BROOKHAVEN NATIONAL LABORATORY
2011 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

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March 14, 2012

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Executive Summary

This report documents the Operations and Maintenance activities undertaken during the calendar year 2011 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 2011 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 2010. 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 26.4 μg/L and 1.9 μg/L, respectively. As with previous years, aluminum, 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 2010. Maximum concentrations of aluminum, arsenic, iron, manganese, and sodium in downgradient wells were 227 μg/L, 10.4 μg/L, 59,500 μg/L, 5,580 μg/L, and 52,400 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. Leachate indicator parameters and metals concentrations were generally the same when comparing downgradient monitoring wells to upgradient monitoring wells.

Since there have been no detections of VOCs or water chemistry parameters since 1998 in Current Landfill wells 087-24, 088-22, and 088-23, it is recommended that the monitoring frequency for these wells be reduced from semiannually to annually.

The groundwater monitoring well network and sampling frequencies for the Former Landfill are adequate at this time.

WOODED WETLANDS MONITORING

Sampling at the Wooded Wetland is performed as part of the compliance monitoring for the Current Landfill. Samples are collected every two years. Samples were last collected in 2010 and are scheduled for collection again in 2012.

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.

MAINTENANCE AND REPAIR

Monthly inspections and maintenance continued throughout 2011. To prevent ruts in the landfills caused by the weight of the lawn mowers and a significant amount of precipitation, the cutting of the grass only occurs when optimal soil conditions are evident. This pattern of vegetation control will continue. The grass was cut three times during the spring, summer and fall for both landfills. Small pine seedlings were noted growing around the edge of both landfills from April through December.

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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
DCG	Derived concentration guides
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
mmr	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 2011 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 sixteenth year of O&M for the Current Landfill, the fifteenth year for the Former Landfill and Slit Trench, and the fourteenth 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 December 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 calendar year (CY) 2002. In July 2006, and March 2011 BNL issued the *Final Five-Year Review Report* 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 in the 1940s. 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 CY03. In July 2006, and March 2011 BNL issued the *Final Five-Year Review Report* 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 for each of BNL's groundwater monitoring programs are presented in the *BNL Environmental Monitoring Plan* (BNL, 2011). 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 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 consists 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 semiannually from monitoring locations surrounding the former Landfill to evaluate the movement of soil-gas from the landfills.

Wooded Wetland Monitoring. Surface waters and sediments 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 last collected in 2010 and are scheduled for collection again in 2012.

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 2011.

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 February 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 November 2011. 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. In addition, monitoring of six wells, 106-20, 106-21, 106-43, 106-44, 106-45 and 106-64 were moved from the Chemical/Animal Holes

project to the Former Landfill Area project in 2010. This move 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 November 2011 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 May and December 2011. One well, 088-109, was sampled quarterly for VOCs due to the presence of chloroethane.

Landfill leachate parameters at the Former Landfill were sampled annually during 2011. Strontium-90 was sampled semiannually in monitoring wells 106-20, 106-21, 106-43, 106-44, 106-45, and 106-64.

R&C Formation, Ltd. of Bellmore, New York conducted the groundwater sampling, and Test America, 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 Groundwater Monitoring Program Quality Assurance Project Plan (QAPP) (BNL, 1999). The analytical results for groundwater samples collected during 2011 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 rounds, and one duplicate sample

was collected during the second round 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 in 2011. The historical trends in concentrations of key contaminants are assessed and shown graphically in Figures 5 through 12. Summary tables of all 2011 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 Guides (DCG) (DOE Order 458.1) 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 Selected 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 2011 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, chloroethane, and 1,1-dichloroethane were detected above their respective groundwater standards in five downgradient monitoring wells during 2011 (Table 2). Benzene and chloroethane have historically been the primary groundwater contaminants detected downgradient of the Current Landfill. The detection of 1,1-dichlorethane above standard was it's first exceedance since 2008. Naphthalene, and trans-1,3-dichloropropene, which were above standards in 2010 for the first time, were not detected above reporting limits during 2011. No other VOCs were detected above groundwater standards during 2011.

Figure 5 plots the concentration trends of total VOCs (TVOC), benzene, and chloroethane. As shown, VOCs remained relatively stable at low concentrations. 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. Well 087-23 showed a slight increase in TVOC levels during 2011 compared to 2010, but the results are consistent with results from years prior to 2010.

Benzene exceeded the 1 micrograms per liter (μg/L) standard in wells 087-11, and 088-110 during the December sampling event, 087-23 during the June sampling event and 087-27during both sampling events. The highest detection of benzene was 1.92 μg/L during the December event in well 087-11. Chloroethane exceeded the 5 μg/L standard in wells 087-23 and 088-109. The maximum chloroethane concentration was 26.4 μg/L detected in well 088-109 during the May sampling event; which is well below the historic high of 560 ug/L detected in this well in 1998.1,1-Dichloroethene was detected slightly above the standard of 5 μg/L in only one well, 088-109, at a concentration of 5.08 μg/L. There have been no detections of VOCs exceeding groundwater standards in wells 087-24, 088-22, and 088-23 since 1998. These downgradient wells are screened in the mid to deep Upper

Glacial Aquifer as perimeter wells to monitor the vertical extent of contamination from the Current Landfill.

2.2.1.2 Water Chemistry Parameters

Groundwater samples near the Current Landfill were analyzed 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 2011 (Table 1). The results are provided in Table 3. Elevated levels of these parameters can be indicative of the presence of landfill leachate. During 2011, 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 well (087-11, 087-27, and 088-109) during two sampling events, as shown in Table 3. The highest concentration of 5.55 mg/L was reported for well 087-11 in May. The levels of ammonia detected are consistent with historic data.

Chloride was not detected above the standard of 250 mg/L in any wells. Well 088-21 had the highest concentration of chloride at 71.8 mg/L in May. 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 was 6.1 mg/L during 2011. The highest alkalinity concentration during 2011 was detected in downgradient, shallow Glacial aquifer well 087-27, at 237 mg/L in December. There is no groundwater standard for alkalinity. The concentration trends plotted in Figure 6 show overall stable to decreasing trends in alkalinity for most monitoring wells following the capping of the landfill. During 2011, the alkalinity in well 087-27 showed an increasing trend, but this well has shown significant fluctuations since 1997. Alkalinity levels in the background well remained stable during this period.

During 2011, all sulfate concentrations remained below the groundwater standard of 250 mg/L. The highest sulfate value reported for 2011 was detected in the December sample from monitoring well 088-110 at a concentration of 20.7 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 95.7 mg/L to 126 mg/L, and 7.2 mg/L to 8.4 mg/L, respectively. The maximum concentrations observed in downgradient wells were 267 mg/L and 45.5 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 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 the downgradient wells, suggesting continued leachate migration from the landfill.

During 2011, chromium, iron, nickel, and sodium in the background well, and aluminum, arsenic, iron, manganese, and sodium, in downgradient wells were detected above their respective groundwater standards (Table 4).

Aluminum was only detected in one downgradient well above the groundwater standard. Well 087-11 had a concentration of 227 µg/L for aluminum in May but aluminum was not detectable in December.

Arsenic was reported above the standard of 10 µg/L in wells 087-23 and 088-110 at a concentrations of 10.4 µg/L and 10.1 µg/L, respectively. 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 087-26. Background concentrations ranged up to 3,540 µg/L while downgradient concentrations ranged up to 59,500 µg/L (well 087-23). Iron trend graphs are plotted on Figure 7. With the exception of well 087-24, all the iron trends are stable. Well 087-24 had an iron result of 987 µg/L in June but decreased back to a typical nondetect value (<30 µg/L) in December.

Manganese ranged from 19.8 µg/L to 26.6 µg/L in background well 087-09, and up to 5,580 µg/L in the downgradient wells. Background sodium levels ranged up to 34,800 µg/L; whereas downgradient levels reached a high of 52,400 µg/L. Background sodium levels ranged up to 34,800 µg/L; whereas downgradient levels reached a high of 52,400 µg/L.

Nickel and chromium were detected above the standard of 100 µg/L and 50 µg/L, respectively, in background well 087-09. However, neither was detected above standards in any of the downgradient wells.

2.2.1.4 Radionuclides

No radionuclides were detected above groundwater standards during 2011 (Table 5). Strontium-90 (Sr-90), and tritium were the only radionuclides detected during 2011. Sr-90 was detected in well 088-21 at a concentrations of 5.79 picocuries per liter (pCi/L), during December. This is below the standard of 8 pCi/L. Tritium was detected significantly below the groundwater standard of 20,000 pCi/L with a maximum value of 1,560 pCi/L in well 087-27 (Figure 8). Tritium and Sr-90 concentrations have not exceeded groundwater standards in any wells since 1998.

2.2.2 Former Landfill

2.2.2.1 VOCs

During 2011, there were no detections of VOCs above groundwater standards in wells in the Former Landfill Area (Table 6). The only VOCs detected were 1,1,1-trichloroethane and trichloroethene. 1,1,1-Trichloroethane was detected in wells 097-64 and 106-30 at concentrations of 0.43 µg/L and

1.3 µg/L, respectively. Trichloroethene was only detected in well 097-64 at a concentration of 0.28 µg/L. These concentrations are well below the standards of 5 µg/L. These low VOC detections are an indicator that the cap on the landfill is operating as intended.

2.2.2.2 Water Chemistry Parameters

Groundwater samples from monitoring wells in the Former Landfill Area were analyzed for sulfate, nitrite, nitrate, total nitrogen, chloride, alkalinity, TDS and TSS. During 2011, none of the of water chemistry parameters exceeded applicable groundwater standards (Table 7). In general, all of the landfill leachate indicator parameter concentrations in the downgradient wells were indistinguishable from concentrations in the upgradient wells in 2011. These trends indicate that the landfill cap is effective.

Sulfate concentrations ranged from 9.82 mg/L to 22.5 mg/L in the background wells, and from 6.8 mg/L to 12.7 mg/L in downgradient wells, significantly below the standard of 250 mg/L.

Nitrogen in the form of nitrate (NO_3), and chloride were consistently low with concentrations up to 0.89 mg/L and 31.4 mg/L, respectively in the background wells and concentrations up to 0.51 mg/L and 19.7 mg/L, respectively in the downgradient wells. The trends plotted in Figure 10 indicate chloride concentrations are stable over time. TKN was not detected in the downgradient wells.

Alkalinity concentrations ranged from 4.1 mg/L to 30 mg/L in background wells and from 6.6 mg/L to 24.9 mg/L in downgradient wells. The trends plotted in Figure 10 demonstrate that the alkalinity concentrations in 2011 continue to be at background levels.

TDS concentrations ranged from 30 mg/L to 123 mg/L in the background wells, and from 43 mg/L to 76 mg/L in the downgradient wells. TSS concentrations ranged from 0.61 mg/L to 7.8 mg/L in the background wells, and from 0.58 mg/L to 1.9 mg/L in the downgradient wells.

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 2011.

2.2.2.4 Pesticides/PCBs

There were no detections of pesticides or polychlorinated biphenyls (PCBs) during 2011. The sampling results are summarized in Table 9.

2.2.2.5 Radionuclides

Tritium was not detected in any wells during 2011. Strontium-90 was detected in four wells in 2011 below the groundwater standard of 8 pCi/L. Detections ranged from 1.32 pCi/L in well 097-64 to 2.95 pCi/L in well 106-45. The sampling results are summarized in Table 10, and concentration trend plots for tritium and strontium-90 are shown on Figure 12. Gross beta activity and cobalt-60 were detected in wells 087-22 and 097-277, respectively, at concentrations less than 1 pCi/L above detection limits. These low results are not consistent with historic data and are most likely false positives. Gross beta activity was also detected in well 097-64 at 3.53 pCi/L which is consistent with the strontium-90 detection from 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. Samples are collected every two years. Samples were last collected in 2010 and are scheduled for collection again in 2012.

4.0 SOIL-GAS MONITORING

4.1 Soil-gas Monitoring Networks

Soil-gas readings were collected from wells surrounding the Current Landfill in March, June, September, and December 2011 and from the Former Landfill in June, and December 2011. Methane, lower explosive limit (LEL), and hydrogen sulfide were measured using a Landtec GA-90. 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	March 2011	June 2011
Round 2	June 2011	December 2011
Round 3	September 2011	None
Round 4	December 2011	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 2011. Potential receptors, or areas where methane can accumulate in the vicinity of the Current Landfill, include the National Weather Service office building located 480 ft 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, active measures will be required to control its migration.

The results of the soil-gas monitoring for 2011 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 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 C).

Outpost wells, GSGM-1 to GSGM-4, located along the south side of Brookhaven Avenue showed no methane during 2011, indicating that the methane accumulation and migration does not extend to this area. Should methane extend to these outpost wells on the south side of Brookhaven Avenue, active measures will 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 100 ppm. Well SGM-12A located near the south-eastern 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 2.5 - 7.5 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 – 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 C contains the results of methane monitoring for the Current Landfill from 1996 through 2010. 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 2011, the well clusters were monitored two times. 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/Animal 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 two sampling events, there was no methane or hydrogen sulfide detected. Table 13 details the 2011 soil-gas monitoring results for the Former Landfill Area. Appendix A 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. Hydrogen sulfide gas also was measured during this survey. The hydrogen sulfide results are consistent with historic values. Appendix C includes the results of monitoring methane in the Former Landfill Area for 1996 through 2010.

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 the low levels or 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. Due to an oversight, the December Landfill inspections did not occur. Maintenance and repair work completed or required 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. Small cracks in the asphalt road next to the Current Landfill were noted on the inspection logs. The cracks do not impact the structural integrity of the road. Also small pine seedlings were noted growing around the edge of both landfills from June through December. The grass was cut three times during the spring, summer and fall for both landfills.

5.2 Drainage Structures

The drainage structures at both the Current and Former Landfill areas were maintained and any obstructions removed. They were observed to be operational and structurally sound during the site inspections. From April through December, minor vegetation was noted growing in the drainage channels of the Current Landfill and Former Landfill Area.

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

During inspections, it was noted that the railing on the stairs at the Former Landfill was loose. These are scheduled for repair during 2012. No other structures required maintenance during 2011.

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 Groundwater Monitoring

6.1.1 Conclusions for the Current Landfill

- VOCs; Benzene, was detected in downgradient wells 087-11, 087-23, 087-27, and 088-110 at concentrations above the groundwater standard with a maximum concentration of 1.9 µg/L. Chloroethane was detected in wells 087-23, and 088-109 at concentrations above groundwater standards (up to 26.4 µg/L). 1,1-Dichloroethane was also detected in one well, 088-109, at a concentration slightly above the groundwater standard of 5 µg/L (5.08 µg/L). During 2011, TVOC concentrations ranged up to 28.5 µg/L indicating that low level VOCs continue to emanate from the landfill. However, an analysis of the trends of VOCs indicated the concentrations are stable to decreasing.

- Concentrations of landfill water chemistry parameters and metals such as ammonia and iron continue to have results in downgradient wells above the upgradient values. This suggests that leachate continues to emanate from the landfill, but at low levels.
- Tritium and strontium-90 continue to be detected in the wells downgradient of the Current Landfill, but at concentrations well below groundwater standards. These concentrations were consistent with historical observations. There have been no detections of radionuclides above the drinking water standards since 1998.
- Since 1998, there have been no detections of VOCs, water chemistry parameters or radionuclides exceeding groundwater standards in wells 087-24, 088-22, and 088-23. These wells are all screened in the mid-to deep-Upper Glacial Aquifer to monitor the vertical extent of contamination from the Current Landfill.
- 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. Since there have been no detections of VOCs or water chemistry parameters since 1998 in wells 087-24, 088-22, and 088-23, it is recommended that the monitoring frequency for these wells be reduced from semiannually to annually.

6.1.3 Conclusions for the Former Landfill Area

- The Former Landfill Area is not a significant source of VOC contamination. No VOCs were detected above groundwater standards in 2011. VOC concentrations in the downgradient wells were at or near the minimum detectable limits.
- Landfill-leachate indicators in downgradient wells were detected at concentrations approximating those in the background monitoring wells, indicating that leachate generation is minimal to nonexistent.
- 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 (Well 097-

64). The strontium-90 detected in wells 097-64, 106-44, 106-45 and 106-64 has been decreasing with time and is currently not above groundwater standards.

- 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 recommended.

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, since methane gas is still being produced and leachate is continuing to discharge from the landfill.

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.

6.2.4 Recommendations for the Former Landfill Area

The soil-gas monitoring program is adequate at this time. No changes to the monitoring frequency are recommended.

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. To prevent ruts in the landfills caused by the weight of the lawn mowers and moist surface conditions,

the cutting of the grass is only conducted when optimal soil conditions are evident. Access to the soil-gas monitoring wells are cleared via mechanical weed whacking.

6.3.2 Former Landfill Area

Monthly inspections and maintenance will continue in accordance with the O&M requirements. 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. Access to the soil-gas monitoring wells are cleared via mechanical weed whacking.

7.0 REFERENCES

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Table 1. Analytical Requirements for Groundwater Samples.

Well ID	Project 1	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	Blind Duplicate/MS/MSD	Frequency (events/year)
087-09	CLF	Background	X[b]			X[b]	X[b]	X[b]	X[b]	X[b]	X[b]	X[b]	X[b]	X[b]		X[a]	X[a]	X[a]		2[b]
087-11	CLF	Downgradient	X[b]			X[b]	X[b]	X[b]	X[b]	X[b]	X[b]	X[b]	X[b]	X[b]		X[a]	X[a]	X[a]		2[b]
087-23	CLF	Downgradient	X[b]			X[b]	X[b]	X[b]	X[b]	X[b]	X[b]	X[b]	X[b]	X[b]		X[a]	X[a]	X[a]		2[b]
087-24	CLF	Downgradient	X[a]			X[b]	X[b]	X[b]	X[b]	X[b]	X[b]	X[b]	X[b]	X[b]		X[a]	X[a]	X[a]		2[b]
087-26	CLF	Downgradient	X[b]			X[b]	X[b]	X[b]	X[b]	X[b]	X[b]	X[b]	X[b]	X[b]		X[a]	X[a]	X[a]		2[b]
087-27	CLF	Downgradient	X[b]			X[b]	X[b]	X[b]	X[b]	X[b]	X[b]	X[b]	X[b]	X[b]		X[a]	X[a]	X[a]		2[b]
088-109	CLF	Downgradient	X			X[b]	X[b]	X[b]	X[b]	X[b]	X[b]	X[b]	X[b]	X[b]		X[a]	X[a]	X[a]	X	4
088-110	CLF	Downgradient	X[b]			X[b]	X[b]	X[b]	X[b]	X[b]	X[b]	X[b]	X[b]	X[b]		X[a]	X[a]	X[a]		2[b]
088-21	CLF	Downgradient	X[b]			X[b]	X[b]	X[b]	X[b]	X[b]	X[b]	X[b]	X[b]	X[b]		X[a]	X[a]	X[a]		2[b]
088-22	CLF	Downgradient	X[a]			X[b]	X[b]	X[b]	X[b]	X[b]	X[b]	X[b]	X[b]	X[b]		X[a]	X[a]	X[a]		2[b]
088-23	CLF	Downgradient	X[a]			X[b]	X[b]	X[b]	X[b]	X[b]	X[b]	X[b]	X[b]	X[b]		X[a]	X[a]	X[a]		2[b]
086-42	FLF	Background	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X	X[a]		1a
086-72	FLF	Background	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]		1a
087-22	FLF	Background	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]		1a
097-17	FLF	Downgradient	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]		1a
097-277	FLF	Downgradient	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]		1a
097-64	FLF	Downgradient	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]		1a
106-02	FLF	Downgradient	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]		1a
106-20	FLF	Downgradient																X[b]		2[b]
106-21	FLF	Downgradient																X[b]		2[b]
106-30	FLF	Downgradient	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X	1a
106-43	FLF	Downgradient																X[b]		2[b]
106-44	FLF	Downgradient																X[b]		2[b]
106-45	FLF	Downgradient																X[b]		2[b]
106-64	FLF	Downgradient																X[b]		2[b]

NOTES:
a: Collect in 4th Quarter only.
b: Collect in 2nd and 4th Quarters.

Table 2. Current Landfill - Summary of 2011 VOC Data

Analtye	Groundwater Standards (ug/L)	087-09 5/27/2011 (ug/L)		087-09 12/19/2011 (ug/L)		087-11 5/27/2011 (ug/L)		087-11 12/19/2011 (ug/L)		087-23 6/13/2011 (ug/L)		087-23 12/19/2011 (ug/L)		087-24 12/19/2011 (ug/L)		087-26 5/27/2011 (ug/L)		087-26 12/19/2011 (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	0.4	J	0.2	J	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	0.92		**1.92**		**1.37**		0.91		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	0.15	J	0.11	J	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	0.42	J	0.69		0.92		0.73		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	1.75		3.88		**5.31**		3.11		0.5	U	0.5	U	0.5	U
Chloroform	7	0.5	U	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	0.15	J	0.1	J	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	0.5	U	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 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	0.54	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	0.3	J	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	0.66		0.45	J	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	0.28	J	0.56		0.5	U	0.44	J	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	5	0.5	U	0.5	U	0.5	U	0.15	J	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		3.37		7.35		8.91		5.95		0		0		0	

J - Estimated value.

U - Not detected.

Table 2. Current Landfill - Summary of 2011 VOC Data

Analtye	Groundwater Standards (ug/L)	087-27 5/27/2011 (ug/L)		087-27 12/19/2011 (ug/L)		088-109 3/4/2011 (ug/L)		088-109 5/27/2011 (ug/L)		088-109 7/21/2011 (ug/L)		088-109 12/19/2011 (ug/L)		088-110 5/27/2011 (ug/L)		088-110 12/19/2011 (ug/L)		088-21 5/27/2011 (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	1.61		0.77		**5.08**		0.89		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	**1.33**		**1.1**		0.5	U	0.44	J	0.5	U	0.33	J	**1.05**		0.29	J	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	1.72		3.24		0.5	U	0.5	U	0.5	U	0.5	U	0.45	J	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	1.89		1.4		0.42	J	**26.4**		**14.3**		**18.2**		2.66		0.73		0.5	U
Chloroform	7	0.5	U	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
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	2.62		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	0.5	U	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 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	0.25	J	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	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	3	0.51		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.7		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	0.46	J	0.4	J	0.5	U	0.5	U	0.5	U	0.5	U	0.64		0.5	U	0.5	U
sec-Butylbenzene	5	0.5	U	0.12	J	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	0.12	J	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	--	5.91		6.26		0.54		28.45		15.07		23.61		9.26		1.02		0	

J - Estimated value.

U - Not detected.

Table 2. Current Landfill - Summary of 2011 VOC Data

Analtye	Groundwater Standards (ug/L)	088-21 12/19/2011 (ug/L)		088-22 12/19/2011 (ug/L)		088-23 12/19/2011 (ug/L)	
1,1,1,2-Tetrachloroethane	5	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	5	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	5	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	1	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	5	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	5	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	5	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	5	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.04	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	5	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.6	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	1	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	5	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	5	0.5	U	0.5	U	0.5	U
Benzene	1	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	5	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	5	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	--	0.5	U	0.5	U	0.5	U
Bromobenzene	5	0.5	U	0.5	U	0.5	U
Bromodichloromethane	50	0.5	U	0.5	U	0.5	U
Bromoform	50	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	5	0.5	U	0.5	U	0.5	U
Chlorobenzene	5	0.5	U	0.5	U	0.5	U
Chlorobromomethane	5	0.5	U	0.5	U	0.5	U
Chloroethane	5	0.5	U	0.5	U	0.5	U
Chloroform	7	0.5	U	0.5	U	0.5	U
cis-1,2-Dichloroethylene	5	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.4	0.5	U	0.5	U	0.5	U
Cymene	5	0.5	U	0.5	U	0.5	U
DBCP	0.04	0.5	U	0.5	U	0.5	U
Dibromochloromethane	5	0.5	U	0.5	U	0.5	U
Dibromomethane	5	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	5	0.5	U	0.5	U	0.5	U
EDB	0.05	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	5	0.5	U	0.5	U	0.5	U
Ethylbenzene	5	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	3	0.5	U	0.5	U	0.5	U
m/p xylene	5	0.5	U	0.5	U	0.5	U
Methyl bromide	5	0.5	U	0.5	U	0.5	U
Methyl chloride	5	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	10	0.5	U	0.5	U	0.5	U
Methylene chloride	5	0.5	U	0.5	U	0.5	U
n-Butylbenzene	5	0.5	U	0.5	U	0.5	U
n-Propylbenzene	5	0.5	U	0.5	U	0.5	U
Naphthalene	10	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	5	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	3	0.5	U	0.5	U	0.5	U
o-Xylene	5	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	5	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	3	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	5	0.5	U	0.5	U	0.5	U
Styrene	5	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	5	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	5	0.5	U	0.5	U	0.5	U
Toluene	5	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.4	0.5	U	0.5	U	0.5	U
Trichloroethylene	5	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	5	0.5	U	0.5	U	0.5	U
Vinyl chloride	2	0.5	U	0.5	U	0.5	U
524.2 TVOC	--	0		0		0	

J - Estimated value.

U - Not detected.

