SGMW-03B	61.4	60.3	61.3	1220	1100	1226	0	< 5	4	SGMW-03B
SGMW-03C	59.9	53.3	59.5	1190	1066	1190	0	< 5	3	SGMW-03C
SGMW-04A	53.6	0	35.1	1070	0	702	0	< 5	2	SGMW-04A
SGMW-04B	53.5	53.6	52.0	1070	1070	1058	0	< 5	7	SGMW-04B
SGMW-04C	52.4	55.2	48.7	1048	1104	974	2	< 5	9	SGMW-04C
SGMW-05A	47.8	51.1	47.4	948	1022	944	0	< 5	8	SGMW-05A
SGMW-05B	48	51.5	48	960	1030	884	0	< 5	4	SGMW-05B
SGMW-05C	39.7	35	38.5	794	702	768	0	< 5	4	SGMW-05C
SGMW-06A	41.1	0.1	38.2	820	2	764	0	< 5	2	SGMW-06A
SGMW-06B	43.2	43.2	40.0	862	862	834	0	< 5	7	SGMW-06B
SGMW-06C	43.1	0	40.6	862	0	820	0	< 5	6	SGMW-06C
SGMW-07A	3.3	0.1	0	66	2	0	0	< 5	2	SGMW-07A
SGMW-07B	0.9	0	0	18	0	0	0	< 5	2	SGMW-07B
SGMW-07C	4.4	0.17	1.3	88	34	28	0	< 5	2	SGMW-07C
SGMW-08A	0	0	0	0	0	0	0	< 5	2	SGMW-08A
SGMW-08B	0	0	0	0	0	0	0	< 5	2	SGMW-08B
SGMW-08C	0	0	0	0	0	0	0	< 5	3	SGMW-08C
SGMW-09A	0	0	0	0	0	0	0	< 5	3	SGMW-09A
SGMW-09B	0	0	0	0	0	0	0	< 5	3	SGMW-09B
SGMW-09C	0	0	0.1	0	0	2	0	< 5	3	SGMW-09C
SGMW-10A	21.4	16.7	20	420	314	400	1	< 5	2	SGMW-10A
SGMW-10B	19.8	20.7	21.1	396	632	420	0	< 5	3	SGMW-10B
SGMW-10C	17.8	22.8	18.1	360	464	384	0	< 5	3	SGMW-10C
SGMW-11A	15.3	21.2	16.8	308	424	308	0	< 5	3	SGMW-11A
SGMW-11B	15.2	25.8	14.8	304	512	294	10	< 5	3	SGMW-11B
SGMW-12A	48.8	45.1	47.1	930	902	942	30	< 5	8	SGMW-12A
SGMW-12B	44.2	48.5	47.8	884	930	954	0	< 5	3	SGMW-12B
SGMW-13A	53.4	0.1	0	1062	2	0	12	< 5	0	SGMW-13A
SGMW-13B	0.2	0.2	24.6	4	4	492	0	< 5	2	SGMW-13B
SGMW-14A	7.8	5.9	7.1	152	110	142	0	< 5	5	SGMW-14A
SGMW-14B	0	22.0	3.4	0	452	80	0	< 5	2	SGMW-14B
SGMW-15A	0	1.0	2.9	0	32	58	0	< 5	3	SGMW-15A
SGMW-15B	0	0.1	0	0	2	0	0	< 5	2	SGMW-15B
SGMW-16A	0	0.1	0	0	2	0	0	< 5	2	SGMW-16A
SGMW-16B	0	0.1	0	0	2	0	0	< 5	2	SGMW-16B
SGMW-17A	screen in water table	0.1	0	< 5	2	0	< 5	< 5	2	SGMW-17A
SGMW-17B	screen in water table	0.1	0	< 5	2	0	< 5	< 5	2	SGMW-17B
SGMW-18A	0	0.1	0	0	2	0	0	< 5	2	SGMW-18A
SGMW-18B	0	1	0.4	0	20	0	0	< 5	1	SGMW-18B
SGMW-19A	25.1	23	20.0	802	460	400	16	< 5	16	SGMW-19A
SGMW-19B	30.1	27.3	20.5	802	544	410	8	< 5	12	SGMW-19B

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Soil Gas Monitoring Well	Methane (% By Volume) June-99	Methane (% By Volume) October-99	Methane (% By Volume) December-99	LEL (% By Volume) June-99	LEL (% By Volume) October-99	LEL (% By Volume) December-99	Hydrogen sulfide (ppm By Volume) June-99	Hydrogen sulfide (ppm By Volume) October-99	Hydrogen sulfide (ppm By Volume) December-99	Soil Gas Monitoring Well
GSGM-1A	0	0	0	0	0	0	0	0	0	GSGM-1A
GSGM-1B	0	0	0	0	0	0	0	0	0	GSGM-1B
GSGM-1C	0	broken valve	broken valve	0	0	0	0	0	0	GSGM-1C
GSGM-2A	0	0	0	0	0	0	0	0	2	GSGM-2A
GSGM-2B	0	0	0	0	0	0	0	0	1	GSGM-2B
GSGM-2C	0	0	0	0	0	0	0	0	1	GSGM-2C
GSGM-3A	0	0	0	0	0	0	0	0	0	GSGM-3A
GSGM-3B	0	0	0	0	0	0	0	0	0	GSGM-3B
GSGM-4A	0	0	0	0	0	0	0	0	0	GSGM-4A
GSGM-4B	0	0	0	0	0	0	0	0	0	GSGM-4B

<= No measurement was recorded.

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2000 Current Landfill Soil Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume) February-00	Methane (% By Volume) June-00	Methane (% By Volume) September-00	Methane (% By Volume) December-00	LEL (% By Volume) February-00	LEL (% By Volume) June-00	LEL (% By Volume) September-00	LEL (% By Volume) December-00	Hydrogen Sulfide (ppm by volume) February-00	Hydrogen Sulfide (ppm by volume) June-00	Hydrogen Sulfide (ppm by volume) September-00	Hydrogen Sulfide (ppm by volume) December-00	Soil Gas Monitoring Well
SGMW-01A	20.0	20.5	21.0	10.0	402	410	422	200	0	0	4	0	SGMW-01A
SGMW-01B	19.3	20.3	11.3	14.2	386	406	222	280	1	0	1	0	SGMW-01B
SGMW-01C	17.5	13.7	11.6	13.0	350	276	230	260	0	0	1	0	SGMW-01C
SGMW-02A	48.5	64.0	60	54.4	990	(1000)	(1000)	(1000)	1	3	0	16	SGMW-02A
SGMW-02B	55.1	57.1	56.3	58.2	(1102)	(1142)	(1120)	(1124)	4	20	8	11	SGMW-02B
SGMW-02C	58.0	48.3	58.0	58.0	(1120)	886	(1120)	(1120)	2	0	4	0	SGMW-02C
SGMW-03A	48.2	62.0	64.0	67.0	886	(1250)	(1200)	(1182)	1	0	0	2	SGMW-03A
SGMW-03B	67.0	67.0	60.2	67.4	(1140)	(1240)	(1200)	(1240)	1	4	0	2	SGMW-03B
SGMW-03C	57.3	61.2	62.0	58.7	(1148)	(1224)	(1240)	(1134)	1	4	0	4	SGMW-03C
SGMW-04A	30.7	61.0	2.0	51.0	614	(1050)	52	(1132)	1	4	1	1	SGMW-04A
SGMW-04B	48.8	62.0	48.0	50.0	870	(1088)	972	(1200)	2	2	0	2	SGMW-04B
SGMW-04C	43.0	52.1	43.0	45.2	900	(1042)	858	900	4	0	1	8	SGMW-04C
SGMW-05A	47.7	46.4	47.6	47.2	854	880	950	944	1	0	0	0	SGMW-05A
SGMW-05B	44.6	50.0	40.2	43.0	892	(1080)	804	870	1	0	5	0	SGMW-05B
SGMW-05C	36.7	43.7	40.7	38.7	734	874	814	736	2	1	0	0	SGMW-05C
SGMW-09A	33.0	41.7	18.0	44.0	660	834	370	880	0	4	0	2	SGMW-09A
SGMW-09B	43.0	45.6	40.0	40.0	960	916	860	820	1	2	2	3	SGMW-09B
SGMW-09C	44.3	46.2	33.7	46.0	880	908	874	910	0	1	1	0	SGMW-09C
SGMW-07A	0.2	.6.0	0.0	0.0	0	118	10	0	0	0	1	1	SGMW-07A
SGMW-07B	0	0.0	0.0	0.0	0	12	0	0	0	0	1	2	SGMW-07B
SGMW-07C	2.8	3.0	1.8	0.6	62	60	30	10	0	0	2	2	SGMW-07C
SGMW-08A	0	0	0	0.0	0	0	0	0	1	0	0	3	SGMW-08A
SGMW-08B	0	0	0	0.0	0	0	0	0	1	0	0	3	SGMW-08B
SGMW-08C	0	0	0	0.0	0	0	0	0	1	0	0	3	SGMW-08C
SGMW-09A	0	0	0	0.0	0	0	0	0	1	0	1	3	SGMW-09A
SGMW-09B	0	0	0	0.0	0	0	0	0	1	0	1	3	SGMW-09B
SGMW-09C	0	0	0	0.0	0	0	0	0	1	0	0	3	SGMW-09C
SGMW-10A	0.3	38.1	23.7	17.0	100	622	474	340	1	3	2	3	SGMW-10A
SGMW-10B	13.6	21.7	20.1	15.6	270	424	572	310	1	0	2	2	SGMW-10B
SGMW-10C	10.8	19.5	22.2	12.6	212	390	444	260	1	0	2	3	SGMW-10C
SGMW-11A	10.1	27.1	64.0	13.0	202	542	(1050)	272	2	20	10	7	SGMW-11A
SGMW-11B	6.8	28.4	54.2	8.2	136	626	(1050)	164	2	21	2	0	SGMW-11B
SGMW-12A	43.9	60.0	64.4	48.6	878	(1200)	(1200)	930	2	63	2	7	SGMW-12A
SGMW-12B	43.8	48.0	48.1	47.0	852	988	962	940	1	0	0	6	SGMW-12B
SGMW-13A	23.4	57.6	63.6	40.0	468	(1152)	(1278)	998	1	0	2	2	SGMW-13A
SGMW-13A	45.1	0	0	48.2	902	0	0	964	1	0	0	67	SGMW-13A
SGMW-14A	2.7	20.2	16.8	12.1	54	404	310	242	1	0	0	7	SGMW-14A
SGMW-14B	0	0	0	23.3	0	0	0	466	1	0	0	31	SGMW-14B
SGMW-15A	2.0	0	1.0	0.0	40	0	32	0	2	0	2	4	SGMW-15A
SGMW-15B	0	0	0	0.0	0	0	0	0	2	0	0	5	SGMW-15B
SGMW-16A	0	0	0	0.0	0	0	0	0	1	0	0	2	SGMW-16A
SGMW-16B	0	0	0	0.0	0	0	0	0	0	0	0	2	SGMW-16B
SGMW-17A	0	0	0	0.0	0	0	0	0	1	0	0	1	SGMW-17A
SGMW-17B	0	0	0	0.0	0	0	0	0	1	0	0	3	SGMW-17B
SGMW-18A	0	0	0	0.0	0	0	0	0	0	0	0	2	SGMW-18A
SGMW-18B	0	0.1	0.1	0.0	0	2	0	0	0	0	0	4	SGMW-18B
SGMW-19A	12.9	28.9	34.0	14.2	256	778	890	284	4	2	10	13	SGMW-19A
SGMW-19B	18.7	34.0	32.8	18.0	334	682	860	360	4	0	0	4	SGMW-19B
GSGM-1A	0	0	0	0	0	0	0	0	0	0	0	1	GSGM-1A
GSGM-1B	0	0	0	0	0	0	0	0	0	0	0	1	GSGM-1B
GSGM-1C	0	0	0	0	0	0	0	0	0	0	0	1	GSGM-1C
GSGM-2A	0	0	0	0	0	0	0	0	0	0	0	1	GSGM-2A
GSGM-2B	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-2B
GSGM-2C	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-2C
GSGM-3A	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-3A
GSGM-3B	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-3B
GSGM-4A	0	0	0	0	0	0	0	0	0	0	0	4	GSGM-4A
GSGM-4B	0	0	0	0	0	0	0	0	0	0	0	3	GSGM-4B

** No Measurement was collected due to other work in the area.
Measurements in ( ) are calculated, not measured.

Brookhaven National Laboratory
2001 Landfills Environmental Monitoring Report
2001 Current Landfill Soil Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume) March-01	Methane (% By Volume) June-01	Methane (% By Volume) September-01	LEL (% By Volume) March-01	LEL (% By Volume) June-01	LEL (% By Volume) September-01	Hydrogen Sulfide (ppm by volume) March-01	Hydrogen Sulfide (ppm by volume) June-01	Hydrogen Sulfide (ppm by volume) September-01
SGMW-01A	22.3	23.1	18.5	440	462	800	2	11	0
SGMW-01B	2.8	0.0	17.1	434	0	384	0	0	0
SGMW-01C	16.3	20.4	19.3	326	408	368	0	57	49
SGMW-02A	59.8	62.0	67.9	1200	1856	>1,000	140	67	0
SGMW-02B	60.0	0.0	66.9	1100	0	>1,000	101	1	0
SGMW-02C	0.0	0.0	53.2	0	0	>1,000	1	0	0
SGMW-03A	30.0	61.0	62.0	780	1160	>1,000	5	14	43
SGMW-03B	67.2	66.6	64.7	1344	1330	>1,000	20	21	0
SGMW-03C	0.2	0.0	63.5	4	0	>1,000	1	2	0
SGMW-04A	42.0	0.0	62.0	850	78	>1,000	2	4	32
SGMW-04B	50.6	63.0	61.0	1010	1872	>1,000	3	15	14
SGMW-04C	0.0	0.2	59.6	0	4	>1,000	1	2	0
SGMW-05A	46.0	40.2	57.6	912	804	>1,000	3	2	0
SGMW-05B	43.0	0.2	53.0	870	4	>1,000	3	3	0
SGMW-05C	0.0	0.1	48.3	0	2	800	2	3	0
SGMW-06A	10.4	0.3	64.4	208	100	>1,000	3	4	84
SGMW-06B	0.0	0.2	53.0	0	4	>1,000	2	4	6
SGMW-06C	0.0	0.1	52.0	0	2	>1,000	3	3	0
SGMW-07A	0.0	0.1	0.2	0	102	4	4	0	0
SGMW-07B	0	0.0	0.2	0	0	4	2	2	0
SGMW-07C	0.0	0.0	1.1	10	0	.24	0	1	0
SGMW-08A	0	0	.2	0	0	4	4	1	0
SGMW-08B	0	0	.2	0	0	4	2	2	0
SGMW-08C	0	0	.3	0	0	0	2	1	0
SGMW-09A	0	.3	0	0	4	0	1	3	0
SGMW-09B	0	.2	0	0	4	0	1	2	0
SGMW-09C	0	.2	0	0	4	0	0	0	0
SGMW-10A	10.0	10.0	20.0	210	330	800	4	2	0
SGMW-10B	11.2	10.0	25.6	224	370	812	2	5	0
SGMW-10C	0.0	13.2	10.0	150	204	370	2	2	0
SGMW-11A	0.0	21.0	20.3	170	430	800	10	43	2
SGMW-11B	0.1	19.3	25.0	122	880	840	0	27	30
SGMW-11C	49.0	53.4	53.7	980	1088	1074	1	96	108
SGMW-12A	44.4	0.2	60.1	886	4	1002	3	8	101
SGMW-12B	10.3	66.1	55.7	220	1302	1114	0	6	0
SGMW-12C	0.0	.2	0	0	4	0	0	2	0
SGMW-13A	17.4	6.2	7.4	348	124	160	0	4	0
SGMW-13B	0	0	0	0	0	0	0	2	0
SGMW-13C	0.0	.3	0.0	0	0	0	0	4	0
SGMW-14A	0	0	0	0	0	0	0	2	0
SGMW-14B	0	0	0	0	0	0	0	0	0
SGMW-14C	0	0	0	0	0	0	0	0	0
SGMW-15A	0	0	0	0	0	0	0	1	0
SGMW-15B	0	0	0	0	0	0	0	0	0
SGMW-15C	0	0	0	0	0	0	0	1	0
SGMW-16A	0	0	0	0	0	0	0	0	0
SGMW-16B	0	0	0	0	0	0	0	1	0
SGMW-16C	0	0	0	0	0	0	0	0	0
SGMW-17A	0	0	0	0	0	0	0	0	0
SGMW-17B	0	0	0	0	0	0	0	0	0
SGMW-17C	0	0	0	0	0	0	0	0	0
SGMW-18A	0	0	0	0	0	0	0	200	0
SGMW-18B	0	0	0.0	230	784	672	0	83	0
SGMW-18C	31.0	38.2	20.0	409	730	824	0	0	0
SGMW-19A	20.3	36.0	29.1	0	0	0	0	0	0
SGMW-19B	0	0	0	0	0	0	0	0	0
SGMW-19C	0	0	0	0	0	0	0	0	0
SGSM-1A	0	0	0	0	0	0	0	0	0
SGSM-1B	0	0	0	0	0	0	1	0	0
SGSM-1C	0	0	0	0	0	0	0	0	0
SGSM-2A	0	0	0	0	0	0	0	0	0
SGSM-2B	0	0	0	0	0	0	1	0	0
SGSM-2C	0	0	0	0	0	0	0	0	0
SGSM-3A	0	0	0	0	0	0	0	0	0
SGSM-3B	0	0	0	0	0	0	1	0	0
SGSM-4A	0	0	0	0	0	0	0	0	0
SGSM-4B	0	0	0	0	0	0	0	0	0

-- No Measurement was collected due to other work in the area.
Measurements in ( ) are calculated, not measured.

