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TENTH YEAR REPORT ON THE LEACHATE COLLECTION AND LANDFILL GAS EXTRACTION SYSTEMS

BLACKWELL FOREST PRESERVE LANDFILL SITE
DUPAGE COUNTY, ILLINOIS

MWH File No.: 4050581

Prepared For:

Forest Preserve District of
DuPage County, Illinois

Prepared By:

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July 2008

MWH

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ACRONYMS AND ABBREVIATIONS

amsl	Above Mean Sea Level
AOC	Administrative Order by Consent
ASTM	American Society for Testing and Materials
BOD	Biological Oxygen Demand
CFR	Code of Federal Regulations
COD	Chemical Oxygen Demand
District	Forest Preserve District of DuPage County
DV	Deep Vent
EW	Extraction Well
FSP	Field Sampling Plan
HQ	Hazard Quotient
HRS	Hazard Ranking System
IAC	Illinois Administrative Code
IEPA	Illinois Environmental Protection Agency
LCS	Leachate Collection System
LFG	Landfill Gas
LS	Lift Station
MCL	Maximum Contaminant Levels
MWH	MWH Americas, Inc.
N	Nitrate
NPL	National Priorities List
O&M	Operations and Maintenance
PVC	Polyvinyl Chloride
RI/FS	Remedial Investigation/Feasibility Study
ROD	Record of Decision
SV	Shallow Vent
SVOC	Semi-Volatile Organic Compound
TDS	Total Dissolved Solids
TNMOC	Total Non-Methane Organic Compounds
TSS	Total Suspended Solids
U.S. EPA	United States Environmental Protection Agency
UAO	Unilateral Administrative Order
VOC	Volatile Organic Compound
WWTP	Wastewater Treatment Plant

1.0 INTRODUCTION

This Tenth Year Report has been prepared by MWH Americas, Inc. (MWH) on behalf of the Forest Preserve District of DuPage County, Illinois (District). It presents a summary of the operations and maintenance (O&M) activities undertaken from May 2007 through April 2008 on various response actions previously constructed at the Blackwell Landfill. The response actions were constructed in 1997 and 1998, and were required by Administrative Order by Consent (AOC), Docket No. V-W-'96-C-341, between the United States Environmental Protection Agency (U.S. EPA) and the District. The response actions included repair of the existing landfill cover, installation of a leachate collection system (LCS) and installation of a landfill gas (LFG) venting system. A summary of O&M activities from initial construction of the response action in 1997 and 1998 through April 2008 is provided in the following reports:

- *First Year Report on the Leachate Collection System and Landfill Gas Extraction System* (Montgomery Watson, 1999c);
- *Second Year Report on the Leachate Collection System and Landfill Gas Extraction System* (Montgomery Watson, 2000b);
- *Third Year Report on the Leachate Collection System and Landfill Gas Extraction System* (Montgomery Watson Harza, 2001e);
- *Fourth Year Report on the Leachate Collection System and Landfill Gas Extraction System* (MWH, 2002d);
- *Fifth Year Report on the Leachate Collection System and Landfill Gas Extraction System* (MWH, 2003c);
- *Sixth Year Report on the Leachate Collection System and Landfill Gas Extraction System* (MWH, 2004e);
- *Seventh Year Report on the Leachate Collection System and Landfill Gas Extraction System* (MWH, 2005d);
- *Eighth Year Report on the Leachate Collection System and Landfill Gas Extraction System* (MWH, 2006c); and
- *Ninth Year Report on the Leachate Collection System and Landfill Gas Extraction System* (MWH, 2007c).

This Tenth Year Report meets the reporting requirements outlined in the February 1999 Final O&M Plan (Montgomery Watson, 1999a), modifications provided in the First and Second Year Reports on the Leachate Collection System and Landfill Gas Extractions Systems (Montgomery Watson, 1999c and 2000b), and the April 9, 1999 Unilateral Administrative Order (UAO), Docket No. V-W-'99-C-541. The UAO requires an evaluation of the effectiveness of the current leachate and LFG extraction systems in managing leachate and

landfill gas throughout the Site.

1.1 BACKGROUND

The Blackwell Landfill is located within the Blackwell Forest Preserve approximately six miles southwest of downtown Wheaton, Illinois in Section 26, Township 39 North, Range 9 East, DuPage County, Illinois (Figure 1). The Blackwell Forest Preserve encompasses 1,200 acres of woodlands, grasslands, wetlands and lakes, with the landfill covering approximately 40 acres in the central part of the preserve (Figure 2).

1.1.1 Landfill Construction

The Blackwell Landfill was constructed adjacent to an abandoned gravel pit that was purchased by the District in 1960 with the intent to create a large hill that could be used by the public for recreational purposes. The District began construction of the landfill in 1965 and accepted the final load of refuse in 1973. The District used soil material from the abandoned gravel pit, and so constructed a lake (Silver Lake) while building the hill.

Plans for the landfill, as well as photographs taken during the landfill construction, provide an understanding of the landfill construction. The landfill was laid out over an approximate 35-acre area. It was constructed on top of the existing ground surface, rather than being excavated into the ground. The first step was to put down a 2-foot layer of clay to act as the base liner. A series of 8 to 9 foot high berms were laid out to define eight major disposal areas, each three to five acres in size. These initial cells were then filled with a multitude of small refuse cells. Five to ten scavenger trucks would come in each working day and deposit refuse. In general, the refuse would be covered with available soil from the Silver Lake area.

The daily cover was obtained from the area to the east of the landfill that is now Silver Lake. As the District excavated the lake, it would sell the sand and gravel for off-site construction to help defray the costs of landfill construction. Therefore, daily cover generally consisted of the low permeability, fine-grained material that lacked the commercial value of the sand and gravel. When completed, each major cell had been filled with approximately one-half refuse and one-half daily cover.

When each of the cells had been filled, it was capped off with a two-foot clay layer that formed the base liner for the next cell. After the first level of cells was completed, new berms were placed to construct another series of cells. To enhance the ultimate stability of the hill, the new berms were offset from the berms below. Although a photographic history of construction was kept, as-built drawings were not maintained, so there is no specific map available for the locations of the berms or the cells. However, District officials have described the result as a "honey-comb" structure of small refuse cells surrounded by soil, and the photographic record supports this description.

By the time final contouring and landscaping was completed in 1975, forty to sixty feet of clay had been placed on top of refuse on the southwest side of the landfill to create Mount Hoy. Mount Hoy was finished at the final target elevation of approximately 840 feet above mean sea level (amsl), approximately 140 feet above the surrounding natural

topography. Other areas of the landfill were covered with 2 to 15 feet of predominantly clay cover. In some areas, a vegetative cover of varying sand, gravel and clay composition was placed. A final layer of clayey topsoil (minimum of 4 to 6 inches thick) was installed and vegetated. The 2004 topography of the Site is shown in Figure 3.

The Blackwell Landfill contains approximately 1.5 million cubic yards of refuse classified as general household refuse and light industrial waste, and includes an equal volume of natural fill.

1.1.2 Regulatory History

In March 1986, the U.S. EPA evaluated the Site using the Hazard Ranking System (HRS). A composite score of 35.57 (above the 28.5 threshold for National Priorities List [NPL]) was assigned, with the following scores assigned to each potential route: Surface Water 0.0; Air 0.0; and Groundwater 61.54. The Site was proposed for inclusion on the NPL in the Federal Register, Volume 53, Number 122, dated June 24, 1988. The Site received final listing on the NPL in the Federal Register, Volume 55, Number 35, dated February 21, 1990.

Subsequent to the final listing on the NPL, a Remedial Investigation/Feasibility Study (RI/FS) was performed at the landfill. The Final RI Report (Warzyn, 1994) was submitted to the U.S. EPA in 1994, while the Draft FS Report (Montgomery Watson, 1995) was submitted in 1995.

On March 7, 1996, the U.S. EPA and District agreed to an AOC, Docket No. V-W-'96-C-341, which, specified response actions that the District would conduct at the Site. These response actions have been completed, or are part of ongoing O&M. They included:

- Delineation of the limits of waste at the landfill edges;
- Cap characterization to delineate areas which did not have two feet of low permeability soil over refuse;
- Repair of those portions of the landfill cover that had less than two feet of low permeability soil over refuse;
- Regrading to promote surface water drainage off the landfill;
- Installation of a LCS;
- Installation of a passive LFG venting system;
- Treatment of landfill leachate[1]; and
- Monitoring of groundwater and system performance.

On September 30, 1998, the U.S. EPA issued the Record of Decision (ROD) for the

[1] Leachate is collected in a holding tank until it is transported to the Wheaton Sanitary District Waste Water Treatment Plant by truck for treatment and disposal.

Blackwell Landfill. The ROD requires long term O&M of the previously completed response actions, long-term monitoring, monitored natural attenuation of groundwater, and possible augmentation of the LCS and LFG venting system. On April 9, 1999, the U.S. EPA issued a UAO, Docket No. V-W-'99-C-541, to the District. This UAO directed the District to perform the selected remedial action described in the ROD and set forth the requirements for implementation of the remedial action.

1.2 REPORT PRESENTATION

The report is presented in the following eight sections:

- This Section 1.0 presents the purpose of the Tenth Year Report and describes the current conditions at the Blackwell Landfill;
- Section 2.0 describes general O&M activities conducted on the landfill;
- Section 3.0 describes O&M activities conducted on the landfill cover;
- Section 4.0 describes the operation of the LCS and summarizes O&M data;
- Section 5.0 describes the operation of the LFG venting system and summarizes O&M data;
- Section 6.0 briefly describes the Long-Term Groundwater Monitoring Program;
- Section 7.0 evaluates the leachate and LFG data, and provides evaluations for future O&M inspections and monitoring; and
- Section 8.0 provides the references utilized in this Tenth Year Report.

2.0 GENERAL O&M

2.1 DESCRIPTION

General O&M at the Blackwell Landfill from May 2007 through April 2008 was similar to the O&M conducted during previous years. Activities included inspection and maintenance of security measures around the LCS and LFG components (i.e., fencing, warning signs, vaults and vault covers), upkeep of access roads related to the LCS and LFG system, and control of vegetation around LCS and LFG components.

2.2 INSPECTION AND MAINTENANCE RECORDS

General inspection and maintenance requirements are outlined in the February 1999 Final O&M Plan, and included the following:

- Verifying Site security measures such as fencing, vaults and gates continue to restrict unauthorized access to system components, and repairing these security measures, as necessary;
- Maintaining Site access roads, as necessary;
- Maintaining vegetation and trimming excess vegetation that hide, inhibited access or potentially could damage system components; and
- Repairing erosion of areas adjacent to the landfill, as necessary.

The inspection, maintenance, monitoring and leachate disposal activities were documented on forms on an as-needed basis. Copies of the forms are provided in Appendices A-1 through A-5.

O&M of the landfill was routine during the 10th year with no significant problems to note. Site security measures remained intact with no vandalism or security breaches noted. Access roads and vegetation are in good condition and no erosion was noted in areas adjacent to the landfill.

3.0 LANDFILL COVER O&M

3.1 DESCRIPTION

Routine O&M of the landfill cover system includes inspection of the landfill surface, vegetative conditions and surface water drainage features.

3.2 INSPECTION AND MAINTENANCE RECORDS

The landfill cover inspection and maintenance requirements are outlined in the February 1999 Final O&M Plan, with modifications provided in the First Year Report. Inspections were undertaken to identify necessary repairs in the landfill cover system, including:

- Ponding of surface water as a result of landfill settlement and vehicular rutting;
- Stressed or dead vegetation as a result of LFG migration through the cover soils;
- Erosion of the landfill cover or surface water drainage features;
- Siltation of drainage ways;
- Excessive vegetation growth near LCS components and LFG vents;
- Bubbling of LFG through the landfill topsoil during the spring or summer following a one inch or greater rainfall event; and
- Tension cracks on the surface of the landfill cover caused by landfill settlement.

Inspections of the landfill cover were conducted during the bimonthly monitoring of leachate levels in LFG vents and extraction wells. The inspection activities are documented on forms provided in Appendix A-1 through A-3 and A-5.

The Final O&M Plan also required cover inspections following any 10-year, 24-hour rainfall event, defined as a rainfall event with a probable recurrence interval of once in ten years as described by the National Weather Service in Technical Paper No. 40. Rainfall Frequency Atlas of the United States, May 1961. There were no such rainfall events recorded by the nearby DuPage County Airport from May 2007 to April 2008.

Except as noted in Section 3.4, the inspections of the landfill cover were routine, with no significant problems. Some surface water ponding was observed on the north side of the landfill east of the toboggan run and on the south side of the landfill east of Lift Station 1 (LS01). No areas of stressed or dead vegetation were noted. Excessive vegetation growth near vents and wells was cut back in areas where necessary. Minor erosional ruts were observed during site inspections made throughout the Tenth Year; however, these ruts

were shallow and the clay cap was not exposed.

3.3 SITE REGRADING ACTIVITIES

No site regrading activities were conducted during the period covered by this report (i.e., May 2007 through April 2008). However, additional gravel was added to repair ruts in the access road near Lift Station-01 in the fall of 2007.

3.4 LFG EMISSION AREA

In June 2001 following a rainfall event, LFG was observed bubbling through the landfill cover on the north side of the landfill between LFG vents deep vent (DV-8) and shallow vent (SV-4) (Figure 4). A *Proposed Landfill Gas Investigation Plan* (Montgomery Watson Harza, 2001g) was submitted to the U.S. EPA to define the plan to assess the ambient air quality. The U.S. EPA approved the Plan on February 28, 2002, and ambient air samples were collected on May 13, 2002. The analytical results were submitted as part of the May 2002 Monthly Status Report. Since this area had also experienced landfill settlement, the District proposed that the area be regraded as part of the 2002 site regrading activities. The U.S. EPA approved this action in a July 23, 2002, letter and the area was regraded in the summer of 2002. During November of 2004, repairs were made to the conveyance piping at DV-8, DV-16, and DV-17. Ground settling and heave, resulting in raising and lowering of riser pipes, damaged the valve assembly and conveyance piping at these locations. Hard Hat Services, Inc. of Naperville, Illinois was subcontracted to perform the necessary repairs. All repair work was overseen by MWH.

In the Spring of 2006, MWH and the District observed intermittent bubbling of landfill gas in a small area localized in the northeast portion of the landfill. The bubbling is located near the tube rental shed at the refuse limits northeast of SV-4 and southeast of DV-8 (Figure 4). Landfill gas was observed on April 19 and May 18, 2006 following rainfall events. Landfill gas has also been observed in this area throughout Year Nine and Year Ten following rainfall events. Some subsidence has occurred since regrading activities which has allowed surface stormwater to collect here. The bubbling of landfill gas observed in a small area (approximately 50-feet by 50-feet area), is less frequent, and is not as intense as observed prior to the regrading activities.

3.5 PRAIRIE RESTORATION ACTIVITIES

In 2001, as part of the *Phase I Restoration Plan for the Revegetation of the Blackwell Forest Preserve Landfill* (Montgomery Watson and Conservation Design Forum, 2000), the District began the conversion of vegetation on the Blackwell Landfill from Eurasian grasses to native Illinois grasses. An herbicide was applied to kill or stunt the growth of existing vegetation, a prairie seed mixture was drilled into the landfill cover, and the vegetation was mowed in the fall of 2001. The prairie restoration activities are summarized in the *First Year Restoration Monitoring Report* (Conservation Design Forum , 2002a).

Restoration activities continued in June and July 2002 with mowing and spot herbicide applications. In September 2002, the vegetation was mowed and raked, erosion control blankets were installed in select areas, and the prairie seed mixture was drilled or spread on the landfill and in other areas where vegetation growth was sparse. The results of the 2002 prairie restoration activities are summarized in the *Second Year Restoration Monitoring Report* (Conservation Design Forum, 2002b).

Land management activities for the Blackwell Landfill prairie restoration area continued in 2003 with herbicide applications and mowing taking place in June and July. In mid-August 2003, trees which had died of natural causes were cut and removed from the landscape. The annual restoration-monitoring event took place in September 2003. In late September through October 2003, firebreaks were mowed around the fences, the prairie perimeter, and around gas vaults in preparation for a Spring 2004 controlled burn. Erosion control of the herbicided areas was conducted in November 2003. In December 2003, prairie grass seed was hand-sown over the herbicided areas and raked into the soil. The results of the 2003 prairie restoration activities are summarized in the *Third Year Restoration Monitoring Report* (Conservation Design Forum, 2003).

On September 15, 2005, Conservation Design Forum completed the Five-Year Root Penetration Assessment and summarized the results in the *Five-Year Root Penetration Assessment for the Blackwell Landfill Prairie Restoration* (Conservation Design Forum, 2006). The root masses penetrated no more than 24 inches and did not compromise the clay cap. The next root penetration evaluation is scheduled to be conducted in 2010.

Beginning in Spring 2004, controlled burns were executed at the Blackwell Landfill. The Spring 2004 prairie burn was conducted on April 20, 2004. The 2005 prairie burn was conducted on April 14, 2005. The 2006 prairie burn was scheduled for April 19, 2006, but was cancelled due to excessive rainfall earlier in the week, and the 2007 prairie burn was conducted on April 9, 2007.

The 2008 Blackwell Landfill prairie burn was conducted on April 15, 2008. Similar to previous prairie burns, procedures followed the U.S. EPA-approved Burn Plan (MWH, 2005b). In accordance with this plan, the LCS and LFG venting systems were shut down and local governmental agencies were notified of the pending burn. After the burn was completed, MWH personnel inspected the landfill's LFG and LCS components for damage in accordance with the U.S. EPA-approved Field Sampling Plan Addendum. No damage was noted to any of the landfill's remedial components. Therefore, modifications to the current Burn Plan are not recommended at this time. A complete summary of the 2008 Blackwell prairie burn activities is presented in the *Phase I Prairie Restoration Controlled Burn Activities Summary Report* (MWH, 2008b).

3.6 WATER SEEP

On May 14, 2001, MWH notified the U.S. EPA (verbally) that a water seep was discovered

on the north side of the Blackwell Landfill. MWH subsequently collected and analyzed water samples from this area to determine if the water posed a risk to human health or the environment. Analytical results indicated that the seep did not contain landfill leachate.

In a June 14, 2001 letter, MWH proposed additional investigative activities designed to locate the sand and gravel layers that were the probable source of the water seep on the north side of the Blackwell Landfill (Montgomery Watson, 2001c). U.S. EPA approved the plan in a letter dated July 12, 2001. On October 9, 2001 MWH conducted a shallow test-trenching program designed to locate the source of the seep. MWH provided the results of the test-trenching program to the U.S. EPA in a December 28, 2001 letter and concluded that the seep water was surface water that had infiltrated through the vegetative soil cover above the compacted clay cap. The water appeared to be migrating down the landfill along the top of the clay cap (Montgomery Watson Harza, 2001d).

Based on information developed from the test trenching investigation, the District volunteered to construct a water collection trench to collect the seep water, and route it to the existing LCS system, which transports it to the holding tank. Design details were provided in the December 28, 2001 letter to the U.S. EPA (Montgomery Watson Harza, 2001f). The U.S. EPA approved construction of the water collection trench on February 19, 2002. This work commenced in May 2002 and was completed in June 2002. Records of the construction and quality assurance efforts utilized during construction are provided in the *Construction Completion Report for the Surface Water Collection Trench* (MWH, 2002c). The location of the trench is shown in Figure 4.

During the eighth, ninth, and tenth years of operation, the District and MWH observed water seeps in two areas. The first area is on the north side of the landfill east of the toboggan run and the second area is on the south side of the landfill and east of Lift Station 1 (LS01). These seeps are observed downgradient of the surface water collection trenches. The breakouts are believed to be surface water migrating through either the vegetative cover or through permeable lenses within the cap beneath the vegetative cover.

The seep on the north side of the landfill is smaller and less active than before the surface water collection trench was installed. The District believes that remnants of past haul routes and/or staging areas constructed in this area may be responsible for the water seep. These former haul routes and/or staging areas would have been constructed of gravel and because gravel is coarse grained it may be acting as a preferential pathway for water to travel to the toe of the landfill. The District will propose installing a second, deeper surface water collection trench in order to eliminate this water seep.

The source of the seep on the south side of the landfill is not known. The District suspects that upslope sand and/or gravel seams within the cap may also be responsible for seeps observed in this area. The District is still evaluating the suspected water migration in this area.

4.0 LEACHATE COLLECTION SYSTEM O&M

4.1 DESCRIPTION

The LCS was put into operation in December 1997. The system includes nine leachate extraction wells (EW) and two lift stations (LS), which pump leachate into a common underground conveyance pipe system. The conveyance system transports leachate to a holding tank which is regularly pumped out and transported offsite by tanker trailers for treatment and disposal.

The components of the LCS are summarized below. Full details are provided in the February 1999 Final O&M Plan.

4.1.1 Extraction Wells

The LCS incorporates nine extraction wells (EW-1, EW-1A, and EW-2 through EW-8) located in the areas that previously had the highest indicated leachate head levels. The well pipes are installed within 3-foot diameter boreholes, and are constructed of 6-inch diameter Schedule 120 polyvinyl chloride (PVC) pipe. The lower two-thirds of each well pipe is perforated and each borehole was backfilled with coarse aggregate. The wells are used to extract leachate and to allow LFG to flow through the passive gas venting system. A wellhead assembly connects the LFG and leachate discharges from each well to its respective conveyance piping system. The extraction well locations are shown on Figure 4. A description of the LFG venting system is described in Section 5.0 of this report.

Leachate levels within each extraction well are measured with a water level meter during bimonthly O&M monitoring.

4.1.2 Lift Stations

Lift station LS01 collects stormwater from gravity drainage at existing manhole MH-20 and condensate that has formed in the gas conveyance pipe from dripleg DL01. Lift station LS02 was converted from existing manhole MH-3 and collected liquids from the North Stormwater Collection System trench. However, lift station LS02 did not pump during the second or third year of operations and the pump was subsequently removed in Year Three. During the eighth year of operation, a new Clean Environment® pump was installed in LS02. This pump was installed in case any water is ever collected in LS02. However, the pump has not run because LS02 continues to be dry. Lift Station LS03 was installed in Year Four as part of the surface water seep mitigation (see Section 3.6). A collection trench, installed downslope and north of EW-3, supplies surface water infiltration to LS03, which is then transported to the leachate holding tank.

4.1.3 Leachate Well Pumps

The nine extraction wells and two lift stations are fitted with pneumatic leachate extraction pumps that are capable of pumping a maximum 4 gallons per minute, depending upon the model of pump installed. Clean Environment® manufactures ten of the eleven pneumatic pumps. A description of the Clean Environment® pumps is provided in the Second Year

Report (Montgomery Watson, 2000b). The remaining pneumatic pump is manufactured by the Blackhawk Environmental Company®. This pump was installed in lift station LS03 to replace the original pump after system startup because it had higher pumping capacity and superior solids handling capabilities which were needed for this location. This pump continues to cycle at the rate set in the field, even if the extraction well goes dry. Addendum No. 1 of the O&M Plan (Montgomery Watson, 1999b), submitted to the U.S. EPA on February 8, 1999, provides details on the Blackhawk pneumatic pump.

The volume of leachate pumped from each well is recorded remotely with a pump-stroke (i.e. cycle) counter within each wellhead/lift station and in the compressor station control building. Pump operation can be confirmed by observing the cycle counters.

4.1.4 Leachate Holding Tank

A 10,000-gallon double-wall steel-reinforced STI-P3® holding tank is installed below grade near the compressor/control building north of the landfill to temporarily store extracted leachate and condensate (the tank provides monitoring of the interstice [space between the double walls] as a leak detection system). The collected leachate is loaded, on an as-needed basis, into tanker trucks and hauled to the Wheaton Sanitary District Wastewater Treatment Plant (WWTP) in Wheaton, Illinois for treatment and disposal under permit. For the past 10 years, the leachate holding tank has been emptied approximately one to two times per week.

4.1.5 Compressor/Control Building

The compressor/control building located north of the landfill contains the air compressor system and system controls. The compressor system includes a desiccant air dryer to maintain dry supply air to the leachate extraction pumps and to minimize freezing situations. The system controls include manual and automatic LCS system controls, holding tank liquid level alarms, leak detection indicators, and compressor and dryer status indicators.

4.1.6 Operation of the LCS

The LCS began operation in early December 1997. Following initial startup of the LCS, the system has been operated continuously with automatic shut down when the holding tank becomes full. Tanker trailers are scheduled in advance to collect and transport the leachate for disposal at the Wheaton WWTP for treatment. After the tank is emptied, the LCS is restarted.

4.2 INSPECTION AND MAINTENANCE RECORDS

The LCS inspection and maintenance requirements are outlined in the February 1999 Final O&M Plan with modifications provided in the First Year Report. The inspection and maintenance requirements include the following:

- Routinely verifying integrity and operation of system components;
- Recording system performance data, including pump-stroke counters;
- Scheduling leachate testing, load-out, and treatment;

- Responding to alarm conditions; and
- Performing maintenance and scheduling system repairs, or modifications.

The inspection, monitoring, and maintenance activities are documented on forms on an as-needed basis. Copies of the forms are provided in Appendices A-1 through A-5.

During the Tenth Year of operation, the components of the LCS were inspected on a bimonthly, quarterly, semi-annual, annual, and as-needed basis in accordance with the schedule provided in Table 7. The control station and leachate holding tank were routinely inspected and monitored by the O&M operators, while components of the leachate extraction wells and lift stations were inspected on a bimonthly basis. Components of the control station, leachate holding tank, leachate extraction wells and lift stations found to be functioning improperly were immediately fixed by the O&M operators. The work conducted on these components was logged using the appropriate O&M maintenance forms (Appendix A-3).

In addition, the following O&M activities were conducted:

- Leachate head levels were measured in the leachate extraction wells and LFG vents on a bimonthly basis;

- Filters and lubricants within the compressor and dryer systems were replaced on a quarterly, annual, or as-required basis; and

- Leachate samples were submitted for required analytical testing on a quarterly basis. The results of these analyses for this reporting period are attached in Appendix B.

Maintenance of the LCS was generally routine. It consisted of maintaining pump operation and changing oil and filters and lubricating the air compressor and air dryer on a periodic basis. The non-routine maintenance of note, and maintenance that was not originally anticipated, is as follows:

- Removed and cleaned pump in EW-8.
- Performed maintenance on pump float in EW-2.
- Performed maintenance on pump float in EW-3.

On February 26, 2008, A-1 Air Compressor Corporation of Addison, Illinois replaced the timer relay and pressure switch for the leachate collection system air compressor.

4.3 LANDFILL AREAS

The Blackwell Landfill has been sub-divided into 15 Landfill Areas[2] for the purpose of presentation of data (Figure 5). The leachate elevation and extraction data for each of the 15 Landfill Areas are shown on Drawings 1 through 15.

4.4 LEACHATE LEVELS

The leachate levels within the extraction wells and LFG vents were measured on a bimonthly basis by inserting a water level meter into each well or LFG vent. The LCS pumps were shut down for a minimum of 48 hours prior to measuring the leachate levels so that the recorded data would represent equilibrium conditions and not pumping effects. A trendline has been maintained for each leachate extraction well and LFG vent to determine whether leachate levels have been increasing or decreasing (refer to Drawings 1 through 15).

The measured leachate levels in the twenty-five LFG vents and nine extraction wells are summarized in Drawings 1 to 15 and in Table 1. In general, leachate level trends have remained stable from Year Nine to Year Ten (May 2007 through April 2008). Average leachate levels from Year Nine to Year Ten showed an increasing trend in three of the seven extraction wells where leachate levels are measured (EW-1, EW-3, and EW-5). Conversely, the remaining four extraction wells where leachate levels are measured (EW-1A, EW-2, EW-6, and EW-7) showed a decreasing trend in average leachate levels. Table 1A shows the average yearly leachate elevations at extraction wells and LFG vents since startup. Specific trends are discussed in Section 7.0 of this report.

4.5 LEACHATE VOLUME

The LCS conveys extracted leachate to the leachate holding tank which is regularly emptied into tanker trucks and transported to the Wheaton WWTP for treatment and disposal. The District's original leachate disposal permit with the Wheaton WWTP (Permit No. 1995 EE-4467) expired August 1, 2000. Permits are valid for five years and have been

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[2] Fifteen Zones-of-Influence around extraction wells were established in the First Year Report on the Leachate Collection System and Landfill Gas Extraction System. The zones were established for the purpose of identifying areas on the landfill that share similar leachate characteristics, such as:

- Areas whose leachate levels appear to be directly influenced by LCS operations.
- Areas whose leachate levels do not appear to be directly influenced by current LCS operations, although the leachate levels may be influenced by other factors; and
- One area whose liquid elevations correspond to groundwater elevations in nearby groundwater monitoring wells.

With ten years of monitoring data now available, it appears that the leachate elevations in most extraction wells and vents are acting independently. Therefore, the term "Zones of Influence" is no longer considered appropriate, and the term "Landfill Areas" has been substituted.

renewed each time they have expired. The current permit dated May 2, 2005 will expire on March 30, 2010. A copy of the permit is included in Appendix B.

4.5.1 Leachate Disposal

The volume of leachate disposed of at the Wheaton WWTP is documented on Leachate Disposal Logs included in Appendix A-4. The cumulative cycles on the pneumatic extraction pumps within each extraction well and lift station (recorded on the pump-stroke counter within the control building) are documented on Site Visit Operating Logs each day that leachate was disposed of at the Wheaton WWTP. Copies of the Site Visit Operating Logs are provided in Appendix A-1. The volume of leachate removed from the extraction wells and lift stations is calculated based upon the disposal history and number of recorded pump cycles. A daily summary of the disposed leachate volumes during Year Ten is provided in Table 2. The cumulative volume of leachate removed from the landfill is presented in Drawing 16. Table 2 and Drawing 16 indicate that approximately 5,311,000 gallons of leachate has been removed from the landfill and disposed of since 1997.

The volume of leachate transported to the Wheaton WWTP and the number of leachate shipments during the previous ten years are summarized below. This table indicates that a decreased volume of leachate was disposed of in Year Ten as compared to Year Nine.

Year	Volume Shipped (gallons)	Percent Change from Annual Average	Number of Leachate Shipments to WWTP
1 (12/97 to 4/99)	912,120	72%	108
2 (5/99 to 4/00)	460,050	-13%	58
3 (5/00 to 4/01)	640,958	21%	82
4 (5/01 to 4/02)	513,900	-3%	65
5 (5/02 to 4/03)	292,000	-45%	45
6 (5/03 to 4/04)	373,300	-30%	58
7 (5/04 to 4/05)	502,700	-5%	63
8 (5/05 to 4/06)	427,400	-20%	56
9 (5/06 to 4/07)	705,800	33%	85
10 (5/07 to 4/08)	482,775	-9%	60
Annual Average	531,100	NA	68

4.5.2 Extraction Wells

The annual volumes of leachate removed from the nine extraction wells are summarized in Table 3. The cumulative volume of removed leachate, sorted by volume, is summarized in Table 4. The nine extraction wells have removed approximately 4,058,000 gallons of leachate and the lift stations have removed nearly 1,253,000 gallons of leachate since the LCS was put into operation. Table 4 indicates that approximately 33 percent of leachate removed by the extraction wells was removed by just one of the nine extraction wells (i.e., EW-8), extracting 1,700,353 gallons by the end of April 2008. In comparison, the least productive extraction well (EW-4) produced 77,271 gallons and accounted for approximately 1.5 percent of the total leachate volume removed by the extraction wells. The cumulative

pumping trend for the most and least productive extraction wells has been consistent since Year Two.

The performances of the nine extraction wells are summarized in Drawings 3, 4, 5, 9, 10, 11, 14, and 15. These drawings present the cumulative volume of leachate removed from the wells over time, as well as the leachate levels within the wells. These figures indicate that rates of leachate removal are variable, with higher leachate removal rates observed in the spring and summer, and lower removal rates observed in the fall and winter.

4.5.3 Lift Stations

Approximately 1,253,000 gallons of stormwater and condensate have been recovered from lift stations LS01 and LS02 since the LCS began operation in December 1997 (see Table 3 and Drawing 13). This volume currently represents approximately 24 percent of the total volume of liquid removed by the leachate collection system. However, lift station LS02 has been dry since April 1998.

4.6 ANALYTICAL DATA

Leachate samples are collected quarterly from the leachate holding tank and analyzed for metals, general water quality parameters, and organic toxic pollutants listed in the leachate disposal permits (Permit Nos. 1995-EE-4467 and 2000-EE-0837).

According to the permits, leachate samples must be collected and analyzed for partial scan parameters (metals and conventional water quality parameters) on a quarterly basis. In addition, leachate samples must be collected and analyzed for full scan parameters (metals, conventional water quality parameters, and organic toxic pollutants) semi-annually. During the Tenth Year of operation leachate samples were analyzed according to the following schedule:

Date	Analysis	Analytical Parameters[3]
05/09/07	Full Scan	Metals, water quality parameters, and organic toxic pollutants
08/14/07	Partial Scan	Metals, and water quality parameters
11/14/07	Full Scan	Metals, water quality parameters, and organic toxic pollutants
02/13/08	Partial Scan	Metals, and water quality parameters

Metals include: Arsenic, Barium, Boron, Cadmium, Chromium (total), Copper, Iron (total), Lead, Manganese, Mercury, Nickel, Selenium, Silver, and Zinc.
Conventional Water Quality Parameters include: Ammonia (as Nitrate), Biological Oxygen Demand (BOD), Chemical Oxygen Demand (CO), Cyanide, Oil and Grease, pH, Phenols, Total Dissolved Solids (TDS), and Total Suspended Solids (TSS).
Organic Toxic Pollutants include: Volatile Organic Compounds, Acid Compounds, Base/Neutrals, and Pesticides as defined in 40 Code of Federal Regulations (CFR) 122.

[3] Leachate analytical parameters are based on the more inclusive IEPA Form N (Waste Characterization) requirements.

The leachate analytical results are summarized in Table 5, with the leachate analytical results during the Tenth Year of LCS operations provided in Appendix B. The data indicate some variation in analyte concentrations between the sampling events. Six volatile organic compounds (VOCs) (i.e., acetone, 2-butanone, 4-methyl-2-pentanone, methylene chloride, toluene, and xylene) and five semivolatile organic compounds (SVOCs) (i.e., bis (2-ethylhexyl) phthalate, diethylphthalate, 2-methylphenol, 3&4-methylphenol, and phenol) have been detected in leachate during Year Ten. This represents a decrease compared to the number of VOCs detected in Year Nine which had detections of acetone, 2-butanone, chlorobenzene, 2-hexanone, 4-methyl-2-pentanone, methylene chloride, toluene, and xylene. SVOC results are consistent with results from the previous years with the addition of bis(2-ethylhexyl) phthalate and 2-methylphenol. However, during the sampling event when bis(2-ethylhexyl phthalate was detected, the detected concentration was flagged by the laboratory because this compound was also detected in the associated blank. Therefore, it appears that the detection of this compound is anomalous.

5.0 LANDFILL GAS O&M

5.1 DESCRIPTION

Historically, LFG venting occurred through thirty partially capped 2-inch and 4-inch diameter LFG vents that were installed in the 1980s on the Blackwell Landfill. In 1997, nine gas extraction wells[4] were installed that conveyed LFG via gas header pipes to a 15-foot high passive vent stack constructed on top of Mount Hoy. The LCS and LFG systems were augmented in 2000 and, as part of the augmentation, twelve of the 2-inch and 4-inch diameter LFG vents were connected to the main vent stack by new gas header pipes. An additional thirteen existing LFG vents were capped[5] as part of the augmentation. Following augmentation, the main vent stack was the sole outlet for LFG emissions.

5.2 INSPECTION AND MAINTENANCE RECORDS

The LFG inspection and maintenance requirements for the Blackwell Site are outlined in the February 1999 Final O&M Plan, with modifications provided in the First and Second Year Reports.

The inspection and maintenance requirements include the following:

- Routinely verifying integrity and proper operation of system components;
- Recording system performance data;
- Scheduling LFG testing; and
- Performing maintenance and scheduling system repairs or modifications.

The inspection, monitoring and maintenance activities are documented on forms on an as-needed basis. Copies of the applicable O&M forms are provided in Appendices A-2, A-3, and A-5.

During the Tenth Year, the components of the LFG extraction system were inspected on a weekly, monthly, quarterly, semi-annual, annual, and as-needed basis in accordance with the schedule provided in Table 7. The main vent stack was inspected by the O&M operator on a weekly basis, while components of the LFG extraction wells were inspected on a monthly basis. All components of the main vent stack or LFG extraction wells were found to be functioning properly during each inspection.

[4] The nine extraction wells serve a dual purpose of extracting both leachate and landfill gas.

[5] Prior to augmentation, 30 landfill gas vents and 6 inactive flare vents existed. Landfill gas vents SV-3, SV-10, DV-1, DV-2, and DV-12 and inactive flare vents FV-1, FV-2, FV-3, FV-4, FV-5, and FV-6 were abandoned as a part of the August 2000 LCS and LFG augmentation.

5.3 FIELD AND ANALYTICAL DATA

Starting in January 1998, landfill gas was monitored monthly for gas composition, static pressure, velocity, flow rate and temperature. Since March 2001, the LFG has been monitored with field instruments bi-monthly at the main vent stack and LFG vents. The accumulated data are provided in Tables C-1 through C-6 in Appendix C.

The following four sampling events were conducted during the Tenth Year of LFG venting system operation to monitor LFG quality:

Date	Sample Name
05/30/07	BW-LFGSTACK-42A
08/14/07	BW-LFGSTACK-43A
11/14/07	BW-LFGSTACK-44A
02/13/08	BW-LFGSTACK-45A

Landfill gas samples were collected from the main vent stack using 6-Liter Passivated Summa canisters and submitted for laboratory analysis. One LFG sample was collected during each sampling event.

The Summa canister samples were analyzed for fixed gases including methane, carbon dioxide, oxygen, and nitrogen in accordance with American Society for Testing and Materials (ASTM) Method D1945, and for total non-methane organic compounds (TNMOC) as methane in accordance with U.S. EPA Modified Method 25C. The analytical results for historic and recent LFG sampling events are summarized in Table 6. The analytical reports for the Tenth Year of LFG operations are provided in Appendix D. Overall, the results show that the LFG quality has remained consistent over the past ten years of sampling.

In December 2005, MWH began taking landfill gas samples in accordance with the July 7, 2005 *Revised Landfill Gas Trigger Level Report* (MWH, 2005e). This included analyzing the samples for VOCs (Method TO-14) in addition to methods ASTM D-1945 and 25C.

5.4 LFG EMISSIONS

Gas emissions from the LFG vents were monitored on a monthly basis between January 1998 and March 2001 and bimonthly since then. The monitoring consists of using field instruments to measure LFG flow velocities at the main vent stack and to measure static gas pressure at the extraction wells and individual LFG vents. The individual LFG vents are connected to the main vent stack through a series of conveyance piping. The Tenth Year bimonthly static pressure data and velocity for the main vent stack and for the gas vents are summarized in Landfill Gas Vent Monitoring Forms (Appendices A-2 and A-5), and on Tables C-3 and C-4 in Appendix C.

The gas velocity at the main vent stack was converted to flow rate by multiplying the gas

velocities by the cross-sectional area of the stack. A summary of the calculated flow rates is provided in Table C-5 in Appendix C. The variation in gas flow rate measured over time is presented in Drawing 17. Landfill gas emissions from the main vent stack increased following augmentation of the LFG system in August 2000 when twelve LFG vents were connected to the main venting system.

The variation in static LFG pressures in the extraction wells and LFG vents are presented in Table C-3 and in Drawings 18 through 20. The static pressures in the extraction wells exhibit low variability over time, with measured static pressures generally less than 1.0 inch of water, with the exception of EW-7. Landfill gas pressures measured greater than or equal to 1.0 inch of water during all six O&M events for EW-7 during Year Ten.

The LFG vents show greater variation in static gas pressure. During the Tenth Year monitoring period, static gas pressures in the LFG vents ranged from 0.0 to 5.2 inches of water. This static gas pressure range is higher that pressure ranges in Year Nine (i.e., 0.0 to 1.0 inches of water), but is within the range of the previous pressure ranges in years past (i.e., 0.0 to 8 inches of water).

The variation in methane content is shown in Drawings 21 through 23. In most wells and vents, methane content showed little variability (e.g., SV-8, and DV-10) although there was more variability in others (e.g., DV-5, DV-15, and EW-1A). Overall, the maximum methane content has been between approximately 65 percent and 85 percent of the total LFG in most of the wells, approximately half of the vents, and in the main vent stack. However, the remaining one-half of the vents have a maximum methane content between zero and 20 percent. None of the wells or vents showed any increasing or decreasing trends in methane content.

5.5 LFG TRIGGER LEVELS

At the request of the U.S. EPA, the District conducted a trigger level evaluation and LFG emission modeling to determine whether LFG emissions posed a risk to recreational users of the Blackwell Landfill. The information derived from the evaluation was used to prepare the *Final Landfill Gas Trigger Level Report* (MWH 2006a) which presents trigger levels for possible additional remedial actions should LFG concentrations or flow rates increase in the future at the Blackwell Site.

MWH met with the U.S. EPA on July 28, 2004, to propose modeling VOC concentrations over the recreational portion of the landfill and calculating an average VOC concentration to which a recreational user would be exposed. MWH would then conduct a risk assessment under the Risk Assessment Guidance for Superfund to determine the cumulative carcinogenic and non-carcinogenic risk to recreational users of the landfill. The cumulative risk values would replace individual VOC trigger levels previously established. The U.S. EPA approved this approach in a December 7, 2004 e-mail message. The approach for utilizing the "recreational portion" of the Blackwell Landfill was approved by U.S. EPA in an email dated April 18, 2005. Four tables (Tables 6A through 6D) showing the cumulative

risk of exposure to Blackwell landfill gas are provided with this report and show that no landfill gas trigger levels were exceeded in May 2007, August 2007, November 2007 or February 2008. The results show that the landfill gas is well below the levels for the Hazard Quotient (HQ) of 1 and carcinogenic risk of 1×10^{-6}.

6.0 GROUNDWATER MONITORING

Since the start of the Blackwell Landfill Remedial Investigation in 1991, twenty-one rounds of groundwater monitoring have been conducted at the Site, as follows:

Round	Date*
Remedial Investigation	
First Round	September 1991
Second Round	January 1992
Feasibility Study	
First Round	June 1995
Quarterly Groundwater Monitoring Program	
First Round	November 1997
Second Round	July 1998
Third Round	October 1998
Fourth Round	February 1999
Fifth Round	May 1999
Sixth Round	August 1999
Seventh Round	November 1999
Eighth Round	February 2000
Long Term Groundwater Monitoring Program	
First Round	March 2001
Second Round	December 2001
Third Round	September 2002
Fourth Round	June 2003
Fifth Round	March 2004
Sixth Round	March 2005
Seventh Round	December 2005
Eighth Round	September 2006
Ninth Round	March 2007
Tenth Round	March 2008

Note:
* The Two-Year Groundwater Monitoring Program is described in the *Revised Pre-Design Investigation Report* (Montgomery Watson, July 1997).

The Long-Term Groundwater Monitoring Program is described in the *Revised Long-Term Groundwater Monitoring Program* (Montgomery Watson, 2001a) and was approved by the U.S. EPA in a January 22, 2001 letter. Details of these sampling events can be found in the corresponding standalone reports (Montgomery Watson, 1998-2000, Montgomery Watson, 2001b, MWH 2002a, MWH 2002e, MWH 2003b, MWH 2004c, MWH 2005c, MWH 2006b, MWH 2006d, MWH 2007b, and MWH 2008a).

The *Long Term Groundwater Monitoring Program Summary Report* (MWH, 2005a) was submitted following the fifth long-term groundwater sampling event. The District evaluated the groundwater results and recommended extending the groundwater monitoring program for three additional rounds. The final of these three additional rounds was completed in

September 2006. Following this event, in the *Long-Term Groundwater Monitoring Report, Eight Round* (MWH, 2006d), MWH recommended conducting three more rounds of groundwater sampling to be performed on an annual basis. Groundwater sampling was conducted during March 2007 and March 2008 with one more round to follow during the Spring of 2009. Sampling activities will be conducted in the spring when infiltration potential is highest for the landfill and so a release of a compound would be most likely.

7.0 EVALUATIONS AND RECOMMENDATIONS

7.1 EVALUATION OF LCS

7.1.1 Trendline Analysis

The LCS consists of nine extraction wells, three lift stations, and twenty-five LFG vents that are used to monitor leachate levels. Leachate levels were measured in the wells and vents on a monthly basis between January 1998 and March 2001, and on a bimonthly basis ever since. In addition, leachate levels were measured in several of the LFG vents during the RI.

In order to evaluate the overall effectiveness of the LCS, a trendline analysis was performed over the entire period of data collection. For evaluative purposes, this analysis consisted of fitting a linear trendline to leachate elevation data with a downward trend indicated by a negative slope and an upward trend indicated by a positive slope. The trendline analyses for each well and vent by landfill area are included as Drawings 1 through 15.

Over the past ten years of LCS operation the leachate elevations in the Blackwell Landfill have generally remained stable. From year to year, there is some variation in leachate levels with some vents and extraction wells showing an increasing trend, while others show a stable or decreasing trend. Cumulative leachate levels through Year Ten show an increasing trend in four of seven extraction wells (leachate levels are not measured at EW-4 or EW-8) and eleven of the twenty-five LFG vents. The cumulative increase in leachate levels at these locations throughout the past ten years may be attributed to the following two factors. The first is that there may be an increase in the amount of infiltration of precipitation through the cap. Landfill settlement may also be a cause for the increased leachate levels. In May 2007, MWH had the extraction wells surveyed to check for settlement. There was significant settlement recorded at all of the extraction wells. As the landfill settles the pore spaces between soil grains are compressed which in turn causes the leachate levels to raise within the extraction wells.

The LCS continues to remove the precipitation that infiltrates the cap and the landfill. A summary of the cumulative trends in leachate elevations is depicted in Figure 5. The LCS operation from the nine extraction wells and two lift stations has removed over 5,311,000 gallons of leachate.

7.1.2 Augmentation Requirements - Record of Decision

The previous year-end Reports on the LCS and LFG systems provided an evaluation of the criteria that would require augmentation of the LCS and LFG systems outlined in the September 30, 1998, ROD. This evaluation has been repeated below using the combined ten years of data for LCS operations.

The September 30, 1998, ROD for the Blackwell Landfill describes the objectives of the LCS and provides guidelines for system augmentation. The LCS objectives and augmentation requirements are as follows:

- Section VI.C, page 31 of the ROD states that the objective of the LCS is to manage the threat of leachate migration and exposure through active leachate collection and off-site treatment and disposal.

- Section VII, page 37 of the ROD states that if data demonstrates that the leachate system is not effective in managing leachate, the system could be augmented with up to nine additional leachate extraction wells. Ineffective management of leachate was defined as leachate posing a direct exposure threat, or groundwater not being remediated in a reasonable amount of time. The groundwater cleanup goals are U.S. EPA Maximum Contaminant Levels (MCLs) and Illinois Class I Drinking Water Standards.

- Section VII, page 38 of the ROD provides the general criteria to be used to decide whether groundwater was being remediated in a reasonable amount of time. These criteria include existing contaminant levels, trends in contaminant concentrations, potential reduction in restoration time frames to less than 30 years, and potential for the contaminants in groundwater to meet regulatory standards and/or asymptotic levels throughout the plume.

An evaluation of the O&M data indicates that the LCS meets the objectives set out by the September 30, 1998, ROD. In addition, during groundwater monitoring events conducted over the past ten years, analytical results have been consistent with past monitoring results and show a general trend of decreasing number of VOCs in groundwater outside the landfill. Analytical results presented in standalone groundwater sampling reports (summarized in Section 6.0) also indicate overall decreases in VOC concentrations in the groundwater.

The results of the groundwater monitoring events are summarized in the *Long Term Groundwater Monitoring Program Summary Report* (MWH, 2005a) and the First, Second, Third, Fourth, Fifth, Sixth, Seventh, Eight, Ninth, and Tenth Round Long-Term Groundwater Monitoring Reports (Montgomery Watson 2001b, MWH 2002a, MWH 2002e, MWH 2003b, MWH 2004c, MWH 2005c, MWH 2006b, MWH 2006d, MWH 2007b, and MWH 2008a). In summary, no ROD criteria have been exceeded that would require augmentation of the LCS system.

7.1.3 Augmentation Requirements - O&M Plan

The previous Year-End Reports on the LCS and LFG systems provided evaluations of the modification and augmentation requirements which were outlined in the February 1999 Final O&M Plan for the Blackwell Landfill. This evaluation has been repeated below using the combined ten years of data for LCS operations.

The February 1999 O&M Plan provided guidelines for modification or augmentation of the LCS that may include: increasing extraction rates in some areas, decreasing extraction rates or shutting down extraction in other areas, converting some of the previously installed LFG vents to extraction wells, or constructing one or more new extraction wells. The specified criteria for system modification or augmentation are provided:

Criteria #1: Extraction wells that generate a small amount of leachate, in comparison to the total volume extracted from the landfill, would be proposed for removal or abandonment.

Two extraction wells (EW-4 and EW-6) have produced only 3.1 percent of the total volume of leachate removed from the landfill. EW-4 and EW-6 are candidates for possible removal. However, the District is voluntarily continuing leachate extraction from these two wells.

Criteria #2: Extraction wells which generate a large volume of leachate, and which demonstrate a decreasing trend in leachate levels in the well and surrounding monitoring wells and vents, would continue to be operated. However, if the drop in leachate levels are small in comparison to theoretical volume of extractable leachate (i.e., large volumes of leachate are extracted from an extraction well without a corresponding decrease in leachate levels in that same well), additional extraction wells may be installed in the general area.

Cumulative leachate levels show an increasing trend in four of the seven extraction wells through the Tenth Year of operation. This cumulative trend is attributed to settlement of the landfill. However, the yearly volume of leachate extracted has decreased in eight of the nine extraction wells (Table 3) compared to last year. The decrease in leachate extraction during Year Ten as compared to Year Nine may be attributed to decreased rainfall during Year Ten. During the tenth year of operation, the landfill received approximately 25 inches of rainfall compared to Year 9 when the landfill received approximately 33 inches of rainfall. Yearly leachate removal seems to correlate to annual rainfall (i.e. when rainfall increases so does leachate removal) as shown on Drawing 24. The District is proposing to continue to monitor the apparent trend in leachate levels. No additional extraction wells are planned at this time.

Criteria #3: Extraction wells which initially generate a large volume of leachate and show a significant drop in leachate levels in the extraction well, but which are surrounded by monitoring wells and vents which do not show any appreciable drop in their leachate levels, will be considered to be in an area with non-extractable leachate. These extraction wells will be proposed for removal or abandonment.

No extraction wells meet this criterion. The Year Two Report recommended that lift station LS02 be removed because it did not pump during the second or third year of operations. The pump in LS02 was subsequently removed.

In summary, no modifications to the LCS operations are recommended for the upcoming year. It is proposed that the LCS system will continue for an eleventh year in the current configuration.

7.2 EVALUATION OF LANDFILL GAS

7.2.1 LFG Augmentation

The September 30, 1998 ROD provides for the possible augmentation of the LFG extraction system, with the installation of up to nine dual leachate and LFG extraction wells. The 1999 UAO also requires that the LFG extraction system manage the threat of LFG buildup, and potential LFG migration and exposure.

The LFG extraction system was evaluated in the *Final Work Plan for the Landfill Gas Recreational Use Evaluation* (Montgomery Watson, March 2000a). Following this evaluation, modifications to the LFG extraction system were recommended, including connecting selected LFG vents to the main LFG venting system, capping other selected LFG vents, and abandoning the remaining LFG vents. The U.S. EPA approved these modifications in a March 24, 2000 letter. Construction of these modifications was completed in August 2000.

At the request of the U.S. EPA, the District prepared the *Landfill Gas Trigger Level Report* (MWH 2003a) which presented trigger levels for possible additional remedial actions should LFG concentrations or flow rates increase in the future at the Blackwell Site. The *Final Landfill Gas Trigger Level Report* (MWH, 2006a) was issued in March 2006 by the District.

No further augmentation of the LFG extraction system is recommended at this time.

7.2.2 Thermal Treatment

The February 1999 Final O&M Plan specifies that a flare would be installed on the main vent stack if the quantity of TNMOC exceeds set limits. The TNMOC limits are eight pounds per hour (35 Illinois Administrative Code [IAC] 218.301), and 25 tons per year (5.71 pounds per hour) of total VOCs in a severe ozone non-attainment area.

The calculated TNMOC emissions for the Tenth Year of O&M operations are summarized in Table C-6 in Appendix C, and indicate a range of 0.23 to 0.37 pounds of TNMOC per hour. In comparison, the emissions range during previous years of O&M operations were, in pounds of TNMOC per hour, 0.29 to 1.21 (First Year), 0.37 to 0.89 (Second Year), 0.22 to 0.64 (Third Year), 0.20 to 0.36 (Fourth Year), 0.25 to 0.42 (Fifth Year), 0.25 to 0.32 (Sixth Year), 0.27 to 0.38 (Seventh Year), 0.23 to 0.38 (Eighth Year), and 0.28 to 0.52 (Ninth Year). These results are summarized:

Year	Calendar Year	TNMOC (lb/hr)
1	1998	0.29 to 1.21
2	1999	0.37 to 0.89
3	2000	0.22 to 0.64
4	2001	0.20 to 0.36
5	2002	0.25 to 0.42
6	2003	0.25 to 0.32
7	2004	0.27 to 0.38

8	2005	0.23 to 0.38
9	2006	0.28 to 0.52
10	2007	0.23 to 0.37

As shown in the table above, these results indicate that TNMOC emissions are below the limits set forth in the Final O&M Plan. Therefore, modifications to the LFG venting system are not required.

7.2.3 Passive vs. Active Gas Extraction

The February 1999 Final O&M Plan specifies that an active LFG extraction system would be installed if there was evidence of uncontrolled LFG releases through or around the landfill cover. Evidence of uncontrolled LFG releases were defined as odors in areas with no gas vents, stressed vegetation, gas releases from monitoring wells located outside of the landfill perimeter, or gas bubbling through saturated topsoil following a rainfall event.

In June 2001 following a rainfall event, LFG was observed bubbling through the landfill cover on the north side of the landfill in between LFG vents DV-8 and SV-4 (Figure 4). Ambient air samples were collected from the area in accordance with an U.S. EPA-approved work plan, and the analytical results were submitted as part of the May 2002 Monthly Status Report. As part of the Regrading Plan for the Tube Run Area, additional clay cap soil was added to the LFG Escape Area, between June and September 2002 (Figure 3).

Evidence of LFG emissions (i.e. stressed vegetation and bubbling gas) was observed in the LFG emission area during the March 22, 2004, bimonthly O&M monitoring. MWH continued to monitor this area during routine O&M activities. Landfill gas was again observed on April 19, May 18, 2006, and throughout Year Nine and Ten following rainfall events. The District is currently evaluating the results of the subsurface investigation performed in this area in February 2007 and April 2008. As previously mentioned in Section 3.4, ambient air samples were collected at this location and indicate that there is no unacceptable risk from the landfill gas. At this time, the District and MWH do not recommend conversion of the passive LFG venting system to an active system.

7.3 O&M MONITORING FREQUENCY

The February 1999 Final O&M Plan specified the initial frequency of O&M monitoring for the various remedial actions completed at the landfill with the monitoring frequency varying from weekly, monthly, quarterly, and semi-annually depending upon the remedial component. The First Year and Second Year Reports on the Leachate Collection System and Landfill Gas Extraction System provided minor modifications to the O&M monitoring frequency. No modifications were made in the Third Year Report. After the fourth year of O&M operations, the characteristics of the remedial components at the Blackwell Landfill are reasonably well known.

Over the past ten years there has been little variability in LFG pressure at the extraction wells with the exception of EW-7 (Drawings 18). The LFG pressure at the majority of the

individual shallow vents has been in the range of 0.0 to 1.0 inch of water with some variability at deep vents SV-4, SV-8, and SV-9 which have had LFG pressures in the range of 0.0 to 6.0 inches of water (Drawing 19). Similarly, most of the individual deep vents have had LFG pressures in the range of 0.0 to 1.0 inch of water, with the exception of DV-16 and DV-18 which have had LFG pressures in the range of 0.0 to 8.0 inches of water (Drawing 20).

Generally, maximum methane contents have remained between 60 and 80 percent of the total LFG over the past ten years (Drawings 21-23), and LFG static pressures have been in the range of 0.0 to 8 inches of water. As well, there are no discernable trends in either LFG pressure or methane content.

Continued measurement of these parameters at a reduced frequency would still allow the District to determine whether maximum LFG pressures or methane contents were increasing. Therefore, consistent with the Fourth, Fifth, Sixth, Seventh, Eighth, and Ninth Year Reports on the LCS and LFG system (MWH 2002d, MWH 2003c, 2004e, and 2005d, 2006c, and 2007c) the following two modifications to the LFG O&M activities are recommended:

- Reduce the frequency of LFG monitoring at individual wells and vents from bimonthly to semi-annually (i.e., twice per year); and

- Monitor LFG flowrate at the main vent stack on a quarterly basis rather than a bi-monthly basis to coincide with the quarterly LFG sampling program already in place.

7.4 WATER SEEPS EVALUATION

During the eighth, ninth, and tenth years of operation, the District and MWH observed breakouts of water in two areas. The first area is on the north side of the landfill east of Lift Station 3 (LS03) and the second area is on the south side of the landfill and east of LS01 (Figure 4). These breakouts are observed downgradient of the Surface Water Collection Trenches. The breakouts are believed to be surface water migrating through either the vegetative cover or through permeable lenses beneath the vegetative cover. The District believes these permeable lenses may be remnants of past haul routes and staging areas constructed during the landfill's operation.

The District is currently evaluating the suspected water migration in the northern area. The objective of this investigation is to find and map the extent of sand and gravel layers that may intercept infiltrating surface water and transport it to the location in which the breakout has been observed. Phase 1 of the subsurface investigation was completed in February 2007. Geoprobe™ borings were advanced to identify any layers of sand and/or gravel present within the cover; determine the cover thickness, as well as depths to buried waste. Phase 2 was conducted on April 17, 2008. A total of 12 Geoprobe™ borings were advanced near Lift Station 03. The results of these soil borings are being used to design a second, deeper interceptor trench for installation in this area. The details for a new trench will be proposed to the Agencies prior to its installation.

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TABLES

Table 1
Leachate Levels
Blackwell Landfill NPL Site, DuPage County, Illinois

Date	SV-1	SV-2	SV-3	SV-4	SV-5	SV-6	SV-7	SV-8	SV-9	SV-11	SV-12	DV-1	DV-2	DV-3	DV-4	DV-5	DV-6	DV-7	DV-8	DV-9
6/21/1996	735.02	720.05	728.71	725.71	719.15	736.29	731.14	710.71	710.86	738.03	761.77	NA	752.29	736.05	701.9	695.82	730.83	747.44	723.54	719.12
7/23/1996	735.07	717.9	725.26	722.86	718.71	735.37	730.74	710.06	710.26	737.03	761.07	NA	751.54	736.05	704.91	696.12	730.06	746.84	722.89	720.07
10/21/1996	734.25	719.4	722.5	NM	715.86	732.77	729.84	710.86	711.11	737.63	762.17	NA	747.59	735.27	700.81	696.55	724.76	NM	722.39	715.19
11/19/1997	734.12	719.92	723.16	723.08	717.21	734.17	732.32	710.94	711.25	739.08	762.12	NA	746.79	735	699.56	695.74	746.91	749.79	724.84	719.72
1/15/1998	734.97	719.54	727.71	722.36	719.16	735.97	733.69	711.01	711.21	739.88	762.06	NA	752.09	735.25	701.51	695.87	726.36	746.54	724.34	718.82
2/18/1998	735.27	719.35	729.06	724.36	720.66	737.27	734.19	711.96	711.46	739.18	762.02	NA	753.84	735.05	703.01	695.67	725.86	750.19	725.09	720.97
3/10/1998	735.07	719	728.76	723.41	719.66	736.27	733.48	711.46	710.86	738.63	762.07	NA	753.39	734.65	703.46	696.72	724.21	754.94	723.99	720.17
4/14/1998	735.49	719.13	728.43	723.15	720.77	736.32	734.38	712.08	711.57	739.16	762.05	NA	748.46	735.55	705.3	696.75	724.16	NM	724.74	722.08
5/13/1998	735.62	713.6	727.06	723.61	720.01	735.87	734.24	711.81	711.46	739.16	762.12	NA	745.94	735.7	706.31	696.52	724.01	753.14	724.09	720.22
6/17/1998	734.57	719	725.76	720.66	718.96	735.17	729.04	711.61	711.36	739.03	762.07	NA	743.59	735.3	703.86	695.47	722.11	747.84	723.89	719.52
7/15/1998	734.37	719.14	725.31	720.68	720.11	730.67	734.24	711.76	711.56	739.02	762.12	NA	742.69	735.29	703.16	695.67	722.15	NM	724.17	719.7
8/11/1998	734.07	719	722.96	720.66	718.01	729.72	727.89	711.61	711.56	739.08	762.07	NA	740.74	735.35	702.16	695.52	721.06	746.89	724.09	718.97
9/15/1998	733.92	718.95	721.31	720.81	717.11	729.57	727.39	711.56	711.46	739.18	762.07	NA	741.04	735.15	701.61	695.47	720.66	747.34	723.69	717.87
10/16/1998	733.97	719.1	721.26	720.71	716.51	728.97	727.34	711.66	711.56	739.08	762.1	NA	741.89	735.3	701.01	695.67	721.16	747.24	723.39	717.37
11/17/1998	734.07	719.05	722.31	721.91	716.76	729.97	726.59	711.66	711.41	739.28	762.12	NA	744.74	731.65	702.31	696.92	722.11	747.14	722.49	719.52
12/21/1998	734.26	719.18	723.16	720.84	716.8	730.03	726.19	711.79	711.88	738.42	760.87	NA	741.08	734.28	702.03	695.61	721.81	745.01	722.33	716.97
1/12/1999	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NA	NM	NM	NM	NM	NM	NM	NM	NM
2/17/1999	734.51	719.25	726.08	720.92	717.95	731.76	730.99	712.39	711.88	738.68	760.91	NA	747.1	733.98	705.2	696.21	721.96	745.07	724.39	719.52
3/24/1999	734.31	719.18	726.01	720.97	718	731.86	730.59	712.44	711.78	738.52	760.91	NA	750.64	733.73	705.02	695.79	720.7	745.07	722.53	718.37
4/16/1999	734.66	719.3	727.46	720.77	718.55	732.81	730.79	712.94	712.23	739.26	760.93	NA	751.29	733.73	704.24	697.21	720.51	745.12	724.38	719.42
5/17/1999	734.56	719.15	727.48	721.37	718.8	731.71	730.74	713.09	712.13	738.93	760.98	NA	752.29	733.98	706.5	697.01	720.01	745.12	724.63	719.22
6/22/1999	734.41	719.25	725.68	720.97	718.4	731.86	733.39	712.89	712.08	738.53	760.96	NA	750.99	733.98	705.55	696.26	721.01	745.17	721.93	718.07
7/22/1999	734.11	719.35	727.43	720.92	717.38	NM	730.31	712.83	712.17	738.38	760.86	NA	751.14	731.98	705.6	695.73	721.49	747.27	723.56	717.19
8/25/1999	732.16	717.3	721.53	721.02	714.45	729.56	728.44	710.84	710.23	738.81	760.93	NA	743.74	731.78	701.25	693.91	719.51	745.47	720.78	714.37
9/29/1999	732.56	717.3	720.03		713.8	726.26	727.69	712.64	711.93	736.63	759.06	NA	737.64	731.63	699.05	696.63	721.21	745.77	720.55	713.32
10/27/1999	731.91	719		716.62	713.4	726.21	725.09	710.49	709.83	737.13	759.11	NA	737.34	731.38	698.9	694.01	717.56	745.62	719.48	713.12
12/1/1999	731.92	717.2	720.08	720.62	713.05	725.15	728.14	710.44	710.13	736.83	759.08	NA	736.16	731.2	699.5	693.78	718.41	745.75	717.63	712.49
12/29/1999	731.81	717.55	720.08	719.22	713.2	726.51	726.29	710.48	710.33	737.08	759.11	NA	736.14	731.18	699.07	694.15	717.76	745.1	719.18	713.22
1/25/2000	731.61	717.35	720.08	719.22	713.25	726.01	726.54	710.17	709.93	736.78	759.06	NA	736.54	730.98	699.05	694.11	719.26	745.22	718.73	713.02
2/29/2000	731.91	717.25	720.63	725.07	714.8	726.81	730.84	710.46	710.13	736.78	759.11	NA	739.84	731.38		695.16	719.61	745.77	720.33	718.17
3/24/2000	730.91	717.4		725.32	713.35	725.33	726.14	712.39	711.95	735.53	757.84	NA	740.51	729.81		696.26	714.13		719.69	716.97
4/28/2000	733.91	719.2	724.67		717.49	730.21	732.77	712.32	711.71	738.69	759.71	NA		732.72	702.9	697.9	717.31		723.51	719.65
5/29/2000	734.11	719.2	722.13	720.77	716.7	729.69	727.04	712.49	711.73	738.63	760.91	NA	744.94	732.88	701.65	697.11	717.35	NA	722.98	715.97
6/29/2000	734.26	719.6	722.41	725.88	717.38	731.76	729.59	712.63	711.83	738.68	760.91	NA	742.16	732.85	701.98	695.94	717.41	NA	724.03	717.57
7/27/2000	734.16	719.4	721.68	719.92	716.67	730.13	729.79	712.69	711.93	739.13	761.01	NA	740.09	732.92	701.31	696.29	717.58	NA	722.91	716.17
9/28/2000	NM	719.33	NA	727.31	715.84	727.86	729.28	712.28	711.72	738.36	760.92	NA	NA	732.92	700.38	NA	716.66	740.59	723.45	716.59
10/26/2000	733.99	719.36	NA	725.8	715.79	729.11	729.21	711.58	711.97	738.73	760.97	NA	NA	733.17	700.03	702.02	717.01	NA	722.48	715.38
11/30/2000	734.07	719.74	NA	725.16		727.21	728.89	712.43	711.82	738.78	760.92	NA	NA	733.22	700.55	701.25	716.51	NA	723.68	718.71
12/20/2000	NM	NM	NA	NM	NM	NM	NM	NM	NM	NM	NM	NA	NA	NM	NM	NM	NM	NM	NM	NM

Notes:

1. NM = not measured for particular date
2. NA = not analyzed as a part of O&M activities
3. Blank cells indicate that no leachate was recorded at particular location
4. Due to new wellhead configuration, leachate level can not be measured in EW-8.
5. Leachate elevations measured on 1-12-99 collected during hostile weather conditions, were omitted from this table due to suspect inaccuracies caused by temperature related equipment failure.
6. Leachate elevations were not measured at several SVs or DVs on 1-12-99, 12-20-00, 1-24-01, 1-17-02, 1-30-03, 1-28-04, 1-19-05, 1-10-07, and 3-10-08 due to frozen flush mount vaults.
7. Leachate elevations were not measured at SV-4 and DV-9 on 3-12-07 due to flooded vaults.
8. Leachate elevations were not measured at SV-1, SV-4, DV-4, DV-9, and DV-11 on 1-9-08 due to flooded vaults.