Table 3. Current Landfill - Summary of 2011 Water Chemistry Data

Analtye	**Groundwater Standards (mg/L)**	**087-09 5/27/2011 (mg/L)**		**087-09 12/19/2011 (mg/L)**		**087-11 5/27/2011 (mg/L)**		**087-11 12/19/2011 (mg/L)**		**087-23 6/13/2011 (mg/L)**		**087-23 12/19/2011 (mg/L)**		**087-24 6/13/2011 (mg/L)**		**087-24 12/19/2011 (mg/L)**	
Alkalinity (as CaCO3)	--	21.7	U	6.1	J	186		212	J	147		99.2	J	22.7		22.9	J
Ammonia (as N)	2	0.0173	J	0.0242	U	**5.55**	J	**2.19**		0.016	U	0.78		0.016	U	0.016	U
Chloride	250	40.1	J	28.5	R	11.6	J	13.6	R	9.66	J	10.6	R	16	J	17.4	R
Cyanide	0.2	0.0015	U			0.0015	U			0.0015	U			0.0015	U		
Nitrate (as N)	10	0.612	R	0.378	R	0.165	R	0.033	R	0.033	U	0.033	R	0.481		0.529	R
Nitrite (as N)	1	0.033	U	0.033	U	0.033	U	0.033	U	0.033	U	0.033	U	0.033	U	0.033	U
Nitrite + Nitrate-N	10	0.51	R	0.333		0.05	R	0.05	U	0.01	U	0.05	U	0.396		0.535	
Nitrogen	--	0.548		0.371		6.89		3.65		1.44		1.08		0.396		0.705	
Sulfate	250	19.8		18.4		1.55	J	2.27	J	5.96		7.04		12.8		13.2	
TDS	--	126	J	95.7	J	165	J	213	J	184	J	117	J	81	J	55.7	J
Total Kjeldahl Nitrogen	--	0.0384	J	0.0384	U	6.89	J	3.61		1.44		1.05		0.035	U	0.17	U
TSS	--	8.4	J	7.2		21.6		21.4		6.8		10.1		0.633	U	0.575	U

J - Estimated value.

U - Not detected.

R - Rejected value.

Table 3. Current Landfill - Summary of 2011 Water Chemistry Data

Analtye	**Groundwater Standards (mg/L)**	**087-26 5/27/2011 (mg/L)**		**087-26 12/19/2011 (mg/L)**		**087-27 5/27/2011 (mg/L)**		**087-27 12/19/2011 (mg/L)**		**088-109 5/27/2011 (mg/L)**		**088-109 12/19/2011 (mg/L)**		**088-110 5/27/2011 (mg/L)**		**088-110 12/19/2011 (mg/L)**	
Alkalinity (as CaCO3)	--	24.9	U	17.8	J	158		237	J	120		160	J	147		124	J
Ammonia (as N)	2	0.016	UJ	0.016	U	1.97	J	**3.8**		**2.79**	J	**3.45**		1.78	J	1.75	
Chloride	250	17.8	J	16.5	R	41.2	J	19.6	R	17.2	J	21.8	R	48.9	J	39.1	R
Cyanide	0.2	0.0015	U			0.0015	U			0.0015	U			0.0015	U		
Nitrate (as N)	10	0.478	R	0.469	R	0.165	R	0.033	R	0.571	R	0.204	R	0.165	R	0.033	R
Nitrite (as N)	1	0.033	U	0.033	U	0.033	U	0.033	U	0.033	U	0.033	U	0.033	U	0.033	U
Nitrite + Nitrate-N	10	0.373	R	0.478		0.05	R	0.05	U	0.05	R	0.05	U	0.05	R	0.05	U
Nitrogen	--	0.373		0.588		2.21		3.18		3.56		3.13		2.14		1.96	
Sulfate	250	12.3		12.3		17.3		9.28		10.8		9.94		19.3		20.7	
TDS	--	69	J	58.6	J	226	J	267	J	154	J	199	J	226	J	174	J
Total Kjeldahl Nitrogen	--	0.035	UJ	0.11	U	2.21	J	3.14		3.54	J	3.1		2.14	J	1.94	
TSS	--	0.642	U	0.584	U	19.2		12.8		45.5		9.4		32.8		17	

J - Estimated value.

U - Not detected.

R - Rejected value.

Table 3. Current Landfill - Summary of 2011 Water Chemistry Data

Analtye	**Groundwater Standards (mg/L)**	**088-21 5/27/2011 (mg/L)**		**088-21 12/19/2011 (mg/L)**		**088-22 5/27/2011 (mg/L)**		**088-22 12/19/2011 (mg/L)**		**088-23 5/27/2011 (mg/L)**		**088-23 12/19/2011 (mg/L)**	
Alkalinity (as CaCO3)	--	20.1	U	32.5	J	19	U	16.3	J	31.7	U	25.4	J
Ammonia (as N)	2	0.0445	J	0.016	U	0.016	UJ	0.016	U	0.0249	J	0.016	U
Chloride	250	71.8	J	73.9	R	17.7	J	16.6	R	16.2	J	16.2	R
Cyanide	0.2	0.0015	U			0.0015	U			0.0015	U		
Nitrate (as N)	10	0.336	R	0.517	R	0.49	R	0.462	R	0.033	R	0.033	R
Nitrite (as N)	1	0.033	U	0.033	U	0.033	U	0.033	U	0.033	U	0.033	U
Nitrite + Nitrate-N	10	0.322	R	0.565		0.399	R	0.468		0.05	R	0.05	U
Nitrogen	--	0.322		0.775		0.399		0.552		0.05	U	0.05	U
Sulfate	250	3.63	J	5.14		12.6		12.5		11.6		11.3	
TDS	--	134	J	146	J	44	J	65.7	J	50	J	65.7	J
Total Kjeldahl Nitrogen	--	0.035	UJ	0.21	U	0.035	UJ	0.0846	U	0.035	UJ	0.035	U
TSS	--	6.22		3.3		8.13		2.66		4.97		6.62	

J - Estimated value.

U - Not detected.

R - Rejected value.

Table 4. Current Landfill - Summary of 2011 Metals Data

Analtye	Groundwater Standards (ug/L)	087-09 5/27/2011 (ug/L)		087-09 12/19/2011 (ug/L)		087-11 5/27/2011 (ug/L)		087-11 12/19/2011 (ug/L)		087-23 6/13/2011 (ug/L)		087-23 12/19/2011 (ug/L)		087-24 6/13/2011 (ug/L)		087-24 12/19/2011 (ug/L)		087-26 5/27/2011 (ug/L)	
Aluminum	200	149	B	98.1	B	**227**		68	U	68	U	68	U	68	U	68	U	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	3.5	U
Arsenic	10	1.7	U	1.7	U	4.67	B	4	B	**10.4**		6.1		1.7	U	1.7	U	1.7	U
Barium	1000	26	BE	14.4	B	34.5	BE	46.9	B	40.6	B	28	B	11.6	B	9.71	B	20.3	BE
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	--	5650	E	2410	R	21700	E	22200	R	8570		7190	R	5620		6220	R	4280	BE
Chromium	50	**784**		**815**		1	U	3.2	B	2.81	B	3.57	B	1	U	1	U	1	U
Cobalt	--	1.41	B	1.43	B	1	U	1	U	3.56	B	3.59	B	1.69	B	1.38	B	1.54	B
Copper	200	10.1	B	12.2	B	3	U	3	U	3	U	3	U	3	U	3	U	3	U
Iron	300	**3320**	EJ	**3540**	J	**49400**	EJ	**52400**	J	**59500**		**44300**	J	**987**		30	UJ	58.4	BEJ
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	0.5	U
Magnesium	35000	2660	BE	1060	B	5700	E	6390		3510	B	2050	B	4050	B	4570	B	2710	BE
Manganese	300	26.6	E	19.8		**1200**	E	**1270**		**5580**		**4070**		3.02	B	2	U	2	UE
Mercury	0.7	0.066	U	0.066	U	0.066	U	0.066	U	0.066	U	0.066	U	0.066	U	0.066	U	0.066	U
Nickel	100	**311**		**262**		1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U
Potassium	--	705	BE	629	B	5670	E	8400		1460	B	1380	B	1250	B	1360	B	1200	BE
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	1.11	B	1.98	B	1	U	1	U	1	U
Sodium	20000	**34800**	E	**30100**		8630	E	11800		7220		6970		12300		11600		17000	E
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	--	4.81	B	1	U	1.14	B	2.31	B	1	U	1	U	1	U	1	U	1	U
Zinc	2000	3.33	B	3.3	U	5.08	B	5.13	B	5.01	B	4.45	B	3.3	U	3.3	U	3.3	U

J - Estimated value.

U - Not detected.

B - Result is between the contract detection limit and the instrument detection limit.

E - ICP serial dilution QC not met.

Table 4. Current Landfill - Summary of 2011 Metals Data

Analtye	Groundwater Standards (ug/L)	087-26 12/19/2011 (ug/L)		087-27 5/27/2011 (ug/L)		087-27 12/19/2011 (ug/L)		088-109 5/27/2011 (ug/L)		088-109 12/19/2011 (ug/L)		088-110 5/27/2011 (ug/L)		088-110 12/19/2011 (ug/L)		088-21 5/27/2011 (ug/L)		088-21 12/19/2011 (ug/L)		088-22 5/27/2011 (ug/L)	
Aluminum	200	68	U	68	U	68	U	68	U	68	U	68	U	68	U	183	B	106	B	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	3.5	U	3.5	U
Arsenic	10	1.7	U	9.16		6.94		6.69		2.11	B	**10.1**		7.68		1.7	U	1.7	U	5.55	
Barium	1000	22.9	B	50.6	BE	68.3	B	55.7	BE	65.3	B	45.2	BE	41.2	B	32.9	BE	47.8	B	36	BE
Beryllium	3	1	U	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	1	U
Calcium	--	5790	R	23500	E	37800	R	30400	E	31500	R	24100	E	20400	R	6960	E	7080	R	7560	E
Chromium	50	1	U	1	U	3.5	B	1	U	1.03	B	1	U	2.38	B	1	U	1	U	1	U
Cobalt	--	1.41	B	3.93	B	6.22	B	4.68	B	1	U	4.1	B	2.97	B	1	U	1	U	2.45	B
Copper	200	3	B	3	U	3	U	3	U	3	U	3	U	3	U	5.38	B	3	U	3	U
Iron	300	39.4	BJ	**52300**	EJ	**54200**	J	**29200**	EJ	**22800**	J	**52500**	EJ	**38900**	J	**1380**	EJ	**639**	J	**2760**	EJ
Lead	25	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.808	B	0.5	U	0.5	U
Magnesium	35000	3900	B	5160	E	10000		6070	E	7100		6220	E	5250		3400	BE	3660	B	2510	BE
Manganese	300	2	U	**2060**	E	**2780**		**2870**	E	**738**		**3160**	E	**2620**		114	E	83.4		**400**	E
Mercury	0.7	0.066	U	0.066	U	0.066	U	0.066	U	0.066	U	0.066	U	0.066	U	0.066	U	0.066	U	0.066	U
Nickel	100	1.5	U	2.05	B	1.5	U	2.57	B	1.5	U	1.5	U	1.5	U	5.85	B	1.5	U	1.5	U
Potassium	--	1270	B	4000	BE	5170		7900	E	8500		4240	BE	4190	B	2570	BE	3000	B	1150	BE
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	1.5	U
Silver	50	1	U	1	U	2.62	B	1	U	1.29	B	1	U	1.98	B	1	U	1	U	1	U
Sodium	20000	12400		**27100**	E	16300		12200	E	14300		**34700**	E	**25100**		**44500**	E	**52400**		12500	E
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	0.45	U
Vanadium	--	1	U	1	U	1	U	1	U	1	U	1	U	1	U	5.35	B	2.73	B	1.02	B
Zinc	2000	3.3	U	5.02	B	3.3	U	5.47	B	3.3	U	3.37	B	8.58	B	6.58	B	3.3	U	3.3	U

J - Estimated value.

U - Not detected.

B - Result is between the contract detection limit and the instrument detection limit.

E - ICP serial dilution QC not met.

Table 4. Current Landfill - Summary of 2011 Metals Data

Analtye	Groundwater Standards (ug/L)	088-22 12/19/2011 (ug/L)		088-23 5/27/2011 (ug/L)		088-23 12/19/2011 (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	2.91	B	1.7	U
Barium	1000	29.6	B	4.04	BE	3.83	B
Beryllium	3	1	U	1	U	1	U
Cadmium	5	1	U	1	U	1	U
Calcium	--	7320	R	7780	E	6750	R
Chromium	50	1	U	1	U	1	U
Cobalt	--	2.11	B	1	U	1	U
Copper	200	3	U	3	U	3	U
Iron	300	**1780**	J	**2910**	EJ	**4250**	J
Lead	25	0.5	U	0.5	U	0.5	U
Magnesium	35000	2710	B	2020	BE	1990	B
Manganese	300	167		**2030**	E	**1900**	
Mercury	0.7	0.066	U	0.066	U	0.066	U
Nickel	100	1.5	U	1.5	U	1.5	U
Potassium	--	1200	B	987	BE	1050	B
Selenium	10	1.5	U	1.5	U	1.5	U
Silver	50	1	U	1	U	1	U
Sodium	20000	12300		13700	E	13400	
Thallium	0.5	0.45	U	0.45	U	0.45	U
Vanadium	--	1	U	1	U	1	U
Zinc	2000	3.3	U	3.3	U	3.3	U

J - Estimated value.

U - Not detected.

B - Result is between the contract detection limit and the instrument detection limit.

E - ICP serial dilution QC not met.

Table 5. Current landfill - Summary of 2011 Radionuclide Data

Analtye	Groundwater Standards pCi/L	087-09 12/19/2011 pCi/L				087-11 12/19/2011 pCi/L				087-23 12/19/2011 pCi/L				087-24 12/19/2011 pCi/L			
		Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Americium-241	1.2	-3.84	U	15.8	10.6	5.13	U	15.3	9.58	1.64	U	25	15.8	-0.789	U	14.6	9.02
Beryllium-7	40000	-17.5	U	26.6	16.3	-13.6	U	30.4	18.5	0.19	U	41.8	23.2	7.63	U	29.5	15.7
Cesium-134	80	2.5	U	4.41	2.14	1.41	U	4.77	2.41	-0.49	U	4.47	2.52	1.86	U	4.14	2.05
Cesium-137	120	-0.259	U	3.19	1.81	0.622	U	3.57	1.82	-1.11	U	4.04	2.35	-0.67	U	4.02	2.46
Co-60	200	-0.172	U	3.42	1.88	-0.841	U	4.05	2.32	0.942	U	4.57	2.31	0.613	U	3.12	1.5
Cobalt-57	4000	0.373	U	2.69	1.48	-0.15	U	2.87	1.59	-0.0872	U	4	2.29	0.195	U	2.75	1.56
Europium-152	841	1.36	U	8.89	4.74	-3.52	U	9.74	6.28	-6.27	U	11.9	6.95	1.44	U	9.39	5.1
Europium-154	573	-2.9	U	9.46	5.55	3.5	U	10.1	4.64	3.48	U	11	5.2	2.54	U	9.89	4.82
Europium-155	4000	-5.78	U	9.99	6.85	4.69	U	12.4	7.08	-3.15	U	15.6	9	-4.98	U	10.8	7.08
Manganese-54	2000	-0.322	U	3.44	1.88	1.55	U	3.81	1.87	-2.11	U	3.52	2.22	-0.011	U	3.58	1.95
Sodium-22	400	-0.995	U	3.36	1.96	1.42	U	3.57	1.59	0.936	U	3.92	1.9	0.842	U	3.47	1.69
Strontium-90	8	-0.104	U	0.775	0.421	0.0885	U	0.779	0.42	0.278	U	0.748	0.43	-0.538	U	0.778	0.4
Tritium	20000	-108	UDL	308	147	161	UDL	303	181	34.2	UDL	301	163	381		302	206
Zinc-65	360	-1.3	U	6.68	3.77	-4.38	U	8.48	5.2	-4.24	U	9.52	5.61	-0.181	U	6.77	3.7

DL - Contract detection limit not met.

U - Not detected.

Table 5. Current landfill - Summary of 2011 Radionuclide Data

Analtye	Groundwater Standards pCi/L	087-26 12/19/2011 pCi/L				087-27 12/19/2011 pCi/L				088-109 12/19/2011 pCi/L				088-110 12/19/2011 pCi/L			
		Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Americium-241	1.2	-5.86	U	22.4	14.7	5.07	U	20.9	12.8	14.6	U	18.8	11.9	-4.1	U	18.7	10.6
Beryllium-7	40000	10.1	U	32.3	17.3	13.4	U	31.7	17.6	-4.16	U	36.9	20.3	-22.8	U	33.7	21.1
Cesium-134	80	1.21	U	3.97	2.12	-1.55	U	3.78	2.27	1.16	UDL	5.22	2.72	0.816	U	4.76	2.44
Cesium-137	120	1.64	U	3.4	1.77	1.71	U	3.6	1.91	-0.681	U	3.61	2.03	0.3	U	4.56	2.57
Co-60	200	0.613	U	3.13	1.61	1.3	U	3.81	1.99	-0.109	U	4.17	2.19	1.21	U	4.18	1.95
Cobalt-57	4000	1.56	U	2.82	1.61	-0.0501	U	2.8	1.64	1.41	U	3.44	1.85	-1.2	U	3.12	1.85
Europium-152	841	-5.14	U	8.95	6.07	-1.04	U	9.09	5.25	1.16	U	11.8	6.67	0.08	U	11	6.04
Europium-154	573	-1.97	U	8.88	5.07	3.88	U	9.68	4.91	-5.27	U	10.7	6.44	-5.15	U	9.45	5.65
Europium-155	4000	0.164	U	11.2	6.58	-2.55	U	10.9	6.39	-5.03	U	13.1	7.53	-1.46	U	13	7.96
Manganese-54	2000	0.519	U	2.88	1.56	0.694	U	3.27	1.8	0.237	U	3.91	2.1	-0.107	U	3.79	2.04
Sodium-22	400	-1.3	U	3.13	1.86	1.56	U	3.41	1.7	-1.9	U	3.75	2.26	-1.75	U	3.39	2
Strontium-90	8	0.342	U	0.791	0.464	0.665	U	0.769	0.477	0.215	U	0.776	0.437	0.741	U	0.788	0.492
Tritium	20000	173	UDL	304	183	1560		296	303	274	UDL	310	198	362		305	205
Zinc-65	360	-0.797	U	6.24	3.47	-2.28	U	6.41	3.74	-5.39	U	7.46	4.71	-2.77	U	9.17	5.37

DL - Contract detection limit not met.

U - Not detected.

Table 5. Current landfill - Summary of 2011 Radionuclide Data

Analtye	Groundwater Standards pCi/L	088-21 12/19/2011 pCi/L				088-22 12/19/2011 pCi/L				088-23 12/19/2011 pCi/L			
		Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Americium-241	1.2	-8.01	U	22.1	13.7	-2.57	U	5.52	4.41	7.61	U	18.7	11.4
Beryllium-7	40000	19	U	44.2	21.2	-5.96	U	29.5	17	23.7	U	45.7	22.5
Cesium-134	80	0.552	UDL	5.42	2.67	0.248	U	4.68	2.54	-0.604	UDL	5.02	2.69
Cesium-137	120	-0.147	U	4.83	2.64	-1.76	U	3.76	2.57	0.441	U	4.92	2.53
Co-60	200	-1.42	U	4.74	2.75	-0.451	U	4.15	2.26	-0.418	U	3.81	2.01
Cobalt-57	4000	1.56	U	4.18	2.21	0.384	U	2.1	1.17	-0.123	U	3.7	2.03
Europium-152	841	0.0867	U	12.7	6.72	3.3	U	8.56	4.52	0.201	U	12.2	6.67
Europium-154	573	-3.03	U	14.9	8.34	4.49	U	12.3	6.06	2.12	U	14.2	6.98
Europium-155	4000	-5.96	U	15.7	9.62	1.15	U	8.42	4.69	7.72	U	16.1	8.89
Manganese-54	2000	0.547	U	4.93	2.48	0.315	U	3.84	2.08	-0.195	U	4.38	2.32
Sodium-22	400	-1.13	U	5.21	2.94	1.06	U	4.33	2.19	0.571	U	4.9	2.43
Strontium-90	8	5.79		0.75	0.919	0.0962	U	0.779	0.445	-0.24	U	0.741	0.342
Tritium	20000	-166	UDL	307	137	268	UDL	304	194	209	UDL	307	189
Zinc-65	360	-2.88	U	9.52	5.45	-0.603	U	8.6	4.85	-2.71	U	9.74	5.6

DL - Contract detection limit not met.

U - Not detected.

Table 6. Former Landfill - Summary of 2011 VOC Data

Analtye	Groundwater Standards (ug/L)	086-42 12/15/2011 (ug/L)		086-72 12/15/2011 (ug/L)		087-22 12/15/2011 (ug/L)		097-17 12/15/2011 (ug/L)		097-277 12/15/2011 (ug/L)		097-64 12/15/2011 (ug/L)		106-02 12/15/2011 (ug/L)		106-30 12/15/2011 (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	0.43	J	0.5	U	1.3	
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
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	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
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	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
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	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 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	0.5	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
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	0.28	J	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
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	--	0		0		0		0		0		0.71		0		1.3	

U - Not detected.

Table 7. Former Landfill - Summary of 2011 Water Chemistry Data

Analtye	Groundwater Standards (mg/L)	086-42 12/15/2011 (mg/L)		086-72 12/15/2011 (mg/L)		087-22 12/15/2011 (mg/L)		097-17 12/15/2011 (mg/L)		097-277 12/15/2011 (mg/L)		097-64 12/15/2011 (mg/L)		106-02 12/15/2011 (mg/L)		106-30 12/15/2011 (mg/L)	
Alkalinity (as CaCO3)	--	30		4.07	U	7.12		10.2		6.61		24.9		17.3		21.9	
Ammonia (as N)	2	0.0197	U	0.0173	U	0.0242	U	0.0188	U	0.057	U	0.0287	U	0.018	U	0.0269	U
Chloride	250	31.4		11.6		7.8		4.71		19.2		7.37		19.7		8.32	
Cyanide	0.2	0.0015	U	0.0015	U	0.0015	U	0.0015	U	0.0015	U	0.0015	U	0.0015	U	0.0015	U
Nitrate (as N)	10	1.05		0.26		0.918		0.27		0.585		0.777		0.575		0.161	
Nitrite (as N)	1	0.033	U	0.033	U	0.033	U	0.033	U	0.033	U	0.033	U	0.033	U	0.033	U
Nitrite + Nitrate-N	10	0.85		0.166		0.801		0.21		0.506		0.636		0.341		0.0815	
Nitrogen	--	0.892		0.166		0.801		0.21		0.506		0.636		0.341		0.101	
Sulfate	250	22.5		12.2		9.82		7.22		12.7		11.7		6.8		10.2	
TDS	--	123	J	30	J	48.6	J	42.9	J	75.7	J	71.4	J	68.6	J	62.9	J
Total Kjeldahl Nitrogen	--	0.0418	J	0.035	U	0.035	U	0.035	U	0.035	U	0.035	U	0.035	U	0.035	U
TSS	--	7.82		0.613	J	0.746	J	1.91	J	0.583	U	1.66	J	1.72	J	1	J

J - Estimated value.

U - Not detected.

Table 8. Former Landfill - Summary of 2011 Metals Data

Analtye	Groundwater Standards (ug/L)	086-42 12/15/2011 (ug/L)		086-72 12/15/2011 (ug/L)		087-22 12/15/2011 (ug/L)		097-17 12/15/2011 (ug/L)		097-277 12/15/2011 (ug/L)		097-64 12/15/2011 (ug/L)		106-02 12/15/2011 (ug/L)		106-30 12/15/2011 (ug/L)	
Aluminum	200	68	U	68	U	68	U	68	U	68	U	68	U	87	B	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
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	B	17.1	B	22.3	B	8.43	B	13.8	B	19	B	14.8	B	10.4	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	--	17800		3000	B	3840	B	3870	B	5190		7490		11800		7220	
Chromium	50	1	U	1	U	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	30	U	30	U	30	U	30	U	30	U	30	U	225		30	U
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	5200		2400	B	2660	B	1170	B	3070	B	1570	B	2260	B	2150	B
Manganese	300	2	U	4.94	B	3.62	B	7.1	B	21.2		3.75	B	4	B	6.9	B
Mercury	0.7	0.066	U	0.066	U	0.066	U	0.066	U	0.066	U	0.066	U	0.066	U	0.066	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	--	1710	B	899	B	1440	B	843	B	1340	B	1400	B	1390	B	908	B
Selenium	10	1.5	U	1.65	B	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	14700	E	8370	E	5920	E	5360	E	11700	E	10300	E	5500	E	7750	E
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	3.3	U	3.3	U	3.3	U	3.3	U	3.3	U	3.3	U	3.3	U	3.3	U

J - Estimated value.

U - Not detected.

B - Result is between the contract detection limit and the instrument detection limit.

E - ICP serial dilution QC not met.