2002 Current Landfill Soil Gas Monitoring Summary

Soil Gas Monitoring Well	Methane (% By Volume) March-02	Methane (% By Volume) June-02	Methane (% By Volume) Sept-02, Oct-02	Methane (% By Volume) December-02	LEL (% By Volume) March-02	LEL (% By Volume) June-02	LEL (% By Volume) Sept-02, Oct-02	LEL (% By Volume) December-02	Hydrogen Sulfide (ppm by volume) March-02	Hydrogen Sulfide (ppm by volume) June-02	Hydrogen Sulfide (ppm by volume) Sept-02, Oct-02	Hydrogen Sulfide (ppm by volume) December-02	Soil Gas Monitoring Well
SGMW-01A	13.8	14.1	0.0	16.0	270	202	102	354	0	7	10	3	SGMW-01A
SGMW-01B	13.7	11.5	0.2	16.9	274	230	164	334	0	1	2	14	SGMW-01B
SGMW-01C	16.0	8.6	5.6	11.0	310	172	110	234	0	1	1	4	SGMW-01C
SGMW-02A	48.0	48.0	48.2	50.6	020	002	004	(1130)	64	132	141	0	SGMW-02A
SGMW-02B	17.1	20.5	34.0	43.7	342	670	002	004	0	2	11	48	SGMW-02B
SGMW-02C	37.6	43.8	52.0	51.7	760	078	(1040)	(1034)	0	24	68	77	SGMW-02C
SGMW-03A	36.5	53.6	64.1	41.4	730	(1072)	(1002)	020	0	148	0	16	SGMW-03A
SGMW-03B	57.0	62.4	60.0	66.0	(1140)	(1240)	(1162)	(1316)	13	18	34	17	SGMW-03B
SGMW-03C	54.1	60.6	68.0	60.0	(1062)	(1172)	(1170)	(1200)	0	0	28	0	SGMW-03C
SGMW-04A	40.6	46.8	56.0	46.1	810	030	(1010)	000	0	1	20	3	SGMW-04A
SGMW-04B	44.6	48.0	51.3	10.2	808	400	(1020)	002	2	11	76	37	SGMW-04B
SGMW-04C	36.5	43.5	44.1	42.5	730	870	000	844	25	30	32	38	SGMW-04C
SGMW-05A	30.1	36.6	38.0	42.6	702	772	776	050	0	44	2	34	SGMW-05A
SGMW-05B	37.4	38.4	42.0	41.2	738	700	840	038	1	13	63	20	SGMW-05B
SGMW-05C	28.0	31.0	31.6	34.2	570	020	032	004	0	10	13	12	SGMW-05C
SGMW-06A	30.7	33.6	40.0	41.5	010	072	800	632	2	3	37	2	SGMW-06A
SGMW-06B	36.1	35.0	40.0	43.1	712	710	812	864	11	22	62	32	SGMW-06B
SGMW-06C	38.3	35.2	38.1	42.0	733	704	702	840	6	10	21	12	SGMW-06C
SGMW-07A	0.2	0.4	0.0	0.0	4	6	0	0	0	1	2	2	SGMW-07A
SGMW-07B	0.2	0.0	0.0	0.0	4	0	0	0	0	1	0	1	SGMW-07B
SGMW-07C	0.2	1.2	0.0	0.0	4	24	0	0	0	1	0	2	SGMW-07C
SGMW-08A	0.2	0	0	0.0	4	0	0	0	1	1	0	0	SGMW-08A
SGMW-08B	0.2	0	0	0.0	4	0	0	0	1	1	0	0	SGMW-08B
SGMW-08C	0.2	0	0	0.0	4	0	0	0	0	3	0	0	SGMW-08C
SGMW-09A	0.1	0	0	0.0	2	0	0	0	0	2	2	2	SGMW-09A
SGMW-09B	0.2	0	0	0.0	4	0	0	0	1	0	1	1	SGMW-09B
SGMW-09C	0.2	0	0	0.0	4	0	0	0	1	2	0	2	SGMW-09C
SGMW-10A	10.0	15.0	25.5	10.0	212	300	610	330	4	13	1	0	SGMW-10A
SGMW-10B	10.7	14.2	20.0	14.0	214	304	400	292	0	0	5	2	SGMW-10B
SGMW-10C	8.0	12.2	17.1	12.2	160	244	342	248	0	3	1	0	SGMW-10C
SGMW-11A	0.2	14.8	20.7	17.0	194	208	334	336	0	88	125	28	SGMW-11A
SGMW-11B	0.1	14.5	24.7	18.4	122	300	464	288	1	40	162	18	SGMW-11B
SGMW-12A	37.0	43.8	60.4	48.0	752	880	1008	970	16	0	0	34	SGMW-12A
SGMW-12B	35.8	38.0	48.0	45.0	710	760	920	894	4	13	32	16	SGMW-12B
SGMW-13A	35.6	43.6	47.3	47.0	710	870	940	950	83	158	70	3	SGMW-13A
SGMW-13A	33.7	42.3	46.2	47.1	674	840	924	942	2	4	22	5	SGMW-13A
SGMW-14A	1.0	4.8	2.8	10.6	28	80	60	212	2	2	0	7	SGMW-14A
SGMW-14B	5.6	11.0	10.4	14.0	112	220	208	208	1	3	8	1	SGMW-14B
SGMW-15A	0.1	0	4.0	8.3	2	0	88	168	0	1	2	4	SGMW-15A
SGMW-15B	0.1	0	44.6	18.1	2	0	880	376	0	4	9	36	SGMW-15B
SGMW-16A	0	0	0.1	0.0	0	0	2	0	0	3	0	1	SGMW-16A
SGMW-16B	0.1	0	0.1	0.0	2	0	2	0	0	4	4	1	SGMW-16B
SGMW-17A	0.1	0	0.2	0.0	2	0	4	0	0	3	3	2	SGMW-17A
SGMW-17B	0.1	0	0.2	0.0	2	0	4	0	0	2	2	4	SGMW-17B
SGMW-18A	0.7	0	0.1	0.0	4	0	2	0	0	4	4	2	SGMW-18A
SGMW-18B	0.4	0	0.3	0.0	6	0	4	0	0	3	3	4	SGMW-18B
SGMW-19A	5.8	15.0	26.6	0.0	116	310	570	0	2	121	19	132	SGMW-19A
SGMW-19B	8.5	18.6	31.2	0.0	166	392	674	0	4	32	30	0	SGMW-19B
GSGM-1A	0	0	0	0	0	0	0	0	5	3	1	4	GSGM-1A
GSGM-1B	0	0	0	0	0	0	0	0	4	2	2	3	GSGM-1B
GSGM-1C	0	0	0	0	0	0	0	0	3	3	2	3	GSGM-1C
GSGM-2A	0	0	0	0	0	0	0	0	3	1	3	2	GSGM-2A
GSGM-2B	0	0	0	0	0	0	0	0	3	3	1	2	GSGM-2B
GSGM-2C	0	0	0	0	0	0	0	0	4	3	2	3	GSGM-2C
GSGM-3A	0	0	0	0	0	0	0	0	3	3	1	3	GSGM-3A
GSGM-3B	0	0	0	0	0	0	0	0	2	2	0	2	GSGM-3B
GSGM-4A	0	0	0	0	0	0	0	0	4	3	1	3	GSGM-4A
GSGM-4B	0	0	0	0	0	0	0	0	2	2	2	2	GSGM-4B

Measurements in ( ) are calculated, not measured

2003 Current Landfill Soil Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume) April-03	Methane (% By Volume) July-03	Methane (% By Volume) October-03	Methane (% By Volume) December-03	LEL (% By Volume) April-03	LEL (% By Volume) July-03	LEL (% By Volume) October-03	LEL (% By Volume) December-03	Hydrogen Sulfide (ppm by volume) April-03	Hydrogen Sulfide (ppm by volume) July-03	Hydrogen Sulfide (ppm by volume) October-03	Hydrogen Sulfide (ppm by volume) December-03	Soil Gas Monitoring Well
SGMW-01A	17.6	22.1	21.1	21.5	352	444	422	436	2	~	0	~	SGMW-01A
SGMW-01B	18.6	16.2	19.7	19.8	372	324	394	396	3	~	81	~	SGMW-01B
SGMW-01C	18.0	13.9	20.0	17.3	360	282	400	348	3	~	80	~	SGMW-01C
SGMW-02A	58.2	41.2	5.0	22.2	(1164)	324	100	442	14	~	68	~	SGMW-02A
SGMW-02B	55.7	0.0	0.1	0.0	(1140)	0	2	0	32	~	13	~	SGMW-02B
SGMW-02C	59.1	0.0	0	42.7	536	0	0	858	9	~	0	~	SGMW-02C
SGMW-03A	26.8	57.8	55.0	0.0	(1182)	(1156)	(1100)	0	19	~	0	~	SGMW-03A
SGMW-03B	69.1	0.0	54.2	11.7	(1078)	0	(1084)	234	23	~	95	~	SGMW-03B
SGMW-03C	63.9	0.0	0.2	41.0	(1052)	0	4	820	3	~	0	~	SGMW-03C
SGMW-04A	54.1	0.0	0.5	9.4	966	0	10	186	3	~	109	~	SGMW-04A
SGMW-04B	53.9	0.0	0.2	47.0	938	0	4	940	7	~	27	~	SGMW-04B
SGMW-04C	52.6	0.0	0.1	41.5	862	0	2	832	15	~	0	~	SGMW-04C
SGMW-05A	48.3	48.0	54.9	23.4	966	960	(1098)	468	2	~	163	~	SGMW-05A
SGMW-05B	46.9	43.8	53.8	38.8	938	876	(1076)	776	3	~	0	~	SGMW-05B
SGMW-05C	43.1	0.0	41.8	32.3	862	0	836	648	3	~	0	~	SGMW-05C
SGMW-06A	40.3	5.8	15.5		806	116	310	420	1	~	0	~	SGMW-06A
SGMW-06B	42.9	0.0	0.0	20.7	858	0	0	896	3	~	0	~	SGMW-06B
SGMW-06C	43.6	0.0	0.1	44.8	872	0	2	900	2	~	0	~	SGMW-06C
SGMW-07A	0.8	0.0	0.0	45.1	16	0	0	0	1	~	0	~	SGMW-07A
SGMW-07B	0.9	0.0	0.1	0.0	18	0	2	0	2	~	0	~	SGMW-07B
SGMW-07C	4.0	0.0	0.1	0.0	80	0	2	0	0	~	0	~	SGMW-07C
SGMW-08A	0.0	0	0.1	0.0	0	0	2	0	0	~	27	~	SGMW-08A
SGMW-08B	0.0	0	0	0.0	0	0	0	0	0	~	0	~	SGMW-08B
SGMW-08C	0.0	0	0	0.0	0	0	0	0	0	~	0	~	SGMW-08C
SGMW-09A	0	0	0.1	0.0	0	0	2	0	0	~	13	~	SGMW-09A
SGMW-09B	0	0	0	0.0	0	0	0	0	0	~	0	~	SGMW-09B
SGMW-09C	0.1	0	0.1	0.0	2	0	2	0	0	~	0	~	SGMW-09C
SGMW-10A	18.0	22.0	27.9	5.6	360	440	558	112	1	~	0	~	SGMW-10A
SGMW-10B	15.8	17.7	22.0	0.0	316	354	440	0	1	~	0	~	SGMW-10B
SGMW-10C	14.0	16.6	18.2	0.0	280	332	364	0	2	~	0	~	SGMW-10C
SGMW-11A	15.6	29.3	0.4	17.7	312	586	8	356	1	~	0	~	SGMW-11A
SGMW-11B	13.7	26.0	0.1	0.0	274	520	2	0	13	~	0	~	SGMW-11B
SGMW-12A	60.0	47.6	64.7	0.0	(1200)	952	(1294)	0	0	~	0	~	SGMW-12A
SGMW-12B	50.9	0.3	0.5	1.8	(1018)	6	10	36	1	~	0	~	SGMW-12B
SGMW-13A	30.5	0.0	67.2	66.4	610	0	(1344)	1328	1	~	163	~	SGMW-13A
SGMW-13B	0.0	0.8	0.1	0.0	0	16	2	0	1	~	0	~	SGMW-13A
SGMW-14A	29.4	9.8	8.3	0.0	588	196	2	0	10	~	0	~	SGMW-14A
SGMW-14B	0.2	0	0.1	0.1	4	0	2	2	1	~	0	~	SGMW-14B
SGMW-15A	0.1	0	0.1	0.0	2	0	2	0	1	~	54	~	SGMW-15A
SGMW-15B	0	0	0.1	0.0	0	0	2	0	0	~	0	~	SGMW-15B
SGMW-16A	0.1	0	0	0.0	2	0	0	0	1	~	0	~	SGMW-16A
SGMW-16B	0	0	0	0.0	0	0	0	0	3	~	0	~	SGMW-16B
SGMW-17A	0	0	0	0.0	0	0	0	0	3	~	0	~	SGMW-17A
SGMW-17B	0	0	0	0.0	0	0	0	0	2	~	0	~	SGMW-17B
SGMW-18A	0.1	0	0	0.0	2	0	0	0	2	~	0	~	SGMW-18A
SGMW-18B	0	0.1	0.0	0.0	0	2	0	0	0	~	0	~	SGMW-18B
SGMW-19A	41.8	29.1	40.0	27.0	838	582	800	540	0	~	0	~	SGMW-19A
SGMW-19B	44.0	0.7	33.2	29.5	880	14	664	592	39	~	191	~	SGMW-19B
GSGM-1A	0.1	0	0	0	2	0	0	0	0	~	0	~	GSGM-1A
GSGM-1B	0	0	0	0	0	0	0	0	0	~	0	~	GSGM-1B
GSGM-1C	0	0	0	0	0	0	0	0	0	~	0	~	GSGM-1C
GSGM-2A	0	0	0	0	0	0	0	0	0	~	0	~	GSGM-2A
GSGM-2B	0	0	0	0	0	0	0	0	0	~	0	~	GSGM-2B
GSGM-2C	0	0	0	0	0	0	0	0	0	~	0	~	GSGM-2C
GSGM-3A	0	0	0	0	0	0	0	0	0	~	0	~	GSGM-3A
GSGM-3B	0	0	0	0	0	0	0	0	0	~	0	~	GSGM-3B
GSGM-4A	0	0	0	0	0	0	0	0	0	~	0	~	GSGM-4A
GSGM-4B	0	0	0	0	0	0	0	0	0	~	0	~	GSGM-4B

Measurements in ( ) are calculated, not measured.
~ H2S pod was not operating correctly.
July measurements taken with a Landtec GEM 500.