Table 1
Leachate Levels
Blackwell Landfill NPL Site, DuPage County, Illinois

Date	SV-1	SV-2	SV-3	SV-4	SV-5	SV-6	SV-7	SV-8	SV-9	SV-11	SV-12	DV-1	DV-2	DV-3	DV-4	DV-5	DV-6	DV-7	DV-8	DV-9
1/24/2001	NM	716.14	NA	NM	NM	NM	NM	712.73	NM	NM	760.97	NA	NA	733.62	699.73	702.10		NM	NM	717.41
2/20/2001	734.14	717.72	NA	720.46	717.29	729.56	728.21	713.03	712.02	NA	760.97	NA	NA	732.97	704.25	701.55	716.76	NA	726.93	718.86
3/21/2001	734.34	NM	NA	NM	NM	727.56	729.31	713.2	710.07	738.78	760.87	NA	NA	733.37	705.05	702.15	716.76	NA	727.63	722.46
5/31/2001	734.29	719.44	NA	726.16	718.34	728.96	729.11	713.13	713.02	738.68	760.92	NA	NA	732.92	703.4	701.75	716.76	NA	727.18	718.71
7/12/2001	734.34	719.24	NA	721.62	716.15	728.72	729.31	713.58	712.22	739.18	761.14	NA	NA	733.30	702.05	NM	716.98	NA	722.43	716.41
9/20/2001	735.23	719.84	NA	727.36	716.99	728.31	726.91	713.51	714.91	739.00	761.17	NA	NA	732.86	701.72	699.45	716.98	NA	727.12	718.93
11/7/2001	734.39	719.84	NA	727.73	717.5	730.11	727.86	713.83	712.28	739.63	756.2	NA	NA	733.49	703.66	699.1	717.01	NA	722.45	716.81
1/17/2002	NM	NM	NA	NM	NM	NM	NM	NM	NM	NM	NM	NA	NA	NM	NM	NM	NM	NM	NM	NM
3/28/2002	734.37	720.44	NA	724.46	718.24	729.26	733.43	714.38	712.59	740.13	761.22	NA	NA	733.25	703.55	698.65	717.31	NA	724.74	717.55
5/31/2002	734.24	721.34	NA	723.44	718.57	730.36	733.46	715.03	712.62	740.38	761.23	NA	NA	733.42	704.75	698.65	718.36	NA	726.11	717.56
7/11/2002	734.79	720.64	NA	724.96	717.49	729.96	728.31	714.25	712.37	739.18	761.22	NA	NA	733.41	703.5	NA	717.46	NA	726.38	718.31
9/26/2002	734.19	NM	NA	722.55	715.33	728.86	732.5	714.18	712.74	739.38	761.32	NA	NA	733.42	700.55	NA	717.91	NA	723.13	714.93
11/21/2002	733.86	721.24	NA	722.26	714.24	727.94	730.41	713.88	712.76	739.13	761.27	NA	NA	732.42	699.65	NA	718.06	NA	719.43	713.68
1/30/2003	NM	NM	NA	NM	NM	NM	NM	NM	NM	NM	NM	NA	NA	NM	NM	NM	718.06	NA	719.43	713.68
4/3/2003	733.64	720.99	NA	726.51	712.84	727.61	730.71	713.25	712.22	740.37	761.37	NA	NA	731.63	700.3	NA	NA	NA	721.23	717.01
6/5/2003	733.79	721.04	NA	724.46	715.39	729.16	730.71	713.53	712.27	741.38	761.32	NA	NA	733.07	703.55	NA	NA	NA	722.3	714.86
8/7/2003	NM	721.44	NA	722.36	714.39	727.26	730.71	714.73	712.17	739.28	761.82	NA	NA	732.62	700.55	NA	742.96	NA	718.93	713.71
9/25/2003	NM	721.39	NA	722.21	713.63	727.56	730.66	713.02	712.07	739.28	761.37	NA	NA	732.37	699.65	NA	742.26	NA	719.05	712.94
11/26/2003	NM	721.69	NA	729.11	714.04	727.51	730.46	713.58	712.12	739.13	761.32	NA	NA	742.62	699.55	NA	742.26	NA	727.43	718.31
1/28/2004	NM	NM	NA	NM	NM	NM	NM	NM	NM	NM	NM	NA	NA	NM	NM	NM	NM	NM	NM	NM
3/4/2004	NM	722.69	NA	731.26	715.56	728.46	731.61	714.63	712.27	739.18	761.32	NA	NA	732.92	701.25	707.85		NM	727.49	NM
5/6/2004	734.29	720.04	NA	725.86	717.94	728.66	731.21	714.78	712.57	739.58	761.42	NA	NA	733.62	704	708.35		NM	726.43	NM
7/22/2004	734.09		NA	724.95	716.67	727.84	730.25	715.33	NM	739.09	761.42	NA	NA	733.34	703.18	NM		NM	722.82	NM
9/2/2004	733.9	NM	NA	722.84	714.95	726.72		714.49	712.38	738.93	761.42	NA	NA	733.53	701.14			746.44	720.85	714.08
11/10/2004	733.68	NM	NA	722.74	713.96	727.33		716.14	712.55	738.78		NA	NA	732.77	699.53				719.05	712.83
1/19/2005	NM	NM	NA	NM	NM	NM	NM	NM	NM	NM	NM	NA	NA	NM	NM	NM	NM	NM	NM	NM
3/10/2005	734.35	723.44	NA	NM	NM	NM	NM	NM	NM	739.13	761.48	NA	NA	733.95	704.9	NM		NM	NM	NM
5/11/2005	734.28	722.73	NA	724.37	718.15	727.62	729.97	715.83	712.55	739.39	761.49	NA	NA	733.95	703.41	707.76			724.60	NA
7/14/2005	733.98	723.56	NA	722.62	715.59	727.27	731.06	715.70	712.62	739.20	761.46	NA	NA	733.14	700.75				721.03	714.27
9/14/2005	733.85	723.74	NA	722.25	714.12	727.47		714.84	712.58	739.04	761.47	NA	NA	732.80	699.55			746.52	719.26	712.98
11/9/2005	733.56	723.69	NA	722.21	713.33	725.94		713.87	712.44	738.79	761.41	NA	NA	732.13					719.77	712.22
1/11/2006	733.57	723.92	NA	724.58	712.82	725.67		714.29	712.39	738.73	761.39	NA	NA	732.12		707.73			722.02	715.95
3/8/2006	733.55	724.19	NA	729.66	718.11	726.58		715.77	712.73	738.88	761.41	NA	NA	733.21	699.71	707.75			726.73	723.56
5/8/2006	734.24	723.99	NA	733.88	719.61	727.79		716.13	712.45	738.59	761.44	NA	NA	733.68	702.09				726.85	722.88
7/12/2006	734.17	722.02	NA	724.31	718.10			715.81	712.52	738.41	761.41	NA	NA	733.69	701.76				723.83	714.90
9/5/2006	733.94	722.10	NA	723.93	713.32	729.42	729.68	715.47	712.47	738.16	761.42	NA	NA	733.23	700.25		742.94	747.61	721.64	713.38
11/8/2006	734.21		NA	733.06	721.67	728.96	730.07	716.30	712.95	738.81	761.39	NA	NA	733.82	701.45	707.73			727.38	723.06

Notes:

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2. NA = not analyzed as a part of O&M activities
3. Blank cells indicate that no leachate was recorded at particular location
4. Due to new wellhead configuration, leachate level can not be measured in EW-8.
5. Leachate elevations measured on 1-12-99 collected during hostile weather conditions, were omitted from this table due to suspect inaccuracies caused by temperature related equipment failure.
6. Leachate elevations were not measured at several SVs or DVs on 1-12-99, 12-20-00, 1-24-01, 1-17-02, 1-30-03, 1-28-04, 1-19-05, 1-10-07, and 3-10-08 due to frozen flush mount vaults.
7. Leachate elevations were not measured at SV-4 and DV-9 on 3-12-07 due to flooded vaults.
8. Leachate elevations were not measured at SV-1, SV-4, DV-4, DV-9, and DV-11 on 1-9-08 due to flooded vaults.

Table 1
Leachate Levels
Blackwell Landfill NPL Site, DuPage County, Illinois

Date	SV-1	SV-2	SV-3	SV-4	SV-5	SV-6	SV-7	SV-8	SV-9	SV-11	SV-12	DV-1	DV-2	DV-3	DV-4	DV-5	DV-6	DV-7	DV-8	DV-9
1/10/2007	734.60		NA	NM	NM	731.94	729.64	717.64	NM	738.17	NM	NA	NA	NM	706.16	NM	742.98	NM	NM	NM
3/12/2007	734.44		NA	NM	723.78	730.56	729.53	717.73	713.13	741.70	761.48	NA	NA	734.15	707.03	708.23	745.41	747.59	726.60	NM
5/9/2007	734.41		NA	733.05	720.66	729.33		717.52	713.38	739.63	761.47	NA	NA	734.52	706.48				727.10	720.96
7/11/2007	733.82		NA	725.11	713.46	730.00		716.92	713.12	739.23	761.42	NA	NA	733.50	702.30				722.99	714.92
9/12/2007	730.68		NA	726.56	713.42	729.08		716.73	712.95	738.68	761.41	NA	NA	733.66	700.86				721.36	714.09
11/14/2007	733.61		NA	724.96	712.58	729.33	730.36	716.35	713.32	739.14	761.48	NA	NA	733.14	699.53	707.58	742.94	747.59	720.15	712.71
1/9/2008	NM		NA	NM	724.15	729.22	730.54	719.17	725.87	738.65	761.46	NA	NA	732.85	NM	717.97	743.02	747.62	727.62	NM
3/10/2008	734.11		NA	NM	NM	730.84	729.67	NM	NM	738.55	761.48	NA	NA	733.52	NM	NM	743.22	747.63	NM	NM

Notes:

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2. NA = not analyzed as a part of O&M activities
3. Blank cells indicate that no leachate was recorded at particular location
4. Due to new wellhead configuration, leachate level can not be measured in EW-8.
5. Leachate elevations measured on 1-12-99 collected during hostile weather conditions, were omitted from this table due to suspect inaccuracies caused by temperature related equipment failure.
6. Leachate elevations were not measured at several SVs or DVs on 1-12-99, 12-20-00, 1-24-01, 1-17-02, 1-30-03, 1-28-04, 1-19-05, 1-10-07, and 3-10-08 due to frozen flush mount vaults.
7. Leachate elevations were not measured at SV-4 and DV-9 on 3-12-07 due to flooded vaults.
8. Leachate elevations were not measured at SV-1, SV-4, DV-4, DV-9, and DV-11 on 1-9-08 due to flooded vaults.

Table 1
Leachate Levels
Blackwell Landfill NPL Site, DuPage County, Illinois

Date	DV-10	DV-11	DV-12	DV-13	DV-14	DV-15	DV-16	DV-17	DV-18	EW-1	EW-1A	EW-2	EW-3	EW-4	EW-5	EW-6	EW-7	EW-8
6/21/1996	739.01	750.32	700.67	712.85	NM	NM	NM	NM	NM	714.45	709.73	714.84	724.63	713.48	755.91	712.99	720.01	750.71
7/23/1996	738.71	750.72	704.65	711.7	720.1	700.76	700.84	707.19	NM	714.25	709.73	716.24	727.53	713.28	756.31	714.29	719.21	750.31
10/21/1996	735.97	747.29	700.38	712.63	716.7	698.61	NM	708.16	727.94	719.85	715.18	721.54	731.43	NA	760.71	720.89	725.11	749.21
11/19/1997	734.73	746.75	NA	712.45	717.65	701.11	702.33	713.43	NM	716.55	713.1	720.94	730.21	NA	NA	719.38	723.98	746.23
1/15/1998	738.76	751.42	NA	712.67	717.5	699.06	702.04	706.46	728.54	NM	709.83	719.54	734.06	NA	749.91	719.39	723.81	751.21
2/18/1998	737.26	753.17	NA	713.6	717.75	700.31	702.09	706.59	729.14	715.08	713.78	722.49	733.73	NA	736.76	719.14	723.41	753.21
3/10/1998	735.76	751.77	NA	712.65	717.15	700.61	701.89	706.29	728.84	713.58	713.73	713.59	731.4	NA	738.61	717.69	721.21	NM
4/14/1998	737.04	750.96	NA	713.42	717.46	701.32	702.04	706.87	731.84	714.71	713.8	724.44	732.76	NA	752.84	719.54	722.01	749.82
5/13/1998	737.17	745.47	NA	713.2	717.3	701.91	701.89	706.94	732.89	716.48	711.83	719.44	725.8	NA	740.36	716.99	719.26	744.61
6/17/1998	736.56	748.42	NA	713.15	717.25	700.66	702.29	707.09	NM	714.58	712.73	720.94	726.93	NA	739.96	720.19	724.66	744.81
7/15/1998	738.7	742.57	NA	712.95	717.4	700.8	701.99	707.34	NM	714.68	712.08	720.62	727.28	NA	725.41	720.19	718.16	742.79
8/11/1998	735.41	740.32	NA	713	717.55	699.61	701.94	707.29	729.14	714.73	710.81	716.86	725.8	NA	732.81	719.79	717.71	741.14
9/15/1998	732.66	740.92	NA	712.9	718.05	699.11	701.94	707.14	727.74	714.53	710.78	717.74	725.48	NA	734.51	716.24	716.21	740.76
10/16/1998	733.51	741.87	NA	713.1	718.35	698.86	NM	705.29	728.99	714.58	710.38	716.54	724.38	NA	736.06	718.79	715.21	741.21
11/17/1998	734.86	744.62	NA	713	718.55	699.66	701.84	707.04	728.59	714.48	713.63	717.79	726.53	NA	734.26	719.19	717.21	744.66
12/21/1998	735.03	740.89	NA	713.03	718.76	699.5	702.07	706.96	736.99	714.42	711.68	717.02	726.27	NA	734.25	713.54	715.64	NA
1/12/1999	NM	NM	NA	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NA	NM	NM	NM	NA
2/17/1999	734.88	747.12	NA	713.43	718.48	701.4	702.07	706.96	738.89	714.53	713.68	721.59	732.03	NA	736.86	716.24	717.81	NA
3/24/1999	735.78	749.82	NA	713.76	718.03	701.25	702.07	706.91	739.99	714.52	713.76	723.75	732.03	NA	730.52	715.23	717.41	NA
4/16/1999	739.48	750.5	NA	714.43	718.13	701.45	702.07	707.11	740.09	714.6	713.41	720.99	732.92	NA	736.54	716.84	716.86	NA
5/17/1999	737.03	751.42	NA	713.93	717.78	702.05	702.17	707.51	740.59	NA	711.58	716.34	732.53	NA	734.16	716.49	713.11	NA
6/22/1999	734.03	752.27	NA	713.73	717.63	701.55	702.07	707.51	739.99	714.51	713.68	725.04	731.98	NA	735.81	715.94	714.41	NA
7/22/1999	737.73	752.37	NA	NM	717.88	NM	702.13	707.56	740.78	714.73	NM	715.84	732.33	NA	735.01	716.74	720.11	NA
8/25/1999	729.18	743.27	NA	713.63	718.33	697.1	702.02	705.61	740.44	714.58	710.98	724.24	726.93	NA	731.56	713.87	713.41	NA
9/29/1999	731.98	737.2	NA	711.23	716.48	698.1	701.07	707.51	739.04	715.83	NM	719.7	732.08	NA	726.51	716.09	714.51	NA
10/27/1999	726.48	736.97	NA	711.18	716.68	696.5	702.07	705.61	740.19	714.51	710.48	721.84	733.83	NA	727.41	717.99	709.61	NA
12/1/1999	726.08	736.05	NA	710.68	716.49	696.5	702.07	705.66	741.59	714.36	709.43	717.13	727.82	713.01	716.21	712.28	NM	NA
12/29/1999	728.38	736.15	NA	711.4	716.93	696.58	702.05	705.68	740.89	714.33	710.98	713.89	729.88	NA	710.41	717.11	714.31	NA
1/25/2000	727.78	736.42	NA	710.78	716.63	696.5	702.07	705.21	741.94	714.83	713.03	723.14	731.63	NA	724.61	712.14	714.36	NA
2/29/2000	728.23	739.42	NA	711.28	716.33			705.21	741.24	714.93	713.83	723.04	728.13		726.61	713.19	713.21	NA
3/24/2000	726.41	740.92	NA	710.43	717.98		702.07	707.1	740.24	712.61	708.64	713.55	722.53	NA	720.02	714.44	710.99	NA
4/28/2000	725.26	743.67	NA	713.88		700.2	702.07	706.9	742.84	714.36	711.8	714.22	730.43	NA	722.68	710.31	712.89	NA
5/29/2000	721.63	743.92	NA	713.63	717.68	699.3	702.07	707.1	742.74	713.86	711.85	717.07	726.93	NA	723.02	711.99	712.69	NA
6/29/2000	721.11	741.56	NA	713.82	717.73	699.28	702.08	707.13	742.84	715.31	711.2	715.87	729.9	NA	730.1	711.19	712.6	NA
7/27/2000	722.73	739.84	NA	714.13	717.98	699	702.17	707.31	742.78	715.19	711.9	716.92	727.05	NA	722.5	712.95	712.63	NA
9/28/2000	723.25	738.25	NA	712.39	714.76	696.37	701.8	706.92	741.33	714.56	713.4	713.78	727.4	NA	717.5	717.09	713.7	NA
10/26/2000	721.4	738.55	NA	713.09	714.27	697.92	702.05	707.22	741.78	714.71	711.2	720.84	728.3	NA	722.72	712.21	712.47	NA
11/30/2000	721.7	740.2	NA	712.69	714.57	698.47	702.05	706.97	741.43	714.76	712.05	717.82	722.38	NA		715.08	712.54	NA
12/20/2000	NM	NM	NA	NM	NM	NM	NM	NM	NM	715.81	713.35	722.82	722.93	NA	NM	713.58	712.39	NA

Notes:

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5. Leachate elevations measured on 1-12-99 collected during hostile weather conditions, were omitted from this table due to suspect inaccuracies caused by temperature related equipment failure.
6. Leachate elevations were not measured at several SVs or DVs on 1-12-99, 12-20-00, 1-24-01, 1-17-02, 1-30-03, 1-28-04, 1-19-05, 1-10-07, and 3-10-08 due to frozen flush mount vaults.
7. Leachate elevations were not measured at SV-4 and DV-9 on 3-12-07 due to flooded vaults.
8. Leachate elevations were not measured at SV-1, SV-4, DV-4, DV-9, and DV-11 on 1-9-08 due to flooded vaults.

Table 1
Leachate Levels
Blackwell Landfill NPL Site, DuPage County, Illinois

Date	DV-10	DV-11	DV-12	DV-13	DV-14	DV-15	DV-16	DV-17	DV-18	EW-1	EW-1A	EW-2	EW-3	EW-4	EW-5	EW-6	EW-7	EW-8
1/24/2001	NM	NM	NA	713.64	NM	698.22	714.95	706.97	741.53	715.61	713.03	720.62	725.18	NA	725.02	713.68	713.89	NA
2/20/2001	721.55	745.7	NA	713.84	713.72	701.02	719.95	707.07	741.73	714.81	713.35	720.02	NM	NA	723.47	715.58	711.69	NA
3/21/2001	723.75	745	NA	713.79	717.92	701.37	722.55	NM	741.58	NM	NM	720.02	727.33	NA		NM		NA
5/31/2001	723.25	744.5	NA	712.29	715.92	702.47	720.15	709.32	744.83	713.16	713.35	718.17	728.33	NA	723.32	717.28	712.39	NA
7/12/2001	722.90	738.97	NA	715.04	717.54	699.57	712.02	707.87	741.63	760.52	713.26	717.38	728.61	NA	723.32	718.43	712.45	NA
9/20/2001	724.60	737.88	NA	714.39	717.93	698.50	706.07	707.87	742.23	712.71	NA	716.20	723.93	NA	731.32	715.08	712.59	NA
11/7/2001	723.12	744.85	NA	715.72	718.37	700.97	708.15	708.22	742.99	712.56	713.45	717.98	726.92	NA	725.17	720.28	712.44	NA
1/17/2002	NM	NM	NA	NM	NM	NM	NM	NM	NM	714.78	713.2	716.17	724.33	NA	728.26	719.28	712.39	NA
3/28/2002	723.32	749.95	NA	718.52	719.32	700.82	716.16	708.57	743.22	713.26	713.55	717.95	726.23	NA	726.67	719.98	712.29	NA
5/31/2002	724.5	750.8	NA	717.24	718.52	701.53	717.3	708.82	743.38	713.61	713.71	715.97	730.11	NA	726.37	720.41	712.34	NA
7/11/2002	725.65	746.6	NA	715.9	717.87	700.82	712.55	708.62	742.78	715.01	713.82	716.42	728.48	NA	726.77	720.33	712.34	NA
9/26/2002	722.64	739.19	NA	715.99	718.32	698.63	708.13	709.02	742.83	715.91	713.46	716.9	724.38	NA	724.47	NM	712.39	NA
11/21/2002	721.15	748.25	NA	715.24	718.82	697.87	707.05	708.67	739.78	717.36	713.33	717.07	723.38	NA	726.77	721.48	712.37	NA
1/30/2003	721.15	748.25	NA	715.24	718.82	697.87	707.05	708.67	739.78	717.36	713.33	717.07	723.38	NA	726.77	721.48	712.37	NA
4/3/2003	724.6	737.65	NA	714.29	718.55	697.69	724.65	708.07	742.63	721.66	711.82	715.5	718.03	NA	725.93	720.93	712.19	NA
6/5/2003	722.85	748.1	NA	726.29	718.12	701.07	714.65	708.27	742.73	721.31	711.85	722.22	722.83	NA	726.42	724.48	712.79	NA
8/7/2003	721.1	748.1	NA	715.99	717.77	698.87	713.6	708.22	743.13	721.91	711.15	712.72	718.08	NA	728.82	721.88	713.19	NA
9/25/2003	717.3	739.8	NA	715.64	717.68	697.62	709.6	707.92	743.33	722.06	712.45	721.17	718.38	NA	728.47	721.53	712.94	NA
11/26/2003	NM	743.7	NA	714.69	718.45	700.77	723.5	706.3	NM	721.86	713.64	713.12	717.43	NA	728.49	721.98	712.69	NA
1/28/2004	NM	NM	NA	NM	NM	NM	NM	NM	NM	NM	NM	NM	718.13	NA	728.19	721.98	712.44	NA
3/4/2004	NM	751.5	NA	714.29	720.72	699.17	718.85	702.57	NM	721.81	713.84	710.32	724.8	NA	728.32	724.38	711.99	NA
5/6/2004	NM	NM	NA	719.39	718.22	701.47	716.65	708.47	NM	714.71	714.05		721.03	NA	727.62	720.68	712.64	NA
7/22/2004	NM	749.1	NA	NM	718.17	NM	716.75	707.17	NM	720.27	713.83	716.49	725.71	NA			712.499	NA
9/2/2004	727.57	746.68	NA	718.59	718.07	699.48	712.52	705.57	744.53	721.56	713.63	715.31	723.03	NA	727.62	719.82	712.67	NA
11/10/2004	720.53	745.63	NA	718.67	718.34	697.67	708.92	708.63	744.88	720.13	712.69	717.04	717.84	NA		721.53	712.59	NA
1/19/2005	NM	NM	NA	NM	NM	NM	NM	NM	NM	716.35	713.8	716.8	728.32	NA	723.17	722.09	712.73	NA
3/10/2005	NM	NM	NA	NM	NM	NM	NM	NM	NM	715.87	713.87	717.5	730.17	NA	722.82	722.5	712.82	NA
5/11/2005	NA	752.41	NA	719.89	720.17	701.03	712.80	705.85	NA	719.71	713.56	714.28	720.68	NA	721.78	722.02	712.68	NA
7/14/2005	721.14	739.19	NA	719.26	719.11	698.95	707.50	708.69	746.2	NA	NA	NA	NA	NA	NA	NA	NA	NA
9/14/2005	721.04	738.58	NA	718.27	719.28	697.39	705.30	708.46	745.21	721.87	713.74	721.47	717.59	NA	721.59	NM		NA
11/9/2005	716.42	737.99	NA	719.54	719.29	696.95	703.74	708.06	745.62	721.85	713.14	718.38	717.23	NA	722.97	722.88	712.71	NA
1/11/2006	713.09	738.54	NA	718.90	719.33	696.81	702.59	707.86	745.12	718.06	714.12	717.94	NM	NA	721.40	722.90	712.36	NA
3/8/2006	721.05	744.02	NA	720.25	721.93	698.17	713.86	709.52	744.78	721.91	713.95	715.77	720.54	NA	724.42	723.23	715.80	NA
5/8/2006	721.94	743.60	NA	718.19	719.18	700.37	712.90	713.83	744.24	720.78	713.74	723.26	725.6	NA	724.64	722.48	714.67	NA
7/12/2006	721.43	739.82	NA	717.87	718.52	697.09	707.82	708.59	740.40	720.72	713.76	722.50	719.46	NA	722.70	720.13	716.08	NA
9/5/2006	720.15	739.24	NA	719.38	718.25	698.59	705.79	708.78	738.75	718.70	713.77	730.07	726.98	NA	729.43	720.49	716.66	NA
11/8/2006	730.07	750.13	NA	720.95	719.69	700.51	708.17	712.57	740.89	720.44	714.17	735.56	721.50	NA	723.33	726.90	722.22	NA

Notes:

1. NM = not measured for particular date
2. NA = not analyzed as a part of O&M activities
3. Blank cells indicate that no leachate was recorded at particular location
4. Due to new wellhead configuration, leachate level can not be measured in EW-8.
5. Leachate elevations measured on 1-12-99 collected during hostile weather conditions, were omitted from this table due to suspect inaccuracies caused by temperature related equipment failure.
6. Leachate elevations were not measured at several SVs or DVs on 1-12-99, 12-20-00, 1-24-01, 1-17-02, 1-30-03, 1-28-04, 1-19-05, 1-10-07, and 3-10-08 due to frozen flush mount vaults.
7. Leachate elevations were not measured at SV-4 and DV-9 on 3-12-07 due to flooded vaults.
8. Leachate elevations were not measured at SV-1, SV-4, DV-4, DV-9, and DV-11 on 1-9-08 due to flooded vaults.

Table 1
Leachate Levels
Blackwell Landfill NPL Site, DuPage County, Illinois

Date	DV-10	DV-11	DV-12	DV-13	DV-14	DV-15	DV-16	DV-17	DV-18	EW-1	EW-1A	EW-2	EW-3	EW-4	EW-5	EW-6	EW-7	EW-8
1/10/2007	NM	748.80	NA	720.91	720.33	NM	NM	NM	NM	721.58	715.61	731.06	720.95	NA	729.72	729.84	720.63	NA
3/12/2007	726.71	743.94	NA	723.47	719.58	703.34	721.75	712.71	741.46	716.60	713.96	736.61	728.40	NA	723.08	721.74	714.01	NA
5/9/2007	721.42	748.85	NA	719.78	718.95	703.03	711.25	717.62	741.91	721.81	713.71	727.38	729.93	NA	724.02	720.94	716.16	NA
7/11/2007	721.16	738.89	NA	719.13	717.64	700.36	707.59	713.27	741.93	722.17		713.51	728.60	NA		713.62	714.17	NA
9/12/2007	721.45	742.60	NA	718.28	718.10	699.27	708.05	713.77	741.52	NM	712.74	716.47	729.11	NA	722.27	722.43	715.55	NA
11/14/2007	719.09	741.62	NA	719.55	718.70	698.17	706.07	708.53	744.25	722.81	713.86	737.09	729.57	NA	724.63	732.74	716.33	NA
1/9/2008	725.60	NM	NA	723.43	715.87	698.51	713.35	724.65	751.63	722.81	713.88	734.57	729.45	NA	732.61	716.86	715.43	NA
3/10/2008	NM	749.88	NA	721.51	718.61	NM	723.52	NM	NM	722.92	713.93	737.03	735.08	NA	730.95	718.03	716.29	NA

Notes:

1. NM = not measured for particular date
2. NA = not analyzed as a part of O&M activities
3. Blank cells indicate that no leachate was recorded at particular location
4. Due to new wellhead configuration, leachate level can not be measured in EW-8.
5. Leachate elevations measured on 1-12-99 collected during hostile weather conditions, were omitted from this table due to suspect inaccuracies caused by temperature related equipment failure.
6. Leachate elevations were not measured at several SVs or DVs on 1-12-99, 12-20-00, 1-24-01, 1-17-02, 1-30-03, 1-28-04, 1-19-05, 1-10-07, and 3-10-08 due to frozen flush mount vaults.
7. Leachate elevations were not measured at SV-4 and DV-9 on 3-12-07 due to flooded vaults.
8. Leachate elevations were not measured at SV-1, SV-4, DV-4, DV-9, and DV-11 on 1-9-08 due to flooded vaults.

Table 1A
Average Leachate Elevations per Year of Operation
Blackwell Landfill NPL Site
DuPage County, Illinois

Period	SV-1	SV-2	SV-3	SV-4	SV-5	SV-6	SV-7	SV-8	SV-9	SV-10	SV-11
STARTUP	734.78	719.36	726.07	723.67	718.46	735.31	731.99	710.92	711.03	693.55	738.47
YEAR 1	734.53	718.68	725.07	721.47	718.40	732.23	730.24	711.91	711.58	694.53	738.96
YEAR 2	732.65	718.11	722.77	721.04	715.11	727.78	728.87	711.59	711.05	692.80	737.51
YEAR 3	734.15	718.81	722.07	723.61	716.61	729.11	728.92	712.56	711.64	694.07	738.73
YEAR 4	734.52	719.76	-	725.47	717.44	729.07	729.32	713.69	713.00	-	739.32
YEAR 5	734.14	721.05	-	723.94	715.69	728.95	731.08	714.12	712.54	-	739.69
YEAR 6	733.79	721.65	-	725.88	714.60	727.99	730.83	713.90	712.18	-	739.65
YEAR 7	734.06	721.74	-	724.10	715.88	727.64	730.73	715.19	712.50	-	739.10
YEAR 8	733.80	723.64	-	724.28	715.35	726.76	730.52	715.05	712.55	-	739.01
YEAR 9	734.27	722.70	-	728.80	719.30	729.73	729.73	716.51	712.70	-	738.97
YEAR 10	733.33	-	-	727.42	716.85	729.63	730.19	717.34	715.73	-	738.98

Notes:

1. All elevations are in feet above mean sea level.
2. Average elevations were calculated using all measurements collected at particular location during the given time period.

"-" = leachate not recorded at particular location during the given time period.

Table 1A
Average Leachate Elevations per Year of Operation
Blackwell Landfill NPL Site
DuPage County, Illinois

Period	SV-12	DV-1	DV-2	DV-3	DV-4	DV-5	DV-6	DV-7	DV-8	DV-9	DV-10
STARTUP	761.87	-	750.69	735.45	701.95	695.96	730.80	748.16	723.85	718.98	737.41
YEAR 1	761.72	-	745.58	734.59	703.51	696.12	722.05	747.71	723.71	719.21	735.91
YEAR 2	759.65	-	742.03	731.83	701.74	695.41	718.94	745.63	720.83	715.73	729.88
YEAR 3	760.94	-	742.40	733.10	701.66	699.80	717.01	740.59	724.26	717.68	722.14
YEAR 4	760.13	-	-	733.16	702.88	699.74	717.01	-	724.78	717.68	723.44
YEAR 5	761.28	-	-	732.86	701.75	698.65	717.97	-	722.62	715.86	723.28
YEAR 6	761.43	-	-	734.72	700.91	707.85	742.49	-	723.04	714.96	720.42
YEAR 7	761.44	-	-	733.44	702.55	708.35	-	746.44	722.29	713.46	724.05
YEAR 8	761.44	-	-	732.89	700.86	707.75	-	746.52	722.24	715.80	718.55
YEAR 9	761.43	-	-	733.71	703.12	707.98	-	747.60	725.26	718.56	724.06
YEAR 10	761.45	-	-	733.53	702.29	712.78	743.06	747.61	723.84	715.67	721.74

Notes:

1. All elevations are in feet above mean sea level.
2. Average elevations were calculated using all measurements collected at particular location during the given time period.

"-" = leachate not recorded at particular location during the given time period.

Table 1A
Average Leachate Elevations per Year of Operation
Blackwell Landfill NPL Site
DuPage County, Illinois

Period	DV-11	DV-12	DV-13	DV-14	DV-15	DV-16	DV-17	DV-18	EW-1	EW-1A	EW-2
STARTUP	749.95	701.90	712.65	717.94	699.97	701.83	708.37	728.54	716.04	711.89	719.27
YEAR 1	745.79	-	713.23	717.88	700.47	702.01	706.86	733.09	714.65	712.48	719.33
YEAR 2	742.18	-	712.01	717.19	698.34	701.99	706.42	740.81	714.51	711.44	719.00
YEAR 3	741.63	-	713.45	716.08	698.99	707.74	707.09	741.97	714.96	712.36	718.58
YEAR 4	743.23	-	715.19	717.82	700.47	712.51	708.37	742.98	721.17	713.36	717.31
YEAR 5	745.12	-	715.65	718.48	699.07	712.79	708.65	741.86	716.82	713.25	716.49
YEAR 6	746.24	-	717.38	718.55	699.50	716.04	706.66	743.06	721.79	712.59	715.91
YEAR 7	747.14	-	718.88	718.20	699.54	713.71	707.46	744.71	718.15	713.65	716.63
YEAR 8	741.79	-	719.35	719.85	698.22	707.63	708.07	745.39	720.68	713.70	717.57
YEAR 9	744.26	-	720.13	719.26	699.98	711.29	711.30	741.15	719.80	714.17	729.84
YEAR 10	744.37	-	720.28	717.98	699.87	711.64	715.57	744.25	722.50	713.62	727.68

Notes:

1. All elevations are in feet above mean sea level.
2. Average elevations were calculated using all measurements collected at particular location during the given time period.

"-" = leachate not recorded at particular location during the given time period.

Table 1A
Average Leachate Elevations per Year of Operation
Blackwell Landfill NPL Site
DuPage County, Illinois

Period	EW-3	EW-4	EW-5	EW-6	EW-7	EW-8
STARTUP	730.27	713.38	751.92	717.68	722.59	750.15
YEAR 1	728.43	-	736.38	717.73	718.41	743.73
YEAR 2	730.01	713.01	725.92	714.72	713.72	-
YEAR 3	726.38	-	723.47	713.71	712.73	-
YEAR 4	726.39	-	726.34	718.39	712.43	-
YEAR 5	724.63	-	726.18	720.93	712.33	-
YEAR 6	719.94	-	728.12	722.71	712.67	-
YEAR 7	724.35	-	725.31	721.32	712.66	-
YEAR 8	719.01	-	722.43	722.76	713.39	-
YEAR 9	723.82	-	725.48	723.60	717.38	-
YEAR 10	730.29	-	726.90	720.77	715.66	-

Notes:

1. All elevations are in feet above mean sea level.
2. Average elevations were calculated using all measurements collected at particular location during the given time period.

"-" = leachate not recorded at particular location during the given time period.

Table 2
Leachate Disposal - Daily Basis
Blackwell Landfill NPL Site, DuPage County, Illinois

Date	EW1 (gallons)	EW1A (gallons)	EW2 (gallons)	EW3 (gallons)	EW4 (gallons)	EW5 (gallons)	EW6 (gallons)	EW7 (gallons)	EW8 (gallons)	LS01 (gallons)	LS02 (gallons)	Extraction Wells (gallons)	Lift Station (gallons)	Cumulative Totals		
														Total EW (gallons)	Total LS (gallons)	Total LCS (gallons)
5/1/2007	81	472	0	235	1	701	0	0	8497	13	0	9987	13	3772905	1065323	4838228
5/2/2007	16	265	0	2823	0	527	7	0	4358	3	0	7997	3	3780902	1065326	4846228
5/3/2007	6	188	0	1122	0	184	9	0	3490	2	0	4998	2	3785900	1065328	4851228
5/9/2007	56	360	4	1703	0	366	0	0	7506	4	0	9996	4	3795895	1065333	4861228
5/10/2007	0	110	754	1275	759	318	7	516	2252	10	0	5990	10	3801885	1065343	4867228
5/15/2007	81	364	853	770	259	582	29	1017	6042	3	0	9997	3	3811882	1065346	4877228
5/16/2007	31	122	468	1224	140	341	7	7	349	2311	0	2689	2311	3814571	1067657	4882228
5/17/2007	0	106	179	280	49	194	11	0	3641	3538	0	4462	3538	3819033	1071195	4890228
5/22/2007	40	433	599	29	120	691	589	7	3557	1936	0	6064	1936	3825097	1073131	4898228
5/24/2007	39	125	162	20	32	130	14	13	4887	4579	0	5421	4579	3830518	1077710	4908228
5/29/2007	36	172	252	29	40	217	61	0	4568	4626	0	5374	4626	3835892	1082336	4918228
6/5/2007	24	130	271	19	74	342	9	17	4029	5085	0	4915	5085	3840807	1087421	4928228
6/7/2007	27	74	557	25	103	484	15	1791	2705	4219	0	5781	4219	3846588	1091640	4938228
6/12/2007	57	214	247	53	39	385	18	614	2703	5670	0	4330	5670	3850918	1097310	4948228
6/14/2007	32	163	456	38	78	459	13	1	2608	6153	0	3847	6153	3854765	1103463	4958228
6/19/2007	35	123	210	41	35	385	9	6	1994	7163	0	2837	7163	3857603	1110625	4968228
6/21/2007	1	133	427	205	78	376	2	1	1686	7092	0	2908	7092	3860511	1117717	4978228
6/26/2007	43	147	249	49	43	281	42	33	1357	7756	0	2244	7756	3862755	1125473	4988228
6/28/2007	49	142	426	40	82	429	8	102	1359	7364	0	2636	7364	3865391	1132837	4998228
7/3/2007	44	195	280	39	58	549	6	1354	1618	5356	0	4144	5356	3869535	1138193	5007728
7/5/2007	49	133	247	32	52	439	12	1138	765	2133	0	2867	2133	3872402	1140326	5012728
7/10/2007	51	265	381	37	91	719	19	4204	1480	2754	0	7246	2754	3879648	1143080	5022728
7/12/2007	9	137	155	1	52	385	0	812	433	1015	0	1985	1015	3881633	1144095	5025728
7/17/2007	13	279	412	18	91	643	5	130	1392	2017	0	2983	2017	3884616	1146112	5030728
7/26/2007	0	1	479	0	98	582	582	1	1333	1925	0	3075	1925	3887691	1148037	5035728
8/2/2007	0	0	358	9	87	636	56	1	1123	1230	0	2270	1230	3889961	1149267	5039228
8/9/2007	10	10	294	10	101	1005	1	715	1036	817	0	3183	817	3893144	1150084	5043228
8/16/2007	12	19	432	14	124	961	0	10	1446	1982	0	3018	1982	3896162	1152066	5048228
8/30/2007	43	43	704	41	192	1398	24	624	1689	5241	0	4759	5241	3900920	1157308	5058228
9/6/2007	43	57	489	38	133	1134	72	2121	1527	4385	0	5615	4385	3906535	1161693	5068228
9/13/2007	1	0	464	2	162	935	55	1163	0	2220	0	2780	2220	3909315	1163913	5073228
9/20/2007	17	12	357	770	96	1075	12	6	5	2050	0	2350	2050	3911665	1165963	5077628
10/4/2007	26	0	396	30	125	1074	7	1865	12	1465	0	3535	1465	3915200	1167428	5082628
10/18/2007	23	27	572	27	159	1312	25	1759	1	1095	0	3905	1095	3919105	1168523	5087628
10/25/2007	91	96	795	85	250	1371	18	1478	43	772	0	4228	772	3923334	1169294	5092628
11/15/2007	172	69	825	6	246	2591	13	838	4902	338	0	9662	338	3932996	1169632	5102628
11/29/2007	87	86	771	81	275	2069	11	4157	2432	32	0	9968	32	3942964	1169664	5112628
12/6/2007	66	50	898	71	345	3036	16	17	0	1	0	4499	1	3947464	1169664	5117128
12/13/2007	76	64	2	2	150	1429	0	2468	0	8	0	4192	8	3951656	1169672	5121328
12/21/2007	167	45	1342	93	359	3202	33	4363	20	377	0	9623	377	3961279	1170049	5131328
12/27/2007	629	787	78	451	270	29	0	7745	3	9	0	9991	9	3971270	1170058	5141328

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Table 2
Leachate Disposal - Daily Basis
Blackwell Landfill NPL Site, DuPage County, Illinois

Date	EW1 (gallons)	EW1A (gallons)	EW2 (gallons)	EW3 (gallons)	EW4 (gallons)	EW5 (gallons)	EW6 (gallons)	EW7 (gallons)	EW8 (gallons)	LS01 (gallons)	LS02 (gallons)	Extraction Wells (gallons)	Lift Station (gallons)	Cumulative Totals		
														Total EW (gallons)	Total LS (gallons)	Total LCS (gallons)
1/3/2008	83	95	452	63	229	854	14	472	2806	433	0	5067	433	3976337	1170491	5146828
1/10/2008	107	88	273	44	109	1432	5	2638	4959	345	0	9655	345	3985992	1170836	5156828
1/14/2008	51	56	110	64	124	707	5	76	244	8564	0	1436	8564	3987428	1179400	5166828
1/17/2008	44	53	232	44	35	451	4	719	52	8367	0	1633	8367	3989061	1187767	5176828
1/24/2008	45	51	319	60	80	602	19	383	37	8404	0	1596	8404	3990657	1196171	5186828
2/7/2008	0	2	790	0	159	1278	0	2670	0	101	0	4899	101	3995556	1196272	5191828
2/28/2008	45	42	1584	17	287	1296	7	1651	1	70	0	4930	70	4000486	1196342	5196828
3/6/2008	71	94	795	40	93	858	15	741	0	7293	0	2707	7293	4003193	1203635	5206828
3/13/2008	91	64	583	66	79	523	11	376	0	8208	0	1792	8208	4004985	1211843	5216828
3/20/2008	43	43	446	0	104	1361	7	2929	0	5067	0	4933	5067	4009918	1216910	5226828
3/27/2008	35	51	1083	33	79	676	3	2099	140	4678	0	4197	4678	4014115	1221588	5235703
4/3/2008	161	158	2022	154	229	2499	13	4271	398	95	0	9905	95	4024020	1221683	5245703
4/8/2008	32	50	244	33	33	252	7	929	141	8280	0	1720	8280	4025740	1229963	5255703
4/10/2008	403	408	4542	388	592	3610	57	0	0	0	0	10000	0	4035740	1229963	5265703
4/14/2008	73	104	665	73	96	805	8	0	187	7988	0	2012	7988	4037753	1237950	5275703
4/17/2008	77	76	852	1253	125	601	7	603	0	6407	0	3593	6407	4041346	1244357	5285703
4/21/2008	51	67	352	2219	33	364	13	1000	1	5900	0	4100	5900	4045446	1250257	5295703
4/24/2008	76	64	877	4158	104	786	15	1545	22	2353	0	7647	2353	4053093	1252610	5305703
4/28/2008	15	20	396	1448	37	391	4	7	2981	0	0	5300	0	4058393	1252610	5311003

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Table 3
Leachate Disposal - Yearly Basis
Blackwell Landfill NPL Site, DuPage County, Illinois

Extraction Well	Leachate Removal from Individual Extraction Wells (gallons)												
	Startup Dec. 1997 - Feb. 1998	Year 1 March 1998 - April 1999	Year 2 May 1999 - April 2000	Year 3 May 2000 - April 2001	Year 4 May 2001 - April 2002	Year 5 May 2002 - April 2003	Year 6 May 2003 - April 2004	Year 7 May 2004 - April 2005	Year 8 May 2005 - April 2006	Year 9 May 2006 - April 2007	Year 10 May 2007 - April 2008	Cumulative Total	Yearly Average
EW-1	833	46,087	25,471	17,143	45,274	15,792	6,669	5,237	9,439	24,687	3,784	200,415	19,958
EW-1A	547	8,712	4,584	11,029	13,188	4,026	6,016	3,283	19,847	37,715	7,802	116,748	11,620
EW-2	914	33,996	40,400	56,970	52,608	18,724	19,915	24,888	16,718	28,422	33,460	327,015	32,610
EW-3	3,589	96,472	72,175	144,770	72,347	26,795	18,062	15,188	33,827	147,336	21,994	652,556	64,897
EW-4	881	3,024	4,526	11,533	2,985	4,014	12,470	11,077	7,475	11,210	8,075	77,271	7,639
EW-5	1,841	32,345	41,765	32,441	22,578	13,805	9,245	10,473	40,402	77,344	53,310	335,549	33,371
EW-6	1,608	34,474	14,266	14,331	5,632	3,161	4,358	695	29	3,695	2,031	84,279	8,267
EW-7	2,694	182,798	41,832	31,046	19,308	16,454	11,321	12,159	24,660	87,732	64,204	494,207	49,151
EW-8	2,678	183,340	94,186	147,455	143,203	133,632	220,738	303,163	232,709	208,433	100,815	1,770,353	176,767
EW Subtotal	**15,585**	**621,248**	**339,205**	**466,718**	**377,122**	**236,403**	**308,793**	**386,164**	**385,105**	**626,574**	**295,475**	**4,058,393**	**404,281**
LS-01	10,082	227,965	120,844	174,240	136,778	55,597	64,507	116,536	42,295	79,226	187,300	1,215,371	120,529
LS-02	10,941	26,298	0	0	0	0	0	0	0	0	0	37,239	2,630
LS Subtotal	**21,023**	**254,264**	**120,844**	**174,240**	**136,778**	**55,597**	**64,507**	**116,536**	**42,295**	**79,226**	**187,300**	**1,252,610**	**123,159**
Total	**36,608**	**875,512**	**460,050**	**640,958**	**513,900**	**292,000**	**373,300**	**502,700**	**427,400**	**705,800**	**482,775**	**5,311,003**	**527,439**
Precipitaion (in.)	4.71	43.56	22.13	29.56	38.54	26.79	27.30	29.67	21.64	33.44	25.14	302.48	27.50
Total Gallons	5,116,196	47,316,667	24,038,518	32,109,290	41,863,736	29,100,402	29,654,385	32,228,776	23,506,260	36,323,906	27,308,103	328,566,237	29,869,658

Table 4
Cumulative Leachate Removal
(Sorted by Extracted Leachate Volume)
Blackwell Landfill NPL Site, DuPage County, Illinois

Extraction Wells/ Lift Stations	Total Volume Removed[1] (gallons)	Average Extraction Rate[2] (gallons/month)	Contribution to Total (%)	Cumulative Volume Extracted (gallons)	Cumulative Contribution to Total (%)
EW-8	1,770,353	14,489	33.3	1,770,353	33.3
LS-01	1,215,371	9,879	22.9	2,985,724	56.2
EW-3	652,556	5,319	12.3	3,638,280	68.5
EW-7	494,207	4,029	9.3	4,132,487	77.8
EW-5	335,549	2,735	6.3	4,468,035	84.1
EW-2	327,015	2,673	6.2	4,795,050	90.3
EW-1	200,415	1,636	3.8	4,995,465	94.1
EW-1A	116,748	952	2.2	5,112,213	96.3
EW-6	84,279	678	1.6	5,196,492	97.8
EW-4	77,271	626	1.5	5,273,764	99.3
LS-02	37,239	216	.7	5,311,003	100.0
TOTAL	**5,311,003**	**43,233**	**100.0**	**5,311,003**	**100.0**

Notes:

1. Cumulative leachate volumes are from December 1, 1997 to April 30, 2008.
2. During routine pumping.

Table 5
Leachate Analytical Results
Blackwell Landfill NPL Site
DuPage County, Illinois

Parameter	Units	LLSV8-01	LLDV5-01	Average	BW-LCS-01	BW-LCS-02	BW-LCS-03	BW-LCS-04	BW-LCS-05	BW-LCS-06	BW-LCS-07	BW-LCS-08	BW-LCS-09	BW-LCS-10	BW-LCS-11	BW-LCS-12
		Sep-91	Sep-91	Sep-91	Dec-97	Jan-98	Feb-98	Jun-98	Sep-98	Dec-98	Mar-99	Jul-99	Dec-99	Apr-00	Jul-00	Oct-00
Conventionals																
BOD_5	mg/L	NA	NA	NA	11,000	10,000	1,530	14,200	29,100	5,940	13,700	3,980	10,700	311	871	4,760
COD	mg/L	NA	NA	NA	15,000	13,300	1,990	19,900	22,900	7,920	22,600	4,440	16,000	969	1,450	5,900
Nitrogen Ammonia	mg/L	464	395	429.5	427	339	58.1	770	1,100	210	739	180	590	140	66.8	380
Oil & Grease	mg/L	NA	NA	NA	526	153	<1	486	<1	31	3	2	9	3	<1	226
pH @ 25 °C	units	NA	NA	NA	6.69	6.61	6.44	6.72	6.72	6.42	6.71	7.03	6.85	7.02	6.94	7.53
Phenol	mg/L	NA	NA	NA	0.44	1.76	0.43	3.09	5.7	1.46	3.2	0.7	2.5	0.28	0.18	0.83
Total Dissolved Solids	mg/L	12,700	5,690	9,195	13,200	11,400	2,550	18,260	21,000	6,850	23,300	4,920	16,900	3,290	3,490	6,780
Total Suspended Solids	mg/L	NA	NA	NA	417	476	224	2,040	215	264	1160	200	827	185	48	206
Cyanide	mg/L	ND	0.007	0.0035	NA	0.014	<0.005	<0.025	<0.025	<0.005	<0.005	<0.005	<0.005	0.006	<0.005	<0.005
Fluoride	mg/L	NA	NA	NA	NA	NA	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hardness	mg/L	NA	NA	NA	NA	NA	1330	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate+Nitrite	mg/L	3.18	0.06	1.62	NA	NA	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	mg/L	NA	NA	NA	NA	NA	0.08	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	mg/L	725	41	383	NA	NA	192	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics																
Arsenic	mg/L	0.045	0.045	0.045	0.008	<0.002	<0.002	<0.002	<0.004	<0.002	<0.004	NA	<0.04	<0.002	0.004	0.004
Barium	mg/L	0.612	0.32	0.466	0.273	0.304	0.178	2.02	0.918	0.192	0.578	NA	0.625	0.377	0.218	0.073
Boron	mg/L	NA	NA	NA	4.8	3.87	1.24	6.32	7.15	2.26	7.71	NA	6.29	1.65	1.07	3.15
Cadmium	mg/L	0.026	0.007	0.0165	0.082	0.051	0.008	0.18	0.049	0.037	0.062	NA	0.092	0.006	0.002	<0.001
Chromium	mg/L	0.022	0.144	0.083	0.008	0.01	0.871	0.07	0.022	0.005	0.018	NA	0.021	0.007	0.004	0.009
Chromium, Hexavalent	mg/L	NA	NA	NA	NA	NA	<0.005	NA	NA	NA	NA	NA	NA	NA	<0.05	<0.05
Chromium, Trivalent	mg/L	NA	NA	NA	NA	NA	0.871	NA	NA	NA	NA	NA	NA	NA	NA	<0.05
Copper	mg/L	ND	0.069	0.0345	<0.01	<0.01	0.025	<0.001	<0.002	<0.01	<0.002	NA	0.297	<0.001	<0.001	0.076
Iron	mg/L	2,120	182	1,151	550	542	89.6	792	552	451	1,010	NA	1,300	68.7	3.3	49
Lead	mg/L	0.03	0.396	0.213	0.1	0.066	0.014	0.534	0.138	0.05	0.109	NA	NA	0.027	0.009	0.003
Manganese	mg/L	30.6	2.86	16.73	8.5	8.72	1.82	13.4	8.71	8.7	14.6	NA	13.8	1.45	2.13	2.15
Mercury	mg/L	ND	0.002	0.001	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.0005	<0.001	NA	<0.001	<0.0005	<0.0005	<0.0005
Nickel	mg/L	0.233	0.186	0.2095	0.131	0.109	0.352	0.218	0.167	0.085	0.214	NA	0.167	0.036	0.023	0.062
Selenium	mg/L	NA	NA	NA	<0.02	<0.02	<0.02	<0.002	<0.004	<0.02	<0.004	NA	<0.04	<0.002	<0.002	<0.002
Silver	mg/L	0.03	ND	0.015	<0.001	<0.001	<0.01	<0.001	<0.002	<0.001	<0.002	NA	<0.001	<0.001	<0.001	<0.001
Zinc	mg/L	60.5	1.48	30.99	19.9	18.5	2.6	11.2	3.09	16.5	23.8	NA	28.8	2.93	0.5	0.454
Volatile Organic Compounds																
Acetone	ug/L	10,000	49	5,025	2,420	NA	442	NA	12,600	NA	7,710	NA	6,300	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<100	<100	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<100	<100	NA
Benzene	ug/L	160	27	93.5	26.1 J	NA	25.5	NA	36.2	NA	32	NA	18.01	8.4	5.3	NA
Bromodichloromethane	ug/L	NA	NA	NA	<50	NA	<5	NA	<5	NA	<5	NA	<5	<5	<5	NA
Bromoform	ug/L	NA	NA	NA	<50	NA	<5	NA	<5	NA	<5	NA	<5	<5	<5	NA
Bromomethane	ug/L	NA	NA	NA	<100	NA	<10	NA	<10	NA	<10	NA	<10	<10	<10	NA
2-Butanone	ug/L	NA	NA	NA	7,410	NA	854	NA	24,300	NA	17,000	NA	22,100	NA	NA	NA
Carbon disulfide	ug/L	ND	ND	ND	<50	NA	<5	NA	<5	NA	<5	NA	<5	<5	<5	NA
Carbon tetrachloride	ug/L	NA	NA	NA	<50	NA	<5	NA	<5	NA	<5	NA	<5	<5	<5	NA
Chlorobenzene	ug/L	ND	ND	ND	10.6 J	NA	124	NA	20.4	NA	11	NA	<5	25.2	<5	NA
Chlorodibromomethane	ug/L	NA	NA	NA	<50	NA	<5	NA	<5	NA	<5	NA	<5	<5	<5	NA
Chloroethane	ug/L	NA	NA	NA	<100	NA	<10	NA	23.4	NA	12	NA	<10	<10	<10	NA
2-Chloroethylvinyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<10	<10	NA
Chloroform	ug/L	NA	NA	NA	<50	NA	<5	NA	<5	NA	<5	NA	<5	<5	<5	NA
Chloromethane	ug/L	NA	NA	NA	<100	NA	<10	NA	<10	NA	<10	NA	<10	<10	<10	NA

Table 5
Leachate Analytical Results
Blackwell Landfill NPL Site
DuPage County, Illinois

Parameter	Units	LLSV8-01	LLDV5-01	Average	BW-LCS-01	BW-LCS-02	BW-LCS-03	BW-LCS-04	BW-LCS-05	BW-LCS-06	BW-LCS-07	BW-LCS-08	BW-LCS-09	BW-LCS-10	BW-LCS-11	BW-LCS-12
		Sep-91	Sep-91	Sep-91	Dec-97	Jan-98	Feb-98	Jun-98	Sep-98	Dec-98	Mar-99	Jul-99	Dec-99	Apr-00	Jul-00	Oct-00
Volatile Organic Compounds (Continued)																
1,1-Dichloroethane	ug/L	180	3	91.5	<50	NA	10.3	NA	9.2	NA	9	NA	<5	<5	<5	NA
1,2-Dichloroethane	ug/L	NA	NA	NA	<50	NA	<5	NA	<5	NA	<5	NA	<5	<5	<5	NA
1,1-Dichlorethene	ug/L	NA	NA	NA	<50	NA	<5	NA	<5	NA	<5	NA	<5	<5	<5	NA
cis-1,2-Dichloroethene	ug/L	NA	NA	NA	116	NA	99.2	NA	43	NA	88	NA	45.2	<5	<5	NA
trans-1,2-Dichloroethene	ug/L	NA	NA	NA	<50	NA	<5	NA	<5	NA	<5	NA	<5	<5	<5	NA
1,2-Dichloroethene (total)	ug/L	280	7	143.5	NA	NA	NA	NA	NA	NA	NA	NA	<5	NA	NA	NA
1,2-Dichloropropane	ug/L	ND	ND	ND	<50	NA	14.2	NA	<5	NA	<5	NA	<5	<5	<5	NA
cis-1,3-Dichloropropene	ug/L	NA	NA	NA	<50	NA	<5	NA	<5	NA	<5	NA	<5	<5	<5	NA
trans-1,3-Dichloropropene	ug/L	NA	NA	NA	<50	NA	<5	NA	<5	NA	<5	NA	<5	<5	<5	NA
Ethyl Benzene	ug/L	84	130	107	38.4 J	NA	27.6	NA	38.5	NA	48	NA	42.8	7.2	<5	NA
2-Hexanone	ug/L	NA	NA	NA	<100	NA	<10	NA	29.6	NA	24	NA	<10	NA	NA	NA
4-Methyl-2-pentanone	ug/L	1,100	28	564	144	NA	61.4	NA	544	NA	472	NA	353	NA	NA	NA
Methylene chloride	ug/L	NA	NA	NA	<50	NA	41.5	NA	<5	NA	<5	NA	<5	<5	<5	NA
Styrene	ug/L	NA	NA	NA	<50	NA	<5	NA	<5	NA	<5	NA	<5	NA	NA	NA
1,1,2,2-Tetrachloroethane	ug/L	NA	NA	NA	<50	NA	<5	NA	<5	NA	<5	NA	<5	<5	<5	NA
Tetrachloroethene	ug/L	ND	ND	ND	<50	NA	<5	NA	<5	NA	5	NA	17.8	<5	<5	NA
Toluene	ug/L	1,800	49	924.5	197	NA	117	NA	119	NA	192	NA	113	30.2	11.7	NA
1,1,1-Trichloroethane	ug/L	NA	NA	NA	<50	NA	<5	NA	<5	NA	<5	NA	<5	<5	<5	NA
1,1,2-Trichloroethane	ug/L	NA	NA	NA	<50	NA	<5	NA	<5	NA	<5	NA	<5	<5	<5	NA
Trichloroethene	ug/L	170	ND	85	23.7 J	NA	11.1	NA	6.2	NA	19	NA	15.4	<5	<5	NA
Vinyl Acetate	ug/L	NA	NA	NA	<100	NA	<10	NA	<10	NA	<10	NA	<10	NA	NA	NA
Vinyl Chloride	ug/L	ND	ND	ND	<100	NA	<10	NA	<10	NA	<10	NA	<10	<10	<10	NA
Xylenes (total)	ug/L	260	400	330	175	NA	95.8	NA	186	NA	<5	NA	228	NA	NA	NA
Semivolatile Organic Compounds																
Acenaphthene	ug/L	NA	NA	NA	<50	NA	<10	NA	<200	NA	<300	NA	<100	<10	<10	NA
Acenaphthylene	ug/L	NA	NA	NA	<50	NA	<10	NA	<200	NA	<300	NA	<100	<10	<10	NA
Anthracene	ug/L	NA	NA	NA	<50	NA	<10	NA	<200	NA	<300	NA	<100	<10	<10	NA
Benzidine	ug/L	NA	NA	NA	<50	NA	<10	NA	<200	NA	<300	NA	<100	<10	<10	NA
Benzo[a]anthracene	ug/L	NA	NA	NA	<50	NA	<10	NA	<200	NA	<300	NA	<100	<10	<10	NA
Benzo[b]fluoranthene	ug/L	NA	NA	NA	<50	NA	<10	NA	<200	NA	<300	NA	<100	<10	<10	NA
Benzo[k]fluoranthene	ug/L	NA	NA	NA	<50	NA	<10	NA	<200	NA	<300	NA	<100	<10	<10	NA
Benzo[g,h,i]perylene	ug/L	NA	NA	NA	<50	NA	<10	NA	<200	NA	<300	NA	<100	<10	<10	NA
Benzo[a]pyrene	ug/L	NA	NA	NA	<50	NA	<10	NA	<200	NA	<300	NA	<100	<10	<10	NA
Benzoic Acid	ug/L	NA	NA	NA	<250	NA	<50	NA	3,990	NA	15,400	NA	3,130	NA	NA	NA
Benzyl Alcohol	ug/L	NA	NA	NA	<100	NA	<20	NA	<400	NA	<600	NA	<200	NA	NA	NA
bis(2-chloroethoxy)methane	ug/L	NA	NA	NA	<50	NA	<10	NA	<200	NA	<300	NA	<100	<10	<10	NA
bis(2-chloroethyl) ether	ug/L	ND	ND	ND	<50	NA	<10	NA	<200	NA	<300	NA	<100	<10	<10	NA
bis(2-chloroisopropyl) ether	ug/L	NA	NA	NA	<50	NA	<10	NA	<200	NA	<300	NA	<100	<10	<10	NA
bis(2-ethylhexyl) phthalate	ug/L	NA	NA	NA	<50	NA	<10	NA	<200	NA	<300	NA	<100	<10	<10	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	<50	NA	<10	NA	<200	NA	<300	NA	<100	<10	<10	NA
Butylbenzylphthalate	ug/L	NA	NA	NA	<50	NA	<10	NA	<200	NA	<300	NA	<100	<10	<10	NA
4-Chloroaniline	ug/L	NA	NA	NA	<50	NA	<10	NA	<200	NA	<300	NA	<100	NA	NA	NA
4-Chloro-3-methylphenol	ug/L	ND	34	17	<100	NA	<20	NA	<400	NA	<600	NA	<200	<20	<20	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	<50	NA	<10	NA	<200	NA	<300	NA	<100	<10	<10	NA
2-Chlorophenol	ug/L	NA	NA	NA	<50	NA	<10	NA	<200	NA	<300	NA	<100	<10	<10	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	<50	NA	<10	NA	<200	NA	<300	NA	<100	<10	<10	NA
Chrysene	ug/L	NA	NA	NA	<50	NA	<10	NA	<200	NA	<300	NA	<100	<10	<10	NA

Table 5
Leachate Analytical Results
Blackwell Landfill NPL Site
DuPage County, Illinois

Parameter	Units	LLSV8-01	LLDV5-01	Average	BW-LCS-01	BW-LCS-02	BW-LCS-03	BW-LCS-04	BW-LCS-05	BW-LCS-06	BW-LCS-07	BW-LCS-08	BW-LCS-09	BW-LCS-10	BW-LCS-11	BW-LCS-12
		Sep-91	Sep-91	Sep-91	Dec-97	Jan-98	Feb-98	Jun-98	Sep-98	Dec-98	Mar-99	Jul-99	Dec-99	Apr-00	Jul-00	Oct-00
Semivolatile Organic Compounds (Continued)																
Dibenzofuran	ug/L	ND	ND	ND	<50	NA	<10	NA	<200	NA	<300	NA	<100	NA	NA	NA
1,2-Dichlorobenzene	ug/L	ND	4	2	<50	NA	<10	NA	<200	NA	<300	NA	<100	<10	<10	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	<50	NA	<10	NA	<200	NA	<300	NA	<100	<10	<10	NA
1,4-Dichlorobenzene	ug/L	ND	940	470	<50	NA	<10	NA	<200	NA	<300	NA	<100	27	12	NA
3,3-Dichlorobenzidine	ug/L	NA	NA	NA	<100	NA	<20	NA	<400	NA	<600	NA	<200	<20	<20	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	<50	NA	<10	NA	<200	NA	<300	NA	<100	<10	<10	NA
Diethylphthalate	ug/L	ND	33	16.5	<50	NA	147	NA	<200	NA	<300	NA	<100	<10	12	NA
2,4-Dimethylphenol	ug/L	ND	10	5	<50	NA	<10	NA	<200	NA	<300	NA	<100	<10	<10	NA
Dimethylphthalate	ug/L	NA	NA	NA	<50	NA	<10	NA	<200	NA	<300	NA	<100	<10	<10	NA
Di-n-butylphthalate	ug/L	ND	ND	ND	<50	NA	<10	NA	<200	NA	<300	NA	<100	<10	<10	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	<250	NA	<50	NA	<1,000	NA	<1,500	NA	<500	<50	<50	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	<250	NA	<50	NA	<1,000	NA	<1,500	NA	<500	<50	<50	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	<50	NA	<10	NA	<200	NA	<300	NA	<100	<10	<10	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	<50	NA	<10	NA	<200	NA	<300	NA	<100	<10	<10	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	<10	NA
Di-n-octylphthalate	ug/L	NA	NA	NA	<50	NA	<10	NA	<200	NA	<300	NA	<100	<10	<10	NA
Fluoranthene	ug/L	NA	NA	NA	<50	NA	<10	NA	<200	NA	<300	NA	<100	<10	<10	NA
Fluorene	ug/L	ND	ND	ND	<50	NA	<10	NA	<200	NA	<300	NA	<100	<10	<10	NA
Hexachlorobenzene	ug/L	NA	NA	NA	<50	NA	<10	NA	<200	NA	<300	NA	<100	<10	<10	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	<50	NA	<10	NA	<200	NA	<300	NA	<100	<10	<10	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	<50	NA	<10	NA	<200	NA	<300	NA	<100	<10	<10	NA
Hexachloroethane	ug/L	NA	NA	NA	<50	NA	<10	NA	<200	NA	<300	NA	<100	<10	<10	NA
Ideno[1,2,3-cd]pyrene	ug/L	NA	NA	NA	<50	NA	<10	NA	<200	NA	<300	NA	<100	<10	<10	NA
Isophorone	ug/L	ND	ND	ND	<50	NA	<10	NA	<200	NA	<300	NA	<100	<10	<10	NA
2-Methylnaphthalene	ug/L	ND	ND	ND	<50	NA	<10	NA	<200	NA	<300	NA	<100	NA	NA	NA
2-Methylphenol	ug/L	ND	ND	ND	<50	NA	<10	NA	<200	NA	<300	NA	<100	<50	<50	NA
3&4-Methylphenol	ug/L	17,000	5	8,503	229	NA	275	NA	10,100	NA	7,640	NA	6,870	157	380	NA
Naphthalene	ug/L	ND	960	480	<50	NA	<10	NA	866	NA	<300	NA	<100	15	<10	NA
2-Nitroaniline	ug/L	NA	NA	NA	<250	NA	<50	NA	<1,000	NA	<1,500	NA	<500	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	<250	NA	<50	NA	<1,000	NA	<1,500	NA	<500	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	<100	NA	<20	NA	<400	NA	<600	NA	<200	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	<50	NA	<10	NA	<200	NA	<300	NA	<100	<10	<10	NA
2-Nitrophenol	ug/L	NA	NA	NA	<50	NA	<10	NA	<200	NA	<300	NA	<100	<10	<10	NA
4-Nitrophenol	ug/L	NA	NA	NA	<250	NA	<50	NA	<1,000	NA	<1,500	NA	<500	<50	<50	NA
N-Nitrosodimethylamine	ug/L	ND	ND	ND	<50	NA	<10	NA	<200	NA	<300	NA	<100	<10	<10	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	<50	NA	<10	NA	<200	NA	<300	NA	<100	<10	<10	NA
n-Nitrosodiphenylamine	ug/L	NA	NA	NA	<50	NA	<10	NA	<200	NA	<300	NA	<100	<10	<10	NA
Pentachlorophenol	ug/L	ND	ND	ND	<250	NA	<50	NA	<1,000	NA	<1,500	NA	<500	<50	<50	NA
Phenanthrene	ug/L	NA	NA	NA	<50	NA	<10	NA	<200	NA	<300	NA	<100	<10	<10	NA
Phenol	ug/L	ND	ND	ND	124	NA	111	NA	1,620	NA	1,900	NA	1,280	23	32	NA
Pyrene	ug/L	NA	NA	NA	<50	NA	<10	NA	<200	NA	<300	NA	<100	<10	<10	NA
Pyridine	ug/L	NA	NA	NA	<250	NA	NA	NA	NA	NA	NA	NA	<100	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	<50	NA	<10	NA	<200	NA	<300	NA	<100	<10	<10	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	<50	NA	<10	NA	<200	NA	<300	NA	<100	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	<50	NA	<10	NA	<200	NA	<300	NA	<100	<10	<10	NA

Table 5
Leachate Analytical Results
Blackwell Landfill NPL Site
DuPage County, Illinois

Parameter	Units	LLSV8-01	LLDV5-01	Average	BW-LCS-01	BW-LCS-02	BW-LCS-03	BW-LCS-04	BW-LCS-05	BW-LCS-06	BW-LCS-07	BW-LCS-08	BW-LCS-09	BW-LCS-10	BW-LCS-11	BW-LCS-12
		Sep-91	Sep-91	Sep-91	Dec-97	Jan-98	Feb-98	Jun-98	Sep-98	Dec-98	Mar-99	Jul-99	Dec-99	Apr-00	Jul-00	Oct-00
Pesticides																
Aldrin	ug/L	NA	NA	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.5	NA	<0.05	<0.05	<0.05	NA
alpha-BHC	ug/L	NA	NA	NA	<0.05	NA	<0.05	NA	NA	NA	<0.5	NA	<0.05	<0.05	<0.05	NA
beta-BHC	ug/L	NA	NA	NA	<0.05	NA	<0.05	NA	NA	NA	<0.5	NA	<0.05	<0.05	<0.05	NA
delta-BHC	ug/L	NA	NA	NA	<0.05	NA	<0.05	NA	NA	NA	<0.5	NA	<0.05	<0.05	<0.05	NA
Lindane (gamma-BHC)	ug/L	NA	NA	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.5	NA	<0.05	<0.05	<0.05	NA
alpha-Chlordane	ug/L	NA	NA	NA	<0.50	NA	<0.5	NA	<0.5	NA	<0.5	NA	<0.50	<0.5	<0.5	NA
gamma-Chlordane	ug/L	NA	NA	NA	<0.50	NA	<0.5	NA	<0.5	NA	<0.5	NA	<0.50	<0.5	<0.5	NA
4,4'-DDD	ug/L	NA	NA	NA	<0.10	NA	<0.1	NA	<0.1	NA	<1	NA	<0.10	<0.10	<0.10	NA
4,4'-DDE	ug/L	NA	NA	NA	<0.10	NA	<0.1	NA	<0.1	NA	<1	NA	<0.10	<0.10	<0.10	NA
4,4'-DDT	ug/L	NA	NA	NA	<0.10	NA	<0.1	NA	<0.1	NA	<1	NA	<0.10	<0.10	<0.10	NA
Dieldrin	ug/L	NA	NA	NA	<0.10	NA	<0.1	NA	<0.1	NA	<1	NA	<0.10	<0.10	<0.10	NA
Endosulfan I	ug/L	NA	NA	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.5	NA	<0.05	<0.05	<0.05	NA
Endosulfan II	ug/L	NA	NA	NA	<0.10	NA	<0.1	NA	<0.1	NA	<1	NA	<0.10	<0.10	<0.10	NA
Endosulfan sulfate	ug/L	NA	NA	NA	<0.10	NA	<0.1	NA	<0.1	NA	<1	NA	<0.10	<0.10	<0.10	NA
Endrin	ug/L	NA	NA	NA	<0.10	NA	<0.1	NA	<0.1	NA	<1	NA	<0.10	<0.10	<0.10	NA
Endrin aldehyde	ug/L	NA	NA	NA	<0.10	NA	<0.1	NA	<0.1	NA	<1	NA	<0.10	<0.10	<0.10	NA
Endrin ketone	ug/L	NA	NA	NA	<0.10	NA	<0.1	NA	<0.1	NA	<1	NA	<0.10	<0.10	<0.10	NA
Heptachlor	ug/L	NA	NA	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.5	NA	<0.05	<0.05	<0.05	NA
Heptachlor epoxide	ug/L	NA	NA	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.5	NA	<0.05	<0.05	<0.05	NA
Methoxychlor	ug/L	NA	NA	NA	<0.5	NA	<0.5	NA	<0.5	NA	<5	NA	<0.50	<0.50	<0.50	NA
Toxaphene	ug/L	NA	NA	NA	<1	NA	<1	NA	<1	NA	<10	NA	<1.0	<1.0	<1.0	NA

Notes:

[1] The maximum and minimum values do not account for the two samples collected in 1991, prior to augmentation of the leachate collection system.