Table 9. Former Landfill - Summary of 2011 Pesticide/PCB Data

Analtye	Groundwater Standards (ug/L)	086-42 12/15/2011 (ug/L)		086-72 12/15/2011 (ug/L)		087-22 12/15/2011 (ug/L)		097-17 12/15/2011 (ug/L)		097-277 12/15/2011 (ug/L)		097-64 12/15/2011 (ug/L)		106-02 12/15/2011 (ug/L)		106-30 12/15/2011 (ug/L)	
4,4''-DDD	0.3	0.00396	U	0.00408	U	0.00444	U	0.00388	U	0.00396	U	0.004	U	0.00404	U	0.00444	U
4,4''-DDE	0.2	0.00396	U	0.00408	U	0.00444	U	0.00388	U	0.00396	U	0.004	U	0.00404	U	0.00444	U
4,4''-DDT	0.2	0.00396	U	0.00408	U	0.00444	U	0.00388	U	0.00396	U	0.004	U	0.00404	U	0.00444	U
Aldrin	0	0.00198	U	0.00204	U	0.00222	U	0.00194	U	0.00198	U	0.002	U	0.00202	U	0.00222	U
alpha-BHC	0.01	0.00198	U	0.00204	U	0.00222	U	0.00194	U	0.00198	U	0.002	U	0.00202	U	0.00222	U
Aroclor 1016	0.09	0.0495	U	0.051	U	0.0556	U	0.0485	U	0.0495	U	0.05	U	0.0505	U	0.0556	U
Aroclor 1221	0.09	0.0495	U	0.051	U	0.0556	U	0.0485	U	0.0495	U	0.05	U	0.0505	U	0.0556	U
Aroclor 1232	0.09	0.0495	U	0.051	U	0.0556	U	0.0485	U	0.0495	U	0.05	U	0.0505	U	0.0556	U
Aroclor 1242	0.09	0.0495	U	0.051	U	0.0556	U	0.0485	U	0.0495	U	0.05	U	0.0505	U	0.0556	U
Aroclor 1248	0.09	0.0495	U	0.051	U	0.0556	U	0.0485	U	0.0495	U	0.05	U	0.0505	U	0.0556	U
Aroclor 1254	0.09	0.0495	U	0.051	U	0.0556	U	0.0485	U	0.0495	U	0.05	U	0.0505	U	0.0556	U
Aroclor 1260	0.09	0.0495	U	0.051	U	0.0556	U	0.0485	U	0.0495	U	0.05	U	0.0505	U	0.0556	U
beta-BHC	0.01	0.00198	U	0.00204	U	0.00222	U	0.00194	U	0.00198	U	0.002	U	0.00202	U	0.00222	U
Chlordane	0.05	0.0248	U	0.0255	U	0.0278	U	0.0243	U	0.0248	U	0.025	U	0.0253	U	0.0278	U
delta-BHC	0.04	0.00198	U	0.00204	U	0.00222	U	0.00194	U	0.00198	U	0.002	U	0.00202	U	0.00222	U
Dieldrin	0.004	0.00396	U	0.00408	U	0.00444	U	0.00388	U	0.00396	U	0.004	U	0.00404	U	0.00444	U
Endosulfan I	0.009	0.00198	U	0.00204	U	0.00222	U	0.00194	U	0.00198	U	0.002	U	0.00202	U	0.00222	U
Endosulfan II	--	0.00396	U	0.00408	U	0.00444	U	0.00388	U	0.00396	U	0.004	U	0.00404	U	0.00444	U
Endosulfan sulfate	--	0.00396	U	0.00408	U	0.00444	U	0.00388	U	0.00396	U	0.004	U	0.00404	U	0.00444	U
Endrin	0	0.00396	U	0.00408	U	0.00444	U	0.00388	U	0.00396	U	0.004	U	0.00404	U	0.00444	U
Endrin aldehyde	5	0.00396	U	0.00408	U	0.00444	U	0.00388	U	0.00396	U	0.004	U	0.00404	U	0.00444	U
Heptachlor	0.04	0.00198	U	0.00204	U	0.00222	U	0.00194	U	0.00198	U	0.002	U	0.00202	U	0.00222	U
Heptachlor epoxide	0.03	0.00198	U	0.00204	U	0.00222	U	0.00194	U	0.00198	U	0.002	U	0.00202	U	0.00222	U
Lindane	0.05	0.00198	U	0.00204	U	0.00222	U	0.00194	U	0.00198	U	0.002	U	0.00202	U	0.00222	U
Toxaphene	0.06	0.0495	U	0.051	U	0.0556	U	0.0485	U	0.0495	U	0.05	U	0.0505	U	0.0556	U

U - Not detected.

Table 10. Former Landfill - Summary of 2011 Radionuclide Data

Analtye	Groundwater Standards pCi/L	086-42 12/15/2011 pCi/L				086-72 12/15/2011 pCi/L				087-22 12/15/2011 pCi/L			
		Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Americium-241	1.2	1.95	U	9.89	5.57	4.06	U	8.92	5.76	8.92	U	12.3	7.41
Beryllium-7	40000	10.5	U	23.6	12.9	11.5	U	21.9	12	-10.3	U	33.8	20.3
Cesium-134	80	-0.58	U	2.47	1.4	-0.433	U	2.54	1.98	0.494	U	4.09	2.22
Cesium-137	120	-0.515	U	2.05	1.22	0.97	U	2.14	1.12	-0.0338	U	3.5	2.85
Co-60	200	0.379	U	2.4	1.65	-0.0575	U	2.19	1.24	0.448	U	3.57	1.85
Cobalt-57	4000	-0.474	U	1.89	1.13	-0.533	U	1.73	0.993	0.547	U	2.52	1.47
Europium-152	841	-1.85	U	5.82	3.37	3.26	U	5.92	3.35	0.0483	U	8.92	5.08
Europium-154	573	0.25	U	5.77	3.16	-0.118	U	5.88	3.3	3.81	U	10.1	4.89
Europium-155	4000	4.07	U	7.61	4.3	-0.000516	U	6.88	4.14	3.29	U	9.49	5.43
Gross Alpha	15	0.326	U	1.53	0.761	-0.187	U	1.5	0.505	-0.32	U	1.67	0.434
Gross Beta	1000	-0.313	U	1.81	0.877	0.086	U	1.87	0.984	3.26	J-N2	2.56	1.72
Manganese-54	2000	-0.187	U	1.9	1.05	-0.756	U	1.98	1.16	-2.44	U	3.07	1.95
Sodium-22	400	0.114	U	2.06	1.13	-0.643	U	2.07	1.23	1.38	U	3.59	1.73
Strontium-90	8	-0.0894	U	0.641	0.317	0.765	U	0.775	0.497	-0.0987	U	0.776	0.417
Tritium	20000	79.5	U	233	137	157	U	227	137	-65.1	U	233	129
Zinc-65	360	-3.38	U	4.69	3.13	-3.57	U	4.51	3.29	-6.12	U	7.53	4.68

J - Estimated value.

N2 - Potential false positive.

U - Not detected.

Table 10. Former Landfill - Summary of 2011 Radionuclide Data

Analtye	Groundwater Standards pCi/L	097-17 12/15/2011 pCi/L				097-277 12/15/2011 pCi/L				097-64 12/15/2011 pCi/L			
		Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Americium-241	1.2	-0.733	U	24.1	16	0.129	U	15.9	10.1	-0.228	U	8.67	5.52
Beryllium-7	40000	25.1	U	30.5	15.9	7.49	U	29.6	16.8	-2.22	U	24.3	14.3
Cesium-134	80	0.486	U	3.01	1.66	0.933	U	3.49	1.91	0.699	U	2.89	1.58
Cesium-137	120	-0.186	U	2.32	1.31	0.892	U	2.8	1.51	-0.791	U	2.81	2.04
Co-60	200	0.241	U	2.79	1.51	3.37	J-N2	2.41	2.81	1.17	U	2.75	1.42
Cobalt-57	4000	0.303	U	2.38	1.33	0.206	U	2.39	1.4	-0.353	U	1.84	1.09
Europium-152	841	-0.592	U	7.42	4.34	2.44	U	8.4	4.73	-3.36	U	6.35	3.82
Europium-154	573	0.0686	U	7.24	3.94	1.99	U	8.39	4.42	-2.32	U	6.25	3.66
Europium-155	4000	-1.42	U	9.92	6.01	-6.73	U	9.36	6.56	-2.89	U	7.09	5.16
Gross Alpha	15	0.394	U	1.75	0.87	0.166	U	1.63	0.758	0.81	U	1.59	1
Gross Beta	1000	1.95	U	2.05	1.35	1.44	U	1.62	1.06	3.53	J	1.6	1.33
Manganese-54	2000	-0.228	U	2.44	1.4	0.681	U	2.94	1.62	0.88	U	2.38	1.28
Sodium-22	400	0.0327	U	2.57	1.4	0.723	U	2.98	1.57	-0.808	U	2.22	1.3
Strontium-90	8	0.0559	U	0.793	0.423	0.121	U	0.764	0.405	1.32		0.751	0.589
Tritium	20000	63	U	226	131	106	U	232	137	201	U	228	140
Zinc-65	360	0.053	U	5.3	3.35	0.373	U	6.31	3.44	-3.05	U	5.22	3.13

J - Estimated value.

N2 - Potential false positive.

U - Not detected.

Table 10. Former Landfill - Summary of 2011 Radionuclide Data

Analtye	Groundwater Standards pCi/L	106-02 12/15/2011 pCi/L				106-20 5/20/2011 pCi/L				106-20 12/15/2011 pCi/L			
		Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Americium-241	1.2	6.28	U	19.9	13.5								
Beryllium-7	40000	-4.62	U	28.1	15.8								
Cesium-134	80	-0.635	U	2.97	1.74								
Cesium-137	120	-0.41	U	2.44	1.4								
Co-60	200	0.792	U	3.01	1.6								
Cobalt-57	4000	-0.924	U	2.3	1.41								
Europium-152	841	-0.364	U	7.48	4.35								
Europium-154	573	2.5	U	8.26	4.33								
Europium-155	4000	1.35	U	9.79	5.74								
Gross Alpha	15	-0.147	U	1.75	0.617								
Gross Beta	1000	0.143	U	1.98	1.05								
Manganese-54	2000	-0.778	U	2.46	1.47								
Sodium-22	400	0.892	U	2.93	1.54								
Strontium-90	8	0.17	U	0.773	0.421	-0.264	U	0.728	0.309	0.448	U	0.774	0.464
Tritium	20000	11.8	U	228	130								
Zinc-65	360	-2.62	U	5.3	3.17								

J - Estimated value.

N2 - Potential false positive.

U - Not detected.

Table 10. Former Landfill - Summary of 2011 Radionuclide Data

Analtye	Groundwater Standards pCi/L	106-21 5/20/2011 pCi/L				106-21 12/15/2011 pCi/L				106-30 12/15/2011 pCi/L			
		Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Americium-241	1.2									1.08	U	17.2	10.9
Beryllium-7	40000									11.4	U	27.8	15
Cesium-134	80									-0.484	U	3.02	1.77
Cesium-137	120									-0.297	U	2.43	1.4
Co-60	200									-0.0802	U	2.67	1.46
Cobalt-57	4000									0.2	U	2.34	1.38
Europium-152	841									-1.09	U	7.1	4.19
Europium-154	573									-2.51	U	6.56	3.93
Europium-155	4000									-0.04	U	9.24	5.45
Gross Alpha	15									-0.0938	U	1.66	0.646
Gross Beta	1000									0.377	U	1.55	0.852
Manganese-54	2000									0.567	U	2.65	1.43
Sodium-22	400									-0.877	U	2.34	1.4
Strontium-90	8	-0.128	U	0.465	0.221	0.516	U	0.755	0.459	0.0356	U	0.782	0.427
Tritium	20000									67.5	U	233	136
Zinc-65	360									-4.61	U	4.88	3.15

J - Estimated value.

N2 - Potential false positive.

U - Not detected.

Table 10. Former Landfill - Summary of 2011 Radionuclide Data

Analtye	Groundwater Standards pCi/L	106-43 5/20/2011 pCi/L				106-43 12/15/2011 pCi/L				106-44 5/20/2011 pCi/L			
		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	0.298	U	0.782	0.449	0.77	U	0.771	0.478	1.97		0.423	0.435
Tritium	20000												
Zinc-65	360												

J - Estimated value.

N2 - Potential false positive.

U - Not detected.

Table 10. Former Landfill - Summary of 2011 Radionuclide Data

Analtye	Groundwater Standards pCi/L	106-44 12/15/2011 pCi/L				106-45 5/20/2011 pCi/L				106-45 12/15/2011 pCi/L			
		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	2.01		0.744	0.63	1.74		0.71	0.539	2.95		0.79	0.693
Tritium	20000												
Zinc-65	360												

J - Estimated value.

N2 - Potential false positive.

U - Not detected.

Table 10. Former Landfill - Summary of 2011 Radionuclide Data

Analtye	Groundwater Standards pCi/L	106-64 5/20/2011 pCi/L				106-64 12/15/2011 pCi/L			
		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	1.72		0.538	0.471	1.84		0.765	0.616
Tritium	20000								
Zinc-65	360								

J - Estimated value.

N2 - Potential false positive.

U - Not detected.

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**
SGM-17 PROBE B	**Intermediate**	**8.5**	**11**

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-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**

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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

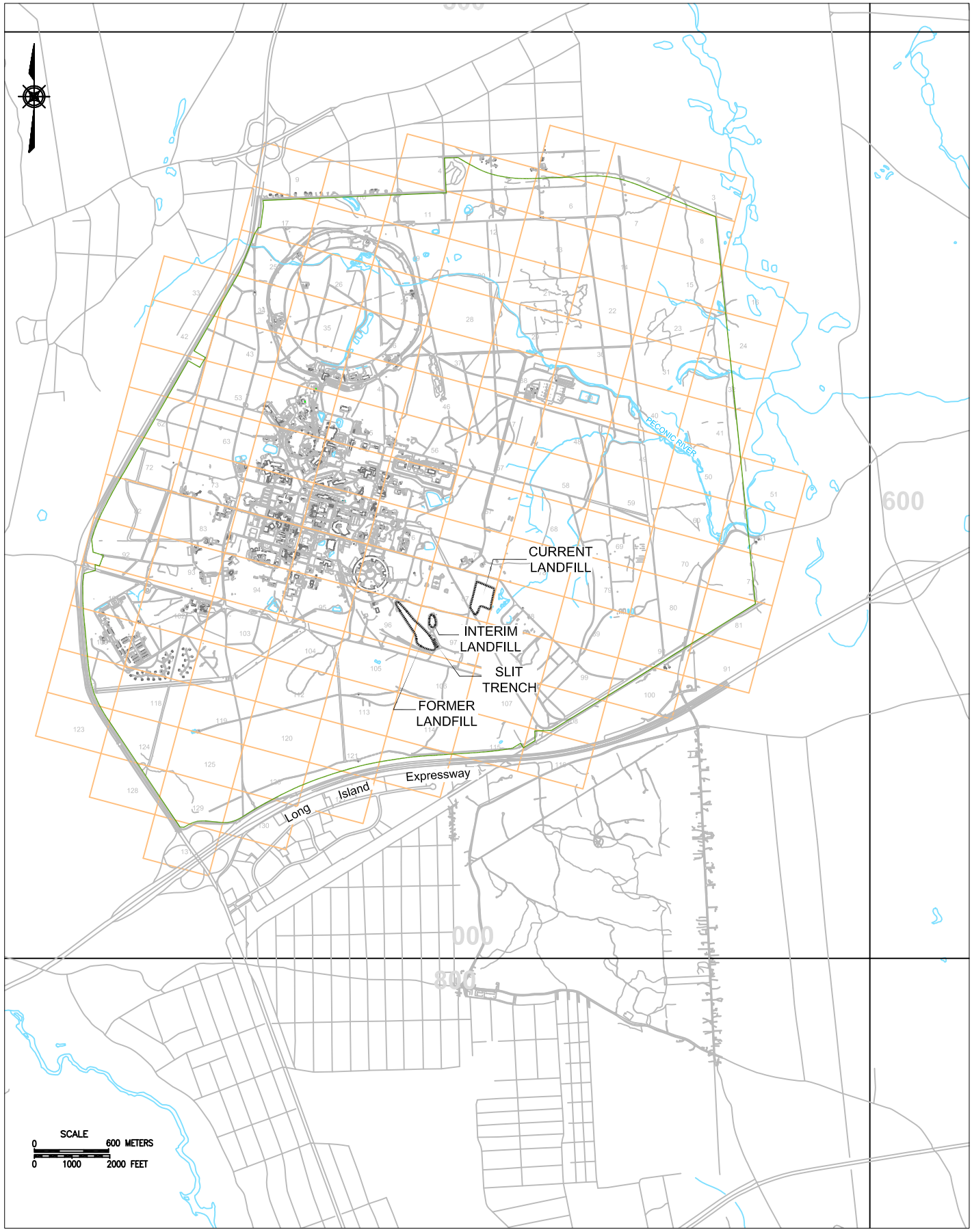
2011 Current Landfill Soil Gas Monitoring Summary Table

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

Table 13

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



R:\Gw_projects\Landfills\2011 Report\Fig01 02-10-12.dwg

BROOKHAVEN NATIONAL LABORATORY

ENVIRONMENTAL PROTECTION DIVISION

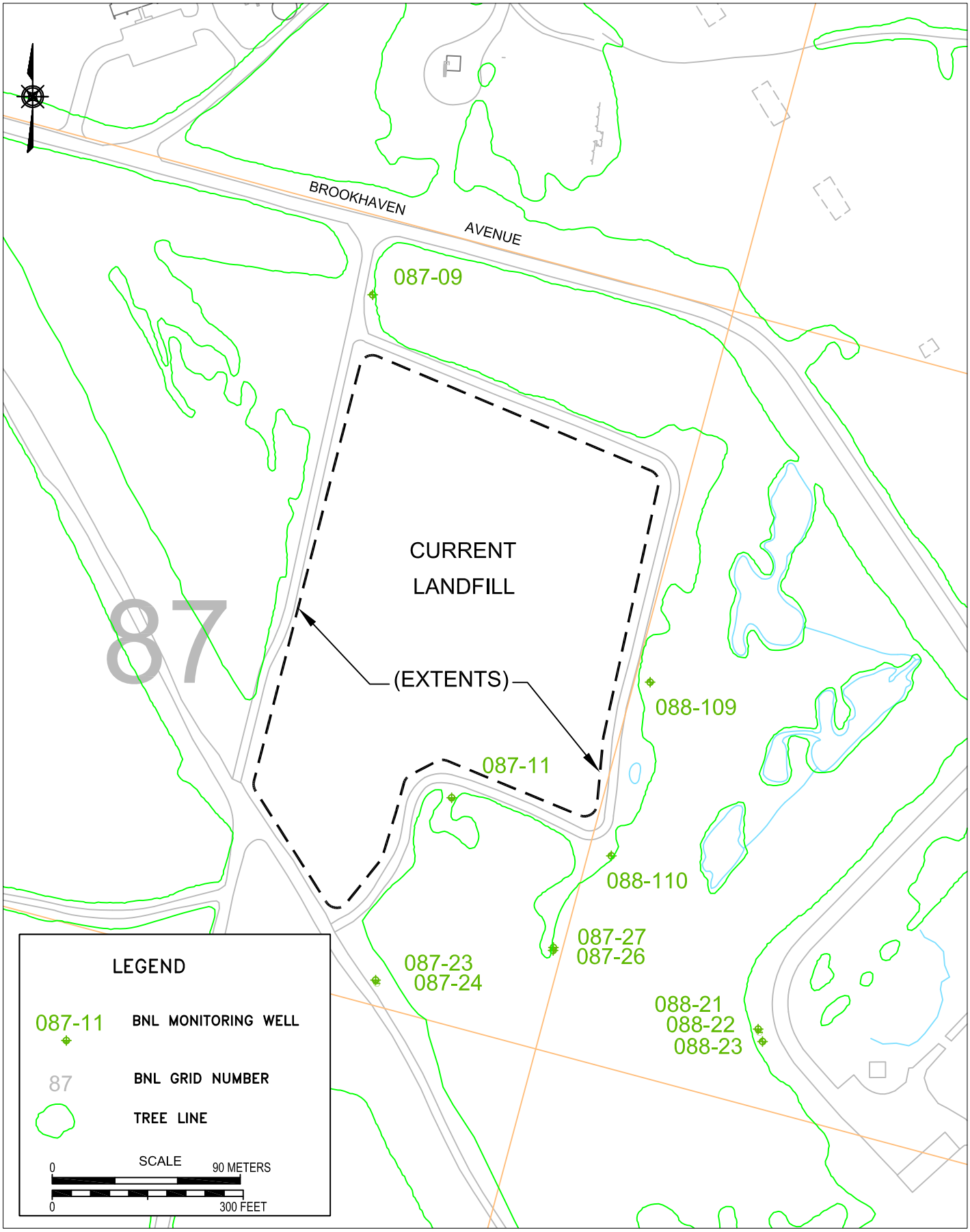
TITLE:

SITE LOCATION MAP

2011 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	02/10-12	–
CHKD:	APPD:	REV.:	NOTES:
JEB	RFH	–	–

FIGURE NO.: 1



R:\Gw_projects\Landfills\2011 Report\Fig02 02-10-12.dwg

BROOKHAVEN NATIONAL LABORATORY

ENVIRONMENTAL PROTECTION DIVISION

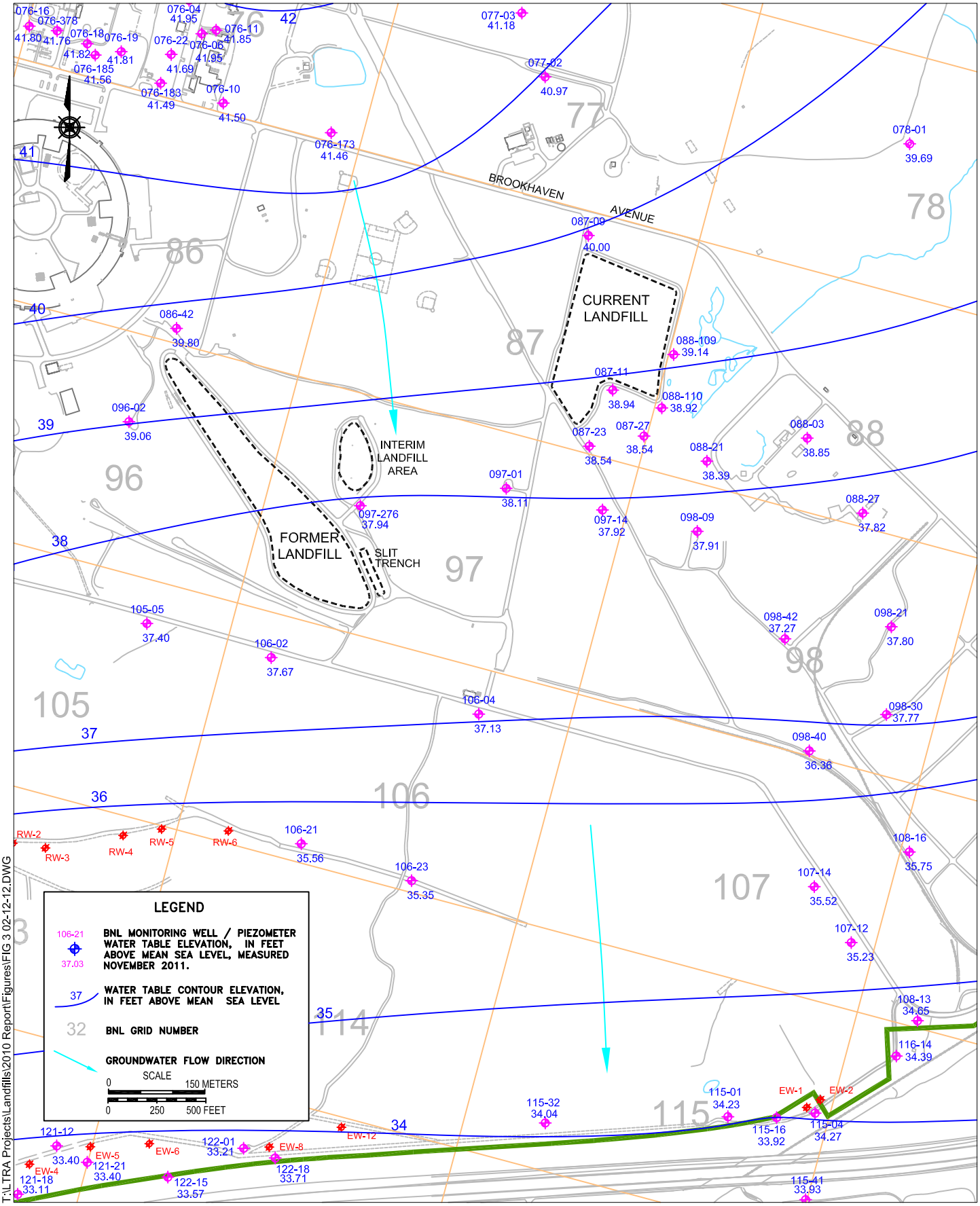
TITLE:

CURRENT LANDFILL MONITORING WELL LOCATIONS

2011 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	02/10/12	–
CHKD:	APPD:	REV.:	NOTES:
WRD	RFH	–	–

FIGURE NO.: 2



T:\LTRA Projects\Landfills\2010 Report\Figures\FIG 3 02-12-12.DWG

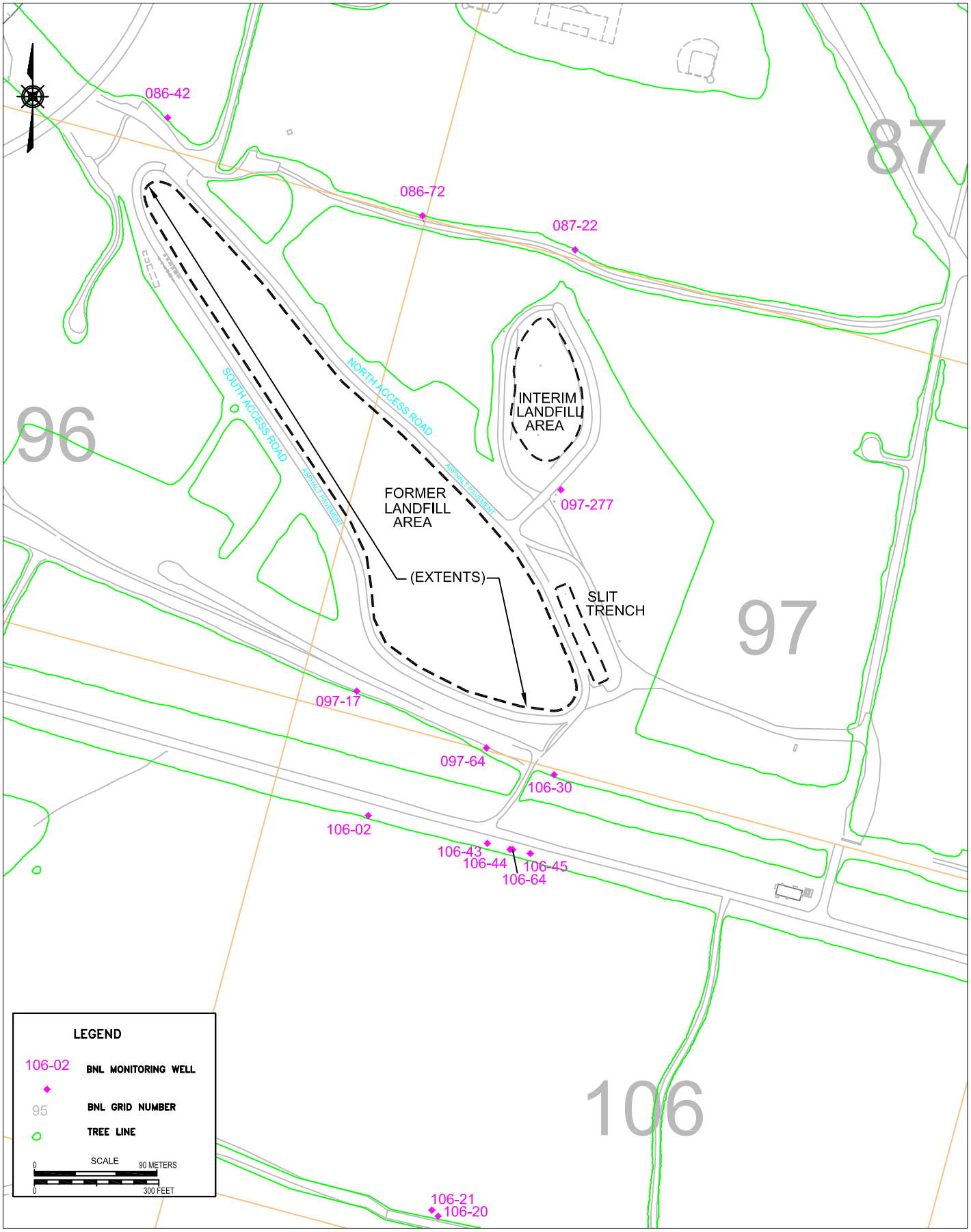
BROOKHAVEN NATIONAL LABORATORY
ENVIRONMENTAL PROTECTION DIVISION

TITLE:

WATER TABLE CONTOUR MAP
2011 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	02/13/12	–
CHKD:	APPD:	REV.:	NOTES:
JEB	RFH	–	–

FIGURE NO.: 3



R:\Gw_projects\Landfills\2010 Report\Fig04 02-13-12.dwg

BROOKHAVEN NATIONAL LABORATORY

ENVIRONMENTAL PROTECTION DIVISION

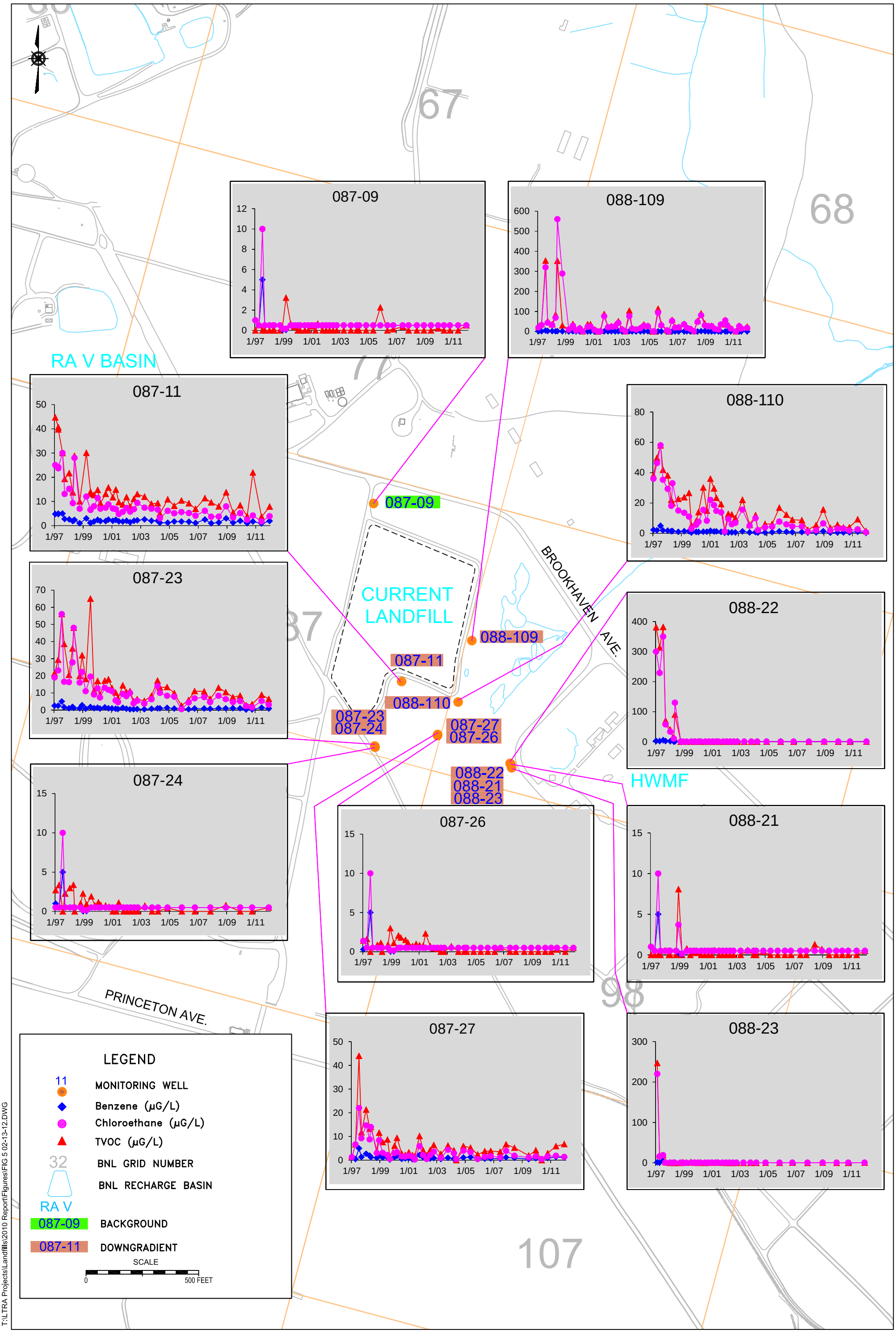
TITLE:

FORMER LANDFILL MONITORING WELL LOCATIONS

2011 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	02/13/12	–
CHKD:	APPD:	REV.:	NOTES:
JEB	RFH	–	–

FIGURE NO.: 4



T:\LTRA Projects\Landfills\2010 Report\Figures\FIG 5 02-13-12.DWG

BROOKHAVEN NATIONAL LABORATORY

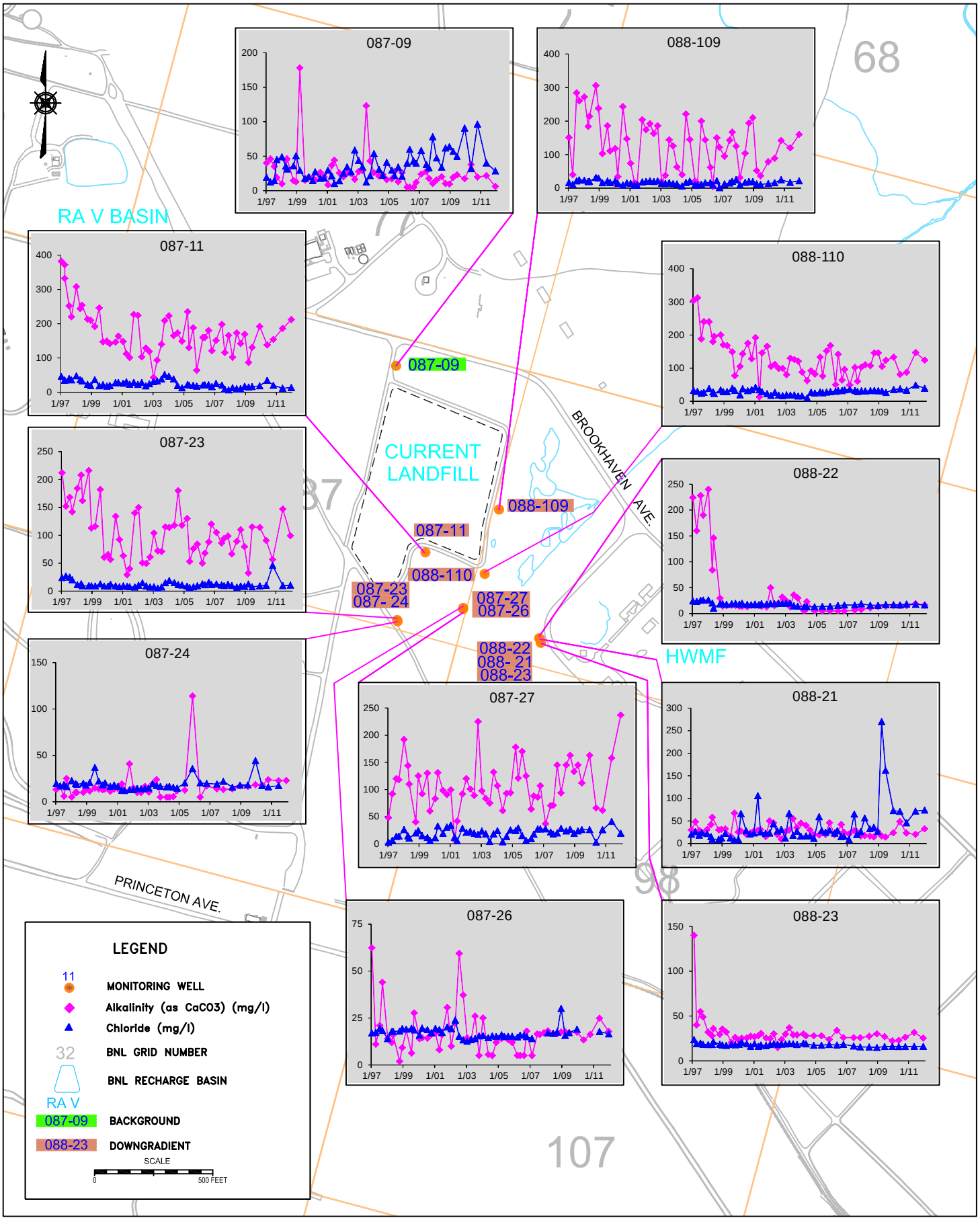
ENVIRONMENTAL PROTECTION DIVISION

TITLE:

CURRENT LANDFILL
VOC TREND PLOTS
2011 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	02/13/12	–
CHKD:	APPD:	REV.:	NOTES:
JEB	RFH	–	–

FIGURE NO.: 5



BROOKHAVEN NATIONAL LABORATORY
ENVIRONMENTAL PROTECTION DIVISION

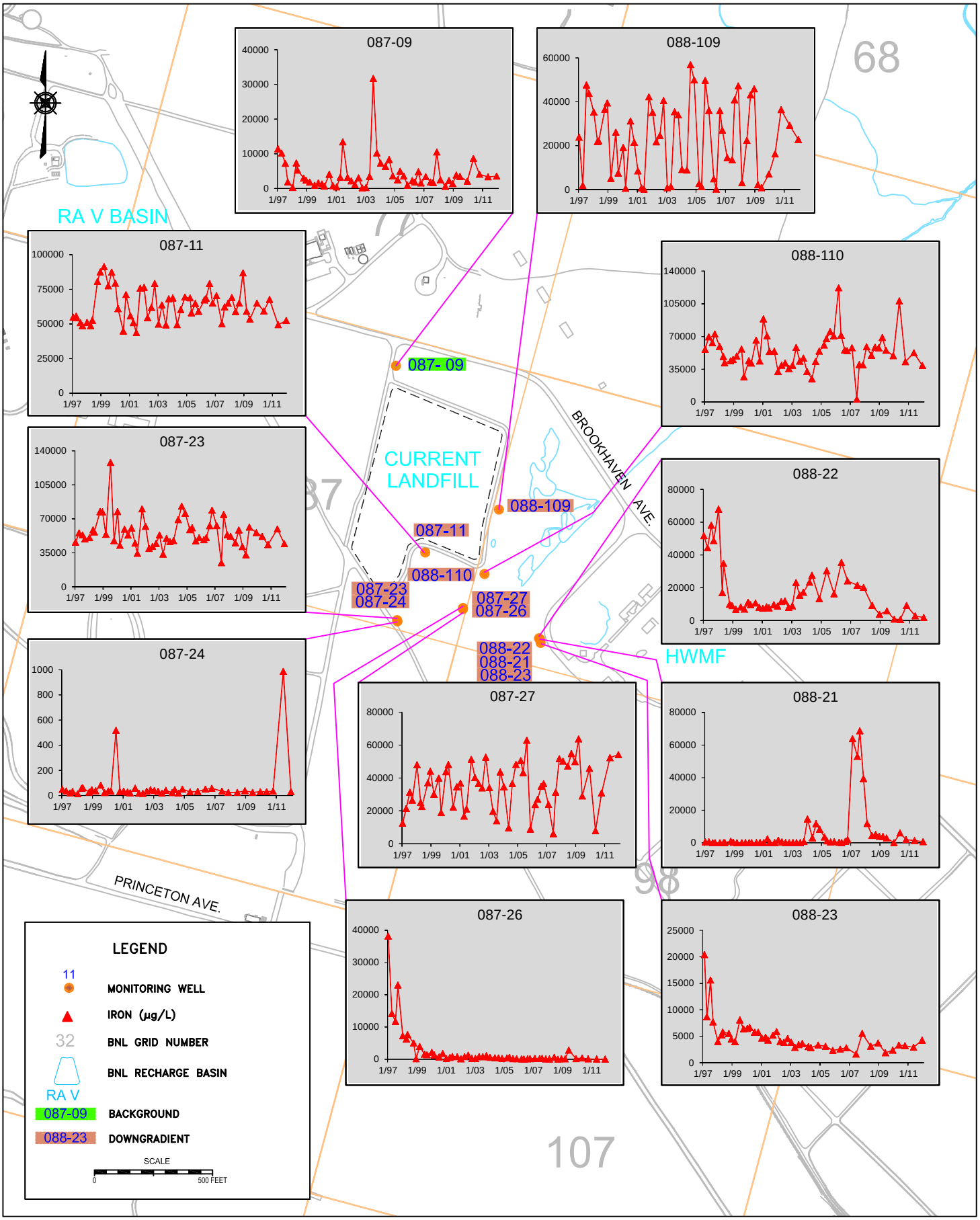
TITLE:

CURRENT LANDFILL ALKALINITY AND CHLORIDE TREND PLOTS

2011 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	02/13/12	–
CHKD:	APPD:	REV.:	NOTES:
JEB	RFH	–	–

FIGURE NO.: 6



BROOKHAVEN NATIONAL LABORATORY
ENVIRONMENTAL PROTECTION DIVISION

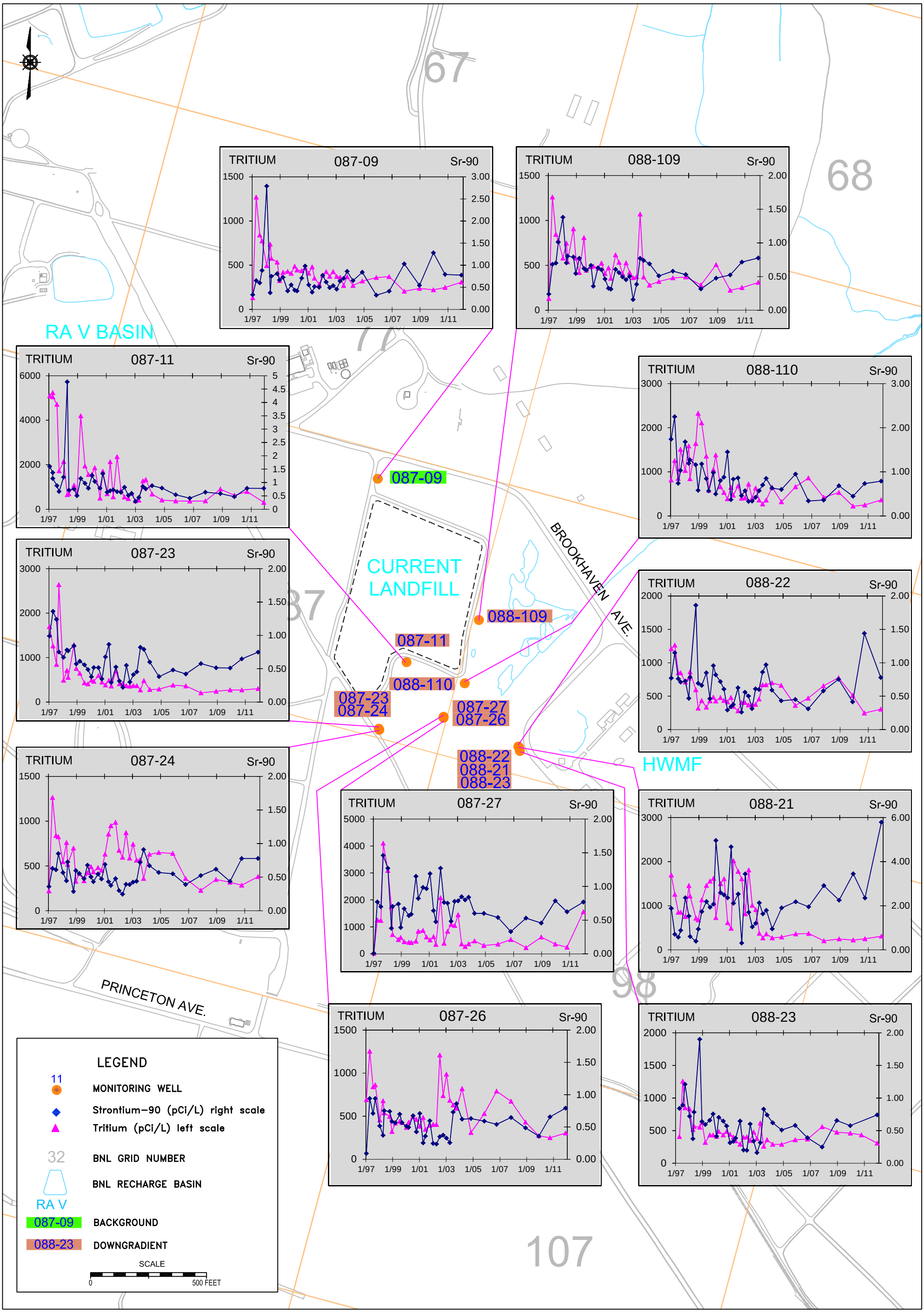
TITLE:

CURRENT LANDFILL IRON TREND PLOTS

2011 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	02/13/12	–
CHKD:	APPD:	REV.:	NOTES:
JEB	RFH	–	–

FIGURE NO.: 7



T:\LTRA Projects\Landfills\2010 Report\Figures\FIG 8 02-14-12.DWG

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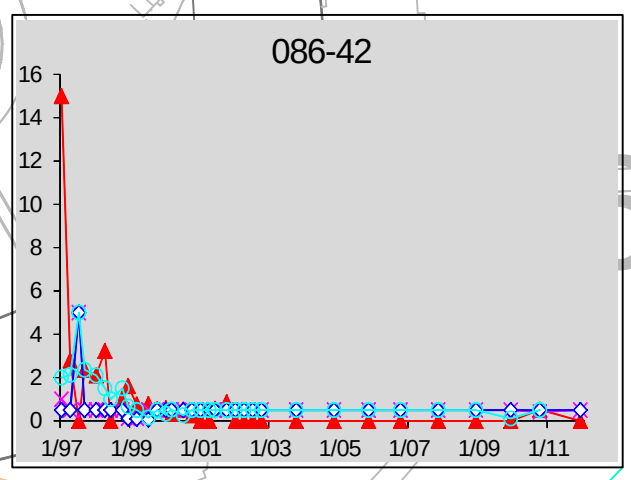
ENVIRONMENTAL PROTECTION DIVISION

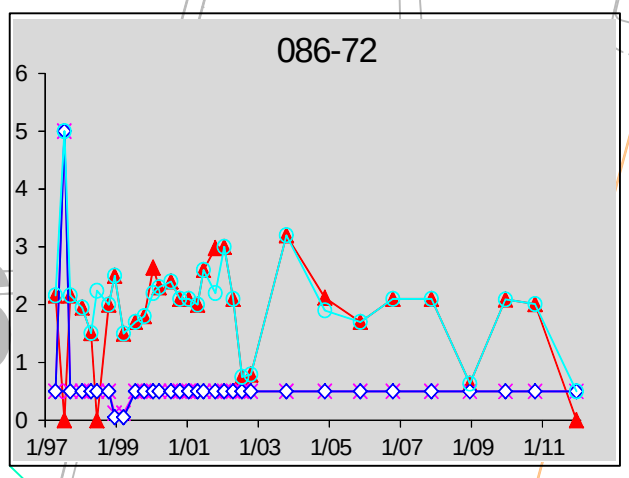
TITLE:

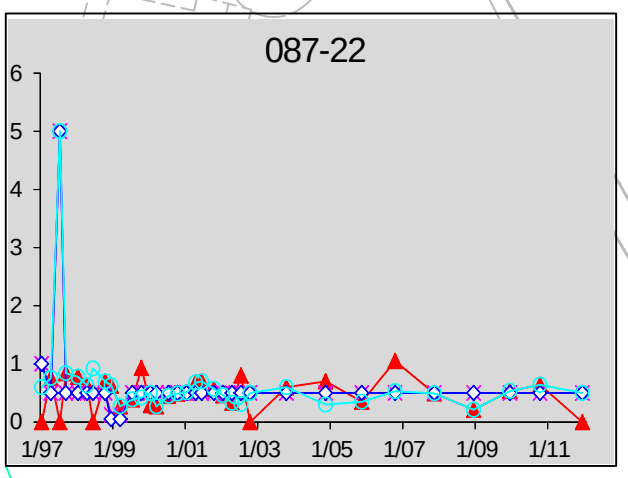
CURRENT LANDFILL
TRITIUM AND SR-90 TREND PLOTS
2011 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

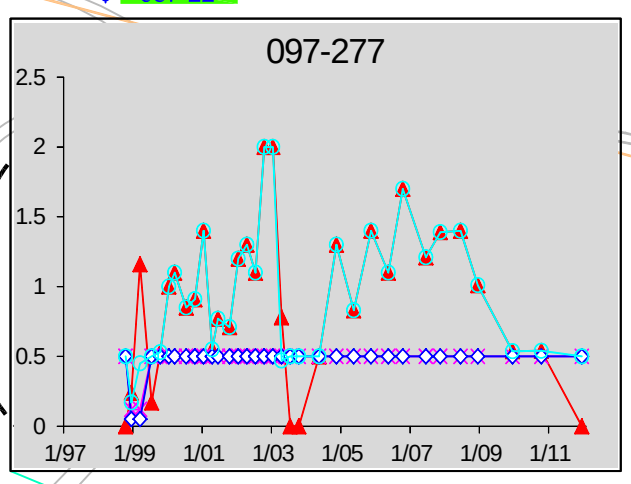
DWN:	VS: HS.:	DATE:	PROJECT NO.:
AJZ	–	02/14/12	–
CHKD:	APPD:	REV.:	NOTES:
JEB	RFH	–	–