2004 Current Landfill Soil Gas Monitoring Summary

Soil Gas Monitoring Well	Methane (% By Volume) 3/10/04	Methane (% By Volume) 6/25/04	Methane (% By Volume) 10/7/04	Methane (% By Volume) 11/30/04	LEL (% By Volume) 3/10/04	LEL (% By Volume) 6/25/04	LEL (% By Volume) 10/7/04	LEL (% By Volume) 11/30/04	Hydrogen Sulfide (ppm by volume) 3/10/04	Hydrogen Sulfide (ppm by volume) 6/25/04	Hydrogen Sulfide (ppm by volume) 10/7/04	Hydrogen Sulfide (ppm by volume) 11/30/04	Soil Gas Monitoring Well
SGMW-01A	16.6	14.4	6.8	6.8	332	288	136	136	150	2	3	1	SGMW-01A
SGMW-01B	15.6	8.6	6.0	2.5	312	172	120	50	23	0	0	0	SGMW-01B
SGMW-01C	14.0	0.2	4.2	6.3	280	4	84	126	34	0	0	0	SGMW-01C
SGMW-02A	34.5	8.6	39.7	2.1	692	172	794	42	191	0	11	0	SGMW-02A
SGMW-02B	22.7	0.6	12.7	0.0	454	12	254	0	177	0	0	0	SGMW-02B
SGMW-02C	44.4	0.0	2	4.6	888	0	4	92	0	0	0	0	SGMW-02C
SGMW-03A	25.4	15.2	4.1	0.0	508	304	82	0	0	0	0	0	SGMW-03A
SGMW-03B	52.1	28.0	14.0	0.1	(1042)	560	280	2	0	0	0	0	SGMW-03B
SGMW-03C	51.3	7.3	1.8	0.0	(1026)	146	36	0	0	0	0	0	SGMW-03C
SGMW-04A	37.5	49.1	3.5	1.8	748	982	70	36	0	0	0	0	SGMW-04A
SGMW-04B	43.0	50.7	23.2	14.4	860	(1014)	454	288	0	0	0	0	SGMW-04B
SGMW-04C	36.2	40.9	21.2	14.5	724	818	424	290	0	0	0	0	SGMW-04C
SGMW-05A	36.1	40.0	13.6	3.7	722	800	272	74	150	0	0	0	SGMW-05A
SGMW-05B	36.8	41.4	25.2	13.6	736	828	504	272	0	0	0	0	SGMW-05B
SGMW-05C	29.0	24.0	18.6	13.6	590	480	372	272	0	0	0	0	SGMW-05C
SGMW-06A	31.8	9.7	3.9	1.8	636	194	78	36	0	0	0	0	SGMW-06A
SGMW-06B	40.4	27.4	20.6	0.3	808	548	412	6	0	0	0	0	SGMW-06B
SGMW-06C	42.1	29.8	4.7	13.2	842	596	94	264	0	0	0	0	SGMW-06C
SGMW-07A	0.2	0.1	0.0	0.0	4	2	0	0	0	0	0	0	SGMW-07A
SGMW-07B	0.5	0.1	0.0	0.0	10	2	0	0	0	0	0	0	SGMW-07B
SGMW-07C	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	SGMW-07C
SGMW-08A	0.0	0	0	0.0	0	0	0	0	0	0	0	0	SGMW-08A
SGMW-08B	0.0	0	0	0.0	0	0	0	0	0	0	0	0	SGMW-08B
SGMW-08C	0.0	0	0	0.0	0	0	0	0	0	0	0	0	SGMW-08C
SGMW-09A	0	0	0	0.0	0	0	0	0	0	0	0	0	SGMW-09A
SGMW-09B	0	0	0	0.0	0	0	0	0	0	0	0	0	SGMW-09B
SGMW-09C	0.2	0	0	0.0	4	0	0	0	0	0	0	0	SGMW-09C
SGMW-10A	1.9	16.4	2.0	0.0	38	328	40	0	0	1	0	0	SGMW-10A
SGMW-10B	2.4	16.1	12.0	3.9	48	322	240	78	0	2	0	0	SGMW-10B
SGMW-10C	0.0	14.5	10.0	2.4	0	290	200	48	0	0	0	0	SGMW-10C
SGMW-11A	0.0	16.0	5.5	0.0	0	320	110	0	0	2	0	0	SGMW-11A
SGMW-11B	0.0	14.7	10.1	0.3	0	294	202	6	109	0	0	0	SGMW-11B
SGMW-12A	22.5	48.5	9.9	0.0	450	970	198	0	122	21	0	0	SGMW-12A
SGMW-12B	0.0	0.2	7.2	0.0	0	4	144	0	136	0	0	0	SGMW-12B
SGMW-13A	0.0	0.6	1.0	0.0	0	12	20	0	0	0	0	0	SGMW-13A
SGMW-13B	0.0	0.1	0	1.1	0	2	0	22	191	0	0	0	SGMW-13A
SGMW-14A	0.0	0.1	0.0	0.0	0	2	0	0	130	0	0	0	SGMW-14A
SGMW-14B	0	0.1	0	2.3	0	2	0	46	122	0	0	0	SGMW-14B
SGMW-15A	0.0	0.1	0.0	0.0	0	2	0	0	0	0	0	0	SGMW-15A
SGMW-15B	0	0	0	5.8	0	0	0	116	0	0	0	0	SGMW-15B
SGMW-16A	0	0.1	0	0.0	0	2	0	0	0	0	0	0	SGMW-16A
SGMW-16B	0	0	0	0.0	0	0	0	0	0	0	0	0	SGMW-16B
SGMW-17A	0	0	0	0.0	0	0	0	0	0	0	0	0	SGMW-17A
SGMW-17B	0	0	0	0.0	0	0	0	0	0	0	0	0	SGMW-17B
SGMW-18A	0	0	0	0.0	0	0	0	0	0	0	0	0	SGMW-18A
SGMW-18B	0	0	0.0	0.0	0	0	0	0	0	0	0	0	SGMW-18B
SGMW-19A	6.0	26.7	25.9	13.0	120	534	518	260	0	0	0	4	SGMW-19A
SGMW-19B	5.8	30.0	27.7	9.2	116	600	554	184	0	0	0	0	SGMW-19B
GSGM-1A	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-1A
GSGM-1B	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-1B
GSGM-1C	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-1C
GSGM-2A	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-2A
GSGM-2B	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-2B
GSGM-2C	0	0	0	0	0	0	0	0	0	1	0	0	GSGM-2C
GSGM-3A	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-3A
GSGM-3B	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-3B
GSGM-4A	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-4A
GSGM-4B	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-4B

Measurements in ( ) are calculated, not measured.
H2S pod suspected of not operating correctlyin March.

2005 Current Landfill Soil Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume) 3/30/05	Methane (% By Volume) 7/21/05	Methane (% By Volume) 10/21/05	Methane (% By Volume) 12/28/05	LEL (% By Volume) 3/30/05	LEL (% By Volume) 7/21/05	LEL (% By Volume) 10/21/05	LEL (% By Volume) 12/28/05	Hydrogen Sulfide (ppm by volume) 3/30/05	Hydrogen Sulfide (ppm by volume) 7/21/05	Hydrogen Sulfide (ppm by volume) 10/21/05	Hydrogen Sulfide (ppm by volume) 12/28/05	Soil Gas Monitoring Well
SGMW-01A	8.8	5.4	5	6.7	176	108	100	134	1	3	2	2	SGMW-01A
SGMW-01B	3.0	2.9	3	3.8	60	58	60	76	0	0	0	0	SGMW-01B
SGMW-01C	7.5	5.6	5.5	6.1	150	112	110	122	1	0	0	0	SGMW-01C
SGMW-02A	0.3	13.7	1.7	3.0	6	274	34	60	0	0	0	1	SGMW-02A
SGMW-02B	0.2	0.7	27.2	12.4	4	14	544	248	1	0	6	3	SGMW-02B
SGMW-02C	0.3	0.1	247	0.0	6	2	494	0	1	0	0	0	SGMW-02C
SGMW-03A	0.7	36.8	0.7	0.0	14	736	14	0	0	0	0	0	SGMW-03A
SGMW-03B	0.5	2.5	47.6	11.0	10	50	952	220	1	0	2	1	SGMW-03B
SGMW-03C	0.1	0.2	39.9	0.0	2	4	798	0	0	0	1	0	SGMW-03C
SGMW-04A	0.2	10.7	46.2	9.3	4	214	924	186	0	1	0	0	SGMW-04A
SGMW-04B	6.5	25.1	42.4	18.0	130	502	848	360	0	0	1	1	SGMW-04B
SGMW-04C	6.3	0.2	38.2	14.1	126	4	764	282	0	0	0	2	SGMW-04C
SGMW-05A	0.7	14.3	36.6	10.2	14	286	732	204	1	1	1	1	SGMW-05A
SGMW-05B	13.4	21.1	34.6	22.8	268	422	692	456	0	1	0	0	SGMW-05B
SGMW-05C	9.2	18.8	27.3	18.3	184	376	546	366	0	1	0	0	SGMW-05C
SGMW-06A	0.2	2.4	29.7	8.1	4	48	594	162	1	1	0	0	SGMW-06A
SGMW-06B	7.7	24.4	29.7	16.8	154	488	594	336	1	1	0	0	SGMW-06B
SGMW-06C	8.6	24.7	27.2	14.9	172	494	544	298	1	1	1	0	SGMW-06C
SGMW-07A	0.0	0.0	0.0	0.0	0	0	0	0.0	0	0	0	0	SGMW-07A
SGMW-07B	0	0.0	0.0	0.0	0	0	0	0.0	0	0	0	0	SGMW-07B
SGMW-07C	0.0	0.0	0.0	0.0	0	0	0	0.0	1	1	0	0	SGMW-07C
SGMW-08A	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0	SGMW-08A
SGMW-08B	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0	SGMW-08B
SGMW-08C	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0	SGMW-08C
SGMW-09A	0	.2	0	0.0	0	4	0	0.0	0	1	1	0	SGMW-09A
SGMW-09B	0	.2	0	0.0	0	4	0	0.0	1	0	0	0	SGMW-09B
SGMW-09C	0	.2	0	0.0	0	4	0	0.0	0	0	0	0	SGMW-09C
SGMW-10A	0.2	2.7	12.3	0.0	4	54	246	0.0	1	0	1	0	SGMW-10A
SGMW-10B	0.2	12.0	16.7	1.6	4	240	334	32	1	2	0	0	SGMW-10B
SGMW-10C	0.1	1.6	14.3	1.2	2	32	286	24	1	0	1	1	SGMW-10C
SGMW-11A	0.2	6.0	17.2	0.0	4	120	344	0	0	1	20	0	SGMW-11A
SGMW-11B	0.2	13.2	19.6	0.0	4	264	392	0	1	1	4	0	SGMW-11B
SGMW-12A	0.2	3.9	40.1	4.0	4	78	802	80	0	0	51	3	SGMW-12A
SGMW-12B	0.1	0.8	25.7	0.0	2	16	514	0	0	0	0	0	SGMW-12B
SGMW-13A	0.1	6.2	0.1	0.0	2	124	2	0	0	1	1	0	SGMW-13A
SGMW-13B	0.2	.4	.2	0.0	4	8	4	0	0	2	1	0	SGMW-13A
SGMW-14A	0.3	0.1	5.6	0.1	6	2	112	2	0	1	2	0	SGMW-14A
SGMW-14B	0	.2	.2	0.0	0	4	4	0	0	1	1	0	SGMW-14B
SGMW-15A	0.0	.2	0.1	0.0	0	4	2	0	0	0	1	0	SGMW-15A
SGMW-15B	0	.1	.1	0.0	0	2	2	0	0	0	0	0	SGMW-15B
SGMW-16A	0	.2	0	0.0	0	4	0	0	0	1	0	0	SGMW-16A
SGMW-16B	0	0	0	0.0	0	0	0	0	0	0	0	0	SGMW-16B
SGMW-17A	0	0	0	0.0	0	0	0	0	0	0	0	0	SGMW-17A
SGMW-17B	0	0	0	0.0	0	0	0	0	0	0	0	0	SGMW-17B
SGMW-18A	0	0	0	0.0	0	0	0	0	0	0	1	0	SGMW-18A
SGMW-18B	0	0	0.0	0.0	0	0	0	0	0	0	0	1	SGMW-18B
SGMW-19A	5.6	6.3	29.2	15.7	112	126	584	314	0	1	20	2	SGMW-19A
SGMW-19B	0.0	0.0	31.8	8.1	0	0	636	162	0	0	46	0	SGMW-19B
GSGM-1A	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-1A
GSGM-1B	0	0	0	0	0	0	0	0	0	0	0	1	GSGM-1B
GSGM-1C	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-1C
GSGM-2A	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-2A
GSGM-2B	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-2B
GSGM-2C	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-2C
GSGM-3A	0	0	0	0	0	0	0	0	0	1	0	0	GSGM-3A
GSGM-3B	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-3B
GSGM-4A	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-4A
GSGM-4B	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-4B

Measurements in ( ) are calculated, not measured.

2006 Current Landfill Soil Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume) 2/24/06	Methane (% By Volume) 6/23/06	Methane (% By Volume) 9/28/06	Methane (% By Volume) 12/27/06	LEL (% By Volume) 2/24/06	LEL (% By Volume) 6/23/06	LEL (% By Volume) 9/28/06	LEL (% By Volume) 12/27/06	Hydrogen Sulfide (ppm by volume) 2/24/06	Hydrogen Sulfide (ppm by volume) 6/23/06	Hydrogen Sulfide (ppm by volume) 9/28/06	Hydrogen Sulfide (ppm by volume) 12/27/06	Soil Gas Monitoring Well
SGMW-01A	8.6	11.9	12.5	11.3	174.0	238	250	226	0	0	6	0	SGMW-01A
SGMW-01B	0.0	0.0	11.0	3.1	0	0	220	62	0	0	1	0	SGMW-01B
SGMW-01C	0.0	0.0	10.5	0.2	0	0	210	4	0	0	5	0	SGMW-01C
SGMW-02A	13.9	18.1	46.9	1.4	282.0	362	938	28	0	0	9	0	SGMW-02A
SGMW-02B	6.8	12.8	33.4	0.2	142.0	256	668	4	0	0	27	0	SGMW-02B
SGMW-02C	0.0	0.8	30.5	0.3	0	16	610	6	0	0	0	0	SGMW-02C
SGMW-03A	19.3	26.8	27.0	0.2	386.0	536	540	4	0	0	8	0	SGMW-03A
SGMW-03B	0.0	11.9	48.5	0.1	0	238	970	2	0	0	12	0	SGMW-03B
SGMW-03C	0.0	1.5	45.0	0.3	0	30	900	6	0	0	7	0	SGMW-03C
SGMW-04A	0.0	16.4	52.1	0.2	0	328	1040	4	0	0	1	0	SGMW-04A
SGMW-04B	10.0	31.6	48.8	0.0	200.0	632	976	0	0	0	2	0	SGMW-04B
SGMW-04C	0.0	22.2	42.1	0.0	0	444	842	0	0	0	0	0	SGMW-04C
SGMW-05A	0.9	16.3	44.8	0.0	20.0	326	896	0	0	0	0	0	SGMW-05A
SGMW-05B	1.4	26.3	41.3	0.0	89.0	526	826	0	0	0	3	3	SGMW-05B
SGMW-05C	0.0	20.7	33.8	0.0	0	414	676	0	0	0	1	0	SGMW-05C
SGMW-06A	0.0	11.5	41.5	0.0	0	230	830	0	0	0	1	0	SGMW-06A
SGMW-06B	0.0	21.3	40.3	0.0	0	426	806	0	0	0	2	0	SGMW-06B
SGMW-06C	0.0	21.7	37.3	0.0	0	434	746	0	0	0	0	0	SGMW-06C
SGMW-07A	0.0	0.0	0.3	0.0	0	0	6	0	0	0	0	0	SGMW-07A
SGMW-07B	0.0	0.0	0.3	0.0	0	0	6	0	0	0	0	0	SGMW-07B
SGMW-07C	0.0	0.0	0.3	0.0	0	0	6	0	0	0	0	0	SGMW-07C
SGMW-08A	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	SGMW-08A
SGMW-08B	0.0	0.0	0.0	0.0	0	0	0	0	0	0	2	0	SGMW-08B
SGMW-08C	0.0	0.0	0.0	0.0	0	0	0	0	0	0	2	0	SGMW-08C
SGMW-09A	0.0	0.1	0.0	0.0	0	2	0	0	0	0	0	0	SGMW-09A
SGMW-09B	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	SGMW-09B
SGMW-09C	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	SGMW-09C
SGMW-10A	0.0	9.8	15.4	0.0	0	196	308	0	0	0	0	0	SGMW-10A
SGMW-10B	0.0	12.0	18.0	0.0	0	240	360	0	0	0	2	0	SGMW-10B
SGMW-10C	0.0	10.6	16.2	0.0	0	212	324	0	0	0	2	0	SGMW-10C
SGMW-11A	0.0	7.6	15.3	0.0	0	152	306	0	0	0	2	0	SGMW-11A
SGMW-11B	0.0	9.8	14.9	0.0	0	196	298	0	0	0	25	0	SGMW-11B
SGMW-12A	0.0	16.7	41.3	0.0	0	336	826	0	0	0	18	0	SGMW-12A
SGMW-12B	1.1	2.0	0.0	0.0	22	40	0	0	0	0	0	0	SGMW-12B
SGMW-13A	0.0	0.0	0.2	0.0	0	0	4	0	0	0	0	0	SGMW-13A
SGMW-13B	0.0	0.0	0.2	0.0	0	0	4	0	0	0	0	0	SGMW-13A
SGMW-14A	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	SGMW-14A
SGMW-14B	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	SGMW-14B
SGMW-15A	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	SGMW-15A
SGMW-15B	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	SGMW-15B
SGMW-16A	0.0	0.0	0.0	0.0	0	0	0	0	0	0	1	0	SGMW-16A
SGMW-16B	0.0	0.0	0.0	0.0	0	0	0	0	0	0	1	0	SGMW-16B
SGMW-17A	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	SGMW-17A
SGMW-17B	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	SGMW-17B
SGMW-18A	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	SGMW-18A
SGMW-18B	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	SGMW-18B
SGMW-19A	16.7	17.3	16.6	23.9	340	348	332	478	0	0	2	5	SGMW-19A
SGMW-19B	1.7	9.4	18.0	0.0	32	186	360	0	0	0	1	0	SGMW-19B
GSGM-1A	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	GSGM-1A
GSGM-1B	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	GSGM-1B
GSGM-1C	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	GSGM-1C
GSGM-2A	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	GSGM-2A
GSGM-2B	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	GSGM-2B
GSGM-2C	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	GSGM-2C
GSGM-3A	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	GSGM-3A
GSGM-3B	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	GSGM-3B
GSGM-4A	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	GSGM-4A
GSGM-4B	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	GSGM-4B