NA = No analysis.

ND = Not detected.

J = Data flag indicates an estimated value.

B = Data flag indicates analyte detected in associated method blank.

Table 5
Leachate Analytical Results
Blackwell Landfill NPL Site
DuPage County, Illinois

Parameter	Units	BW-LCS-13	BW-LCS-14	BW-LCS-15	BW-LCS-16	BW-LCS-17	BW-LCS-18	BW-LCS-19	BW-LCS-20	BW-LCS-21	BW-LCS-22	BW-LCS-23	BW-LCS-24	BW-LCS-25	BW-LCS-26	BW-LCS-27	BW-LCS-28	BW-LCS-29
		Jan-01	Apr-01	Jul-01	Oct-01	Jan-02	Apr-02	Jul-02	Oct-02	Jan-03	Apr-03	Aug-03	Nov-03	Jan-04	Mar-04	Jun-04	Sep-04	Dec-04
Conventionals																		
BOD_5	mg/L	502	448	888	1,460	303	3,040	1,050	595	38	6,880	204	244	270	4,110	354	204	185
COD	mg/L	1,080	730	1,590	1,900	1,060	4,080	3,800	1,030	865	7,360	415	559	2,350	5,500	603	384	776
Nitrogen Ammonia	mg/L	88	61	190	140	480	280	190	260	570	220	89	210	420	210	120	98	360
Oil & Grease	mg/L	6	4	<1	3	<1	20	3	38	<5	125	2	3	11	23	3	<1	8
pH @ 25 °C	units	6.87	7.61	7.72	6.92	7.4	7.01	7.31	7.5	7.95	6.85	7	7.56	7.28	6.65	7.36	7.19	7.42
Phenol	mg/L	0.13	0.13	0.37	0.54	0.18	0.96	1.25	0.35	0.05	1.61	0.18	0.1	0.6	1.04	0.12	0.11	0.32
Total Dissolved Solids	mg/L	2,440	2,460	4,101	3,970	6,130	6,820	6,000	4,770	7,580	7,330	2,410	3,380	6,680	5,440	2,630	2,210	5,700
Total Suspended Solids	mg/L	102	35	145	548	22	843	103	54	16	243	29	46	258	158	39	57	45
Cyanide	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.006	<0.005	<0.005	<0.005	0.006	<0.005	<0.005	<0.005	<0.005	0.006	<0.005
Fluoride	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hardness	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate+Nitrite	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	mg/L	140	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics																		
Arsenic	mg/L	<0.002	<0.02	<0.002	<0.002	0.003	0.003	0.011	0.006	0.009	0.008	<0.002	<0.002	0.008	<0.002	<0.002	0.005	0.003
Barium	mg/L	0.262	0.069	0.045	0.144	0.161	0.306	0.547	0.265	0.056	0.338	0.396	0.127	0.256	0.104	0.272	0.335	0.219
Boron	mg/L	1.06	0.52	0.06	1.34	2.9	1.4	2.91	2.88	3.86	2.4	1.38	1.53	3.25	0.76	1.09	1.54	3.21
Cadmium	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chromium	mg/L	0.004	0.003	0.008	0.006	0.016	0.012	0.015	0.017	0.016	0.008	0.003	0.007	0.016	0.005	0.005	0.005	0.012
Chromium, Hexavalent	mg/L	<0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium, Trivalent	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	mg/L	<0.001	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	0.047	0.004	0.004	0.008	0.036
Iron	mg/L	45.5	11.3	4.59	82.4	20.5	121	172	49.2	5.11	290	7.98	9.2	82.5	83.1	16.3	34.6	16.6
Lead	mg/L	0.004	<0.002	0.003	<0.002	0.008	0.008	0.012	0.006	0.006	0.01	0.002	<0.002	0.018	0.003	<0.002	<0.002	0.003
Manganese	mg/L	1.66	0.594	0.062	2.18	0.0131	1.18	3.57	0.371	0.018	6.12	0.441	0.215	0.654	2.54	0.624	0.622	0.17
Mercury	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Nickel	mg/L	0.013	0.012	0.004	0.029	0.063	0.03	0.04	0.054	0.088	0.038	0.017	0.034	0.068	0.016	0.022	0.017	0.062
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	0.004	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Silver	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	<0.001
Zinc	mg/L	0.364	0.19	0.035	0.144	0.248	0.812	1.32	0.65	0.086	1.52	0.048	0.087	0.444	0.458	0.183	0.143	0.196
Volatile Organic Compounds																		
Acetone	ug/L	NA	NA	428	NA	177	NA	903	NA	78	NA	106	NA	870	NA	NA	NA	NA
Acrolein	ug/L	<100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<100	NA	<100
Acrylonitrile	ug/L	<100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<100	NA	<100
Benzene	ug/L	8.6	NA	<5	NA	<5	NA	<5	NA	<5	NA	<5.0	NA	5.5	NA	<5.0	NA	<5.0
Bromodichloromethane	ug/L	<5	NA	<5	NA	<5	NA	<1	NA	<1	NA	<1.0	NA	<1.0	NA	<5.0	NA	<5.0
Bromoform	ug/L	<5	NA	<5	NA	<5	NA	<1	NA	<1	NA	<1.0	NA	<1.0	NA	<5.0	NA	<5.0
Bromomethane	ug/L	<10	NA	<10	NA	<10	NA	<5	NA	<5	NA	<1.0	NA	<5.0	NA	<10.0	NA	<10.0
2-Butanone	ug/L	NA	NA	815	NA	180	NA	1,910	NA	<10	NA	216	NA	2,020	NA	NA	NA	NA
Carbon disulfide	ug/L	<5	NA	<5	NA	<5	NA	<5	NA	<5	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0
Carbon tetrachloride	ug/L	<5	NA	<5	NA	<5	NA	<5	NA	<5	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0
Chlorobenzene	ug/L	25.8	NA	<5	NA	9.3	NA	<5	NA	<5	NA	5.7	NA	43.0	NA	16.8	NA	<5.0
Chlorodibromomethane	ug/L	<5	NA	<5	NA	<5	NA	<1	NA	<1	NA	<1.0	NA	<1.0	NA	<5.0	NA	<5.0
Chloroethane	ug/L	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10.0	NA	13.4	NA	12.1	NA	<10.0
2-Chloroethylvinyl ether	ug/L	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<10.0	NA	<10.0
Chloroform	ug/L	<5	NA	<5	NA	<5	NA	<1	NA	<1	NA	<1.0	NA	<1.0	NA	<5.0	NA	<5.0
Chloromethane	ug/L	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10.0	NA	<10.0	NA	<10.0	NA	<10.0

Table 5
Leachate Analytical Results
Blackwell Landfill NPL Site
DuPage County, Illinois

Parameter	Units	BW-LCS-13	BW-LCS-14	BW-LCS-15	BW-LCS-16	BW-LCS-17	BW-LCS-18	BW-LCS-19	BW-LCS-20	BW-LCS-21	BW-LCS-22	BW-LCS-23	BW-LCS-24	BW-LCS-25	BW-LCS-26	BW-LCS-27	BW-LCS-28	BW-LCS-29
		Jan-01	Apr-01	Jul-01	Oct-01	Jan-02	Apr-02	Jul-02	Oct-02	Jan-03	Apr-03	Aug-03	Nov-03	Jan-04	Mar-04	Jun-04	Sep-04	Dec-04
Volatile Organic Compounds (Continued)																		
1,1-Dichloroethane	ug/L	<5	NA	<5	NA	<5	NA	<5	NA	<5	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0
1,2-Dichloroethane	ug/L	<5	NA	<5	NA	<5	NA	<5	NA	<5	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0
1,1-Dichlorethene	ug/L	<5	NA	<5	NA	<5	NA	<5	NA	<5	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0
cis-1,2-Dichloroethene	ug/L	<5	NA	<5	NA	<5	NA	<5	NA	<5	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0
trans-1,2-Dichloroethene	ug/L	<5	NA	<5	NA	<5	NA	<5	NA	<5	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0
1,2-Dichloroethene (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	<5	NA	<5	NA	<5	NA	<5	NA	<5	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0
cis-1,3-Dichloropropene	ug/L	<5	NA	<5	NA	<5	NA	<1	NA	<1	NA	<1.0	NA	<1.0	NA	<5.0	NA	<5.0
trans-1,3-Dichloropropene	ug/L	<5	NA	<5	NA	<5	NA	<1	NA	<1	NA	<1.0	NA	<1.0	NA	<5.0	NA	<5.0
Ethyl Benzene	ug/L	7.6	NA	<5	NA	<5	NA	<5	NA	<5	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0
2-Hexanone	ug/L	NA	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10.0	NA	<10.0	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	NA	NA	26.4	NA	13.5	NA	50	NA	<10	NA	10.0	NA	80.8	NA	NA	NA	NA
Methylene chloride	ug/L	<5	NA	<5	NA	<5	NA	<5	NA	<5	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0
Styrene	ug/L	NA	NA	<5	NA	<5	NA	<5	NA	<5	NA	<5.0	NA	<5.0	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ug/L	<5	NA	<5	NA	<5	NA	<5	NA	<5	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0
Tetrachloroethene	ug/L	<5	NA	<5	NA	<5	NA	<5	NA	<5	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0
Toluene	ug/L	24.6	NA	<5	NA	<5	NA	8.1	NA	<5	NA	<5.0	NA	16.9	NA	6.3	NA	<5.0
1,1,1-Trichloroethane	ug/L	<5	NA	<5	NA	<5	NA	<5	NA	<5	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0
1,1,2-Trichloroethane	ug/L	<5	NA	<5	NA	<5	NA	<5	NA	<5	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0
Trichloroethene	ug/L	<5	NA	<5	NA	<5	NA	<5	NA	<5	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0
Vinyl Acetate	ug/L	NA	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10.0	NA	<10.0	NA	NA	NA	NA
Vinyl Chloride	ug/L	<10	NA	<2	NA	<2	NA	<2	NA	<2	NA	<2.0	NA	<2.0	NA	<10.0	NA	<10.0
Xylenes (total)	ug/L	NA	NA	<5	NA	<5	NA	<5	NA	<5	NA	<5.0	NA	30.4	NA	NA	NA	NA
Semivolatile Organic Compounds																		
Acenaphthene	ug/L	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10
Acenaphthylene	ug/L	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10
Anthracene	ug/L	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10
Benzidine	ug/L	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10
Benzo[a]anthracene	ug/L	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10
Benzo[b]fluoranthene	ug/L	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10
Benzo[k]fluoranthene	ug/L	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10
Benzo[g,h,i]perylene	ug/L	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10
Benzo[a]pyrene	ug/L	<10	NA	NA	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10
Benzoic Acid	ug/L	NA	NA	<50	NA	346	NA	730	NA	<50	NA	93	NA	1,410	NA	NA	NA	NA
Benzyl Alcohol	ug/L	NA	NA	<20	NA	<20	NA	<20	NA	<20	NA	<20	NA	<20	NA	NA	NA	NA
bis(2-chloroethoxy)methane	ug/L	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10
bis(2-chloroethyl) ether	ug/L	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10
bis(2-chloroisopropyl) ether	ug/L	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10
bis(2-ethylhexyl) phthalate	ug/L	<10	NA	<6	NA	<10	NA	<10	NA	<5	NA	<5	NA	<5	NA	<10	NA	<10
4-Bromophenyl-phenylether	ug/L	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10
Butylbenzylphthalate	ug/L	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10
4-Chloroaniline	ug/L	NA	NA	<20	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	NA	NA	NA
4-Chloro-3-methylphenol	ug/L	<20	NA	<10	NA	<20	NA	<20	NA	<20	NA	<20	NA	<20	NA	<20	NA	<20
2-Chloronaphthalene	ug/L	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10
2-Chlorophenol	ug/L	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10
4-Chlorophenyl-phenylether	ug/L	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10
Chrysene	ug/L	<10	NA	NA	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10

Table 5
Leachate Analytical Results
Blackwell Landfill NPL Site
DuPage County, Illinois

Parameter	Units	BW-LCS-13	BW-LCS-14	BW-LCS-15	BW-LCS-16	BW-LCS-17	BW-LCS-18	BW-LCS-19	BW-LCS-20	BW-LCS-21	BW-LCS-22	BW-LCS-23	BW-LCS-24	BW-LCS-25	BW-LCS-26	BW-LCS-27	BW-LCS-28	BW-LCS-29
		Jan-01	Apr-01	Jul-01	Oct-01	Jan-02	Apr-02	Jul-02	Oct-02	Jan-03	Apr-03	Aug-03	Nov-03	Jan-04	Mar-04	Jun-04	Sep-04	Dec-04
Semivolatile Organic Compounds (Continued)																		
Dibenzofuran	ug/L	NA	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10
1,3-Dichlorobenzene	ug/L	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10
1,4-Dichlorobenzene	ug/L	17	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10
3,3-Dichlorobenzidine	ug/L	<20	NA	<20	NA	<20	NA	<20	NA	<20	NA	<20	NA	<20	NA	<20	NA	<20
2,4-Dichlorophenol	ug/L	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10
Diethylphthalate	ug/L	<10	NA	55	NA	17	NA	<10	NA	<10	NA	<10	NA	31	NA	14	NA	16
2,4-Dimethylphenol	ug/L	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10
Dimethylphthalate	ug/L	<10	NA	55	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10
Di-n-butylphthalate	ug/L	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10
4,6-Dinitro-2-methylphenol	ug/L	<50	NA	<50	NA	<50	NA	<50	NA	<50	NA	<50	NA	<50	NA	<50	NA	<50
2,4-Dinitrophenol	ug/L	<50	NA	<50	NA	<50	NA	<50	NA	<50	NA	<50	NA	<50	NA	<50	NA	<50
2,4-Dinitrotoluene	ug/L	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10
2,6-Dinitrotoluene	ug/L	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10
1,2-Diphenylhydrazine	ug/L	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<10	NA	<10
Di-n-octylphthalate	ug/L	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10
Fluoranthene	ug/L	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10
Fluorene	ug/L	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10
Hexachlorobenzene	ug/L	<10	NA	NA	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10
Hexachlorobutadiene	ug/L	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10
Hexachlorocyclopentadiene	ug/L	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10
Hexachloroethane	ug/L	<10	NA	<10	NA	<10	NA	<10	NA	<5	NA	<5	NA	<5	NA	<10	NA	<10
Ideno[1,2,3-cd]pyrene	ug/L	<10	NA	NA	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10
Isophorone	ug/L	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10
2-Methylnaphthalene	ug/L	NA	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	NA	NA	NA
2-Methylphenol	ug/L	<50	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<50	NA	<50
3&4-Methylphenol	ug/L	168	NA	101	NA	224	NA	410	NA	<10	NA	89	NA	1,100	NA	226	NA	429
Naphthalene	ug/L	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10
2-Nitroaniline	ug/L	NA	NA	<50	NA	<50	NA	<50	NA	<50	NA	<50	NA	<50	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	<50	NA	<50	NA	<50	NA	<50	NA	<51	NA	<50	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	<20	NA	<20	NA	<20	NA	<20	NA	<20	NA	<20	NA	NA	NA	NA
Nitrobenzene	ug/L	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10
2-Nitrophenol	ug/L	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10
4-Nitrophenol	ug/L	<50	NA	<50	NA	<50	NA	<50	NA	<50	NA	<50	NA	<50	NA	<50	NA	<50
N-Nitrosodimethylamine	ug/L	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10
N-Nitroso-di-n-propylamine	ug/L	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10
n-Nitrosodiphenylamine	ug/L	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10
Pentachlorophenol	ug/L	<50	NA	NA	NA	<50	NA	<50	NA	<50	NA	<50	NA	<50	NA	<50	NA	<50
Phenanthrene	ug/L	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10
Phenol	ug/L	25	NA	100	NA	23	NA	118	NA	<10	NA	<10	NA	202	NA	33	NA	75
Pyrene	ug/L	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10
2,4,5-Trichlorophenol	ug/L	NA	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10	NA	<10

Table 5
Leachate Analytical Results
Blackwell Landfill NPL Site
DuPage County, Illinois

Parameter	Units	BW-LCS-13	BW-LCS-14	BW-LCS-15	BW-LCS-16	BW-LCS-17	BW-LCS-18	BW-LCS-19	BW-LCS-20	BW-LCS-21	BW-LCS-22	BW-LCS-23	BW-LCS-24	BW-LCS-25	BW-LCS-26	BW-LCS-27	BW-LCS-28	BW-LCS-29
		Jan-01	Apr-01	Jul-01	Oct-01	Jan-02	Apr-02	Jul-02	Oct-02	Jan-03	Apr-03	Aug-03	Nov-03	Jan-04	Mar-04	Jun-04	Sep-04	Dec-04
Pesticides																		
Aldrin	ug/L	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05
alpha-BHC	ug/L	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05
beta-BHC	ug/L	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05
delta-BHC	ug/L	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05
Lindane (gamma-BHC)	ug/L	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05
alpha-Chlordane	ug/L	<0.5	NA	<0.50	NA	<0.50	NA	<0.50	NA	<0.50	NA	<0.50	NA	<0.50	NA	<0.50	NA	<0.50
gamma-Chlordane	ug/L	<0.5	NA	<0.50	NA	<0.50	NA	<0.50	NA	<0.50	NA	<0.50	NA	<0.50	NA	<0.50	NA	<0.50
4,4'-DDD	ug/L	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<1.10	NA	<0.10	NA	<0.10	NA	<0.10
4,4'-DDE	ug/L	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<1.10	NA	<0.10	NA	<0.10	NA	<0.10
4,4'-DDT	ug/L	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<1.10	NA	<0.10	NA	<0.10	NA	<0.10
Dieldrin	ug/L	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<1.10	NA	<0.10	NA	<0.10	NA	<0.10
Endosulfan I	ug/L	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05
Endosulfan II	ug/L	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10
Endosulfan sulfate	ug/L	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10
Endrin	ug/L	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10
Endrin aldehyde	ug/L	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10
Endrin ketone	ug/L	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10
Heptachlor	ug/L	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05
Heptachlor epoxide	ug/L	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05
Methoxychlor	ug/L	<0.50	NA	<0.50	NA	<0.50	NA	<0.50	NA	<0.50	NA	<0.50	NA	<0.50	NA	<0.50	NA	<0.50
Toxaphene	ug/L	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	NA	<1.0

Notes:
[1]The maximum and minimum values do not account for the two samples collected in 1991, prior to augmentation of the leachate collection system.
NA: No analysis.
ND: Not detected.
J: Data flag indicates an estimated value.
B = Data flag indicates analyte detected in associated method blank.

Table 5
Leachate Analytical Results
Blackwell Landfill NPL Site
DuPage County, Illinois

Parameter	Units	BW-LCS-30 Mar-05	BW-LCS-31 Jun-05	BW-LCS-32 Sep-05	BW-LCS-33 Dec-05	BW-LCS-34 Mar-06	BW-LCS-35 Jun-06	BW-LCS-36 Aug-06	BW-LCS-37 Nov-06	BW-LCS-38 Feb-07	BW-LCS-39 May-07	BW-LCS-40 Aug-07	BW-LCS-41 Nov-07	BW-LCS-42 Feb-08	Minimum[1]	Maximum[1]
Conventionals																
BOD_5	mg/L	274	246	23	89	186	1,860	4,000	5,800	858	4	51	2,220	352	4	29,100
COD	mg/L	485	570	542	910	272	2,990	22,300	8,520	1,480	39	316	1,210	1,020	39	22,900
Nitrogen Ammonia	mg/L	69.2	96.4	160	449	98	140	256	310	240	23	140	250	360	23	1100
Oil & Grease	mg/L	3	12	<1	3	<1	28	290	125	5	<1	3	3	4	<1	526
pH @ 25 °C	units	7.57	7.25	7.31	8.34	7.37	7.11	7.28	7.28	7.52	6.86	7.98	7.38	7.61	6.42	8.34
Phenol	mg/L	0.14	0.16	0.06	0.05	<0.05	0.68	<0.5	2.01	0.38	0.01	0.05	0.23	0.28	0.01	5.7
Total Dissolved Solids	mg/L	1,940	2,490	2,670	6,660	2,090	4,180	2,500	8,610	4,320	1,230	1,230	5,510	5,220	1,230	23,300
Total Suspended Solids	mg/L	21	74	64	171	106	106	14,000	39	74	48	192	133	45	16	14,000
Cyanide	mg/L	<0.005	<0.005	0.013	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.005	0.005	<0.005	<0.005	0.014
Fluoride	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hardness	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1330	1330
Nitrate+Nitrite	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.08	0.08
Sulfate	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	140	192
Inorganics																
Arsenic	mg/L	<0.002	0.004	<0.002	0.008	<0.002	0.006	0.020	<0.002	0.006	<0.002	<0.002	0.006	0.012	<0.002	0.02
Barium	mg/L	0.076	0.398	0.288	0.107	0.132	0.318	0.160	0.189	0.202	0.093	0.098	0.198	0.171	0.045	2.02
Boron	mg/L	0.95	1.11	1.32	3.81	0.74	1.37	0.08	2.23	2.28	0.26	1.6	2.54	2.55	0.06	7.71
Cadmium	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	0.002	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	0.18
Chromium	mg/L	0.002	0.006	0.003	0.015	<0.001	0.005	0.001	0.005	0.009	<0.001	0.004	0.006	0.013	<0.001	0.871
Chromium, Hexavalent	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium, Trivalent	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.871	0.871
Copper	mg/L	0.007	0.031	0.026	0.089	0.004	0.007	0.018	0.006	0.008	<0.001	<0.001	0.012	0.003	<0.001	0.297
Iron	mg/L	11.1	25.5	18.3	8.0	32.3	42.0	294	25.7	27.3	13.1	4.19	84.6	17.8	3.3	1300
Lead	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.028	<0.002	<0.002	<0.002	<0.002	<0.002	0.004	<0.002	0.534
Manganese	mg/L	0.55	0.674	0.248	0.047	0.548	2.20	1.10	4.03	0.873	0.343	0.041	1.940	0.250	0.0131	14.6
Mercury	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001
Nickel	mg/L	0.014	0.020	0.018	0.086	0.012	0.020	0.034	0.038	0.045	0.002	0.019	0.040	0.063	0.002	0.352
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.004
Silver	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002
Zinc	mg/L	0.054	0.234	0.109	0.235	0.087	0.451	7.63	0.149	0.162	0.013	0.018	0.228	0.111	0.013	28.8
Volatile Organic Compounds																
Acetone	ug/L	NA	346	NA	<100	NA	1,100	NA	2,970	NA	<100	NA	1,180	NA	78	12,600
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	36.2
Bromodichloromethane	ug/L	NA	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	<50
Bromoform	ug/L	NA	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	<50
Bromomethane	ug/L	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<1.0	<100
2-Butanone	ug/L	NA	586	NA	19.3	NA	2,410	NA	6,390	NA	<10.0	NA	2,540	NA	<10.0	24,300
Carbon disulfide	ug/L	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	<50
Carbon tetrachloride	ug/L	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	<50
Chlorobenzene	ug/L	NA	<5.0	NA	<5.0	NA	9.9	NA	10.5	NA	<5.0	NA	<5.0	NA	<5.0	124
Chlorodibromomethane	ug/L	NA	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	<50
Chloroethane	ug/L	NA	<10.0	NA	<10.0	NA	<10.0	NA	<10.0	NA	<10.0	NA	<10.0	NA	<10	23.4
2-Chloroethylvinyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<10	<10
Chloroform	ug/L	NA	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	<50
Chloromethane	ug/L	NA	<10.0	NA	<10.0	NA	<10.0	NA	<10.0	NA	<10.0	NA	<10.0	NA	<10	<100

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Table 5
Leachate Analytical Results
Blackwell Landfill NPL Site
DuPage County, Illinois

Parameter	Units	BW-LCS-30	BW-LCS-31	BW-LCS-32	BW-LCS-33	BW-LCS-34	BW-LCS-35	BW-LCS-36	BW-LCS-37	BW-LCS-38	BW-LCS-39	BW-LCS-40	BW-LCS-41	BW-LCS-42	Minimum[1]	Maximum[1]
		Mar-05	Jun-05	Sep-05	Dec-05	Mar-06	Jun-06	Aug-06	Nov-06	Feb-07	May-07	Aug-07	Nov-07	Feb-08		
Volatile Organic Compounds (Continued)																
1,1-Dichloroethane	ug/L	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	10.3
1,2-Dichloroethane	ug/L	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	<50
1,1-Dichlorethene	ug/L	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	<50
cis-1,2-Dichloroethene	ug/L	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	116
trans-1,2-Dichloroethene	ug/L	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	<50
1,2-Dichloroethene (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5.0	<5.0
1,2-Dichloropropane	ug/L	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	14.2
cis-1,3-Dichloropropene	ug/L	NA	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	<50
trans-1,3-Dichloropropene	ug/L	NA	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	<50
Ethyl Benzene	ug/L	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	48
2-Hexanone	ug/L	NA	<10.0	NA	<10.0	NA	<10.0	NA	30.6	NA	<10.0	NA	<10.0	NA	<10	30.6
4-Methyl-2-pentanone	ug/L	NA	16.6	NA	<10.0	NA	40.9	NA	111	NA	<10.0	NA	89.1	NA	<10	544
Methylene chloride	ug/L	NA	<5.0	NA	<5.0	NA	5.6	NA	8.0	NA	<5.0	NA	7.0	NA	<5.0	41.5
Styrene	ug/L	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	<50
1,1,2,2-Tetrachloroethane	ug/L	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	<50
Tetrachloroethene	ug/L	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	17.8
Toluene	ug/L	NA	<5.0	NA	<5.0	NA	5.1	NA	10.1	NA	<5.0	NA	11.0	NA	<5.0	197
1,1,1-Trichloroethane	ug/L	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	<50
1,1,2-Trichloroethane	ug/L	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	<50
Trichloroethene	ug/L	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	19
Vinyl Acetate	ug/L	NA	<10.0	NA	<10.0	NA	<10.0	NA	<10.0	NA	<10.0	NA	<10.0	NA	<10	<100
Vinyl Chloride	ug/L	NA	<2.0	NA	<2.0	NA	<2.0	NA	<2.0	NA	<2.0	NA	<2.0	NA	<2.0	<100
Xylenes (total)	ug/L	NA	<5.0	NA	<5.0	NA	19.9	NA	9.4	NA	<5.0	NA	8.4	NA	<5.0	228
Semivolatile Organic Compounds																
Acenaphthene	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA	<10	<300
Acenaphthylene	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA	<10	<300
Anthracene	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA	<10	<300
Benzidine	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA	<10	<300
Benzo[a]anthracene	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA	<10	<300
Benzo[b]fluoranthene	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA	<10	<300
Benzo[k]fluoranthene	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA	<10	<300
Benzo[g,h,i]perylene	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA	<10	<300
Benzo[a]pyrene	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA	<10	<300
Benzoic Acid	ug/L	NA	221	NA	<50	NA	1,580	NA	3,580	NA	<50	NA	<50	NA	<50	15,400
Benzyl Alcohol	ug/L	NA	<20	NA	<20	NA	<20	NA	<40	NA	<20	NA	<20	NA	<20	<600
bis(2-chloroethoxy)methane	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA	<10	<300
bis(2-chloroethyl) ether	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA	<10	<300
bis(2-chloroisopropyl) ether	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA	<10	<300
bis(2-ethylhexyl) phthalate	ug/L	NA	<5	NA	<5	NA	<5	NA	<10	NA	<5	NA	59 B	NA	<5.0	<300
4-Bromophenyl-phenylether	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA	<10	<300
Butylbenzylphthalate	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA	<10	<300
4-Chloroaniline	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA	<10	<300
4-Chloro-3-methylphenol	ug/L	NA	<20	NA	<20	NA	<20	NA	<40	NA	<20	NA	<20	NA	<10	<600
2-Chloronaphthalene	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA	<10	<300
2-Chlorophenol	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA	<10	<300
4-Chlorophenyl-phenylether	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA	<10	<300
Chrysene	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA	<10	<300

Table 5
Leachate Analytical Results
Blackwell Landfill NPL Site
DuPage County, Illinois

Parameter	Units	BW-LCS-30	BW-LCS-31	BW-LCS-32	BW-LCS-33	BW-LCS-34	BW-LCS-35	BW-LCS-36	BW-LCS-37	BW-LCS-38	BW-LCS-39	BW-LCS-40	BW-LCS-41	BW-LCS-42	Minimum[1]	Maximum[1]
		Mar-05	Jun-05	Sep-05	Dec-05	Mar-06	Jun-06	Aug-06	Nov-06	Feb-07	May-07	Aug-07	Nov-07	Feb-08		
Semivolatile Organic Compounds (Continued)																
Dibenzofuran	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA	<10	<300
1,2-Dichlorobenzene	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA	<10	<300
1,3-Dichlorobenzene	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA	<10	<300
1,4-Dichlorobenzene	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA	<10	27
3,3-Dichlorobenzidine	ug/L	NA	<20	NA	<20	NA	<20	NA	<40	NA	<20	NA	<20	NA	<20	<600
2,4-Dichlorophenol	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA	<10	<300
Diethylphthalate	ug/L	NA	15	NA	<10	NA	37	NA	79	NA	<10	NA	28	NA	<10	147
2,4-Dimethylphenol	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA	<10	<300
Dimethylphthalate	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA	<10	55
Di-n-butylphthalate	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA	<10	<300
4,6-Dinitro-2-methylphenol	ug/L	NA	<50	NA	<50	NA	<50	NA	<100	NA	<50	NA	<50	NA	<50	<1,500
2,4-Dinitrophenol	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA	<50	<1,500
2,4-Dinitrotoluene	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA	<10	<300
2,6-Dinitrotoluene	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA	<10	<300
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<10	<10
Di-n-octylphthalate	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA	<10	<300
Fluoranthene	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA	<10	<300
Fluorene	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA	<10	<300
Hexachlorobenzene	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA	<10	<300
Hexachlorobutadiene	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA	<10	<300
Hexachlorocyclopentadiene	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA	<10	<300
Hexachloroethane	ug/L	NA	<5	NA	<5	NA	<5	NA	<10	NA	<5	NA	<5	NA	<5	<300
Ideno[1,2,3-cd]pyrene	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA	<10	<300
Isophorone	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA	<10	<300
2-Methylnaphthalene	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA	<10	<300
2-Methylphenol	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	13	NA	<10	<300
3&4-Methylphenol	ug/L	NA	86	NA	<10	NA	1,250	NA	1,780	NA	<10	NA	1,070	NA	<10	10,100
Naphthalene	ug/L	NA	<10	NA	<10	NA	<10	NA	226	NA	<10	NA	<10	NA	<10	866
2-Nitroaniline	ug/L	NA	<50	NA	<50	NA	<50	NA	<100	NA	<50	NA	<50	NA	<50	<1,500
3-Nitroaniline	ug/L	NA	<50	NA	<50	NA	<50	NA	<100	NA	<50	NA	<50	NA	<50	<1,500
4-Nitroaniline	ug/L	NA	<20	NA	<20	NA	<20	NA	<20	NA	<20	NA	<20	NA	<20	<600
Nitrobenzene	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA	<10	<300
2-Nitrophenol	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA	<10	<300
4-Nitrophenol	ug/L	NA	<50	NA	<50	NA	<50	NA	<100	NA	<50	NA	<50	NA	<50	<1,500
N-Nitrosodimethylamine	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA	<10	<300
N-Nitroso-di-n-propylamine	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA	<10	<300
n-Nitrosodiphenylamine	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA	<10	<300
Pentachlorophenol	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA	<50	<1,500
Phenanthrene	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA	<10	<300
Phenol	ug/L	NA	26	NA	<10	NA	160	NA	305	NA	<10	NA	172	NA	<10	1,900
Pyrene	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA	<10	<300
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<100	<250
1,2,4-Trichlorobenzene	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA	<10	<300
2,4,5-Trichlorophenol	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA	<10	<300
2,4,6-Trichlorophenol	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA	<10	<300

Table 5
Leachate Analytical Results
Blackwell Landfill NPL Site
DuPage County, Illinois

Parameter	Units	BW-LCS-30	BW-LCS-31	BW-LCS-32	BW-LCS-33	BW-LCS-34	BW-LCS-35	BW-LCS-36	BW-LCS-37	BW-LCS-38	BW-LCS-39	BW-LCS-40	BW-LCS-41	BW-LCS-42	Minimum[1]	Maximum[1]
		Mar-05	Jun-05	Sep-05	Dec-05	Mar-06	Jun-06	Aug-06	Nov-06	Feb-07	May-07	Aug-07	Nov-07	Feb-08		
Pesticides																
Aldrin	ug/L	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	<0.5
alpha-BHC	ug/L	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	<0.5
beta-BHC	ug/L	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	<0.5
delta-BHC	ug/L	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	<0.5
Lindane (gamma-BHC)	ug/L	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	<0.5
alpha-Chlordane	ug/L	NA	<0.50	NA	<0.50	NA	<0.50	NA	<0.50	NA	<0.50	NA	<0.50	NA	<0.50	<0.5
gamma-Chlordane	ug/L	NA	<0.50	NA	<0.50	NA	<0.50	NA	<0.50	NA	<0.50	NA	<0.50	NA	<0.50	<0.5
4,4'-DDD	ug/L	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	<1.10
4,4'-DDE	ug/L	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	<1.10
4,4'-DDT	ug/L	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	<1.10
Dieldrin	ug/L	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	<1.10
Endosulfan I	ug/L	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	<0.5
Endosulfan II	ug/L	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	<1
Endosulfan sulfate	ug/L	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	<1
Endrin	ug/L	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	<1
Endrin aldehyde	ug/L	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	<1
Endrin ketone	ug/L	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	<1
Heptachlor	ug/L	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	<0.5
Heptachlor epoxide	ug/L	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	<0.5
Methoxychlor	ug/L	NA	<0.50	NA	<0.50	NA	<0.50	NA	<0.50	NA	<0.50	NA	<0.50	NA	<0.50	<5
Toxaphene	ug/L	NA	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	<10

Notes:

[1]The maximum and minimum values do not account for the two samples collected in 1991, prior to augmentation of the leachate collection system.

NA: No analysis.

ND: Not detected.

J: Data flag indicates an estimated value.

B = Data flag indicates analyte detected in associated method blank.

Table 6
Landfill Gas Analytical Results
Blackwell Landfill NPL Site
DuPage County, Illinois

Sample Identification	Sample Collection Date	Atmospheric Pressure (in. Hg)	ASTM D1945/1946			U.S. EPA Modified Method 25C	
			% of CO_2 (%-v/v)	% of O_2 (%-v/v)	% of N_2 (%-v/v)	Methane ppm-c	Total Non-Methane Organic Compounds, as Methane ppm-c
FPD-LFGSTACK-01	September 15, 1998	29.97	33	0.51	1.90	550,000	1,400
BW-LFGSTACK-02	September 23, 1998	30.23	36	0.51	2.00	570,000	400
BW-LFGSTACK-03	October 27, 1998	30.14	35	0.53	2.00	570,000	900
BW-LFGSTACK-04	October 28, 1998	29.99	35	0.53	2.00	570,000	710
BW-LFGSTACK-05	November 24, 1998	30.14	39	0.47	2.30	570,000	39
BW-LFGSTACK-06	November 25, 1998	29.76	38	0.96	3.40	560,000	22
BW-LFGSTACK-07	March 24, 1999	30.20	34	0.93	5.00	580,000	1,200
BW-LFGSTACK-08	March 31, 1999	29.43	34	1.10	4.60	580,000	1,200
BW-LFGSTACK-09A	August 13, 1999	29.70	34	0.98	2.70	650,000	1,100
BW-LFGSTACK-10A	August 18, 1999	30.08	33	0.76	2.30	650,000	1,200
BW-LFGSTACK-11A	January 4, 2000	29.92	37	0.71	ND	690,000	1,700
BW-LFGSTACK-12A	January 14, 2000	30.72	35	2.80	8.30	630.000	1,500
BW-LFGSTACK-13A	June 19, 2000	30.11	34	0.20	8.30	640,000	1,900
BW-LFGSTACK-14A	June 28, 2000	30.02	31	0.60	12.00	590,000	830
BW-LFGSTACK-15A	October 16, 2000	30.18	34	0.73	7.20	640,000	1,900
BW-LFGSTACK-16A	January 4, 2001	29.97	33	0.60	7.20	600,000	1,300
BW-LFGSTACK-17A	April 2, 2001	30.17	33	0.21	8.10	590,000	1,300
BW-LFGSTACK-18A	June 29, 2001	30.06	32	0.19	5.90	620,000	1,000
BW-LFGSTACK-19A	October 4, 2001	30.02	34	0.22	3.80	620,000	1,700
BW-LFGSTACK-20A	December 12, 2001	30.02	33	0.35	6.20	600,000	1,700
BW-LFGSTACK-21A	April 3, 2002	30.29	32	ND	12.00	570,000	1,400
BW-LFGSTACK-22A	June 27, 2002	29.83	33	0.18	12.00	590,000	1,500
BW-LFGSTACK-23A	September 26, 2002	29.86	30	ND	9.00	570,000	1,400
BW-LFGSTACK-24A	January 7, 2003	29.98	30	1.80	18.00	510,000	960
BW-LFGSTACK-25A	April 11, 2003	29.95	31	2.50	13.00	520,000	1,000
BW-LFGSTACK-26A	June 26, 2003	29.88	30	1.50	12.00	550,000	960
BW-LFGSTACK-27A	September 26, 2003	29.74	24	5.70	26.00	510,000	1,200
BW-LFGSTACK-28A	December 29, 2003	29.90	29	14.00	2.50	520,000	990
BW-LFGSTACK-29A	March 5, 2004	29.40	29	2.00	10.00	570,000	1,100
BW-LFGSTACK-30A	June 23, 2004	29.94	28	3.30	14.00	530,000	1,200
BW-LFGSTACK-31A	September 1, 2004	30.22	31	1.00	8.40	600,000	2,100
BW-LFGSTACK-32A	December 10, 2004	29.59	28	3.30	17.00	510,000	1,600
BW-LFGSTACK-33A	March 9, 2005	30.04	20	8.00	33.00	390,000	790
BW-LFGSTACK-34A	June 30, 2005	29.82	27	3.50	20.00	500,000	1,000
BW-LFGSTACK-35A	September 14, 2005	29.92	23	6.80	25.00	450,000	670
BW-LFGSTACK-36A	December 15, 2005	29.75	28	3.70	21.00	540,000	1,100
BW-LFGSTACK-37A	March 8, 2006	29.56	33	0.92	12.00	570,000	1,200
BW-LFGSTACK-38A	June 29, 2006	30.13	0.046	22.00	78.00	2.1	< 1.0
BW-LFGSTACK-39A	August 18, 2006	29.89	1.2	21.00	74.00	22,000	< 1.0
BW-LFGSTACK-940A	November 8, 2006	29.70	33	0.74	8.20	580,000	244
BW-LFGSTACK-41A	February 22, 2007	30.11	0.76	22.00	77.00	14,000	< 1.0

Table 6
Landfill Gas Analytical Results
Blackwell Landfill NPL Site
DuPage County, Illinois

Sample Identification	Sample Collection Date	Atmospheric Pressure (in. Hg)	ASTM D1945/1946			U.S. EPA Modified Method 25C	
			% of CO_2 (%-v/v)	% of O_2 (%-v/v)	% of N_2 (%-v/v)	Methane ppm-c	Total Non-Methane Organic Compounds, as Methane ppm-c
BW-LFGSTACK-42A	May 30, 2007	30.06	31	1.00	11.00	570,000	16.3
BW-LFGSTACK-43A	August 14, 2007	30.02	32	0.30	11.00	570,000	235.1
BW-LFGSTACK-44A	November 14, 2007	29.75	34	0.42	8.60	570,000	392.2
BW-LFGSTACK-45A	February 13, 2008	30.01	33	0.32	6.70	600,000	229.6
Averages	-	**29.96**	**30**	**3.25**	**14.42**	**533,244**	**1,054**

Notes:
in. Hg: Inches mercury.
%-v/v: Percent by volume.
ppm-c: Parts per million - carbon
ND: Not detected

Table 6A
Cumulative Risk of Exposure to Landfill Gas
Recreational Portions of Landfill - May 2007
Blackwell Landfill NPL Site, DuPage County, Illinois

Potential Chemical of Concern	Maximum Concentration[1] $C_{ppb,i}$ (ppbv)	Maximum Concentration (ppbv)	Maximum Concentration[2] g/L	Emission Rate[2] E_i (g/s)	Maximum Unit Concentration (ug/m3)	Maximum Concentration on Blackwell[3] R_i (ug/m3)	Slope Factor (mg/kg-day)-1	RfDi (mg/kg-day)	Cancer Dose (mg/kg-day)	Noncancer Dose (mg/kg-day)	Cancer Risk	Hazard Quotient	References
Acetone	660	660	1.69E-06	6.96E-05	18.414	0.00128	NA	NA	2.1E-09	4.8E-09			
Benzene	470	470	1.62E-06	6.67E-05	18.414	0.00123	2.73E-02	8.57E-03	2.0E-09	4.6E-09	5.4E-11	5.4E-07	I, I
Benzyl Chloride[4]	<15	7.5	4.18E-08	1.72E-06	18.414	0.00003	NA	NA	5.1E-11	1.2E-10			
Bromodichloromethane	<15	7.5	5.41E-08	2.23E-06	18.414	0.00004	NA	NA	6.6E-11	1.5E-10			
Bromoform	<15	7.5	8.35E-08	3.44E-06	18.414	0.00006	3.85E-03	NA	1.0E-10	2.4E-10	3.9E-13		I
Bromomethane	<15	7.5	3.14E-08	1.29E-06	18.414	0.00002	NA	1.43E-03	3.8E-11	9.0E-11		6.3E-08	I
2-Butanone (MEK)	580	580	1.84E-06	7.59E-05	18.414	0.00140	NA	1.43E+00	2.3E-09	5.3E-09		3.7E-09	I
Carbon Disulfide	<15	7.5	2.51E-08	1.04E-06	18.414	0.00002	NA	2.00E-01	3.1E-11	7.2E-11		3.6E-10	I
Carbon Tetrachloride	<15	7.5	5.08E-08	2.09E-06	18.414	0.00004	5.25E-02	NA	6.2E-11	1.5E-10	3.3E-12		I
Chlorobenzene	<15	7.5	3.72E-08	1.53E-06	18.414	0.00003	NA	5.71E-03	4.6E-11	1.1E-10		1.9E-08	H
Chloroethane	500	500	1.42E-06	5.86E-05	18.414	0.00108	NA	2.86E+00	1.7E-09	4.1E-09		1.4E-09	I
Chloroform	<15	7.5	3.94E-08	1.63E-06	18.414	0.00003	8.05E-02	NA	4.8E-11	1.1E-10	3.9E-12		I
Chloromethane	<59	29.5	6.56E-08	2.70E-06	18.414	0.00005	6.30E-03	2.57E-02	8.0E-11	1.9E-10	5.1E-13	7.3E-09	H, I
Dibromochloromethane	<15	7.5	6.88E-08	2.84E-06	18.414	0.00005	NA	NA	8.4E-11	2.0E-10			
1,2-Dichlorobenzene	<15	7.5	4.85E-08	2.00E-06	18.414	0.00004	NA	5.71E-02	5.9E-11	1.4E-10		2.4E-09	H
1,3-Dichlorobenzene	<15	7.5	4.85E-08	2.00E-06	18.414	0.00004	NA	NA	5.9E-11	1.4E-10			
1,4-Dichlorobenzene	<15	7.5	4.85E-08	2.00E-06	18.414	0.00004	NA	2.29E-01	5.9E-11	1.4E-10		6.1E-10	I
1,1-Dichloroethane	110	110	4.79E-07	1.98E-05	18.414	0.00036	NA	1.43E-01	5.9E-10	1.4E-09		9.6E-09	H
1,2-Dichloroethane	8.6	8.6	3.75E-08	1.55E-06	18.414	0.00003	9.10E-02	NA	4.6E-11	1.1E-10	4.2E-12		I
1,1-Dichloroethene	17	17	7.26E-08	2.99E-06	18.414	0.00006	NA	5.71E-02	8.9E-11	2.1E-10		3.6E-09	I
cis-1,2-Dichloroethene	1300	1300	5.55E-06	2.29E-04	18.414	0.00421	NA	NA	6.8E-09	1.6E-08			
trans-1,2-Dichloroethene	140	140	5.98E-07	2.46E-05	18.414	0.00045	NA	NA	7.3E-10	1.7E-09			
1,2-Dichloropropane	38	38	1.89E-07	7.80E-06	18.414	0.00014	NA	1.14E-03	2.3E-10	5.4E-10		4.7E-07	I
cis-1,3-Dichloropropene	<15	7.5	3.66E-08	1.51E-06	18.414	0.00003	1.40E-02	5.71E-03	4.5E-11	1.0E-10	6.3E-13	1.8E-08	I, I
trans-1,3-Dichloropropene	<15	7.5	3.66E-08	1.51E-06	18.414	0.00003	1.40E-02	5.71E-03	4.5E-11	1.0E-10	6.3E-13	1.8E-08	I, I
Ethyl Benzene	<15	7.50	3.51E-08	1.45E-06	18.414	0.00003	NA	2.86E-01	4.3E-11	1.0E-10		3.5E-10	I
Ethylene Dibromide[5]	<15	7.5	6.21E-08	2.56E-06	18.414	0.00005	2.10E+00	2.60E-03	7.6E-11	1.8E-10	1.6E-10	6.8E-08	I, I
4-Ethyltoluene	<15	7.5	3.97E-08	1.64E-06	18.414	0.00003	NA	NA	4.9E-11	1.1E-10			
Freon 11 (C13FMe)	16	16	9.68E-08	3.99E-06	18.414	0.00007	NA	2.00E-01	1.2E-10	2.8E-10		1.4E-09	H
Freon 113	5.0	5.0	4.13E-08	1.70E-06	18.414	0.00003	NA	8.57E+00	5.05E-11	1.18E-10		1.37E-11	H
Freon 114 (C12F4Et)	340	340	2.56E-06	1.06E-04	18.414	0.00194	NA	NA	3.1E-09	7.3E-09			
Freon 12 (C12F2Me)	1700	1700	9.05E-06	3.73E-04	18.414	0.00687	NA	5.71E-02	1.1E-08	2.6E-08		4.5E-07	H
Hexachlorobutadiene	<59	29.5	3.39E-07	1.40E-05	18.414	0.00026	7.70E-02	NA	4.1E-10	9.7E-10	3.2E-11		I
2-Hexanone	<59	29.5	1.30E-07	5.37E-06	18.414	0.00010	NA	NA	1.6E-10	3.7E-10			

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Table 6A
Cumulative Risk of Exposure to Landfill Gas
Recreational Portions of Landfill - May 2007
Blackwell Landfill NPL Site, DuPage County, Illinois

Potential Chemical of Concern	Maximum Concentration[1] $C_{ppb,i}$ (ppbv)	Maximum Concentration (ppbv)	Maximum Concentration[2] g/L	Emission Rate[2] E_i (g/s)	Maximum Unit Concentration (ug/m3)	Maximum Concentration on Blackwell[3] R_i (ug/m3)	Slope Factor (mg/kg-day)-1	RfDi (mg/kg-day)	Cancer Dose (mg/kg-day)	Noncancer Dose (mg/kg-day)	Cancer Risk	Hazard Quotient	References
Methane[6]	570,000,000	570,000,000	4.03E-01	1.66E+01	18.414	306	NA	NA	4.9E-04	1.1E-03			
4-Methyl-2-pentanone	76	76	3.35E-07	1.38E-05	18.414	0.00025	NA	8.57E-01	4.1E-10	9.6E-10		1.1E-09	I
Methylene chloride	90	90	3.37E-07	1.39E-05	18.414	0.00026	NA	2.60E-02	4.1E-10	9.6E-10		3.7E-08	
Styrene	<15	7.5	3.44E-08	1.42E-06	18.414	0.00003	NA	2.86E-01	4.2E-11	9.8E-11		3.4E-10	I
1,1,2,2-Tetrachloroethane	<15	7.5	5.54E-08	2.29E-06	18.414	0.00004	2.03E-01	NA	6.8E-11	1.6E-10	1.4E-11		I
Tetrachloroethene	22	22	1.61E-07	6.62E-06	18.414	0.00012	2.03E-03	1.71E-01	2.0E-10	4.6E-10	4.0E-13	2.7E-09	prov, prov
TNMOC[7]	16,300	16,300	8.62E-06	3.55E-04	18.414	0.00655	NA	NA	1.1E-08	2.5E-08			prov
Toluene	1700	1700	6.90E-06	2.84E-04	18.414	0.00524	NA	1.14E-01	8.4E-09	2.0E-08		1.7E-07	I
1,2,4-Trichlorobenzene	<59	29.5	2.36E-07	9.72E-06	18.414	0.00018	NA	1.14E-03	2.9E-10	6.7E-10		5.9E-07	prov
1,1,1-Trichloroethane	21	21	1.23E-07	5.09E-06	18.414	0.00009	NA	6.29E-01	1.5E-10	3.5E-10		5.6E-10	prov
1,1,2-Trichloroethane	<15	7.5	4.41E-08	1.82E-06	18.414	0.00003	5.60E-02	NA	5.4E-11	1.3E-10	3.0E-12		I
Trichloroethene	140	140	8.13E-07	3.35E-05	18.414	0.00062	4.00E-01	1.14E-02	1.0E-09	2.3E-09	4.0E-10	2.0E-07	prov, prov
1,2,4-Trimethylbenzene	<15	7.5	3.97E-08	1.64E-06	18.414	0.00003	NA	1.71E-03	4.9E-11	1.1E-10		6.6E-08	prov
1,3,5-Trimethylbenzene	<15	7.5	3.97E-08	1.64E-06	18.414	0.00003	NA	1.71E-03	4.9E-11	1.1E-10		6.6E-08	prov
Vinyl chloride	4700	4700	1.29E-05	5.33E-04	18.414	0.00982	3.08E-02	2.86E-02	1.6E-08	3.7E-08	4.9E-10	1.3E-06	I, I
m,p-Xylene	8.7	8.7	4.07E-08	1.68E-06	18.414	0.00003	NA	2.86E-02	5.0E-11	1.2E-10		4.1E-09	I
o-Xylene	<15	7.5	3.51E-08	1.45E-06	18.414	0.00003	NA	2.86E-02	4.3E-11	1.0E-10		3.5E-09	I
									Cumulative Risk -->		**1.2E-09**	**4.1E-06**	

Notes:

[1] = Maximum concentration of BW-LFGSTACK-42A.
[2] = Sample calculations are provided in Appendix C of the August 2001 Landfill Gas Recreational Use Evaluation.
[3] = Maximum modeled concentration on the Blackwell Landfill
[4] = Benzyl Chloride is reported as alpha-Chlorotoluene in the Modified TO-15 Method
[5] =Ethylene Dibromide is reported as 1,2-Dibromomethane in the Modified TO-14 Method
[6] = Methane is reported by percent in the Modified ASTM D-1945 Method (1% = 10,000,000 ppbv)
[7] = Expressed on a carbon basis.
(A) = Adult
(L) = Lifetime
\- = No listed screening value
H = HEAST Databasse (EPA's Health Effects Summary Table)
I = IRIS (EPA's Inategrated Risk Information System)
ppbv = Parts per billion by volume
prov = provisional value
$C_{ppb,i}$, M, C_{poll}, CF, E_i, and R_i are defined in Appendix C of the August 2001 Landfill Gas Recreational Use Evaluation.