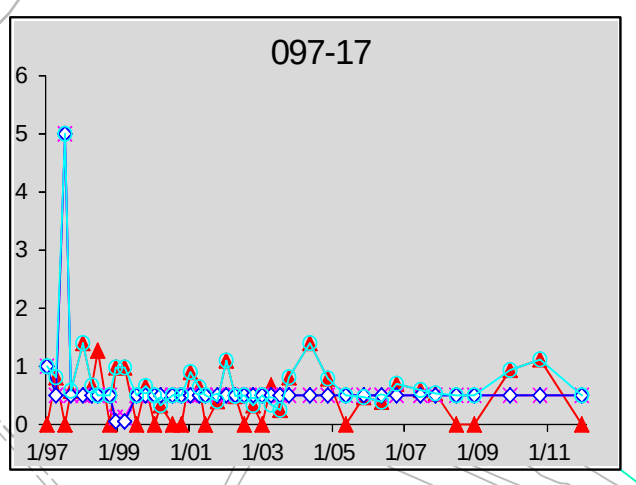
FIGURE NO.: 8

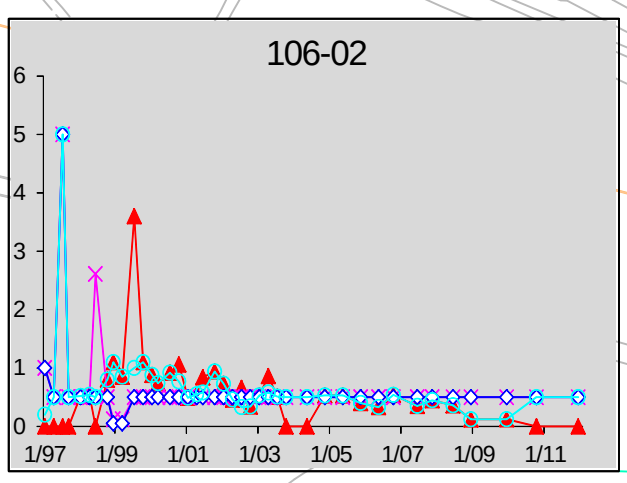












086-42

086-72

087-22

097-277

097-17

097-64

106-30

106-02

INTERIM LANDFILL

FORMER LANDFILL

SLIT TRENCH

GLASS HOLES

97

CH

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

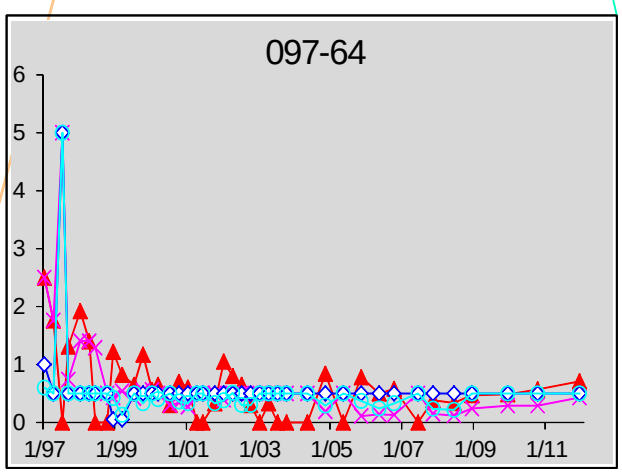
BNL RECHARGE BASIN

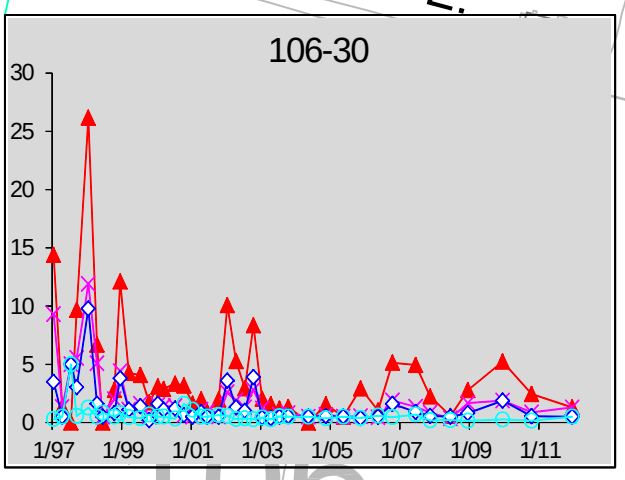
RA V

086-42 BACKGROUND

106-02 DOWNGRADIENT

SCALE 0 250 FEET





106

T:\LTRA Projects\Landfills\2010 Report\Figures\FIG 9 02-14-12.DWG

BROOKHAVEN NATIONAL LABORATORY

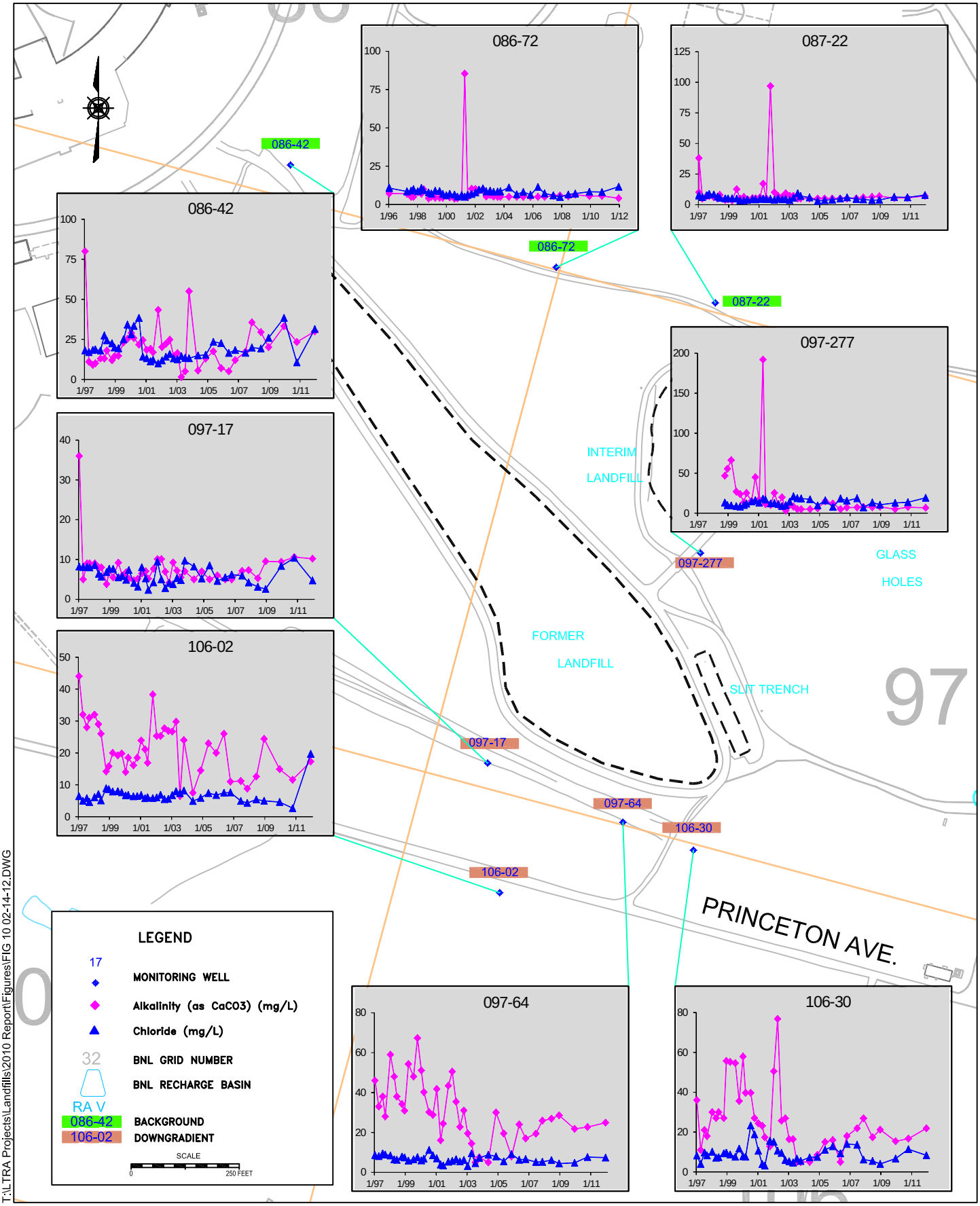
ENVIRONMENTAL PROTECTION DIVISION

TITLE:

FORMER LANDFILL
VOC TREND PLOTS
2011 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	02/14/12	–
CHKD:	APPD:	REV.:	NOTES:
JEB	RFH	–	–

FIGURE NO.: 9



T:\LTRA Projects\Landfills\2010 Report\Figures\FIG 10 02-14-12.DWG

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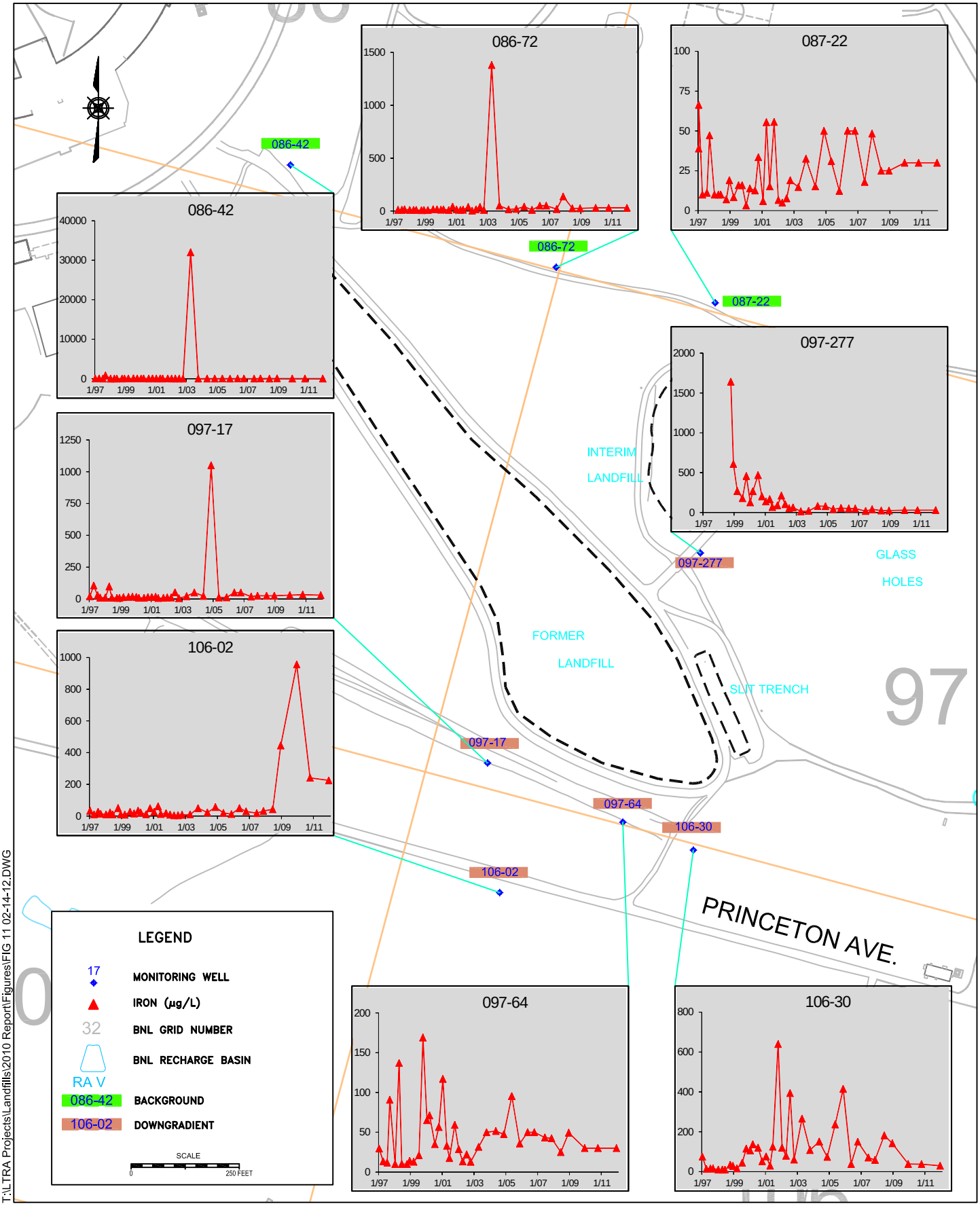
TITLE:

FORMER LANDFILL
ALKALINITY AND CHLORIDE TREND PLOTS
2011 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	02/14/12	–
CHKD:	APPD:	REV.:	NOTES:
JEB	RFH	–	–

FIGURE NO.: 10



T:\LTRA Projects\Landfills\2010 Report\Figures\FIG 11 02-14-12.DWG

BROOKHAVEN NATIONAL LABORATORY
ENVIRONMENTAL PROTECTION DIVISION

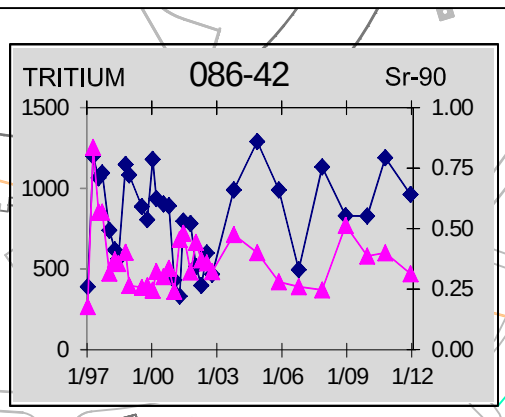
TITLE:

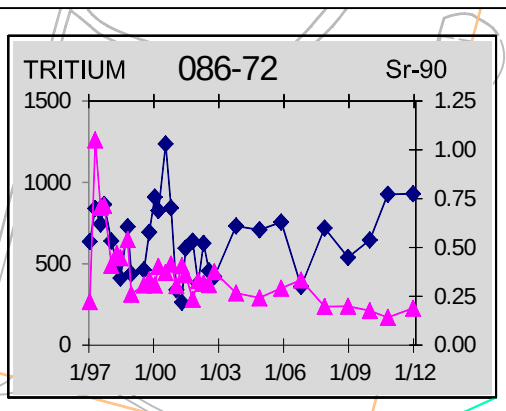
FORMER LANDFILL IRON TREND PLOTS

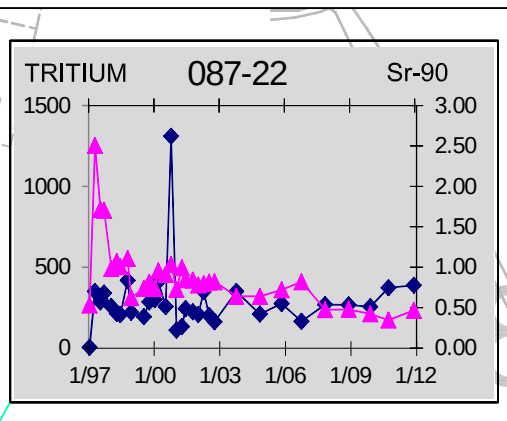
2011 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

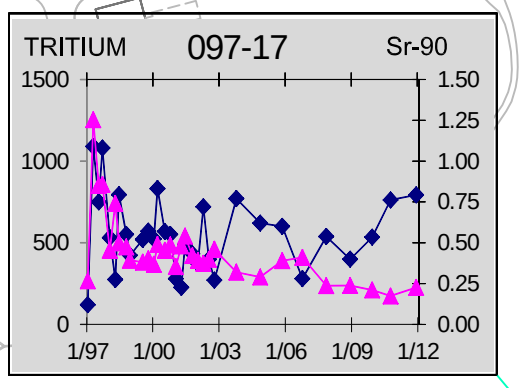
DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	02/14/12	–
CHKD:	APPD:	REV.:	NOTES:
JEB	RFH	–	–

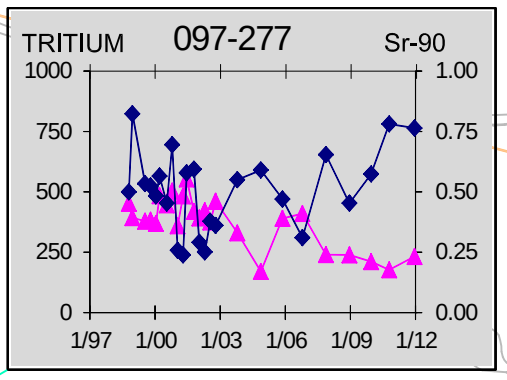
FIGURE NO.: 11

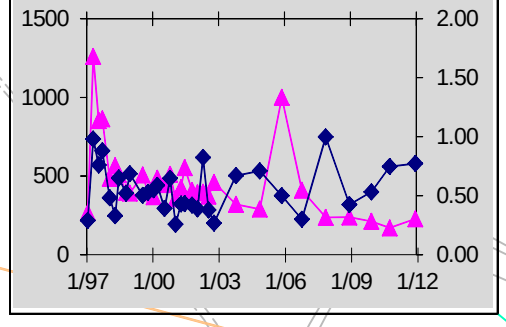


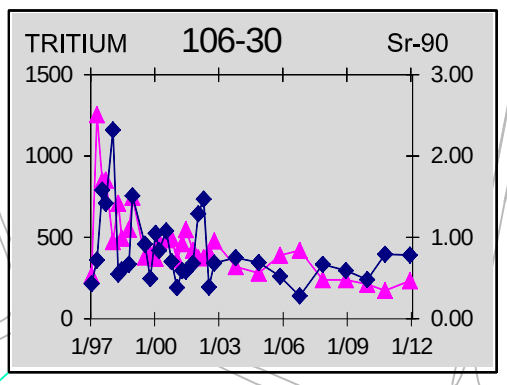


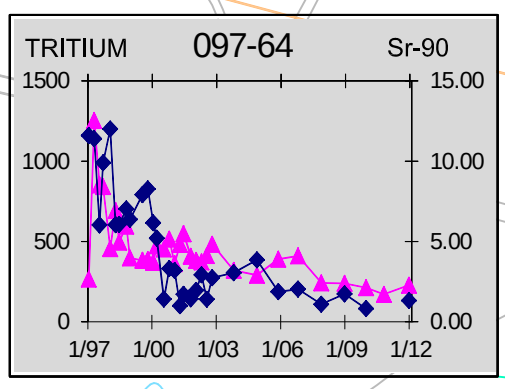


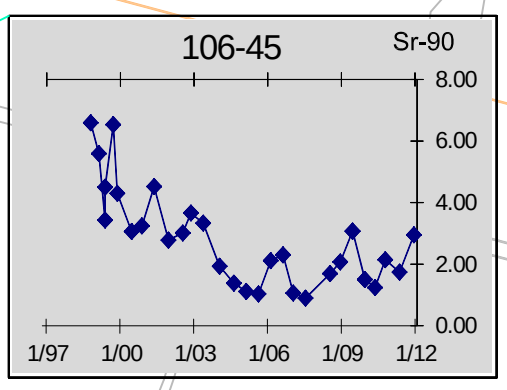


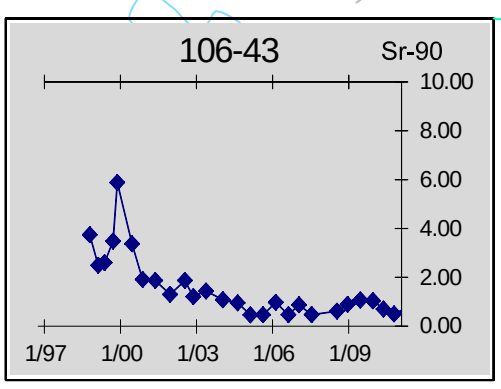


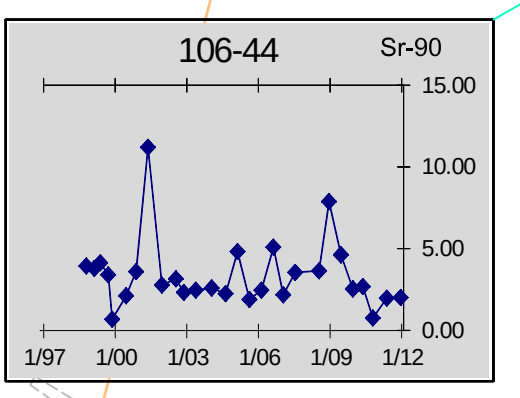


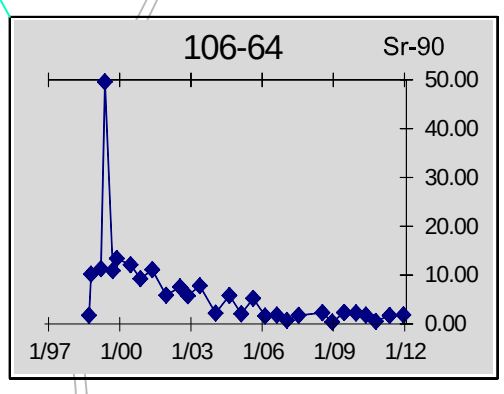


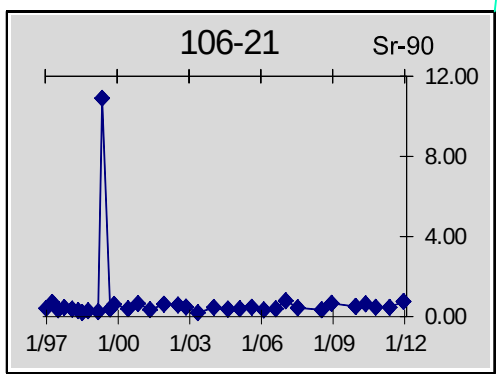


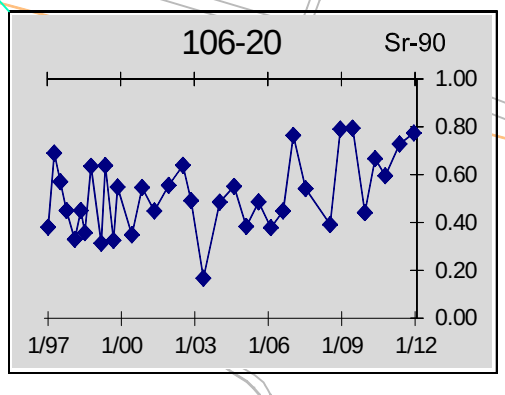












086-42
086-72
087-22
097277
097-17
097-64
106-30
106-02
106-44
106-64
106-43
106-45
106-21
106-20

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
BNL RECHARGE BASIN
RA V
086-42 BACKGROUND
106-02 DOWNGRADIENT

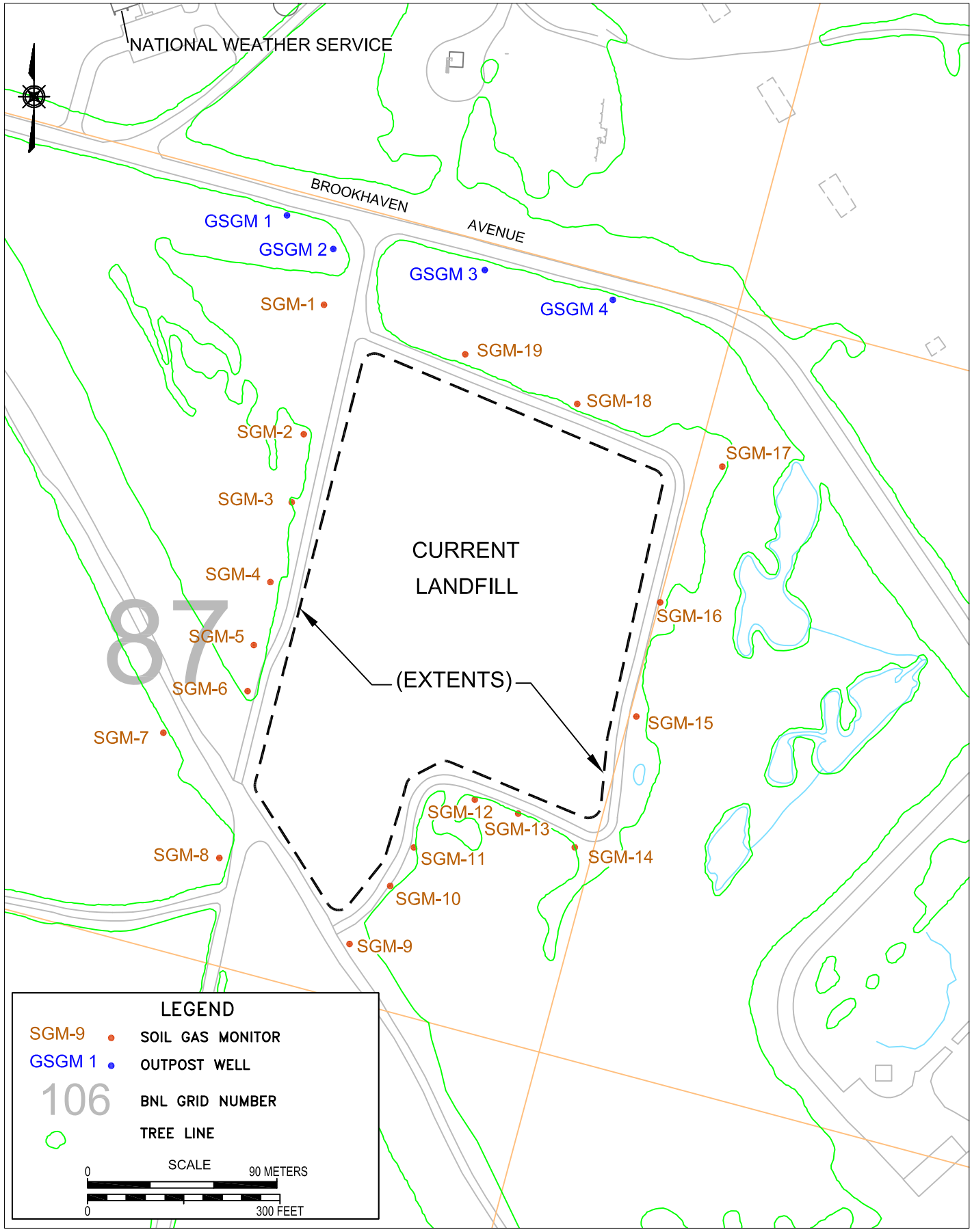
SCALE
0 250 FEET

T:\LTRA Projects\Landfills\2010 Report\Figures\FIG 12 02-14-12.DWG

BROOKHAVEN NATIONAL LABORATORY
ENVIRONMENTAL PROTECTION DIVISION

TITLE:
FORMER LANDFILL
TRITIUM AND SR-90 TREND PLOTS
2011 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

DWN:	VS: HS.:	DATE:	PROJECT NO.:
AJZ	–	02/14/12	–
CHKD:	APPD:	REV.:	NOTES:
JEB	RFH	–	–
FIGURE NO.:			
12			



R\Gw_projects\Landfills\2010 Report\Fig13 02-14-12.dwg

BROOKHAVEN NATIONAL LABORATORY

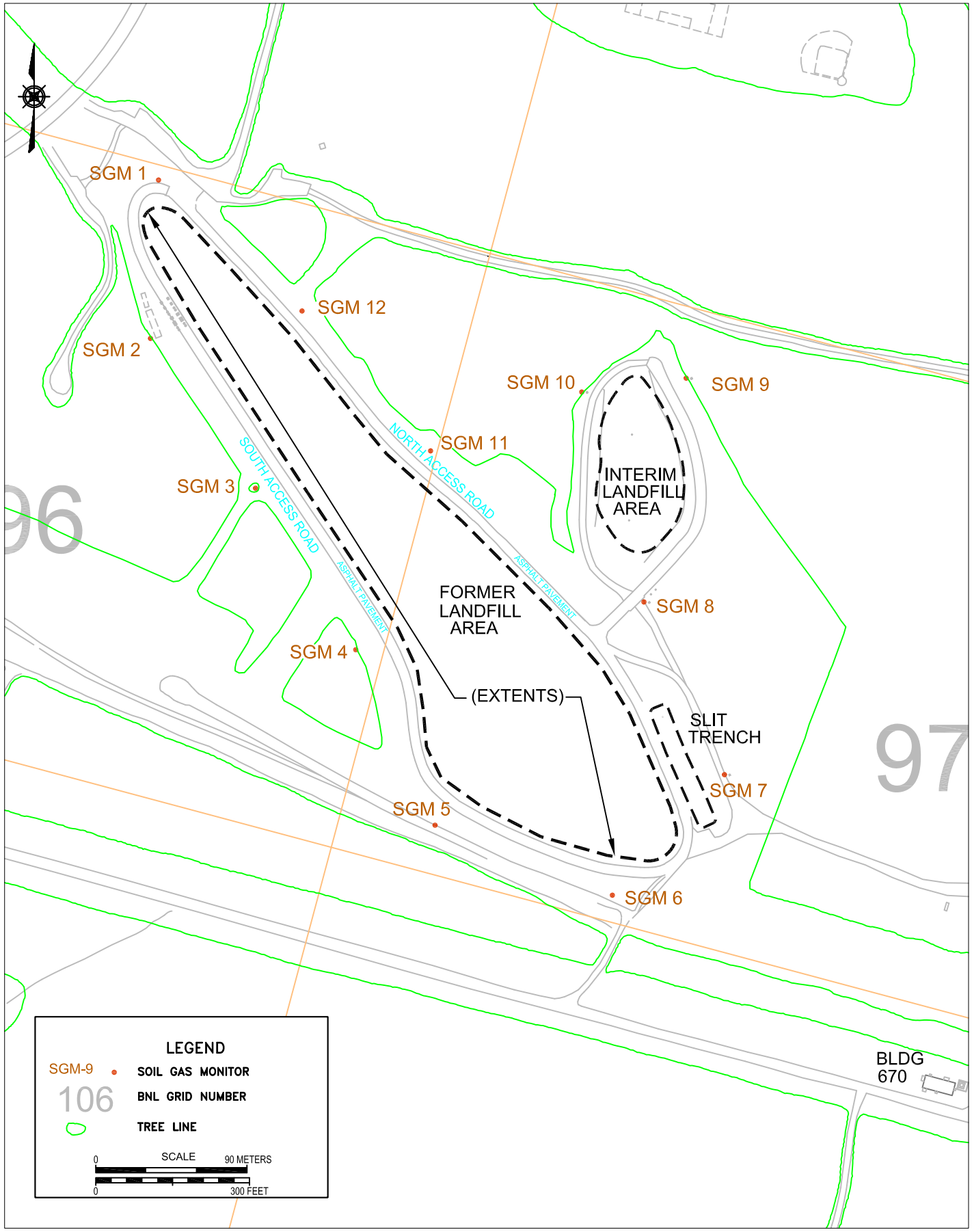
ENVIRONMENTAL PROTECTION DIVISION

TITLE:

CURRENT LANDFILL
SOIL GAS MONITOR LOCATION MAP
2011 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	02/14/12	–
CHKD:	APPD:	REV.:	NOTES:
JEB	RFH	–	–

FIGURE NO.: 13



R\Gw_projects\Landfills\2010 Report\Fig14 02-14-12.dwg

BROOKHAVEN NATIONAL LABORATORY
ENVIRONMENTAL PROTECTION DIVISION

TITLE:
FORMER LANDFILL
SOIL GAS MONITOR LOCATION MAP
2011 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	02/14/12	–
CHKD:	APPD:	REV.:	NOTES:
JEB	RFH	–	–

FIGURE NO.: 14

Appendix A

Soil-gas Sampling Field Notes

(48)

Cal check Gem 2000 — Current Landfill — Jim Milligan — 30.55" Steady 22° F — 3/3/11 — 3/7/11 BP

Location	Well ID	CH4%	LEL%	H2S ppm	Time / comment
Sgm 1A	087-62	12.2	>100 244	3	0900
1B	087-78	8.9	>100 178	0	0907
1C	087-79	9.1	>100 182	0	0917
2A	087-63	28.3	>100 566	1	0920
2B	087-80	2.2	44 %	0	water in pipe 0927
2C	087-81	33.8	>100 676	4	0937
3A	087-64	1.9	38	0	0940
3B	087-82	44.7	>100 894	28	0947
3C	087-83	35.8	>100 716	0	0957
4A	087-65	3.5	70	0	1010
4B	087-84	28.3	>100 566	2	1017
4C	087-85	18.4	>100 368	4	1027
5A	087-66	3.3	67 66	0	1040
5B	087-86	2.0	42	0	1047
5C	087-87	16.5	>100 330	1	1057
6A	087-67	0.1	3	0	1110
6B	087-88	31.2	> 624	1	1120
6C	087-89	29.7	> 594	5	1130
7A	087-68	0.0	0	0	1500
7B	087-90	0.0	0	0	1510
7C	087-91	0.0	0	0	1520
8A	087-69	0.0	0	0	1525
8B	087-92	0.0	0	0	1535
8C	087-93	0.0	0	0	1541

BP 3/7/11

3/3/11 — Gem 2000 — Current Landfill — Jim Milligan — 22° F

(49)

Location	Well ID	CH4%	LEL%	H2S ppm	Time / comment
Sgm 9A	087-70	0.1	2	0	1310
9B	087-94	0.1	1	0	1317
9C	087-95	0.1	2	0	1327
10A	087-71	0.1	2	0	1333
10B	087-96	1.0	20	0	1338
10C	087-97	0.3	6	0	1350
11A	087-72	0.1	2	1	water 1400
11B	087-98	0	0	0	1406
12A	087-73	23.0	>100 460	0	1412
12B	087-99	21.3	>100 426	0	1422
13A	087-74	0	0	0	1425
13B	087-100	0	0	0	1432
14A	087-75	0	0	0	water 1438
14B	087-101	0.1	2	0	water 1445
15A	088-111	0	0	0	1449
15B	088-114	0	0	0	water 1454
16A	088-112	1	20	1	1457
16B	088-115	0	0	0	water 1452
17A	088-113	0	0	0	water 1458
17B	088-116	0	0	0	water 1505
18A	087-76	0	0	0	1517
18B	087-102	0	0	0	water 1524
19A	087-77	1	3	0	1530
19B	087-103	.3	6	0	1538

Current Landfill

3/3/11 Jim Miller 22°F Gem2000

Location	Well ID	CH_4 %	LEL %	H_2S ppm	Time/counter
GSGM1A	No ID	0	0	0	1658
1B	↓	0	0	0	1650
1C		0	0	0	1640
2A		0	0	0	1630
2B		0	0	0	1620
2C		0	0	0	1610
3A		0	0	0	1600
3B		0	0	0	1550
4A		0	0	0	1540
4B	↓	0	0	0	1546

Check

Current Landfill

57% ...

6/7/11 78° 29.77" Hg JTM

Location	Well ID	CH_4 %	LEL %	H_2S ppm	Time/counter
SGM-1A	087-62	10.6	>100 212	0	1300
1B	087-78	10.1	>100 202	2	1306
1C	087-79	8.9	>100 178	3	1316
2A	087-63	43.6	>100 872	4	1320
2B	087-80	43.3	>100 866	15	1324
2C	087-81	45.2	>100 904	3	1334
3A	087-64	39.4	>100 788	7	1338
3B	087-82	52.8	>100 1056	41	1355
3C	087-83	53.4	>100 1061	60	1404
4A	087-65	42.2	>100 844	14	1410
4B	087-84	41.1	>100 822	6	1417
4C	087-85	35.4	>100 708	7	1426
5A	087-66	33.5	>100 670	9	1430
5B	087-86	30.5	>100 610	6	1437
5C	087-87	24.3	>100 486	4	1446
6A	087-67	34.2	>100 684	0	1450
6B	087-88	33.5	>100 670	10	1457
6C	087-89	31.4	>100 628	0	1509
7A	087-68	0.0	0	0	1513
7B	087-90	0.0	0	0	1522
7C	087-91	0.0	0	0	1532

BP Solar

Called Steve Vanstolen for access

JM

(52) 6/7/11 → 6/8/11 — Current Landfill — Jim Milligan

Location	Well ID	CH4 %	LEL %	H2S PPM	Time/comments
8A	087-69	0.0	0	0	1535
8B	087-92	0.0	0	0	1545
8C	087-93	0.0	0	0	1558
9A	087-70	0.0	0	0	0950 6/8/11
9B	087-94	0.0	0	0	0956
9C	087-95	0.0	0	0	1006
10A	087-71	10.5	>100 210	3	1009
10B	087-96	12.5	>100 250	4	1016
10C	087-97	10.7	>100 214	3	1026
11A	087-72	11.2	>100 244	2	1030
11B	087-98	8.3	>100 166	2	1037
12A	087-73	39.5	>100 790	95	1040
12B	087-99	31.1	>100 622	15	1047
13A	087-74	0.0	0	1	1057
13B	087-100	0.0	0	1	1103
14A	087-75	0.0	0	2	1107
14B	087-101	0.0	0	1	1112
15A	088-111	0.0	0	1	1116
15B	088-114	0.0	0	0	1124
16A	088-112	0.0	0	0	1132
16B	088-115	0.0	0	1	1145
17A	088-113	0.0	0	0	1150
17B	088-116	0.0	0	0	1159 Water in Pipe

(53) Current Landfill — Jim Milligan

6/8/11 Cal check at Gem 2000

Location	Well ID	CH4 %	LEL %	H2S PPM	Time/comments
18A	087-76	0.0	0	0	1300
18B	087-102	0.0	0	0	1310 Water in Pipe
19A	087-77	14.8	>100 296	1	1315
19B	087-103	12.2	>100 244	1	1322
GSGM-1A	No ID	0.0	0	0	1510
1B		0.0	0	0	1455
1C		0.0	0	0	1445
2A		0.0	0	0	1435
2B		0.0	0	0	1425
2C		0.0	0	0	1415
3A		0.0	0	0	1355
3B		0.0	0	0	1345
4A		0.0	0	0	1335
4B		0.0	0	0	1329

Milligan

Cal check of Gem 2000

Current Landfill

Jim Milligan
9/27/11

29.84" Hg

Location	Well ID	CH4%	LEL%	H2S ppm	Time/comment
SGM-1A	087-62	10.1	>100 202	0	0900
1B	087-78	9.2	>100 184	0	0906
1C	087-79	8.3	>100 166	0	0916
2A	087-63	45.2	>100 904	0	0920
2B	087-80	50.8	>100 1016	30	0927
2C	087-81	48.6	>100 972	0	0937
3A	087-64	48.1	>100 962	9	0945
3B	087-82	42.5	>100 850	0	0955
3C	087-83	0	0	0	1005
4A	087-65	49.6	>100 992	7	1007
4B	087-84	40.1	>100 802	1	1013
4C	087-85	0	0	0	1023
5A	087-66	39.5	>100 790	9	1027
5B	087-86	37.6	>100 752	1	1035
5C	087-87	0	0	0	1047
6A	087-67	1.9	39%	0	1057
6B	087-88	19.6	>100 392	0	1108
6C	087-89	33.0	>100 660	3	1115
7A	087-68	0.0	0	0	1125
7B	087-90	0.0	0	0	1133
7C	087-91	0.0	0	0	1143
8A	087-69	0.0	0	0	1148
8B	087-92	0.0	0	0	1155
8C	087-93	0.0	0	0	1205

BP Solar (7A–8C)

Current Landfill

9/27/11

29.83" Hg

Location	Well ID	CH4%	LEL%	H2S ppm	Time/comment
SGM-9A	087-70	0.0	0	0	1300
9B	087-94	0.0	0	0	1308
9C	087-95	0.0	0	0	1318
10A	087-71	22.8	>100 456	27	1320
10B	087-96	19.2	>100 384	10	1326
10C	087-97	16.0	>100 320	7	1336
11A	087-72	23.8	>100 476	20	1340
11B	087-98	22.1	>100 442	18	1348
12A	087-78	49.5	>100 990	112	1403
12B	087-99	41.3	>100 826	17	1410
13A	087-74	0.1	3	0	1414
13B	087-100	39.1	>100 782	27	1420
14A	087-75	0.3	8	0	1424
14B	087-101	2.1	42%	0	1430
15A	088-111	1.1	25	0	1435
15B	088-114	0.0	0	0	1444
16A	088-112	0.0	0	0	1450
16B	088-115	0.0	0	0	1458
17A	088-113	0.0	0	0	1505
17B	088-116	0.0	0	0	1515 water
18A	087-76	0.0	0	0	1525
18B	087-102	0.0	0	0	Water 1532
19A	087-77	28.5	> 570	0	1539
19B	087-103	27.2	> 544	0	1541

70° 73% humidity Cullent Landfill (56)

Cal check of Gem 2000 29.88" 9/27/11 → 9/28/11

Location	Well ID	CH4%	LEL%	H2S PPM	Time/comment
GSGM 1A	NO ID	0.0	0	0	0830
1B	↓	0.0	0	0	0835
1C		0.0	0	0	0845
2A		0.0	0	0	0853
2B		0.0	0	0	0859
2C		0.0	0	0	0910
3A		0.0	0	0	0915
3B		0.0	0	0	0925
4A		0.0	0	0	1544 9/27
4B	↓	0.0	0	0	1555 ↓

[illegible]

30.03" Hg Jim Millman (57)

12/15/11 52° Cal check of Gem 2000

Cullent Landfill

Location	Well ID	CH4%	LEL%	H2S PPM	Time/comment
SGM-1A	087-62	15.2	>100 304	4	0855
1B	087-78	14.6	>100 292	3	0901
1C	087-79	12.7	>100 254	1	0911
2A	087-63	17.3	>100 346	1	0905
2B	087-80	51.8	>100 1036	27	0912
2C	087-81	56.8	>100 1136	4	0921
3A	087-64	25.2	>100 504	10	0926
3B	087-82	50.0	>100 1000	20	0922
3C	087-83	48.3	>100 966	39	0927 / 0928
4A	087-65	24.4	>100 488	0	0928
4B	087-84	32.5	>100 650	10	0932
4C	087-85	29.2	>100 584	5	0942
5A	087-66	36.3	>100 726	1	0950
5B	087-86	31.1	>100 622	7	0957
5C	087-87	25.1	>100 502	4	1007
6A	087-67	31.1	>100 622	0	1015
6B	087-88	33.8	>100 676	9	1025
6C	087-89	32.8	>100 656	5	1039
7A	087-68	0.0	0	0	1042
7B	087-90	0.0	0	0	1049
7C	087-91	0.0	0	0	1051
8A	087-69	0.0	0	0	1053
8B	087-92	0.0	0	0	1056
8C	087-93	0.0	0	0	1059

(7A–8C bracketed: Solar [illegible])

- 12/15/11 → 12/16/11 Current Landfill J. Milligan

Location	Well ID	CH4%	LEL %	H2S PPM	Comment
SGM-9A	087-70	0.0	0	0	1310
9B	087-94	0.0	0	0	1315
9C	087-95	0.0	0	0	1326
10A	087-71	18.0	>100 360	5	1329
10B	087-96	16.6	>100 332	7	1334
10C	087-97	14.8	>100 296	7	1343
11A	087-72	19.8	>100 396	5	1347
11B	087-98	15.2	>100 304	1	1359
12A	087-73	55.0	>100 1100	100	1410
12B	087-99	44.7	>100 894	3	1416
13A	087-74	0.0	0	0	1400
13B	087-100	0.0	0	0	1410 12/16/11
14A	087-75	0.0	0	0	1415
14B	087-101	0.0	0	0	1428
15A	088-111	0.0	0	0	1439
15B	088-114	0.0	0	0	1444
16A	088-112	0.0	0	0	1455
16B	088-115	0.0	0	0	1308
17A	088-113	0.0	0	0	1312 Water in pipe
17B	088-116	0.0	0	0	1320 Water in pipe
18A	087-76	0.0	0	0	1330 Water
18B	087-102	0.1	2	0	1339 Water
19A	087-77	21.4	>100 428	3	1345
19B	087-103	0.8	0	0	1332

12/16/11 Current Landfill
Calibrate of Gem 2000 - J. Milligan

Location	Well ID	CH4%	LEL %	H2S PPM	Comment
GSGM 1A	No ID	0.0	0	0	1425
1B	↓	0.0	0	0	1430
1C	↓	0.0	0	0	1435
2A	↓	0.0	0	0	1440
2B	↓	0.0	0	0	1448
2C	↓	0.0	0	0	1455
3A	↓	0.0	0	0	1506
3B	↓	0.0	0	0	1518
4A	↓	0.0	0	0	1525
4B	↓	0.0	0	0	1533

J. Milligan 12/16/11

Cal check of Gem 2000

(23) 6/1/11 78° 57% 29.79 "Hg

J. Milligan

Former Landfill

Location	well ID	CH4%	LEL%	H2S ppm	Time/Comments
SGM-1A	096-41	0.0	0	0	0900
-1B	096-42	0.0	0	0	0906
-2A	096-43	0.0	0	0	0916
-2B	096-44	0.0	0	0	0925
-3A	096-45	0.0	0	0	0934
-3B	096-46	0.0	0	0	0945
-4A	096-47	0.0	0	0	0955
-4B	096-48	0.0	0	0	1008
-5A	097-50	0.0	0	0	1012
-5B	097-51	0.0	0	0	1024
-6A	097-52	0.0	0	0	1030
-6B	097-53	0.0	0	0	1036
-7A	097-54	0.0	0	0	1046
-7B	097-55	0.0	0	0	1052
-8A	097-56	0.0	0	0	1059
-8B	097-57	0.0	0	0	1106
-9A	097-58	0.0	0	0	1110
-9B	097-59	0.0	0	0	1116

Cal check of Gem 2000

(24) 6/7/11 J. Milligan

Former Landfill

Location	well ID	CH4%	LEL%	H2S ppm	Time/Comments
SGM-10A	097-60	0.0	0	0	1120
-10B	097-61	0.0	0	0	1130
-11A	097-62	0.0	0	0	1140
-11B	097-63	0.0	0	0	1150
-12A	096-49	0.0	0	0	1158
-12B	096-50	0.0	0	0	1210

JM

Jim Milligan

(25) 12/13/11 Calibration Check of Gem 2000

41° Sunny

30.08" Hg

Former Landfill

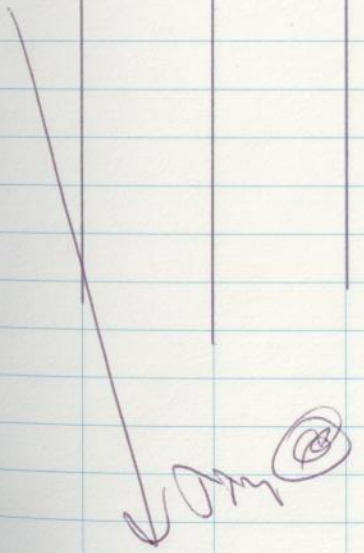
Location	Well ID	CH4 %	LEL %	H2S ppm	Time / Comments
SGM 1A	096-41	0.0	0	0	1050
1B	096-42	0.0	0	0	1055
2A	096-43	0.0	0	0	1100
2B	096-44	0.0	0	0	1106
3A	096-45	0.0	0	0	1110
3B	096-46	0.0	0	0	1115
4A	096-47	0.0	0	0	1120
4B	096-48	0.0	0	0	1135
5A	097-50	0.0	0	0	1306
5B	097-51	0.0	0	0	1315
6A	097-52	0.0	0	0	1325
6B	097-53	0.0	0	0	1335
7A	097-54	0.0	0	0	1342
7B	097-55	0.0	0	0	1347
8A	097-56	0.0	0	0	1355
8B	097-57	0.0	0	0	1400
9A	097-58	0.0	0	0	1406
9B	097-59	0.0	0	0	1412

Jim Milligan

(26) 12/13/11 Cal Check of Gem 2000

Former Landfill

Location	Well ID	CH4 %	LEL %	H2S ppm	Time / Comments
SGM -10A	097-60	0.0	0	0	1417
-10B	097-61	0.0	0	0	1424
-11A	097-62	0.0	0	0	1427
-11B	097-63	0.0	0	0	1435
-12A	096-49	0.0	0	0	1442
-12B	096-50	0.0	0	0	1455



Appendix B

Monthly Landfill Site Inspection Forms

BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 1-25-11

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

Time on Site:

Time off Site:

Weather Conditions: Cold

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: All

Observed Conditions: Snow covering majority of areas, but everything looks OK

Recommendations:

BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 2-16-11

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

Time on Site:

Time off Site:

Weather Conditions: Cold

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: Snow + Ice covering most areas, but everything looks fine

Recommendations:

BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 3-30-11

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	✓				✓
	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: NONE

1. Location:

Observed Conditions:

Recommendations:

BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): ERIC KRAMER

Date of Inspection: 4-26-11

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

Time on Site: _____

Time off Site: _____

Weather Conditions: _____

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: ~~None~~

1. Location: _____

Observed Conditions: Some small tree seedlings growing in various locations

Recommendations: Continue to monitor and eventually have seedlings removed.

BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): ERIC KRAMER

Date of Inspection: 5-26-11

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				X
	Crushed-Concrete Access Road	X				X

B. Description of Further Action Requirements: NONE

1. Location: _____

Observed Conditions: _____

Recommendations: _____

BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kraner

Date of Inspection: 6-23-11

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				X
	Crushed-Concrete Access Road	X				X

B. Description of Further Action Requirements:

1. Location: Cap - Some Vegetation Growth
Observed Conditions: _____

Recommendations: Continue to Monitor

BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 7-14-11

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				X
	Crushed-Concrete Access Road	X				X

B. Description of Further Action Requirements:

1. Location: Cap - Some Vegetation Growth
Observed Conditions:

Recommendations: Continue to Monitor

BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 8-16-11

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

Time on Site: _____

Time off Site: _____

Weather Conditions: _____

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			/
	Crushed-Concrete Access Road	X				X

B. **Description of Further Action Requirements:**

1. Location: Cap - Some Vegetation Growth

Observed Conditions: _____

Recommendations: Continue to Monitor Vegetation

BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 9-20-11

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

Time on Site:

Time off Site:

Weather Conditions:

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					
	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: CAP - Some Vegetation Growth, Drainage Structures: Vegetation
Observed Conditions:

Recommendations: Continue to Monitor

BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 10-12-11
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				X
	Crushed-Concrete Access Road	X				X

B. Description of Further Action Requirements:

1. Location: Cap, Drains - Some Vegetation Growth
Observed Conditions:

Recommendations: PUT IN WORK ORder For Vegetation Removal

BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 11-21-11

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					
	Crushed-Concrete Access Road	X				X

B. Description of Further Action Requirements:

1. Location: Cap, Drains - Vegetation Growth
Observed Conditions:

Recommendations: Work Order was put in for Vegetation Removal

BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 12-13-11

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
3.0	**Monitoring System:**					
	Soil Gas Wells	X				X
	Groundwater Wells	X				X
4.0	**Site Access:**					
	Asphalt Access Road					
	Crushed-Concrete Access Road	X				X

B. Description of Further Action Requirements:

1. Location: Cap Drains - Vegetation Growth
Observed Conditions:

Recommendations: Work order in for Vegetation Removal

BROOKHAVEN NATIONAL LABORATORY
CURRENT LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 1-25-18

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

Time on Site: _____

Time off Site: _____

Weather Conditions: Cold

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:

Location: All

Observed Conditions: Snow Covering MAJority of Areas, but Everything Looks OK

Recommendations:

BROOKHAVEN NATIONAL LABORATORY
CURRENT LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 2-16-11

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

Time on Site: ___ ___

Time off Site: ___ ___

Weather Conditions: Cold

A. Inspection Checklist

	Component	Observed Condition: Excellent	Fair	Poor	Further Action Required: 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:

Location: All

Observed Conditions: Snow & Ice on most surfaces, otherwise everything OK

Recommendations:

BROOKHAVEN NATIONAL LABORATORY
CURRENT LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 2-30-11

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
	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:

Location: Asphalt Roads

Observed Conditions: Cracking, Some Vegetation Growth

Recommendations: Continue Monitoring

BROOKHAVEN NATIONAL LABORATORY
CURRENT LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 4-21-11
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					
	Manholes	X				X
	Recharge Areas	X				X
		X				X
3	**Monitoring System:**					
	Soil Gas Wells					
	Groundwater Wells	X				X
		X				X
4.0	**Site Access:**					
	Asphalt Access Road		X			
	Crushed-Concrete Access Road		X			

B. Description of Further Action Requirements:

Location: Asphalt Roads
Observed Conditions: Cracking, Minor Vegetation Growth
Animal Burrows on East Slope

Recommendations: Continue to Monitor. Have EDO fill in animal burrows

BROOKHAVEN NATIONAL LABORATORY
CURRENT LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): ERIC KRAMER

Date of Inspection: 5-26-11

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			X
	Crushed-Concrete Access Road		X			X

B. Description of Further Action Requirements:

1. Location: Asphalt

Observed Conditions: Some Cracking & Some Vegetation Growth

Recommendations: Continue Monitoring

BROOKHAVEN NATIONAL LABORATORY
CURRENT LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): ERIC KRAMER

Date of Inspection: 6-22-11

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					
	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			

B. Description of Further Action Requirements:

1. Location: Asphalt Roadways

Observed Conditions: Cracking w/ Some Vegetation Growth

Recommendations: Continue to Monitor

BROOKHAVEN NATIONAL LABORATORY
CURRENT LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 7-14-11

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	X				X
	Recharge Areas	X				X
		X				X
	Monitoring System:					
	Soil Gas Wells					
	Groundwater Wells	X				X
		X				X
4.0	**Site Access:**					
	Asphalt Access Road		X			X
	Crushed-Concrete Access Road	X				X

B. Description of Further Action Requirements:

Location: Asphalt Roads

Observed Conditions: Some Cracking and Vegetation Growth

Recommendations: Continue to Monitor

BROOKHAVEN NATIONAL LABORATORY
CURRENT LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 8-16-11

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
	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 Roads

Observed Conditions: Some Cracking & Vegetation Growth

Recommendations: Continue to Monitor

BROOKHAVEN NATIONAL LABORATORY
CURRENT LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 9-20-11

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			X
	Crushed-Concrete Access Road	X				X

B. Description of Further Action Requirements:

1. Location: Asphalt Roads

Observed Conditions: Some Cracking & Vegetation Growth

Recommendations: Continue to Monitor

BROOKHAVEN NATIONAL LABORATORY
CURRENT LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 10-12-11

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			
	Cap	X				
	Gas Vents	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				
	Monitoring System:					
	Soil Gas Wells					
	Groundwater Wells	X				
		X				
4.0	**Site Access:**					
	Asphalt Access Road					
	Crushed-Concrete Access Road		X			
		X				

B. Description of Further Action Requirements:

1. Location: Asphalt Roads, Drainage

Observed Conditions: Some Cracking & Vegetation Growth, Grass needs to be CUT

Recommendations: Continue to Monitor Cracking. Put in Work order for Vegetation Removal and for Cutting of Grass

BROOKHAVEN NATIONAL LABORATORY
CURRENT LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 11-21-11
Purpose of Inspection: X Routine ___ Heavy Rainfall ___ Reported Incident
Time on Site: _____ _____
Time off Site: _____ _____
Weather Conditions: _____

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
	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: Cap, Drainage, Asphalt Roads
Observed Conditions: Some Cracking on Asphalt Roads. Vegetation Growth in Some Areas.
Recommendations: Monitor Cracks. Work order was put in For Vegetation Removal.