Measurements in ( ) are calculated, not measured.

2007 Current Landfill Soil Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume) 2/24/07	Methane (% By Volume) 5/17/07	Methane (% By Volume) 9/20/07	Methane (% By Volume) 12/20/07	LEL (% By Volume) 2/24/07	LEL (% By Volume) 5/17/07	LEL (% By Volume) 9/20/07	LEL (% By Volume) 12/20/07	Hydrogen Sulfide (ppm by volume) 2/24/07	Hydrogen Sulfide (ppm by volume) 5/17/07	Hydrogen Sulfide (ppm by volume) 9/20/07	Hydrogen Sulfide (ppm by volume) 12/20/07	Soil Gas Monitoring Well
SGMW-01A	10.0	12.2	5.7	3.1	200.0	244	116.0	62	0.0	1.0	0.0	3.0	SGMW-01A
SGMW-01B	6.4	4.5	6.0	1.6	128	90	118.0	32	0.0	1.0	1.0	0.0	SGMW-01B
SGMW-01C	5.9	0.3	5.5	2.0	118	6	110.0	40	0.0	0.0	1.0	0.0	SGMW-01C
SGMW-02A	0.2	0.4	37.5	17.4	4.0	8	750.0	348	0.0	1.0	1.0	0.0	SGMW-02A
SGMW-02B	0.0	17.6	30.8	10.5	0.0	352	616.0	210	0.0	1.0	1.0	0.0	SGMW-02B
SGMW-02C	0.0	0.4	27.0	1.1	0.0	8	540.0	22	0.0	1.0	1.0	0.0	SGMW-02C
SGMW-03A	0.0	25.1	22.4	0.0	0.0	502	448.0	0.0	0.0	1.0	0.0	0.0	SGMW-03A
SGMW-03B	0.9	0.7	40.0	0.0	18	14	800.0	0.0	0.0	2.0	0.0	0.0	SGMW-03B
SGMW-03C	0.2	0.6	39.7	0.0	4	12	794.0	0.0	0.0	2.0	0.0	0.0	SGMW-03C
SGMW-04A	8.4	0.7	43.7	1.0	168	14	874.0	20	0.0	0.0	3.0	0.0	SGMW-04A
SGMW-04B	17.0	0.7	38.5	3.0	340.0	14	760.0	60	0.0	0.0	1.0	0.0	SGMW-04B
SGMW-04C	12.0	0.7	31.5	0.0	240	14	630.0	0.0	0.0	0.0	1.0	0.0	SGMW-04C
SGMW-05A	10.5	0.6	32.6	0.0	210.0	12	652	0.0	0.0	1.0	0.0	0.0	SGMW-05A
SGMW-05B	17.0	0.7	29.4	1.2	340.0	13	588.0	24	0.0	2.0	1.0	0.0	SGMW-05B
SGMW-05C	13.5	0.7	22.4	0.0	270	13	444.0	0.0	0.0	2.0	1.0	0.0	SGMW-05C
SGMW-06A	11.5	0.8	30.7	0.0	230	16	614	0.0	0.0	1.0	1.0	0.0	SGMW-06A
SGMW-06B	14.3	0.6	29.9	0.0	286	12	598	0.0	0.0	1.0	1.0	0.0	SGMW-06B
SGMW-06C	12.9	0.0	26.4	0.0	258	0.0	528	0.0	0.0	0.0	1.0	0.0	SGMW-06C
SGMW-07A	0.0	0.0	0.1	0.1	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	SGMW-07A
SGMW-07B	0.0	0.0	0.1	0.1	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	SGMW-07B
SGMW-07C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	SGMW-07C
SGMW-08A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	SGMW-08A
SGMW-08B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	SGMW-08B
SGMW-08C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	SGMW-08C
SGMW-09A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	SGMW-09A
SGMW-09B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	SGMW-09B
SGMW-09C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	SGMW-09C
SGMW-10A	0.4	0.0	8.7	0.0	8	0.0	174	0.0	0.0	0.0	2.0	0.0	SGMW-10A
SGMW-10B	0.0	0.0	10.5	0.0	0.0	0.0	210	0.0	0.0	0.0	1.0	0.0	SGMW-10B
SGMW-10C	0.0	0.0	9.0	0.0	0.0	0.0	180	0.0	0.0	0.0	8.0	0.0	SGMW-10C
SGMW-11A	0.0	0.0	8.5	0.0	0.0	0.0	170	0.0	0.0	0.0	2.0	0.0	SGMW-11A
SGMW-11B	0.0	0.0	8.7	0.0	0.0	0.0	174	0.0	0.0	0.0	22.0	0.0	SGMW-11B
SGMW-12A	0.0	0.0	8.1	27.5	0.0	0.0	162	550	0.0	0.0	2.0	39.0	SGMW-12A
SGMW-12B	0.0	0.0	6.1	27.5	0.0	0.0	172	550	0.0	0.0	2.0	0.0	SGMW-12B
SGMW-13A	0.0	0.3	6.0	0.0	0.0	0.0	120	0.0	0.0	0.0	1.0	0.0	SGMW-13A
SGMW-13B	0.0	0.0	4.0	0.0	0.0	0.0	80	0.0	0.0	0.0	1.0	0.0	SGMW-13A
SGMW-14A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-14A
SGMW-14B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-14B
SGMW-15A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-15A
SGMW-15B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-15B
SGMW-16A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-16A
SGMW-16B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-16B
SGMW-17A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-17A
SGMW-17B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-17B
SGMW-18A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-18A
SGMW-18B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-18B
SGMW-19A	2.5	4.0	27.0	0.0	50	80	540	0.0	0.0	1.0	29.0	0.0	SGMW-19A
SGMW-19B	0.0	0.0	19.2	0.0	0.0	0.0	384	0.0	0.0	0.0	17.0	0.0	SGMW-19B
GSGM-1A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-1A
GSGM-1B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-1B
GSGM-1C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-1C
GSGM-2A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-2A
GSGM-2B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-2B
GSGM-2C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-2C
GSGM-3A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-3A
GSGM-3B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-3B
GSGM-4A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-4A
GSGM-4B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-4B

Measurements in ( ) are calculated, not measured.

2008 Current Landfill Soil Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume) 3/24/2008	Methane (% By Volume) 7/29/2008	Methane (% By Volume) 9/30/2008	Methane (% By Volume) 12/9/2008	LEL (% By Volume) 3/24/2008	LEL (% By Volume) 7/29/2008	LEL (% By Volume) 9/30/2008	LEL (% By Volume) 12/9/2008	Hydrogen Sulfide (ppm by volume) 3/24/2008	Hydrogen Sulfide (ppm by volume) 7/29/2008	Hydrogen Sulfide (ppm by volume) 9/30/2008	Hydrogen Sulfide (ppm by volume) 12/9/2008	Soil Gas Monitoring Well
SGMW-01A	10.8	3	8.8	11.2	220	96	176	224	3	2	2	0	SGMW-01A
SGMW-01B	9.9	2.9	6.5	11.7	198	58	130	234	0	0.0	0.0	4.0	SGMW-01B
SGMW-01C	9.4	5.7	6.2	9.8	190	112	124	196	0	0	0	4	SGMW-01C
SGMW-02A	34.2	39.1	42.5	37.3	680	788	850	746	11	16	0	0	SGMW-02A
SGMW-02B	3.1	47.2	45	44.3	62	944	900	886	1	12	20	19	SGMW-02B
SGMW-02C	3.2	49.9	52.5	53.3	64	998	1050	1066	1	1	1	3	SGMW-02C
SGMW-03A	13.2	49.1	44	30	264	960	880	600	1	11	6	1	SGMW-03A
SGMW-03B	55.5	53.6	57.8	60.6	1110	1072	1156	142	15	23	36	14	SGMW-03B
SGMW-03C	48.5	51.6	55.9	57.3	970	1032	1118	1146	1	13	26	63	SGMW-03C
SGMW-04A	14.5	43.8	50.6	44.5	290	882	1012	890	1	5	8	0	SGMW-04A
SGMW-04B	40.6	43.4	50.2	44.1	812	870	1004	882	5	16	20	6	SGMW-04B
SGMW-04C	32.7	40.1	45.8	36.1	654	756	916	722	2	0	1	3	SGMW-04C
SGMW-05A	30	36.5	43.7	38.8	600	728	874	776	4	12	5	4	SGMW-05A
SGMW-05B	30.7	35.8	39.7	36.1	614	708	794	722	3	2	6	3	SGMW-05B
SGMW-05C	24	24.6	31.8	28.3	480	502	636	566	3	0	3	2	SGMW-05C
SGMW-06A	18.9	25.3	39.9	40.4	378	510	798	808	0	0	7	0	SGMW-06A
SGMW-06B	30.9	36.4	39.9	40.2	618	724	798	804	1	2	5	7	SGMW-06B
SGMW-06C	28	33.7	37.7	37.3	560	670	754	746	3	0	1	3	SGMW-06C
SGMW-07A	0	0.2	0	0	0	4	0	0	0	0	0	0	SGMW-07A
SGMW-07B	0	0.2	0	0	0	4	0	0	0	0	0	0	SGMW-07B
SGMW-07C	0	0.3	0	0	0	6	0	0	0	0	0	0	SGMW-07C
SGMW-08A	0	0.3	0	0	0	6	0	0	0	0	0	0	SGMW-08A
SGMW-08B	0	0.3	0	0	0	6	0	0	0	0	0	0	SGMW-08B
SGMW-08C	0	0.2	0	0	0	4	0	0	0	0	0	0	SGMW-08C
SGMW-09A	0	0.3	0	0	0	6	0	0	0	0	0	0	SGMW-09A
SGMW-09B	0	0.4	0	0	0	8	0	0	0	0	0	0	SGMW-09B
SGMW-09C	0	0.3	0	0	0	6	0	0	0	0	0	0	SGMW-09C
SGMW-10A	0	12.2	22.5	8.4	0	244	450	168	0	9	19	1	SGMW-10A
SGMW-10B	0	9.9	19.1	10.3	0	200	382	206	0	0	9	2	SGMW-10B
SGMW-10C	0	9.4	15.7	8.3	0	92	314	166	0	0	13	7	SGMW-10C
SGMW-11A	4	14.9	23	11.9	80	300	450	238	5	23	2	4	SGMW-11A
SGMW-11B	2.3	13.7	21.6	6.9	46	274	430	138	0	3	20	0	SGMW-11B
SGMW-12A	32.1	43.4	52.5	47.1	642	868	1050	942	39	65	92	3	SGMW-12A
SGMW-12B	30.6	32.9	43.7	41.3	612	658	874	826	0	1	10	2	SGMW-12B
SGMW-13A	0	0.5	0.6	0.2	0	10	13	4	0	2	0	0	SGMW-13A
SGMW-13B	0	31.9	42.8	36.7	0	648	856	734	0	2	29	4	SGMW-13A
SGMW-14A	0	0.7	2.1	0.5	0	14	42	10	0	0	0	0	SGMW-14A
SGMW-14B	0	0.3	3	0.5	0	6	61	11	0	0	0	0	SGMW-14B
SGMW-15A	0	0.2	2.2	0	0	4	45	0	0	0	0	0	SGMW-15A
SGMW-15B	0	0.2	0	0	0	4	0	0	0	0	0	0	SGMW-15B
SGMW-16A	0	0.2	0	0	0	4	0	0	1	0	0	0	SGMW-16A
SGMW-16B	0	0.5	0	0	0	10	0	0	0	0	0	0	1
SGMW-17A	0	0	0	0	0	0	0	0	1	0	0	0	SGMW-17A
SGMW-17B	0	0.4	0	0	0	8	0	0	0	0	0	0	SGMW-17B
SGMW-18A	0	0.2	0	0	0	4	0	0	0	0	0	0	SGMW-18A
SGMW-18B	0	0.2	0	0	0	4	0	0	0	0	0	0	SGMW-18B
SGMW-19A	14.5	7.5	32.4	0	290	154	648	312	11	3	30	1	SGMW-19A
SGMW-19B	11.5	8.2	28	0	230	164	560	0	8	2	0	0	SGMW-19B
GSGM-1A	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-1A
GSGM-1B	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-1B
GSGM-1C	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-1C
GSGM-2A	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-2A
GSGM-2B	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-2B
GSGM-2C	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-2C
GSGM-3A	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-3A
GSGM-3B	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-3B
GSGM-4A	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-4A
GSGM-4B	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-4B

Measurements in ( ) are calculated, not measured.