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Table 6B
Cumulative Risk of Exposure to Landfill Gas
Recreational Portions of Landfill - August 2007
Blackwell Landfill NPL Site, DuPage County, Illinois

Potential Chemical of Concern	Maximum Concentration[1] $C_{ppb,i}$ (ppbv)	Maximum Concentration (ppbv)	Maximum Concentration[2] g/L	Emission Rate[2] E_i (g/s)	Maximum Unit Concentration (ug/m3)	Maximum Concentration on Blackwell[3] R_i (ug/m3)	Slope Factor (mg/kg-day)-1	RfDi (mg/kg-day)	Cancer Dose (mg/kg-day)	Noncancer Dose (mg/kg-day)	Cancer Risk	Hazard Quotient	References
Acetone	810	810	2.07E-06	8.54E-05	18.414	0.00157	NA	NA	2.5E-09	5.9E-09			
Benzene	570	570	1.96E-06	8.08E-05	18.414	0.00149	2.73E-02	8.57E-03	2.4E-09	5.6E-09	6.6E-11	6.5E-07	I, I
Benzyl Chloride[4]	<20	10	5.57E-08	2.30E-06	18.414	0.00004	NA	NA	6.8E-11	1.6E-10			
Bromodichloromethane	<20	10	7.21E-08	2.97E-06	18.414	0.00005	NA	NA	8.8E-11	2.1E-10			
Bromoform	<20	10	1.11E-07	4.59E-06	18.414	0.00008	3.85E-03	NA	1.4E-10	3.2E-10	5.2E-13		I
Bromomethane	<20	10	4.18E-08	1.72E-06	18.414	0.00003	NA	1.43E-03	5.1E-11	1.2E-10		8.3E-08	I
2-Butanone (MEK)	830	830	2.64E-06	1.09E-04	18.414	0.00200	NA	1.43E+00	3.2E-09	7.5E-09		5.3E-09	I
Carbon Disulfide	10	10	3.35E-08	1.38E-06	18.414	0.00003	NA	2.00E-01	4.1E-11	9.6E-11		4.8E-10	I
Carbon Tetrachloride	<20	10	6.77E-08	2.79E-06	18.414	0.00005	5.25E-02	NA	8.3E-11	1.9E-10	4.4E-12		I
Chlorobenzene	<20	10	4.96E-08	2.04E-06	18.414	0.00004	NA	5.71E-03	6.1E-11	1.4E-10		2.5E-08	H
Chloroethane	650	650	1.85E-06	7.61E-05	18.414	0.00140	NA	2.86E+00	2.3E-09	5.3E-09		1.8E-09	I
Chloroform	<20	10	5.26E-08	2.17E-06	18.414	0.00004	8.05E-02	NA	6.4E-11	1.5E-10	5.2E-12		I
Chloromethane	<80	40	8.89E-08	3.67E-06	18.414	0.00007	6.30E-03	2.57E-02	1.1E-10	2.5E-10	6.9E-13	9.9E-09	H, I
Dibromochloromethane	<20	10	9.17E-08	3.78E-06	18.414	0.00007	NA	NA	1.1E-10	2.6E-10			
1,2-Dichlorobenzene	<20	10	6.47E-08	2.67E-06	18.414	0.00005	NA	5.71E-02	7.9E-11	1.8E-10		3.2E-09	H
1,3-Dichlorobenzene	<20	10	6.47E-08	2.67E-06	18.414	0.00005	NA	NA	7.9E-11	1.8E-10			
1,4-Dichlorobenzene	<20	10	6.47E-08	2.67E-06	18.414	0.00005	NA	2.29E-01	7.9E-11	1.8E-10		8.1E-10	I
1,1-Dichloroethane	130	130	5.66E-07	2.34E-05	18.414	0.00043	NA	1.43E-01	6.9E-10	1.6E-09		1.1E-08	H
1,2-Dichloroethane	<20	10	4.36E-08	1.80E-06	18.414	0.00003	9.10E-02	NA	5.3E-11	1.2E-10	4.9E-12		I
1,1-Dichloroethene	20	20	8.54E-08	3.52E-06	18.414	0.00006	NA	5.71E-02	1.0E-10	2.4E-10		4.3E-09	I
cis-1,2-Dichloroethene	1600	1600	6.83E-06	2.82E-04	18.414	0.00519	NA	NA	8.4E-09	2.0E-08			
trans-1,2-Dichloroethene	160	160	6.83E-07	2.82E-05	18.414	0.00052	NA	NA	8.4E-10	2.0E-09			
1,2-Dichloropropane	48	48	2.39E-07	9.85E-06	18.414	0.00018	NA	1.14E-03	2.9E-10	6.8E-10		6.0E-07	I
cis-1,3-Dichloropropene	<20	10	4.89E-08	2.02E-06	18.414	0.00004	1.40E-02	5.71E-03	6.0E-11	1.4E-10	8.4E-13	2.4E-08	I, I
trans-1,3-Dichloropropene	<20	10	4.89E-08	2.02E-06	18.414	0.00004	1.40E-02	5.71E-03	6.0E-11	1.4E-10	8.4E-13	2.4E-08	I, I
Ethyl Benzene	<20	10	4.67E-08	1.93E-06	18.414	0.00004	NA	2.86E-01	5.7E-11	1.3E-10		4.7E-10	I
Ethylene Dibromide[5]	<20	10	8.28E-08	3.41E-06	18.414	0.00006	2.10E+00	2.60E-03	1.0E-10	2.4E-10	2.1E-10	9.1E-08	I, I
4-Ethyltoluene	<20	10	5.29E-08	2.18E-06	18.414	0.00004	NA	NA	6.5E-11	1.5E-10			
Freon 11 (C13FMe)	19	19	1.15E-07	4.74E-06	18.414	0.00009	NA	2.00E-01	1.4E-10	3.3E-10		1.6E-09	H
Freon 113	9.2	9.2	7.59E-08	3.13E-06	18.414	0.00006	NA	8.57E+00	9.29E-11	2.17E-10		2.53E-11	H
Freon 114 (C12F4Et)	400	400	3.01E-06	1.24E-04	18.414	0.00229	NA	NA	3.7E-09	8.6E-09			
Freon 12 (C12F2Me)	2500	2500	1.33E-05	5.49E-04	18.414	0.01011	NA	5.71E-02	1.6E-08	3.8E-08		6.7E-07	H
Hexachlorobutadiene	<80	40	4.59E-07	1.89E-05	18.414	0.00035	7.70E-02	NA	5.6E-10	1.3E-09	4.3E-11		I
2-Hexanone	<80	40	1.76E-07	7.27E-06	18.414	0.00013	NA	NA	2.2E-10	5.0E-10			

Table 6B
Cumulative Risk of Exposure to Landfill Gas
Recreational Portions of Landfill - August 2007
Blackwell Landfill NPL Site, DuPage County, Illinois

Potential Chemical of Concern	Maximum Concentration[1] $C_{ppb,i}$ (ppbv)	Maximum Concentration (ppbv)	Maximum Concentration[2] g/L	Emission Rate[2] E_i (g/s)	Maximum Unit Concentration (ug/m3)	Maximum Concentration on Blackwell[3] R_i (ug/m3)	Slope Factor (mg/kg-day)-1	RfDi (mg/kg-day)	Cancer Dose (mg/kg-day)	Noncancer Dose (mg/kg-day)	Cancer Risk	Hazard Quotient	References
Methane[6]	570,000,000	570,000,000	4.03E-01	1.66E+01	18.414	306	NA	NA	4.9E-04	1.1E-03			
4-Methyl-2-pentanone	87	87	3.84E-07	1.58E-05	18.414	0.00029	NA	8.57E-01	4.7E-10	1.1E-09		1.3E-09	I
Methylene chloride	140	140	5.24E-07	2.16E-05	18.414	0.00040	NA	2.60E-02	6.4E-10	1.5E-09		5.8E-08	
Styrene	<20	10	4.59E-08	1.89E-06	18.414	0.00003	NA	2.86E-01	5.6E-11	1.3E-10		4.6E-10	I
1,1,2,2-Tetrachloroethane	<20	10	7.39E-08	3.05E-06	18.414	0.00006	2.03E-01	NA	9.0E-11	2.1E-10	1.8E-11		I
Tetrachloroethene	28	28	2.04E-07	8.43E-06	18.414	0.00016	2.03E-03	1.71E-01	2.5E-10	5.8E-10	5.1E-13	3.4E-09	prov, prov
TNMOC[7]	235,100	235,100	1.24E-04	5.13E-03	18.414	0.09441	NA	NA	1.5E-07	3.6E-07			prov
Toluene	1800	1800	7.30E-06	3.01E-04	18.414	0.00555	NA	1.14E-01	8.9E-09	2.1E-08		1.8E-07	I
1,2,4-Trichlorobenzene	<80	40	3.20E-07	1.32E-05	18.414	0.00024	NA	1.14E-03	3.9E-10	9.1E-10		8.0E-07	prov
1,1,1-Trichloroethane	32	32	1.88E-07	7.75E-06	18.414	0.00014	NA	6.29E-01	2.3E-10	5.4E-10		8.5E-10	prov
1,1,2-Trichloroethane	<20	10	5.87E-08	2.42E-06	18.414	0.00004	5.60E-02	NA	7.2E-11	1.7E-10	4.0E-12		I
Trichloroethene	180	180	1.05E-06	4.31E-05	18.414	0.00079	4.00E-01	1.14E-02	1.3E-09	3.0E-09	5.1E-10	2.6E-07	prov, prov
1,2,4-Trimethylbenzene	<20	10	5.29E-08	2.18E-06	18.414	0.00004	NA	1.71E-03	6.5E-11	1.5E-10		8.8E-08	prov
1,3,5-Trimethylbenzene	<20	10	5.29E-08	2.18E-06	18.414	0.00004	NA	1.71E-03	6.5E-11	1.5E-10		8.8E-08	prov
Vinyl chloride	5200	5200	1.43E-05	5.90E-04	18.414	0.01087	3.08E-02	2.86E-02	1.8E-08	4.1E-08	5.4E-10	1.4E-06	I, I
m,p-Xylene	<20	10	4.67E-08	1.93E-06	18.414	0.00004	NA	2.86E-02	5.7E-11	1.3E-10		4.7E-09	I
o-Xylene	<20	10	4.67E-08	1.93E-06	18.414	0.00004	NA	2.86E-02	5.7E-11	1.3E-10		4.7E-09	I
									Cumulative Risk -->		**1.4E-09**	**5.1E-06**	

Notes:

-1 = Maximum concentration of BW-LFGSTACK-43A.
-2 = Sample calculations are provided in Appendix C of the August 2001 Landfill Gas Recreational Use Evaluation.
-3 = Maximum modeled concentration on the Blackwell Landfill
-4 = Benzyl Chloride is reported as alpha-Chlorotoluene in the Modified TO-15 Method
-5 =Ethylene Dibromide is reported as 1,2-Dibromomethane in the Modified TO-14 Method
-6 = Methane is reported by percent in the Modified ASTM D-1945 Method (1% = 10,000,000 ppbv)
-7 = Expressed on a carbon basis.
(A) = Adult
(L) = Lifetime
- = No listed screening value
H = HEAST Databasse (EPA's Health Effects Summary Table)
I = IRIS (EPA's Inategrated Risk Information System)
ppbv = Parts per billion by volume
prov = provisional value
$C_{ppb,i}$, M, C_{poll}, CF, E_i, and R_i are defined in Appendix C of the August 2001 Landfill Gas Recreational Use Evaluation.

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Table 6C
Cumulative Risk of Exposure to Landfill Gas
Recreational Portions of Landfill - November 2007
Blackwell Landfill NPL Site, DuPage County, Illinois

Potential Chemical of Concern	Maximum Concentration[1] $C_{ppb,i}$ (ppbv)	Maximum Concentration (ppbv)	Maximum Concentration[2] g/L	Emission Rate[2] E_i (g/s)	Maximum Unit Concentration (ug/m3)	Maximum Concentration on Blackwell[3] R_i (ug/m3)	Slope Factor (mg/kg-day)-1	RfDi (mg/kg-day)	Cancer Dose (mg/kg-day)	Noncancer Dose (mg/kg-day)	Cancer Risk	Hazard Quotient	References
Acetone	860	860	2.20E-06	9.07E-05	18.414	0.00167	NA	NA	2.7E-09	6.3E-09			
Benzene	810	810	2.79E-06	1.15E-04	18.414	0.00212	2.73E-02	8.57E-03	3.4E-09	8.0E-09	9.3E-11	9.3E-07	I, I
Benzyl Chloride[4]	<22	11	6.13E-08	2.53E-06	18.414	0.00005	NA	NA	7.5E-11	1.8E-10			
Bromodichloromethane	<22	11	7.93E-08	3.27E-06	18.414	0.00006	NA	NA	9.7E-11	2.3E-10			
Bromoform	<22	11	1.22E-07	5.05E-06	18.414	0.00009	3.85E-03	NA	1.5E-10	3.5E-10	5.8E-13		I
Bromomethane	<22	11	4.60E-08	1.90E-06	18.414	0.00003	NA	1.43E-03	5.6E-11	1.3E-10		9.2E-08	I
2-Butanone (MEK)	960	960	3.05E-06	1.26E-04	18.414	0.00231	NA	1.43E+00	3.7E-09	8.7E-09		6.1E-09	I
Carbon Disulfide	<22	11	3.69E-08	1.52E-06	18.414	0.00003	NA	2.00E-01	4.5E-11	1.1E-10		5.3E-10	I
Carbon Tetrachloride	<22	11	7.45E-08	3.07E-06	18.414	0.00006	5.25E-02	NA	9.1E-11	2.1E-10	4.8E-12		I
Chlorobenzene	12	12	5.95E-08	2.45E-06	18.414	0.00005	NA	5.71E-03	7.3E-11	1.7E-10		3.0E-08	H
Chloroethane	530	530	1.51E-06	6.21E-05	18.414	0.00114	NA	2.86E+00	1.8E-09	4.3E-09		1.5E-09	I
Chloroform	<22	11	5.78E-08	2.38E-06	18.414	0.00004	8.05E-02	NA	7.1E-11	1.7E-10	5.7E-12		I
Chloromethane	<89	44.5	9.89E-08	4.08E-06	18.414	0.00008	6.30E-03	2.57E-02	1.2E-10	2.8E-10	7.6E-13	1.1E-08	H, I
Dibromochloromethane	<22	11	1.01E-07	4.16E-06	18.414	0.00008	NA	NA	1.2E-10	2.9E-10			
1,2-Dichlorobenzene	<22	11	7.12E-08	2.94E-06	18.414	0.00005	NA	5.71E-02	8.7E-11	2.0E-10		3.6E-09	H
1,3-Dichlorobenzene	<22	11	7.12E-08	2.94E-06	18.414	0.00005	NA	NA	8.7E-11	2.0E-10			
1,4-Dichlorobenzene	<22	11	7.12E-08	2.94E-06	18.414	0.00005	NA	2.29E-01	8.7E-11	2.0E-10		8.9E-10	I
1,1-Dichloroethane	130	130	5.66E-07	2.34E-05	18.414	0.00043	NA	1.43E-01	6.9E-10	1.6E-09		1.1E-08	H
1,2-Dichloroethane	<22	11	4.79E-08	1.98E-06	18.414	0.00004	9.10E-02	NA	5.9E-11	1.4E-10	5.3E-12		I
1,1-Dichloroethene	20	20	8.54E-08	3.52E-06	18.414	0.00006	NA	5.71E-02	1.0E-10	2.4E-10		4.3E-09	I
cis-1,2-Dichloroethene	1600	1600	6.83E-06	2.82E-04	18.414	0.00519	NA	NA	8.4E-09	2.0E-08			
trans-1,2-Dichloroethene	160	160	6.83E-07	2.82E-05	18.414	0.00052	NA	NA	8.4E-10	2.0E-09			
1,2-Dichloropropane	66	66	3.28E-07	1.35E-05	18.414	0.00025	NA	1.14E-03	4.0E-10	9.4E-10		8.2E-07	I
cis-1,3-Dichloropropene	<22	11	5.37E-08	2.22E-06	18.414	0.00004	1.40E-02	5.71E-03	6.6E-11	1.5E-10	9.2E-13	2.7E-08	I, I
trans-1,3-Dichloropropene	<22	11	5.37E-08	2.22E-06	18.414	0.00004	1.40E-02	5.71E-03	6.6E-11	1.5E-10	9.2E-13	2.7E-08	I, I
Ethyl Benzene	230	230	1.08E-06	4.43E-05	18.414	0.00082	NA	2.86E-01	1.3E-09	3.1E-09		1.1E-08	I
Ethylene Dibromide[5]	<22	11	9.10E-08	3.75E-06	18.414	0.00007	2.10E+00	2.60E-03	1.1E-10	2.6E-10	2.3E-10	1.0E-07	I, I
4-Ethyltoluene	26	26	1.38E-07	5.67E-06	18.414	0.00010	NA	NA	1.7E-10	3.9E-10			
Freon 11 (C13FMe)	28	28	1.69E-07	6.98E-06	18.414	0.00013	NA	2.00E-01	2.1E-10	4.8E-10		2.4E-09	H
Freon 113	10	10	8.25E-08	3.40E-06	18.414	0.00006	NA	8.57E+00	1.01E-10	2.36E-10		2.75E-11	H
Freon 114 (C12F4Et)	370	370	2.78E-06	1.15E-04	18.414	0.00211	NA	NA	3.4E-09	8.0E-09			
Freon 12 (C12F2Me)	2300	2300	1.22E-05	5.05E-04	18.414	0.00930	NA	5.71E-02	1.5E-08	3.5E-08		6.1E-07	H
Hexachlorobutadiene	<89	44.5	5.11E-07	2.11E-05	18.414	0.00039	7.70E-02	NA	6.3E-10	1.5E-09	4.8E-11		I
2-Hexanone	<89	44.5	1.96E-07	8.09E-06	18.414	0.00015	NA	NA	2.4E-10	5.6E-10			

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Table 6C
Cumulative Risk of Exposure to Landfill Gas
Recreational Portions of Landfill - November 2007
Blackwell Landfill NPL Site, DuPage County, Illinois

Potential Chemical of Concern	Maximum Concentration[1] $C_{ppb,i}$ (ppbv)	Maximum Concentration (ppbv)	Maximum Concentration[2] g/L	Emission Rate[2] E_i (g/s)	Maximum Unit Concentration (ug/m3)	Maximum Concentration on Blackwell[3] R_i (ug/m3)	Slope Factor (mg/kg-day)-1	RfDi (mg/kg-day)	Cancer Dose (mg/kg-day)	Noncancer Dose (mg/kg-day)	Cancer Risk	Hazard Quotient	References
Methane[6]	570,000,000	570,000,000	4.03E-01	1.66E+01	18.414	306	NA	NA	4.9E-04	1.1E-03			
4-Methyl-2-pentanone	100	100	4.41E-07	1.82E-05	18.414	0.00033	NA	8.57E-01	5.4E-10	1.3E-09		1.5E-09	I
Methylene chloride	130	130	4.86E-07	2.00E-05	18.414	0.00037	NA	2.60E-02	6.0E-10	1.4E-09		5.3E-08	
Styrene	<22	11	5.04E-08	2.08E-06	18.414	0.00004	NA	2.86E-01	6.2E-11	1.4E-10		5.0E-10	I
1,1,2,2-Tetrachloroethane	<22	11	8.13E-08	3.35E-06	18.414	0.00006	2.03E-01	NA	1.0E-10	2.3E-10	2.0E-11		I
Tetrachloroethene	99	99	7.23E-07	2.98E-05	18.414	0.00055	2.03E-03	1.71E-01	8.8E-10	2.1E-09	1.8E-12	1.2E-08	prov, prov
TNMOC[7]	392,200	392,200	2.07E-04	8.55E-03	18.414	0.15750	NA	NA	2.5E-07	5.9E-07			prov
Toluene	3400	3400	1.38E-05	5.69E-04	18.414	0.01047	NA	1.14E-01	1.7E-08	3.9E-08		3.5E-07	I
1,2,4-Trichlorobenzene	<89	44.5	3.56E-07	1.47E-05	18.414	0.00027	NA	1.14E-03	4.4E-10	1.0E-09		8.9E-07	prov
1,1,1-Trichloroethane	33	33	1.94E-07	7.99E-06	18.414	0.00015	NA	6.29E-01	2.4E-10	5.5E-10		8.8E-10	prov
1,1,2-Trichloroethane	<22	11	6.46E-08	2.66E-06	18.414	0.00005	5.60E-02	NA	7.9E-11	1.8E-10	4.4E-12		I
Trichloroethene	290	290	1.68E-06	6.95E-05	18.414	0.00128	4.00E-01	1.14E-02	2.1E-09	4.8E-09	8.2E-10	4.2E-07	prov, prov
1,2,4-Trimethylbenzene	15	15	7.94E-08	3.27E-06	18.414	0.00006	NA	1.71E-03	9.7E-11	2.3E-10		1.3E-07	prov
1,3,5-Trimethylbenzene	<22	11	5.82E-08	2.40E-06	18.414	0.00004	NA	1.71E-03	7.1E-11	1.7E-10		9.7E-08	prov
Vinyl chloride	5500	5500	1.51E-05	6.24E-04	18.414	0.01149	3.08E-02	2.86E-02	1.9E-08	4.3E-08	5.7E-10	1.5E-06	I, I
m,p-Xylene	410	410	1.92E-06	7.90E-05	18.414	0.00146	NA	2.86E-02	2.3E-09	5.5E-09		1.9E-07	I
o-Xylene	94	94	4.39E-07	1.81E-05	18.414	0.00033	NA	2.86E-02	5.4E-10	1.3E-09		4.4E-08	I
									Cumulative Risk -->		**1.8E-09**	**6.4E-06**	

Notes:

-1 = Maximum concentration of BW-LFGSTACK-44A.
-2 = Sample calculations are provided in Appendix C of the August 2001 Landfill Gas Recreational Use Evaluation.
-3 = Maximum modeled concentration on the Blackwell Landfill
-4 = Benzyl Chloride is reported as alpha-Chlorotoluene in the Modified TO-15 Method
-5 =Ethylene Dibromide is reported as 1,2-Dibromomethane in the Modified TO-14 Method
-6 = Methane is reported by percent in the Modified ASTM D-1945 Method (1% = 10,000,000 ppbv)
-7 = Expressed on a carbon basis.
(A) = Adult
(L) = Lifetime
\- = No listed screening value
H = HEAST Databasse (EPA's Health Effects Summary Table)
I = IRIS (EPA's Inategrated Risk Information System)
ppbv = Parts per billion by volume
prov = provisional value
$C_{ppb,i}$, M, C_{poll}, CF, E_i, and R_i are defined in Appendix C of the August 2001 Landfill Gas Recreational Use Evaluation.

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Table 6D
Cumulative Risk of Exposure to Landfill Gas
Recreational Portions of Landfill - February 2008
Blackwell Landfill NPL Site, DuPage County, Illinois

Potential Chemical of Concern	Maximum Concentration[1] $C_{ppb,i}$ (ppbv)	Maximum Concentration (ppbv)	Maximum Concentration[2] g/L	Emission Rate[2] E_i (g/s)	Maximum Unit Concentration (ug/m3)	Maximum Concentration on Blackwell[3] R_i (ug/m3)	Slope Factor (mg/kg-day)-1	RfDi (mg/kg-day)	Cancer Dose (mg/kg-day)	Noncancer Dose (mg/kg-day)	Cancer Risk	Hazard Quotient	References
Acetone	740	740	1.89E-06	7.80E-05	18.414	0.00144	NA	NA	2.3E-09	5.4E-09			
Benzene	650	650	2.24E-06	9.22E-05	18.414	0.00170	2.73E-02	8.57E-03	2.7E-09	6.4E-09	7.5E-11	7.5E-07	I, I
Benzyl Chloride[4]	<12	6	3.34E-08	1.38E-06	18.414	0.00003	NA	NA	4.1E-11	9.6E-11			
Bromodichloromethane	<12	6	4.33E-08	1.78E-06	18.414	0.00003	NA	NA	5.3E-11	1.2E-10			
Bromoform	<12	6	6.68E-08	2.75E-06	18.414	0.00005	3.85E-03	NA	8.2E-11	1.9E-10	3.1E-13		I
Bromomethane	<12	6	2.51E-08	1.03E-06	18.414	0.00002	NA	1.43E-03	3.1E-11	7.2E-11		5.0E-08	I
2-Butanone (MEK)	1300	1300	4.13E-06	1.70E-04	18.414	0.00313	NA	1.43E+00	5.1E-09	1.2E-08		8.2E-09	I
Carbon Disulfide	<12	6	2.01E-08	8.29E-07	18.414	0.00002	NA	2.00E-01	2.5E-11	5.7E-11		2.9E-10	I
Carbon Tetrachloride	<12	6	4.06E-08	1.68E-06	18.414	0.00003	5.25E-02	NA	5.0E-11	1.2E-10	2.6E-12		I
Chlorobenzene	9.6	9.6	4.76E-08	1.96E-06	18.414	0.00004	NA	5.71E-03	5.8E-11	1.4E-10		2.4E-08	H
Chloroethane	260	260	7.39E-07	3.05E-05	18.414	0.00056	NA	2.86E+00	9.0E-10	2.1E-09		7.4E-10	I
Chloroform	<12	6	3.15E-08	1.30E-06	18.414	0.00002	8.05E-02	NA	3.9E-11	9.0E-11	3.1E-12		I
Chloromethane	<50	25	5.56E-08	2.29E-06	18.414	0.00004	6.30E-03	2.57E-02	6.8E-11	1.6E-10	4.3E-13	6.2E-09	H, I
Dibromochloromethane	<12	6	5.50E-08	2.27E-06	18.414	0.00004	NA	NA	6.7E-11	1.6E-10			
1,2-Dichlorobenzene	<12	6	3.88E-08	1.60E-06	18.414	0.00003	NA	5.71E-02	4.8E-11	1.1E-10		1.9E-09	H
1,3-Dichlorobenzene	<12	6	3.88E-08	1.60E-06	18.414	0.00003	NA	NA	4.8E-11	1.1E-10			
1,4-Dichlorobenzene	<12	6	3.88E-08	1.60E-06	18.414	0.00003	NA	2.29E-01	4.8E-11	1.1E-10		4.8E-10	I
1,1-Dichloroethane	44	44	1.92E-07	7.91E-06	18.414	0.00015	NA	1.43E-01	2.3E-10	5.5E-10		3.8E-09	H
1,2-Dichloroethane	<12	6	2.61E-08	1.08E-06	18.414	0.00002	9.10E-02	NA	3.2E-11	7.5E-11	2.9E-12		I
1,1-Dichloroethene	16	16	6.83E-08	2.82E-06	18.414	0.00005	NA	5.71E-02	8.4E-11	2.0E-10		3.4E-09	I
cis-1,2-Dichloroethene	720	720	3.07E-06	1.27E-04	18.414	0.00233	NA	NA	3.8E-09	8.8E-09			
trans-1,2-Dichloroethene	150	150	6.40E-07	2.64E-05	18.414	0.00049	NA	NA	7.8E-10	1.8E-09			
1,2-Dichloropropane	50	50	2.49E-07	1.03E-05	18.414	0.00019	NA	1.14E-03	3.0E-10	7.1E-10		6.2E-07	I
cis-1,3-Dichloropropene	<12	6	2.93E-08	1.21E-06	18.414	0.00002	1.40E-02	5.71E-03	3.6E-11	8.4E-11	5.0E-13	1.5E-08	I, I
trans-1,3-Dichloropropene	<12	6	2.93E-08	1.21E-06	18.414	0.00002	1.40E-02	5.71E-03	3.6E-11	8.4E-11	5.0E-13	1.5E-08	I, I
Ethyl Benzene	170	170	7.95E-07	3.28E-05	18.414	0.00060	NA	2.86E-01	9.7E-10	2.3E-09		7.9E-09	I
Ethylene Dibromide[5]	<12	6	4.97E-08	2.05E-06	18.414	0.00004	2.10E+00	2.60E-03	6.1E-11	1.4E-10	1.3E-10	5.5E-08	I, I
4-Ethyltoluene	17	17	9.00E-08	3.71E-06	18.414	0.00007	NA	NA	1.1E-10	2.6E-10			
Freon 11 (C13FMe)	35	35	2.12E-07	8.73E-06	18.414	0.00016	NA	2.00E-01	2.6E-10	6.0E-10		3.0E-09	H
Freon 113	9.4	9.4	7.76E-08	3.20E-06	18.414	0.00006	NA	8.57E+00	9.49E-11	2.22E-10		2.58E-11	H
Freon 114 (C12F4Et)	430	430	3.24E-06	1.33E-04	18.414	0.00246	NA	NA	4.0E-09	9.2E-09			
Freon 12 (C12F2Me)	3600	3600	1.92E-05	7.90E-04	18.414	0.01455	NA	5.71E-02	2.3E-08	5.5E-08		9.6E-07	H
Hexachlorobutadiene	<50	25	2.87E-07	1.18E-05	18.414	0.00022	7.70E-02	NA	3.5E-10	8.2E-10	2.7E-11		I
2-Hexanone	<50	25	1.10E-07	4.55E-06	18.414	0.00008	NA	NA	1.3E-10	3.1E-10			

Table 6D
Cumulative Risk of Exposure to Landfill Gas
Recreational Portions of Landfill - February 2008
Blackwell Landfill NPL Site, DuPage County, Illinois

Potential Chemical of Concern	Maximum Concentration[1] $C_{ppb,i}$ (ppbv)	Maximum Concentration (ppbv)	Maximum Concentration[2] g/L	Emission Rate[2] E_i (g/s)	Maximum Unit Concentration (ug/m3)	Maximum Concentration on Blackwell[3] R_i (ug/m3)	Slope Factor (mg/kg-day)-1	RfDi (mg/kg-day)	Cancer Dose (mg/kg-day)	Noncancer Dose (mg/kg-day)	Cancer Risk	Hazard Quotient	References
Methane[6]	600,000,000	600,000,000	4.24E-01	1.75E+01	18.414	322	NA	NA	5.2E-04	1.2E-03			
4-Methyl-2-pentanone	120	120	5.29E-07	2.18E-05	18.414	0.00040	NA	8.57E-01	6.5E-10	1.5E-09		1.8E-09	I
Methylene chloride	100	100	3.74E-07	1.54E-05	18.414	0.00028	NA	2.60E-02	4.6E-10	1.1E-09		4.1E-08	
Styrene	<12	6	2.75E-08	1.13E-06	18.414	0.00002	NA	2.86E-01	3.4E-11	7.9E-11		2.7E-10	I
1,1,2,2-Tetrachloroethane	<12	6	4.43E-08	1.83E-06	18.414	0.00003	2.03E-01	NA	5.4E-11	1.3E-10	1.1E-11		I
Tetrachloroethene	30	30	2.19E-07	9.03E-06	18.414	0.00017	2.03E-03	1.71E-01	2.7E-10	6.3E-10	5.4E-13	3.7E-09	prov, prov
TNMOC[7]	229,600	229,600	1.21E-04	5.01E-03	18.414	0.09220	NA	NA	1.5E-07	3.5E-07			prov
Toluene	2200	2200	8.93E-06	3.68E-04	18.414	0.00678	NA	1.14E-01	1.1E-08	2.5E-08		2.2E-07	I
1,2,4-Trichlorobenzene	<50	25	2.00E-07	8.24E-06	18.414	0.00015	NA	1.14E-03	2.4E-10	5.7E-10		5.0E-07	prov
1,1,1-Trichloroethane	<12	6	3.52E-08	1.45E-06	18.414	0.00003	NA	6.29E-01	4.3E-11	1.0E-10		1.6E-10	prov
1,1,2-Trichloroethane	<12	6	3.52E-08	1.45E-06	18.414	0.00003	5.60E-02	NA	4.3E-11	1.0E-10	2.4E-12		I
Trichloroethene	110	110	6.39E-07	2.63E-05	18.414	0.00049	4.00E-01	1.14E-02	7.8E-10	1.8E-09	3.1E-10	1.6E-07	prov, prov
1,2,4-Trimethylbenzene	12	12	6.35E-08	2.62E-06	18.414	0.00005	NA	1.71E-03	7.8E-11	1.8E-10		1.1E-07	prov
1,3,5-Trimethylbenzene	7.6	7.6	4.02E-08	1.66E-06	18.414	0.00003	NA	1.71E-03	4.9E-11	1.1E-10		6.7E-08	prov
Vinyl chloride	6700	6700	1.84E-05	7.60E-04	18.414	0.01400	3.08E-02	2.86E-02	2.3E-08	5.3E-08	7.0E-10	1.8E-06	I, I
m,p-Xylene	310	310	1.45E-06	5.98E-05	18.414	0.00110	NA	2.86E-02	1.8E-09	4.1E-09		1.4E-07	I
o-Xylene	64	64	2.99E-07	1.23E-05	18.414	0.00023	NA	2.86E-02	3.7E-10	8.5E-10		3.0E-08	I
									Cumulative Risk -->		**1.3E-09**	**5.6E-06**	

Notes:

-1 = Maximum concentration of BW-LFGSTACK-45A.
-2 = Sample calculations are provided in Appendix C of the August 2001 Landfill Gas Recreational Use Evaluation.
-3 = Maximum modeled concentration on the Blackwell Landfill
-4 = Benzyl Chloride is reported as alpha-Chlorotoluene in the Modified TO-15 Method
-5 =Ethylene Dibromide is reported as 1,2-Dibromomethane in the Modified TO-14 Method
-6 = Methane is reported by percent in the Modified ASTM D-1945 Method (1% = 10,000,000 ppbv)
-7 = Expressed on a carbon basis.
(A) = Adult
(L) = Lifetime
\- = No listed screening value
H = HEAST Databasse (EPA's Health Effects Summary Table)
I = IRIS (EPA's Inategrated Risk Information System)
ppbv = Parts per billion by volume
prov = provisional value
$C_{ppb,i}$, M, C_{poll}, CF, E_i, and R_i are defined in Appendix C of the August 2001 Landfill Gas Recreational Use Evaluation.

JEF/dla
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Table 7
Inspection, Monitoring, and Maintenance Schedule
Blackwell Landfill Site

The frequencies will be modified as experience with the systems dictate. The following forms are available for use during inspection, monitoring, and maintenance activities:

- Site Visit Operating Log
- Leachate Disposal Log
- Leachate and LFG Monitoring Form
- Maintenance and Repair Record Form
- Inspection Reporting Form
- Gas Vent Monitoring Form
- Replacement Equipment and Parts Log

AS-NEEDED BASIS

• Landfill Cover (following 10 yr., 24 hr rainfall event)	– Inspect for erosion, cracks – Inspect for water ponding – Inspect for siltation of drainage ways – Inspect for gas bubbling through landfill topsoil
• Control Building (following disposal of leachate)	– Record pump counter readings – Record depth of leachate in holding tank (before and after disposal)
• Site Conditions	– Document date and time – Document weather conditions – Conduct general inspection (fence, locks, sign, etc.)
• Main Vent Stack	– Inspect valve settings – Conduct general inspection (fence, locks, signs, etc.)

WEEKLY BASIS

• Control Building	– Visually check building exterior alarm lights – Visually check panel indicator lights – Check heater thermostat setting and status – Visually check building vents and fans – Inspect compressor and dryer operation – Drain water traps on compressor and dryer
• Leachate Holding Tank	– Inspect valve settings – Check volume in tank – General inspection – Visually check tank, leak detection, and dripleg riser condition

Table 7
Inspection, Monitoring, and Maintenance Schedule
Blackwell Landfill Site

BI-MONTHLY

• Leachate Extraction Wells (wellheads)	– Measure leachate level during period of high atmospheric pressure – Document pump cycle counts – Conduct general inspection – Adjust needle valve if the extraction rate is to be modified. Check air supply pressure – Check air pump pressure – Check level sensor air pressure – Inspect flow meter operation – Check air supply and pump discharge valve settings
• Leachate Lift Stations	– Document pump cycle counts – Conduct general inspection – Verify pump operation – Check position of manual isolation valve
• LFG Vents	– Measure leachate level during period of high atmospheric pressure – Conduct general inspection
• Main Vent Stack	– Conduct general inspection – Check manual valve position

SEMI-ANNUALLY

• Leachate Extraction Wells (wellheads)	– Measure percent methane (CH_4) – Measure percent oxygen (O_2) – Measure percent carbon dioxide (CO_2) – Measure static pressure
• Leachate Lift Stations	– Measure percent methane (CH_4) – Measure percent oxygen (O_2) – Measure percent carbon dioxide (CO_2) – Measure static pressure
• LFG Vents	– Measure percent methane (CH_4) – Measure percent oxygen (O_2) – Measure percent carbon dioxide (CO_2) – Measure static pressure – Measure gas flow rate – Measure gas temperature
• Main Vent Stack	– Measure percent methane (CH_4) – Measure percent oxygen (O_2) – Measure percent carbon dioxide (CO_2) – Measure gas flow rate – Measure gas temperature

Table 7
Inspection, Monitoring, and Maintenance Schedule
Blackwell Landfill Site

Monitoring Location	Bi-Monthly O&M Activities		Semi-Annual O&M Activities	Connected to LCS and LFG extraction system[1]
	Abandoned[1]	Monitor Leachate Levels[1]	Monitor LFG[1, 2]	
SV-1		X		
SV-2		X		
SV-3	X			
SV-4		X	X	X
SV-5		X	X	X
SV-6		X		
SV-7		X		
SV-8		X	X	X
SV-9		X	X	X
SV-10	X			
SV-11		X		
SV-12		X		
DV-1	X			
DV-2	X			
DV-3		X		
DV-4		X		
DV-5[3]		X	X	X
DV-6		X		
DV-7[4]				
DV-8		X	X	X
DV-9		X	X	X
DV-10		X	X	X
DV-11		X	X	
DV-12	X			
DV-13		X		
DV-14		X		
DV-15[3]		X	X	X
DV-16[3]		X	X	X
DV-17		X	X	X
DV-18		X	X	X
EW-1[5]		X	X	X
EW-1A[5]		X	X	X
EW-2[5]		X	X	X
EW-3[5]		X	X	X
EW-4[5,6]			X	X
EW-5[5]		X	X	X
EW-6[5]		X	X	X
EW-7[5]		X	X	X
EW-8[5,7]				X
LS01[5]			X	X
LS02[8]				X
Main Vent[9]			X	X

Table 7
Inspection, Monitoring, and Maintenance Schedule
Blackwell Landfill Site

Notes:

1. "X" indicates data collection or action taken.
2. LFG monitoring includes static pressure, flow velocity, temperature, and composition (i.e., % CH4, CO2, and O2).
3. Leachate level not measured. LFG vents DV-5, DV-15 and DV-16 measure groundwater levels.
4. Leachate level in DV-7 not measured due to obstruction.
5. LFG flow velocity and temperature are not measured at extraction wells or lift stations. Pump cycle counts documented.
6. Due to the configuration of EW-4, leachate levels are difficult or impossible to collect.
7. Due to the configuration of EW-8, leachate levels and LFG parameters are not collected. Leachate levels and LFG parameters from DV-11 are assumed to be similar to EW-8.
8. The pneumatic pump from LS02 was removed. No O&M data collected.
9. Static pressure is not measured at the main vent stack. The main vent stack is open to the atmosphere.

QUARTERLY

• Compressor/Dryer Systems	– Inspect and clean filters. Lubricate, if necessary
• Leachate Holding Tank	– Conduct required analytical testing
• Control Station	– Remove water from condensate trap on supply air line
• Site Inspection	– Inspect fenced areas (main vent stack, tank and compressor station) – Inspect posted signs and notices – Inspect access, including roads, to LCS and LFG system components – Inspect flush-mount vaults – Inspect for excessive or improper vegetation in, or around, LCS or LFG system components
• Landfill Gas Sampling (at main vent stack)	– Conduct required LFG analytical testing – Measure gas flow rate
• Landfill Cover	– Inspect for erosion, cracks – Inspect for water ponding – Inspect for siltation of drainage ways – Inspect for stressed or dead vegetation

SEMI-ANNUALLY

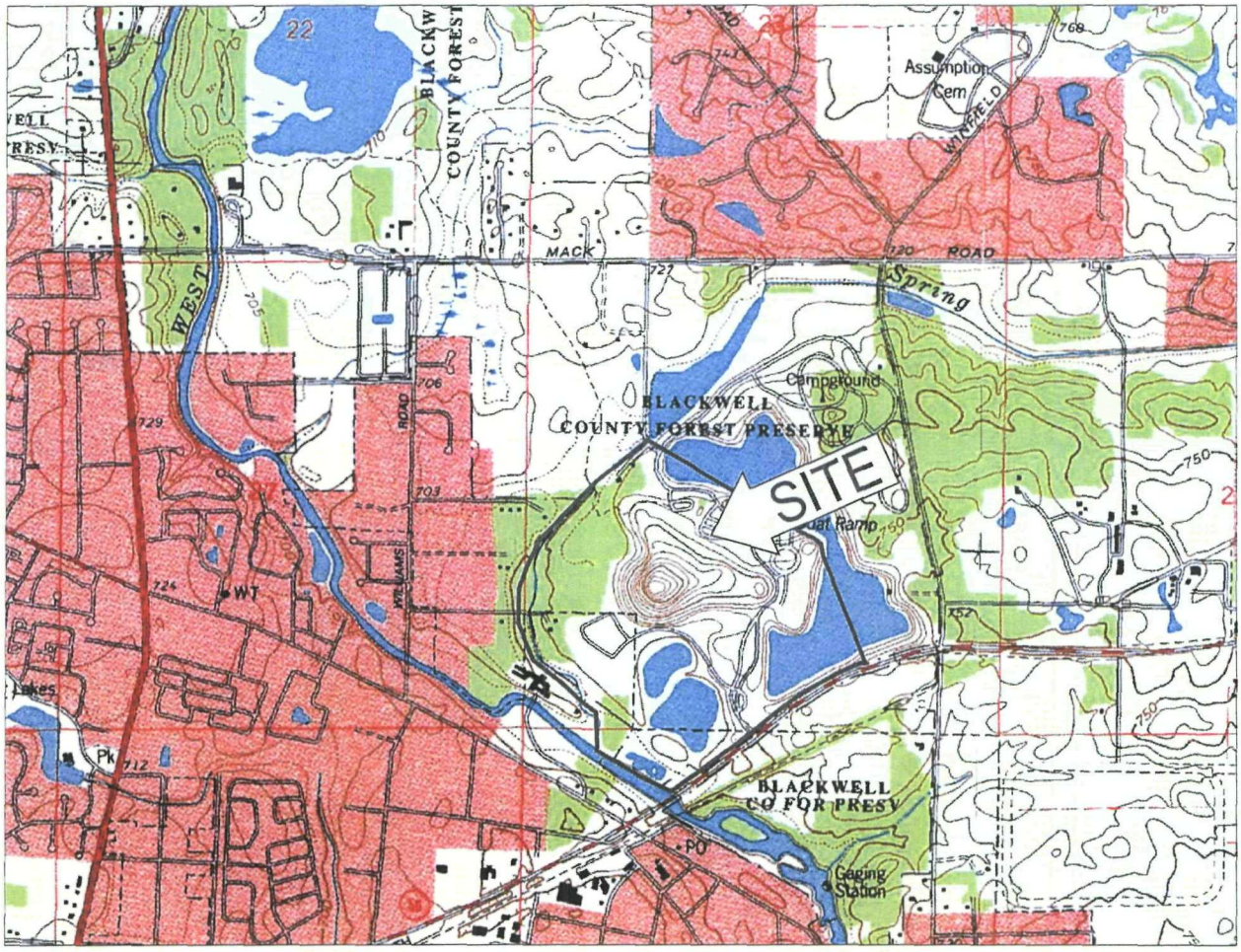
• Leachate Holding Tank	– Conduct required analytical testing
• Driplegs DL01 and DL02	– Check liquid levels in "u" traps if an active LFG extraction system is installed.

Table 7
Inspection, Monitoring, and Maintenance Schedule
Blackwell Landfill Site

ANNUALLY

• Compressor/Dryer Systems	– Perform annual maintenance as necessary
• All Valves	– Confirm valve operation by operating throughout entire range of motion several times
• Leachate Holding Tank	– Inspect liquid level floats, interlocked controls and warning lights operation – Inspect moisture probes (leak detection riser and tank interstice)
• Padlocks, Gates, Doors, etc.	– Lubricate with grease and verify working condition
• Lift Station LS01 (if system is made inoperable by shutting off air supply valve)	– Bleed out condensate in air supply line

FIGURES



BASE MAP DEVELOPED FROM THE
NAPERVILLE, ILLINOIS 7.5 MINUTE
U.S.G.S. TOPOGRAPHIC QUADRANGLE MAP
DATED: 1993

N

2000

SCALE IN FEET

MWH	BLACKWELL LANDFILL NPL SITE DUPAGE COUNTY, ILLINOIS	SITE LOCATION MAP	FIGURE 1

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MWH	BLACKWELL LANDFILL NPL SITE DU PAGE COUNTY, ILLINOIS	SITE FEATURES MAP	FIGURE 2

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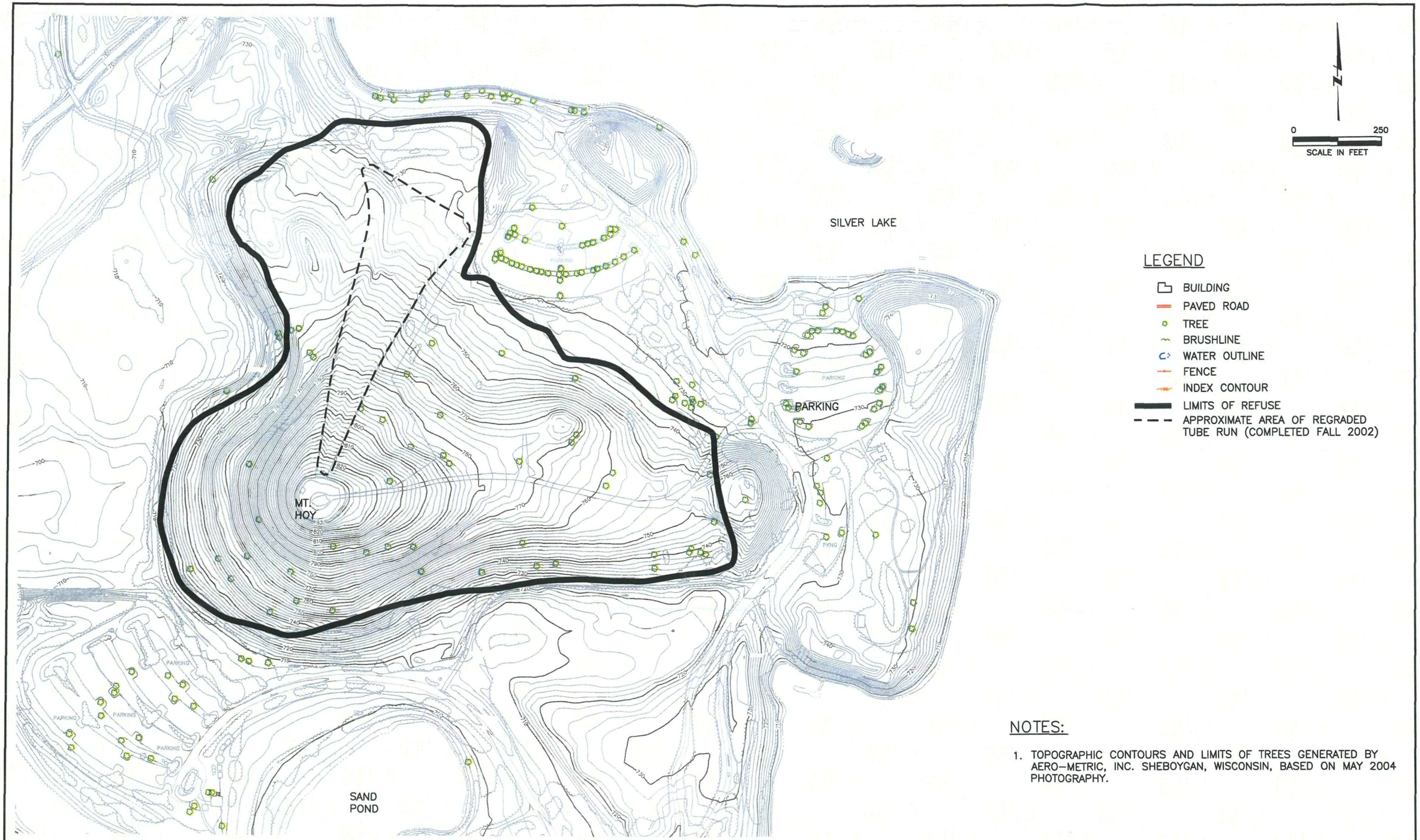

NOTES:

1. TOPOGRAPHIC CONTOURS AND LIMITS OF TREES GENERATED BY AERO-METRIC, INC. SHEBOYGAN, WISCONSIN, BASED ON MAY 2004 PHOTOGRAPHY.

MWH	BLACKWELL LANDFILL NPL SITE DUPAGE COUNTY, ILLINOIS	TOPOGRAPHIC MAP (2004)	FIGURE 3

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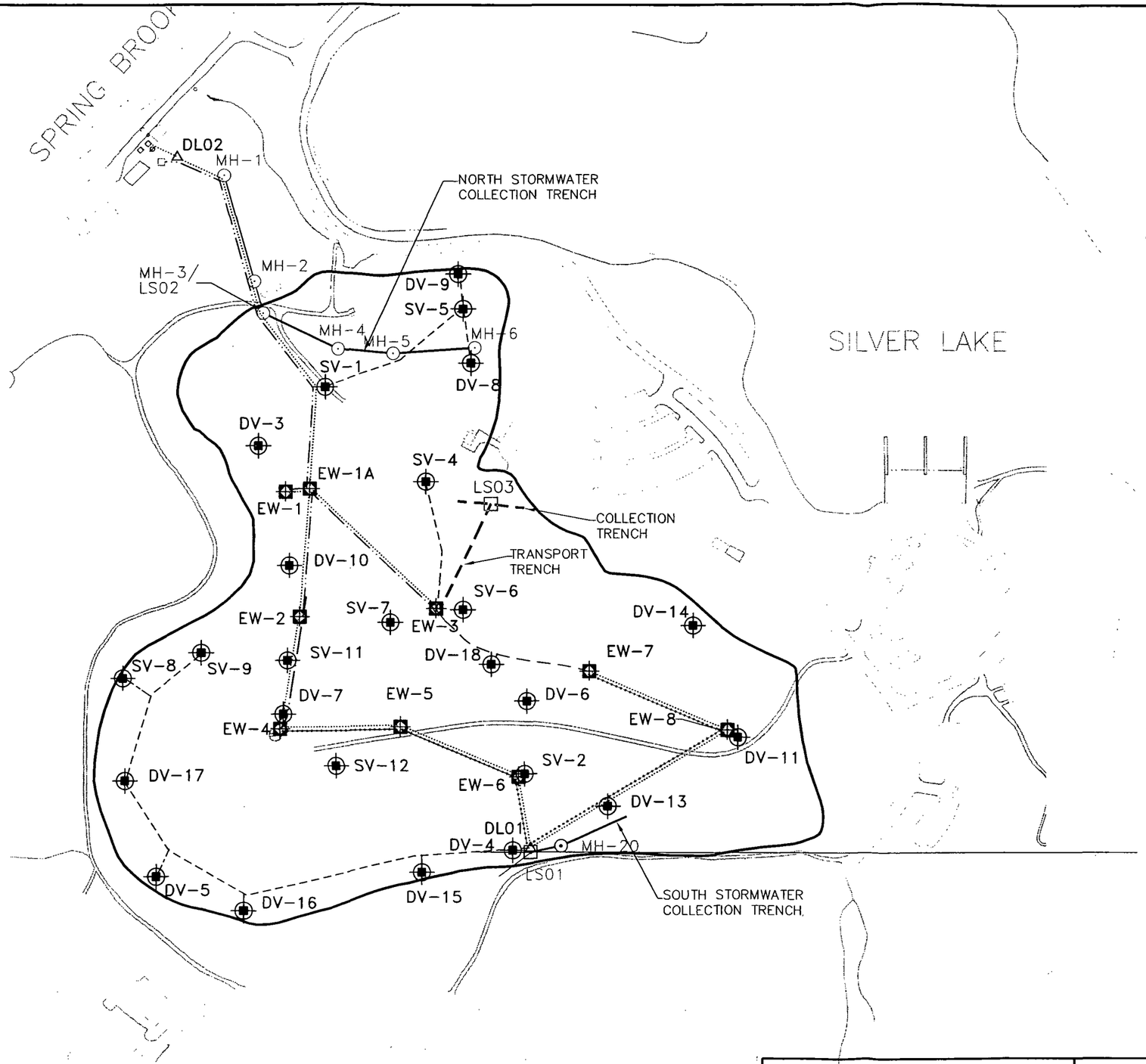

LEGEND

- DV-9 — VENT PIPE LOCATION AND NUMBER
- MH-20 — MANHOLE LOCATION AND NUMBER WITH LIQUID CUTOFF TRENCH AND PIPE
- EW-6 — LEACHATE EXTRACTION WELL/GAS VENT LOCATION AND NUMBER
- LIMITS OF REFUSE BASED ON GEOPHYSICAL TESTING AND SOIL BORINGS
- LS01 — LIFT STATION LOCATION AND NUMBER
- LEACHATE PRESSURE CONVEYANCE PIPE AND CONTROL WIRE
- LEACHATE GRAVITY CONVEYANCE PIPE
- GAS HEADER PIPE
- DL01 — DRIPLEG LOCATION AND NUMBER
- COLLECTION TRENCH COMPONENTS
- SHUNT LINE

N

0 250
SCALE IN FEET

NOTES

1. APPROXIMATE LIMITS OF REFUSE HAVE BEEN ESTIMATED BASED ON INFORMATION PRESENTED IN THE PREDESIGN REPORT, APRIL 1997.

MWH	BLACKWELL LANDFILL NPL SITE DUPAGE COUNTY, ILLINOIS	LCS AND LFG SYSTEMS	FIGURE 4

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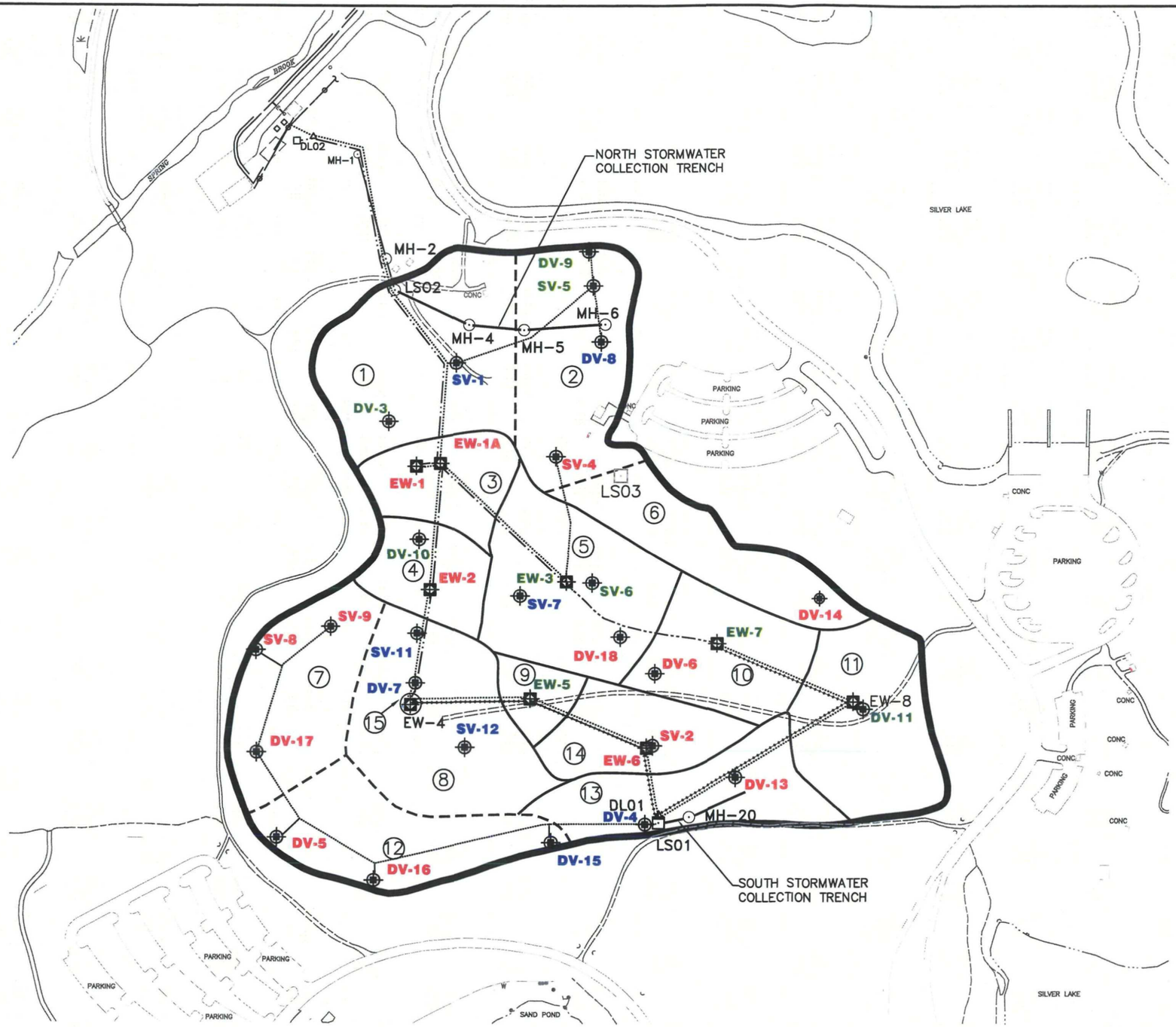

LEGEND

- DV-8 — MONITORING WELL LOCATION AND NUMBER VENT PIPE LOCATION AND NUMBER
- MH-6 — MANHOLE LOCATION AND NUMBER WITH LIQUID CUTOFF TRENCH AND PIPE
- EW-1 — LEACHATE EXTRACTION WELL/GAS VENT LOCATION AND NUMBER
- LS01 — LIFT STATION LOCATION AND NUMBER
- LIMITS OF REFUSE TESTING AND SOIL BORINGS
- LEACHATE PRESSURE CONVEYANCE PIPE
- LEACHATE GRAVITY CONVEYANCE PIPE
- APPROXIMATE GAS HEADER PIPE
- DV-13 — EXTRACTION WELL OR VENT WITH INCREASING LEACHATE LEVEL TREND
- DV-8 — EXTRACTION WELL OR VENT WITH FLAT LEACHATE LEVEL TREND
- EW-3 — EXTRACTION WELL OR VENT WITH DECREASING LEACHATE LEVEL TREND
- EW-4 — EXTRACTION WELL OR VENT WHERE LEACHATE LEVELS ARE NO LONGER MEASURED
- (1) — LANDFILL AREA NUMBER

NOTES

1. BASE MAP DEVELOPED FROM AERIAL SURVEY TOPOGRAPHIC MAP BY AERO-METRIC ENGINEERING PROJECT NO. 109222, APRIL 3 AND 5, 1992.
2. FLAT LEACHATE LEVEL TRENDS ARE DEFINED AS HAVING LEACHATE LEVEL TRENDLINE SLOPES = -0.1 FT/YR $\leq X \leq 0.1$ FT/YR.

N

0 250

SCALE IN FEET

SCALE				FIGURE
1" = 250'	MWH	BLACKWELL LANDFILL NPL SITE DUPAGE COUNTY, ILLINOIS	CUMMULATIVE LEACHATE LEVEL TRENDS THROUGH THE TENTH YEAR OF LCS OPERATIONS	5

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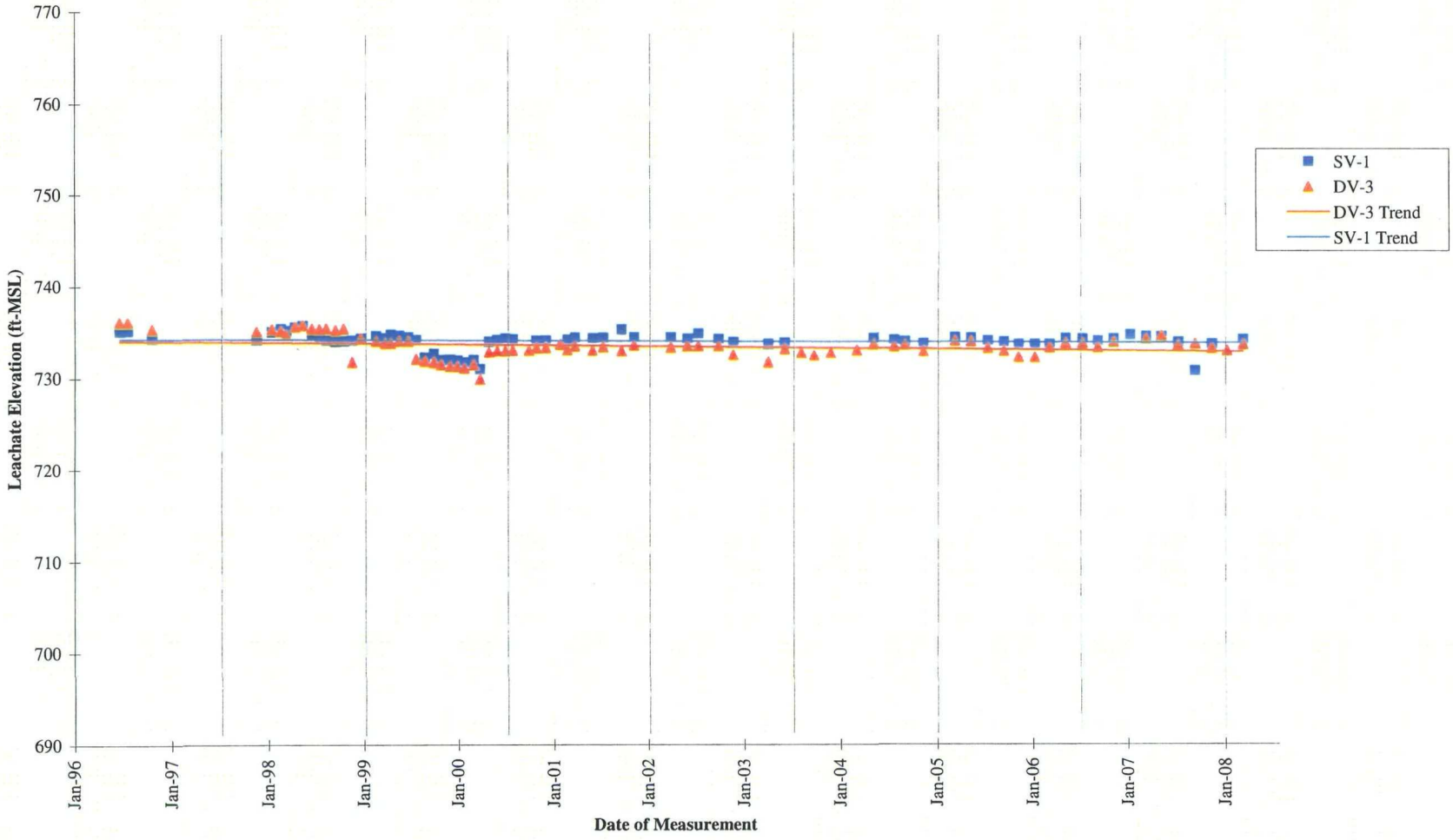
DRAWINGS

Drawing 1
Leachate Elevations in Landfill Area 1
Blackwell Landfill NPL Site



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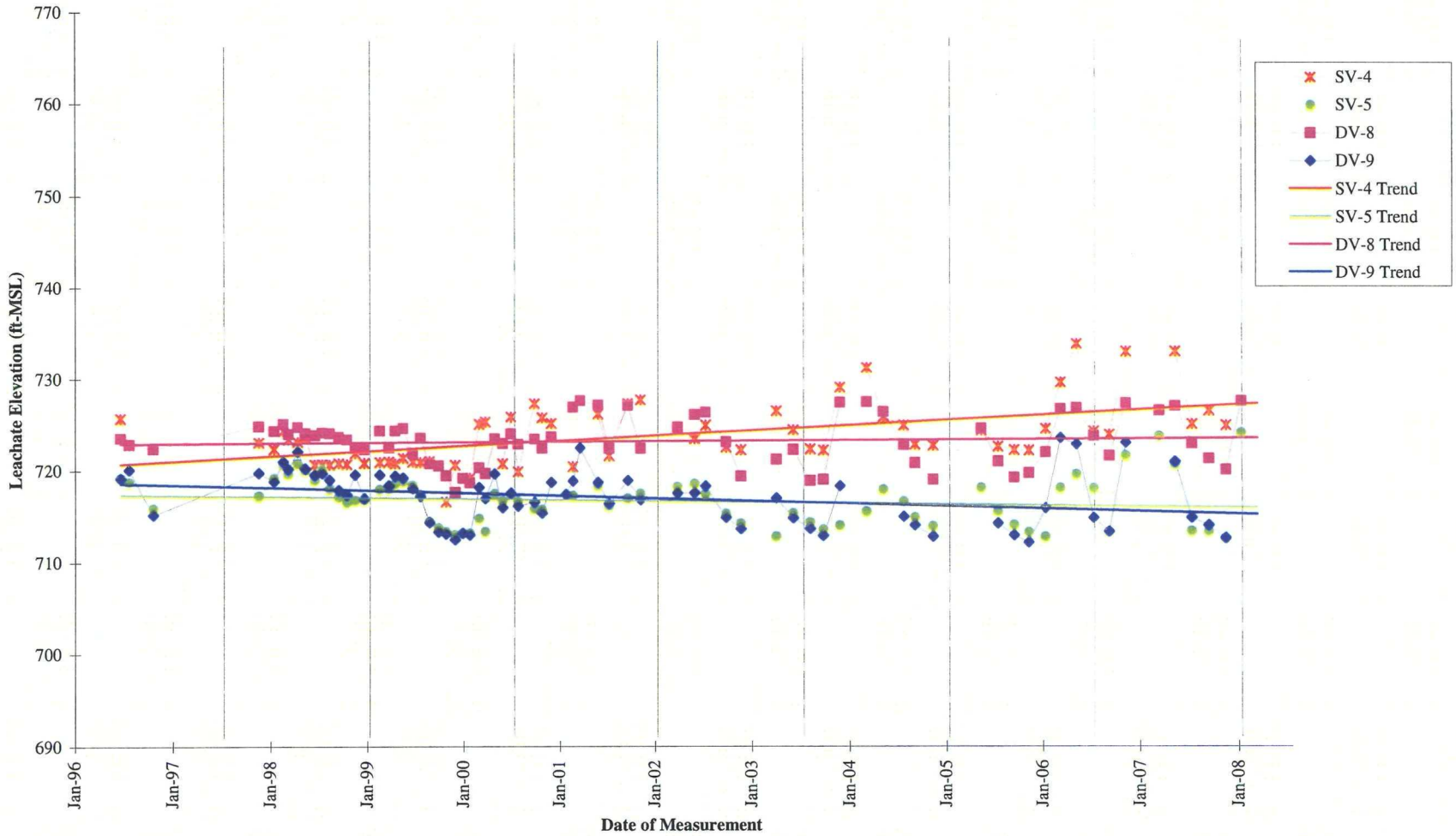
Drawing 2
Leachate Elevations in Landfill Area 2
Blackwell Landfill NPL Site



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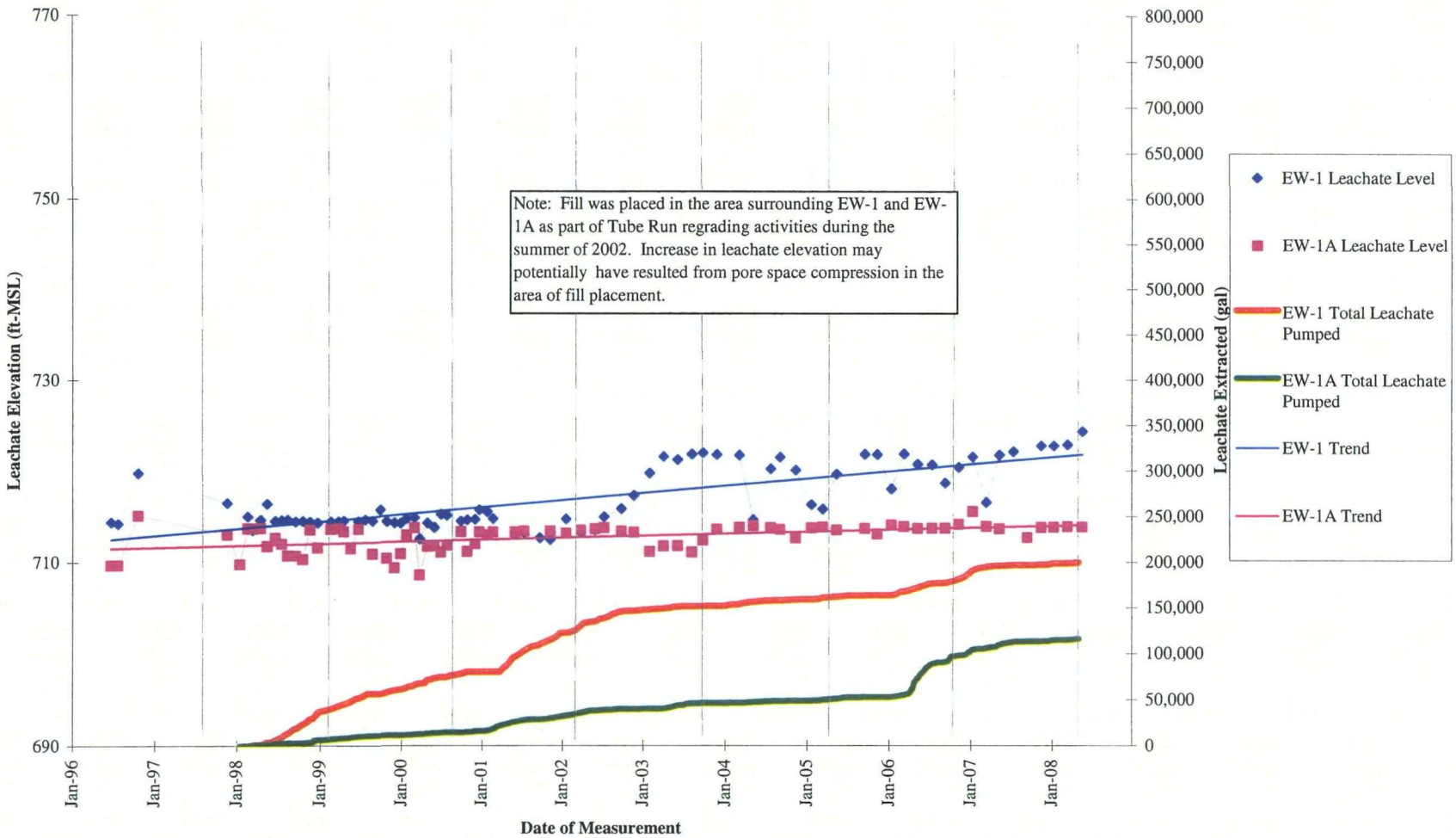
Drawing 3
Leachate Elevations in Landfill Area 3
Blackwell Landfill NPL Site