BROOKHAVEN NATIONAL LABORATORY
CURRENT LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 12-13-11

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

Time on Site: _____

Time off Site: _____

Weather Conditions: _____

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: Asphalt Road, Drainage

Observed Conditions: Some Cracking & Vegetation Growth on Road is
Some Vegetation Growth in Drainage Channels

Recommendations: Work Order in for Vegetation Removal
Continue to Monitor the Cracks in Asphalt Road

BROOKHAVEN NATIONAL LABORATORY
LTRA SITE INSPECTION FORM

Location (AOC): Current Landfill and Wooded Wetland
Date of Inspection: 4/6/11
Name of Inspector(s): R. Howe, D. Hanley, J. Burke, V. Racaniello, T. Green, 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 last fall	X
Soil (Cap/Cover/Fill)		X			Fill old burrows	
Other: _____						
2. Drainage Structures:						
Standing Water	X				Water in Wood Wetland	X
Toe Drain	X					X
Drainage Channels	X					X
French Drains/Outfalls				X		X
Subsurface Drainage Pipes/Outfalls	X					X
Manholes				X		X
Berms				X		X
Roof Drains				X		X
Recharge Areas				X	Inaccessible due to BP construction	X
Other: _____						
3. Monitoring System:						
Soil Gas Wells	X				Remove leaning tree	
Groundwater Wells	X					X
Gas Vents	X					X
Other: __						
4. Site Access:						
Asphalt Access Road	X					X
Crushed-concrete Access Road	X					X
Fence	X					X
Gates/locks	X				Rehung sign off SE gate	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: _ The Groundwater Protection Group (GPG) is aware of the work by BP on the adjacent solar farm .

B. Description of Other Observations

Observed Conditions/Recommendations: Have Facilities and Operations (F&O) fill in old animal burrows on east slope, and remove dead tree hung-up above soil gas well on north side of landfill. LUIC access sign found on ground near the SE gate was rehung at the time of inspection. Wooded wetlands look fine with significant standing water. LUIC Factsheet Changes: Current Landfill, Under Remedial Action and Engineered Controls, revise to say …impermeable geomembrane "and geotextile" fabric… Under Current Conditions, mention the improvement in groundwater quality.

BROOKHAVEN NATIONAL LABORATORY
LTRA SITE INSPECTION FORM

Location (AOC): Current Landfill and Wooded Wetland
Date of Inspection: 10/5/11
Name of Inspector(s): R. Howe, D. Hanley, J. Burke, V. Racaniello, E. Kramer, A. Steinhauff
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 needs cutting	
Soil (Cap/Cover/Fill)		X			No burrows observed	X
Other: _____						
2. Drainage Structures:						
Standing Water	X				Water in Wood Wetland	X
Toe Drain	X					X
Drainage Channels	X					X
French Drains/Outfalls				X		X
Subsurface Drainage Pipes/Outfalls	X					X
Manholes				X		X
Berms				X		X
Roof Drains				X		X
Recharge Areas				X	Standing water in basin	X
Other: _____						
3. Monitoring System:						
Soil Gas Wells	X					X
Groundwater Wells	X					X
Gas Vents	X					X
Other: __						
4. Site Access:						
Asphalt Access Road	X					X
Crushed-concrete Access Road	X					X
Fence	X					X
Gates/locks	X				Signs posted	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: _ The Groundwater Protection Group (GPG) is aware of the work by BP on the adjacent solar farm .

B. Description of Other Observations

Observed Conditions/Recommendations: Have Facilities and Operations (F&O) cut the grass, remove small pine seedling on edge of cap, remove weeds in culverts, and dispose of old plastic pipe by the main gate. Following grass cutting, fill in any animal burrows observed. Recharge basin has standing water due to silt buildup from BP solar farm construction run-off. Continue to monitor conditions, and take actions if water doesn't recharge. Wooded wetlands look fine with significant standing water. LUIC Factsheet Changes: Current Landfill, Under Remedial Action and Engineered Controls, revise to say …impermeable geomembrane "and geotextile" fabric… Under Current Conditions, mention the improvement in groundwater quality.

BROOKHAVEN NATIONAL LABORATORY
LTRA SITE INSPECTION FORM

Location (AOC): Former Landfill Area (includes the former and interim landfills and slit trench)
Date of Inspection: 4/5/11
Name of Inspector(s): R. Howe, J. Burke, E. Kramer, D. Hanley, K. Conkling, J. Young, 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				Good cover	X
Soil (Cap/Cover/Fill)	X				Repair ruts in NW area of FLF	
Other: _____						
2. Drainage Structures:						
Standing Water	X				FLF top spongy in places	X
Toe Drain	X					X
Drainage Channels		X			Remove small pines	
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 pine growth	X
Other: _____						
3. Monitoring System:						
Soil Gas Wells	X					X
Groundwater Wells	X					X
Gas Vents	X					X
Other: Stairs_____		X			Repair railing	
4. Site Access:						
Asphalt Access Road	X					X
Crushed-concrete Access Road	X					X
Fence				X		X
Gates/locks				X		X
Radiological Postings				X		X
Other: LUIC Signs	X				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: Grass still low from fall 2010 cutting. One fresh animal burrow on west side of former landfill filled in at time of inspection. Have Facilities and Operations (F&O) remove small pine seedlings on west edge of former landfill, in the western drainage channels, and on edge of slit trench. Portions of the top of the former landfill were moist due to recent rains, therefore do not cut until it dries out. Fresh tire ruts were observed on the northwest portion of the former landfill. Have F&O fill them in and repair the railing for the stairs. Remove debris in drainage channel of Slit Trench. LUIC Factsheet Changes: Under Current Conditions, 3rd sentence, modify to reflect that groundwater downgradient of the former landfill has significantly improved over the last 15 years. Under Land Use Classification, first bullet, revise to say, Industrial and residential uses of the site are "restricted" due to buried contaminated materials. Add web link for OU I ROD. Pics taken 4/6/11.

BROOKHAVEN NATIONAL LABORATORY
LTRA SITE INSPECTION FORM

Location (AOC): Former Landfill Area (includes the former and interim landfills and slit trench)
Date of Inspection: 10/6/11
Name of Inspector(s): R. Howe, J. Burke, E. Kramer, D. Hanley, K. Conkling, J. Young, K. Schwager, W. Dorsch
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				Cut grass, remove pine	
Soil (Cap/Cover/Fill)	X				Filled-in animal burrow	X
Other: _____						
2. Drainage Structures:						
Standing Water	X					X
Toe Drain	X					X
Drainage Channels		X			Remove pines/weeds	
French Drains/Outfalls	X					X
Subsurface Drainage Pipes/Outfalls	X					X
Manholes				X		X
Berms				X		X
Roof Drains				X		X
Recharge Areas	X					X
Other: _____						
3. Monitoring System:						
Soil Gas Wells	X					X
Groundwater Wells	X					X
Gas Vents	X					X
Other: Stairs_____		X			Repair loose railing	
4. Site Access:						
Asphalt Access Road	X					X
Crushed-concrete Access Road	X					X
Fence				X		X
Gates/locks				X		X
Radiological Postings				X		X
Other: LUIC Signs	X				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: Filled-in two animal burrows on west side of former landfill at time of inspection. Have Facilities and Operations (F&O) cut landfill grass, remove small pine seedlings on west edge of former landfill, in the western drainage channels, and on edge of slit trench. Have F&O repair the railing for the stairs. Remove debris in drainage channel of Slit Trench. LUIC Factsheet Changes: Under Current Conditions, 3rd sentence, modify to reflect that groundwater downgradient of the former landfill has significantly improved over the last 15 years. Under Land Use Classification, first bullet, revise to say, Industrial and residential uses of the site are "restricted" due to buried contaminated materials. Add web link for OU I ROD.

Appendix C

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	53	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	11.6	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	1.7	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	8.6	0	0	7.1
SGMW-18B	0.6	0	0	0
SGMW-19A	40.6	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	◇	◇
GSGM-3B	NA	0	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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Current and Former Landfills - Brookhaven National Laboratory

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	24.3	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	38.9	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.

Brookhaven National Laboratory

1998 Landfills Environmental Monitoring Report

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	26.3	28.1	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	25	17.7	1	2	1	2	SGMW-01C
SGMW-02A	67.6	65.3	70.4	61.1	92	3	4	0	SGMW-02A
SGMW-02B	64.1	66	66	54.8	93	6	6	4	SGMW-02B
SGMW-02C	61.6	64.7	65	53.1	11	0	0	0	SGMW-02C
SGMW-03A	20.4	66	79.6	2.5	19	3	2	1	SGMW-03A
SGMW-03B	76.6	74	74	54.1	23	0	0	0	SGMW-03B
SGMW-03C	65.3	65.5	66.3	41.5	4	3	0	1	SGMW-03C
SGMW-04A	11.3	64.2	65	0.4	9	7	4	0	SGMW-04A
SGMW-04B	66.9	65.8	66	36.1	5	4	3	0	SGMW-04B
SGMW-04C	60.6	57.6	57.6	0	17	6	2	0	SGMW-04C
SGMW-05A	48.1	52.4	50	48.9	3	6	5	2	SGMW-05A
SGMW-05B	54	52.1	55.4	47.7	3	4	3	3	SGMW-05B
SGMW-05C	49	50.3	48	41.5	0	3	2	0	SGMW-05C
SGMW-06A	27.3	44.1	38.3	17.6	2	7	6	0	SGMW-06A
SGMW-06B	44.6	46.5	7.8	47.2	15	0	0	1	SGMW-06B
SGMW-06C	46.3	48	5.4	0	0	0	3	0	SGMW-06C
SGMW-07A	2.2	8.9	7.2	0	0	3	4	0	SGMW-07A
SGMW-07B	0	8.6	7	0	0	4	3	0	SGMW-07B
SGMW-07C	4.0	8.5	8.6	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	1.3	0	2	0	0	0	SGMW-09B
SGMW-09C	3	2.7	2.6	0.7	6	2	1	0	SGMW-09C
SGMW-10A	17.9	29.7	30	28.2	0	0	0	0	SGMW-10A
SGMW-10B	23.5	26.4	26.3	26	2	0	0	0	SGMW-10B
SGMW-10C	20.7	24	23	23.7	0	0	0	0	SGMW-10C
SGMW-11A	22.8	31	29.4	17.8	16	0	0	0	SGMW-11A
SGMW-11B	19.9	20	25.3	26.4	0	0	0	0	SGMW-11B
SGMW-12A	53.7	67.2	60.4	33.9	37	2	1	3	SGMW-12A
SGMW-12B	60.3	0.2	3	36.2	11	3	4	0	SGMW-12B
SGMW-13A	7	61.6	59	0	9	0	0	0	SGMW-13A
SGMW-13B	0.1	0.1	0	0	9	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	5	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	37.4	47.2	30.4	6.7	60	0	0	1	SGMW-19A
SGMW-19B	38.7	4	4	12	6	1	1	4	SGMW-19B

Soil Gas Monitoring Well	Methane (% By Volume) February-98	Methane (% By Volume) May-98	Methane (% By Volume) August-98	Methane (% By Volume) December-98
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-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
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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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	18.5	17.9	19.0	390	360	394	0	<> ...	2	SGMW-01A
SGMW-01B	18.6	18.1	18.6	370	382	372	0	<>	3	SGMW-01B
SGMW-01C	17.2	14.2	18.7	344	206	334	0	<>	1	SGMW-01C
SGMW-02A	52.4	52.8	55.8	1048	1052	1116	13	<>	26	SGMW-02A
SGMW-02B	54.4	55	58.7	1088	1100	1134	3	<>	11	SGMW-02B
SGMW-02C	55.3	55.2	57.5	1108	1104	1150	0	<>	3	SGMW-02C
SGMW-03A	59.8	41.5	2.3	1192	830	50	3	<>	1	SGMW-03A
SGMW-03B	61.4	60.3	61.3	1228	1188	1228	0	<>	4	SGMW-03B
SGMW-03C	59.9	59.3	59.5	1198	1086	1190	0	<>	3	SGMW-03C
SGMW-04A	53.6	0	39.1	1070	0	782	0	<>	2	SGMW-04A
SGMW-04B	53.5	53.6	52.8	1070	1070	1056	0	<>	7	SGMW-04B
SGMW-04C	52.4	55.2	48.7	1048	1104	974	2	<>	9	SGMW-04C
SGMW-05A	47.8	51.1	47.4	940	1022	944	0	<>	8	SGMW-05A
SGMW-05B	46	51.5	45	900	1030	884	0	<>	4	SGMW-05B
SGMW-05C	39.7	35	38.3	794	702	766	0	<>	4	SGMW-05C
SGMW-06A	41.1	0.1	38.2	820	2	764	0	<>	2	SGMW-06A
SGMW-06B	43.2	43.2	46.0	862	862	934	0	<>	7	SGMW-06B
SGMW-06C	43.1	0	40.6	862	0	820	0	<>	6	SGMW-06C
SGMW-07A	3.3	0.1	0	66	2	0	0	<>	2	SGMW-07A
SGMW-07B	0.9	0	0	18	0	0	0	<>	2	SGMW-07B
SGMW-07C	4.4	0.17	1.3	88	34	26	0	<>	2	SGMW-07C
SGMW-08A	0	0	0	0	0	0	0	<>	2	SGMW-08A
SGMW-08B	0	0	0	0	0	0	0	<>	2	SGMW-08B
SGMW-08C	0	0	0	0	0	0	0	<>	3	SGMW-08C
SGMW-09A	0	0	0	0	0	0	0	<>	3	SGMW-09A
SGMW-09B	0	0	0	0	0	0	0	<>	3	SGMW-09B
SGMW-09C	0	0	0.1	0	0	2	<>	<>	3	SGMW-09C
SGMW-10A	21.4	16.7	20	428	314	400	1	<>	2	SGMW-10A
SGMW-10B	19.6	26.7	21.1	398	532	420	0	<>	3	SGMW-10B
SGMW-10C	17.8	22.0	16.1	356	464	324	0	<>	3	SGMW-10C
SGMW-11A	16.3	31.2	16.0	366	624	306	0	<>	3	SGMW-11A
SGMW-11B	19.2	25.6	14.8	384	512	294	10	<>	3	SGMW-11B
SGMW-12A	46.8	45.1	47.1	936	902	942	30	<>	0	SGMW-12A
SGMW-12B	44.2	46.5	47.0	884	930	954	5	<>	3	SGMW-12B
SGMW-13A	53.1	0.1	0	1062	2	0	12	<>	0	SGMW-13A
SGMW-13B	0.2	0.2	24.6	4	4	492	0	<>	2	SGMW-13B
SGMW-14A	7.6	6.9	7.1	152	118	142	0	<>	6	SGMW-14A
SGMW-14B	0	22.8	3.4	0	452	68	0	<>	2	SGMW-14B
SGMW-15A	0	1.8	2.8	0	32	56	0	<>	3	SGMW-15A
SGMW-15B	0	0.1	0	0	2	0	0	<>	2	SGMW-15B
SGMW-16A	0	0.1	0	0	2	0	0	<>	2	SGMW-16A
SGMW-16B	0	0.1	0	0	2	0	0	<>	2	SGMW-16B
SGMW-17A	screen in water table	0.1	0	<>	2	0	<>	<>	2	SGMW-17A
SGMW-17B	screen in water table	0.1	0	<>	2	0	<>	<>	2	SGMW-17B
SGMW-18A	0	0.1	0	0	2	0	0	<>	2	SGMW-18A
SGMW-18B	0	1	0.4	0	20	8	0	<>	1	SGMW-18B
SGMW-19A	25.1	23	20.0	502	460	400	16	<>	16	SGMW-19A
SGMW-19B	30.1	27.3	20.5	602	544	410	8	<>	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	GSGM-1A
GSGM-1B	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	<>	2	GSGM-2A
GSGM-2B	0	0	0	0	0	0	0	<>	1	GSGM-2B
GSGM-2C	0	0	0	0	0	0	0	<>	1	GSGM-2C
GSGM-3A	0	0	0	0	0	0	0	<>	0	GSGM-3A
GSGM-3B	0	0	0	0	0	0	0	<>	0	GSGM-3B
GSGM-4A	0	0	0	0	0	0	0	<>	0	GSGM-4A
GSGM-4B	0	0	0	0	0	0	0	<>	0	GSGM-4B

<> No measurement was recorded.

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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	20.6	21.0	19.9	402	410	422	398	0	0	4	0	SGMW-01A
SGMW-01B	19.3	20.3	11.9	14.3	388	408	272	286	1	0	1	0	SGMW-01B
SGMW-01C	17.6	13.7	11.6	15.0	356	276	236	298	0	0	1	0	SGMW-01C
SGMW-02A	46.6	54.0	50	54.4	990	(1060)	(1060)	(1098)	1	3	2	16	SGMW-02A
SGMW-02B	55.1	57.1	50.3	50.2	(1102)	(1142)	(1120)	(1124)	4	20	8	11	SGMW-02B
SGMW-02C	50.0	48.3	50.0	50.0	(1120)	888	(1120)	(1120)	2	0	4	8	SGMW-02C
SGMW-03A	48.3	62.0	64.0	67.0	966	(1250)	(1200)	(1182)	1	0	0	3	SGMW-03A
SGMW-03B	67.0	67.0	60.2	67.4	(1140)	(1340)	(1200)	(1140)	1	4	0	2	SGMW-03B
SGMW-03C	57.3	61.2	62.0	60.7	(1148)	(1224)	(1240)	(1134)	1	4	0	4	SGMW-03C
SGMW-04A	30.7	51.0	2.0	51.8	814	(1030)	52	(1120)	1	4	1	1	SGMW-04A
SGMW-04B	48.8	62.0	48.0	60.0	970	(1060)	972	(1090)	2	2	0	2	SGMW-04B
SGMW-04C	43.0	62.1	43.0	46.2	880	(1042)	958	900	4	0	1	8	SGMW-04C
SGMW-05A	47.7	49.4	47.0	47.2	954	966	950	944	1	0	0	0	SGMW-05A
SGMW-05B	44.0	50.0	40.2	43.0	892	(1000)	904	970	1	0	5	0	SGMW-05B
SGMW-05C	36.7	43.7	40.7	36.7	734	874	814	736	2	1	0	0	SGMW-05C
SGMW-09A	33.0	41.7	18.0	44.0	660	834	370	888	0	4	0	2	SGMW-09A
SGMW-09B	43.0	45.6	49.0	46.0	860	916	966	920	1	2	2	3	SGMW-09B
SGMW-09C	44.3	46.3	33.7	46.8	888	906	874	910	0	1	1	8	SGMW-09C
SGMW-07A	0.3	5.8	0.9	0.0	0	116	18	0	0	0	1	1	SGMW-07A
SGMW-07B	0	0.8	0.0	0.0	0	12	0	0	0	0	1	2	SGMW-07B
SGMW-07C	2.6	3.0	1.8	0.6	62	68	39	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	9.3	28.1	23.7	17.0	188	522	474	340	1	3	2	3	SGMW-10A
SGMW-10B	13.5	21.7	26.1	16.6	270	424	522	318	1	0	2	2	SGMW-10B
SGMW-10C	10.6	19.5	22.2	12.8	212	390	444	256	1	0	2	3	SGMW-10C
SGMW-11A	10.1	27.1	64.8	13.0	202	342	(1080)	272	2	28	10	7	SGMW-11A
SGMW-11B	6.8	28.4	54.3	9.2	136	528	(1086)	184	2	21	2	8	SGMW-11B
SGMW-12A	43.9	60.6	64.4	48.5	878	(1200)	(1280)	930	2	83	2	7	SGMW-12A
SGMW-12B	43.8	46.8	46.1	47.0	852	886	952	940	1	0	0	6	SGMW-12B
SGMW-13A	23.4	57.6	63.6	40.8	468	(1152)	(1270)	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	318	242	1	0	8	7	SGMW-14A
SGMW-14B	0	0	0	23.3	0	0	0	446	1	0	0	31	SGMW-14B
SGMW-15A	2.0	0	1.8	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-19A	0	0	0	0.0	0	0	0	0	1	0	0	3	SGMW-19A
SGMW-19B	0	0	0	0.0	0	0	0	0	0	0	0	2	SGMW-19B
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	0.3	0.0	0	2	8	0	0	0	0	4	SGMW-18B
SGMW-19A	12.6	28.9	34.9	14.2	256	778	880	284	4	2	16	13	SGMW-19A
SGMW-19B	10.7	34.6	32.8	10.8	334	892	860	200	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.