2009 Current Landfill Soil Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume) 3/18/2009	Methane (% By Volume) 7/28/2009	Methane (% By Volume) 11/5/2009	Methane (% By Volume) 12/15/2009	LEL (% By Volume) 3/18/2009	LEL (% By Volume) 7/28/2009	LEL (% By Volume) 11/5/2009	LEL (% By Volume) 12/15/2009	Hydrogen Sulfide (ppm by volume) 3/18/2009	Hydrogen Sulfide (ppm by volume) 7/28/2009	Hydrogen Sulfide (ppm by volume) 11/5/2009	Hydrogen Sulfide (ppm by volume) 12/15/2009	Soil Gas Monitoring Well
SGMW-01A	12.6	16.7	15	19.4	>100	>100	>100	>100	0	0	1	3	SGMW-01A
SGMW-01B	12.3	15.4	14.3	19.2	>100	>100	>100	>100	0	0.0	4.0	3.0	SGMW-01B
SGMW-01C	10	13.2	12.3	17.2	>100	>100	>100	>100	0	0	3	1	SGMW-01C
SGMW-02A	50	48.4	50.1	50.9	>100	>100	>100	>100	0	0	0	0	SGMW-02A
SGMW-02B	48.8	55.2	40.2	10.6	>100	>100	>100	>100	8	18	0	0	SGMW-02B
SGMW-02C	50.8	57.8	56.5	59.3	>100	>100	>100	>100	1	7	0	0	SGMW-02C
SGMW-03A	28.9	31.8	270	14.3	>100	>100	>100	>100	0	0	6	0	SGMW-03A
SGMW-03B	55.9	67.5	65.9	72.2	>100	>100	>100	>100	12	25	21	20	SGMW-03B
SGMW-03C	54.7	65.6	59.5	0.2	>100	>100	>100	3	26	32	67	0	SGMW-03C
SGMW-04A	42.1	48.5	44.4	44.9	>100	>100	>100	>100	1	0	2	0	SGMW-04A
SGMW-04B	39.9	53.3	49.1	52.7	>100	>100	>100	>100	4	7	4	7	SGMW-04B
SGMW-04C	31.9	51.9	38.9	48.3	>100	>100	>100	>100	5	3	1	2	SGMW-04C
SGMW-05A	38.1	46.2	43.1	45.2	>100	>100	>100	>100	3	0	4	1	SGMW-05A
SGMW-05B	33.8	43.3	38.8	44.5	>100	>100	>100	>100	3	4	5	7	SGMW-05B
SGMW-05C	26.8	37.1	30.7	0	>100	>100	>100	0	3	3	3	0	SGMW-05C
SGMW-06A	39	42.3	42.6	9.8	>100	>100	>100	>100	0	0	0	0	SGMW-06A
SGMW-06B	39.2	43	42.7	0	>100	>100	>100	0	3	4	6	0	SGMW-06B
SGMW-06C	37.7	42.2	40.6	0	>100	>100	>100	0	3	3	4	0	SGMW-06C
SGMW-07A	0	0.5	0	0	0	10	0	0	0	0	0	0	SGMW-07A
SGMW-07B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-07B
SGMW-07C	0	0.9	0	0	0	18	0	0	0	0	0	0	SGMW-07C
SGMW-08A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-08A
SGMW-08B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-08B
SGMW-08C	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-08C
SGMW-09A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-09A
SGMW-09B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-09B
SGMW-09C	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-09C
SGMW-10A	1.5	22.7	13.2	0.5	31	>100	>100	10	0	14	5	0	SGMW-10A
SGMW-10B	4.6	19.6	16.1	0.1	93	>100	>100	2	3	3	2	0	SGMW-10B
SGMW-10C	4	17.4	11.2	0.2	80	>100	>100	1	3	4	0	0	SGMW-10C
SGMW-11A	4.5	22.1	17.6	14.7	90	>100	>100	>100	0	20	10	2	SGMW-11A
SGMW-11B	4	21.6	13.3	10.9	80	>100	>100	>100	0	9	1	1	SGMW-11B
SGMW-12A	45.5	51.8	48.7	52.4	>100	>100	>100	>100	24	72	21	15	SGMW-12A
SGMW-12B	39.6	49	51.7	47.3	>100	>100	>100	>100	0	16	0	3	SGMW-12B
SGMW-13A	0	0.5	1	0.1	0	10	21	2	0	3	0	0	SGMW-13A
SGMW-13B	0	42.6	0	0.1	0	>100	1	2	0	4	0	0	SGMW-13A
SGMW-14A	2.8	14	6.2	1.1	57	>100	>100	22	0	3	0	0	SGMW-14A
SGMW-14B	0	0	0	0	0	0	1	0	0	0	0	0	SGMW-14B
SGMW-15A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-15A
SGMW-15B	0	0	0	0.1	0	0	0	2	0	0	0	0	SGMW-15B
SGMW-16A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-16A
SGMW-16B	0	0	0	0.1	0	0	0	2	0	0	0	0	SGMW-16B
SGMW-17A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-17A
SGMW-17B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-17B
SGMW-18A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-18A
SGMW-18B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-18B
SGMW-19A	14.4	44.9	25.9	33.6	>100	>100	>100	>100	0	31	7	15	SGMW-19A
SGMW-19B	5.9	46.3	26.9	30.6	>100	>100	>100	>100	2	1	12	4	SGMW-19B
GSGM-1A	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-1A
GSGM-1B	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-1B
GSGM-1C	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-1C
GSGM-2A	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-2A
GSGM-2B	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-2B
GSGM-2C	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-2C
GSGM-3A	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-3A
GSGM-3B	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-3B
GSGM-4A	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-4A
GSGM-4B	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-4B

2010 Current Landfill Soil Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume) 3/18/10	Methane (% By Volume) 6/9/10	Methane (% By Volume) 9/8/10	Methane (% By Volume) 12/9/10	LEL (% By Volume) 3/18/10	LEL (% By Volume) 6/9/10	LEL (% By Volume) 9/8/10	LEL (% By Volume) 12/9/10	Hydrogen Sulfide (ppm by volume) 3/18/10	Hydrogen Sulfide (ppm by volume) 6/9/10	Hydrogen Sulfide (ppm by volume) 9/8/10	Hydrogen Sulfide (ppm by volume) 12/9/10	Soil Gas Monitoring Well
SGMW-01A	24.1	24.0	14.1	12	>100	>100	>100	>100	0	0	1	1	SGMW-01A
SGMW-01B	24.0	0.0	11.9	10.6	>100	0	>100	>100	3	0.0	1.0	1.0	SGMW-01B
SGMW-01C	23.1	0.0	10.6	8.6	>100	0	>100	>100	5	0	10	0	SGMW-01C
SGMW-02A	55.9	48.2	47.8	41.7	>100	>100	>100	>100	0	0	32	0	SGMW-02A
SGMW-02B	24.9	55.2	55.5	42.5	>100	>100	>100	>100	3	4	20	6	SGMW-02B
SGMW-02C	56.5	0.0	56.9	45.7	>100	0	>100	>100	2	0	1	1	SGMW-02C
SGMW-03A	27.2	47.9	46.5	28.9	>100	>100	>100	>100	1	6	18	0	SGMW-03A
SGMW-03B	63.8	50.4	58.4	55.4	>100	>100	>100	>100	24	0	36	15	SGMW-03B
SGMW-03C	59.5	0.0	58.3	48.3	>100	0	>100	>100	1	0	29	0	SGMW-03C
SGMW-04A	30.9	24.7	48.2	17	>100	>100	>100	>100	0	0	11	0	SGMW-04A
SGMW-04B	49.7	29.4	49.2	35.4	>100	>100	>100	>100	5	0	10	4	SGMW-04B
SGMW-04C	46.6	0.0	45.6	22.2	>100	0	>100	>100	5	0	7	0	SGMW-04C
SGMW-05A	42.9	31.3	40.4	16.1	>100	>100	>100	>100	3	2	11	2	SGMW-05A
SGMW-05B	42.3	39.3	36.9	24.1	>100	>100	>100	>100	5	3	10	2	SGMW-05B
SGMW-05C	37.3	33.2	30.8	20.5	>100	>100	>100	>100	4	4	7	0	SGMW-05C
SGMW-06A	45.3	2.9	42.7	20.8	>100	59	>100	>100	0	0	1	0	SGMW-06A
SGMW-06B	45.0	45.1	41.5	37.4	>100	>100	>100	>100	3	5	10	4	SGMW-06B
SGMW-06C	45.1	0.1	40.8	35.5	>100	3	>100	>100	3	0	9	1	SGMW-06C
SGMW-07A	0.0	0.2	0.0	0	0	4	0	0	0	0	0	0	SGMW-07A
SGMW-07B	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	SGMW-07B
SGMW-07C	0.1	0.6	0.0	0	2	12	0	0	0	0	0	0	SGMW-07C
SGMW-08A	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	SGMW-08A
SGMW-08B	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	SGMW-08B
SGMW-08C	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	SGMW-08C
SGMW-09A	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	SGMW-09A
SGMW-09B	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	SGMW-09B
SGMW-09C	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	SGMW-09C
SGMW-10A	11.1	16.2	18.8	0	>100	>100	>100	0	1	5	17	0	SGMW-10A
SGMW-10B	10.5	14.2	16.2	9	>100	>100	>100	19	3	3	6	0	SGMW-10B
SGMW-10C	9.4	0.0	14.2	2.1	>100	0	>100	41	0	0	11	3	SGMW-10C
SGMW-11A	11.8	16.0	16.8	4.2	>100	>100	>100	8.4	2	10	17	5	SGMW-11A
SGMW-11B	10.1	0.0	18.8	0.7	>100	0	>100	14	0	0	35	5	SGMW-11B
SGMW-12A	51.5	51.9	37.8	28.6	>100	>100	>100	>100	23	67	102	4	SGMW-12A
SGMW-12B	6.0	0.0	1.7	21.3	12	0	33	>100	0	0	1	0	SGMW-12B
SGMW-13A	0.0	0.0	0.6	0.1	0	0	12	2	0	0	0	0	SGMW-13A
SGMW-13B	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	SGMW-13A
SGMW-14A	2.9	0.0	0.0	0	58	0	0	0	0	0	0	0	SGMW-14A
SGMW-14B	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	SGMW-14B
SGMW-15A	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	SGMW-15A
SGMW-15B	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	SGMW-15B
SGMW-16A	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	SGMW-16A
SGMW-16B	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	SGMW-16B
SGMW-17A	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	SGMW-17A
SGMW-17B	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	SGMW-17B
SGMW-18A	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	SGMW-18A
SGMW-18B	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	SGMW-18B
SGMW-19A	41.9	28.9	10.1	9.4	>100	>100	>100	>100	13	21	10	0	SGMW-19A
SGMW-19B	5.5	0.0	14.0	17.9	>100	0	>100	>100	0	0	0	0	SGMW-19B
GSGM-1A	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	GSGM-1A
GSGM-1B	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	GSGM-1B
GSGM-1C	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	GSGM-1C
GSGM-2A	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	GSGM-2A
GSGM-2B	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	GSGM-2B
GSGM-2C	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	GSGM-2C
GSGM-3A	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	GSGM-3A
GSGM-3B	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	GSGM-3B
GSGM-4A	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	GSGM-4A
GSGM-4B	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	GSGM-4B

2011 Current Landfill Soil Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume) 3/3/11	Methane (% By Volume) 6/7/11	Methane (% By Volume) 9/27/11	Methane (% By Volume) 12/15/11	LEL (% By Volume) 3/3/11	LEL (% By Volume) 6/7/11	LEL (% By Volume) 9/27/11	LEL (% By Volume) 12/15/11	Hydrogen Sulfide (ppm by volume) 3/3/11	Hydrogen Sulfide (ppm by volume) 6/7/11	Hydrogen Sulfide (ppm by volume) 9/27/11	Hydrogen Sulfide (ppm by volume) 12/15/11	Soil Gas Monitoring Well
SGMW-01A	12.2	10.6	10.1	15.2	>100	>100	>100	>100	3.0	0.0	0.0	4	SGMW-01A
SGMW-01B	8.9	10.1	9.2	14.6	>100	>100	>100	>100	0.0	2.0	0.0	3.0	SGMW-01B
SGMW-01C	9.1	8.9	8.3	12.7	>100	>100	>100	>100	0.0	3	0.0	1	SGMW-01C
SGMW-02A	28.3	43.6	45.2	17.3	>100	>100	>100	>100	1.0	4	0.0	1	SGMW-02A
SGMW-02B	2.2	43.3	50.8	51.8	44	>100	>100	>100	0.0	15	30	27	SGMW-02B
SGMW-02C	33.8	45.2	48.6	56.8	>100	>100	>100	>100	4.0	3	0.0	4	SGMW-02C
SGMW-03A	1.9	39.4	48.1	25.2	38	>100	>100	>100	0	7	9.0	10	SGMW-03A
SGMW-03B	44.7	52.8	42.5	50	>100	>100	>100	>100	28	41	0.0	20	SGMW-03B
SGMW-03C	35.8	53.4	0	48.3	>100	>100	0	>100	0.0	60	0.0	39	SGMW-03C
SGMW-04A	3.5	42.2	49.6	24.4	70	>100	>100	>100	0.0	14	7.0	0	SGMW-04A
SGMW-04B	28.3	41.1	40.1	32.5	>100	>100	>100	>100	2.0	6	1.0	10	SGMW-04B
SGMW-04C	18.4	35.4	0	29.2	>100	>100	0	>100	9.0	7	0.0	5	SGMW-04C
SGMW-05A	3.3	33.5	39.5	36.3	67	>100	>100	>100	0.0	9	9.0	1	SGMW-05A
SGMW-05B	2.0	30.5	37.6	31.1	42	>100	>100	>100	0.0	6	1.0	7	SGMW-05B
SGMW-05C	16.5	24.3	0	25.1	>100	>100	0	>100	1.0	4	0.0	4	SGMW-05C
SGMW-06A	0.1	34.2	1.9	31.1	3	>100	39	>100	0.0	0.0	0.0	0	SGMW-06A
SGMW-06B	31.2	33.5	19.6	33.8	>100	>100	>100	>100	1.0	10	0.0	9	SGMW-06B
SGMW-06C	29.7	31.4	33	32.8	>100	>100	>100	>100	5.0	6	0.0	5	SGMW-06C
SGMW-07A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-07A
SGMW-07B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-07B
SGMW-07C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-07C
SGMW-08A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-08A
SGMW-08B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-08B
SGMW-08C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-08C
SGMW-09A	0.1	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-09A
SGMW-09B	0.1	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-09B
SGMW-09C	0.1	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-09C
SGMW-10A	0.1	10.5	22.8	18	2	>100	>100	>100	0.0	3	27	5	SGMW-10A
SGMW-10B	1.0	12.5	19.2	16.6	20	>100	>100	>100	0.0	4	10	7	SGMW-10B
SGMW-10C	0.3	10.7	16.0	14.8	6	>100	>100	>100	0.0	3	7	7	SGMW-10C
SGMW-11A	0.1	11.2	23.8	19.8	2	>100	>100	>100	1.0	2	20	5	SGMW-11A
SGMW-11B	0.0	8.3	22.1	15.2	0	>100	>100	>100	0.0	2	18	1	SGMW-11B
SGMW-12A	23.0	39.5	49.5	55	>100	>100	>100	>100	0.0	95	11.2	100	SGMW-12A
SGMW-12B	21.3	31.1	41.3	44.7	>100	>100	>100	>100	0.0	15	17	3	SGMW-12B
SGMW-13A	0.0	0.0	0.1	0.0	0.0	0.0	3	0.0	0.0	1	0	0.0	SGMW-13A
SGMW-13B	0.0	0.0	39.1	0.0	0.0	0.0	>100	0.0	0.0	1	27	0.0	SGMW-13A
SGMW-14A	0.0	0.0	0.3	0.0	0.0	0.0	8	0.0	0.0	2	0.0	0.0	SGMW-14A
SGMW-14B	0.1	0.0	2.1	0.0	2.0	0.0	42	0.0	0.0	1	0.0	0.0	SGMW-14B
SGMW-15A	0.0	0.0	1.1	0.0	0.0	0.0	23	0.0	0.0	1	0.0	0.0	SGMW-15A
SGMW-15B	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	SGMW-15B
SGMW-16A	1.0	0.0	0.0	0.0	20	0.0	0	0.0	1.0	0.0	0.0	0.0	SGMW-16A
SGMW-16B	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	1	0.0	0.0	SGMW-16B
SGMW-17A	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	SGMW-17A
SGMW-17B	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	SGMW-17B
SGMW-18A	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	SGMW-18A
SGMW-18B	0.0	0.0	0.0	0.1	0.0	0.0	0	2	0.0	0.0	0.0	0.0	SGMW-18B
SGMW-19A	1.0	14.8	28.5	21.4	3.0	>100	>100	>100	0.0	1	0.0	3	SGMW-19A
SGMW-19B	0.3	12.2	27.2	0.1	6.0	>100	>100	0.0	0.0	1	0.0	0.0	SGMW-19B
GSGM-1A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-1A
GSGM-1B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-1B
GSGM-1C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-1C
GSGM-2A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-2A
GSGM-2B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-2B
GSGM-2C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-2C
GSGM-3A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-3A
GSGM-3B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-3B
GSGM-4A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-4A
GSGM-4B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-4B