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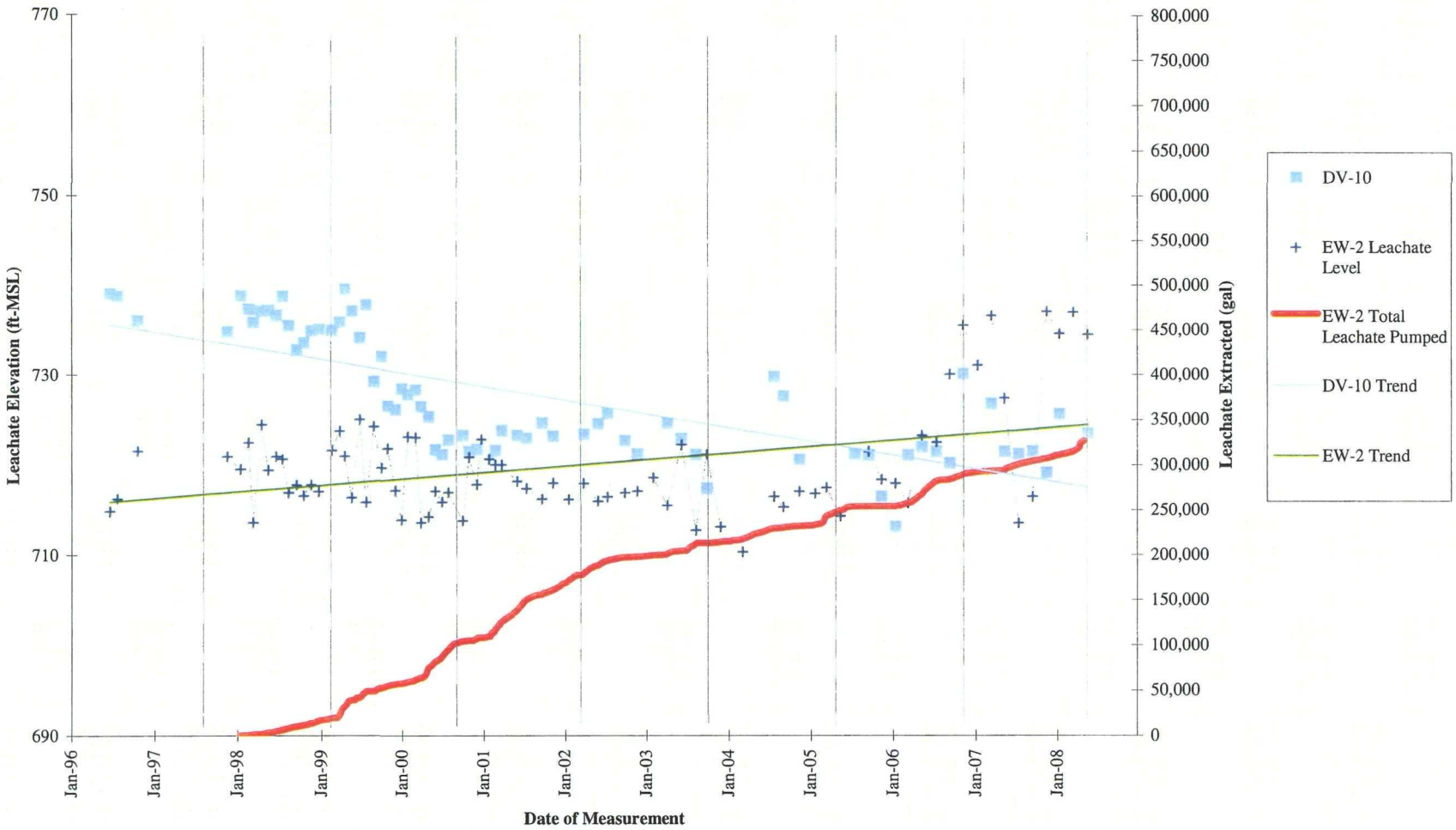
Drawing 4
Leachate Elevations in Landfill Area 4
Blackwell Landfill NPL Site



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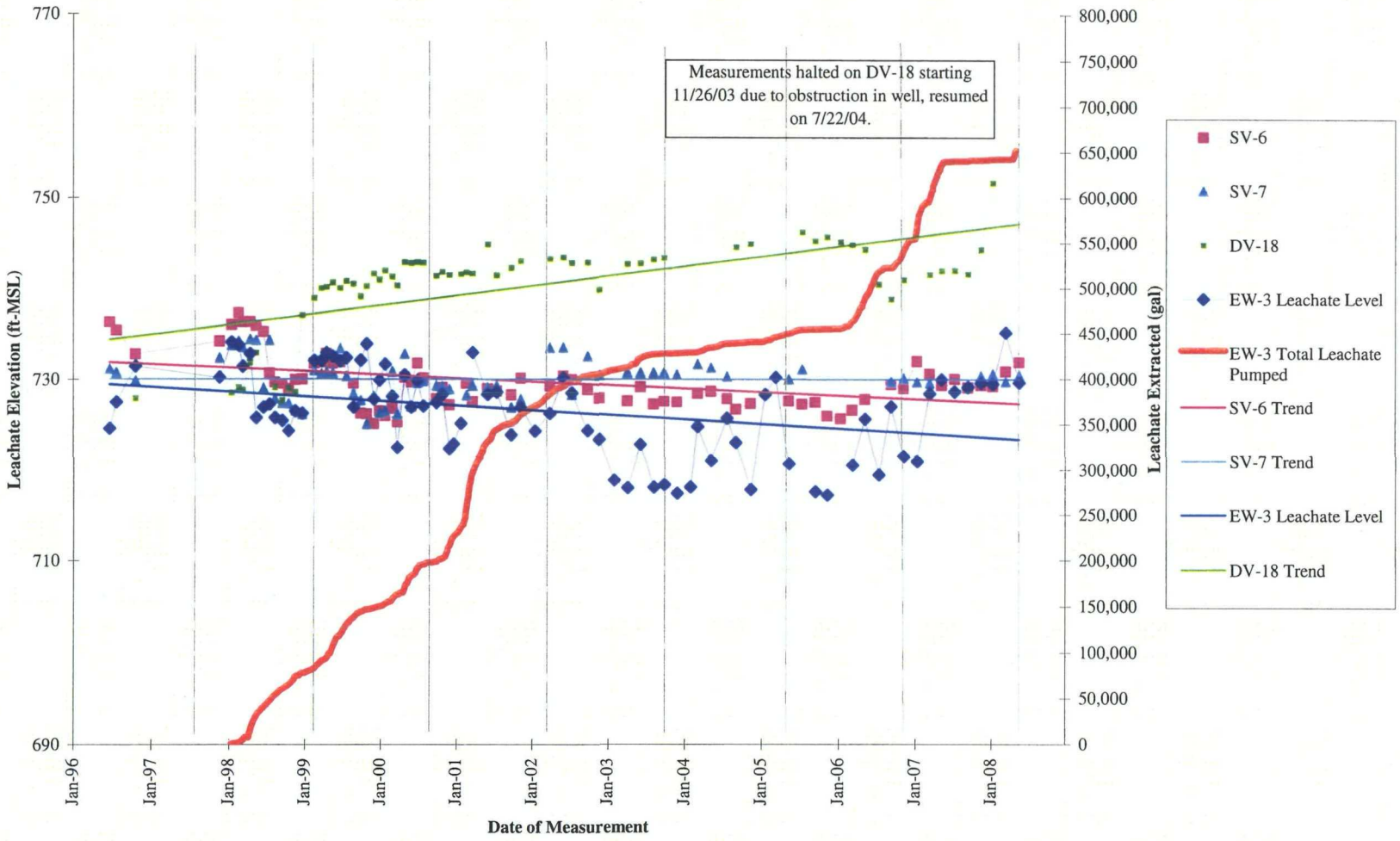
Drawing 5
Leachate Elevations in Landfill Area 5
Blackwell Landfill NPL Site



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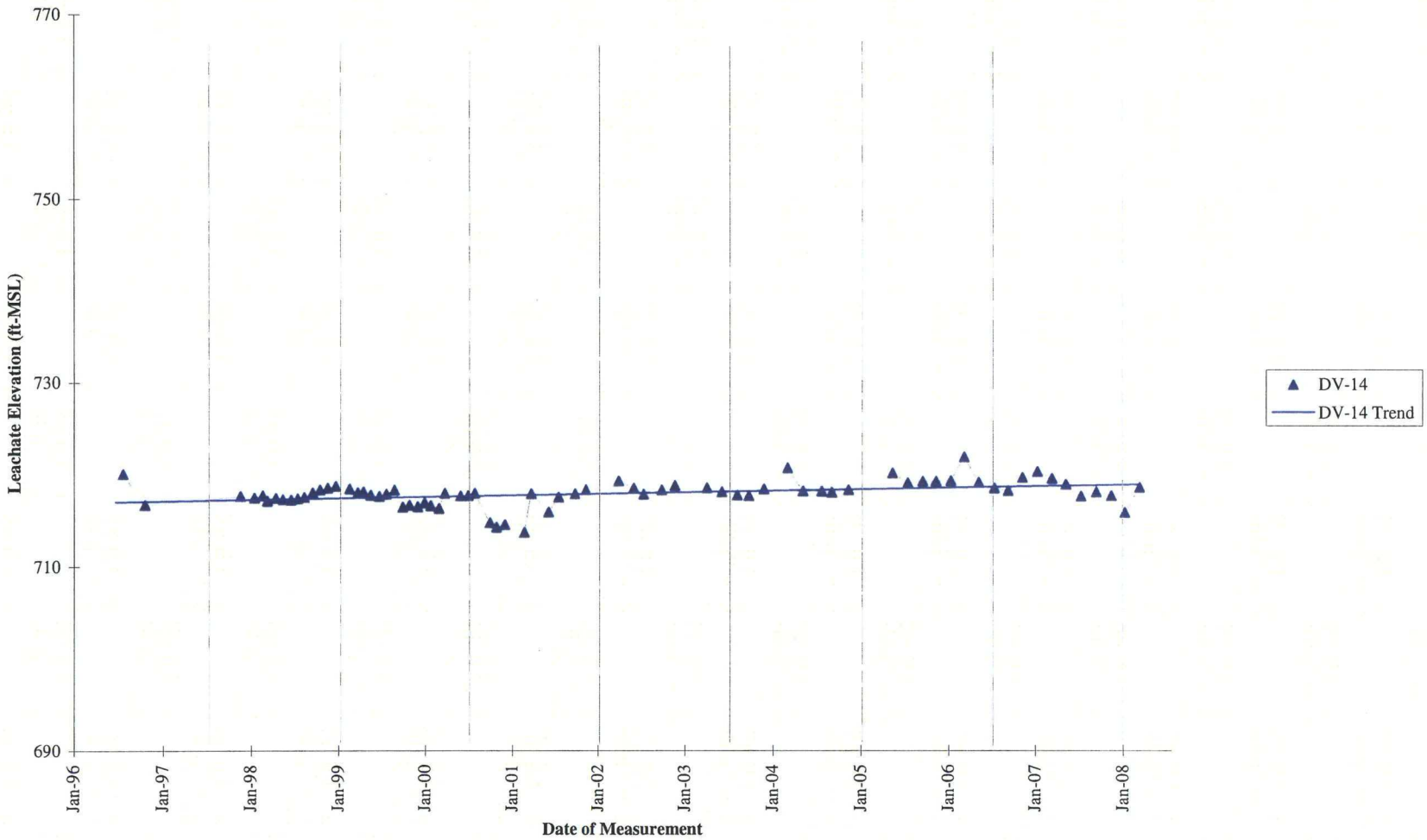
Drawing 6
Leachate Elevations in Landfill Area 6
Blackwell Landfill NPL Site



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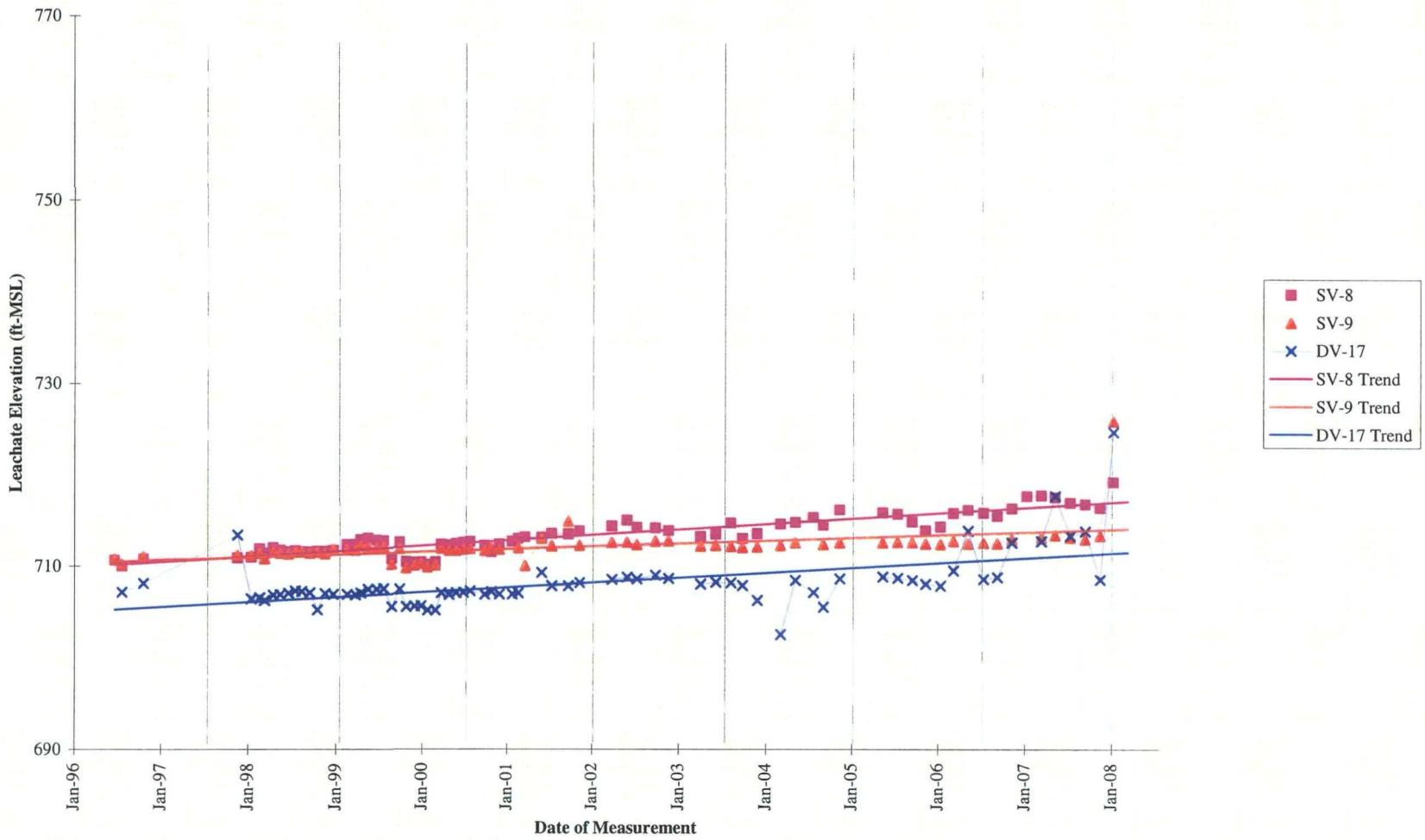
Drawing 7
Leachate Elevations in Landfill Area 7
Blackwell Landfill NPL Site



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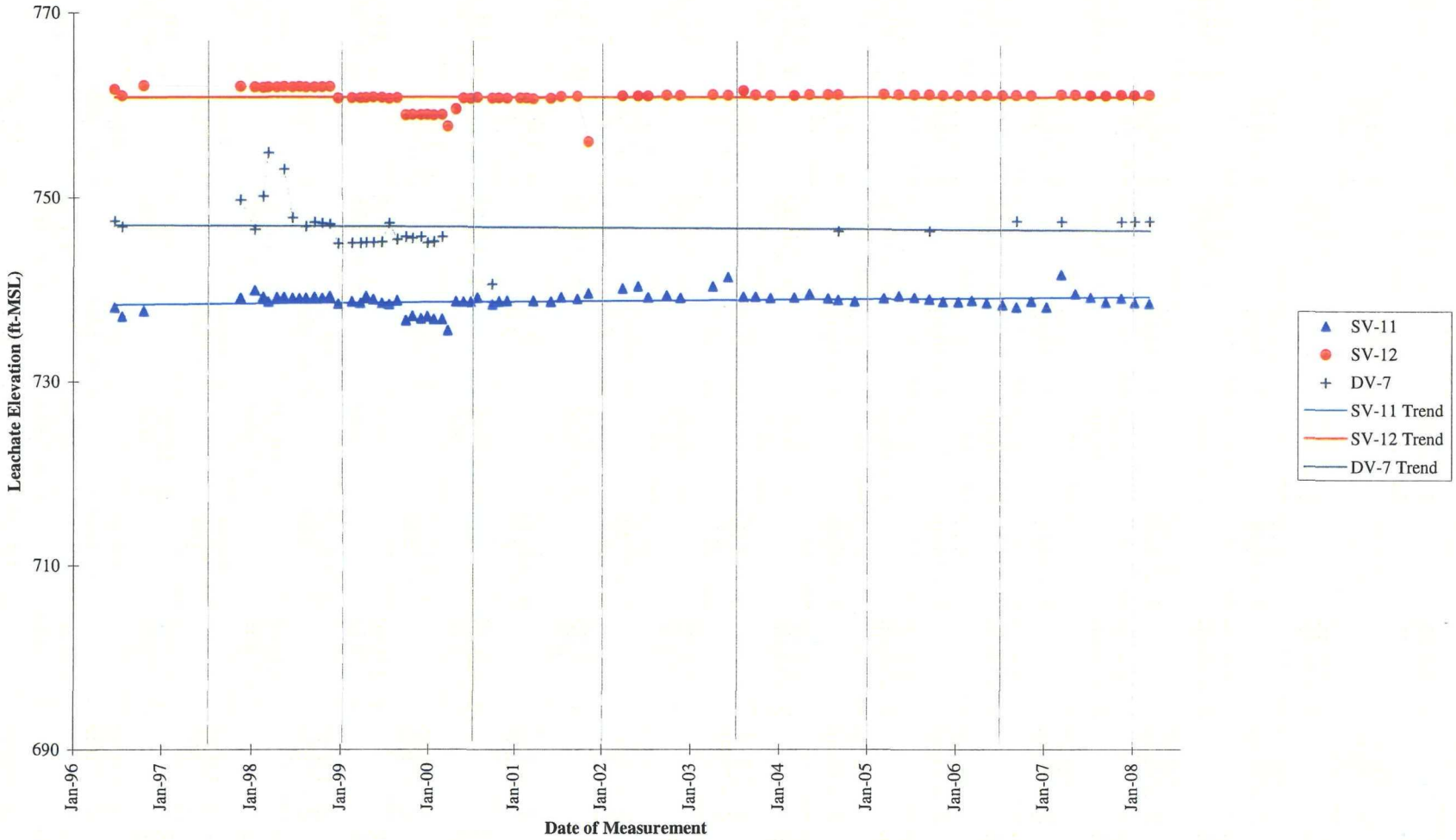
Drawing 8
Leachate Elevations in Landfill Area 8
Blackwell Landfill NPL Site



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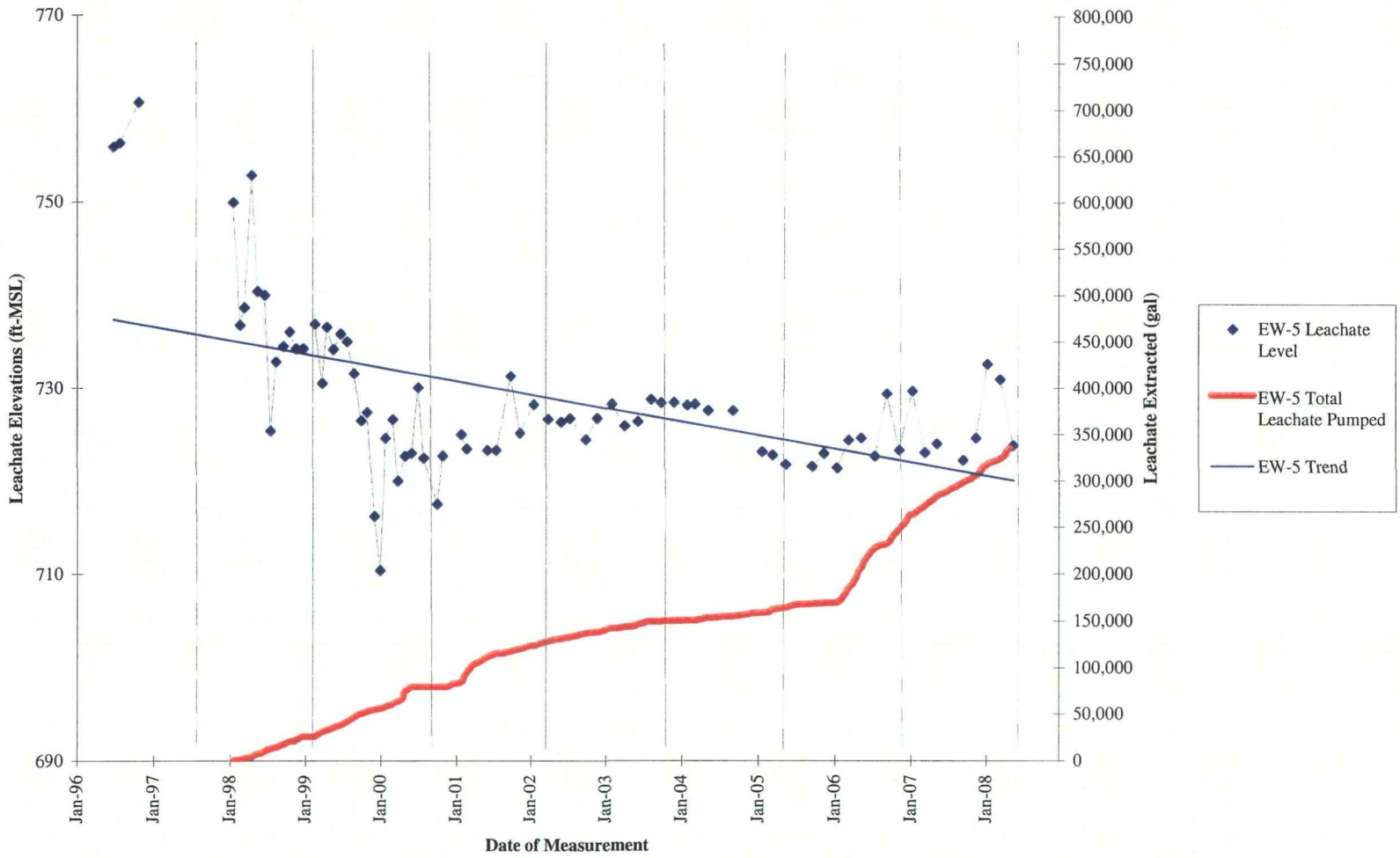
Drawing 9
Leachate Elevations in Landfill Area 9
Blackwell Landfill NPL Site



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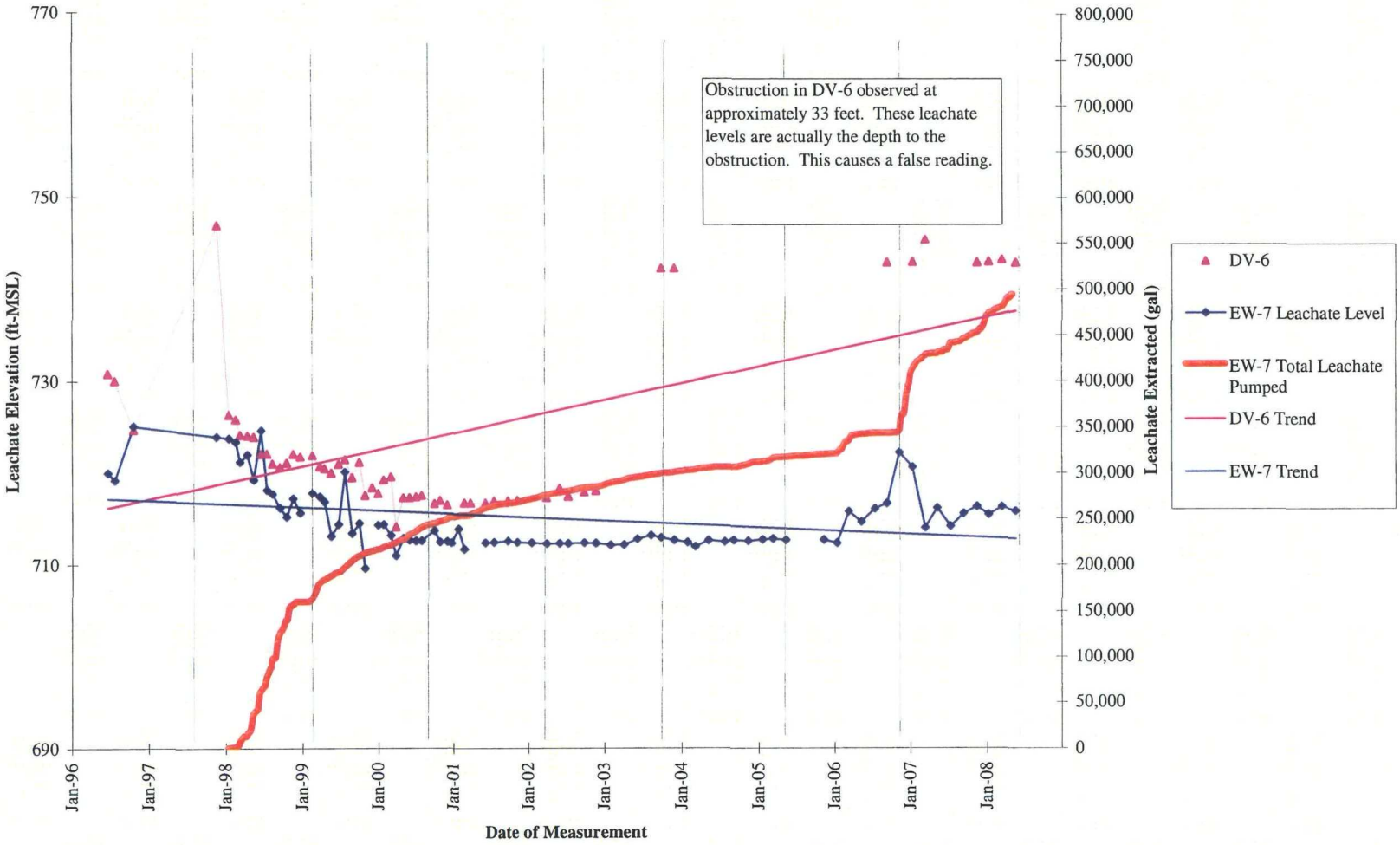
Drawing 10
Leachate Elevations in Landfill Area 10
Blackwell Landfill NPL Site



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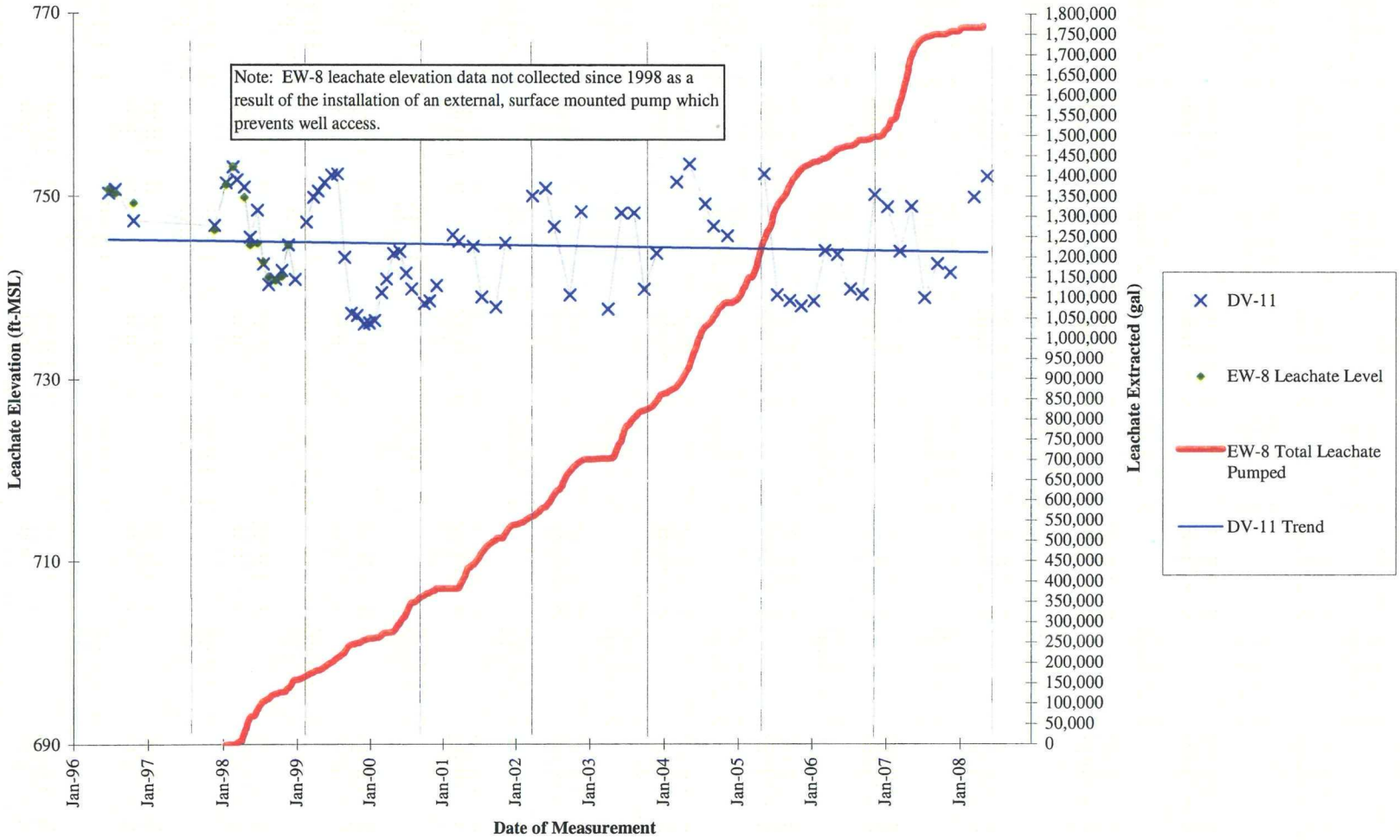
Drawing 11
Leachate Elevations in Landfill Area 11
Blackwell Landfill NPL Site



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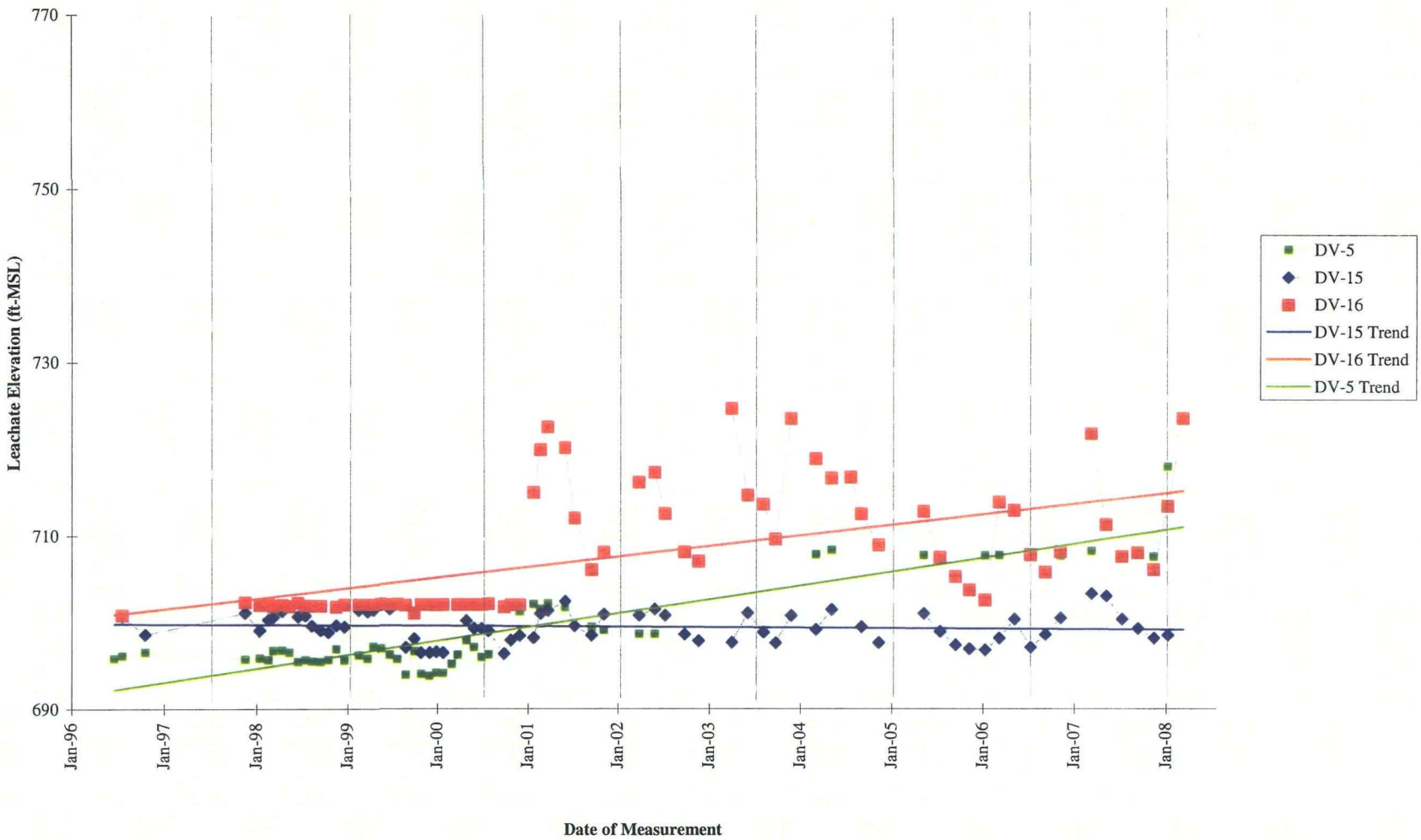
Drawing 12
Leachate Elevations in Landfill Area 12
Blackwell Landfill NPL Site



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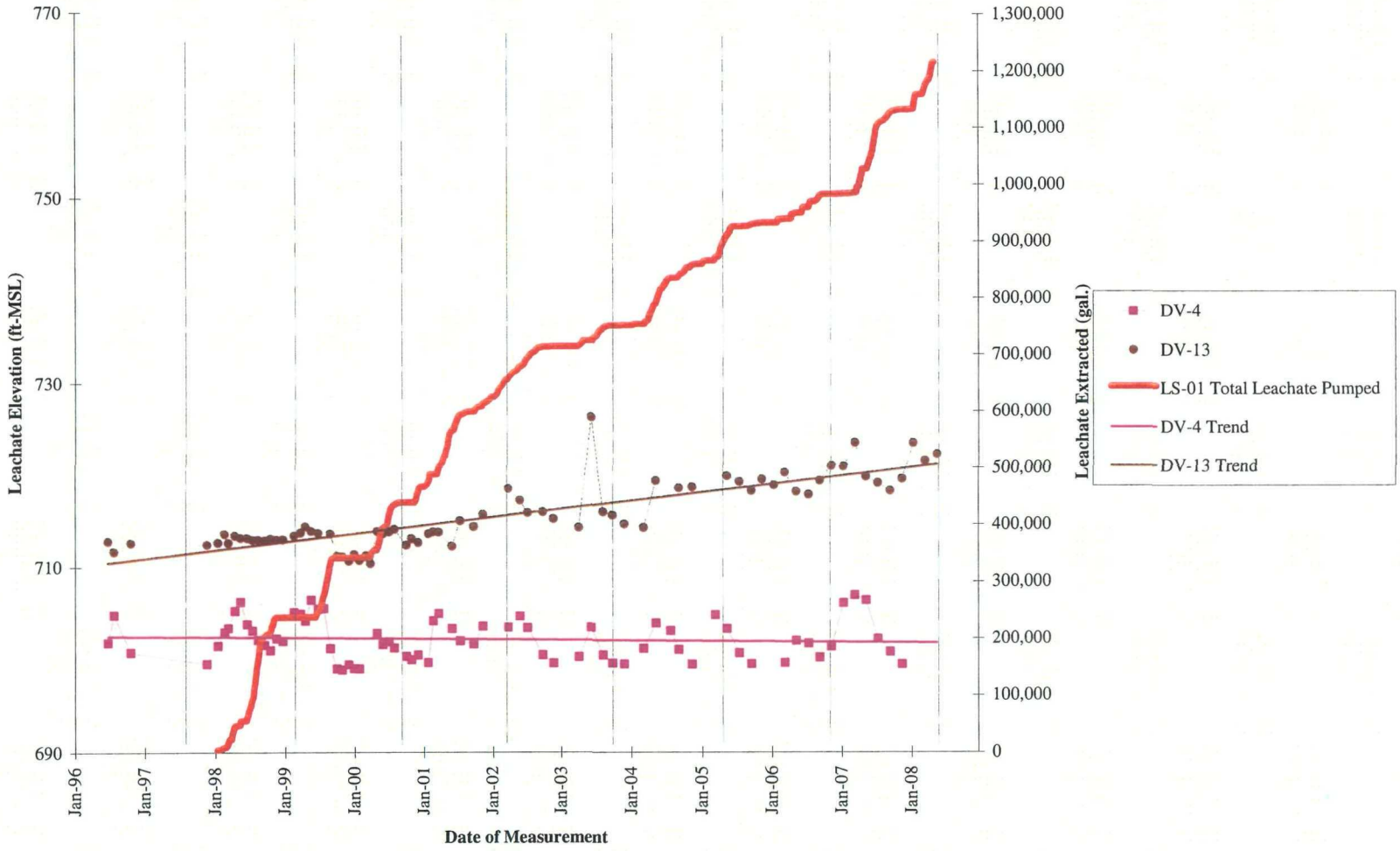
Drawing 13
Leachate Elevations in Landfill Area 13
Blackwell Landfill NPL Site



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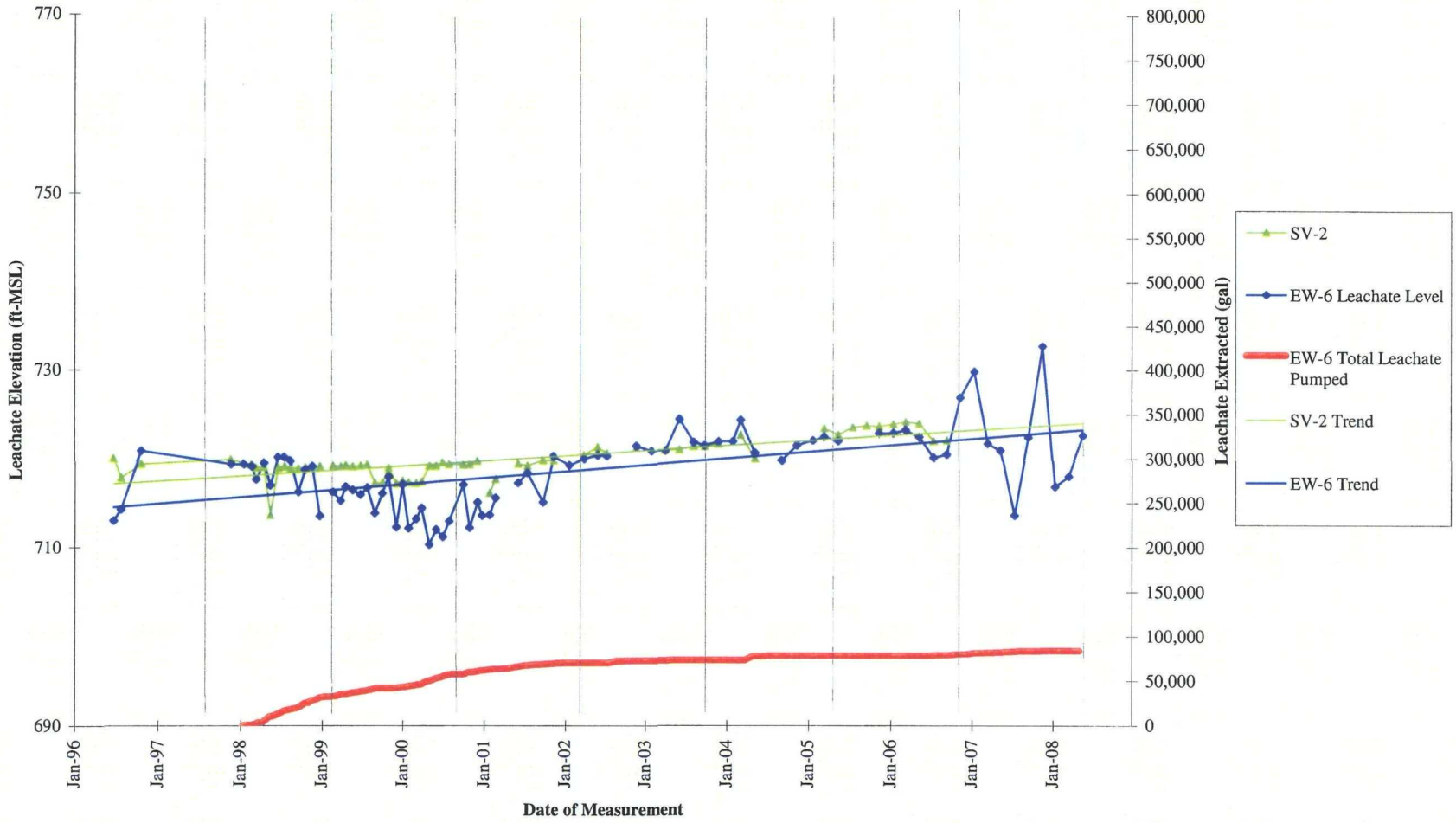
Drawing 14
Leachate Elevations in Landfill Area 14
Blackwell Landfill NPL Site



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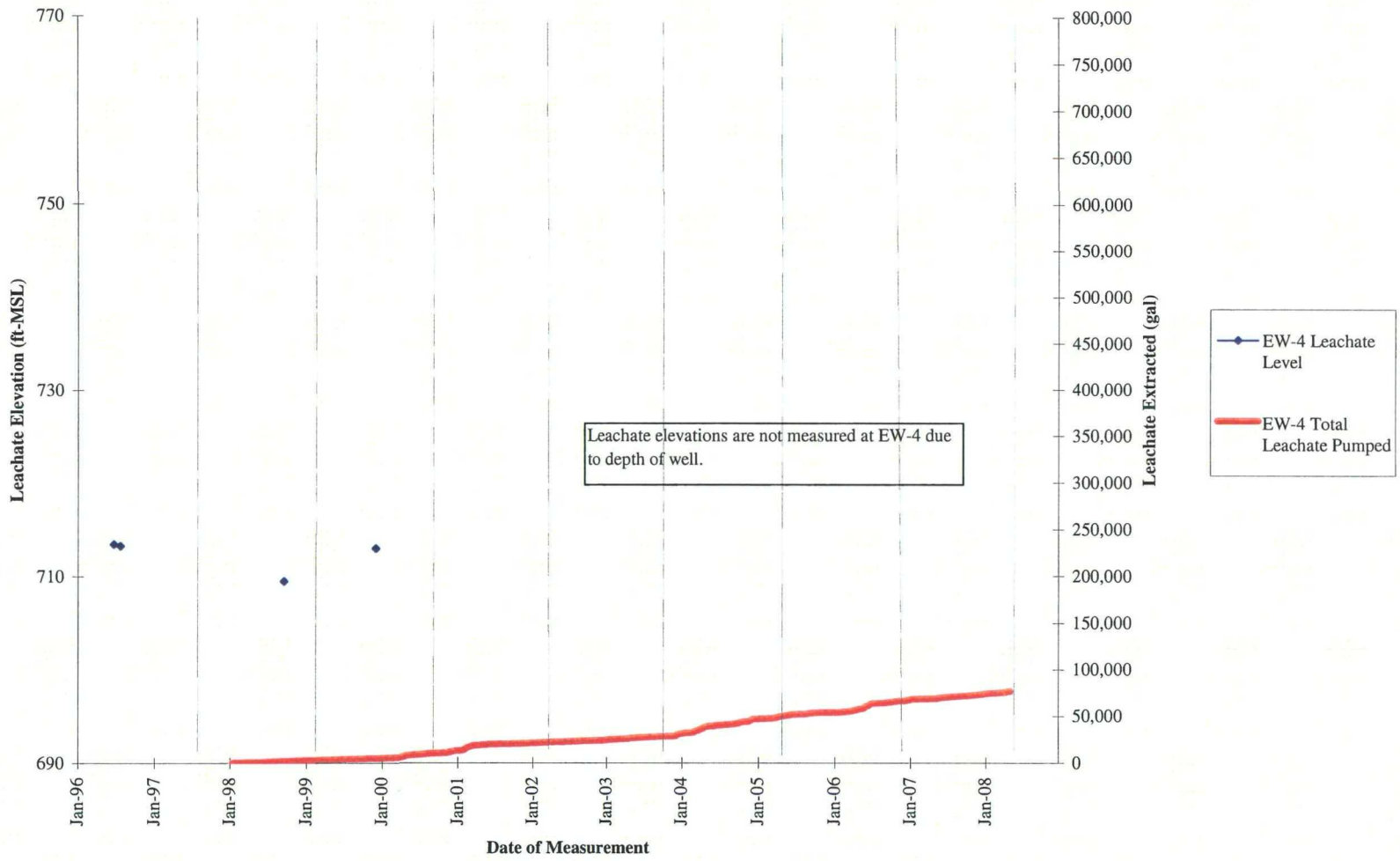
Drawing 15
Leachate Elevations in Landfill Area 15
Blackwell Landfill NPL Site



JEF/acb
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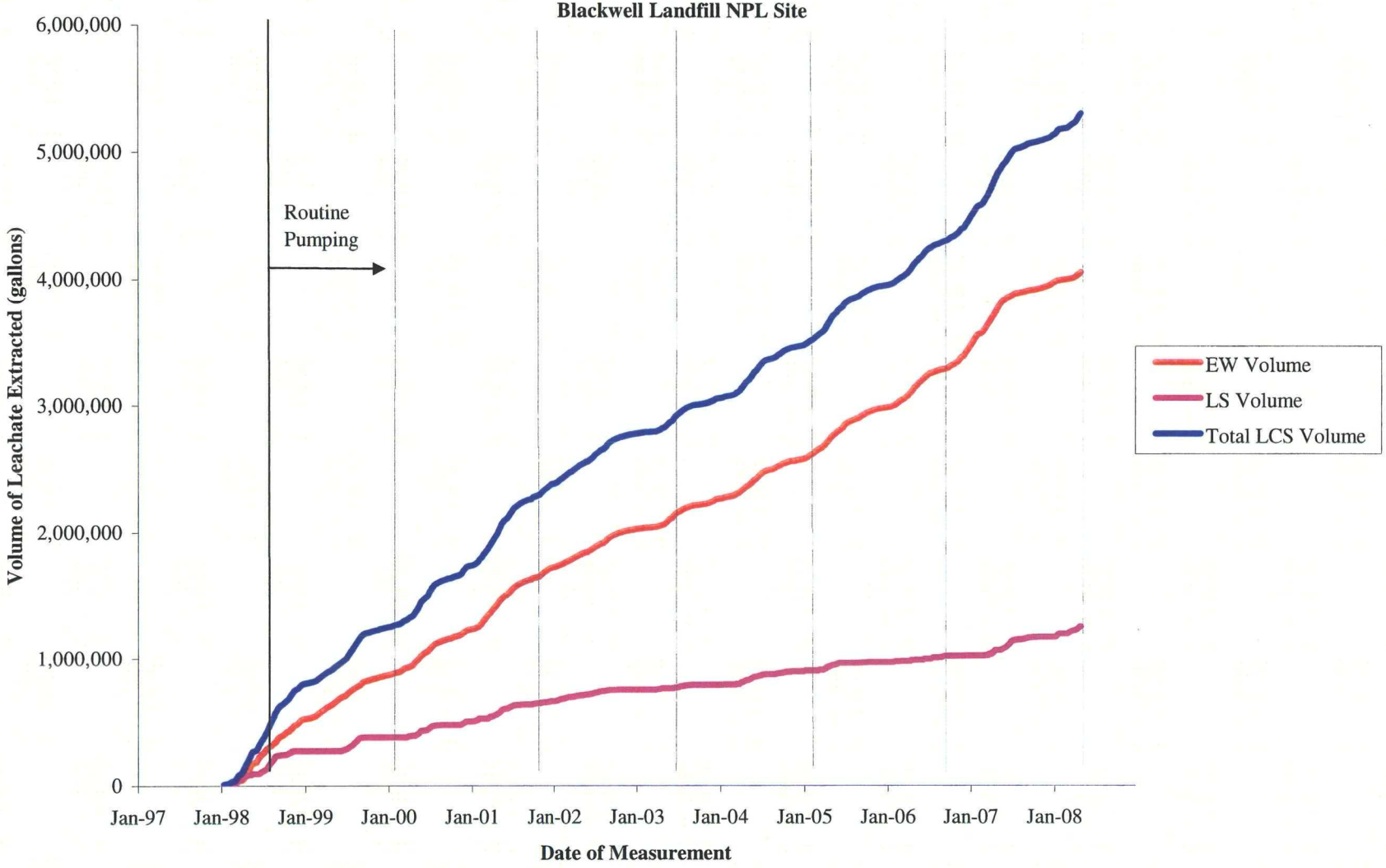
Drawing 16
Cumulative Leachate Pumping Volume
Blackwell Landfill NPL Site



JEF/acb
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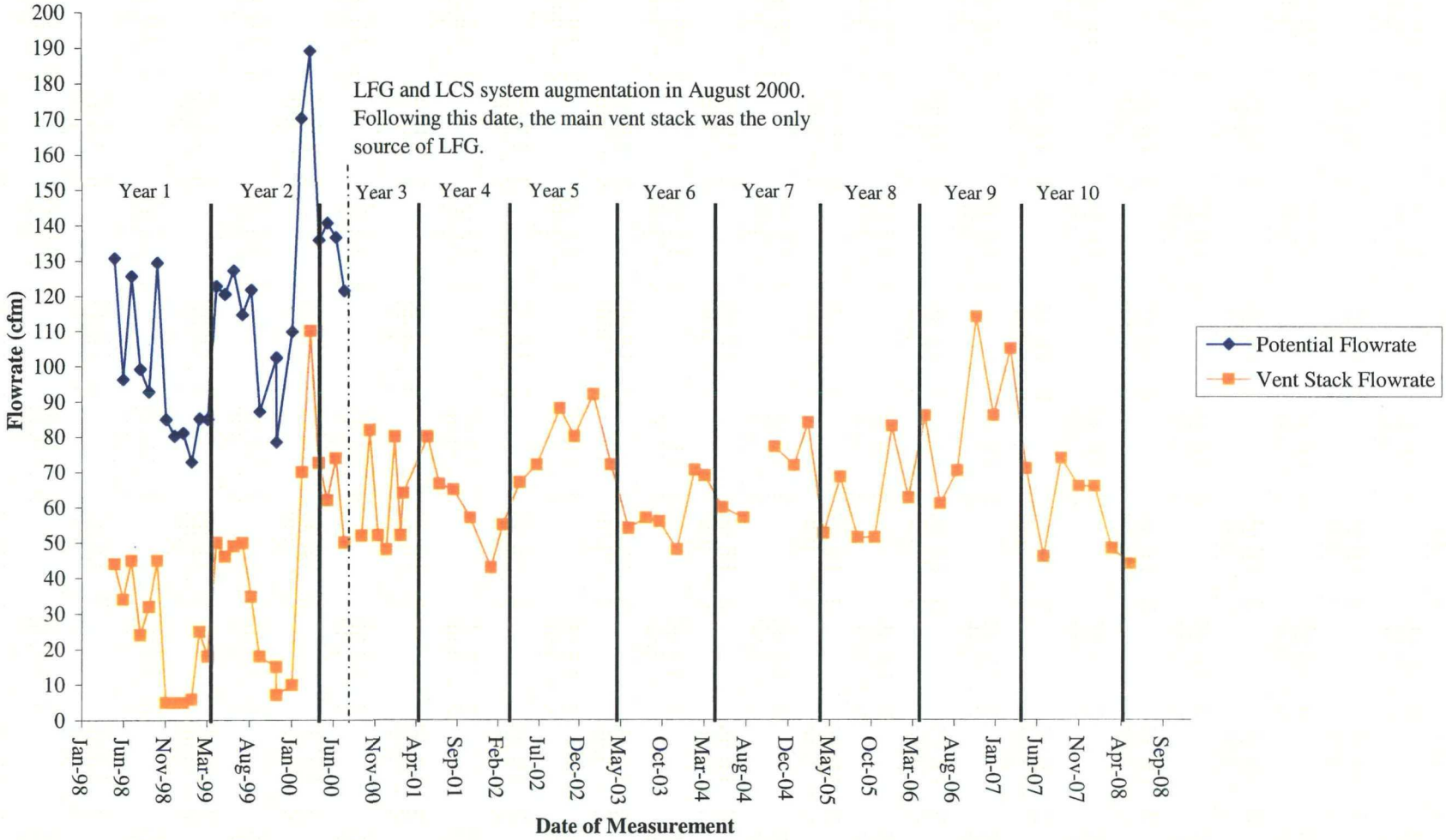
Drawing 17
LFG Flowrate
Blackwell Landfill NPL Site



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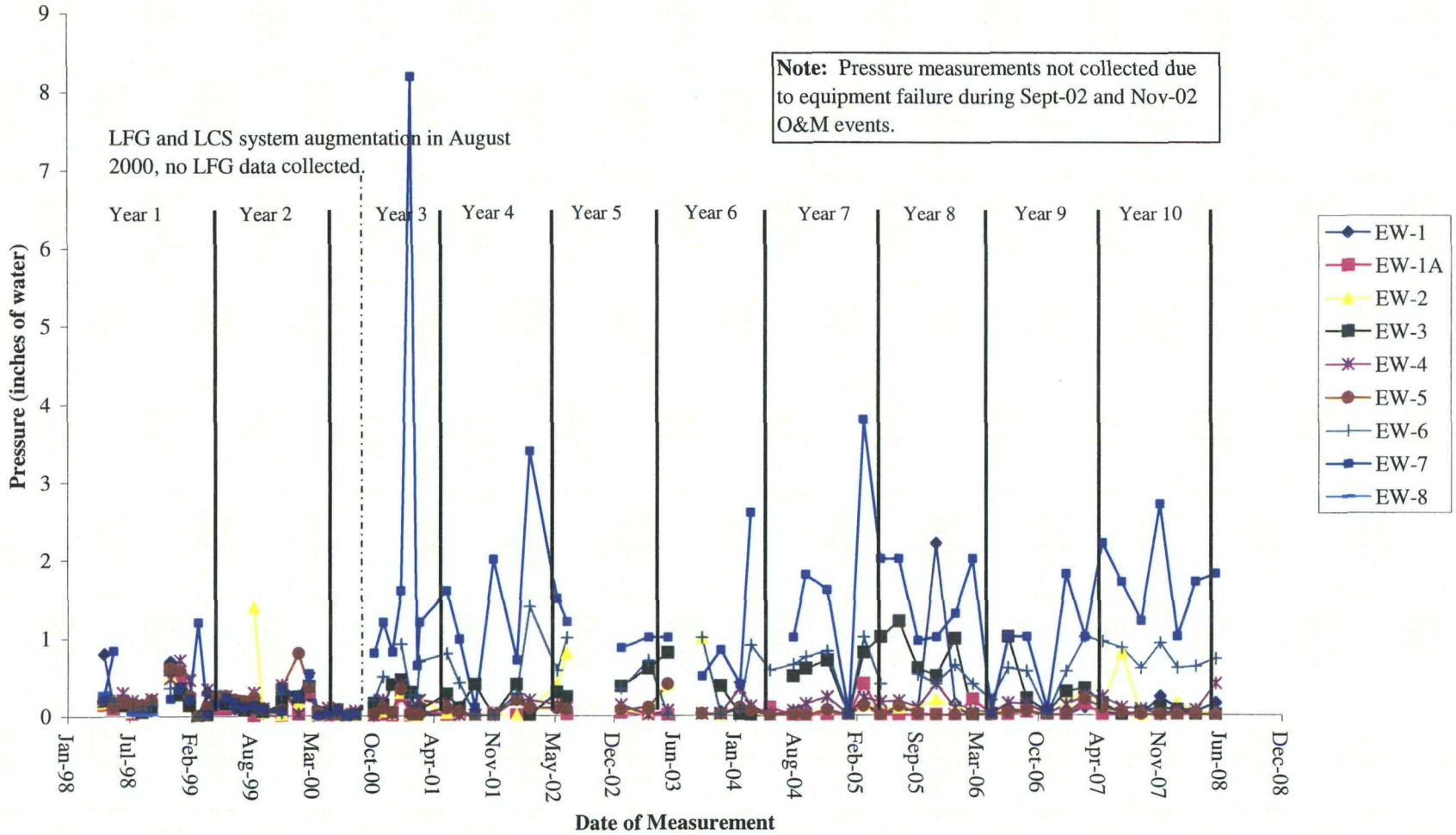
Drawing 18
Static LFG Pressure - Extraction Wells
Blackwell Landfill NPL Site



JEF/ara
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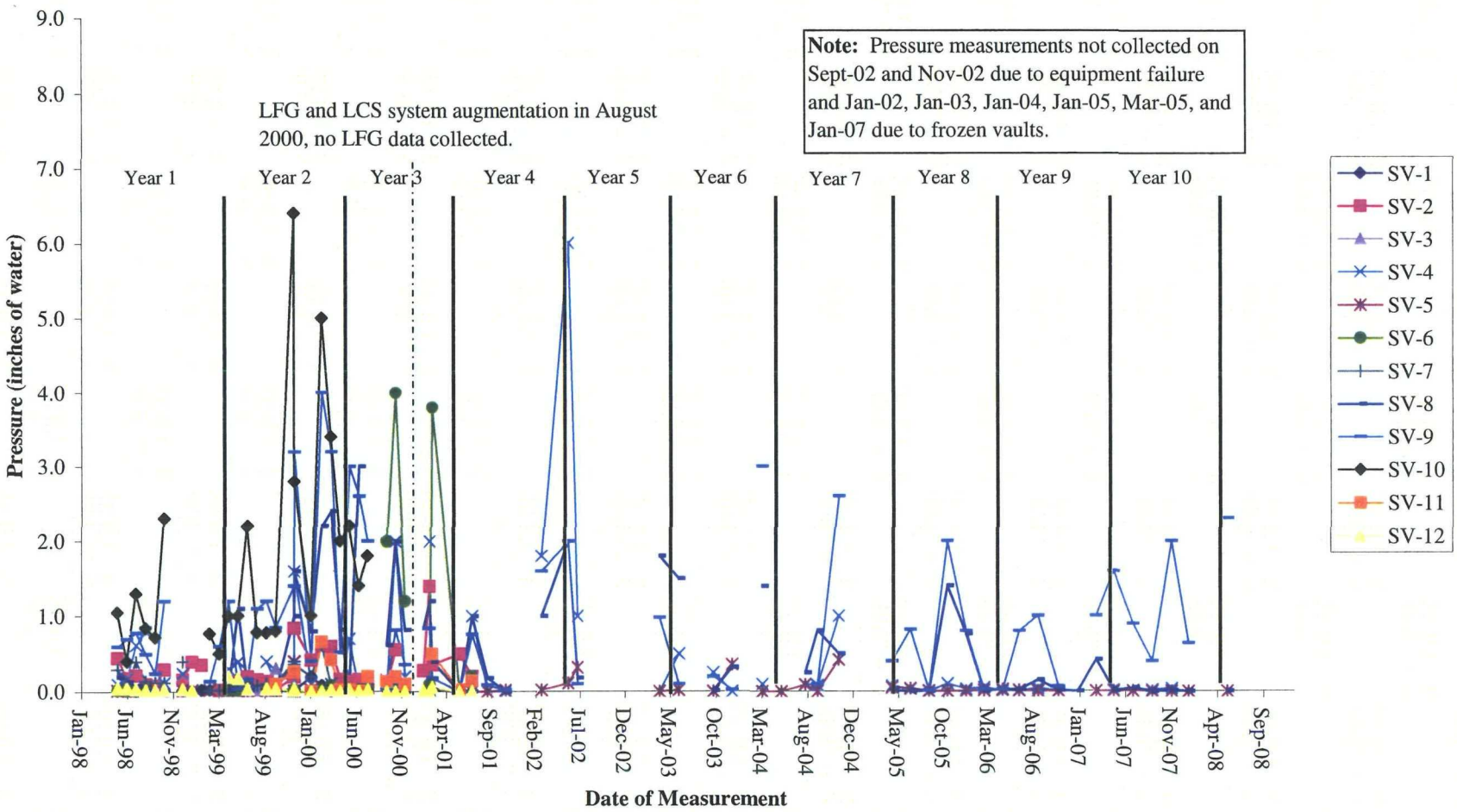
Drawing 19
Static LFG Pressures - Shallow Gas Vents
Blackwell Landfill NPL Site