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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	22.2	23.1	18.3	440	462	366	2	11	0
SGMW-01B	2.8	0.0	17.1	434	0	364	4	0	0
SGMW-01C	16.3	20.4	15.3	366	408	306	0	0	0
SGMW-02A	59.6	62.0	57.9	1200	1056	>1,000	140	57	49
SGMW-02B	50.0	0.0	55.0	1108	0	>1,000	101	1	0
SGMW-02C	0.0	0.0	53.2	0	0	>1,000	1	0	0
SGMW-03A	38.0	61.8	62.0	760	1168	>1,000	5	14	43
SGMW-03B	67.2	66.5	64.7	1344	1330	>1,000	28	21	0
SGMW-03C	0.2	0.0	63.6	4	0	>1,000	1	2	0
SGMW-04A	42.0	0.0	61.0	850	78	>1,000	2	4	32
SGMW-04B	50.6	63.0	62.0	1010	1072	>1,000	3	15	14
SGMW-04C	0.0	0.2	60.0	0	4	>1,000	1	2	0
SGMW-05A	46.6	48.2	57.5	912	964	>1,000	3	2	0
SGMW-05B	43.0	0.2	52.0	870	4	>1,000	2	3	0
SGMW-05C	0.0	0.1	48.3	0	2	966	2	3	0
SGMW-06A	18.4	0.2	54.4	368	160	>1,000	3	4	84
SGMW-06B	0.0	0.2	53.0	0	4	>1,000	2	4	5
SGMW-06C	0.0	0.1	52.0	0	2	>1,000	2	3	0
SGMW-07A	0.8	0.1	0.2	12	102	4	4	0	0
SGMW-07B	0	0.3	0.2	0	8	4	2	0	0
SGMW-07C	0.0	0.0	1.1	16	0	24	0	1	0
SGMW-08A	0	0	.2	0	0	4	4	1	0
SGMW-08B	0	0	.3	0	0	4	2	2	0
SGMW-08C	0	0	.3	0	0	8	2	1	0
SGMW-09A	0	.2	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	18.0	20.0	210	338	500	4	2	0
SGMW-10B	11.2	18.9	25.6	224	378	512	2	3	0
SGMW-10C	8.0	13.2	18.0	160	264	370	2	2	0
SGMW-11A	8.8	21.5	28.3	170	430	566	10	43	2
SGMW-11B	6.1	19.3	26.8	122	386	540	0	27	30
SGMW-12A	49.8	53.4	53.7	980	1068	1074	1	95	108
SGMW-12B	44.4	0.2	50.1	886	4	1002	3	0	101
SGMW-13A	16.3	96.1	55.7	328	1302	1114	0	.5	0
SGMW-13A	0.6	.2	0	10	4	0	0	2	0
SGMW-14A	17.4	6.2	7.4	348	124	150	0	4	0
SGMW-14B	0	0	0	0	0	0	0	3	0
SGMW-15A	0.0	.3	0.0	0	0	0	2	4	0
SGMW-15B	0	0	0	0	0	0	2	0	0
SGMW-16A	0	0	0	0	0	0	1	0	0
SGMW-16B	0	0	0	0	0	0	0	4	0
SGMW-17A	0	0	0	0	0	0	0	1	0
SGMW-17B	0	0	0	0	0	0	0	0	0
SGMW-18A	0	0	0	0	0	0	0	1	0
SGMW-18B	0	0	0.0	2	0	0	0	0	0
SGMW-19A	21.0	38.2	20.0	330	764	572	3	200	0
SGMW-19B	20.3	36.8	28.1	400	730	624	6	83	0
GSGM-1A	0	0	0	0	0	0	0	0	0
GSGM-1B	0	0	0	0	0	0	0	0	0
GSGM-1C	0	0	0	0	0	0	0	0	0
GSGM-2A	0	0	0	0	0	0	1	0	0
GSGM-2B	0	0	0	0	0	0	0	0	0
GSGM-2C	0	0	0	0	0	0	1	0	0
GSGM-3A	0	0	0	0	0	0	0	0	0
GSGM-3B	0	0	0	0	0	0	0	0	0
GSGM-4A	0	0	0	0	0	0	1	0	0
GSGM-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	13.6	14.1	9.6	16.0	270	282	182	354	0	7	10	3	SGMW-01A
SGMW-01B	13.7	11.5	8.2	16.9	274	230	164	334	0	1	2	14	SGMW-01B
SGMW-01C	10.8	8.6	5.6	11.0	210	172	110	234	0	1	1	4	SGMW-01C
SGMW-02A	46.0	49.0	48.2	56.6	920	982	964	(1130)	64	132	141	0	SGMW-02A
SGMW-02B	17.1	20.5	24.0	43.2	342	670	662	864	0	2	8	40	SGMW-02B
SGMW-02C	37.5	43.8	62.0	61.7	750	878	(1040)	(1034)	0	24	68	77	SGMW-02C
SGMW-03A	36.5	53.6	64.1	41.4	730	(1072)	(1082)	828	0	148	0	16	SGMW-03A
SGMW-03B	57.0	62.4	69.6	65.0	(1140)	(1248)	(1192)	(1318)	13	18	34	12	SGMW-03B
SGMW-03C	54.1	58.6	58.8	60.0	(1082)	(1172)	(1178)	(1200)	0	0	28	0	SGMW-03C
SGMW-04A	40.6	46.8	50.0	48.1	816	936	(1010)	980	0	1	20	3	SGMW-04A
SGMW-04B	44.6	48.0	51.3	48.2	892	960	(1026)	982	2	11	76	37	SGMW-04B
SGMW-04C	36.5	43.5	44.4	42.5	730	870	888	844	25	30	32	38	SGMW-04C
SGMW-05A	39.1	38.6	38.8	42.5	782	772	776	850	6	44	2	34	SGMW-05A
SGMW-05B	37.4	39.4	42.0	41.2	738	786	840	838	1	13	63	20	SGMW-05B
SGMW-05C	20.0	31.0	31.6	34.2	670	620	632	684	0	10	13	12	SGMW-05C
SGMW-06A	30.7	33.5	40.0	41.5	618	672	800	832	2	3	37	2	SGMW-06A
SGMW-06B	36.1	35.8	40.0	43.1	712	716	812	864	11	22	82	22	SGMW-06B
SGMW-06C	35.3	35.2	38.1	42.6	722	704	782	848	6	18	24	12	SGMW-06C
SGMW-07A	0.2	0.4	0.0	0.0	4	8	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	3	0	0	SGMW-08A
SGMW-08B	0.2	0	0	0.0	4	0	0	0	1	4	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	10.8	15.0	25.9	10.8	212	300	518	338	4	13	1	0	SGMW-10A
SGMW-10B	10.7	14.2	20.0	14.8	214	284	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	8.2	14.8	20.7	17.0	164	208	334	338	0	68	125	20	SGMW-11A
SGMW-11B	6.1	14.5	24.7	16.4	122	290	494	208	1	40	162	10	SGMW-11B
SGMW-12A	37.6	43.0	60.4	48.0	752	860	1008	978	15	0	0	34	SGMW-12A
SGMW-12B	35.8	36.0	46.0	45.0	718	720	920	894	4	13	32	16	SGMW-12B
SGMW-13A	35.5	43.5	47.3	47.9	710	870	946	956	83	158	78	3	SGMW-13A
SGMW-13B	33.7	42.3	46.2	47.1	674	846	924	942	2	4	22	5	SGMW-13B
SGMW-14A	1.0	4.8	2.8	10.6	20	98	56	212	2	2	0	7	SGMW-14A
SGMW-14B	5.6	11.0	10.4	14.8	112	220	208	296	1	3	0	1	SGMW-14B
SGMW-15A	0.1	0	4.0	8.3	2	0	80	168	0	3	4	4	SGMW-15A
SGMW-15B	0.1	0	44.6	16.1	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	0.2	0.0	8	0	4	0	0	3	3	4	SGMW-18B
SGMW-19A	5.8	15.0	28.6	0.0	116	316	570	0	2	121	18	132	SGMW-19A
SGMW-19B	8.5	18.6	31.2	0.0	168	392	624	0	4	32	36	8	SGMW-19B
GSGM-1A	0	0	0	0	0	0	0	0	0	3	1	4	GSGM-1A
GSGM-1B	0	0	0	0	0	0	0	0	0	4	2	2	GSGM-1B
GSGM-1C	0	0	0	0	0	0	0	0	0	3	3	3	GSGM-1C
GSGM-2A	0	0	0	0	0	0	0	0	0	3	1	2	GSGM-2A
GSGM-2B	0	0	0	0	0	0	0	0	0	3	3	2	GSGM-2B
GSGM-2C	0	0	0	0	0	0	0	0	0	4	3	3	GSGM-2C
GSGM-3A	0	0	0	0	0	0	0	0	0	3	3	1	GSGM-3A
GSGM-3B	0	0	0	0	0	0	0	0	0	2	2	0	GSGM-3B
GSGM-4A	0	0	0	0	0	0	0	0	0	4	3	1	GSGM-4A
GSGM-4B	0	0	0	0	0	0	0	0	0	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	17.8	22.1	21.1	21.5	352	444	422	438	2	-	0	-	SGMW-01A
SGMW-01B	18.6	18.2	19.7	19.9	372	374	394	398	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	-	66	-	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	638	0	0	858	0	-	0	-	SGMW-02C
SGMW-03A	28.6	57.0	55.0	0.0	(1102)	(1150)	(1100)	0	10	-	0	-	SGMW-03A
SGMW-03B	60.1	0.0	64.2	11.7	(1078)	0	(1084)	234	23	-	85	-	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	0.4	968	0	10	108	3	-	109	-	SGMW-04A
SGMW-04B	53.0	0.0	0.2	47.0	938	0	4	848	7	-	27	-	SGMW-04B
SGMW-04C	57.6	0.0	0.1	41.5	862	0	2	832	15	-	0	-	SGMW-04C
SGMW-05A	48.3	48.0	54.0	23.4	968	960	(1038)	468	2	-	183	-	SGMW-05A
SGMW-05B	46.9	43.6	53.8	38.8	938	876	(1078)	778	3	-	0	-	SGMW-05B
SGMW-05C	43.1	0.0	41.8	32.3	882	0	838	648	3	-	0	-	SGMW-05C
SGMW-06A	45.3	5.8	15.5	20.7	898	116	318	430	6	-	0	-	SGMW-06A
SGMW-06B	42.9	0.0	0.0	41.6	858	0	0	898	3	-	0	-	SGMW-06B
SGMW-06C	43.6	0.0	0.1	45.1	872	0	2	960	2	-	0	-	SGMW-06C
SGMW-07A	0.0	0.0	0.0	0.0	18	0	0	0	1	-	0	-	SGMW-07A
SGMW-07B	0.0	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	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	27.0	5.8	360	440	558	113	1	-	0	-	SGMW-10A
SGMW-10B	15.0	17.7	22.0	0.0	318	354	448	0	1	-	0	-	SGMW-10B
SGMW-10C	14.0	16.8	18.2	0.0	280	332	364	0	2	-	0	-	SGMW-10C
SGMW-11A	15.6	20.3	0.4	17.7	312	580	8	350	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	58.8	0.3	0.5	1.8	(1010)	6	16	36	6	-	163	-	SGMW-12B
SGMW-13A	30.5	0.0	67.2	60.4	610	0	(1344)	1328	6	-	0	-	SGMW-13A
SGMW-13B	0.0	0.0	0.1	0.0	0	16	2	0	1	-	0	-	SGMW-13B
SGMW-14A	29.4	0.0	0.3	0.0	580	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	1	-	0	-	SGMW-16B
SGMW-17A	0	0	0	0.0	0	0	0	0	1	-	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	41.0	29.1	40.2	27.0	838	582	850	540	0	-	0	-	SGMW-19A
SGMW-19B	44.0	0.7	33.7	20.5	880	14	664	592	20	-	171	-	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	15.6	14.4	0.8	5.0	332	288	136	136	150	2	1	1	SGMW-01A
SGMW-01B	15.6	8.6	6.6	2.5	312	172	170	50	23	0	0	0	SGMW-01B
SGMW-01C	14.0	9.7	4.2	6.1	280	4	84	126	34	0	0	0	SGMW-01C
SGMW-02A	34.5	8.6	35.7	2.1	697	172	754	42	191	0	11	0	SGMW-02A
SGMW-02B	22.7	0.6	17.7	0.0	454	12	754	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	15.7	4.1	0.0	508	304	82	0	0	0	0	0	SGMW-03A
SGMW-03B	57.1	28.0	14.0	0.1	(1042)	560	280	2	0	0	0	0	SGMW-03B
SGMW-03C	51.3	7.3	1.3	0.0	(1026)	146	38	0	0	0	0	0	SGMW-03C
SGMW-04A	37.5	49.1	3.5	1.0	748	987	70	36	0	0	0	0	SGMW-04A
SGMW-04B	41.0	50.7	23.2	14.4	860	(1014)	454	288	0	0	0	0	SGMW-04B
SGMW-04C	36.2	40.9	71.2	14.5	774	818	424	290	0	0	0	0	SGMW-04C
SGMW-05A	30.1	40.0	13.6	3.7	722	800	272	74	150	0	0	0	SGMW-05A
SGMW-05B	35.8	41.4	75.2	13.6	736	828	504	272	0	0	0	0	SGMW-05B
SGMW-05C	79.0	24.0	38.6	13.6	590	480	372	272	0	0	0	0	SGMW-05C
SGMW-06A	31.6	9.7	3.9	1.0	636	194	78	38	0	0	0	0	SGMW-05A
SGMW-06B	40.4	77.4	70.6	0.3	808	548	412	0	0	0	0	0	SGMW-06B
SGMW-06C	42.1	29.8	4.7	13.7	842	596	94	764	0	0	0	0	SGMW-06C
SGMW-07A	0.7	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	0.7	0	0	0.0	4	0	0	0	0	1	0	0	SGMW-09C
SGMW-10A	1.9	16.4	2.0	0.0	38	328	40	0	0	7	0	0	SGMW-10A
SGMW-10B	7.4	16.1	17.0	3.9	48	322	240	78	0	0	0	0	SGMW-10B
SGMW-10C	0.0	14.5	10.0	7.4	0	290	200	18	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	106	0	0	0	SGMW-11B
SGMW-12A	22.5	48.5	9.9	0.0	450	970	196	0	422	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-14A
SGMW-14A	0.0	0.1	0.0	0.0	0	2	0	0	130	0	0	0	SGMW-14B
SGMW-14B	0	0.1	0	2.3	0	2	0	46	122	0	0	0	SGMW-15A
SGMW-15A	0.0	0.1	0.0	0.0	0	2	0	0	0	0	0	0	SGMW-15B
SGMW-15B	0	0	0	5.0	0	0	0	116	0	0	0	0	SGMW-16A
SGMW-16A	0	0.1	0	0.0	0	2	0	0	0	0	0	0	SGMW-16B
SGMW-16B	0	0	0	0.0	0	0	0	0	0	0	0	0	SGMW-17A
SGMW-17A	0	0	0	0.0	0	0	0	0	0	0	0	0	SGMW-17B
SGMW-17B	0	0	0	0.0	0	0	0	0	0	0	0	0	SGMW-18A
SGMW-18A	0	0	0	0.0	0	0	0	0	0	0	0	0	SGMW-18B
SGMW-18B	0	0	0.0	0.0	0	0	0	0	0	0	0	0	SGMW-19A
SGMW-19A	6.0	75.7	75.9	13.8	120	934	518	260	0	0	0	0	SGMW-19B
SGMW-19B	5.4	30.0	27.7	9.2	116	600	554	184	0	0	0	0	GSGM-1A
GSGM-1A	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-1B
GSGM-1B	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-1C
GSGM-1C	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-2A
GSGM-2A	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-2B
GSGM-2B	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-2C
GSGM-2C	0	0	0	0	0	0	0	0	0	1	0	0	GSGM-3A
GSGM-3A	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-3B
GSGM-3B	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-4A
GSGM-4A	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-4B
GSGM-4B	0	0	0	0	0	0	0	0	0	0	0	0	

Measurements in ( ) are calculated, not measured.
+75 rod suspected of not operating correctly in 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	0.8	5.4	5	6.7	176	108	100	134	1	3	2	2	SGMW-01A
SGMW-01B	3.0	7.0	3	3.8	60	58	60	76	0	0	0	0	SGMW-01B
SGMW-01C	7.5	5.6	5.5	8.1	150	117	110	122	1	0	0	0	SGMW-01C
SGMW-02A	0.3	13.7	1.7	3.0	6	274	34	80	0	0	0	1	SGMW-02A
SGMW-02B	0.2	0.1	27.2	12.4	4	14	544	248	1	0	0	3	SGMW-02B
SGMW-02C	0.3	0.1	24.7	0.0	6	7	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	0.6	2.5	47.6	11.0	10	50	957	220	1	0	7	1	SGMW-03B
SGMW-03C	0.1	0.2	39.0	0.0	2	4	780	0	0	0	1	0	SGMW-03C
SGMW-04A	0.7	10.7	46.2	6.3	4	214	924	186	0	1	0	0	SGMW-04A
SGMW-04B	6.5	25.1	47.4	18.0	130	507	948	360	0	0	1	1	SGMW-04B
SGMW-04C	6.3	0.2	30.7	14.1	120	4	764	282	0	0	2	2	SGMW-04C
SGMW-05A	0.7	14.3	36.6	10.7	14	286	732	204	1	1	1	1	SGMW-05A
SGMW-05B	13.4	21.1	24.6	22.8	268	422	692	456	0	1	0	0	SGMW-05B
SGMW-05C	9.7	18.8	27.3	18.3	184	376	546	366	0	1	0	0	SGMW-05C
SGMW-06A	0.2	2.4	29.7	0.1	4	48	594	192	1	1	0	0	SGMW-06A
SGMW-06B	7.7	24.4	29.7	18.8	154	486	594	338	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	0.7	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	0.7	6.0	17.2	0.0	4	120	344	0	0	1	20	0	SGMW-11A
SGMW-11B	0.2	13.7	19.6	0.0	4	264	392	0	1	1	4	0	SGMW-11B
SGMW-12A	0.2	3.0	40.1	4.0	4	78	802	80	0	0	51	1	SGMW-12A
SGMW-12B	0.1	0.8	25.7	0.0	2	18	514	0	0	0	0	0	SGMW-12B
SGMW-13A	0.1	0.2	0.1	0.0	2	124	2	0	0	1	1	0	SGMW-13A
SGMW-13B	0.7	.4	0	0.0	4	8	4	0	0	2	1	0	SGMW-13B
SGMW-14A	0.3	0.1	5.0	0.1	6	2	117	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	1	SGMW-18B
SGMW-19A	5.8	8.3	29.7	15.7	112	126	584	314	0	1	20	2	SGMW-19A
SGMW-19B	0.0	0.0	31.0	0.1	0	0	638	182	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	0	0	0	GSGM-3A
GSGM-3B	0	0	0	0	0	0	0	0	0	1	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) 9/26/06	Methane (% By Volume) 12/27/06	LEL (% By Volume) 2/24/06	LEL (% By Volume) 6/23/06	LEL (% By Volume) 9/26/06	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) 9/26/06	Hydrogen Sulfide (ppm by volume) 12/27/06	Soil Gas Monitoring Well
SGMW-01A	8.6	11.9	12.9	11.1	174.0	736	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	13.8	18.1	48.9	1.4	782.0	362	938	28	0	0	0	0	SGMW-02A
SGMW-02B	5.8	12.9	33.4	0.2	142.0	256	668	4	0	0	27	0	SGMW-02B
SGMW-02C	0.0	0.0	30.5	0.3	0	16	610	6	0	0	0	0	SGMW-02C
SGMW-03A	15.3	26.5	27.0	0.2	380.0	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	48.6	0.0	200.0	632	972	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	0	0	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	0.1	0.0	0	0	0	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	19.0	0.0	0	240	380	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	21.9	340	348	332	478	0	0	2	5	SGMW-19A
SGMW-19B	1.7	9.4	10.0	0.0	32	188	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	116.0	32	0.0	1.0	1.0	0.0	SGMW-01B
SGMW-01C	5.9	0.0	5.5	2.0	118	0	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	30.6	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	0.6	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	0.0	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	8.1	27.5	0.0	0.0	172	550	0.0	0.0	2.0	0.0	SGMW-12B
SGMW-13A	0.0	0.0	0.0	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	20.0	0.0	SGMW-19A
SGMW-19B	1.0	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	8.6	11.7	220	96	176	224	1	2	2	0	SGMW-01A
SGMW-01B	9.9	2.5	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	188	112	124	196	0	0	0	4	SGMW-01C
SGMW-02A	34.2	39.1	42.5	37.3	660	780	850	746	11	16	9	0	SGMW-02A
SGMW-02B	3.1	47.2	45	44.1	62	944	900	886	1	17	20	19	SGMW-02B
SGMW-02C	3.7	49.9	52.5	53.1	64	998	1050	1066	1	1	1	3	SGMW-02C
SGMW-03A	13.7	49.1	44	30	264	950	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	46.3	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	18	20	6	SGMW-04B
SGMW-04C	32.7	40.1	45.8	36.1	654	756	916	722	2	0	1	1	SGMW-04C
SGMW-05A	30	36.5	43.7	38.6	600	728	874	776	4	12	5	4	SGMW-05A
SGMW-05B	30.7	35.6	39.7	36.1	614	706	794	722	3	2	6	1	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	8	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	0.7	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	0.1	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	0.1	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	0.1	0	0	0	6	0	0	0	0	0	0	SGMW-09C
SGMW-10A	0	12.2	22.5	6.4	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	6	2	SGMW-10B
SGMW-10C	0	8.4	15.7	8.3	0	92	314	166	0	0	13	7	SGMW-10C
SGMW-11A	4	14.9	23	11.9	80	300	460	238	5	23	2	4	SGMW-11A
SGMW-11B	2.1	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	12.4	0	290	154	248	312	11	3	30	1	SGMW-19A
SGMW-19B	11.5	8.2	26	0	230	164	520	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	46.8	55.2	40.2	10.6	>100	>100	>100	>100	6	18	0	0	SGMW-02B
SGMW-02C	50.6	57.6	56.5	59.3	>100	>100	>100	>100	1	7	0	0	SGMW-02C
SGMW-03A	28.9	31.8	27.0	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	46.3	>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	38.6	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	38.6	>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

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

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

<> Well SGM07 was not accessible

Brookhaven National Laboratory
1999 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	<>	1	SGMW-01A
SGMW-01B	0	0	0	0	0	0	0	<>	0	SGMW-01B
SGMW-02A	0	0	0	0	0	0	0	<>	0	SGMW-02A
SGMW-02B	0	0	0	0	0	0	0	<>	0	SGMW-02B
SGMW-03A	0	0	0	0	0	0	0	<>	0	SGMW-03A
SGMW-03B	0.1	0	0	2	0	0	0	<>	0	SGMW-03B
SGMW-04A	0	0	0	0	0	0	0	<>	0	SGMW-04A
SGMW-04B	0	0	0	0	0	0	0	<>	0	SGMW-04B
SGMW-05A	0	0	0	0	0	0	0	<>	3	SGMW-05A
SGMW-05B	0	0	0	0	0	0	0	<>	0	SGMW-05B
SGMW-06A	0	0	0	0	0	0	0	<>	1	SGMW-06A
SGMW-06B	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	SGMW-08A
SGMW-08B	0	0	0	0	0	0	0	<>	0	SGMW-08B
SGMW-09A	0	0	0	0	0	0	0	<>	0	SGMW-09A
SGMW-09B	0	0	0	0	0	0	0	<>	0	SGMW-09B
SGMW-10A	0	0	0	0	0	0	1	<>	0	SGMW-10A
SGMW-10B	0	0	0	0	0	0	0	<>	0	SGMW-10B
SGMW-11A	0	0	0	0	0	0	1	<>	0	SGMW-11A
SGMW-11B	0	0	0	0	0	0	0	<>	0	SGMW-11B
SGMW-12A	0	0	0	0	0	0	0	<>	0	SGMW-12A
SGMW-12B	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

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	0	0	0	0	0	0	0	0	2	5	1	1	SGMW-01A
SGMW-01B	0	0	0	0	0	0	0	0	0	0	2	2	SGMW-01B
SGMW-02A	0	0	0	0	0	0	0	0	2	0	2	2	SGMW-02A
SGMW-02B	0	0	0	0	0	0	0	0	0	0	0	1	SGMW-02B
SGMW-03A	0	0	0	0	0	0	0	0	0	1	2	2	SGMW-03A
SGMW-03B	0	0	0	0	0	0	0	0	0	0	1	2	SGMW-03B
SGMW-04A	0	0	0	0	0	0	0	0	0	0	1	3	SGMW-04A
SGMW-04B	0	0	0	0	0	0	0	0	0	0	1	4	SGMW-04B
SGMW-05A	0	0	0	0	0	0	0	0	1	1	1	4	SGMW-05A
SGMW-05B	0	0	0	0	0	0	0	0	0	0	2	3	SGMW-05B
SGMW-06A	0	0	0	0	0	0	0	0	0	0	0	4	SGMW-06A
SGMW-06B	0	0	0	0	0	<5	0	0	0	<5	1	4	SGMW-06B
SGMW-07A	0	<5	0	0	0	<5	0	0	0	<5	1	6	SGMW-07A
SGMW-07B	0	<5	0	0	0	<5	0	0	0	<5	0	0	SGMW-07B
SGMW-08A	0	<5	0	0	0	<5	0	0	0	<5	0	3	SGMW-08A
SGMW-08B	0	<5	0	0	0	<5	0	0	0	<5	0	4	SGMW-08B
SGMW-09A	0	<5	0	0	0	<5	0	0	0	2	1	8	SGMW-09A
SGMW-09B	0	0	0	0	0	0	0	0	0	1	2	4	SGMW-09B
SGMW-10A	0	0	0	0	0	0	0	0	0	0	1	6	SGMW-10A
SGMW-10B	0	0	0	0	0	0	0	0	0	0	0	5	SGMW-10B
SGMW-11A	0	0	0	0	0	0	0	0	0	1	0	5	SGMW-11A
SGMW-11B	0	0	0	0	0	0	0	0	0	0	1	4	SGMW-11B
SGMW-12A	0	0	0	0	0	0	0	0	2	1	1	3	SGMW-12A
SGMW-12B	0	0	0	0	0	0	0	0	2	0	1	2	SGMW-12B

No Measurement 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 onitoring 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	0	0	0	0	0	0	3	N/A	1
SGMW-01B	0	0	0	0	0	0	3	N/A	1
SGMW-02A	0	0	0.1	0	0	0.2	4	N/A	2
SGMW-02B	0	0	0	0	0	0	5	N/A	2
SGMW-03A	0	0	0.1	0	0	0.2	4	N/A	3
SGMW-03B	0	0	0.1	0	0	0.2	4	N/A	2
SGMW-04A	0	0	0	0	0	0	5	N/A	0
SGMW-04B	0	0	0	0	0	0	5	N/A	0
SGMW-05A	0	0	0	0	0	0	6	N/A	0
SGMW-05B	0	0	0	0	0	0	5	N/A	0
SGMW-06A	0	0	0	0	<>	0	6	N/A	0
SGMW-06B	0	0	0	0	<>	0	5	N/A	0
SGMW-07A	0	0	0	0	<>	0	5	N/A	0
SGMW-07B	0	0	0	0	<>	0	6	N/A	0
GMW-08A	0	0	0	0	<>	0	7	N/A	0
GMW-08B	0	0	0	0	<>	0	6	N/A	0
GMW-09A	0	0	0	0	0	0	3	N/A	0
GMW-09B	0	0	0	0	0	0	6	N/A	0
GMW-10A	0	0	0	0	0	0	6	N/A	0
GMW-10B	0	0	0	0	0	0	7	N/A	0
GMW-11A	0	0	0	0	0	0	4	N/A	0
GMW-11B	0	0	0	0	0	0	6	N/A	0
GMW-12A	0	0	0	0	0	0	7	N/A	0
GMW-12B	0	0	0	0	0	0	6	N/A	0

> Measurement was collected due to other work in the area.

2002 Former Landfill Soil Gas Monitoring Summary

Soil Gas Monitoring 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
SGMW-01A	0	0	0	0	0	0	0	0	2	0	0	0	SGMW-01A
SGMW-01B	0	0	0	0	0	0	0	0	0	0	1	0	SGMW-01B
SGMW-02A	0	0	0	0	0	0	0	0	3	1	0	2	SGMW-02A
SGMW-02B	0	0	0	0	0	0	0	0	1	1	1	2	SGMW-02B
SGMW-03A	0	0	0	5	0	0	0	0	3	0	1	6	SGMW-03A
SGMW-03B	0	0	0	0	0	0	0	0	3	0	0	5	SGMW-03B
SGMW-04A	0	0	0	0	0	0	0	0	2	0	0	5	SGMW-04A
SGMW-04B	0	0	0	0	0	0	0	0	2	0	0	4	SGMW-04B
SGMW-05A	0	0	0	0	0	0	0	0	2	1	1	7	SGMW-05A
SGMW-05B	0	0	0	0	0	0	0	0	2	1	0	6	SGMW-05B
SGMW-06A	0	0	0	0	0	0	0	0	0	1	1	7	SGMW-06A
SGMW-06B	0	0	0	0	0	0	0	0	1	1	1	5	SGMW-06B
SGMW-07A	0	0	0	0	0	0	0	0	1	1	0	3	SGMW-07A
SGMW-07B	0	0	0	0	0	0	0	0	2	0	0	2	SGMW-07B
SGMW-08A	0	0	0	0	0	0	0	0	3	0	4	6	SGMW-08A
SGMW-08B	0	0	0	0	0	0	0	0	2	1	1	5	SGMW-08B
SGMW-09A	0	0	0	0	0	0	0	0	2	3	1	9	SGMW-09A
SGMW-09B	0	0	0	0	0	0	0	0	3	3	2	8	SGMW-09B
SGMW-10A	0	0.2	0	0.1	0	1	0	2	2	4	0	7	SGMW-10A
SGMW-10B	0	0.2	0	0.1	0	1	0	2	2	3	0	7	SGMW-10B
SGMW-11A	0	0.2	0	0	0	1	0	0	3	3	0	7	SGMW-11A
SGMW-11B	0	0.2	0	0.1	0	4	0	2	3	3	0	1	SGMW-11B
SGMW-12A	0	0	0	0	0	0	0	0	2	2	0	6	SGMW-12A
SGMW-12B	0	0	0	0.1	0	0	0	2	2	3	2	8	SGMW-12B
				0.1	0	0	0	2	4	3	0	9	

2003 Fenner 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	2	-	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	1	-	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 was 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	60	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	100	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	0	0	0	0	0	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	NR	0	0	0	NR	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 gas 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	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

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