2012 Current Landfill Soil Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume) 3/7/12	Methane (% By Volume) 6/7/12	Methane (% By Volume) 9/7/12	Methane (% By Volume) 12/5/12	LEL (% By Volume) 3/7/12	LEL (% By Volume) 6/7/12	LEL (% By Volume) 9/7/12	LEL (% By Volume) 12/5/12	Hydrogen Sulfide (ppm by volume) 3/7/12	Hydrogen Sulfide (ppm by volume) 6/7/12	Hydrogen Sulfide (ppm by volume) 9/7/12	Hydrogen Sulfide (ppm by volume) 12/5/12	Soil Gas Monitoring Well
SGMW-01A	15.5	13.6	16.4	15.7	>100	>100	>100	>100	2.0	0.0	0.0	0.0	SGMW-01A
SGMW-01B	13.8	13.0	13.4	11.7	>100	>100	>100	>100	2.0	1.0	1.0	0.0	SGMW-01B
SGMW-01C	11.3	11.2	5.2	12.7	>100	>100	>100	>100	2.0	0	0.0	0.0	SGMW-01C
SGMW-02A	50.9	48.2	49.5	53.8	>100	>100	>100	>100	0.0	0	0.0	0.0	SGMW-02A
SGMW-02B	48.1	49.7	50.2	51.5	>100	>100	>100	>100	7.0	10	7	10	SGMW-02B
SGMW-02C	48.3	50.5	10.5	52.1	>100	>100	>100	>100	4.0	5	0.0	3	SGMW-02C
SGMW-03A	35.2	52.3	55.9	46.2	>100	>100	>100	>100	1	12	10.0	8	SGMW-03A
SGMW-03B	53.4	53.1	55.4	55.2	>100	>100	>100	>100	16	26	2.0	20	SGMW-03B
SGMW-03C	50.4	53.0	26.7	54.8	>100	>100	>100	>100	12.0	24	1.0	24	SGMW-03C
SGMW-04A	27.5	42.1	59.7	42.9	>100	>100	>100	>100	0.0	11	5.0	0.0	SGMW-04A
SGMW-04B	33.6	42.7	52.2	42.7	>100	>100	>100	>100	4.0	5	7.0	7	SGMW-04B
SGMW-04C	23.5	35.7	47.8	32.9	>100	>100	>100	>100	6.0	5	5.0	5	SGMW-04C
SGMW-05A	15.1	34.3	43.4	36.3	>100	>100	>100	>100	0.0	6	8.0	0.0	SGMW-05A
SGMW-05B	22.8	32.7	39.6	19.9	>100	>100	>100	>100	1.0	4	8.0	0.0	SGMW-05B
SGMW-05C	19.1	24.9	43.5	0.0	>100	>100	>100	0.0	3.0	2	9.0	0.0	SGMW-05C
SGMW-06A	30.6	25.0	4.7	0.0	>100	>100	93	0.0	0.0	0.0	0.0	0.0	SGMW-06A
SGMW-06B	31.9	32.7	38.5	0.0	>100	>100	>100	0.0	2.0	6	11.0	0.0	SGMW-06B
SGMW-06C	30.2	30.3	35.9	0.0	>100	>100	>100	0.0	3.0	3	4.0	0.0	SGMW-06C
SGMW-07A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-07A
SGMW-07B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-07B
SGMW-07C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-07C
SGMW-08A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-08A
SGMW-08B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-08B
SGMW-08C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-08C
SGMW-09A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-09A
SGMW-09B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-09B
SGMW-09C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-09C
SGMW-10A	0.7	12.9	0.0	8.9	14	>100	0	>100	0.0	11	0.0	0.0	SGMW-10A
SGMW-10B	5.8	15.4	22.8	13.6	>100	>100	>100	>100	2.0	6	9	0.0	SGMW-10B
SGMW-10C	5.4	13.0	19.2	0.0	>100	>100	>100	0	4.0	3	6	0.0	SGMW-10C
SGMW-11A	7.2	16.7	29.9	13.7	>100	>100	>100	>100	1.0	16	6	7	SGMW-11A
SGMW-11B	2.7	15.7	27.6	0.0	55	>100	>100	0	0.0	0	15	0.0	SGMW-11B
SGMW-12A	37.8	46.2	53.6	48.9	>100	>100	>100	>100	13.0	29	29	10	SGMW-12A
SGMW-12B	38.7	40.1	48.9	43	>100	>100	>100	>100	2.0	1	3	0.0	SGMW-12B
SGMW-13A	0.0	0.2	19.8	30.3	0.0	4.0	>100	>100	0.0	0.0	2	0.0	SGMW-13A
SGMW-13B	30.4	37.6	49.8	26.9	>100	>100	>100	>100	3.0	1	5	0.0	SGMW-13A
SGMW-14A	0.8	0.0	1.6	0.0	16.0	0.0	>100	0.0	0.0	0.0	0.0	0.0	SGMW-14A
SGMW-14B	0.0	0.9	0.8	1.6	0.0	18.0	17	81.0	0.0	0.0	0.0	0.0	SGMW-14B
SGMW-15A	0.0	0.0	3.4	0.0	0.0	0.0	68	0.0	0.0	0.0	2.0	0.0	SGMW-15A
SGMW-15B	0.0	0.0	0.0	0.3	0.0	0.0	0	8.0	0.0	0.0	0.0	0.0	SGMW-15B
SGMW-16A	0.0	0.0	0.0	0.0	0	0.0	0	0.0	0.0	0.0	0.0	0.0	SGMW-16A
SGMW-16B	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	SGMW-16B
SGMW-17A	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	SGMW-17A
SGMW-17B	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	SGMW-17B
SGMW-18A	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	SGMW-18A
SGMW-18B	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0.0	0.0	0.0	0.0	SGMW-18B
SGMW-19A	4.2	23.2	36.4	17.5	84.0	>100	>100	>100	1.0	11	26.0	1	SGMW-19A
SGMW-19B	1.6	30.8	27.3	0.0	33.0	>100	>100	0.0	0.0	14	0.0	0.0	SGMW-19B
GSGM-1A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-1A
GSGM-1B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-1B
GSGM-1C	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-1C
GSGM-2A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-2A
GSGM-2B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-2B
GSGM-2C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-2C
GSGM-3A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-3A
GSGM-3B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-3B
GSGM-4A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-4A
GSGM-4B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-4B

2013 Current Landfill Soil Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume) 3/13/13	Methane (% By Volume) 6/4-5/2013	Methane (% By Volume) 9/17-18/13	Methane (% By Volume) 11/19-20/2013	LEL (% By Volume) 3/13/13	LEL (% By Volume) 6/4-5/2013	LEL (% By Volume) 9/17-18/13	LEL (% By Volume) 11/19-20/2013	Hydrogen Sulfide (ppm by volume) 3/13/13	Hydrogen Sulfide (ppm by volume) 6/4-5/2013	Hydrogen Sulfide (ppm by volume) 9/17-18/13	Hydrogen Sulfide (ppm by volume) 11/19-20/2013	Soil Gas Monitoring Well
SGMW-01A	22.7	18.0	13.2	8.5	>100	>100	>100	>100	3.0	2.0	2.0	0.0	SGMW-01A
SGMW-01B	22.0	13.0	3.6	7.7	>100	>100	88	>100	2.0	1.0	0.0	0.0	SGMW-01B
SGMW-01C	19.9	18.1	9.4	5.6	>100	>100	>100	>100	2.0	0.0	0.0	0.0	SGMW-01C
SGMW-02A	59.1	55.2	59.8	41.9	>100	>100	>100	>100	1.0	3.0	0.0	1.0	SGMW-02A
SGMW-02B	23.5	54.2	53.8	49.5	>100	>100	>100	>100	0.0	29	2.0	11	SGMW-02B
SGMW-02C	55.6	0.0	0.1	50.9	>100	0.0	0.0	>100	4.0	0.0	0.0	3.0	SGMW-02C
SGMW-03A	32.3	53.7	28.3	30.8	>100	>100	>100	>100	0.0	9.0	2.0	1.0	SGMW-03A
SGMW-03B	60.8	43.2	0.0	34.2	>100	>100	0.0	>100	31	0.0	0.0	0.0	SGMW-03B
SGMW-03C	57.4	0.0	0.0	0.1	>100	0.0	0.0	2.0	28.0	0.0	0.0	0.0	SGMW-03C
SGMW-04A	50.6	45.7	39	39.9	>100	>100	>100	>100	0.0	8.0	1.0	0.0	SGMW-04A
SGMW-04B	49.7	33.5	0.0	32.8	>100	>100	0.0	>100	4.0	2.0	0.0	0.0	SGMW-04B
SGMW-04C	46.8	0.0	0.0	0.0	>100	0.0	0.0	0.0	5.0	0.0	0.0	0.0	SGMW-04C
SGMW-05A	43.3	33.6	7.1	0.6	>100	>100	>100	12	0.0	2.0	0.0	0.0	SGMW-05A
SGMW-05B	41.4	34.3	28	20.8	>100	>100	>100	>100	4.0	1.0	0.0	0.0	SGMW-05B
SGMW-05C	35.0	22.4	0.0	0.0	>100	>100	0.0	0.0	2.0	0.0	0.0	0.0	SGMW-05C
SGMW-06A	9.8	0.0	0.8	0.0	>100	0.0	17	0.0	0.0	0.0	0.0	0.0	SGMW-06A
SGMW-06B	38.7	0.2	34.7	0.1	>100	4.0	>100	2.0	3.0	0.0	7.0	0.0	SGMW-06B
SGMW-06C	38.0	27.8	31.3	0.0	>100	>100	>100	0.0	3.0	0.0	3.0	0.0	SGMW-06C
SGMW-07A	0.0	0.0	12.8	0.0	0.0	0.0	>100	0.0	0.0	0.0	5.0	0.0	SGMW-07A
SGMW-07B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-07B
SGMW-07C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-07C
SGMW-08A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-08A
SGMW-08B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-08B
SGMW-08C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-08C
SGMW-09A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-09A
SGMW-09B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-09B
SGMW-09C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-09C
SGMW-10A	16.2	7.8	12.4	0.0	>100	>100	>100	0.0	3.0	3.0	9.0	0.0	SGMW-10A
SGMW-10B	16.0	13.7	16.2	2.0	>100	>100	>100	56	5.0	0.0	4.0	0.0	SGMW-10B
SGMW-10C	13.6	11.7	14.1	0.1	>100	>100	>100	2.0	3.0	0.0	1.0	0.0	SGMW-10C
SGMW-11A	12.7	13.8	19.2	8.2	>100	>100	>100	>100	3.0	8.0	14	6.0	SGMW-11A
SGMW-11B	11.4	10.8	15.3	10.7	>100	>100	>100	>100	0.0	0.0	0.0	17.0	SGMW-11B
SGMW-12A	53.5	46.1	42.5	25.9	>100	>100	>100	>100	12.0	14	8.0	0.0	SGMW-12A
SGMW-12B	42.2	36.7	46.0	2.0	>100	>100	>100	5.0	0.0	0.0	0.0	0.0	SGMW-12B
SGMW-13A	0.2	19.5	42.2	0.1	4.0	>100	>100	2.0	0.0	5.0	6.0	0.0	SGMW-13A
SGMW-13B	43.3	0.0	22.0	0.1	>100	0.0	>100	2.0	0.0	0.0	0.0	0.0	SGMW-13A
SGMW-14A	8.9	0.0	0.0	0.0	>100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-14A
SGMW-14B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-14B
SGMW-15A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-15A
SGMW-15B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-15B
SGMW-16A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-16A
SGMW-16B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-16B
SGMW-17A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-17A
SGMW-17B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-17B
SGMW-18A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-18A
SGMW-18B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-18B
SGMW-19A	27.8	14.6	1.4	0	>100	>100	28	0.0	6.0	5.0	0.0	0.0	SGMW-19A
SGMW-19B	28.0	0.0	0.0	0.0	>100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-19B
GSGM-1A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-1A
GSGM-1B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-1B
GSGM-1C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-1C
GSGM-2A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-2A
GSGM-2B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-2B
GSGM-2C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-2C
GSGM-3A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-3A
GSGM-3B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-3B
GSGM-4A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-4A
GSGM-4B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-4B

1996/97 FORMER LANDFILL AREA SOIL GAS MONITORING SUMMARY TABLE

1998 Environmental Monitoring Report

Current and Former Landfills Brookhaven National Laboratory

Soil Gas Monitoring Well	Methane (% By Volume)				Hydrogen Sulfide (ppm by volume)			
	Aug-96	Mar-97	Aug-97	Nov-97	Aug-96	Mar-97	Aug-97	Nov-97
SGMW-01A	0	0	0.3	0	◇	6	-5	0
SGMW-01B	0	0	0.3	0	◇	4	-5	0
SGMW-02A	0	0	0	0	◇	6	-2	0
SGMW-02B	0	0	0	0	◇	3	-2	0
SGMW-03A	0	0	0	0	◇	1	-4	0
SGMW-03B	0	0	0	0	◇	5	-4	0
SGMW-04A	0	0	0.2	0.1	◇	7	-5	8
SGMW-04B	0	0	0.2	0.1	◇	7	-5	9
SGMW-05A	0	0	0	0	◇	7	-2	12
SGMW-05B	0	0	0	0	◇	4	-2	0
SGMW-06A	0	0	0	0	◇	7	-4	0
SGMW-06B	0	0	0.1	0	◇	4	-4	0
SGMW-07A	0	0	◇	◇	◇	7	◇	◇
SGMW-07B	0	0	◇	◇	◇	7	◇	◇
SGMW-08A	0	0	0.1	0	◇	6	-5	0
SGMW-08B	0	0	0.1	0	◇	6	-1	0
SGMW-09A	0	0	0	0	◇	5	-2	1
SGMW-09B	0	0	0	0	◇	4	-2	0
SGMW-10A	0	0	0	0	◇	7	-1	1
SGMW-10B	0	0	0	0	◇	5	-2	0
SGMW-11A	0	0	0.3	0	◇	9	-5	0
SGMW-11B	0	0	0	0	◇	4	-1	2
SGMW-12A	0	0	0.3	0	◇	9	-5	0
SGMW-12B	0	0	0.3	0	◇	5	-5	0

◇ No measurement taken.

Negative numbers reported are due to equipment problems.