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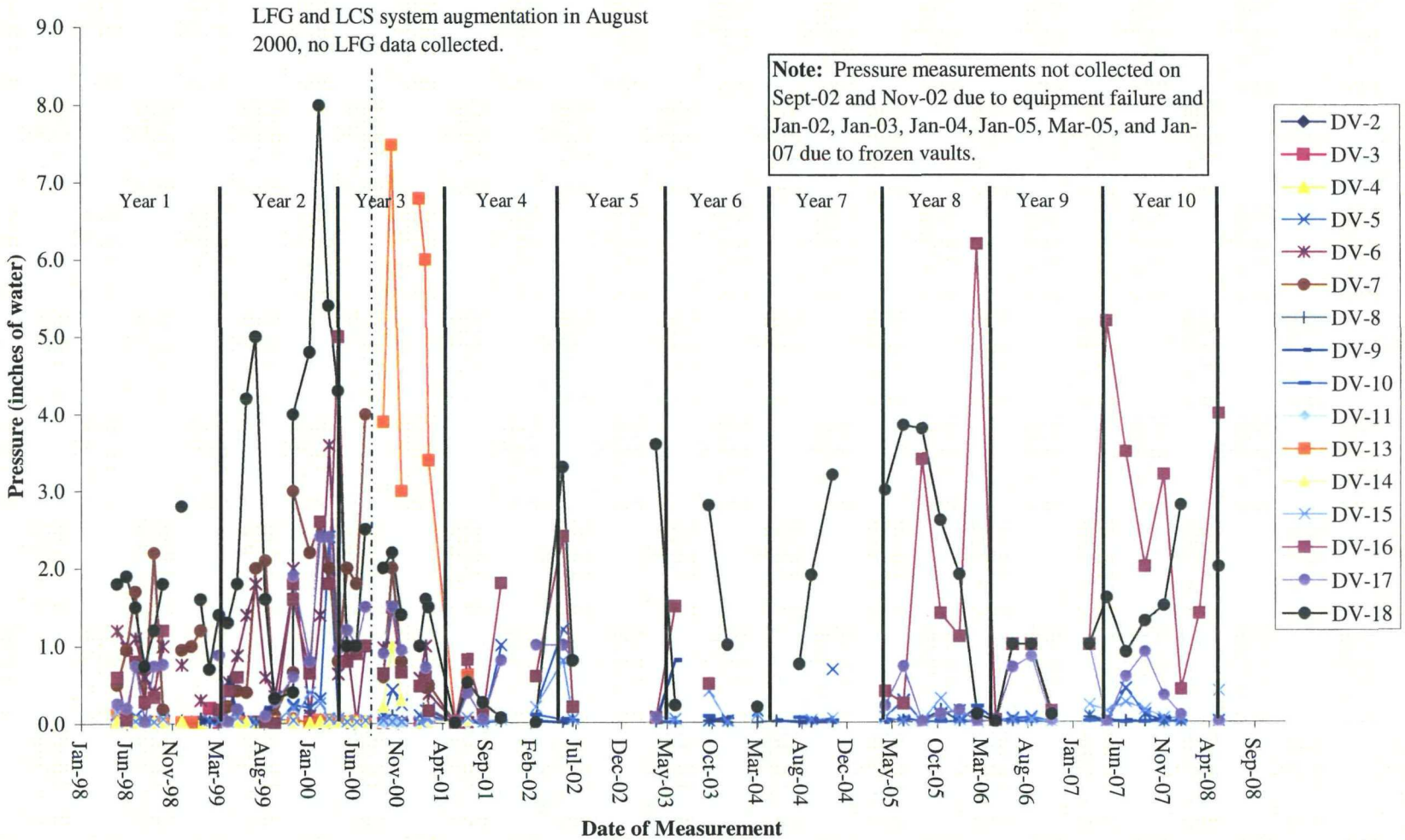
Drawing 20
Static LFG Pressures - Deep Gas Vents
Blackwell Landfill NPL Site



JEF/ara
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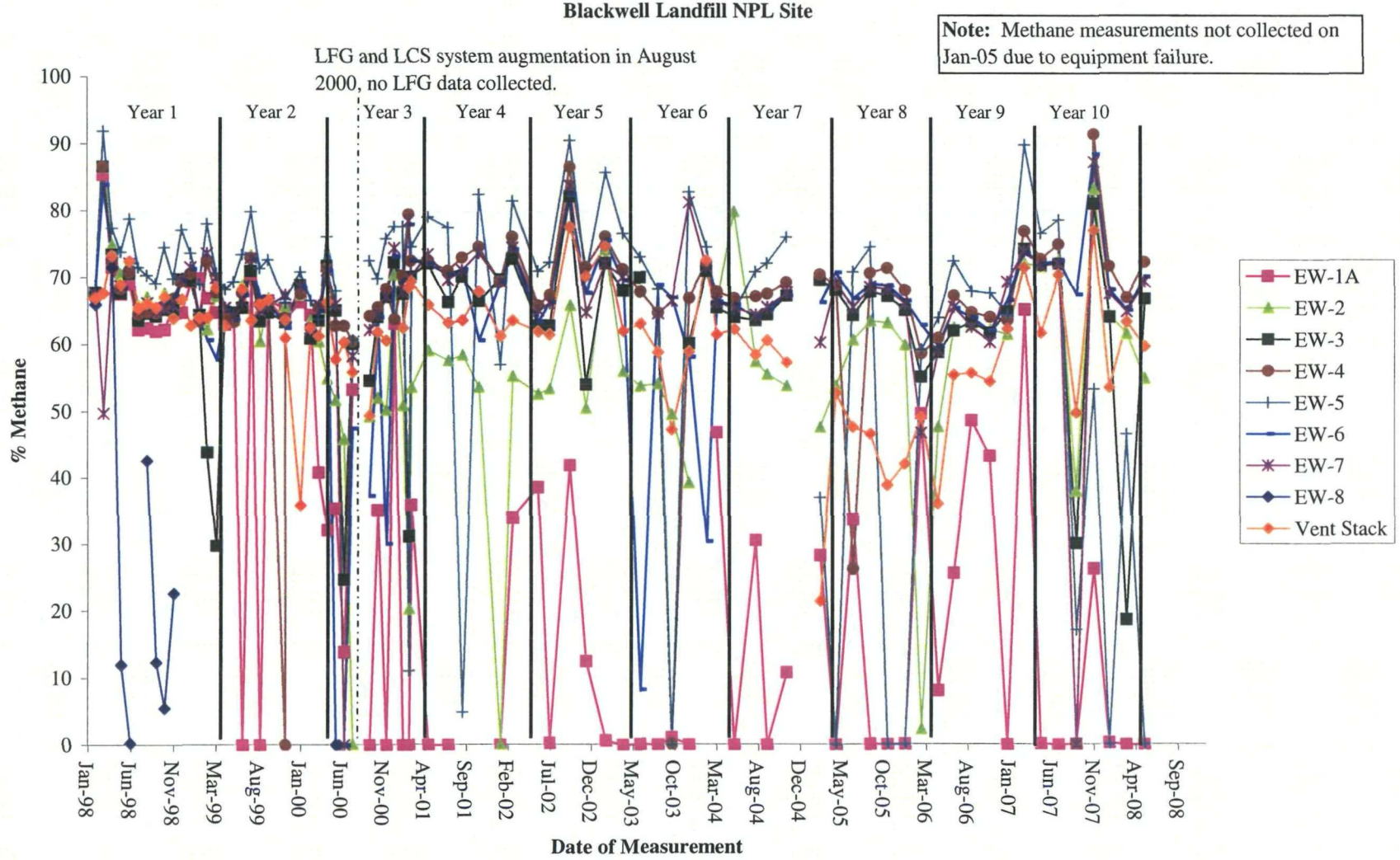
Drawing 21
Methane Content - Extraction Wells
Blackwell Landfill NPL Site



JEF/ara
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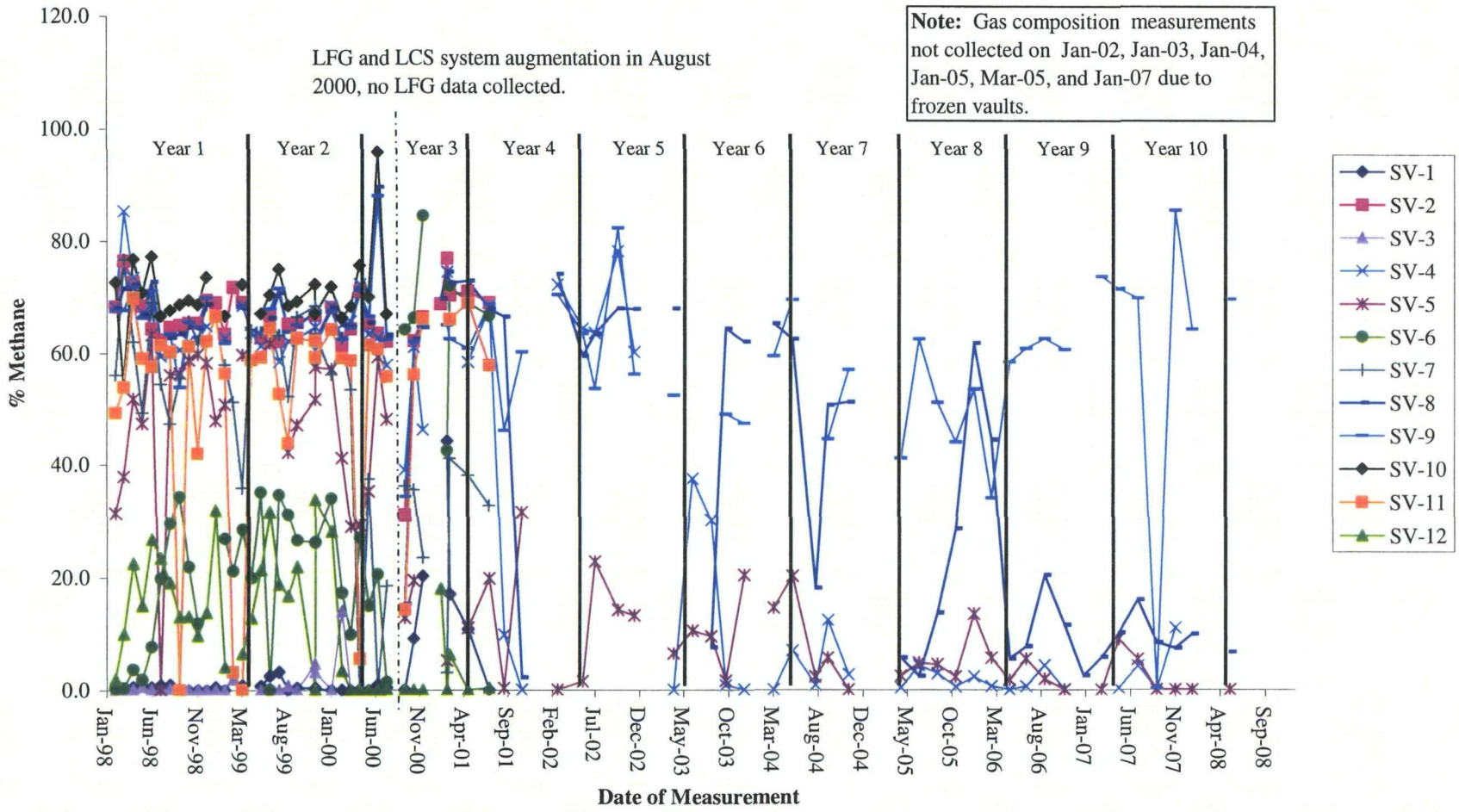
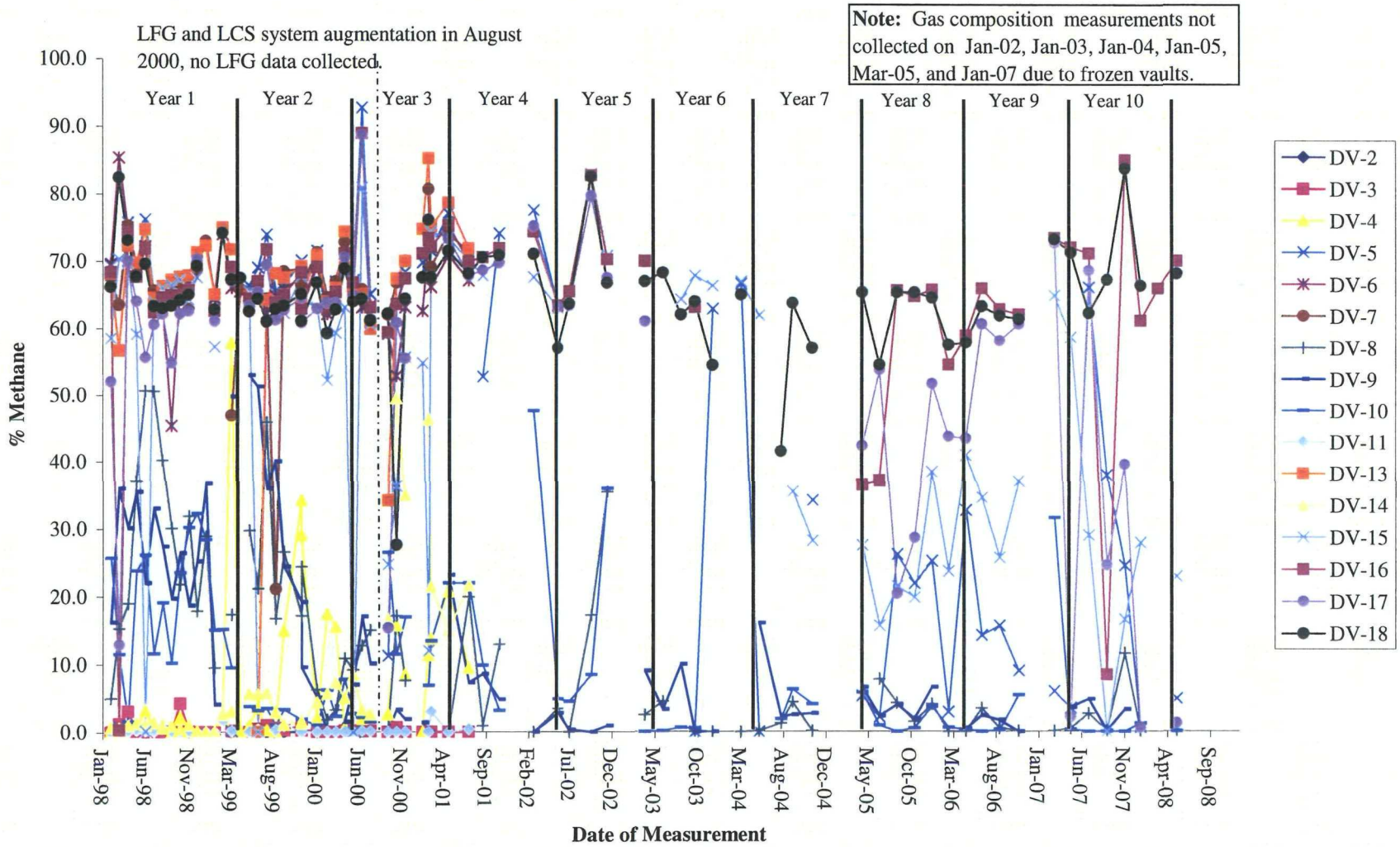
Drawing 22
Methane Content - Shallow Gas Vents
Blackwell Landfill NPL Site



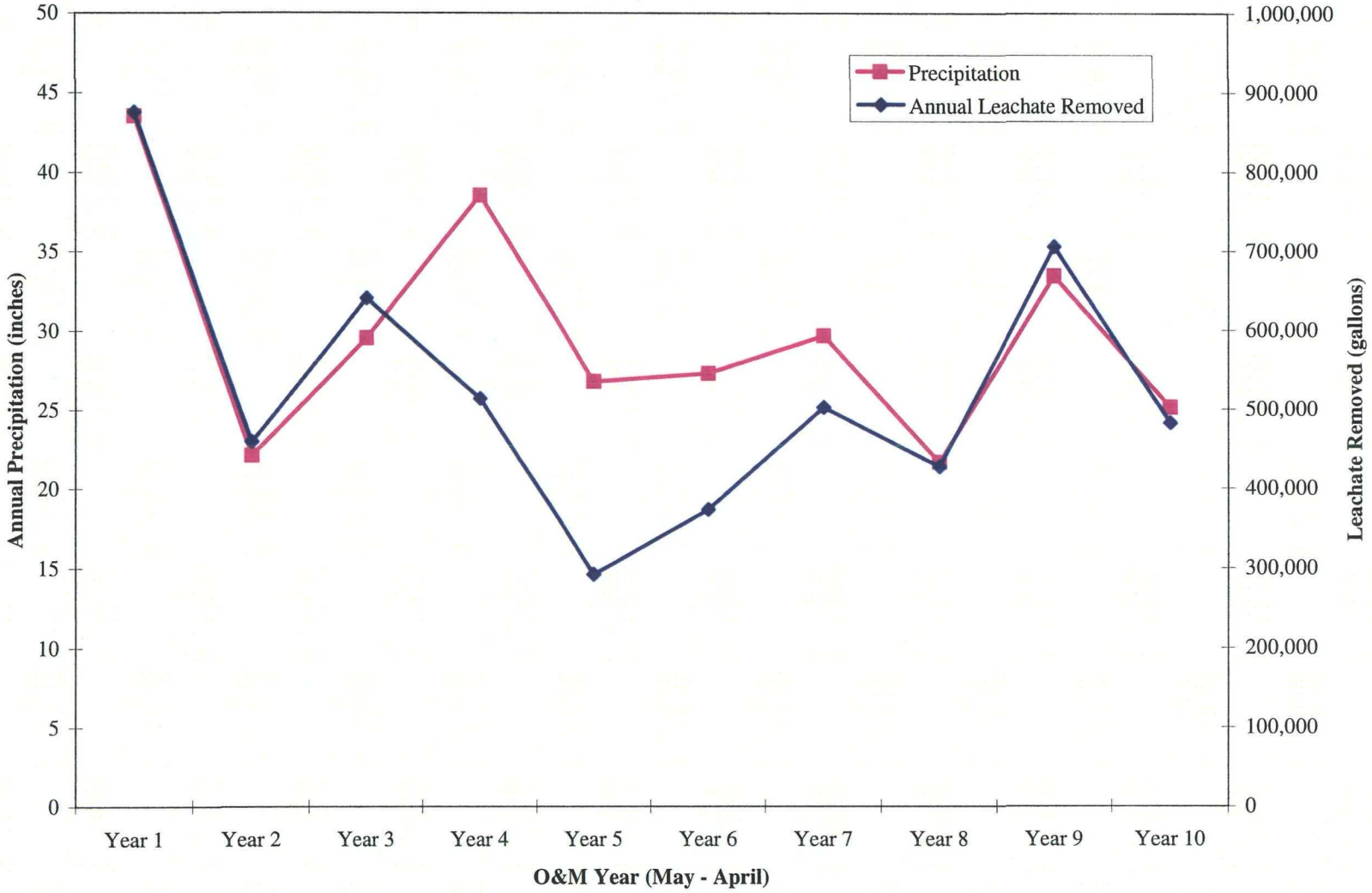
JEF/ara
J:\405\0581 Blackwell\10th Year Report\Drawings\Drawings 17-23.xls\Drawing 22

Drawing 23
Methane Content - Deep Gas Vents
Blackwell Landfill NPL Site



JEF/ara
J:\405\0581 Blackwell\10th Year Report\Drawings\Drawings 17-23.xls\Drawing 23

Drawing 24
Leachate Removed and Annual Precipitation
Blackwell Landfill NPL Site



JEF/acb
J:\405\0581 Blackwell\10th Year Report\Drawings\Drawing 24.xls\Drawing 24

APPENDIX A

INSPECTION, MAINTENANCE, MONITORING AND DISPOSAL LOGS

A-1: Site Visit Operating Logs
A-2: Inspection Report Forms
A-3: Maintenance and Repair Record Forms
A-4: Leachate Disposal Logs
A-5: Landfill Gas Vent Monitoring Forms

APPENDIX A-1

Site Visit Operating Logs

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: RAY Date: 5/1/07

Time	LCS System	Remarks (Reason for System on or off)
10:30	(On) or Off	SHIPPED 10,000
	On or Off	
	On or Off	
	On or Off	

I. Leachate Collection System (LCS)

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values
EW01	68532			
EW01A	470520			
EW02	2084784			
EW03	3023653			
EW04	702302			
EW05	1251277			
EW06	329210			
EW07	1441743			
EW08	34005906			
LS01	6206091			
LS02				

LCS Holding Tank:

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): 70 Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off AUTO

General Notes/Comments (building, tank risers, fence, etc.): _____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: RAY Date: 5/2/07

Time	LCS System	Remarks (Reason for System on or off)
800A	On or Off	Shipped 8000
	On or Off	
	On or Off	
	On or Off	

I. Leachate Collection System (LCS)

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	
EW01	68579				47
EW01A	471307				787
EW02	2084784				0
EW03	3032027				8374
EW04	702302				0
EW05	1252840				1563
EW06	329232				22
EW07	1441743				0
EW08	34018832				12926
LS01	6206101				10
LS02					

LCS Holding Tank:

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): 70 Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off Auto

General Notes/Comments (building, tank risers, fence, etc.): _____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: RAY Date: 5/3/07

Time	LCS System	Remarks (Reason for System on or off)
9:00	(On) or Off	SHIPPED 5000
	On or Off	
	On or Off	
	On or Off	

ollection System (LCS)

	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	
	686605				187
	472188				1194
EW	20847784				13
EW03	3037292				5648
EW04	702302				0
EW05	1253702				1215
EW06	329273				0
EW07	1441743				0
EW08	34035202				24897
LS01	6206110				14
LS02					

LCS Holding Tank:

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): _____ Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: RAY Date: 5/9/07

Time	LCS System	Remarks (Reason for System on or off)
900	On or Off	Shipped 10,000
	On or Off	
	On or Off	
	On or Off	

I. Leachate Collection System (LCS)

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	
EW01	68792				1
EW01A	473382				552
EW02	2084797				3789
EW03	3042940				6409
EW04	702302				3815
EW05	1254917				1600
EW06	329273				34
EW07	1441743				2596
EW08	34060099				11322
LS01	6206124				51
LS02					

LCS Holding Tank:

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): _____ Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: DRew Date: 5/10/07

Time	LCS System	Remarks (Reason for System on or off)
8:30	On or Off	Shipped 6000
	On or Off	
	On or Off	
	On or Off	

I. Leachate Collection System (LCS)

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values
EW01	68793			249
EW01A	473934			1123
EW02	2088586			2636
EW03	3049349			2379
EW04	706117			801
EW05	1256517			1797
EW06	329307			89
EW07	1444339			3142
EW08	34071421			18661
LS01	6206175			9
LS02				

LCS Holding Tank:

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): _____ Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: RAY Date: 5/15/07

Time	LCS System	Remarks (Reason for System on or off)
8:00	On or Off	Shipped 10000
	On or Off	
	On or Off	
	On or Off	

I. Leachate Collection System (LCS)

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	
EW01	69042				142
EW01A	475057				567
EW02	2091222				2166
EW03	3051728				5671
EW04	706918				647
EW05	1258314				1579
EW06	329396				33
EW07	1447481				34
EW08	3490082				1618
LS01	6206184				10708
LS02					

LCS Holding Tank:

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): _____ Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: RAY Date: 5/16/07

Time	LCS System	Remarks (Reason for System on or off)
730	(On) or Off	SHIPPED 5000
	On or Off	
	On or Off	
	On or Off	

I. Leachate Collection System (LCS)

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	
EW01	69184				0
EW01A	475624				391
EW02	2093388				661
EW03	3057399				1032
EW04	707565				182
EW05	1259893				714
EW06	329429				42
EW07	1447515				1
EW08	34091700				13412
LS01	6216892				13033
LS02					

LCS Holding Tank:

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): _____ Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: RAY Date: 5/17/07

Time	LCS System	Remarks (Reason for System on or off)
800 A	On or Off	SHIPPED 8000
	On or Off	
	On or Off	
	On or Off	

I. Leachate Collection System (LCS)

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	
EW01	69184				176
EW01A	476015				1917
EW02	2094049				2649
EW03	3058431				127
EW04	707747				529
EW05	1260607				3056
EW06	329471				2607
EW07	1447516				29
EW08	34105112				15736
LS01	6229925				8565
LS02					

LCS Holding Tank:

Time: ____	Depth of Fluid: ____	Volume of Liquid: ____
Time: ____	Depth of Fluid: ____	Volume of Liquid: ____
Time: ____	Depth of Fluid: ____	Volume of Liquid: ____
Time: ____	Depth of Fluid: ____	Volume of Liquid: ____
Time: ____	Depth of Fluid: ____	Volume of Liquid: ____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): _____ Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: RAY Date: 5/22/07

Time	LCS System	Remarks (Reason for System on or off)
800 AM	On or Off	SHIPPED 10,000
	On or Off	
	On or Off	
	On or Off	

I. **Leachate Collection System (LCS)**

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	
EW01	69360				146
EW01A	477932				473
EW02	2096698				611
EW03	3058558				76
EW04	708276				120
EW05	1263663				490
EW06	332078				53
EW07	1447545				49
EW08	34120848				18453
LS01	6238490				17291
LS02					

LCS Holding Tank:

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): _____ Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: RAY Date: 5/24/07

Time	LCS System	Remarks (Reason for System on or off)
8:30	On or Off	Shipped 10,000
	On or Off	
	On or Off	
	On or Off	

I. Leachate Collection System (LCS)

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	
EW01	69506				137
EW01A	478405				662
EW02	2097309				968
EW03	3058634				113
EW04	708396				153
EW05	1264153				835
EW06	332131				234
EW07	1447594				0
EW08	34139301				17569
LS01	6255781				17793
LS02					

LCS Holding Tank:

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): _____ Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: RAY Date: 5/29/07

Time	LCS System	Remarks (Reason for System on or off)
8:15	(On) or Off	SHIPPED 10,000
	On or Off	
	On or Off	
	On or Off	

I. Leachate Collection System (LCS)

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	
EW01	69643				183
EW01A	479067				974
EW02	2098277				2030
EW03	3058747				143
EW04	708549				551
EW05	1264988				2565
EW06	332365				66
EW07	1447594				126
EW08	34156870				30187
LS01	6273574				3893
LS02					

LCS Holding Tank:

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): 22 Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: RAY Date: 6/5/07

Time	LCS System	Remarks (Reason for System on or off)
8:15	On or Off	SHIPPED 10,000
	On or Off	
	On or Off	
	On or Off	

I. Leachate Collection System (LCS)

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	
EW01	698826				130
EW01A	480041				358
EW02	2100307				2694
EW03	3058890				119
EW04	709100				497
EW05	1267553				2339
EW06	332431				71
EW07	1447720				8655
EW08	34187057				13073
LS01	6311667				387
LS02					

LCS Holding Tank:

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): >2 Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: RAY Date: 6/7/07

Time	LCS System	Remarks (Reason for System on or off)
830	On or Off	Shipped 10,000
	On or Off	
	On or Off	
	On or Off	

I. Leachate Collection System (LCS)

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	
EW01	699.56				159
EW01A	480399				598
EW02	2103001				690
EW03	3059009				148
EW04	709597				108
EW05	1269892				1073
EW06	332502				50
EW07	1456375				17 N
EW08	34200130				7541
LS01	63332054				15821
LS02					

LCS Holding Tank:

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): 72 Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: RAY Date: 6/12/07

Time	LCS System	Remarks (Reason for System on or off)
900	On or Off	SHIPPED 10,000
	On or Off	
	On or Off	
	On or Off	

I. Leachate Collection System (LCS)

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	
EW01	70115				118
EW01A	480997				607
EW02	2103691				1695
EW03	3059157				142
EW04	709705				288
EW05	1270965				1704
EW06	332552				47
EW07	1458089				3
EW08	34207671				9684
LS01	6347875				2285
LS02					

LCS Holding Tank:

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): 72 Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: RAY Date: 6/14/07

Time	LCS System	Remarks (Reason for System on or off)
800	On or Off	Shipped 10,000
	On or Off	
	On or Off	
	On or Off	

I. Leachate Collection System (LCS)

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	
EW01	70233				134
EW01A	481604				470
EW02	2105386				804
EW03	3059299				159
EW04	709993				135
EW05	1272669				1475
EW06	332599				33
EW07	1458092				22
EW08	3421355				7639
LS01	6370726				27446
LS02					

LCS Holding Tank:

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): _____ Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: RAY Date: 6/19/07

Time	LCS System	Remarks (Reason for System on or off)
800	On or Off	Shipped 10,000
	On or Off	
	On or Off	
	On or Off	

I. Leachate Collection System (LCS)

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	
EW01	20367				4
EW01A	482074				474
EW02	2106190				1522
EW03	3059458				730
EW04	710128				280
EW05	1274144				1342
EW06	332632				6
EW07	1458114				3
EW08	34224994				6014
LS01	6398172				325297
LS02					

LCS Holding Tank:

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): _____ Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: RAY Date: 6/21/07

Time	LCS System	Remarks (Reason for System on or off)
7:30	On or Off	Shipped 10,000
	On or Off	
	On or Off	
	On or Off	

I. Leachate Collection System (LCS)

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	
EW01	70371				154
EW01A	482548				529
EW02	2107712				895
EW03	3060188				175
EW04	710408				156
EW05	1275486				1008
EW06	332638				150
EW07	1458117				119
EW08	34231008				4873
LS01	6423469				27853
LS02					

LCS Holding Tank:

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): _____ Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: RAY Date: 6/26/07

Time	LCS System	Remarks (Reason for System on or off)
12:30	On or Off	Shipped 10,000
	On or Off	
	On or Off	
	On or Off	

I. Leachate Collection System (LCS)

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	
EW01	70525				189
EW01A	483077				548
EW02	2108607				1649
EW03	3060363				153
EW04	710564				317
EW05	1276494				1659
EW06	332788				31
EW07	1458236				395
EW08	34235881				5258
LS01	6451322				2849
LS02					

LCS Holding Tank:

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): _____ Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: RAY Date: 6/28/07

Time	LCS System	Remarks (Reason for System on or off)
800A	(On) or Off	Shipped 10,000
	On or Off	
	On or Off	
	On or Off	

I. Leachate Collection System (LCS)

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	
EW01	70714				178
EW01A	483625				782
EW02	2110256				1122
EW03	3060516				156
EW04	710881				234
EW05	1278153				2196
EW06	332819				25
EW07	1458631				5418
EW08	34241139				6474
LS01	6479814				78562
LS02					

LCS Holding Tank:

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): _____ Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: RAY Date: 7/3/07

Time	LCS System	Remarks (Reason for System on or off)
830A	On or Off	Shipped 9500
	On or Off	
	On or Off	
	On or Off	

I. Leachate Collection System (LCS)

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	
EW01	70892				209
EW01A	484407				569
EW02	2111378				1054
EW03	3060672				138
EW04	711115				220
EW05	1280349				1875
EW06	332844				51
EW07	1464049				4856
EW08	24247613				3267
LS01	6501252				9106
LS02					

LCS Holding Tank:

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): _____ Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: RAY Date: 7/5/07

Time	LCS System	Remarks (Reason for System on or off)
800A	On or Off	Shipped 5000
	On or Off	
	On or Off	
	On or Off	

I. Leachate Collection System (LCS)

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	
EW01	711101				190
EW01A	484976				985
EW02	2112432				1416
EW03	3060810				136
EW04	711335				340
EW05	1282224				2673
EW06	332895				70
EW07	1468905				1563
EW08	34250880				5504
LS01	6510358				10241
LS02					

LCS Holding Tank:

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): _____ Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: RAY Date: 7/10/07

Time	LCS System	Remarks (Reason for System on or off)
800A	(On) or Off	Shipped 10000
	On or Off	
	On or Off	
	On or Off	

I. Leachate Collection System (LCS)

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	
EW01	71291				31
EW01A	485961				459
EW02	2113848				518
EW03	3080946				4
EW04	711675				173
EW05	1284897				1289
EW06	332965				0
EW07	1484542				2720
EW08	34256384				1451
LS01	6520599				3399
LS02					

LCS Holding Tank:

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): _____ Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: RAY Date: 7/12/07

Time	LCS System	Remarks (Reason for System on or off)
9004	On or Off	Shipped 3000
	On or Off	
	On or Off	
	On or Off	

I. Leachate Collection System (LCS)

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	
EW01	71322				41
EW01A	486420				955
EW02	2114366				1410
EW03	3060950				62
EW04	711848				311
EW05	1286186				2201
EW06	332965				17
EW07	1487262				445
EW08	34257835				
LS01	6523498				
LS02					

LCS Holding Tank:

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): _____ Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: RAY Date: 7/17/07

Time	LCS System	Remarks (Reason for System on or off)
900A	On or Off	Shipped 5000
	On or Off	
	On or Off	
	On or Off	

I. Leachate Collection System (LCS)

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	
EW01	71366				2
EW01A	487375				4
EW02	2115776				2426
EW03	3061012				0
EW04	712159				497
EW05	1288387				2946
EW06	332982				2947
EW07	1487707				6
EW08	34262602				6750
LS01	6530903				9749
LS02					

LCS Holding Tank:

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): _____ Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: RAY Date: 7/26/07

Time	LCS System	Remarks (Reason for System on or off)
838 A	On or Off	Shipped 5000
	On or Off	
	On or Off	
	On or Off	

I. Leachate Collection System (LCS)

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	
EW01	71368				-0
EW01A	487379				-0
EW02	2118202				1717
EW03	3061012				42
EW04	712656				418
EW05	1291333				3047
EW06	335929				266
EW07	1487713				4
EW08	34269352				5378
LS01	6540652				5893
LS02					

LCS Holding Tank:

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): _____ Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: RAY Date: 8/2/07

Time	LCS System	Remarks (Reason for System on or off)
830	On or Off	Shipped 3500
	On or Off	
	On or Off	
	On or Off	

I. Leachate Collection System (LCS)

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values
EW01	713668			42
EW01A	4873379			46
EW02	2119919			1290
EW03	3061054			45
EW04	713074			443
EW05	1294380			4410
EW06	336195			4
EW07	1487717			3139
EW08	34274730			4544
LS01	6546545			3586
LS02				

LCS Holding Tank:

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): _____ Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: ~~[illegible]~~ RAY Date: 8/9/07

Time	LCS System	Remarks (Reason for System on or off)
900	(On) or Off	Shipped 4000
	On or Off	
	On or Off	
	On or Off	

I. Leachate Collection System (LCS)

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values
EW01	71410			37
EW01A	487425			58
EW02	2121209			1355
EW03	3061091			51
EW04	713517			389
EW05	1298790			3012
EW06	336199			0
EW07	1490856			32
EW08	34279274			4530
LS01	6550131			6211
LS02				

LCS Holding Tank:

Time: ____	Depth of Fluid: ____	Volume of Liquid: ____
Time: ____	Depth of Fluid: ____	Volume of Liquid: ____
Time: ____	Depth of Fluid: ____	Volume of Liquid: ____
Time: ____	Depth of Fluid: ____	Volume of Liquid: ____
Time: ____	Depth of Fluid: ____	Volume of Liquid: ____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): _____ Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: RAY Date: 8/16/07

Time	LCS System	Remarks (Reason for System on or off)
930	On or Off	Shipped 5000
	On or Off	
	On or Off	
	On or Off	

I. Leachate Collection System (LCS)

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	
EW01	71447				136
EW01A	4874 83				135
EW02	2122564				2202
EW03	3061142				127
EW04	713906				601
EW05	1301802				4370
EW06	336199				76
EW07	1490888				1950
EW08	34283804				5282
LS01	6556342				16387
LS02					

LCS Holding Tank:

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): _____ Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: RAY Date: 8/30/07

Time	LCS System	Remarks (Reason for System on or off)
9:00A	(On) or Off	Shipping 10,000
	On or Off	
	On or Off	
	On or Off	

I. Leachate Collection System (LCS)

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	
EW01	71583				160
EW01A	487618				212
EW02	2124766				1818
EW03	3061269				142
EW04	714507				495
EW05	1306172				4218
EW06	336275				269
EW07	1492838				7886
EW08	34289086				5676
LS01	6572729				16304
LS02					

LCS Holding Tank:

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): _____ Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: RAY Date: 9/06/07

Time	LCS System	Remarks (Reason for System on or off)
11:00 AM	On or Off	Shipped 10,000
11:00 AM	On or Off	Shipped 5,000
	On or Off	
	On or Off	

I. Leachate Collection System (LCS)

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	
EW01	71743	71745			2
EW01A	487830	487830			0
EW02	2126584	2128018			1434
EW03	3061411	3061416			5
EW04	715002	715502			500
EW05	1310390	1313283			2893
EW06	336544	336714			170
EW07	1500724	1504321			3597
EW08	34294762	34294762			0
LS01	6589033	6595900			6927
LS02					

LCS Holding Tank:

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): _____ Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: 9/13/07 Jim Date: 9/13/07

Time	LCS System	Remarks (Reason for System on or off)
11:00 AM	On or Off	Shipped 5000
	On or Off	
	On or Off	
	On or Off	

I. **Leachate Collection System (LCS)**

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	
EW01	71745				61
EW01A	487830				43
EW02	2128018				1304
EW03	3061416				2814
EW04	715502				350
EW05	1313283				3928
EW06	336714				44
EW07	1504321				22
EW08	34294762				20
LS01	6595900				7483
LS02					

LCS Holding Tank:

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): _____ Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: RAY Date: 9/20/07

Time	LCS System	Remarks (Reason for System on or off)
11:00	(On) or Off	Shipped 4400
	On or Off	
	On or Off	
	On or Off	

I. Leachate Collection System (LCS)

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	
EW01	71806				151
EW01A	487873				60
EW02	2129322				2339
EW03	3064230				179
EW04	715852				739
EW05	1317211				6347
EW06	336758				43
EW07	1504343				11014
EW08	34294782				69
LS01	6603393				8654
LS02					

LCS Holding Tank:

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): _____ Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: RAY Date: 10/4/07

Time	LCS System	Remarks (Reason for System on or off)
930	On or Off	SHIPPED 5000
	On or Off	
	On or Off	
	On or Off	

I. Leachate Collection System (LCS)

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values
EW01	71957			
EW01A	487873			
EW02	2131661			
EW03	3064409			
EW04	716591			
EW05	1323558			
EW06	336801			
EW07	1515357			
EW08	34294851			
LS01	6612047			
LS02				

LCS Holding Tank:

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): _____ Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: RAY Date: 10/18/07

Time	LCS System	Remarks (Reason for System on or off)
900	On or Off	Shipped 5000
	On or Off	
	On or Off	
	On or Off	

I. Leachate Collection System (LCS)

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	
EW01	72070				139
EW01A	488003				146
EW02	2134411				1211
EW03	3064540				130
EW04	217356				381
EW05	1329866				2088
EW06	336922				27
EW07	1523818				2251
EW08	34294854				66
LS01	6617311				4175
LS02					

LCS Holding Tank:

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): 22 Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: RAY Date: 10/25/07

Time	LCS System	Remarks (Reason for System on or off)
900A	On or Off	SHIPPED 5000
	On or Off	
	On or Off	
	On or Off	

I. Leachate Collection System (LCS)

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	
EW01	72209				538
EW01A	488149				216
EW02	2135622				2589
EW03	3064670				18
EW04	717737				772
EW05	1331954				8127
EW06	336949				41
EW07	1526069				2629
EW08	34294920				15376
LS01	6618486				1059
LS02					

LCS Holding Tank:

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): 72 Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: RAY Date: 11/15/07

Time	LCS System	Remarks (Reason for System on or off)
11:50	On or Off	Shipped 10,000
	On or Off	
	On or Off	
	On or Off	

I. **Leachate Collection System (LCS)**

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	
EW01	22747				178
EW01A	488365				176
EW02	2138211				1580
EW03	3064688				166
EW04	718509				563
EW05	1340081				4242
EW06	336990				22
EW07	1528698				8523
EW08	34310296				4986
LS01	6619545				65
LS02					

LCS Holding Tank:

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): _____ Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: Jim Date: 11/29/07

Time	LCS System	Remarks (Reason for System on or off)
10:45	On or Off	SHIPPED 10,000
	On or Off	
	On or Off	
	On or Off	

I. Leachate Collection System (LCS)

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values
EW01	72925			110
EW01A	488541			84
EW02	2139791			1500
EW03	3064854			119
EW04	719072			577
EW05	1344323			5072
EW06	337012			27
EW07	1537221			28
EW08	34315282			0
LS01	6619610			1
LS02				

LCS Holding Tank:

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): _____ Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: RAY Date: 12/6/07

Time	LCS System	Remarks (Reason for System on or off)
930	On or Off	SHIPPED 5000
	On or Off	
	On or Off	
	On or Off	

I. **Leachate Collection System (LCS)**

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	
EW01	73035				167
EW01A	488625				141
EW02	2141291				5
EW03	3064973				5
EW04	719649				330
EW05	1349395				3135
EW06	337039				0
EW07	1537249				5416
EW08	43315282				0
LS01	6619611				18
LS02					

LCS Holding Tank:

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): _____ Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: RAY Date: 12/13/07

Time	LCS System	Remarks (Reason for System on or off)
900 A	On or Off	SHIPPED 4200
	On or Off	
	On or Off	
	On or Off	

I. Leachate Collection System (LCS)

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	
EW01	73202				272
EW01A	488766				73
EW02	2141296				2184
EW03	3064978				151
EW04	719979				585
EW05	1352530				5211
EW06	337039				53
EW07	1542665				7100
EW08	34315282				33
LS01	6619629				613
LS02					

LCS Holding Tank:

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): _____ Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: RAY Date: 12/21/07

Time	LCS System	Remarks (Reason for System on or off)
900A	On or Off	SHIPPED 10,000
	On or Off	
	On or Off	
	On or Off	

I. Leachate Collection System (LCS)

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	
EW01	73474				219
EW01A	488839				274
EW02	2143480				27
EW03	3065129				157
EW04	720564				94
EW05	1357741				10
EW06	337092				~~0~~
EW07	1549765				2696
EW08	34315315				1
LS01	6620242				3
LS02					

LCS Holding Tank:

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): _____ Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: RAY Date: 12/27/07

Time	LCS System	Remarks (Reason for System on or off)
900	On or Off	Shipped 10,000
	On or Off	
	On or Off	
	On or Off	

I. Leachate Collection System (LCS)

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	
EW01	73693				121
EW01A	489113				139
EW02	2143507				663
EW03	3065286				92
EW04	720658				335
EW05	1357751				1251
EW06	337092				21
EW07	1552461				691
EW08	34315316				4111
LS01	6620245				635
LS02					

LCS Holding Tank:

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): _____ Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: RAY Date: 1/3/08

Time	LCS System	Remarks (Reason for System on or off)
900 A	On or Off	SHIPPED 5500
	On or Off	
	On or Off	
	On or Off	

I. Leachate Collection System (LCS)

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	
EW01	73814				350
EW01A	489252				287
EW02	2144170				893
EW03	3065378				143
EW04	720993				358
EW05	1359002				4686
EW06	337113				16
EW07	1553152				8630
EW08	3431942				16224
LS01	6620880				1129
LS02					

LCS Holding Tank:

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): _____ Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: RAY Date: 1/10/08

Time	LCS System	Remarks (Reason for System on or off)
830	On or Off	Shipped 10,000
	On or Off	
	On or Off	
	On or Off	

I. Leachate Collection System (LCS)

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	
EW01	74164				122
EW01A	489539				134
EW02	2145063				264
EW03	3065521				153
EW04	721351				298
EW05	1363688				1703
EW06	337129				13
EW07	1561782				183
EW08	34335651				588
LS01	6622009				2063
LS02					

LCS Holding Tank:

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): _____ Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: RAY Date: 1/14/08

Time	LCS System	Remarks (Reason for System on or off)
830	On or Off	Shipped 10,000
	On or Off	
	On or Off	
	On or Off	

I. Leachate Collection System (LCS)

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	
EW01	74286				143
EW01A	489673				172
EW02	2145327				755
EW03	3065674				143
EW04	721649				115
EW05	1365391				1467
EW06	337142				13
EW07	1561965				2340
EW08	34336239				170
LS01	6642639				2724
LS02					

LCS Holding Tank:

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): _____ Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: RAY Date: 1/17/08

Time	LCS System	Remarks (Reason for System on or off)
900	On or Off	Shipped 10,000
	On or Off	
	On or Off	
	On or Off	

I. **Leachate Collection System (LCS)**

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	
EW01	744.29				145
EW01A	489845				164
EW02	2146082				1026
EW03	3065817				193
EW04	721764				258
EW05	1366858				1933
EW06	337155				61
EW07	1564305				1231
EW08	34336409				118
LS01	6669880				27001
LS02					

LCS Holding Tank:

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): _____ Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: RAY Date: 1/24/08

Time	LCS System	Remarks (Reason for System on or off)
830	On or Off	Shipped 10,000
	On or Off	
	On or Off	
	On or Off	

I. Leachate Collection System (LCS)

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	
EW01	74574				0
EW01A	490009				9
EW02	2147108				4552
EW03	3066010				0
EW04	722022				917
EW05	1368791				7363
EW06	337216				0
EW07	1565536				15387
EW08	34336527				0
LS01	6696881				584
LS02					

LCS Holding Tank:

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): _____ Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: DREW Date: 2/7/08

Time	LCS System	Remarks (Reason for System on or off)
8:15 AM	On or Off	SHIPPED 5,000
	On or Off	
	On or Off	
	On or Off	

I. Leachate Collection System (LCS)

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	
EW01	74574				130
EW01A	4900018				120
EW02	2151660				4549
EW03	3066010				48
EW04	722939				823
EW05	1376154				3723
EW06	337216				21
EW07	1580923				4743
EW08	34336527				3
LS01	6697465				201
LS02					

LCS Holding Tank:

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): _____ Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: RAY Date: 2/28/08

Time	LCS System	Remarks (Reason for System on or off)
9:15	On or Off	Shipped 5000
	On or Off	
	On or Off	
	On or Off	

I. Leachate Collection System (LCS)

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	
EW01	74704				273
EW01A	490138				359
EW02	2156209				3034
EW03	3066058				152
EW04	723762				356
EW05	1379877				3275
EW06	337237				57
EW07	1585666				2830
EW08	34336530				0
LS01	6687666				27846
LS02					

LCS Holding Tank:

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): _____ Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: RAY Date: 3/6/08

Time	LCS System	Remarks (Reason for System on or off)
9:05	On or Off	SHIPPED 10,000
	On or Off	
	On or Off	
	On or Off	

I. **Leachate Collection System (LCS)**

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	
EW01	75977				668
EW01A	490497				231
EW02	2159243				2117
EW03	3066210				241
EW04	724118				288
EW05	1383152				1900
EW06	337294				40
EW07	1588496				1365
EW08	34336530				0
LS01	6725512				29828
LS02					

LCS Holding Tank:

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): _____ Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: RAY Date: 3/13/08

Time	LCS System	Remarks (Reason for System on or off)
840	On or Off	Shipped 10,000
	On or Off	
	On or Off	
	On or Off	

L Leachate Collection System (LCS)

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	
EW01	75309				148
EW01A	490728				146
EW02	2161360				1533
EW03	3066451				0
EW04	724406				356
EW05	1385052				4675
EW06	337334				25
EW07	1589861				10061
EW08	34336530				0
LS01	6755340				17403
LS02					

LCS Holding Tank:

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): _____ Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: RAY Date: 3/20/08

Time	LCS System	Remarks (Reason for System on or off)
8:30	(On) or Off	Shipped 10,000
	On or Off	
	On or Off	
	On or Off	

I. Leachate Collection System (LCS)

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	
EW01	75457				172
EW01A	490874				253
EW02	2162893				5387
EW03	3066451				162
EW04	724762				391
EW05	1389727				3365
EW06	337359				14
EW07	1599922				10450
EW08	34336530				695
LS01	6772743				23287
LS02					

LCS Holding Tank:

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): _____ Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: RAY Date: 3/27/08

Time	LCS System	Remarks (Reason for System on or off)
8:59	On or Off	Shipped 8875
	On or Off	
	On or Off	
	On or Off	

I. Leachate Collection System (LCS)

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	
EW01	75629				180
EW01A	491127				176
EW02	2168282				2258
EW03	3066613				172
EW04	225153				256
EW05	1393092				2791
EW06	337373				15
EW07	1610372				4770
EW08	34337225				444
LS01	6796030				106
LS02					

LCS Holding Tank:

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): _____ Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: RAY Date: 4/3/08

Time	LCS System	Remarks (Reason for System on or off)
8:50	On or Off	Shipped 10,000
	On or Off	
	On or Off	
	On or Off	

I. Leachate Collection System (LCS)

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	
EW01	75809				146
EW01A	491303				227
EW02	2170540				1112
EW03	3066785				149
EW04	725409				149
EW05	1395883				1148
EW06	337388				34
EW07	1615142				2591
EW08	34337669				371
LS01	6796136				18420
LS02					

LCS Holding Tank:

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): _____ Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: RAY Date: 4/8/08

Time	LCS System	Remarks (Reason for System on or off)
9:00	On or Off	SHIPPED 10,000
	On or Off	
	On or Off	
	On or Off	

I. Leachate Collection System (LCS)

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	
EW01	75955				164
EW01A	491530				166
EW02	2171652				1849
EW03	3066934				158
EW04	725558				241
EW05	1397031				1469
EW06	337422				23
EW07	1619382				1649
EW08	34338310				270
LS01	6833907				19354
LS02					

LCS Holding Tank:

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): _____ Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: RAY Date: 4/10/08

Time	LCS System	Remarks (Reason for System on or off)
840	On or Off	SHIPPED 10,000
	On or Off	
	On or Off	
	On or Off	

I. Leachate Collection System (LCS)

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	
EW01	76119				172
EW01A	491696				245
EW02	2173500				1573
EW03	3067092				212
EW04	725799				228
EW05	1398500				1904
EW06	337445				19
EW07	1619382				0
EW08	34338310				442
LS01	6833907				18884
LS02					

LCS Holding Tank:

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): _____ Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: DREW Date: 4/14/08

Time	LCS System	Remarks (Reason for System on or off)
8:30 AM	On or Off	SHIPPED 10,000
	On or Off	
	On or Off	
	On or Off	

I. Leachate Collection System (LCS)

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	
EW01	76291				186
EW01A	491941				185
EW02	2175073				2065
EW03	3067265				3037
EW04	726027				102
EW05	1400404				1457
EW06	337464				18
EW07	619382				1461
EW08	34338753				0
LS01	6852791				15531
LS02					

LCS Holding Tank:

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): _____ Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: RAY Date: 4/17/08

Time	LCS System	Remarks (Reason for System on or off)
9:00	On or Off	Shipped 10,000
	On or Off	
	On or Off	
	On or Off	

I. Leachate Collection System (LCS)

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	
EW01	764.77				135
EW01A	492126				177
EW02	2177138				928
EW03	3070302				58559
EW04	726329				87
EW05	1401861				960
EW06	337482				34
EW07	16209843				2641
EW08	34338753				2
LS01	6868322				15575
LS02					

LCS Holding Tank:

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): _____ Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: RAY Date: 4/21/08

Time	LCS System	Remarks (Reason for System on or off)
9:00	On or Off	Shipped 10,000
	On or Off	
	On or Off	
	On or Off	

I. Leachate Collection System (LCS)

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	
EW01	76612				168
EW01A	492303				142
EW02	2178066				1950
EW03	3076161				9249
EW04	726416				231
EW05	1402821				1749
EW06	337516				34
EW07	1623484				3436
EW08	343387255				49
LS01	6883897				5234
LS02					

LCS Holding Tank:

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): _____ Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: ~~4/24/08~~ RAY Date: 4/24/08

Time	LCS System	Remarks (Reason for System on or off)
930	On or Off	Shipped 10,000
	On or Off	
	On or Off	
	On or Off	

I. Leachate Collection System (LCS)

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	
EW01	76780				84
EW01A	492445				111
EW02	2180016				2200
EW03	3085410				8036
EW04	726647				207
EW05	1404570				2169
EW06	337550				22
EW07	1626920				37
EW08	34338804				1654
LS01	6889131				0
LS02					

LCS Holding Tank:

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Time: ____ Depth of Fluid: ____ Volume of Liquid: ____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): _____ Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

MONTGOMERY WATSON

SITE VISIT OPERATING LOG
BLACKWELL LANDFILL SITE

(Complete this form for every site visit to document operation of the leachate collection and LFG venting systems at the Blackwell Landfill Site.)

Monitored By: RAY Date: 4/28/08

Time	LCS System	Remarks (Reason for System on or off)
700 A	On or Off	System off Low Air Pressure
900 A	On or Off	Shipped 5300
	On or Off	
	On or Off	

I. **Leachate Collection System (LCS)**

Pump	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values
EW01	76864			
EW01A	492556			
EW02	2182216			
EW03	3093446			
EW04	726854			
EW05	1406739			
EW06	337572			
EW07	1626957			
EW08	34355348			
LS01	6889131			
LS02				

LCS Holding Tank:

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Time: _____ Depth of Fluid: _____ Volume of Liquid: _____

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	_____
Leak Detection Riser	Satisfactory	Unsatisfactory	_____
Tank High Level (75%)	Satisfactory	Unsatisfactory	_____
Tank High Level (90%)	Satisfactory	Unsatisfactory	_____

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	_____
High Level	Satisfactory	Unsatisfactory	_____
Air Dryer	Satisfactory	Unsatisfactory	_____
Compressor	Satisfactory	Unsatisfactory	_____

Building Inside Temperature (°F): _____ Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

If leachate load-out and disposal scheduled today, document with Leachate Disposal Log.

II: Landfill Gas (LFG) Venting System

Manual vent isolation valve position at stack (circle one): Opened Closed

General Notes/Comments (building, tank risers, fence, etc.): _____

_____

_____

_____

To obtain climatic weather information call (815) 834-1435 between the hours of noon and 4:00 P.M.

Temperature (°F) and Time: _____

Average Wind Speed (mph) and Direction toward: _____

Barometric Pressure (in. Hg): _____ Trend: F S R (circle one)

Rainfall: Track daily totals per DuPage Co. Airport (attached data when available).

Document LFG monitoring with the LFG Monitoring Form.

APPENDIX A-2

Inspection Report Forms

MWH
MONTGOMERY WATSON HARZA

INSPECTION REPORTING FORM
BLACKWELL LANDFILL SITE

Date: 5/9/07 Time (start): 0900 Time (end): 1500

Monitored By: JUSTIN FINGER / JEAN MARGOLINA

Conditions	Bright Sun	Clear	Partly Cloudy	Overcast	Heavy Clouds	
Temperature	<32	32-50	50-70	70-85	>85	
Wind	Still	Moderate	High	Direction (from): North/South/East/West		
Precipitation	None	Light	Moderate	Heavy	Rain	Snow
Humidity	Dry	Moderate	Humid	Relative %: 63		
Barometric Pressure	Low	Moderate	High	In. Hg: 29.95	or hPA:	

To obtain climatic weather information logon to http://www.wunderground.com.

I. Leachate Collection System (LCS): General

Time	LCS System	Remarks (Reason for System on or off)
	On or Off	
	On or Off	
	On or Off	
	On or Off	

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	
Leak Detection Riser	Satisfactory	Unsatisfactory	
Tank High Level (75%)	Satisfactory	Unsatisfactory	
Tank High Level (90%)	Satisfactory	Unsatisfactory	

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	
High Level	Satisfactory	Unsatisfactory	
Air Dryer	Satisfactory	Unsatisfactory	
Compressor	Satisfactory	Unsatisfactory	

Pump	Control Building Pump Stroke Counter Values	Cumulative Pumped Volume in Gallons (Multiply by 0.135)	Extraction Vault Pump Stroke Counter Values	Depth to Leachate (ft)
EW01	68792	9,287	026772	32.17
EW01A	473382	63,907	886938	38.51
EW02	2084797	281,448	741867	64.86
EW03	3042940	410,797	641411	38.43
EW04	702302	94,811	261595	—
EW05	1254917	169,414	953170	84.90
EW06	329273	44,452	921677	43.79
EW07	1441743	194,635	257477	56.67
EW08	34060099	4,598,113	1292--	—
LS01	6206124	837,827	238220	—
LS0~~1~~3	367469	49,603	—	—

Building Inside Temperature (°F): 72 Heater Thermostat Setting (°F): 56

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.):

II. Landfill Gas (LFG) Venting System

Gas Composition Readings
(with Portable Instrument)

Location	Static Pressure (in. wc)	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Status of Wellhead Components and Vault Structures*
EW01	0.04	69.9	52.8	0.0	GOOD
EW01A	0.00	0.2	0.0	20.4	
EW02	0.13	71.5	52.2	0.0	
EW03	0.15	71.8	53.5	0.0	
EW04	0.24	72.7	49.0	0.0	
EW05	0.09	76.6	40.4	0.0	
EW06	0.94	72.0	56.0	0.0	
EW07	2.20	71.7	56.6	0.0	
EW08	—	—	—	—	

Location	LFG Velocity (fpm)	LFG Flow (cfm)	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Temperature (°F)
Vent Stack	355	71.07	61.6	22.2	1.4	78.1

To calculate LFG flow (cfm) multiply LFG velocity (fpm) by the inside cross-sectional area of the vent stack pipe.

III. System Integrity Status:

Leachate Collection System

Component	Satisfactory	Unsatisfactory	Remarks
Leachate Holding Tank	✓		
Leak Detection Riser	✓		
Leachate Loadout and Disposal	✓		
System Control and Telemetry	✓		
Wells/Pumps	✓		
Lift Station/Pumps	✓		
Compressor System	✓		
Air Dryer	✓		

Landfill Gas System

Component	Satisfactory	Unsatisfactory	Remarks
Vent Stack	✓		
Driplegs	✓		
Wells	✓		

Landfill Cap Repair Areas

Component	Satisfactory	Unsatisfactory	Remarks
Landfill Cap Soils	✓		
Vegetative Cover	✓		
General Drainage	✓		

Site Security

Component	Satisfactory	Unsatisfactory	Remarks
Access Roads Conditions	✓		
Site Fencing, Gates	✓		
Posted Sign and Notices	✓		

Additional Comments:

Signature: _____ **Title:** GEOLOGIST

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MWH
MONTGOMERY WATSON HARZA

INSPECTION REPORTING FORM
BLACKWELL LANDFILL SITE

Date: 7/11/07 Time (start): 0800 Time (end): 1500

Monitored By: JUSTIN FINGER / AMANDA BUTLER

Conditions	Bright Sun	Clear	Partly Cloudy	Overcast	Heavy Clouds	
Temperature	<32	32-50	50-70	70-85	>85	
Wind	Still	Moderate	High	Direction (from): North/South/East/West		
Precipitation	None	Light	Moderate	Heavy	Rain	Snow
Humidity	Dry	Moderate	Humid	Relative %: 65		
Barometric Pressure	Low	Moderate	High	In. Hg: 29.91 or hPA:		

To obtain climatic weather information logon to http://www.wunderground.com.

I. Leachate Collection System (LCS): General

Time	LCS System	Remarks (Reason for System on or off)
	On or Off	
	On or Off	
	On or Off	
	On or Off	

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	
Leak Detection Riser	Satisfactory	Unsatisfactory	
Tank High Level (75%)	Satisfactory	Unsatisfactory	
Tank High Level (90%)	Satisfactory	Unsatisfactory	

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	
High Level	Satisfactory	Unsatisfactory	
Air Dryer	Satisfactory	Unsatisfactory	
Compressor	Satisfactory	Unsatisfactory	

Pump	Control Building Pump Stroke Counter Values	Cumulative Pumped Volume in Gallons (Multiply by 0.135)	Extraction Vault Pump Stroke Counter Values	Depth to Leachate (ft)
EW01	71292	9,624	029584	31.81
EW01A	486219	65,640	900075	DRY
EW02	2114220	285,420	771297	78.73
EW03	3060949	413,228	657624	39.76
EW04	711777	96,090	271072	—
EW05	1285710	173,571	984401	DRY
EW06	332965	44,950	921677	51.11
EW07	1484672	200,431	299823	58.66
EW08	34257067	4,624,704	1292 --	—
LS01	6522611	880,552	238220	—
LS023	367469	49,608	—	—

Building Inside Temperature (°F): 68 Heater Thermostat Setting (°F): OFF

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.):

II. Landfill Gas (LFG) Venting System

Gas Composition Readings
(with Portable Instrument)

Location	Static Pressure (in. wc)	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Status of Wellhead Components and Vault Structures*
EW01	0.005	50.8	33.2	5.6	GOOD
EW01A	0.00	0.0	0.0	20.8	
EW02	0.80	72.5	48.9	0.0	
EW03	0.01	72.0	56.5	0.0	
EW04	0.10	74.9	50.0	0.0	
EW05	0.04	78.6	40.2	0.0	
EW06	0.86	72.4	54.5	0.0	
EW07	1.70	72.0	56.2	0.0	
EW08	—	—	—	—	

Location	LFG Velocity (fpm)	LFG Flow (cfm)	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Temperature (°F)
Vent Stack	230	46.04	70.3	48.8	0.2	73.2

To calculate LFG flow (cfm) multiply LFG velocity (fpm) by the inside cross-sectional area of the vent stack pipe.

III. System Integrity Status:

Leachate Collection System

Component	Satisfactory	Unsatisfactory	Remarks
Leachate Holding Tank	✓		
Leak Detection Riser	✓		
Leachate Loadout and Disposal	✓		
System Control and Telemetry	✓		
Wells/Pumps	✓		
Lift Station/Pumps	✓		
Compressor System	✓		
Air Dryer	✓		

Landfill Gas System

Component	Satisfactory	Unsatisfactory	Remarks
Vent Stack	✓		
Driplegs	✓		
Wells	✓		

Landfill Cap Repair Areas

Component	Satisfactory	Unsatisfactory	Remarks
Landfill Cap Soils	✓		
Vegetative Cover	✓		
General Drainage	✓		

Site Security

Component	Satisfactory	Unsatisfactory	Remarks
Access Roads Conditions	✓		
Site Fencing, Gates	✓		
Posted Sign and Notices	✓		

Additional Comments:

Signature: _____ **Title:** GEOLOGIST

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MWH
MONTGOMERY WATSON HARZA

INSPECTION REPORTING FORM
BLACKWELL LANDFILL SITE

Date: 9/12/07 Time (start): 0800 Time (end): 1400

Monitored By: JUSTIN FINCER / DAVID POWERS

Conditions	Bright Sun	Clear	Partly Cloudy	Overcast	Heavy Clouds	
Temperature	<32	32-50	50-70	70-85	>85	
Wind	Still	Moderate	High	Direction (from): North/South/East/West		
Precipitation	None	Light	Moderate	Heavy	Rain	Snow
Humidity	Dry	Moderate	Humid	Relative %: 63		
Barometric Pressure	Low	Moderate	High	In. Hg: 30.12	or hPA:	

To obtain climatic weather information logon to http://www.wunderground.com.

I. Leachate Collection System (LCS): General

Time	LCS System	Remarks (Reason for System on or off)
	On or Off	
	On or Off	
	On or Off	
	On or Off	

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	
Leak Detection Riser	Satisfactory	Unsatisfactory	
Tank High Level (75%)	Satisfactory	Unsatisfactory	
Tank High Level (90%)	Satisfactory	Unsatisfactory	

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	
High Level	Satisfactory	Unsatisfactory	
Air Dryer	Satisfactory	Unsatisfactory	
Compressor	Satisfactory	Unsatisfactory	

Pump	Control Building Pump Stroke Counter Values	Cumulative Pumped Volume in Gallons (Multiply by 0.135)	Extraction Vault Pump Stroke Counter Values	Depth to Leachate (ft)
EW01	71744	9,685	029590	DRY
EW01A	487830	65,857	901257	39.48
EW02	2127509	287,214	784567	75.77
EW03	3061415	413,291	657630	39.25
EW04	715278	96,563	274566	—
EW05	1312253	177,154	011548	86.65
EW06	336714	45,456	921677	42.30
EW07	1504296	203,080	319377	57.28
EW08	34294762	4,629,793	1292 --	—
LS01	6593638	890,141	238220	—
LS02 3	367469	49,608	—	—

Building Inside Temperature (°F): 66 Heater Thermostat Setting (°F): OFF

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.):

II. Landfill Gas (LFG) Venting System

Location	Static Pressure (in. wc)	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Status of Wellhead Components and Vault Structures*
	Gas Composition Readings (with Portable Instrument)				
EW01	0.00	0.0	0.0	2.1	GOOD
EW01A	0.00	0.1	0.0	21.3	
EW02	0.01	37.8	0.0	1.1	
EW03	0.04	29.9	0.0	1.2	
EW04	0.08	0.0	0.0	0.2	
EW05	0.01	17.1	0.4	0.0	
EW06	0.60	67.4	0.0	0.0	
EW07	1.20	0.0	0.0	0.0	
EW08	—	—	—	—	

Location	LFG Velocity (fpm)	LFG Flow (cfm)	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Temperature (°F)
Vent Stack	370	74.07	49.6	0.0	0.0	65.7

To calculate LFG flow (cfm) multiply LFG velocity (fpm) by the inside cross-sectional area of the vent stack pipe.

III. System Integrity Status:

Leachate Collection System

Component	Satisfactory	Unsatisfactory	Remarks
Leachate Holding Tank	✓		
Leak Detection Riser	✓		
Leachate Loadout and Disposal	✓		
System Control and Telemetry	✓		
Wells/Pumps	✓		
Lift Station/Pumps	✓		
Compressor System	✓		
Air Dryer	✓		

Landfill Gas System

Component	Satisfactory	Unsatisfactory	Remarks
Vent Stack	✓		
Driplegs	✓		
Wells	✓		

Landfill Cap Repair Areas

Component	Satisfactory	Unsatisfactory	Remarks
Landfill Cap Soils	✓		
Vegetative Cover	✓		
General Drainage	✓		

Site Security

Component	Satisfactory	Unsatisfactory	Remarks
Access Roads Conditions	✓		
Site Fencing, Gates	✓		
Posted Sign and Notices	✓		

Additional Comments:

Signature: _____ **Title:** GEOLOGIST

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MWH
MONTGOMERY WATSON HARZA

INSPECTION REPORTING FORM
BLACKWELL LANDFILL SITE

Date: 11/14/07 Time (start): 0900 Time (end): 1430

Monitored By: JUSTIN FINGER / DENISE ARMBRUSTER

Conditions	Bright Sun	Clear	Partly Cloudy	Overcast	Heavy Clouds	
Temperature	<32	32-50	50-70	70-85	>85	
Wind	Still	Moderate	High	Direction (from): North/South/East/West		
Precipitation	None	Light	Moderate	Heavy	Rain	Snow
Humidity	Dry	Moderate	Humid	Relative %: 60		
Barometric Pressure	Low	Moderate	High	In. Hg: 29.75	or hPA:	

To obtain climatic weather information logon to http://www.wunderground.com.