Brookhaven National Laboratory

1998 Landfills Environmental Monitoring Report

1998 Former Landfill Area Soil Gas Monitoring Summary Table

oil Gas oring Well	Methane (% By Volume) February-98	Methane (% By Volume) May-98	Methane (% By Volume) August-98	Methane (% By Volume) December-98
V-01A	0	0	0	0
V-01B	0.1	0	0	0
V-02A	0	0	0	0
V-02B	0.1	0	0	0
V-03A	0	0	0	0
V-03B	0	0	0	0.1
V-04A	0	0.1	0	0
V-04B	0	0	0	0
V-05A	0	0	0	0
V-05B	0	0	0	0
V-06A	0	0	0	0
V-06B	0	0	0	0
V-07A	<>	<>	<>	<>
V-07B	<>	<>	<>	<>
V-08A	0	0	0	0
V-08B	0	0	0	0
V-09A	0	0	0	0
V-09B	0	0	0	0
V-10A	0	0	0	0
V-10B	0	0	0	0
V-11A	0	0	0	0
V-11B	0	0	0	0
V-12A	0	0	0	0
V-12B	0	0	0	0

Hydrogen sulfide (ppm By Volume) February-98	Hydrogen sulfide (ppm By Volume) May-98	Hydrogen sulfide (ppm By Volume) August-98	Hydrogen sulfide (ppm By Volume) December-98	Soil Gas Monitoring Well
1	0	1	0	SGMW-01A
1	0	0	0	SGMW-01B
6	0	0	0	SGMW-02A
6	1	0	0	SGMW-02B
0	0	1	1	SGMW-03A
3	0	2	0	SGMW-03B
0	2	0	1	SGMW-04A
1	0	0	0	SGMW-04B
0	0	3	0	SGMW-05A
0	0	1	0	SGMW-05B
2	0	0	1	SGMW-06A
0	0	0	0	SGMW-06B
<>	<>	<>	<>	SGMW-07A
<>	<>	<>	<>	SGMW-07B
1	0	0	0	SGMW-08A
0	0	4	0	SGMW-08B
1	0	1	1	SGMW-09A
0	0	3	0	SGMW-09B
0	0	4	0	SGMW-10A
0	0	3	0	SGMW-10B
0	0	0	2	SGMW-11A
1	0	1	0	SGMW-11B
0	0	2	1	SGMW-12A
0	0	1	0	SGMW-12B

SGM07 was not accessible

Brookhaven National Laboratory
1998 Landfills Environmental Monitoring Report
1999 Former Landfill Soil Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume) June-99	Methane (% By Volume) October-99	Methane (% By Volume) December-99	LEL (% By Volume) June-99	LEL (% By Volume) October-99	LEL (% By Volume) December-99	Hydrogen sulfide (ppm By Volume) June-99	Hydrogen sulfide (ppm By Volume) October-99	Hydrogen sulfide (ppm By Volume) December-99	Soil Gas Monitoring Well
SGMW-01A	0	0	0	0	0	0	0	0	1	SGMW-01A
SGMW-01B	0	0	0	0	0	0	0	0	0	SGMW-01B
SGMW-02A	0	0	0	0	0	0	0	0	0	SGMW-02A
SGMW-02B	0	0	0	0	0	0	0	0	0	SGMW-02B
SGMW-03A	0	0	0	0	0	0	0	0	0	SGMW-03A
SGMW-03B	0.1	0	0	2	0	0	0	0	0	SGMW-03B
SGMW-04A	0	0	0	0	0	0	0	0	0	SGMW-04A
SGMW-04B	0	0	0	0	0	0	0	0	0	SGMW-04B
SGMW-05A	0	0	0	0	0	0	0	0	3	SGMW-05A
SGMW-05B	0	0	0	0	0	0	0	0	0	SGMW-05B
SGMW-06A	0	0	0	0	0	0	0	0	1	SGMW-06A
SGMW-06B	0	0	0	0	0	0	0	0	0	SGMW-06B
SGMW-07A	**	**	**	**	**	**	**	**	**	SGMW-07A
SGMW-07B	**	**	**	**	**	**	**	**	**	SGMW-07B
SGMW-08A	0	0	0	0	0	0	0	0	0	SGMW-08A
SGMW-08B	0	0	0	0	0	0	0	0	0	SGMW-08B
SGMW-09A	0	0	0	0	0	0	0	0	0	SGMW-09A
SGMW-09B	0	0	0	0	0	0	0	0	0	SGMW-09B
SGMW-10A	0	0	0	0	0	0	1	0	0	SGMW-10A
SGMW-10B	0	0	0	0	0	0	0	0	0	SGMW-10B
SGMW-11A	0	0	0	0	0	0	1	0	0	SGMW-11A
SGMW-11B	0	0	0	0	0	0	0	0	0	SGMW-11B
SGMW-12A	0	0	0	0	0	0	0	0	0	SGMW-12A
SGMW-12B	0	0	0	0	0	0	0	0	0	SGMW-12B

** No measurement was recorded.

Brookhaven National Laboratory
2000 Landfills Environmental Monitoring Report
2000 Former Landfill Soil Gas Monitoring Summary Table

Methane (% By Volume) February-00	Methane (% By Volume) June-00	Methane (% By Volume) September-00	Methane (% By Volume) December-00	LEL (% By Volume) February-00	LEL (% By Volume) June-00	LEL (% By Volume) September-00	LEL (% By Volume) December-00	Hydrogen Sulfide (ppm by volume) February-00	Hydrogen Sulfide (ppm by volume) June-00	Hydrogen Sulfide (ppm by volume) September-00	Hydrogen Sulfide (ppm by volume) December-00	Soil Gas Monitoring Well
0	0	0	0	0	0	0	0	2	5	1	1	SGMW-01A
0	0	0	0	0	0	0	0	0	0	2	2	SGMW-01B
0	0	0	0	0	0	0	0	2	0	0	2	SGMW-02A
0	0	0	0	0	0	0	0	0	0	0	1	SGMW-02B
0	0	0	0	0	0	0	0	0	0	1	2	SGMW-03A
0	0	0	0	0	0	0	0	0	1	1	2	SGMW-03B
0	0	0	0	0	0	0	0	0	0	1	3	SGMW-04A
0	0	0	0	0	0	0	0	0	0	1	3	SGMW-04B
0	0	0	0	0	0	0	0	0	0	1	4	SGMW-05A
0	0	0	0	0	0	0	0	1	1	1	4	SGMW-05B
0	0	0	0	0	0	0	0	0	3	2	3	SGMW-06A
0	0	0	0	0	0	0	0	0	0	0	3	SGMW-06B
0	0	0	0	0	0	0	0	0	5	1	4	SGMW-07A
0	0	0	0	0	0	0	0	0	4	1	0	SGMW-07B
0	0	0	0	0	0	0	0	0	4	0	3	SGMW-08A
0	0	0	0	0	0	0	0	0	5	0	3	SGMW-08B
0	0	0	0	0	0	0	0	0	2	1	3	SGMW-09A
0	0	0	0	0	0	0	0	0	1	2	4	SGMW-09B
0	0	0	0	0	0	0	0	0	1	2	0	SGMW-10A
0	0	0	0	0	0	0	0	0	0	0	5	SGMW-10B
0	0	0	0	0	0	0	0	0	1	0	5	SGMW-11A
0	0	0	0	0	0	0	0	0	0	1	4	SGMW-11B
0	0	0	0	0	0	0	0	0	1	1	4	SGMW-12A
0	0	0	0	0	0	0	0	2	0	1	4	SGMW-12B

gment was collected due to other work in the area.

Brookhaven National Laboratory
2001 Landfills Environmental Monitoring Report
2001 Former Landfill Soil Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume) March-01	Methane (% By Volume) June-01	Methane (% By Volume) September-01	LEL (% By Volume) March-01	LEL (% By Volume) June-01	LEL (% By Volume) September-01	Hydrogen Sulfide (ppm by volume) March-01	Hydrogen Sulfide (ppm by volume) June-01	Hydrogen Sulfide (ppm by volume) September-01
W-01A	0	0	0	0	0	0	3	N/A	1
W-01B	0	0	0	0	0	0	3	N/A	1
W-02A	0	0	0.1	0	0	0.2	4	N/A	2
W-02B	0	0	0	0	0	0	5	N/A	2
W-03A	0	0	0.1	0	0	0.2	4	N/A	3
W-03B	0	0	0.1	0	0	0.2	4	N/A	2
W-04A	0	0	0	0	0	0	5	N/A	0
W-04B	0	0	0	0	0	0	5	N/A	0
W-05A	0	0	0	0	0	0	6	N/A	0
W-05B	0	0	0	0	0	0	5	N/A	0
W-06A	0	0	0	0	<>	0	6	N/A	0
W-06B	0	0	0	0	<>	0	5	N/A	0
W-07A	0	0	0	0	<>	0	5	N/A	0
W-07B	0	0	0	0	<>	0	5	N/A	0
W-08A	0	0	0	0	<>	0	7	N/A	0
W-08B	0	0	0	0	<>	0	6	N/A	0
W-09A	0	0	0	0	0	0	3	N/A	0
W-09B	0	0	0	0	0	0	6	N/A	0
W-10A	0	0	0	0	0	0	6	N/A	0
W-10B	0	0	0	0	0	0	7	N/A	0
W-11A	0	0	0	0	0	0	4	N/A	0
W-11B	0	0	0	0	0	0	6	N/A	0
W-12A	0	0	0	0	0	0	7	N/A	0
W-12B	0	0	0	0	0	0	6	N/A	0

measurement was collected due to other work in the area.

2007 Former Landfill Soil Gas Monitoring Summary

ll Gas oring Well	Methane (% By Volume) March-02	Methane (% By Volume) June-02	Methane (% By Volume) October-02	Methane (% By Volume) December-02	LEL (% By Volume) March-02	LEL (% By Volume) June-02	LEL (% By Volume) October-02	LEL (% By Volume) December-02	Hydrogen Sulfide (ppm by volume) March-02	Hydrogen Sulfide (ppm by volume) June-02	Hydrogen Sulfide (ppm by volume) October-02	Hydrogen Sulfide (ppm by volume) December-02	Soil Gas Monitoring Well
MW-01A	0	0	0	0	0	0	0	0	2	0	0	0	SGMW-01A
MW-01B	0	0	0	0	0	0	0	0	0	0	1	0	SGMW-01B
MW-02A	0	0	0	0	0	0	0	0	0	0	0	2	SGMW-02A
MW-02B	0	0	0	0	0	0	0	0	3	1	1	2	SGMW-02B
MW-03A	0	0	0	0	0	0	0	0	0	1	1	6	SGMW-03A
MW-03B	0	0	0	0	0	0	0	0	1	0	1	5	SGMW-03B
MW-04A	0	0	0	0	0	0	0	0	0	0	0	5	SGMW-04A
MW-04B	0	0	0	0	0	0	0	0	2	0	0	4	SGMW-04B
MW-05A	0	0	0	0	0	0	0	0	2	0	1	7	SGMW-05A
MW-05B	0	0	0	0	0	0	0	0	2	1	1	6	SGMW-05B
MW-06A	0	0	0	0	0	0	0	0	2	1	0	7	SGMW-06A
MW-06B	0	0	0	0	0	0	0	0	0	1	1	5	SGMW-06B
MW-07A	0	0	0	0	0	0	0	0	1	1	0	3	SGMW-07A
MW-07B	0	0	0	0	0	0	0	0	1	0	0	7	SGMW-07B
MW-08A	0	0	0	0	0	0	0	0	2	0	1	8	SGMW-08A
MW-08B	0	0	0	0	0	0	0	0	2	0	1	5	SGMW-08B
MW-09A	0	0	0	0	0	0	0	0	2	0	2	9	SGMW-09A
MW-09B	0	0	0	0	0	0	0	0	2	0	2	8	SGMW-09B
MW-10A	0	0	0	0.1	0	0	0	0	2	0	3	7	SGMW-10A
MW-10B	0	0.2	0	0.1	0	0	0	0	2	0	3	7	SGMW-10B
MW-11A	0	0.7	0	0	0	0	0	0	2	0	3	7	SGMW-11A
MW-11B	0	0.2	0	0.1	0	0	0	0	2	0	3	6	SGMW-11B
MW-12A	0	0.2	0	6	0	0	0	0	2	0	3	8	SGMW-12A
MW-12B	0	0	0	0.1	0	0	0	0	2	0	3	8	SGMW-12B

2003 Former Landfill Soil Gas Monitoring Summary

Soil Gas Monitoring Well	Methane (% By Volume) March-03	Methane (% By Volume) July-03	Methane (% By Volume) October-03	Methane (% By Volume) December-03	LEL (% By Volume) March-03	LEL (% By Volume) July-03	LEL (% By Volume) October-03	LEL (% By Volume) December-03	Hydrogen Sulfide (ppm by volume) March-03	Hydrogen Sulfide (ppm by volume) July-03	Hydrogen Sulfide (ppm by volume) October-03	Hydrogen Sulfide (ppm by volume) December-03	Soil Gas Monitoring Well
SGMW-01A	0	0	0.1	0	0	0	2	0	0	~	0	~	SGMW-01A
SGMW-01B	0.1	0	0	0	2	0	0	0	1	~	0	~	SGMW-01B
SGMW-02A	0.1	0	0.1	0	2	0	2	0	4	~	0	~	SGMW-02A
SGMW-02B	0	0	0.1	0	0	0	2	0	1	~	0	~	SGMW-02B
SGMW-03A	0	0	0	0	0	0	0	0	1	~	0	~	SGMW-03A
SGMW-03B	0.1	0	0.1	0	2	0	2	0	1	~	0	~	SGMW-03B
SGMW-04A	0.2	0	0.1	0	4	0	2	0	2	~	0	~	SGMW-04A
SGMW-04B	0	0	0.1	0	0	0	2	0	3	~	0	~	SGMW-04B
SGMW-05A	0.1	0	0	0	2	0	0	0	1	~	0	~	SGMW-05A
SGMW-05B	0	0	0.1	0	0	0	2	0	1	~	0	~	SGMW-05B
SGMW-06A	0.1	0	0.2	0	2	0	4	0	2	~	0	~	SGMW-06A
SGMW-06B	0.1	0	0.2	0	0	0	4	0	2	~	0	~	SGMW-06B
SGMW-07A	0.1	0	0.1	0	2	0	2	0	4	~	0	~	SGMW-07A
SGMW-07B	0.2	0	0.1	0	4	0	2	0	5	~	0	~	SGMW-07B
SGMW-08A	0.1	0	0.1	0	2	0	2	0	1	~	0	~	SGMW-08A
SGMW-08B	0.2	0	0.1	0	4	0	2	0	2	~	0	~	SGMW-08B
SGMW-09A	0.1	0	0	0	2	0	0	0	3	~	0	~	SGMW-09A
SGMW-09B	0.1	0	0	0	2	0	0	0	1	~	0	~	SGMW-09B
SGMW-10A	0.2	0	0.1	0	4	0	2	0	2	~	0	~	SGMW-10A
SGMW-10B	0.2	0	0	0	4	0	0	0	4	~	0	~	SGMW-10B
SGMW-11A	0.1	0	0.1	0	2	0	2	0	0	~	0	~	SGMW-11A
SGMW-11B	0.1	0	0.1	0	2	0	2	0	3	~	0	~	SGMW-11B
SGMW-12A	0.1	0	0.1	0	2	0	2	0	4	~	0	~	SGMW-12A
SGMW-12B	0.1	0	0.1	0	2	0	2	0	3	~	0	~	SGMW-12B

July measurements taken with a Landtec GEM 500

~ H2S pod not operational.

2004 Former Landfill Soil Gas Monitoring Summary

Soil Gas Monitoring Well	Methane (% By Volume) 3/11/04	Methane (% By Volume) 6/25/04	Methane (% By Volume) 10/20/04	Methane (% By Volume) 11/30/04	LEL (% By Volume) 3/11/04	LEL (% By Volume) 6/25/04	LEL (% By Volume) 10/20/04	LEL (% By Volume) 11/30/04	Hydrogen Sulfide (ppm by volume) 3/11/04	Hydrogen Sulfide (ppm by volume) 6/25/04	Hydrogen Sulfide (ppm by volume) 10/20/04	Hydrogen Sulfide (ppm by volume) 11/30/04	Soil Gas Monitoring Well
SGMW-01A	0.1	0	0	0.1	2	0	0	2	150	0	0	0	SGMW-01A
SGMW-01B	0	0	0	0	0	0	0	0	63	0	0	0	SGMW-01B
SGMW-02A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-02A
SGMW-02B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-02B
SGMW-03A	0	0	0	0	0	0	0	0	109	0	0	0	SGMW-03A
SGMW-03B	0	0.1	0	0	0	2	0	0	0	2	0	0	SGMW-03B
SGMW-04A	0.1	0.1	0	0	2	2	0	0	0	2	0	0	SGMW-04A
SGMW-04B	0	0.1	0	0	0	2	0	0	0	2	0	0	SGMW-04B
SGMW-05A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-05A
SGMW-05B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-05B
SGMW-06A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-06A
SGMW-06B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-06B
SGMW-07A	0	0	0	NR	0	0	0	NR	0	0	0	NR	SGMW-07A
SGMW-07B	0	0	0	NR	0	0	0	NR	0	0	0	NR	SGMW-07B
SGMW-08A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-08A
SGMW-08B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-08B
SGMW-09A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-09A
SGMW-09B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-09B
SGMW-10A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-10A
SGMW-10B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-10B
SGMW-11A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-11A
SGMW-11B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-11B
SGMW-12A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-12A
SGMW-12B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-12B

NR = Not read, access to well was not possible due to construction.
H2S pod suspected of not operating correctly in March.

2005 Former Landfill Soil Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume) 3/30/05	Methane (% By Volume) 7/21/05	Methane (% By Volume) 10/26/05	Methane (% By Volume) 12/28/05	LEL (% By Volume) 3/30/05	LEL (% By Volume) 7/21/05	LEL (% By Volume) 10/26/05	LEL (% By Volume) 12/28/05	Hydrogen Sulfide (ppm by volume) 3/30/05	Hydrogen Sulfide (ppm by volume) 7/21/05	Hydrogen Sulfide (ppm by volume) 10/26/05	Hydrogen Sulfide (ppm by volume) 12/28/05	Soil Gas Monitoring Well
SGMW-01A	0	0	0	0.1	0	0	0	2	0	0	0	0	SGMW-01A
SGMW-01B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-01B
SGMW-02A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-02A
SGMW-02B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-02B
SGMW-03A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-03A
SGMW-03B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-03B
SGMW-04A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-04A
SGMW-04B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-04B
SGMW-05A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-05A
SGMW-05B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-05B
SGMW-06A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-06A
SGMW-06B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-06B
SGMW-07A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-07A
SGMW-07B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-07B
SGMW-08A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-08A
SGMW-08B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-08B
SGMW-09A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-09A
SGMW-09B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-09B
SGMW-10A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-10A
SGMW-10B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-10B
SGMW-11A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-11A
SGMW-11B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-11B
SGMW-12A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-12A
SGMW-12B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-12B

2006 Former Landfill Soil Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume) 2/20/06	Methane (% By Volume) 6/23/06	Methane (% By Volume) 9/28/06	Methane (% By Volume) 12/26/06	LEL (% By Volume) 2/20/06	LEL (% By Volume) 6/23/06	LEL (% By Volume) 9/28/06	LEL (% By Volume) 12/26/06	Hydrogen Sulfide (ppm by volume) 2/20/06	Hydrogen Sulfide (ppm by volume) 6/23/06	Hydrogen Sulfide (ppm by volume) 9/28/06	Hydrogen Sulfide (ppm by volume) 12/26/06	Soil Gas Monitoring Well
SGMW-01A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-01A
SGMW-01B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-01B
SGMW-02A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-02A
SGMW-02B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-02B
SGMW-03A	0	0	0	0	0	0	0	0	0	0	1	0	SGMW-03A
SGMW-03B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-03B
SGMW-04A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-04A
SGMW-04B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-04B
SGMW-05A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-05A
SGMW-05B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-05B
SGMW-06A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-06A
SGMW-06B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-06B
SGMW-07A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-07A
SGMW-07B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-07B
SGMW-08A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-08A
SGMW-08B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-08B
SGMW-09A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-09A
SGMW-09B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-09B
SGMW-10A	0	0	0	0	0	0	0	0	0	0	1	0	SGMW-10A
SGMW-10B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-10B
SGMW-11A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-11A
SGMW-11B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-11B
SGMW-12A	0	0	0	0	0	0	0	0	0	0	1	0	SGMW-12A
SGMW-12B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-12B

2007 Former Landfill Soil-Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume) 2/24/07	Methane (% By Volume) 5/17/07	Methane (% By Volume) 9/22/07	Methane (% By Volume) 12/20/07	LEL (% By Volume) 2/24/07	LEL (% By Volume) 5/17/07	LEL (% By Volume) 9/22/07	LEL (% By Volume) 12/20/07	Hydrogen Sulfide (ppm by volume) 2/24/07	Hydrogen Sulfide (ppm by volume) 5/17/07	Hydrogen Sulfide (ppm by volume) 9/22/07	Hydrogen Sulfide (ppm by volume) 12/20/07	Soil Gas Monitoring Well
SGMW-01A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	SGMW-01A
SGMW-01B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	SGMW-01B
SGMW-02A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-02A
SGMW-02B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-02B
SGMW-03A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	SGMW-03A
SGMW-03B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	SGMW-03B
SGMW-04A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	SGMW-04A
SGMW-04B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	SGMW-04B
SGMW-05A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-05A
SGMW-05B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-05B
SGMW-06A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-06A
SGMW-06B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-06B
SGMW-07A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	SGMW-07A
SGMW-07B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-07B
SGMW-08A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-08A
SGMW-08B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-08B
SGMW-09A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-09A
SGMW-09B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	SGMW-09B
SGMW-10A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	SGMW-10A
SGMW-10B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-10B
SGMW-11A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-11A
SGMW-11B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-11B
SGMW-12A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	SGMW-12A
SGMW-12B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-12B

2008 Former Landfill Soil-Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume) 3/17/2008	Methane (% By Volume) 7/30/08	Methane (% By Volume) 9/29/2008	Methane (% By Volume) 12/9/2008	LEL (% By Volume) 3/17/2008	LEL (% By Volume) 7/30/08	LEL (% By Volume) 9/29/2008	LEL (% By Volume) 12/9/2008	Hydrogen Sulfide (ppm by volume) 3/17/2008	Hydrogen Sulfide (ppm by volume) 7/30/08	Hydrogen Sulfide (ppm by volume) 9/29/2008	Hydrogen Sulfide (ppm by volume) 12/9/2008	Soil Gas Monitoring Well
SGMW-01A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-01A
SGMW-01B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-01B
SGMW-02A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-02A
SGMW-02B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-02B
SGMW-03A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-03A
SGMW-03B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-03B
SGMW-04A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-04A
SGMW-04B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-04B
SGMW-05A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-05A
SGMW-05B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-05B
SGMW-06A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-06A
SGMW-06B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-06B
SGMW-07A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-07A
SGMW-07B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-07B
SGMW-08A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-08A
SGMW-08B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-08B
SGMW-09A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-09A
SGMW-09B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-09B
SGMW-10A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-10A
SGMW-10B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-10B
SGMW-11A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-11A
SGMW-11B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-11B
SGMW-12A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-12A
SGMW-12B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-12B

2009 Former Landfill Soil-Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume) 3/18/2009	Methane (% By Volume) 7/30/2009	Methane (% By Volume) 12/17/2009	LEL (% By Volume) 3/18/2009	LEL (% By Volume) 7/30/2009	LEL (% By Volume) 12/17/2009	Hydrogen Sulfide (ppm by volume) 3/18/2009	Hydrogen Sulfide (ppm by volume) 7/30/2009	Hydrogen Sulfide (ppm by volume) 12/17/2009	Soil Gas Monitoring Well
SGMW-01A	0	0	0	0	0	0	0	0	0	SGMW-01A
SGMW-01B	0	0	0	0	0	0	0	0	0	SGMW-01B
SGMW-02A	0	0	0	0	0	0	0	0	0	SGMW-02A
SGMW-02B	0	0	0	0	0	0	0	0	0	SGMW-02B
SGMW-03A	0	0	0	0	0	0	0	0	0	SGMW-03A
SGMW-03B	0	0	0	0	0	0	0	0	0	SGMW-03B
SGMW-04A	0	0	0	0	0	0	0	0	0	SGMW-04A
SGMW-04B	0	0	0	0	0	0	0	0	0	SGMW-04B
SGMW-05A	0	0	0	0	0	0	0	0	0	SGMW-05A
SGMW-05B	0	0	0	0	0	0	0	0	0	SGMW-05B
SGMW-06A	0	0	0	0	0	0	0	0	0	SGMW-06A
SGMW-06B	0	0	0	0	0	0	0	0	0	SGMW-06B
SGMW-07A	0	0	0	0	0	0	0	0	0	SGMW-07A
SGMW-07B	0	0	0	0	0	0	0	0	0	SGMW-07B
SGMW-08A	0	0	0	0	0	0	0	0	0	SGMW-08A
SGMW-08B	0	0	0	0	0	0	0	0	0	SGMW-08B
SGMW-09A	0	0	0	0	0	0	0	0	0	SGMW-09A
SGMW-09B	0	0	0	0	0	0	0	0	0	SGMW-09B
SGMW-10A	0	0	0	0	0	0	0	0	0	SGMW-10A
SGMW-10B	0	0	0	0	0	0	0	0	0	SGMW-10B
SGMW-11A	0	0	0	0	0	0	0	0	0	SGMW-11A
SGMW-11B	0	0	0	0	0	0	0	0	0	SGMW-11B
SGMW-12A	0	0	0	0	0	0	0	0	0	SGMW-12A
SGMW-12B	0	0	0	0	0	0	0	0	0	SGMW-12B

2010 Former Landfill Soil-Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume) 6/7/2010	Methane (% By Volume) 12/9/2010	LEL (% By Volume) 6/7/2010	LEL (% By Volume) 12/9/2010	Hydrogen Sulfide (ppm by volume) 6/7/2010	Hydrogen Sulfide (ppm by volume) 12/9/2010	Soil Gas Monitoring Well
SGMW-01A	0	0	0	0	0	0	SGMW-01A
SGMW-01B	0	0	0	0	0	0	SGMW-01B
SGMW-02A	0	0	0	0	0	0	SGMW-02A
SGMW-02B	0	0	0	0	0	0	SGMW-02B
SGMW-03A	0	0	0	0	0	0	SGMW-03A
SGMW-03B	0	0	0	0	0	0	SGMW-03B
SGMW-04A	0	0	0	0	0	0	SGMW-04A
SGMW-04B	0	0	0	0	0	0	SGMW-04B
SGMW-05A	0	0	0	0	0	0	SGMW-05A
SGMW-05B	0	0	0	0	0	0	SGMW-05B
SGMW-06A	0	0	0	0	0	0	SGMW-06A
SGMW-06B	0	0	0	0	0	0	SGMW-06B
SGMW-07A	0	0	0	0	0	0	SGMW-07A
SGMW-07B	0	0	0	0	0	0	SGMW-07B
SGMW-08A	0	0	0	0	0	0	SGMW-08A
SGMW-08B	0	0	0	0	0	0	SGMW-08B
SGMW-09A	0	0	0	0	1	0	SGMW-09A
SGMW-09B	0	0	0	0	0	0	SGMW-09B
SGMW-10A	0	0	0	0	0	0	SGMW-10A
SGMW-10B	0	0	0	0	0	0	SGMW-10B
SGMW-11A	0	0	0	0	0	0	SGMW-11A
SGMW-11B	0	0	0	0	0	0	SGMW-11B
SGMW-12A	0	0	0	0	0	0	SGMW-12A
SGMW-12B	0	0	0	0	0	0	SGMW-12B

2011 Former Landfill Soil-Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume) 6/7/2011	Methane (% By Volume) 12/13/2011	LEL (% By Volume) 6/7/2011	LEL (% By Volume) 12/13/2011	Hydrogen Sulfide (ppm by volume) 6/7/2011	Hydrogen Sulfide (ppm by volume) 12/13/2011	Soil Gas Monitoring Well
SGMW-01A	0	0	0	0	0	0	SGMW-01A
SGMW-01B	0	0	0	0	0	0	SGMW-01B
SGMW-02A	0	0	0	0	0	0	SGMW-02A
SGMW-02B	0	0	0	0	0	0	SGMW-02B
SGMW-03A	0	0	0	0	0	0	SGMW-03A
SGMW-03B	0	0	0	0	0	0	SGMW-03B
SGMW-04A	0	0	0	0	0	0	SGMW-04A
SGMW-04B	0	0	0	0	0	0	SGMW-04B
SGMW-05A	0	0	0	0	0	0	SGMW-05A
SGMW-05B	0	0	0	0	0	0	SGMW-05B
SGMW-06A	0	0	0	0	0	0	SGMW-06A
SGMW-06B	0	0	0	0	0	0	SGMW-06B
SGMW-07A	0	0	0	0	0	0	SGMW-07A
SGMW-07B	0	0	0	0	0	0	SGMW-07B
SGMW-08A	0	0	0	0	0	0	SGMW-08A
SGMW-08B	0	0	0	0	0	0	SGMW-08B
SGMW-09A	0	0	0	0	0	0	SGMW-09A
SGMW-09B	0	0	0	0	0	0	SGMW-09B
SGMW-10A	0	0	0	0	0	0	SGMW-10A
SGMW-10B	0	0	0	0	0	0	SGMW-10B
SGMW-11A	0	0	0	0	0	0	SGMW-11A
SGMW-11B	0	0	0	0	0	0	SGMW-11B
SGMW-12A	0	0	0	0	0	0	SGMW-12A
SGMW-12B	0	0	0	0	0	0	SGMW-12B

2012 Former Landfill Soil-Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume) 6/19/2012	Methane (% By Volume) 12/5/2012	LEL (% By Volume) 6/19/2012	LEL (% By Volume) 12/5/2012	Hydrogen Sulfide (ppm by volume) 6/19/2012	Hydrogen Sulfide (ppm by volume) 12/5/2012	Soil Gas Monitoring Well
SGMW-01A	0	0	0	0	0	0	SGMW-01A
SGMW-01B	0	0	0	0	0	0	SGMW-01B
SGMW-02A	0	0	0	0	0	0	SGMW-02A
SGMW-02B	0	0	0	0	0	0	SGMW-02B
SGMW-03A	0	0	0	0	0	0	SGMW-03A
SGMW-03B	0	0	0	0	0	0	SGMW-03B
SGMW-04A	0	0	0	0	0	0	SGMW-04A
SGMW-04B	0	0	0	0	0	0	SGMW-04B
SGMW-05A	0	0	0	0	0	0	SGMW-05A
SGMW-05B	0	0	0	0	0	0	SGMW-05B
SGMW-06A	0	0	0	0	0	0	SGMW-06A
SGMW-06B	0	0	0	0	0	0	SGMW-06B
SGMW-07A	0	0	0	0	0	0	SGMW-07A
SGMW-07B	0	0	0	0	0	0	SGMW-07B
SGMW-08A	0	0	0	0	0	0	SGMW-08A
SGMW-08B	0	0	0	0	0	0	SGMW-08B
SGMW-09A	0	0	0	0	0	0	SGMW-09A
SGMW-09B	0	0	0	0	0	0	SGMW-09B
SGMW-10A	0	0	0	0	0	0	SGMW-10A
SGMW-10B	0	0	0	0	0	0	SGMW-10B
SGMW-11A	0	0	0	0	0	0	SGMW-11A
SGMW-11B	0	0	0	0	0	0	SGMW-11B
SGMW-12A	0	0	0	0	0	0	SGMW-12A
SGMW-12B	0	0	0	0	0	0	SGMW-12B

2013 Former Landfill Soil-Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume) 6/6/2013	Methane (% By Volume) 11/21/2013	LEL (% By Volume) 6/6/2013	LEL (% By Volume) 11/21/2013	Hydrogen Sulfide (ppm by volume) 6/6/2013	Hydrogen Sulfide (ppm by volume) 11/21/2013	Soil Gas Monitoring Well
SGMW-01A	0	0	0	0	0	0	SGMW-01A
SGMW-01B	0	0	0	0	0	0	SGMW-01B
SGMW-02A	0	0	0	0	0	0	SGMW-02A
SGMW-02B	0	0	0	0	0	0	SGMW-02B
SGMW-03A	0	0	0	0	0	0	SGMW-03A
SGMW-03B	0	0	0	0	0	0	SGMW-03B
SGMW-04A	0	0	0	0	0	0	SGMW-04A
SGMW-04B	0	0	0	0	0	0	SGMW-04B
SGMW-05A	0	0	0	0	0	0	SGMW-05A
SGMW-05B	0	0	0	0	0	0	SGMW-05B
SGMW-06A	0	0	0	0	0	0	SGMW-06A
SGMW-06B	0	0	0	0	0	0	SGMW-06B
SGMW-07A	0	0	0	0	0	0	SGMW-07A
SGMW-07B	0	0	0	0	0	0	SGMW-07B
SGMW-08A	0	0	0	0	0	0	SGMW-08A
SGMW-08B	0	0	0	0	0	0	SGMW-08B
SGMW-09A	0	0	0	0	0	0	SGMW-09A
SGMW-09B	0	0	0	0	0	0	SGMW-09B
SGMW-10A	0	0	0	0	0	0	SGMW-10A
SGMW-10B	0	0	0	0	0	0	SGMW-10B
SGMW-11A	0	0	0	0	0	0	SGMW-11A
SGMW-11B	0	0	0	0	0	0	SGMW-11B
SGMW-12A	0	0	0	0	0	0	SGMW-12A
SGMW-12B	0	0	0	0	0	0	SGMW-12B