I. Leachate Collection System (LCS): General

Time	LCS System	Remarks (Reason for System on or off)
	On or Off	
	On or Off	
	On or Off	
	On or Off	

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	
Leak Detection Riser	Satisfactory	Unsatisfactory	
Tank High Level (75%)	Satisfactory	Unsatisfactory	
Tank High Level (90%)	Satisfactory	Unsatisfactory	

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	
High Level	Satisfactory	Unsatisfactory	
Air Dryer	Satisfactory	Unsatisfactory	
Compressor	Satisfactory	Unsatisfactory	

Pump	Control Building Pump Stroke Counter Values	Cumulative Pumped Volume in Gallons (Multiply by 0.135)	Extraction Vault Pump Stroke Counter Values	Depth to Leachate (ft)
EW01	72747	9,821	030128	31.17
EW01A	488365	65,929	901258	38.36
EW02	2138211	288,658	795267	55.15
EW03	3064688	413,733	660585	38.79
EW04	718509	96,999	277799	—
EW05	1340081	180,911	039375	84.29
EW06	336949	45,488	921676	31.99
EW07	1528698	206,374	343758	56.50
EW08	34310296	4,631,890	1292--	—
LS01	6619545	893,639	238220	—
LS0~~1~~3	367469	49,608	—	—

Building Inside Temperature (°F): _____ Heater Thermostat Setting (°F): _____

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.): _____

II. Landfill Gas (LFG) Venting System

Gas Composition Readings
(with Portable Instrument)

Location	Static Pressure (in. wc)	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Status of Wellhead Components and Vault Structures*
EW01	0.24	77.2	48.4	0.0	GOOD
EW01A	0.04	26.2	13.2	9.6	
EW02	0.03	83.3	42.1	0.2	
EW03	0.10	81.0	45.3	0.0	
EW04	0.01	91.5	40.7	0.3	
EW05	0.00	53.2	13.3	7.1	
EW06	0.92	88.5	47.0	0.0	
EW07	2.70	87.3	46.7	0.0	
EW08	—	—	—	—	

Location	LFG Velocity (fpm)	LFG Flow (cfm)	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Temperature (°F)
Vent Stack	330	66.06	77.0	41.5	0.6	57.8

To calculate LFG flow (cfm) multiply LFG velocity (fpm) by the inside cross-sectional area of the vent stack pipe.

III. System Integrity Status:

Leachate Collection System

Component	Satisfactory	Unsatisfactory	Remarks
Leachate Holding Tank	✓		
Leak Detection Riser	✓		
Leachate Loadout and Disposal	✓		
System Control and Telemetry	✓		
Wells/Pumps	✓		
Lift Station/Pumps	✓		
Compressor System	✓		
Air Dryer	✓		

Landfill Gas System

Component	Satisfactory	Unsatisfactory	Remarks
Vent Stack	✓		
Driplegs	✓		
Wells	✓		

Landfill Cap Repair Areas

Component	Satisfactory	Unsatisfactory	Remarks
Landfill Cap Soils	✓		
Vegetative Cover	✓		
General Drainage	✓		

Site Security

Component	Satisfactory	Unsatisfactory	Remarks
Access Roads Conditions	✓		
Site Fencing, Gates	✓		
Posted Sign and Notices	✓		

Additional Comments: INSTALLED NEW CAP AT DV-14

Signature: [illegible]

Title: GEOLOGIST

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MWH
MONTGOMERY WATSON HARZA

INSPECTION REPORTING FORM
BLACKWELL LANDFILL SITE

Date: 1/9/08 Time (start): 0800 Time (end): 1400

Monitored By: JUSTIN FINGER / AMANDA BUTLER

Conditions	Bright Sun	Clear	Partly Cloudy	Overcast	Heavy Clouds	
Temperature	<32	32-50	50-70	70-85	>85	
Wind	Still	Moderate	High	Direction (from): North/South/East/West		
Precipitation	None	Light	Moderate	Heavy	Rain	Snow
Humidity	Dry	Moderate	Humid	Relative %: 82		
Barometric Pressure	Low	Moderate	High	In. Hg: 30.04 or hPA:		

To obtain climatic weather information logon to http://www.wunderground.com.

I. Leachate Collection System (LCS): General

Time	LCS System	Remarks (Reason for System on or off)
	On or Off	
	On or Off	
	On or Off	
	On or Off	

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	
Leak Detection Riser	Satisfactory	Unsatisfactory	
Tank High Level (75%)	Satisfactory	Unsatisfactory	
Tank High Level (90%)	Satisfactory	Unsatisfactory	

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	
High Level	Satisfactory	Unsatisfactory	
Air Dryer	Satisfactory	Unsatisfactory	
Compressor	Satisfactory	Unsatisfactory	

Pump	Control Building Pump Stroke Counter Values	Cumulative Pumped Volume in Gallons (Multiply by 0.135)	Extraction Vault Pump Stroke Counter Values	Depth to Leachate (ft)
EW01	74164	10,012	030134	31.17
EW01A	489539	66,088	901258	38.34
EW02	2145063	289,584	802099	57.67
EW03	3065527	413,846	660585	38.91
EW04	721351	97,382	280541	—
EW05	1363688	184,098	062965	76.31
EW06	337129	45,512	921676	47.87
EW07	1561782	210,841	376450	57.40
EW08	34335651	4,635,313	1292 --	—
LS01	6622009	893,971	238220	—
LS013	367469	49,608	—	—

Building Inside Temperature (°F): 70 Heater Thermostat Setting (°F): 60

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.):

II. Landfill Gas (LFG) Venting System

Gas Composition Readings (with Portable Instrument)

Location	Static Pressure (in. wc)	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Status of Wellhead Components and Vault Structures*
EW01	0.08	56.3	33.8	0.5	GOOD
EW01A	0.00	0.3	0.5	20.6	
EW02	0.16	64.3	28.9	0.5	
EW03	0.06	64.0	31.9	0.7	
EW04	0.06	71.6	29.1	0.2	
EW05	0.00	0.0	0.3	20.2	
EW06	0.60	68.1	32.8	0.5	
EW07	1.00	67.5	33.2	0.0	
EW08	—	—	—	—	

Location	LFG Velocity (fpm)	LFG Flow (cfm)	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Temperature (°F)
Vent Stack	330	66.06	53.4	28.5	3.1	38.6

To calculate LFG flow (cfm) multiply LFG velocity (fpm) by the inside cross-sectional area of the vent stack pipe.

III. System Integrity Status:

Leachate Collection System

Component	Satisfactory	Unsatisfactory	Remarks
Leachate Holding Tank	✓		
Leak Detection Riser	✓		
Leachate Loadout and Disposal	✓		
System Control and Telemetry	✓		
Wells/Pumps	✓		
Lift Station/Pumps	✓		
Compressor System	✓		
Air Dryer	✓		

Landfill Gas System

Component	Satisfactory	Unsatisfactory	Remarks
Vent Stack	✓		
Driplegs	✓		
Wells	✓		

Landfill Cap Repair Areas

Component	Satisfactory	Unsatisfactory	Remarks
Landfill Cap Soils	✓		
Vegetative Cover	✓		
General Drainage	✓		

Site Security

Component	Satisfactory	Unsatisfactory	Remarks
Access Roads Conditions	✓		
Site Fencing, Gates	✓		
Posted Sign and Notices	✓		

Additional Comments:

SV-1 NOT MEASURED DUE TO FLOODED VAULT

SV-4 NOT MEASURED DUE TO FLOODED VAULT

DV-3 - CASING WAS CUT DOWN, NEEDS TO BE RESURVEYED

DV-4 NOT MEASURED DUE TO FLOODED VAULT

DV-8 - DUE TO FLOODED VAULT, COULD NOT TURN VALVE TO ISOLATE VENT FROM SYSTEM DURING MEASUREMENT

DV-9 NOT MEASURED DUE TO FLOODED VAULT

DV-11 NOT MEASURED DUE TO FLOODED VAULT

Signature: [signature] Title: GEOLOGIST

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MWH
MONTGOMERY WATSON HARZA

INSPECTION REPORTING FORM
BLACKWELL LANDFILL SITE

Date: 3/10/08 Time (start): 0800 Time (end): 1130

Monitored By: JUSTIN FINGER / AMANDA BUTLER

Conditions	Bright Sun	Clear	Partly Cloudy	Overcast	Heavy Clouds	
Temperature	<32	32-50	50-70	70-85	>85	
Wind	Still	Moderate	High	Direction (from): North/South/East/West		
Precipitation	None	Light	Moderate	Heavy	Rain	Snow
Humidity	Dry	Moderate	Humid	Relative %: 80		
Barometric Pressure	Low	Moderate	High	In. Hg: 30.31 or hPA:		

To obtain climatic weather information logon to http://www.wunderground.com.

I. Leachate Collection System (LCS): General

Time	LCS System	Remarks (Reason for System on or off)
	On or Off	
	On or Off	
	On or Off	
	On or Off	

Alarm Panel Alarms	Status (Circle One)		If Unsatisfactory, Explain
Tank Annular Space	Satisfactory	Unsatisfactory	
Leak Detection Riser	Satisfactory	Unsatisfactory	
Tank High Level (75%)	Satisfactory	Unsatisfactory	
Tank High Level (90%)	Satisfactory	Unsatisfactory	

Interlock Alarms	Status (Circle One)		If Unsatisfactory, Explain
Leak Detection	Satisfactory	Unsatisfactory	
High Level	Satisfactory	Unsatisfactory	
Air Dryer	Satisfactory	Unsatisfactory	
Compressor	Satisfactory	Unsatisfactory	

Pump	Control Building Pump Stroke Counter Values	Cumulative Pumped Volume in Gallons (Multiply by 0.135)	Extraction Vault Pump Stroke Counter Values	Depth to Leachate (ft)
EW01	75082	10,136	030144	31.06
EW01A	490527	66,221	901258	38.29
EW02	2160229	291,631	817361	55.21
EW03	3066212	413,939	660585	33.28
EW04	724239	97,772	283442	—
EW05	1384308	186,882	083557	77.97
EW06	337294	45,535	921676	46.70
EW07	1589859	214,631	404206	56.54
EW08	34336530	4,635,432	1292 --	—
LS01	6754455	911,851	238230	—
LS0~~1~~3	367469	49,608	—	—

Building Inside Temperature (°F): 75 Heater Thermostat Setting (°F): 60

Status of Intake Fan (circle one): On Off

General Notes/Comments (building, tank risers, fence, etc.):

II. Landfill Gas (LFG) Venting System

Gas Composition Readings (with Portable Instrument)

Location	Static Pressure (in. wc)	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Status of Wellhead Components and Vault Structures*
EW01	0.04	55.7	29.0	2.3	GOOD
EW01A	0.00	0.0	0.1	20.6	
EW02	0.05	61.5	31.1	3.3	
EW03	0.00	18.5	5.6	16.1	
EW04	0.06	66.9	29.8	1.0	
EW05	0.01	46.4	15.5	9.1	
EW06	0.62	65.0	33.4	1.1	
EW07	1.70	64.8	34.0	1.1	
EW08	—	—	—	—	

Location	LFG Velocity (fpm)	LFG Flow (cfm)	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Temperature (°F)
Vent Stack	242	48.45	63.3	31.2	0.2	36.0

To calculate LFG flow (cfm) multiply LFG velocity (fpm) by the inside cross-sectional area of the vent stack pipe.

III. System Integrity Status:

Leachate Collection System

Component	Satisfactory	Unsatisfactory	Remarks
Leachate Holding Tank	✓		
Leak Detection Riser	✓		
Leachate Loadout and Disposal	✓		
System Control and Telemetry	✓		
Wells/Pumps	✓		
Lift Station/Pumps	✓		
Compressor System	✓		
Air Dryer	✓		

Landfill Gas System

Component	Satisfactory	Unsatisfactory	Remarks
Vent Stack	✓		
Driplegs	✓		
Wells	✓		

Landfill Cap Repair Areas

Component	Satisfactory	Unsatisfactory	Remarks
Landfill Cap Soils	✓		
Vegetative Cover	✓		
General Drainage	✓		

Site Security

Component	Satisfactory	Unsatisfactory	Remarks
Access Roads Conditions	✓		
Site Fencing, Gates	✓		
Posted Sign and Notices	✓		

Additional Comments:

SV-4, SV-5, SV-8, SV-9, DV-5, DV-8, DV-9, DV-10, DV-15, DV-17, AND DV-18 WERE NOT MEASURED BECAUSE VAULT COVERS WERE FROZEN SHUT.

DV-4 WAS NOT MEASURED BECAUSE VAULT WAS FLOODED.

Signature: [signature] Title: GEOLOGIST

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APPENDIX A-3

Maintenance and Repair Record Forms

Maintenance Record No.: 2007-06

BLACKWELL LANDFILL SITE
MAINTENANCE and REPAIR RECORD FORM

Inspector's Name: RAY BABOWICE
Date of the Record: 6/14/07
Date Problem was Observed: 6/14/07

BRIEF DESCRIPTION OF PROBLEM

Normal maintenance of compressor

Person or Contractor Completing Maintenance or Repair RAY

Completion Date: 6/14/07

MAINTENANCE or REPAIR PERFORMED

Changed compressor oil

VERIFICATION OF COMPLETION

Inspector's Name: RAY BABOWICE
Verification of Completion Date: 6/14/07

Inspector's Signature: Ray Babowice

Maintenance Record No.: 2007-07

BLACKWELL LANDFILL SITE
MAINTENANCE and REPAIR RECORD FORM

Inspector's Name: RAY BABOWICE
Date of the Record: 7/12/07
Date Problem was Observed: 7/12/07

BRIEF DESCRIPTION OF PROBLEM

EW-8 pump cleaning

Person or Contractor Completing Maintenance or Repair RAY

Completion Date: 7/12/07

MAINTENANCE or REPAIR PERFORMED

Pump Removed cleaned and Replaced

VERIFICATION OF COMPLETION

Inspector's Name: RAY BABOWICE
Verification of Completion Date: 7/12/07

Inspector's Signature: Ray Babowice

Maintenance Record No.: 2007-08

BLACKWELL LANDFILL SITE
MAINTENANCE and REPAIR RECORD FORM

Inspector's Name: RAY BABOWICE
Date of the Record: 8/13/07
Date Problem was Observed: 8/13/07

BRIEF DESCRIPTION OF PROBLEM

Pump in EW-02 not working

Person or Contractor Completing Maintenance or Repair RAY

Completion Date: 8/13/07

MAINTENANCE or REPAIR PERFORMED

Float stuck, Free up Float Pump now working

VERIFICATION OF COMPLETION

Inspector's Name: RAY BABOWICE
Verification of Completion Date: 8/13/07

Inspector's Signature: Ray Babowice

Maintenance Record No.: 2007-09

BLACKWELL LANDFILL SITE
MAINTENANCE and REPAIR RECORD FORM

Inspector's Name: RAY BABOWICE
Date of the Record: 8/28/07
Date Problem was Observed: 8/28/07

BRIEF DESCRIPTION OF PROBLEM

Pump in EW-03 not working

Person or Contractor Completing Maintenance or Repair RAY

Completion Date: 8/28/07

MAINTENANCE or REPAIR PERFORMED

FRee up Float Pump now working

VERIFICATION OF COMPLETION

Inspector's Name: RAY BABOWICE
Verification of Completion Date: 8/28/07

Inspector's Signature: Ray Babowice

Maintenance Record No.: 2007-70

BLACKWELL LANDFILL SITE
MAINTENANCE and REPAIR RECORD FORM

Inspector's Name: RAY BABOWICE
Date of the Record: 11/08/07
Date Problem was Observed: 11/08/07

BRIEF DESCRIPTION OF PROBLEM

Compressor motor bearings need Grease

Person or Contractor Completing Maintenance or Repair RAY

Completion Date: 11/08/07

MAINTENANCE or REPAIR PERFORMED

Greased Bearings

VERIFICATION OF COMPLETION

Inspector's Name: RAY BABOWICE
Verification of Completion Date: 11/08/07

Inspector's Signature: Ray Babowice

Maintenance Record No.: 2008-01

BLACKWELL LANDFILL SITE
MAINTENANCE and REPAIR RECORD FORM

Inspector's Name: RAY BABOWICE
Date of the Record: 2/26/08
Date Problem was Observed: 2/14/08

BRIEF DESCRIPTION OF PROBLEM

Compressor will not Start

Person or Contractor Completing Maintenance or Repair A-1 Compressor

Completion Date: 2/26/08

MAINTENANCE or REPAIR PERFORMED

need new Relay, Time Delay Relay, And Pressure Down Valve.

VERIFICATION OF COMPLETION

Inspector's Name: RAY BABOWICE
Verification of Completion Date: 2/26/08

Inspector's Signature: [signature]

APPENDIX A-4

Leachate Disposal Logs

LEACHATE DISPOSAL LOG
BLACKWELL LANDFILL SITE

Item No.	Date	Waste Manifest Number	Total Quantity (gal)	Transporter Company Name	Generator Representative's Name	Generator Representative's Signature
1	5/1/07	9714946 9714947	10,000	ADVanced	RAY	Ray Bab
	Comments					
2	5/2/07	9714948 9714949	8000	ADVanced	RAY	Ray Bab
	Comments					
3	5/3/07	9714950	5000	ADVanced	RAY	Ray Bab
	Comments					
4	5/9/07	9714951 9714952	10,000	ADVanced	RAY	Ray B
	Comments					
5	5/10/07	9714953	6000	ADVanced	DREW	
	Comments					
6	5/15/07	9714954 9714955	10,000	ADVanced	RAY	Ray B
	Comments					
7	5/16/07	9714956	5000	ADVanced	RAY	Ray Bab
	Comments					
8	5/17/07	9714957 9714958	8000	ADVanced	RAY	Ray B
	Comments					
9	5/22/07	9714959 9714960	8000	ADVanced	RAY	Ray B
	Comments					

LEACHATE DISPOSAL LOG
BLACKWELL LANDFILL SITE

Item No.	Date	Waste Manifest Number	Total Quantity (gal)	Transporter Company Name	Generator Representative's Name	Generator Representative's Signature
1	5/24/07	9714961 9714962	10,000	ADVanced	RAY	[signature]
	Comments					
2	5/29/07	9714963 9714964	10,000	ADVanced	RAY	[signature]
	Comments					
3	5/31/07	9714965 9714966	10,000	ADVanced	RAY	[signature]
	Comments					
4	6/5/07	9714967 9714968	10,000	ADVanced	RAY	[signature]
	Comments					
5	6/7/07	9714969 9714970	10,000	ADVanced	RAY	[signature]
	Comments					
6	6/12/07	9714971 9714972	10,000	ADVanced	RAY	[signature]
	Comments					
7	6/14/07	9714973 9714974	10,000	ADVanced	RAY	[signature]
	Comments					
8	6/19/07	9714975 9714976	10,000	ADVanced	RAY	[signature]
	Comments					
9	6/21/07	9714977 9714978	10,000	ADVanced	RAY	[signature]
	Comments					

LEACHATE DISPOSAL LOG
BLACKWELL LANDFILL SITE

Item No.	Date	Waste Manifest Number	Total Quantity (gal)	Transporter Company Name	Generator Representative's Name	Generator Representative's Signature
1	6/26/07	9714979 9714980	10,000	ADVanced	RAY	Ray Bab
	Comments					
2	6/28/07	9714981 9714982	10,000	ADVanced	RAY	Ray Bab
	Comments					
3	7/3/07	9714983 9714984	9500	ADVanced	RAY	Ray Bab
	Comments					
4	7/5/07	9714985	5000	ADVanced	RAY	Ray Bab
	Comments					
5	7/10/07	9714986 9714987	10,000	ADVanced	RAY	Ray Bab
	Comments					
6	7/12/07	9714988	3000	ADVanced	RAY	Ray Bab
	Comments					
7	7/17/07	9714989	5000	ADVanced	RAY	Ray Bab
	Comments					
8	7/26/07	9714990	5000	ADVanced	RAY	Ray Bab
	Comments					
9	8/2/07	9714991	3500	ADVanced	RAY	Ray Bab
	Comments					

LEACHATE DISPOSAL LOG
BLACKWELL LANDFILL SITE

Item No.	Date	Waste Manifest Number	Total Quantity (gal)	Transporter Company Name	Generator Representative's Name	Generator Representative's Signature
1	8/9/07	9714992	4000	ADVanced	RAY	Ray Bo
	Comments					
2	8/16/07	9714993	5000	ADVanced	RAY	Ray Bo
	Comments					
3	8/30/07	9714994 9714995	10,000	ADVanced	RAY	Ray Bo
	Comments					
4	9/6/07	9714996 9714997	10,000	ADVanced	RAY	Ray Bo
	Comments					
5	9/13/07	9714998	5,000	ADVANCED	Jim	Morand
	Comments					
6	9/20/07	9714999	4400	ADVanced	RAY	Ray Bo
	Comments					
7	10/4/07	9715000	5000	ADVanced	RAY	Ray Bo
	Comments					
8	10/18/07	003280002	5000	ADVanced	RAY	Ray Bo
	Comments					
9	10/25/07	003280003	5000	ADVanced	RAY	Ray Bo
	Comments					

LEACHATE DISPOSAL LOG
BLACKWELL LANDFILL SITE

Item No.	Date	Waste Manifest Number	Total Quantity (gal)	Transporter Company Name	Generator Representative's Name	Generator Representative's Signature
1	11/15/07	003280004 003280005	10000	ADVANCED	RAY	
	Comments					
2	11/29/07	003280006 003280007	10,000	ADVANCED	Jim	
	Comments					
3	12/6/07	003280008	4500	ADVANCED	RAY	
	Comments					
4	12/13/07	003280009	4200 [redacted]	ADVANCED	RAY	
	Comments					
5	12/21/07	003280010 003280011	10,000	ADVANCED	RAY	
	Comments					
6	12/28/07	003280012 003280013	10,000	ADVANCED	RAY	
	Comments					
7						
	Comments					
8						
	Comments					
9						
	Comments					

LEACHATE DISPOSAL LOG
BLACKWELL LANDFILL SITE

Item No.	Date	Waste Manifest Number	Total Quantity (gal)	Transporter Company Name	Generator Representative's Name	Generator Representative's Signature
1	1/3/08	003280014	5500	Advanced	RAY	
	Comments					
2	1/10/08	003280015 003280016	10,000	Advanced	RAY	
	Comments					
3	1/14/08	003280017 003280018	10,000	Advanced	RAY	
	Comments					
4	1/17/08	003280019 003280020	10,000	Advanced	RAY	
	Comments					
5	1/24/08	003280021 003280022	10,000	Advanced	RAY	
	Comments					
6	2/7/08	003280023	5,000	ADVANCED	DREW	
	Comments					
7	2/28/08	003280024	5,000	Advanced	RAY	
	Comments					
8	3/6/08	02280025 02280026	10,000	Advanced	RAY	
	Comments					
9	3/13/08	02280027 02280028	10,000	Advanced	RAY	
	Comments					

LEACHATE DISPOSAL LOG
BLACKWELL LANDFILL SITE

Item No.	Date	Waste Manifest Number	Total Quantity (gal)	Transporter Company Name	Generator Representative's Name	Generator Representative's Signature
1	3/20/08	02280029 02280030	10,000	ADVanced	RAY	Ray Baber
	Comments					
2	3/27/08	02280031 02280032	8875	ADVanced	RAY	Ray Baber
	Comments					
3	4/3/08	02280033 02280034	10,000	ADVanced	RAY	Ray Baber
	Comments					
4	4/8/08	02280035 02280036	10,000	ADVanced	RAY	Ray Baber
	Comments					
5	4/10/08	003280037 003280038	10,000	ADVanced	RAY	Ray Baber
	Comments					
6	4/14/08	003281488 003281489	15,000	ADVANCED	DREW	Drew Berger
	Comments					
7	4/17/08	003281490 003281491	10,000	ADVanced	RAY	Ray Baber
	Comments					
8	4/21/08	003281492 003281493	10,000	ADVanced	RAY	Ray Baber
	Comments					
9	4/24/08	003281494 003281495	10,000	ADVanced	RAY	Ray Baber
	Comments					

LEACHATE DISPOSAL LOG
BLACKWELL LANDFILL SITE

Item No.	Date	Waste Manifest Number	Total Quantity (gal)	Transporter Company Name	Generator Representative's Name	Generator Representative's Signature
1	4/28/08	003281496	5300	Advanced	RAY	
	Comments					
2	5/12/08	003281499 003281500	10,000	Advanced	RAY	
	Comments					
3	5/14/08	004565976 004565977	10,000	Advanced	RAY	
	Comments					
4	5/16/08	004565978 004565979	10,00	Advanced	RAY	
	Comments					
5	5/19/08	004565980 004565981	10,000	Advanced	RAY	
	Comments					
6						
	Comments					
7						
	Comments					
8						
	Comments					
9						
	Comments					

APPENDIX A-5

Landfill Gas Vent Monitoring Forms

Gas Vent Monitoring Form - May 2007
Blackwell Landfill NPL Site, DuPage County, Illinois

Date: 5/9/2007
Time: 0900-1500
Monitored By: JEF/JM

Temperature(° F): 80
Humidity (%): 63%
Barometric Pressure (in. Hg): 29.95

Vent Number	TOC Elevation	Measured Well Depth (feet)	Depth to Liquid (feet)	Liquid Elevation (feet)	Gas Readings			Vent Readings						NOTES
					$\%CH_4$	$\%CO_2$	$\%O_2$	I.D. (ft)	Velocity (fpm)	Volume (ft^3/min)	% of Total	Static Pressure (in. H_2O)	Temperature (°F)	
SV-1	739.39	16.00	4.98	734.41	NA	NA	NA	0.172	NA	NA	NA	NA	NA	
SV-2	766.04	53.25	24.62	741.42	NA	NA	NA	0.172	NA	NA	NA	NA	NA	Dry - elevation represents bottom of well
SV-4	741.36	27.15	8.31	733.05	0.3	0.0	20.4	0.172	1	0.023	0.025	0.02	86.7	
SV-5	725.74	27.00	5.08	720.66	9.0	3.2	18.5	0.172	1	0.023	0.025	0.005	79.3	
SV-6	760.46	45.70	31.13	729.33	NA	NA	NA	0.172	NA	NA	NA	NA	NA	
SV-7	781.01	64.70	51.32	729.69	NA	NA	NA	0.172	NA	NA	NA	NA	NA	Dry - elevation represents bottom of well
SV-8	723.03	25.20	5.51	717.52	10.1	3.7	18.7	0.172	1	0.023	0.025	0.01	87.3	
SV-9	748.77	50.00	35.39	713.38	71.5	55.6	0.0	0.172	37	0.862	0.911	1.60	85.9	
SV-11	807.38	91.40	67.75	739.63	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
SV-12	823.82	83.80	62.35	761.47	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
DV-3	749.72	36.75	15.20	734.52	NA	NA	NA	0.172	NA	NA	NA	NA	NA	
DV-4	723.25	27.10	16.77	706.48	NA	NA	NA	0.172	NA	NA	NA	NA	NA	
DV-5	720.35	29.00	12.60	707.75	3.5	1.1	20.0	0.172	4	0.093	0.098	0.01	88.0	Dry - elevation represents bottom of well
DV-6	775.56	68.25	32.42	743.14	NA	NA	NA	0.172	NA	NA	NA	NA	NA	Dry - elevation represents bottom of well
DV-7	829.62	86.90	82.26	747.36	NA	NA	NA	0.336	NA	NA	NA	NA	NA	Dry - elevation represents bottom of well
DV-8	728.73	27.60	1.63	727.10	0.5	0.1	20.8	0.336	0	0.000	0.000	0.00	78.2	
DV-9	723.56	22.40	2.60	720.96	3.6	1.2	19.8	0.336	0	0.000	0.000	0.01	77.9	
DV-10	765.05	67.40	43.63	721.42	0.3	0.0	20.7	0.336	3	0.265	0.280	0.00	79.4	
DV-11	753.50	34.75	4.65	748.85	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
DV-13	746.29	53.60	26.51	719.78	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
DV-14	738.22	33.10	19.27	718.95	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
DV-15	736.17	43.00	33.14	703.03	58.6	33.6	6.2	0.336	50	4.418	4.669	0.14	89.3	
DV-16	733.85	34.00	22.60	711.25	72.0	54.2	0.0	0.336	148	13.077	13.820	5.20	75.9	
DV-17	729.07	37.20	11.45	717.62	2.2	0.7	20.3	0.336	1	0.088	0.093	0.00	88.4	
DV-18	775.13	54.20	33.22	741.91	71.2	56.4	0.0	0.336	53	4.683	4.949	1.60	86.3	
EW-1	753.98	43.85	32.17	721.81	69.9	52.8	0.0	NA	NA	NA	NA	0.04	81.4	Vault counter 26772
EW-1A	752.22	42.50	38.51	713.71	0.2	0.0	20.4	NA	NA	NA	NA	0.00	71.1	Vault counter 886938
EW-2	792.24	81.50	64.86	727.38	71.5	52.2	0.0	NA	NA	NA	NA	0.13	78.8	Vault counter 741867
EW-3	768.36	62.40	38.43	729.93	71.8	53.5	0.0	NA	NA	NA	NA	0.15	89.5	Vault counter 641411
EW-4	835.30	NA	NA	NA	72.7	49.0	0.0	NA	NA	NA	NA	0.24	77.1	Vault counter 261595
EW-5	808.92	89.90	84.90	724.02	76.6	40.4	0.0	NA	NA	NA	NA	0.09	85.8	Vault counter 953170
EW-6	764.73	64.60	43.79	720.94	72.0	56.0	0.0	NA	NA	NA	NA	0.94	71.5	Vault counter 921677
EW-7	772.83	63.10	56.67	716.16	71.7	56.6	0.0	NA	NA	NA	NA	2.20	70.3	Vault counter 257477
EW-8	756.16	43.70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Vault counter 1292__ Last 2 digits not readable
Main Vent					61.6	22.2	1.4	0.505	355	71.07	75.106	NA	78.1	No static pressure because vent stack is open to the atmosphere No velocity in lift stations or extraction wells due pipe size constrictions

TOTAL VOLUME (ft^3/min)= 94.63

**I.D. based on 2" Schedule 40 and 4" Schedule 40 PVC pipe
LFG is 6" Schedule 40 galvanized steel pipe based on As-Built drawing

	depth	CH4	CO2	O2	
LS01		1.8	10.4	15.7	counter = 238220 p=0.005

Notes:
1) TOC - Top of Casing (EW as of 05/09/07)
2) O_2 - Oxygen Percentage
3) CH_4 - Methane Percentage
4) CO_2 - Carbon Dioxide Percentage
5) NA - Not analyzed as part of O&M
6) NM - Not measured for specific date

JEF/acb
J:\405\0581 Blackwell\10th Year Report\Appendices\Appendix A\Appendix A-5 LFG Vent Monitoring Forms\May 2007 LFG.xls\May-07

Gas Vent Monitoring Form - July 2007
Blackwell Landfill NPL Site, DuPage County, Illinois

Date: 7/11/2007
Time: 0800-1500
Monitored By: JEF/ACB

Temperature(° F): 75
Humidity (%): 65%
Barometric Pressure (in. Hg): 29.91

Vent Number	TOC Elevation	Measured Well Depth (feet)	Depth to Liquid (feet)	Liquid Elevation (feet)	Gas Readings			Vent Readings						NOTES
					$\%CH_4$	$\%CO_2$	$\%O_2$	I.D. (ft)	Velocity (fpm)	Volume (ft^3/min)	% of Total	Static Pressure (in. H_2O)	Temperature (°F)	
SV-1	739.39	16.00	5.57	733.82	NA	NA	NA	0.172	NA	NA	NA	NA	NA	
SV-2	766.04	53.25	51.68	714.36	NA	NA	NA	0.172	NA	NA	NA	NA	NA	Dry - elevation represents bottom of well
SV-4	741.36	27.15	16.25	725.11	4.2	2.5	19.7	0.172	0	0.000	0.000	0.01	74.8	
SV-5	725.74	27.00	12.28	713.46	5.4	4.2	18.8	0.172	4	0.093	0.127	0.01	69.6	
SV-6	760.46	45.70	30.46	730.00	NA	NA	NA	0.172	NA	NA	NA	NA	NA	
SV-7	781.01	64.70	51.35	729.66	NA	NA	NA	0.172	NA	NA	NA	NA	NA	Dry - elevation represents bottom of well
SV-8	723.03	25.20	6.11	716.92	16.0	7.9	16.6	0.172	3	0.070	0.095	0.05	90.2	
SV-9	748.77	50.00	35.65	713.12	69.8	52.4	0.9	0.172	37	0.862	1.174	0.90	102.4	
SV-11	807.38	91.40	68.15	739.23	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
SV-12	823.82	83.80	62.40	761.42	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
DV-3	749.72	36.75	16.22	733.50	NA	NA	NA	0.172	NA	NA	NA	NA	NA	
DV-4	723.25	27.10	20.95	702.30	NA	NA	NA	0.172	NA	NA	NA	NA	NA	
DV-5	720.35	29.00	12.60	707.75	66.0	42.8	3.8	0.172	102	2.376	3.237	0.43	83.6	Dry - elevation represents bottom of well
DV-6	775.56	68.25	32.45	743.11	NA	NA	NA	0.172	NA	NA	NA	NA	NA	Dry - elevation represents bottom of well
DV-7	829.62	86.90	81.85	747.77	NA	NA	NA	0.336	NA	NA	NA	NA	NA	Dry - elevation represents bottom of well
DV-8	728.73	27.60	5.74	722.99	2.7	2.1	20.1	0.336	0	0.000	0.000	0.01	68.6	
DV-9	723.56	22.40	8.64	714.92	4.8	3.5	19.0	0.336	2	0.177	0.241	0.01	70.4	
DV-10	765.05	67.40	43.89	721.16	0.0	0.0	21.1	0.336	0	0.000	0.000	0.00	78.4	
DV-11	753.50	34.75	14.61	738.89	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
DV-13	746.29	53.60	27.16	719.13	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
DV-14	738.22	33.10	20.58	717.64	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
DV-15	736.17	43.00	35.81	700.36	29.0	13.0	14.2	0.336	110	9.720	13.244	0.25	81.5	
DV-16	733.85	34.00	26.26	707.59	71.1	54.3	0.1	0.336	100	8.836	12.040	3.50	86.6	
DV-17	729.07	37.20	15.80	713.27	68.5	52.9	1.6	0.336	23	2.032	2.769	0.58	87.4	
DV-18	775.13	54.20	33.20	741.93	62.2	40.3	4.7	0.336	36	3.181	4.334	0.90	84.4	
EW-1	753.98	43.85	31.81	722.17	50.8	33.2	5.6	NA	NA	NA	NA	0.005	73.6	Vault counter 29584
EW-1A	752.22	42.50	40.26	711.96	0.0	0.0	20.8	NA	NA	NA	NA	0.00	78.2	Vault counter 900075
EW-2	792.24	81.50	78.73	713.51	72.5	48.9	0.0	NA	NA	NA	NA	0.80	72.7	Vault counter 771297
EW-3	768.36	62.40	39.76	728.60	72.0	56.5	0.0	NA	NA	NA	NA	0.01	82.7	Vault counter 657624
EW-4	835.30	NA	NA	NA	74.9	50.0	0.0	NA	NA	NA	NA	0.10	73.3	Vault counter 271072
EW-5	808.92	89.90	85.10	723.82	78.6	40.2	0.0	NA	NA	NA	NA	0.04	81.0	Vault counter 984401
EW-6	764.73	64.60	51.11	713.62	72.4	54.5	0.0	NA	NA	NA	NA	0.86	68.7	Vault counter 921677
EW-7	772.83	63.10	58.66	714.17	72.0	56.2	0.0	NA	NA	NA	NA	1.70	68.6	Vault counter 299823
EW-8	756.16	43.70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Vault counter 1292__ Last 2 digits not readable
Main Vent					70.3	48.8	0.2	0.505	230	46.04	62.739	NA	73.2	No static pressure because vent stack is open to the atmosphere No velocity in lift stations or extraction wells due pipe size constrictions

TOTAL VOLUME (ft^3/min)= 73.39

**I.D. based on 2" Schedule 40 and 4" Schedule 40 PVC pipe
LFG is 6" Schedule 40 galvanized steel pipe based on As-Built drawing

	depth	CH4	CO2	O2	
LS01		3.7	15.6	16.5	counter = 238220 p=0.03

Notes:
1) TOC - Top of Casing (EW as of 05/09/07)
2) O_2 - Oxygen Percentage
3) CH_4 - Methane Percentage
4) CO_2 - Carbon Dioxide Percentage
5) NA - Not analyzed as part of O&M
6) NM - Not measured for specific date

Gas Vent Monitoring Form - September 2007
Blackwell Landfill NPL Site, DuPage County, Illinois

Date: 9/12/2007
Time: 0800-1400
Monitored By: JEF/DPP

Temperature(° F): 68
Humidity (%): 63%
Barometric Pressure (in. Hg): 30.12

Vent Number	TOC Elevation	Measured Well Depth (feet)	Depth to Liquid (feet)	Liquid Elevation (feet)	Gas Readings			Vent Readings						NOTES
					$\%CH_4$	$\%CO_2$	$\%O_2$	I.D. (ft)	Velocity (fpm)	Volume (ft^3/min)	% of Total	Static Pressure (in. H_2O)	Temperature (^oF)	
SV-1	739.39	16.00	8.71	730.68	NA	NA	NA	0.172	NA	NA	NA	NA	NA	
SV-2	766.04	53.25	24.70	741.34	NA	NA	NA	0.172	NA	NA	NA	NA	NA	Dry - elevation represents bottom of well
SV-4	741.36	27.15	14.80	726.56	0.0	0.0	19.7	0.172	5	0.116	0.111	0.02	66.9	
SV-5	725.74	27.00	12.32	713.42	0.0	0.0	16.4	0.172	2	0.047	0.045	0.00	54.8	
SV-6	760.46	45.70	31.38	729.08	NA	NA	NA	0.172	NA	NA	NA	NA	NA	
SV-7	781.01	64.70	51.40	729.61	NA	NA	NA	0.172	NA	NA	NA	NA	NA	Dry - elevation represents bottom of well
SV-8	723.03	25.20	6.30	716.73	8.4	0.0	18.1	0.172	17	0.396	0.379	0.00	82.4	
SV-9	748.77	50.00	35.82	712.95	0.2	0.0	9.7	0.172	33	0.769	0.736	0.40	81.6	
SV-11	807.38	91.40	68.70	738.68	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
SV-12	823.82	83.80	62.41	761.41	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
DV-3	749.72	36.75	16.06	733.66	NA	NA	NA	0.172	NA	NA	NA	NA	NA	
DV-4	723.25	27.10	22.39	700.86	NA	NA	NA	0.172	NA	NA	NA	NA	NA	
DV-5	720.35	29.00	12.65	707.70	37.9	0.0	13.6	0.172	30	0.699	0.669	0.10	81.3	Dry - elevation represents bottom of well
DV-6	775.56	68.25	32.50	743.06	NA	NA	NA	0.172	NA	NA	NA	NA	NA	Dry - elevation represents bottom of well
DV-7	829.62	86.90	83.40	746.22	NA	NA	NA	0.336	NA	NA	NA	NA	NA	Dry - elevation represents bottom of well
DV-8	728.73	27.60	7.37	721.36	0.1	0.0	14.1	0.336	3	0.265	0.254	0.00	55.3	
DV-9	723.56	22.40	9.47	714.09	0.1	0.0	16.7	0.336	4	0.353	0.338	0.00	55.9	
DV-10	765.05	67.40	43.60	721.45	0.0	0.0	21.3	0.336	2	0.177	0.169	0.00	60.4	
DV-11	753.50	34.75	10.90	742.60	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
DV-13	746.29	53.60	28.01	718.28	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
DV-14	738.22	33.10	20.12	718.10	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
DV-15	736.17	43.00	36.90	699.27	0.0	0.0	5.6	0.336	163	14.403	13.787	0.16	72.7	
DV-16	733.85	34.00	25.80	708.05	8.4	0.0	2.1	0.336	95	8.394	8.036	2.00	77.0	
DV-17	729.07	37.20	15.30	713.77	24.6	0.0	18.1	0.336	16	1.414	1.353	0.90	82.7	
DV-18	775.13	54.20	33.61	741.52	67.2	0.0	0.0	0.336	38	3.358	3.214	1.30	73.2	
EW-1	753.98	43.85	DRY	DRY	0.0	0.0	2.1	NA	NA	NA	NA	0.00	59.0	Vault counter 29590
EW-1A	752.22	42.50	39.48	712.74	0.1	0.0	21.3	NA	NA	NA	NA	0.00	59.6	Vault counter 901257
EW-2	792.24	81.50	75.77	716.47	37.8	0.0	1.1	NA	NA	NA	NA	0.01	62.8	Vault counter 784567
EW-3	768.36	62.40	39.25	729.11	29.9	0.0	1.2	NA	NA	NA	NA	0.04	76.6	Vault counter 657630
EW-4	835.30	NA	NA	NA	0.0	0.0	0.2	NA	NA	NA	NA	0.08	65.9	Vault counter 274566
EW-5	808.92	89.90	86.65	722.27	17.1	0.4	0.0	NA	NA	NA	NA	0.01	64.2	Vault counter 11548
EW-6	764.73	64.60	42.30	722.43	67.4	0.0	0.0	NA	NA	NA	NA	0.60	71.2	Vault counter 921677
EW-7	772.83	63.10	57.28	715.55	0.0	0.0	0.0	NA	NA	NA	NA	1.20	66.0	Vault counter 319377
EW-8	756.16	43.70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Vault counter 1292__ Last 2 digits not readable
Main Vent					49.6	0.0	0.0	0.505	370	74.07	70.908	NA	65.7	No static pressure because vent stack is open to the atmosphere No velocity in lift stations or extraction wells due pipe size constrictions

Notes:
1) TOC - Top of Casing (EW as of 05/09/07)
2) O_2 - Oxygen Percentage
3) CH_4 - Methane Percentage
4) CO_2 - Carbon Dioxide Percentage
5) NA - Not analyzed as part of O&M
6) NM - Not measured for specific date

TOTAL VOLUME (ft^3/min)= 104.46

**I.D. based on 2" Schedule 40 and 4" Schedule 40 PVC pipe
LFG is 6" Schedule 40 galvanized steel pipe based on As-Built drawing

	depth	CH4	CO2	O2
LS01		0.0	0.0	18.6

counter = 238220
p=0.04

Gas Vent Monitoring Form - November 2007
Blackwell Landfill NPL Site, DuPage County, Illinois

Date: 11/14/2007
Time: 0900-1430
Monitored By: JEF/DLA

Temperature(° F): 54
Humidity (%): 60%
Barometric Pressure (in. Hg): 29.75

Vent Number	TOC Elevation	Measured Well Depth (feet)	Depth to Liquid (feet)	Liquid Elevation (feet)	Gas Readings			Vent Readings						NOTES
					$\%CH_4$	$\%CO_2$	$\%O_2$	I.D. (ft)	Velocity (fpm)	Volume (ft^3/min)	% of Total	Static Pressure (in. H_2O)	Temperature (^oF)	
SV-1	739.39	16.00	5.78	733.61	NA	NA	NA	0.172	NA	NA	NA	NA	NA	
SV-2	766.04	53.25	24.78	741.26	NA	NA	NA	0.172	NA	NA	NA	NA	NA	Dry - elevation represents bottom of well
SV-4	741.36	27.15	16.40	724.96	11.0	6.1	16.9	0.172	5	0.116	0.140	0.04	52.3	
SV-5	725.74	27.00	13.16	712.58	0.0	0.1	19.6	0.172	0	0.000	0.000	0.00	58.9	
SV-6	760.46	45.70	31.13	729.33	NA	NA	NA	0.172	NA	NA	NA	NA	NA	
SV-7	781.01	64.70	50.65	730.36	NA	NA	NA	0.172	NA	NA	NA	NA	NA	
SV-8	723.03	25.20	6.68	716.35	7.4	4.1	17.8	0.172	0	0.000	0.000	0.01	59.7	
SV-9	748.77	50.00	35.45	713.32	85.5	48.2	0.6	0.172	22	0.512	0.618	2.00	58.1	
SV-11	807.38	91.40	68.24	739.14	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
SV-12	823.82	83.80	62.34	761.48	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
DV-3	749.72	36.75	16.58	733.14	NA	NA	NA	0.172	NA	NA	NA	NA	NA	
DV-4	723.25	27.10	23.72	699.53	NA	NA	NA	0.172	NA	NA	NA	NA	NA	
DV-5	720.35	29.00	12.77	707.58	24.5	12.8	13.3	0.172	5	0.116	0.140	0.00	57.8	
DV-6	775.56	68.25	32.62	742.94	NA	NA	NA	0.172	NA	NA	NA	NA	NA	
DV-7	829.62	86.90	82.03	747.59	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
DV-8	728.73	27.60	8.58	720.15	11.6	6.7	16.7	0.336	1	0.088	0.106	0.01	57.8	
DV-9	723.56	22.40	10.85	712.71	3.3	2.8	18.8	0.336	1	0.088	0.106	0.03	57.6	
DV-10	765.05	67.40	45.96	719.09	0.0	0.1	19.3	0.336	0	0.000	0.000	0.00	51.8	
DV-11	753.50	34.75	11.88	741.62	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
DV-13	746.29	53.60	26.74	719.55	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
DV-14	738.22	33.10	19.52	718.70	NA	NA	NA	0.336	NA	NA	NA	NA	NA	Replaced cap
DV-15	736.17	43.00	38.00	698.17	16.6	7.7	15.9	0.336	29	2.562	3.088	0.05	64.4	
DV-16	733.85	34.00	27.78	706.07	85.0	45.6	0.3	0.336	90	7.952	9.584	3.20	58.7	
DV-17	729.07	37.20	20.54	708.53	39.5	26.5	9.6	0.336	25	2.209	2.662	0.34	60.3	
DV-18	775.13	54.20	30.88	744.25	83.7	47.5	0.1	0.336	37	3.269	3.940	1.50	59.4	
EW-1	753.98	43.85	31.17	722.81	77.2	48.4	0.0	NA	NA	NA	NA	0.24	57.6	Vault counter 30128
EW-1A	752.22	42.50	38.36	713.86	26.2	13.2	9.6	NA	NA	NA	NA	0.04	54.3	Vault counter 901258
EW-2	792.24	81.50	55.15	737.09	83.3	42.1	0.2	NA	NA	NA	NA	0.03	54.5	Vault counter 795267
EW-3	768.36	62.40	38.79	729.57	81.0	45.3	0.0	NA	NA	NA	NA	0.10	56.8	Vault counter 660585
EW-4	835.30	NA	NA	NA	91.5	40.7	0.3	NA	NA	NA	NA	0.01	58.9	Vault counter 277799
EW-5	808.92	89.90	84.29	724.63	53.2	13.3	7.1	NA	NA	NA	NA	0.00	58.2	Vault counter 39375
EW-6	764.73	64.60	31.99	732.74	88.5	47.0	0.0	NA	NA	NA	NA	0.92	60.8	Vault counter 921676
EW-7	772.83	63.10	56.50	716.33	87.3	46.7	0.0	NA	NA	NA	NA	2.70	59.7	Vault counter 343758
EW-8	756.16	43.70	NM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Vault counter 1292__ Last 2 digits not readable
Main Vent					77.0	41.5	0.6	0.505	330	66.06	79.615	NA	57.8	No static pressure because vent stack is open to the atmosphere No velocity in lift stations or extraction wells due pipe size constrictions

TOTAL VOLUME (ft^3/min)= 82.98

**I.D. based on 2" Schedule 40 and 4" Schedule 40 PVC pipe
LFG is 6" Schedule 40 galvanized steel pipe based on As-Built drawing

	depth	CH4	CO2	O2
LS01		0.1	3.5	17.9

counter = 238220
p=0.02

Notes:
1) TOC - Top of Casing (EW as of 05/09/07)
2) O_2 - Oxygen Percentage
3) CH_4 - Methane Percentage
4) CO_2 - Carbon Dioxide Percentage
5) NA - Not analyzed as part of O&M
6) NM - Not measured for specific date

JEF/acb
J:\405\0581 Blackwell\10th Year Report\Appendices\Appendix A\Appendix A-5 LFG Vent Monitoring Forms\November 2007 LFG.xls\Nov-07

Gas Vent Monitoring Form - January 2008
Blackwell Landfill NPL Site, DuPage County, Illinois

Date: 1/9/2008
Time: 0800-1400
Monitored By: JEF/ACB

Temperature(° F): 39
Humidity (%): 82%
Barometric Pressure (in. Hg): 30.04

Vent Number	TOC Elevation	Measured Well Depth (feet)	Depth to Liquid (feet)	Liquid Elevation (feet)	Gas Readings			Vent Readings						NOTES
					$\%CH_4$	$\%CO_2$	$\%O_2$	I.D. (ft)	Velocity (fpm)	Volume (ft^3/min)	% of Total	Static Pressure (in. H_2O)	Temperature (°F)	
SV-1	739.39	16.00	NM	NM	NA	NA	NA	0.172	NA	NA	NA	NA	NA	Not measured due to flooded vault
SV-2	766.04	53.25	24.80	741.24	NA	NA	NA	0.172	NA	NA	NA	NA	NA	Dry - elevation represents bottom of well
SV-4	741.36	27.15	NM	NM	NM	NM	NM	0.172	NM	NM	NM	NM	NM	Not measured due to flooded vault
SV-5	725.74	27.00	1.59	724.15	0.0	0.1	21.4	0.172	3	0.070	0.072	0.00	45.5	
SV-6	760.46	45.70	31.24	729.22	NA	NA	NA	0.172	NA	NA	NA	NA	NA	
SV-7	781.01	64.70	50.47	730.54	NA	NA	NA	0.172	NA	NA	NA	NA	NA	
SV-8	723.03	25.20	3.86	719.17	9.9	6.5	17.5	0.172	4	0.093	0.096	0.00	33.9	
SV-9	748.77	50.00	22.90	725.87	64.2	33.5	0.7	0.172	16	0.373	0.385	0.64	34.4	
SV-11	807.38	91.40	68.73	738.65	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
SV-12	823.82	83.80	62.36	761.46	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
DV-3	749.29	36.75	16.44	732.85	NA	NA	NA	0.172	NA	NA	NA	NA	NA	
DV-4	723.25	27.10	NM	NM	NA	NA	NA	0.172	NA	NA	NA	NA	NA	Not measured due to flooded vault
DV-5	720.35	29.00	2.38	717.97	0.6	0.9	18.6	0.172	5	0.116	0.120	0.00	34.2	
DV-6	775.56	68.25	32.54	743.02	NA	NA	NA	0.172	NA	NA	NA	NA	NA	
DV-7	829.62	86.90	82.00	747.62	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
DV-8	728.73	27.60	1.11	727.62	0.0	0.2	20.0	0.336	3	0.265	0.274	0.00	47.8	
DV-9	723.56	22.40	NM	NM	NM	NM	NM	0.336	NM	NM	NM	NM	NM	Not measured due to flooded vault
DV-10	765.05	67.40	39.45	725.60	1.2	1.2	20.7	0.336	3	0.265	0.274	0.00	43.0	
DV-11	753.50	34.75	NM	NM	NA	NA	NA	0.336	NA	NA	NA	NA	NA	Not measured due to flooded vault
DV-13	746.29	53.60	22.86	723.43	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
DV-14	738.22	33.10	22.35	715.87	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
DV-15	736.17	43.00	37.66	698.51	27.9	17.3	11.1	0.336	48	4.241	4.379	0.04	37.2	
DV-16	733.85	34.00	20.50	713.35	61.1	30.8	2.8	0.336	145	12.812	13.229	0.42	41.2	
DV-17	729.07	37.20	4.42	724.65	0.6	0.6	19.8	0.336	2	0.177	0.182	0.09	35.6	
DV-18	775.13	54.20	23.50	751.63	66.3	34.6	0.2	0.336	140	12.370	12.773	2.80	51.9	
EW-1	753.98	43.85	31.17	722.81	56.3	33.8	0.5	NA	NA	NA	NA	0.08	49.5	Vault counter 30134
EW-1A	752.22	42.50	38.34	713.88	0.3	0.5	20.6	NA	NA	NA	NA	0.00	44.9	Vault counter 901258
EW-2	792.24	81.50	57.67	734.57	64.3	28.9	0.5	NA	NA	NA	NA	0.16	46.4	Vault counter 802099
EW-3	768.36	62.40	38.91	729.45	64.0	31.9	0.7	NA	NA	NA	NA	0.06	45.4	Vault counter 660585
EW-4	835.30	NA	NA	NA	71.6	29.1	0.2	NA	NA	NA	NA	0.06	41.8	Vault counter 280541
EW-5	808.92	89.90	76.31	732.61	0.0	0.3	20.2	NA	NA	NA	NA	0.00	36.6	Vault counter 62965
EW-6	764.73	64.60	47.87	716.86	68.1	32.8	0.5	NA	NA	NA	NA	0.60	51.3	Vault counter 921676
EW-7	772.83	63.10	57.40	715.43	67.5	33.2	0.0	NA	NA	NA	NA	1.00	52.3	Vault counter 376450
EW-8	756.16	43.70	NM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Vault counter 1292__ Last 2 digits not readable
Main Vent					53.4	28.5	3.1	0.505	330	66.06	68.215	NA	38.6	No static pressure because vent stack is open to the atmosphere No velocity in lift stations or extraction wells due pipe size constrictions

TOTAL VOLUME (ft^3/min)= 96.85

**I.D. based on 2" Schedule 40 and 4" Schedule 40 PVC pipe
LFG is 6" Schedule 40 galvanized steel pipe based on As-Built drawing

	depth	CH4	CO2	O2
LS01		0.0	3.7	18.7

counter = 238220
p=0.00

Notes:
1) TOC - Top of Casing (EW as of 05/09/07)
2) O_2 - Oxygen Percentage
3) CH_4 - Methane Percentage
4) CO_2 - Carbon Dioxide Percentage
5) NA - Not analyzed as part of O&M
6) NM - Not measured for specific date

Gas Vent Monitoring Form - March 2008
Blackwell Landfill NPL Site, DuPage County, Illinois

Date: 3/10/2008
Time: 0800-1130
Monitored By: JEF/ACB

Temperature(° F): 35
Humidity (%): 80%
Barometric Pressure (in. Hg): 30.31

Vent Number	TOC Elevation	Measured Well Depth (feet)	Depth to Liquid (feet)	Liquid Elevation (feet)	Gas Readings			Vent Readings						NOTES
					%CH_4	%CO_2	%O_2	I.D. (ft)	Velocity (fpm)	Volume (ft^3/min)	% of Total	Static Pressure (in. H_2O)	Temperature (°F)	
SV-1	739.39	16.00	5.28	734.11	NA	NA	NA	0.172	NA	NA	NA	NA	NA	
SV-2	766.04	53.25	24.74	741.30	NA	NA	NA	0.172	NA	NA	NA	NA	NA	Dry - elevation represents bottom of well
SV-4	741.36	27.15	NM	NM	NM	NM	NM	0.172	NM	NM	NM	NM	NM	Not measured due to vault being frozen shut
SV-5	725.74	27.00	NM	NM	NM	NM	NM	0.172	NM	NM	NM	NM	NM	Not measured due to vault being frozen shut
SV-6	760.46	45.70	29.62	730.84	NA	NA	NA	0.172	NA	NA	NA	NA	NA	
SV-7	781.01	64.70	51.34	729.67	NA	NA	NA	0.172	NA	NA	NA	NA	NA	
SV-8	723.03	25.20	NM	NM	NM	NM	NM	0.172	NM	NM	NM	NM	NM	Not measured due to vault being frozen shut
SV-9	748.77	50.00	NM	NM	NM	NM	NM	0.172	NM	NM	NM	NM	NM	Not measured due to vault being frozen shut
SV-11	807.38	91.40	68.83	738.55	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
SV-12	823.82	83.80	62.34	761.48	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
DV-3	749.29	36.75	15.77	733.52	NA	NA	NA	0.172	NA	NA	NA	NA	NA	
DV-4	723.25	27.10	NM	NM	NA	NA	NA	0.172	NA	NA	NA	NA	NA	Not measured due to vault being flooded
DV-5	720.35	29.00	NM	NM	NM	NM	NM	0.172	NM	NM	NM	NM	NM	Not measured due to vault being frozen shut
DV-6	775.56	68.25	32.34	743.22	NA	NA	NA	0.172	NA	NA	NA	NA	NA	
DV-7	829.62	86.90	81.99	747.63	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
DV-8	728.73	27.60	NM	NM	NM	NM	NM	0.336	NM	NM	NM	NM	NM	Not measured due to vault being frozen shut
DV-9	723.56	22.40	NM	NM	NM	NM	NM	0.336	NM	NM	NM	NM	NM	Not measured due to vault being frozen shut
DV-10	765.05	67.40	NM	NM	NM	NM	NM	0.336	NM	NM	NM	NM	NM	Not measured due to vault being frozen shut
DV-11	753.50	34.75	3.62	749.88	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
DV-13	746.29	53.60	24.78	721.51	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
DV-14	738.22	33.10	19.61	718.61	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
DV-15	736.17	43.00	NM	NM	NM	NM	NM	0.336	NM	NM	NM	NM	NM	Not measured due to vault being frozen shut
DV-16	733.85	34.00	10.33	723.52	65.9	33.7	4.5	0.336	55	4.860	9.117	1.40	34.2	
DV-17	729.07	37.20	NM	NM	NM	NM	NM	0.336	NM	NM	NM	NM	NM	Not measured due to vault being frozen shut
DV-18	775.13	54.20	NM	NM	NM	NM	NM	0.336	NM	NM	NM	NM	NM	Not measured due to vault being frozen shut
EW-1	753.98	43.85	31.06	722.92	55.7	29.0	2.3	NA	NA	NA	NA	0.04	42.6	Vault counter 30144
EW-1A	752.22	42.50	38.29	713.93	0.0	0.1	20.6	NA	NA	NA	NA	0.00	35.7	Vault counter 901258
EW-2	792.24	81.50	55.21	737.03	61.5	31.1	3.3	NA	NA	NA	NA	0.05	34.9	Vault counter 817361
EW-3	768.36	62.40	33.28	735.08	18.5	5.6	16.1	NA	NA	NA	NA	0.00	34.3	Vault counter 660585
EW-4	835.30	NA	NA	NA	66.9	29.8	1.0	NA	NA	NA	NA	0.06	40.8	Vault counter 283442
EW-5	808.92	89.90	77.97	730.95	46.4	15.5	9.1	NA	NA	NA	NA	0.01	34.7	Vault counter 83557
EW-6	764.73	64.60	46.70	718.03	65.0	33.4	1.1	NA	NA	NA	NA	0.62	47.9	Vault counter 921676
EW-7	772.83	63.10	56.54	716.29	64.8	34.0	1.1	NA	NA	NA	NA	1.70	49.0	Vault counter 404206
EW-8	756.16	43.70	NM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Vault counter 1292__ Last 2 digits not readable
Main Vent					63.3	31.2	0.2	0.505	242	48.45	90.883	NA	36.0	No static pressure because vent stack is open to the atmosphere No velocity in lift stations or extraction wells due pipe size constrictions

TOTAL VOLUME (ft^3/min)= 53.31

**I.D. based on 2" Schedule 40 and 4" Schedule 40 PVC pipe
LFG is 6" Schedule 40 galvanized steel pipe based on As-Built drawing

	depth	CH4	CO2	O2	
LS01		0.8	4.2	19.2	counter = 238230 p=0.00

Notes:
1) TOC - Top of Casing (EW as of 05/09/07)
2) O_2 - Oxygen Percentage
3) CH_4 - Methane Percentage
4) CO_2 - Carbon Dioxide Percentage
5) NA - Not analyzed as part of O&M
6) NM - Not measured for specific date

APPENDIX B

LEACHATE ANALYTICAL RESULTS AND WASTE DISPOSAL PERMIT

CORRECTED PERMIT

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
WATER POLLUTION CONTROL PERMIT

LOG NUMBERS: 3767-05 **PERMIT NO.:** 2005-EE-3767

FINAL PLANS, SPECIFICATIONS, APPLICATION AND SUPPORTING DOCUMENTS PREPARED BY:

DATE ISSUED: April 25, 2005
CORRECTION DATE: May 2, 2005

SUBJECT: FOREST PRESERVE DISTRICT OF DUPAGE COUNTY - Blackwell Landfill -- Leachate Disposal -- Tributary to Wheaton Sanitary District STP

PERMITTEE TO OWN AND OPERATE

Forest Preserve District of DuPage County
3 South 580 Naperville Road
Wheaton, IL 60187-8761

Permit is hereby granted to the above designated permittee(s) to construct and/or operate water pollution control facilities described as follows:

Hauling via tanker truck of 10,000 gallons per day DMF of landfill leachate from Blackwell Landfill for discharge into the headworks of Wheaton Sanitary District STP for treatment.

This operating permit expires on March 31, 2010.

This permit renews and replaces Permit Number 2000-EE-0837 which was previously issued for the herein permitted facilities.

This Permit is issued subject to the following Special Condition(s). If such Special Condition(s) require(s) additional or revised facilities, satisfactory engineering plan documents must be submitted to this Agency for review and approval for issuance of a Supplemental Permit.

SPECIAL CONDITION 1: *All sludges generated on-site shall be transported for disposal at an Illinois Environmental Protection Agency permitted facility using the Agency's Supplemental Permit and manifest system in accordance with the Environmental Protection Act. If the sludge is a hazardous waste, the generator must comply with all applicable requirements of 35 Ill. Adm. Code Parts 702, 703, 705 and 720 to 725.*

THE STANDARD CONDITIONS OF ISSUANCE INDICATED ON THE REVERSE SIDE MUST BE COMPLIED WITH IN FULL. READ ALL CONDITIONS CAREFULLY.

SAK:BMB:J:\statecon\burkard\376705.bmb

DIVISION OF WATER POLLUTION CONTROL

Alan Keller by BAK

Alan Keller, P.E.
Manager, Permit Section

cc: EPA - Des Plaines FOS
Wheaton Sanitary District
Records - Municipal
Records - Industrial
Binds

CORRECTED PERMIT

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
WATER POLLUTION CONTROL PERMIT

LOG NUMBERS: 3767-05 **PERMIT NO.:** 2005-EE-3767

FINAL PLANS, SPECIFICATIONS, APPLICATION AND SUPPORTING DOCUMENTS PREPARED BY:

DATE ISSUED: April 25, 2005
CORRECTION DATE: May 2, 2005

SUBJECT: FOREST PRESERVE DISTRICT OF DUPAGE COUNTY - Blackwell Landfill -- Leachate Disposal -- Tributary to Wheaton Sanitary District STP

SPECIAL CONDITION 2:

a. Liquids, solids, or gases which by reason of their nature or quantity may cause fire or explosion; or be injurious in any other way to sewers, treatment works, or cause a safety hazard to the personnel operating the treatment works, or cause the effluent from the treatment works to violate applicable effluent standards are prohibited;

b. Solid or viscous wastes which cause obstruction to the flow in sewers or other interference with the proper operation of any sewer or treatment works are prohibited.

SPECIAL CONDITION 3: The issuance of this permit does not relieve the permittee of the responsibility of complying with 35 Ill. Adm. Code, Part 307 and/or the General Pretreatment Regulations (40 CFR 403) and any guidelines developed pursuant to Section 301, 306, or 307 of the Federal Clean Water Act of 1977.

SPECIAL CONDITION 4: The issuance of this permit does not relieve the permittee of the responsibility of complying with any limitations and provisions imposed by the Wheaton Sanitary District.

SPECIAL CONDITION 5: This permit is being issued with the express understanding that the transportation of wastewater to the publicly owned treatment works for treatment will be done in accordance with the following IEPA Bureau of Land requirements:

These regulations as identified in 35 Ill. Adm. Code 809, state that the generator may not give the waste to a hauler unless the hauler has obtained an Illinois special waste hauler license; the hauler may not accept the waste unless it is accompanied by the required manifest; and the receiving facility cannot accept the waste unless it is delivered by a licensed special waste hauler or exempt hauler, accompanied by the required manifest and the receiving facility has obtained the required permits to receive the waste.

The authorization number is no longer issued by this Agency. Therefore, you will no longer be required to identify the authorization number on the manifest when shipping waste as authorized by this permit.

CORRECTED PERMIT

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
WATER POLLUTION CONTROL PERMIT

LOG NUMBERS: 3767-05 **PERMIT NO.:** 2005-EE-3767

FINAL PLANS, SPECIFICATIONS, APPLICATION AND SUPPORTING DOCUMENTS PREPARED BY:

DATE ISSUED: April 25, 2005
CORRECTION DATE: May 2, 2005

SUBJECT: FOREST PRESERVE DISTRICT OF DUPAGE COUNTY - Blackwell Landfill -- Leachate Disposal -- Tributary to Wheaton Sanitary District STP

SPECIAL CONDITION 6: MONITORING AND REPORTING REQUIREMENTS

a. A representative truck load of leachate shall be sampled and analyzed prior to discharge into the Wheaton Sanitary District Sewage Treatment Plant for the following parameters on a quarterly basis (once every three months):

Arsenic	Nickel
Barium	pH
Boron	Phenols
Cadmium	Selenium
Chloride	Silver
Chromium (hexavalent)	Sulfate
Chromium (trivalent)	Zinc
Copper	BOD5
Cyanide	COD
Iron (total)	Oil and Grease
Lead	Ammonia (as N)
Manganese	Total Dissolved Solids
Mercury	Total Suspended Solids

The discharge shall also be sampled semiannually for organic toxic pollutants (Volatiles, Acid Compounds, Base/Neutrals, and Pesticides, as defined in 40 CFR 122).

b. Grab samples shall be utilized. Quarterly sampling shall be performed within the first two months of each quarter. Semiannual sampling shall be performed within the first five months of each six-month period. Test methods as described in 40 CFR 136 shall be utilized when analyzing wastewater.

c. Sampling results shall be submitted in the third month of each quarter to the Agency at the following addresses (semiannual sampling results shall be submitted upon your receipt):

Illinois Environmental Protection Agency
Division of Water Pollution Control
Compliance Assurance Section
1021 East North Grand Avenue
P.O. Box 19276
Springfield, IL 62794-9276

Illinois Environmental Protection Agency
DWPC - Des Plaines Region
9511 West Harrison
Des Plaines, IL 60016

First Environmental Laboratories, Inc.

IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

May 22, 2007

Mr. Justin Finger
MONTGOMERY WATSON HARZA
175 West Jackson Boulevard,
Suite 1900
Chicago, IL 60604

Project ID: Blackwell PO# 4050581.078101
First Environmental File ID: 7-2028
Date Received: May 09, 2007

Dear Mr. Justin Finger:

The above referenced project was analyzed as directed on the enclosed chain of custody record.

All analyses were performed in accordance with established methods and within established holding times. All Quality Control criteria as outlined in the methods and current IL ELAP/NELAP have been met unless otherwise noted. QA/QC documentation and raw data will remain on file for future reference. Our accreditation number is 100292 and our current certificate is number 001566: effective 07/18/06 through 02/28/07.

I thank you for the opportunity to be of service to you and look forward to working with you again in the future. Should you have any questions regarding any of the enclosed analytical data or need additional information, please contact me at (630) 778-1200.

Sincerely,

William Mottashed
Project Manager

First Environmental Laboratories, Inc.

IL ELAP / NELAC Accreditation # 100292

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Case Narrative

MONTGOMERY WATSON HARZA

Project ID: **Blackwell PO# 4050581.078101**

First Environmental File ID: **7-2028**

Date Received: **May 09, 2007**

Flag	Description	Flag	Description
<	Analyte not detected at or above the reporting limit.	L+	LCS recovery outside control limits; high bias.
B	Analyte detected in associated method blank.	L-	LCS recovery outside control limits; low bias.
C	Identification confirmed by GC/MS.	M	MS recovery outside control limits; LCS acceptable.
D	Surrogates diluted out; recovery not available.	M+	MS recovery outside control limits high bias; LCS acceptable.
E	Estimated result; concentration exceeds calibration range.	M-	MS recovery outside control limits low bias; LCS acceptable.
F	Field measurement.	N	Analyte is not part of our NELAC accreditation.
		ND	Analyte was not detected using a library search routine; No calibration standard was analyzed.
G	Surrogate recovery outside control limits; matrix effect.	P	Chemical preservation pH adjusted in lab.
H	Analysis holding time exceeded.	Q	The analyte was determined by a GC/MS database search.
J	Estimated result; concentration is less than calib range.	S	Analyte was sub-contracted to another laboratory for analysis
K	RPD outside control limits.	T	Sample temperature upon receipt exceeded 0-6°C
RL	Routine Reporting Limit (Lowest amount that can be detected when routine weights/volumes are used without dilution.)	W	Reporting limit elevated due to sample matrix.

All quality control criteria, as outlined in the methods, have been met except as noted below or on the following analytical report.

Sample Batch Comments:

Sample acceptance criteria were met.

First Environmental Laboratories, Inc.

IL ELAP / NELAC Accreditation # 100292

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Analytical Report

Client:	MONTGOMERY WATSON HARZA	**Date Collected:**	05/09/07
Project ID:	Blackwell PO# 4050581.078101	**Time Collected:**	8:45
Sample ID:	BW-LCS-39	**Date Received:**	05/09/07
Sample No:	7-2028-001	**Date Reported:**	05/22/07

Analyte	Result	R.L.	Units	Date Analyzed	Method	Flag
Cyanide, Total	< 0.005	0.005	mg/L	05/14/07	4500CN,C,E	
Ammonia (as N)	23.0	0.10	mg/L	05/18/07	350.1R2.0	
Phenols	0.01	0.01	mg/L	05/16/07	420.4R1.0	
COD	39	10	mg/L	05/11/07	5220D	
pH @ 25°C	6.86		Units	05/10/07 14:30	4500H+,B	
BOD, 5 Day	4	1	mg/L	05/10/07 15:00	5210B	
Oil & Grease	< 1	1	mg/L	05/17/07	1664A	
Total Suspended Solids	48	1	mg/L	05/11/07	2540D	
Total Dissolved Solids	1,230	10	mg/L	05/15/07	2540C	

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Analytical Report

Client:	MONTGOMERY WATSON HARZA	**Date Collected:**	05/09/07
Project ID:	Blackwell PO# 4050581.078101	**Time Collected:**	8:45
Sample ID:	BW-LCS-39	**Date Received:**	05/09/07
Sample No:	7-2028-001	**Date Reported:**	05/22/07

Analyte	Result	R.L.	Units	Flags
Volatile Organic Compounds **Method: 5030B/8260B**				
Analysis Date: 05/11/07				
Acetone	< 100	100	ug/L	
Benzene	< 5.0	5.0	ug/L	
Bromodichloromethane	< 1.0	1.0	ug/L	
Bromoform	< 1.0	1.0	ug/L	
Bromomethane	< 5.0	5.0	ug/L	
2-Butanone (MEK)	< 10.0	10.0	ug/L	
Carbon disulfide	< 5.0	5.0	ug/L	
Carbon tetrachloride	< 5.0	5.0	ug/L	
Chlorobenzene	< 5.0	5.0	ug/L	
Chlorodibromomethane	< 1.0	1.0	ug/L	
Chloroethane	< 10.0	10.0	ug/L	
Chloroform	< 1.0	1.0	ug/L	
Chloromethane	< 10.0	10.0	ug/L	
1,1-Dichloroethane	< 5.0	5.0	ug/L	
1,2-Dichloroethane	< 5.0	5.0	ug/L	
1,1-Dichloroethene	< 5.0	5.0	ug/L	
cis-1,2-Dichloroethene	< 5.0	5.0	ug/L	
trans-1,2-Dichloroethene	< 5.0	5.0	ug/L	
1,2-Dichloropropane	< 5.0	5.0	ug/L	
cis-1,3-Dichloropropene	< 1.0	1.0	ug/L	
trans-1,3-Dichloropropene	< 1.0	1.0	ug/L	
Ethylbenzene	< 5.0	5.0	ug/L	
2-Hexanone	< 10.0	10.0	ug/L	
Methyl-tert-butylether (MTBE)	< 5.0	5.0	ug/L	
4-Methyl-2-pentanone (MIBK)	< 10.0	10.0	ug/L	
Methylene chloride	< 5.0	5.0	ug/L	
Styrene	< 5.0	5.0	ug/L	
1,1,2,2-Tetrachloroethane	< 5.0	5.0	ug/L	
Tetrachloroethene	< 5.0	5.0	ug/L	
Toluene	< 5.0	5.0	ug/L	
1,1,1-Trichloroethane	< 5.0	5.0	ug/L	
1,1,2-Trichloroethane	< 5.0	5.0	ug/L	
Trichloroethene	< 5.0	5.0	ug/L	
Vinyl acetate	< 10.0	10.0	ug/L	
Vinyl chloride	< 2.0	2.0	ug/L	
Xylene, Total	< 5.0	5.0	ug/L	

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Analytical Report

Client:	MONTGOMERY WATSON HARZA	**Date Collected:**	05/09/07
Project ID:	Blackwell PO# 4050581.078101	**Time Collected:**	8:45
Sample ID:	BW-LCS-39	**Date Received:**	05/09/07
Sample No:	7-2028-001	**Date Reported:**	05/22/07

Analyte	Result	R.L.	Units	Flags
Semi-Volatile Compounds	**Method: 8270C**	**Preparation Method 3510C**		
Analysis Date: 05/16/07		Preparation Date: 05/15/07		
Acenaphthene	< 10	10	ug/L	
Acenaphthylene	< 10	10	ug/L	
Anthracene	< 10	10	ug/L	
Benzidine	< 10	10	ug/L	
Benzo(a)anthracene	< 10	10	ug/L	
Benzo(a)pyrene	< 10	10	ug/L	
Benzo(b)fluoranthene	< 10	10	ug/L	
Benzo(k)fluoranthene	< 10	10	ug/L	
Benzo(ghi)perylene	< 10	10	ug/L	
Benzoic acid	< 50	50	ug/L	
Benzyl alcohol	< 20	20	ug/L	
bis(2-Chloroethoxy)methane	< 10	10	ug/L	
bis(2-Chloroethyl)ether	< 10	10	ug/L	
bis(2-Chloroisopropyl)ether	< 10	10	ug/L	
bis(2-Ethylhexyl)phthalate	< 5	5	ug/L	
4-Bromophenyl phenyl ether	< 10	10	ug/L	
Butyl benzyl phthalate	< 10	10	ug/L	
Carbazole	< 10	10	ug/L	
4-Chloroaniline	< 10	10	ug/L	
4-Chloro-3-methylphenol	< 20	20	ug/L	
2-Chloronaphthalene	< 10	10	ug/L	
2-Chlorophenol	< 10	10	ug/L	
4-Chlorophenyl phenyl ether	< 10	10	ug/L	
Chrysene	< 10	10	ug/L	
Di-n-butyl phthalate	< 10	10	ug/L	
Di-n-octylphthalate	< 10	10	ug/L	
Dibenzo(a,h)anthracene	< 10	10	ug/L	
Dibenzofuran	< 10	10	ug/L	
1,2-Dichlorobenzene	< 10	10	ug/L	
1,3-Dichlorobenzene	< 10	10	ug/L	
1,4-Dichlorobenzene	< 10	10	ug/L	
3,3'-Dichlorobenzidine	< 20	20	ug/L	
2,4-Dichlorophenol	< 10	10	ug/L	
Diethyl phthalate	< 10	10	ug/L	
2,4-Dimethylphenol	< 10	10	ug/L	
Dimethyl phthalate	< 10	10	ug/L	

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Analytical Report

Client:	MONTGOMERY WATSON HARZA	**Date Collected:**	05/09/07
Project ID:	Blackwell PO# 4050581.078101	**Time Collected:**	8:45
Sample ID:	BW-LCS-39	**Date Received:**	05/09/07
Sample No:	7-2028-001	**Date Reported:**	05/22/07

Analyte	Result	R.L.	Units	Flags
Semi-Volatile Compounds **Method: 8270C**		**Preparation Method 3510C**		
Analysis Date: 05/16/07		Preparation Date: 05/15/07		
4,6-Dinitro-2-methylphenol	< 50	50	ug/L	
2,4-Dinitrophenol	< 10	10	ug/L	
2,4-Dinitrotoluene	< 10	10	ug/L	
2,6-Dinitrotoluene	< 10	10	ug/L	
Fluoranthene	< 10	10	ug/L	
Fluorene	< 10	10	ug/L	
Hexachlorobenzene	< 10	10	ug/L	
Hexachlorobutadiene	< 10	10	ug/L	
Hexachlorocyclopentadiene	< 10	10	ug/L	
Hexachloroethane	< 5	5	ug/L	
Indeno(1,2,3-cd)pyrene	< 10	10	ug/L	
Isophorone	< 10	10	ug/L	
2-Methylnaphthalene	< 10	10	ug/L	
2-Methylphenol	< 10	10	ug/L	
3 & 4-Methylphenol	< 10	10	ug/L	
Naphthalene	< 10	10	ug/L	
2-Nitroaniline	< 50	50	ug/L	
3-Nitroaniline	< 50	50	ug/L	
4-Nitroaniline	< 20	20	ug/L	
Nitrobenzene	< 10	10	ug/L	
2-Nitrophenol	< 10	10	ug/L	
4-Nitrophenol	< 50	50	ug/L	
n-Nitrosodimethylamine	< 10	10	ug/L	
n-Nitrosodi-n-propylamine	< 10	10	ug/L	
n-Nitrosodiphenylamine	< 10	10	ug/L	
Pentachlorophenol	< 10	10	ug/L	
Phenanthrene	< 10	10	ug/L	
Phenol	< 10	10	ug/L	
Pyrene	< 10	10	ug/L	
1,2,4-Trichlorobenzene	< 10	10	ug/L	
2,4,5-Trichlorophenol	< 10	10	ug/L	
2,4,6-Trichlorophenol	< 10	10	ug/L	

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Analytical Report

Client:	MONTGOMERY WATSON HARZA	**Date Collected:**	05/09/07
Project ID:	Blackwell PO# 4050581.078101	**Time Collected:**	8:45
Sample ID:	BW-LCS-39	**Date Received:**	05/09/07
Sample No:	7-2028-001	**Date Reported:**	05/22/07

Analyte	Result	R.L.	Units	Flags
Pesticides Analysis Date: 05/17/07	**Method: 8081A**	**Preparation Method 3510C** Preparation Date: 05/15/07		
Aldrin	< 0.05	0.05	ug/L	
alpha-BHC	< 0.05	0.05	ug/L	
beta-BHC	< 0.05	0.05	ug/L	
delta-BHC	< 0.05	0.05	ug/L	
gamma-BHC (Lindane)	< 0.05	0.05	ug/L	
alpha-Chlordane	< 0.50	0.50	ug/L	
gamma-Chlordane	< 0.50	0.50	ug/L	
4,4'-DDD	< 0.10	0.10	ug/L	
4,4'-DDE	< 0.10	0.10	ug/L	
4,4'-DDT	< 0.10	0.10	ug/L	
Dieldrin	< 0.10	0.10	ug/L	
Endosulfan I	< 0.05	0.05	ug/L	
Endosulfan II	< 0.10	0.10	ug/L	
Endosulfan sulfate	< 0.10	0.10	ug/L	
Endrin	< 0.10	0.10	ug/L	
Endrin aldehyde	< 0.10	0.10	ug/L	
Endrin ketone	< 0.10	0.10	ug/L	
Heptachlor	< 0.05	0.05	ug/L	
Heptachlor epoxide	< 0.05	0.05	ug/L	
Methoxychlor	< 0.50	0.50	ug/L	
Toxaphene	< 1.0	1.0	ug/L	
Total Metals Analysis Date: 05/14/07	**Method: 6010B**	**Preparation Method 3010A** Preparation Date: 05/11/07		
Arsenic	< 0.002	0.002	mg/L	
Barium	0.093	0.001	mg/L	
Boron	0.26	0.01	mg/L	
Cadmium	< 0.001	0.001	mg/L	
Chromium	< 0.001	0.001	mg/L	
Copper	< 0.001	0.001	mg/L	
Iron	13.1	0.01	mg/L	
Lead	< 0.002	0.002	mg/L	
Manganese	0.343	0.001	mg/L	
Nickel	0.002	0.001	mg/L	
Selenium	< 0.002	0.002	mg/L	
Silver	< 0.001	0.001	mg/L	
Zinc	0.013	0.005	mg/L	

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Analytical Report

Client:	MONTGOMERY WATSON HARZA	**Date Collected:**	05/09/07
Project ID:	Blackwell PO# 4050581.078101	**Time Collected:**	8:45
Sample ID:	BW-LCS-39	**Date Received:**	05/09/07
Sample No:	7-2028-001	**Date Reported:**	05/22/07

Analyte		Result	R.L.	Units	Flags
Total Metals Analysis Date: 05/14/07	**Method: 6010B**		**Preparation Method 3010A** Preparation Date: 05/11/07		
Total Metals Analysis Date: 05/11/07	**Method: 7470A**				
Mercury		< 0.0005	0.0005	mg/L	

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Analytical Report

Client:	MONTGOMERY WATSON HARZA	**Date Collected:**	05/09/07
Project ID:	Blackwell PO# 4050581.078101	**Time Collected:**	8:00
Sample ID:	Trip Blank	**Date Received:**	05/09/07
Sample No:	7-2028-002	**Date Reported:**	05/22/07

Analyte	Result	R.L.	Units	Flags
Volatile Organic Compounds **Method: 5030B/8260B**				
Analysis Date: 05/11/07				
Acetone	< 100	100	ug/L	
Benzene	< 5.0	5.0	ug/L	
Bromodichloromethane	< 1.0	1.0	ug/L	
Bromoform	< 1.0	1.0	ug/L	
Bromomethane	< 5.0	5.0	ug/L	
2-Butanone (MEK)	< 10.0	10.0	ug/L	
Carbon disulfide	< 5.0	5.0	ug/L	
Carbon tetrachloride	< 5.0	5.0	ug/L	
Chlorobenzene	< 5.0	5.0	ug/L	
Chlorodibromomethane	< 1.0	1.0	ug/L	
Chloroethane	< 10.0	10.0	ug/L	
Chloroform	< 1.0	1.0	ug/L	
Chloromethane	< 10.0	10.0	ug/L	
1,1-Dichloroethane	< 5.0	5.0	ug/L	
1,2-Dichloroethane	< 5.0	5.0	ug/L	
1,1-Dichloroethene	< 5.0	5.0	ug/L	
cis-1,2-Dichloroethene	< 5.0	5.0	ug/L	
trans-1,2-Dichloroethene	< 5.0	5.0	ug/L	
1,2-Dichloropropane	< 5.0	5.0	ug/L	
cis-1,3-Dichloropropene	< 1.0	1.0	ug/L	
trans-1,3-Dichloropropene	< 1.0	1.0	ug/L	
Ethylbenzene	< 5.0	5.0	ug/L	
2-Hexanone	< 10.0	10.0	ug/L	
Methyl-tert-butylether (MTBE)	< 5.0	5.0	ug/L	
4-Methyl-2-pentanone (MIBK)	< 10.0	10.0	ug/L	
Methylene chloride	< 5.0	5.0	ug/L	
Styrene	< 5.0	5.0	ug/L	
1,1,2,2-Tetrachloroethane	< 5.0	5.0	ug/L	
Tetrachloroethene	< 5.0	5.0	ug/L	
Toluene	< 5.0	5.0	ug/L	
1,1,1-Trichloroethane	< 5.0	5.0	ug/L	
1,1,2-Trichloroethane	< 5.0	5.0	ug/L	
Trichloroethene	< 5.0	5.0	ug/L	
Vinyl acetate	< 10.0	10.0	ug/L	
Vinyl chloride	< 2.0	2.0	ug/L	
Xylene, Total	< 5.0	5.0	ug/L	

CHAIN OF CUSTODY RECORD

Page 1 of 1 pgs

First Environmental Laboratories, Inc.

First Environmental Laboratories
1600 Shore Road, Suite D
Naperville, Illinois 60563
Phone: (630) 778-1200 • Fax: (630) 778-1233
24 Hr. Pager (708) 569-7507
E-mail: info@firstenv.com
IEPA Certification# 100292

Company Name: MWH
Street Address: 175 W. JACKSON BLVD SUITE 1900
City: CHICAGO State: IL Zip: 60604
Phone: (312) 831-3000 Fax: (312) 831-3021 e-mail: JUSTIN.C.FINGER@mwhglobal.com
Send Report To: JUSTIN FINGER Via: Fax ☐ e-mail ☒
Sampled By: J. FINGER / J. MARCOLINA

Project I.D.: BLACKWELL
P.O. #: 4050581 078101

Matrix Codes: S = Soil W = Water O = Other

Analyses

Date/Time Taken	Sample Description	Matrix	VOCs	Arsenic, Barium, Boron, Cadmium, Chromium (Total), Copper, Cyanide, Iron (Total), Lead, Manganese, Mercury, Nickel, pH, Phenols, Selenium, Zinc	Silver, BOD, COD, Oil and Grease, Ammonia (as N)	Total Suspended Solids (TSS)	Total Dissolved Solids (TDS)	Acid Compounds, Base/Neutrals, Pesticides	Comments	Lab I.D.
5/9/07 0845	BW-LCS-39	W	X	X	X	X	X	X	7-2028-	001
5/9/07 0800	TRIP BLANK	W	X							-002

FOR LAB USE ONLY:

Cooler Temperature: 0.1-6°C Yes ✓ No.__ 4.6 °C
Received within 6 hrs. of collection:_____
Ice Present: Yes ✓ No__

Sample Refrigerated: Yes__ No__
Refrigerator Temperature:_____°C
5035 Vials Frozen: Yes__ No__
Freezer Temperature:_____°C

Containers Received Preserved: ☑ Yes ☐ No

Notes and Special Instructions:

Relinquished By: [signature] Date/Time 5/9/07 1300 Received By: [signature] Date/Time 5/9/07 1300
Relinquished By: Date/Time Received By: Date/Time

First Environmental Laboratories, Inc.

IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

August 21, 2007

Mr. Justin Finger
MONTGOMERY WATSON HARZA
175 West Jackson Boulevard,
Suite 1900
Chicago, IL 60604

Project ID: Blackwell PO# 4050581.088101
First Environmental File ID: 7-3608
Date Received: August 14, 2007

Dear Mr. Justin Finger:

The above referenced project was analyzed as directed on the enclosed chain of custody record.

All analyses were performed in accordance with established methods and within established holding times. All Quality Control criteria as outlined in the methods and current IL ELAP/NELAP have been met unless otherwise noted. QA/QC documentation and raw data will remain on file for future reference. Our accreditation number is 100292 and our current certificate is number 001728: effective 04/13/07 through 02/28/08.

I thank you for the opportunity to be of service to you and look forward to working with you again in the future. Should you have any questions regarding any of the enclosed analytical data or need additional information, please contact me at (630) 778-1200.

Sincerely,

William Mottashed
Project Manager

First Environmental Laboratories, Inc.

IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

Case Narrative

MONTGOMERY WATSON HARZA

Project ID: **Blackwell PO# 4050581.088101**

First Environmental File ID: 7-3608

Date Received: **August 14, 2007**

Flag	Description	Flag	Description
<	Analyte not detected at or above the reporting limit.	L+	LCS recovery outside control limits; high bias.
B	Analyte detected in associated method blank.	L-	LCS recovery outside control limits; low bias.
C	Identification confirmed by GC/MS.	M	MS recovery outside control limits; LCS acceptable.
D	Surrogates diluted out; recovery not available.	M+	MS recovery outside control limits high bias; LCS acceptable.
E	Estimated result; concentration exceeds calibration range.	M-	MS recovery outside control limits low bias; LCS acceptable.
F	Field measurement.	N	Analyte is not part of our NELAC accreditation.
		ND	Analyte was not detected using a library search routine; No calibration standard was analyzed.
G	Surrogate recovery outside control limits; matrix effect.	P	Chemical preservation pH adjusted in lab.
H	Analysis holding time exceeded.	Q	The analyte was determined by a GC/MS database search.
J	Estimated result; concentration is less than calib range.	S	Analyte was sub-contracted to another laboratory for analysis.
K	RPD outside control limits.	T	Sample temperature upon receipt exceeded 0-6°C
RL	Routine Reporting Limit (Lowest amount that can be detected when routine weights/volumes are used without dilution.)	W	Reporting limit elevated due to sample matrix.

All quality control criteria, as outlined in the methods, have been met except as noted below or on the following analytical report.

Sample Batch Comments:

Sample acceptance criteria were met.

First Environmental Laboratories, Inc.

IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

Analytical Report

Client:	MONTGOMERY WATSON HARZA	**Date Collected:**	08/14/07
Project ID:	Blackwell PO# 4050581.088101	**Time Collected:**	9:00
Sample ID:	BW-LCS-40	**Date Received:**	08/14/07
Sample No:	7-3608-001	**Date Reported:**	08/21/07

Analyte		Result	R.L.	Units	Flags
Total Metals	**Method: 7470A**				
Analysis Date: 08/15/07					
Mercury		< 0.0005	0.0005	mg/L	
Total Metals	**Method: 6010B**		**Preparation Method 3010A**		
Analysis Date: 08/20/07			Preparation Date: 08/15/07		
Arsenic		< 0.002	0.002	mg/L	
Barium		0.098	0.001	mg/L	
Cadmium		< 0.001	0.001	mg/L	
Chromium		0.004	0.001	mg/L	
Lead		< 0.002	0.002	mg/L	
Selenium		< 0.002	0.002	mg/L	
Silver		< 0.001	0.001	mg/L	
Boron		1.60	0.01	mg/L	
Copper		< 0.001	0.001	mg/L	
Iron		4.19	0.01	mg/L	
Manganese		0.041	0.001	mg/L	
Nickel		0.019	0.001	mg/L	
Zinc		0.018	0.005	mg/L	
Phenols	**Method: 420.1**				
Analysis Date: 08/16/07					
Phenols		0.05	0.01	mg/L	
Total Suspended Solids	**Method: 2540D**				
Analysis Date: 08/17/07					
Total Suspended Solids		192	1	mg/L	
Total Dissolved Solids	**Method: 2540C**				
Analysis Date: 08/17/07					
Total Dissolved Solids		1,230	10	mg/L	
pH @ 25°C	**Method: 4500H+,B**				
Analysis Date: 08/14/07 16:15					
pH @ 25°C		7.98		Units	

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Analytical Report

Client:	MONTGOMERY WATSON HARZA	**Date Collected:**	08/14/07
Project ID:	Blackwell PO# 4050581.088101	**Time Collected:**	9:00
Sample ID:	BW-LCS-40	**Date Received:**	08/14/07
Sample No:	7-3608-001	**Date Reported:**	08/21/07

Analyte		Result	R.L.	Units	Flags
COD	**Method: 5220D**				
Analysis Date: 08/17/07					
COD		316	10	mg/L	
BOD, 5 Day	**Method: 5210B**				
Analysis Date: 08/15/07 15:00					
BOD, 5 Day		51	1	mg/L	
Oil & Grease	**Method: 1664A**				
Analysis Date: 08/17/07					
Oil & Grease		3	1	mg/L	
Ammonia (as N)	**Method: 350.1R2.0**				
Analysis Date: 08/16/07					
Ammonia (as N)		140	0.10	mg/L	
Cyanide, Total	**Method: 4500CN,C,E**				
Analysis Date: 08/14/07					
Cyanide, Total		< 0.005	0.005	mg/L	

CHAIN OF CUSTODY RECORD

First Environmental Laboratories, Inc.

First Environmental Laboratories
1600 Shore Road, Suite D
Naperville, Illinois 60563
Phone: (630) 778-1200 • Fax: (630) 778-1233
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IEPA Certification# 100292

Company Name: MWH
Street Address: 175 W. JACKSON BLVD SUITE 1900
City: CHICAGO State: IL Zip: 60604
Phone: (312) 831-3000 Fax: (312) 831-3021 e-mail: JUSTIN.B.FINGER@MWHGLOBAL.COM
Send Report To: JUSTIN FINGER Via: Fax ☐ e-mail ☒
Sampled By: JUSTIN FINGER

Project I.D.: BLACKWELL
P.O. #: 4050581.08810)

Matrix Codes: S = Soil W = Water O = Other

Analyses

Date/Time Taken	Sample Description	Matrix	*Arsenic, Barium, Boron	*Cadmium, Chromium (total)	*Copper, *Cyanide, Iron (total), Lead, Manganese	*Mercury, Nickel, pH	*Phenols, Selenium	*Silver, Zinc	BOD, COD	Oil and Grease	Ammonia (as N)	Total Dissolved Solids (TDS)	Total Suspended Solids (TSS)	Comments	Lab I.D.
8/14/07 0900	BW-LCS-40	W	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		SAMPLES NOT FIELD FILTERED	7-31608-001

FOR LAB USE ONLY:

Cooler Temperature: 0.1-6ºC Yes ✓ No.__ 2.6 ºC
Received within 6 hrs. of collection: X
Ice Present: Yes X No__

Sample Refrigerated: Yes__ No__
Refrigerator Temperature:_____ºC
5035 Vials Frozen: Yes__ No__
Freezer Temperature:_____ºC

Containers Received Preserved: ☒ Yes ☐ No

Notes and Special Instructions:

Relinquished By: [signature] Date/Time 8/14/07 0920 Received By: [signature] Date/Time 8/14/07 0920
Relinquished By: Date/Time Received By: Date/Time

Rev. 4/06

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November 27, 2007

Mr. David Powers
MONTGOMERY WATSON HARZA
175 West Jackson Boulevard,
Suite 1900
Chicago, IL 60604

Project ID: Blackwell 4050581.088101
First Environmental File ID: 7-5104
Date Received: November 14, 2007

Dear Mr. David Powers:

The above referenced project was analyzed as directed on the enclosed chain of custody record.

All Quality Control criteria as outlined in the methods and current IL ELAP/NELAP have been met unless otherwise noted. QA/QC documentation and raw data will remain on file for future reference. Our accreditation number is 100292 and our current certificate is number 001767: effective 06/11/07 through 02/28/08.

I thank you for the opportunity to be of service to you and look forward to working with you again in the future. Should you have any questions regarding any of the enclosed analytical data or need additional information, please contact me at (630) 778-1200 or neal@firstenv.com.

Sincerely,

Neal Cleghorn
Project Manager

First Environmental Laboratories, Inc.

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Case Narrative

MONTGOMERY WATSON HARZA

Project ID: **Blackwell 4050581.088101**

First Environmental File ID: **7-5104**

Date Received: **November 14, 2007**

Flag	Description	Flag	Description
<	Analyte not detected at or above the reporting limit.	L+	LCS recovery outside control limits; high bias.
B	Analyte detected in associated method blank.	L-	LCS recovery outside control limits; low bias.
C	Identification confirmed by GC/MS.	M	MS recovery outside control limits; LCS acceptable.
D	Surrogates diluted out; recovery not available.	M+	MS recovery outside control limits high bias; LCS acceptable.
E	Estimated result; concentration exceeds calibration range.	M-	MS recovery outside control limits low bias; LCS acceptable.
F	Field measurement.	N	Analyte is not part of our NELAC accreditation.
		ND	Analyte was not detected using a library search routine; No calibration standard was analyzed.
G	Surrogate recovery outside control limits; matrix effect.	P	Chemical preservation pH adjusted in lab.
H	Analysis or extraction holding time exceeded.	Q	The analyte was determined by a GC/MS database search.
J	Estimated result; concentration is less than calib range.	S	Analyte was sub-contracted to another laboratory for analysis.
K	RPD outside control limits.	T	Sample temperature upon receipt exceeded 0-6°C
RL	Routine Reporting Limit (Lowest amount that can be detected when routine weights/volumes are used without dilution.)	W	Reporting limit elevated due to sample matrix.

All quality control criteria, as outlined in the methods, have been met except as noted below or on the following analytical report.

Sample Batch Comments:

Sample acceptance criteria were met.

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Analytical Report

Client:	MONTGOMERY WATSON HARZA	**Date Collected:**	11/14/07
Project ID:	Blackwell 4050581.088101	**Time Collected:**	8:40
Sample ID:	BW-LCS-41	**Date Received:**	11/14/07
Sample No:	7-5104-001	**Date Reported:**	11/27/07

Analyte	Result	R.L.	Units	Date Analyzed	Method	Flag
Phenols	0.23	0.01	mg/L	11/15/07	420.1	
Total Suspended Solids	133	1	mg/L	11/15/07	2540D	
Total Dissolved Solids	5,510	10	mg/L	11/16/07	2540C	
pH @ 25°C	7.38		Units	11/14/07 16:00	4500H+,B	
COD	1,210	10	mg/L	11/15/07	5220D	
BOD, 5 Day	2,220	1	mg/L	11/15/07 14:30	5210B	
Oil & Grease	3	1	mg/L	11/19/07	1664A	P
Ammonia (as N)	250	0.10	mg/L	11/21/07	350.1R2.0	
Cyanide, Total	0.005	0.005	mg/L	11/16/07	4500CN,C,E	

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Analytical Report

Client:	MONTGOMERY WATSON HARZA	**Date Collected:**	11/14/07
Project ID:	Blackwell 4050581.088101	**Time Collected:**	8:40
Sample ID:	BW-LCS-41	**Date Received:**	11/14/07
Sample No:	7-5104-001	**Date Reported:**	11/27/07

Analyte	Result	R.L.	Units	Flags
Semi-Volatile Compounds **Method: 8270C**		**Preparation Method 3510C**		
Analysis Date: 11/26/07		Preparation Date: 11/20/07		
Acenaphthene	< 10	10	ug/L	
Acenaphthylene	< 10	10	ug/L	
Anthracene	< 10	10	ug/L	
Benzidine	< 10	10	ug/L	
Benzo(a)anthracene	< 10	10	ug/L	
Benzo(a)pyrene	< 10	10	ug/L	
Benzo(b)fluoranthene	< 10	10	ug/L	
Benzo(ghi)perylene	< 10	10	ug/L	
Benzo(k)fluoranthene	< 10	10	ug/L	
Benzoic acid	< 50	50	ug/L	
Benzyl alcohol	< 20	20	ug/L	
bis(2-Chloroethoxy)methane	< 10	10	ug/L	
bis(2-Chloroethyl)ether	< 10	10	ug/L	
bis(2-Chloroisopropyl)ether	< 10	10	ug/L	
bis(2-Ethylhexyl)phthalate	59	5	ug/L	B
4-Bromophenyl phenyl ether	< 10	10	ug/L	
Butyl benzyl phthalate	< 10	10	ug/L	
Carbazole	< 10	10	ug/L	
4-Chloroaniline	< 10	10	ug/L	
4-Chloro-3-methylphenol	< 20	20	ug/L	
2-Chloronaphthalene	< 10	10	ug/L	
2-Chlorophenol	< 10	10	ug/L	
4-Chlorophenyl phenyl ether	< 10	10	ug/L	
Chrysene	< 10	10	ug/L	
Di-n-butyl phthalate	< 10	10	ug/L	
Di-n-octylphthalate	< 10	10	ug/L	
Dibenzo(a,h)anthracene	< 10	10	ug/L	
Dibenzofuran	< 10	10	ug/L	
1,2-Dichlorobenzene	< 10	10	ug/L	
1,3-Dichlorobenzene	< 10	10	ug/L	
1,4-Dichlorobenzene	< 10	10	ug/L	
3,3'-Dichlorobenzidine	< 20	20	ug/L	
2,4-Dichlorophenol	< 10	10	ug/L	
Diethyl phthalate	28	10	ug/L	
2,4-Dimethylphenol	< 10	10	ug/L	
Dimethyl phthalate	< 10	10	ug/L	

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Analytical Report

Client:	MONTGOMERY WATSON HARZA	**Date Collected:**	11/14/07
Project ID:	Blackwell 4050581.088101	**Time Collected:**	8:40
Sample ID:	BW-LCS-41	**Date Received:**	11/14/07
Sample No:	7-5104-001	**Date Reported:**	11/27/07

Analyte	Result	R.L.	Units	Flags
Semi-Volatile Compounds **Method: 8270C**		**Preparation Method 3510C**		
Analysis Date: 11/26/07		Preparation Date: 11/20/07		
4,6-Dinitro-2-methylphenol	< 50	50	ug/L	
2,4-Dinitrophenol	< 10	10	ug/L	
2,4-Dinitrotoluene	< 10	10	ug/L	
2,6-Dinitrotoluene	< 10	10	ug/L	
Fluoranthene	< 10	10	ug/L	
Fluorene	< 10	10	ug/L	
Hexachlorobenzene	< 10	10	ug/L	
Hexachlorobutadiene	< 10	10	ug/L	
Hexachlorocyclopentadiene	< 10	10	ug/L	
Hexachloroethane	< 5	5	ug/L	
Indeno(1,2,3-cd)pyrene	< 10	10	ug/L	
Isophorone	< 10	10	ug/L	
2-Methylnaphthalene	< 10	10	ug/L	
2-Methylphenol	13	10	ug/L	
3 & 4-Methylphenol	1,070	10	ug/L	
Naphthalene	< 10	10	ug/L	
2-Nitroaniline	< 50	50	ug/L	
3-Nitroaniline	< 50	50	ug/L	
4-Nitroaniline	< 20	20	ug/L	
Nitrobenzene	< 10	10	ug/L	
2-Nitrophenol	< 10	10	ug/L	
4-Nitrophenol	< 50	50	ug/L	
n-Nitrosodimethylamine	< 10	10	ug/L	
n-Nitrosodi-n-propylamine	< 10	10	ug/L	
n-Nitrosodiphenylamine	< 10	10	ug/L	
Pentachlorophenol	< 10	10	ug/L	
Phenanthrene	< 10	10	ug/L	
Phenol	172	10	ug/L	
Pyrene	< 10	10	ug/L	
1,2,4-Trichlorobenzene	< 10	10	ug/L	
2,4,5-Trichlorophenol	< 10	10	ug/L	
2,4,6-Trichlorophenol	< 10	10	ug/L	

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Analytical Report

Client:	MONTGOMERY WATSON HARZA	**Date Collected:**	11/14/07
Project ID:	Blackwell 4050581.088101	**Time Collected:**	8:40
Sample ID:	BW-LCS-41	**Date Received:**	11/14/07
Sample No:	7-5104-001	**Date Reported:**	11/27/07

Analyte	Result	R.L.	Units	Flags
Volatile Organic Compounds **Method: 5030B/8260B**				
Analysis Date: 11/19/07				
Acetone	1,180	100	ug/L	
Benzene	< 5.0	5.0	ug/L	
Bromodichloromethane	< 1.0	1.0	ug/L	
Bromoform	< 1.0	1.0	ug/L	
Bromomethane	< 5.0	5.0	ug/L	
2-Butanone (MEK)	2,540	10.0	ug/L	
Carbon disulfide	< 5.0	5.0	ug/L	
Carbon tetrachloride	< 5.0	5.0	ug/L	
Chlorobenzene	< 5.0	5.0	ug/L	
Chlorodibromomethane	< 1.0	1.0	ug/L	
Chloroethane	< 10.0	10.0	ug/L	
Chloroform	< 1.0	1.0	ug/L	
Chloromethane	< 10.0	10.0	ug/L	
1,1-Dichloroethane	< 5.0	5.0	ug/L	
1,2-Dichloroethane	< 5.0	5.0	ug/L	
1,1-Dichloroethene	< 5.0	5.0	ug/L	
cis-1,2-Dichloroethene	< 5.0	5.0	ug/L	
trans-1,2-Dichloroethene	< 5.0	5.0	ug/L	
1,2-Dichloropropane	< 5.0	5.0	ug/L	
cis-1,3-Dichloropropene	< 1.0	1.0	ug/L	
trans-1,3-Dichloropropene	< 1.0	1.0	ug/L	
Ethylbenzene	< 5.0	5.0	ug/L	
2-Hexanone	< 10.0	10.0	ug/L	
Methyl-tert-butylether (MTBE)	< 5.0	5.0	ug/L	
4-Methyl-2-pentanone (MIBK)	89.1	10.0	ug/L	
Methylene chloride	7.0	5.0	ug/L	
Styrene	< 5.0	5.0	ug/L	
1,1,2,2-Tetrachloroethane	< 5.0	5.0	ug/L	
Tetrachloroethene	< 5.0	5.0	ug/L	
Toluene	11.0	5.0	ug/L	
1,1,1-Trichloroethane	< 5.0	5.0	ug/L	
1,1,2-Trichloroethane	< 5.0	5.0	ug/L	
Trichloroethene	< 5.0	5.0	ug/L	
Vinyl acetate	< 10.0	10.0	ug/L	
Vinyl chloride	< 2.0	2.0	ug/L	
Xylene, Total	8.4	5.0	ug/L	

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Analytical Report

Client:	MONTGOMERY WATSON HARZA	**Date Collected:**	11/14/07
Project ID:	Blackwell 4050581.088101	**Time Collected:**	8:40
Sample ID:	BW-LCS-41	**Date Received:**	11/14/07
Sample No:	7-5104-001	**Date Reported:**	11/27/07

Analyte	Result	R.L.	Units	Flags
Pesticides **Method: 8081A**		**Preparation Method 3510C**		
Analysis Date: 11/16/07		Preparation Date: 11/16/07		
Aldrin	< 0.05	0.05	ug/L	
alpha-BHC	< 0.05	0.05	ug/L	
beta-BHC	< 0.05	0.05	ug/L	
delta-BHC	< 0.05	0.05	ug/L	
gamma-BHC (Lindane)	< 0.05	0.05	ug/L	
alpha-Chlordane	< 0.50	0.50	ug/L	
gamma-Chlordane	< 0.50	0.50	ug/L	
4,4'-DDD	< 0.10	0.10	ug/L	
4,4'-DDE	< 0.10	0.10	ug/L	
4,4'-DDT	< 0.10	0.10	ug/L	
Dieldrin	< 0.10	0.10	ug/L	
Endosulfan I	< 0.05	0.05	ug/L	
Endosulfan II	< 0.10	0.10	ug/L	
Endosulfan sulfate	< 0.10	0.10	ug/L	
Endrin	< 0.10	0.10	ug/L	
Endrin aldehyde	< 0.10	0.10	ug/L	
Endrin ketone	< 0.10	0.10	ug/L	
Heptachlor	< 0.05	0.05	ug/L	
Heptachlor epoxide	< 0.05	0.05	ug/L	
Methoxychlor	< 0.50	0.50	ug/L	
Toxaphene	< 1.0	1.0	ug/L	
Total Metals **Method: 7470A**				
Analysis Date: 11/16/07				
Mercury	< 0.0005	0.0005	mg/L	
Total Metals **Method: 6010B**		**Preparation Method 3010A**		
Analysis Date: 11/20/07		Preparation Date: 11/15/07		
Arsenic	0.006	0.002	mg/L	
Barium	0.198	0.001	mg/L	
Cadmium	0.002	0.001	mg/L	
Chromium	0.006	0.001	mg/L	
Lead	< 0.002	0.002	mg/L	
Selenium	< 0.002	0.002	mg/L	
Silver	< 0.001	0.001	mg/L	
Boron	2.54	0.01	mg/L	
Copper	0.012	0.001	mg/L	

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Project ID:	Blackwell 4050581.088101	**Time Collected:**	8:40
Sample ID:	BW-LCS-41	**Date Received:**	11/14/07
Sample No:	7-5104-001	**Date Reported:**	11/27/07

Analyte	Result	R.L.	Units	Flags
Total Metals **Method: 6010B**		**Preparation Method 3010A**		
Analysis Date: 11/20/07		Preparation Date: 11/15/07		
Iron	84.6	0.01	mg/L	
Manganese	1.94	0.001	mg/L	
Nickel	0.040	0.001	mg/L	
Zinc	0.228	0.005	mg/L	

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Analytical Report

Client:	MONTGOMERY WATSON HARZA	**Date Collected:**	11/14/07
Project ID:	Blackwell 4050581.088101	**Time Collected:**	8:00
Sample ID:	BW-Trip Blank	**Date Received:**	11/14/07
Sample No:	7-5104-002	**Date Reported:**	11/27/07

Analyte	Result	R.L.	Units	Flags
Volatile Organic Compounds **Method: 5030B/8260B**				
Analysis Date: 11/19/07				
Acetone	< 100	100	ug/L	
Benzene	< 5.0	5.0	ug/L	
Bromodichloromethane	< 1.0	1.0	ug/L	
Bromoform	< 1.0	1.0	ug/L	
Bromomethane	< 5.0	5.0	ug/L	
2-Butanone (MEK)	< 10.0	10.0	ug/L	
Carbon disulfide	< 5.0	5.0	ug/L	
Carbon tetrachloride	< 5.0	5.0	ug/L	
Chlorobenzene	< 5.0	5.0	ug/L	
Chlorodibromomethane	< 1.0	1.0	ug/L	
Chloroethane	< 10.0	10.0	ug/L	
Chloroform	< 1.0	1.0	ug/L	
Chloromethane	< 10.0	10.0	ug/L	
1,1-Dichloroethane	< 5.0	5.0	ug/L	
1,2-Dichloroethane	< 5.0	5.0	ug/L	
1,1-Dichloroethene	< 5.0	5.0	ug/L	
cis-1,2-Dichloroethene	< 5.0	5.0	ug/L	
trans-1,2-Dichloroethene	< 5.0	5.0	ug/L	
1,2-Dichloropropane	< 5.0	5.0	ug/L	
cis-1,3-Dichloropropene	< 1.0	1.0	ug/L	
trans-1,3-Dichloropropene	< 1.0	1.0	ug/L	
Ethylbenzene	< 5.0	5.0	ug/L	
2-Hexanone	< 10.0	10.0	ug/L	
Methyl-tert-butylether (MTBE)	< 5.0	5.0	ug/L	
4-Methyl-2-pentanone (MIBK)	< 10.0	10.0	ug/L	
Methylene chloride	< 5.0	5.0	ug/L	
Styrene	< 5.0	5.0	ug/L	
1,1,2,2-Tetrachloroethane	< 5.0	5.0	ug/L	
Tetrachloroethene	< 5.0	5.0	ug/L	
Toluene	< 5.0	5.0	ug/L	
1,1,1-Trichloroethane	< 5.0	5.0	ug/L	
1,1,2-Trichloroethane	< 5.0	5.0	ug/L	
Trichloroethene	< 5.0	5.0	ug/L	
Vinyl acetate	< 10.0	10.0	ug/L	
Vinyl chloride	< 2.0	2.0	ug/L	
Xylene, Total	< 5.0	5.0	ug/L	

CHAIN OF CUSTODY RECORD

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Company Name: MWH
Street Address: 175 W. JACKSON BLVD SUITE 1900
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Phone: (312) 831-3000 Fax: (312) 831-3021
Send Report To: JUSTIN FINGER
Sampled By: JUSTIN FINGER / DENISE ARMBRUSTER

Project I.D.: BLACKWELL
P.O. #: 4050581, 088101

Matrix Codes: S = Soil W = Water O = Other

Analyses

Date/Time Taken	Sample Description	Matrix	Arsenic, Barium, Boron, Cadmium, Copper	Chromium (total), Cyanide, Iron (total), Lead, Manganese	Mercury, Nickel, pH, Phenols, Selenium	~~Sulfate~~, BOD, COD, Oil & Grease, Silver, Zinc	Ammonia (as N), Nitrate (as N), Pesticides, Acid compounds, Base/neutrals	Total Dissolved Solids (TDS), Total Suspended Solids (TSS)	VOCs	Comments	Lab I.D.
11/14/07 0840	BW-LCS-41	W	X	X	X	X	X	X	X	7-5104	001
11/14/07 0800	BW-TRIP BLANK	W							X		002

FOR LAB USE ONLY:

Cooler Temperature: 0.1-6°C Yes ✓ No ___ 4.6 °C
Received within 6 hrs of collection: ✓
Ice Present: Yes ✓ No ___

Sample Refrigerated: Yes ___ No ___
Refrigerator Temperature: ___ °C
5035 Vials Frozen: Yes ___ No ___
Freezer Temperature: ___ °C

Containers Received Preserved: ___
Preserved in Lab: ___

Notes and Special Instructions:

Relinquished By: [signature] Date/Time 11/14/07 1205 Received By: [signature] Date/Time 11/14/07 1205
Relinquished By: ___ Date/Time ___ Received By: ___ Date/Time ___

Rev. 10/04

First Environmental Laboratories, Inc.

IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

February 25, 2008

Mr. Justin Finger
MONTGOMERY WATSON HARZA
175 West Jackson Boulevard,
Suite 1900
Chicago, IL 60604

Project ID: Blackwell P.O. # 4050581.088101
First Environmental File ID: 8-0587
Date Received: February 13, 2008

Dear Mr. Justin Finger:

The above referenced project was analyzed as directed on the enclosed chain of custody record.

All Quality Control criteria as outlined in the methods and current IL ELAP/NELAP have been met unless otherwise noted. QA/QC documentation and raw data will remain on file for future reference. Our accreditation number is 100292 and our current certificate is number 001767: effective 06/11/07 through 02/28/08.

I thank you for the opportunity to be of service to you and look forward to working with you again in the future. Should you have any questions regarding any of the enclosed analytical data or need additional information, please contact me at (630) 778-1200.

Sincerely,

William Mottashed
Project Manager

First Environmental Laboratories, Inc.

IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

Case Narrative

MONTGOMERY WATSON HARZA

Project ID: **Blackwell P.O. # 4050581.088101**

First Environmental File ID: **8-0587**

Date Received: **February 13, 2008**

Flag	Description	Flag	Description
<	Analyte not detected at or above the reporting limit.	L+	LCS recovery outside control limits; high bias.
B	Analyte detected in associated method blank.	L-	LCS recovery outside control limits; low bias.
C	Identification confirmed by GC/MS.	M	MS recovery outside control limits; LCS acceptable.
D	Surrogates diluted out; recovery not available.	M+	MS recovery outside control limits high bias; LCS acceptable.
E	Estimated result; concentration exceeds calibration range.	M-	MS recovery outside control limits low bias; LCS acceptable.
F	Field measurement.	N	Analyte is not part of our NELAC accreditation.
		ND	Analyte was not detected using a library search routine; No calibration standard was analyzed.
G	Surrogate recovery outside control limits; matrix effect.	P	Chemical preservation pH adjusted in lab.
H	Analysis or extraction holding time exceeded.	Q	The analyte was determined by a GC/MS database search.
J	Estimated result; concentration is less than calib range.	S	Analyte was sub-contracted to another laboratory for analysis.
K	RPD outside control limits.	T	Sample temperature upon receipt exceeded 0-6°C
RL	Routine Reporting Limit (Lowest amount that can be detected when routine weights/volumes are used without dilution.)	W	Reporting limit elevated due to sample matrix.

All quality control criteria, as outlined in the methods, have been met except as noted below or on the following analytical report.

Sample Batch Comments:

Sample acceptance criteria were met.

First Environmental Laboratories, Inc.

IL ELAP / NELAC Accreditation # 100292

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Analytical Report

Client:	MONTGOMERY WATSON HARZA	**Date Collected:**	02/13/08
Project ID:	Blackwell P.O. # 4050581.088101	**Time Collected:**	8:45
Sample ID:	BW-LCS-42	**Date Received:**	02/13/08
Sample No:	8-0587-001	**Date Reported:**	02/25/08

Analyte	Result	R.L.	Units	Date Analyzed	Method	Flag
Phenols	0.28	0.01	mg/L	02/18/08	420.1	
Total Suspended Solids	45	1	mg/L	02/15/08	2540D	
Total Dissolved Solids	5,220	10	mg/L	02/15/08	2540C	
pH @ 25°C	7.61		Units	02/13/08 15:30	4500H+,B	
COD	1,020	10	mg/L	02/15/08	5220D	
BOD, 5 Day	352	1	mg/L	02/13/08 14:00	5210B	
Oil & Grease	4	1	mg/L	02/15/08	1664A	
Ammonia (as N)	360	0.10	mg/L	02/14/08	350.1R2.0	
Cyanide, Total	< 0.005	0.005	mg/L	02/15/08	4500CN,C,E	

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Analytical Report

Client:	MONTGOMERY WATSON HARZA	**Date Collected:**	02/13/08
Project ID:	Blackwell P.O. # 4050581.088101	**Time Collected:**	8:45
Sample ID:	BW-LCS-42	**Date Received:**	02/13/08
Sample No:	8-0587-001	**Date Reported:**	02/25/08

Analyte		Result	R.L.	Units	Flags
Total Metals	**Method: 7470A**				
Analysis Date: 02/14/08					
Mercury		< 0.0005	0.0005	mg/L	
Total Metals	**Method: 6010B**		**Preparation Method 3010A**		
Analysis Date: 02/21/08			Preparation Date: 02/13/08		
Arsenic		0.012	0.002	mg/L	
Barium		0.171	0.001	mg/L	
Cadmium		< 0.001	0.001	mg/L	
Chromium		0.013	0.001	mg/L	
Lead		0.004	0.002	mg/L	
Selenium		< 0.002	0.002	mg/L	
Silver		< 0.001	0.001	mg/L	
Boron		2.55	0.01	mg/L	
Copper		0.003	0.001	mg/L	
Iron		17.8	0.01	mg/L	
Manganese		0.250	0.001	mg/L	
Nickel		0.063	0.001	mg/L	
Zinc		0.111	0.005	mg/L	

CHAIN OF CUSTODY RECORD

First Environmental Laboratories, Inc.

First Environmental Laboratories
1600 Shore Road, Suite D
Naperville, Illinois 60563
Phone: (630) 778-1200 • Fax: (630) 778-1233
24 Hr. Pager (708) 569-7507
E-mail: info@firstenv.com
IEPA Certification# 100292

Company Name: MWH
Street Address: 175 W. JACKSON BLVD SUITE 1900
City: CHICAGO State: IL Zip: 60604
Phone: (312) 831-3000 Fax: (312) 831-3021
Send Report To: JUSTIN FINGER
Sampled By: JUSTIN FINGER

Project I.D.: BLACKWELL
P.O. #: 4050581.088101

Matrix Codes: S = Soil W = Water O = Other

Analyses

Date/Time Taken	Sample Description	Matrix	ARSENIC, BARIUM, BORON, CADMIUM	CHROMIUM (TOTAL), COPPER, CYANIDE, IRON (TOTAL)	LEAD, MANGANESE, MERCURY, NICKEL, pH	PHENOLS, SELENIUM, SILVER, ZINC, BOD, COD	OIL AND GREASE, AMMONIA (AS N)	TOTAL DISSOLVED SOLIDS (TDS)	TOTAL SUSPENDED SOLIDS (TSS)		Comments	Lab I.D.
2/13/08 0845	BW-LCS-42	W	✓	✓	✓	✓	✓	✓	✓		SAMPLES ARE NOT FIELD FILTERED	8-0597-001

FOR LAB USE ONLY:

Cooler Temperature: 0.1-6°C Yes ✓ No.__ _____°C
Received within 6 hrs of collection: _____
Ice Present: Yes ✓ No__

Sample Refrigerated: Yes__ No__
Refrigerator Temperature: _____°C
5035 Vials Frozen: Yes__ No__
Freezer Temperature: _____°C

Containers Received Preserved: ✓
Preserved in Lab: ___

Notes and Special Instructions: _____

Relinquished By: [signature] Date/Time 2/13/08 0920 Received By: [signature] Date/Time 2/13/08 920
Relinquished By: _____ Date/Time _____ Received By: _____ Date/Time _____

APPENDIX C

LANDFILL GAS

Table C-1: Landfill Gas Composition
Table C-2: Landfill Gas Temperature
Table C-3: Static Landfill Gas Pressure
Table C-4: Landfill Gas Velocity
Table C-5: Landfill Gas Flow Rate
Table C-6: TNMOC Emission Rate

APPENDIX C

Table C-1: Landfill Gas Composition

Table C-1
Landfill Gas Composition
Blackwell Landfill NPL Site

Vent Number	May-07			July-07			September-07			November-07			January-08			March-08		
	% CH_4	%CO_2	%O_2	% CH_4	%CO_2	%O_2	% CH_4	%CO_2	%O_2	% CH_4	%CO_2	%O_2	% CH_4	%CO_2	%O_2	% CH4	%CO2	%O2
SV-1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SV-2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SV-3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SV-4	0.3	0.0	20.4	4.2	2.5	19.7	0.0	0.0	19.7	11.0	6.1	16.9	NM	NM	NM	NM	NM	NM
SV-5	9.0	3.2	18.5	5.4	4.2	18.8	0.0	0.0	16.4	0.0	0.1	19.6	0.0	0.1	21.4	NM	NM	NM
SV-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SV-7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SV-8	10.1	3.7	18.7	16.0	7.9	16.6	8.4	0.0	18.1	7.4	4.1	17.8	9.9	6.5	17.5	NM	NM	NM
SV-9	71.5	55.6	0.0	69.8	52.4	0.9	0.2	0.0	9.7	85.5	48.2	0.6	64.2	33.5	0.7	NM	NM	NM
SV-10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SV-11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SV-12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DV-3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DV-4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DV-5	3.5	1.1	20.0	66.0	42.8	3.8	37.9	0.0	13.6	24.5	12.8	13.3	0.6	0.9	18.6	NM	NM	NM
DV-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DV-7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DV-8	0.5	0.1	20.8	2.7	2.1	20.1	0.1	0.0	14.1	11.6	6.7	16.7	0.0	0.2	20.0	NM	NM	NM
DV-9	3.6	1.2	19.8	4.8	3.5	19.0	0.1	0.0	16.7	3.3	2.8	18.8	NM	NM	NM	NM	NM	NM
DV-10	0.3	0.0	20.7	0.0	0.0	21.1	0.0	0.0	21.3	0.0	0.1	19.3	1.2	1.2	20.7	NM	NM	NM
DV-11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DV-13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DV-14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DV-15	58.6	33.6	6.2	29.0	13.0	14.2	0.0	0.0	5.6	16.6	7.7	15.9	27.9	17.3	11.1	NM	NM	NM
DV-16	72.0	54.2	0.0	71.1	54.3	0.1	8.4	0.0	2.1	85.0	45.6	0.3	61.1	30.8	2.8	65.9	33.7	4.5
DV-17	2.2	0.7	20.3	68.5	52.9	1.6	24.6	0.0	18.1	39.5	26.5	9.6	0.6	0.6	19.8	NM	NM	NM
DV-18	71.2	56.4	0.0	62.2	40.3	4.7	67.2	0.0	0.0	83.7	47.5	0.1	66.3	34.6	0.2	NM	NM	NM
EW-1	69.9	52.8	0.0	50.8	33.2	5.6	0.0	0.0	2.1	77.2	48.4	0.0	56.3	33.8	0.5	55.7	29.0	2.3
EW-1A	0.2	0.0	20.4	0.0	0.0	20.8	0.1	0.0	21.3	26.2	13.2	9.6	0.3	0.5	20.6	0.0	0.1	20.6
EW-2	71.5	52.2	0.0	72.5	48.9	0.0	37.8	0.0	1.1	83.3	42.1	0.1	64.3	28.9	0.5	61.5	31.1	3.3
EW-3	71.8	53.5	0.0	72.0	56.5	0.0	29.9	0.0	1.2	81.0	45.3	0.0	64.0	31.9	0.7	18.5	5.6	16.1
EW-4	72.7	49.0	0.0	74.9	50.0	0.0	0.0	0.0	0.2	91.5	40.7	0.3	71.6	29.1	0.2	66.9	29.8	1.0
EW-5	76.6	40.4	0.0	78.6	40.2	0.0	17.1	0.4	0.0	53.2	13.3	7.1	0.0	0.3	20.2	46.4	15.5	9.1
EW-6	72.0	56.0	0.0	72.4	54.5	0.0	67.4	0.0	0.0	88.5	47.0	0.0	68.1	32.8	0.5	65.0	33.4	1.1
EW-7	71.7	56.6	0.0	72.0	56.2	0.0	0.0	0.0	0.0	87.3	46.7	0.0	67.5	33.2	0.0	64.8	34.0	1.1
EW-8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vent Stack	61.6	22.2	1.4	70.3	48.8	0.2	49.6	0.0	0.0	77.0	41.5	0.6	53.4	28.5	3.1	63.3	31.2	0.2
LS01	1.8	10.4	15.7	3.7	15.6	16.5	0.0	0.0	18.6	0.1	3.5	17.9	0.0	3.7	18.7	0.8	4.2	19.2

NOTES:

%O_2	Percent oxygen
%CH_4	Percent methane
%CO_2	Percent carbon dioxide
SV	Shallow vent
DV	Deep vent
EW	Extraction well
LS	Lift station
NA	Not analyzed as part of O&M
NM	Not measured for specific date

1. All measurements taken with a Landtec GA-90 gas analyzer.
2. Measurements not taken at SV-4 and DV-9 on 1-9-08 due to flooded vaults.
3. Several measurements not taken on 3-10-08 due to frozen vaults.

JEF/ara
J:\405\0581 Blackwell\10th Year Report\Appendices\Appendix C\Table C-1.xls\Table C-1

APPENDIX C

Table C-2: Landfill Gas Temperature

Table C-2
Landfill Gas Temperature
Blackwell Landfill NPL Site

Vent Number	May-07	July-07	September-07	November-07	January-08	March-08
SV-1	NA	NA	NA	NA	NA	NA
SV-2	NA	NA	NA	NA	NA	NA
SV-3	NA	NA	NA	NA	NA	NA
SV-4	86.7	74.8	66.9	52.3	NM	NM
SV-5	79.3	69.6	54.8	58.9	45.5	NM
SV-6	NA	NA	NA	NA	NA	NA
SV-7	NA	NA	NA	NA	NA	NA
SV-8	87.3	90.2	82.4	59.7	33.9	NM
SV-9	85.9	102.4	81.6	58.1	34.4	NM
SV-10	NA	NA	NA	NA	NA	NA
SV-11	NA	NA	NA	NA	NA	NA
SV-12	NA	NA	NA	NA	NA	NA
DV-3	NA	NA	NA	NA	NA	NA
DV-4	NA	NA	NA	NA	NA	NA
DV-5	88.0	83.6	81.3	57.8	34.2	NM
DV-6	NA	NA	NA	NA	NA	NA
DV-7	NA	NA	NA	NA	NA	NA
DV-8	78.2	68.6	55.3	57.8	47.8	NM
DV-9	77.9	70.4	55.9	57.6	NM	NM
DV-10	79.4	78.4	60.4	51.8	43.0	NM
DV-11	NA	NA	NA	NA	NA	NA
DV-13	NA	NA	NA	NA	NA	NA
DV-14	NA	NA	NA	NA	NA	NA
DV-15	89.3	81.5	72.7	64.4	37.2	NM
DV-16	75.9	86.6	77.0	58.7	41.2	34.2
DV-17	88.4	87.4	82.7	60.3	35.6	NM
DV-18	86.3	84.4	73.2	59.4	51.9	NM

Table C-2
Landfill Gas Temperature
Blackwell Landfill NPL Site

Vent Number	May-07	July-07	September-07	November-07	January-08	March-08
EW-1	81.4	73.6	59.0	57.6	49.5	42.6
EW-1A	71.1	78.2	59.6	54.3	44.9	35.7
EW-2	78.8	72.7	62.8	54.5	46.4	34.9
EW-3	89.5	82.7	76.6	56.8	45.4	34.3
EW-4	77.1	73.3	65.9	58.9	41.8	40.8
EW-5	85.8	81.0	64.2	58.2	36.6	34.7
EW-6	71.5	68.7	71.2	60.8	51.3	47.9
EW-7	70.3	68.6	66.0	59.7	52.3	49.0
EW-8	NA	NA	NA	NA	NA	NA
Vent Stack	78.1	73.2	65.7	57.8	38.6	36.0
LS01	86.7	79.5	70.7	62.9	37.4	32.2

Notes:
SV = Shallow vent
DV = Deep vent
EW = Extraction well
LS = Lift station
NA = Not analyzed as part of O&M
NM = Not measured for specific date
1. Temperature in units of degrees Fahrenheit.
2. All measurements taken with a TSI VELOCICALC Model 8350 velocity/temperature meter.
3. Temperature measurements not taken at SV-4 and DV-9 on 1-9-08 due to flooded vaults.
4. Several temperature measurements not taken on 3-10-08 due to frozen vaults.

APPENDIX C

Table C-3: Static Landfill Gas Pressure

Table C-3
Static Landfill Gas Pressure
Blackwell Landfill NPL Site

Vent Number	May-07	July-07	Sept-07	Nov-07	Jan-08	Mar-08
SV-1	NA	NA	NA	NA	NA	NA
SV-2	NA	NA	NA	NA	NA	NA
SV-3	NA	NA	NA	NA	NA	NA
SV-4	0.02	0.01	0.02	0.04	NM	NM
SV-5	0.005	0.01	0.00	0.00	0.00	NM
SV-6	NA	NA	NA	NA	NA	NA
SV-7	NA	NA	NA	NA	NA	NA
SV-8	0.01	0.05	0.00	0.01	0.00	NM
SV-9	1.60	0.90	0.40	2.00	0.64	NM
SV-10	NA	NA	NA	NA	NA	NA
SV-11	NA	NA	NA	NA	NA	NA
SV-12	NA	NA	NA	NA	NA	NA
DV-3	NA	NA	NA	NA	NA	NA
DV-4	NA	NA	NA	NA	NA	NA
DV-5	0.01	0.43	0.10	0.00	0.00	NM
DV-6	NA	NA	NA	NA	NA	NA
DV-7	NA	NA	NA	NA	NA	NA
DV-8	0.00	0.01	0.00	0.01	0.00	NM
DV-9	0.01	0.01	0.00	0.03	NM	NM
DV-10	0.00	0.00	0.00	0.00	0.00	NM
DV-11	NA	NA	NA	NA	NA	NA
DV-13	NA	NA	NA	NA	NA	NA
DV-14	NA	NA	NA	NA	NA	NA
DV-15	0.14	0.25	0.16	0.05	0.04	NM
DV-16	5.20	3.50	2.00	3.20	0.42	1.40
DV-17	0.00	0.58	0.90	0.34	0.09	NM
DV-18	1.60	0.90	1.30	1.50	2.80	NM

Table C-3
Static Landfill Gas Pressure
Blackwell Landfill NPL Site

Vent Number	May-07	July-07	Sept-07	Nov-07	Jan-08	Mar-08
SV-1	NA	NA	NA	NA	NA	NA
EW-1	0.04	0.005	0.00	0.24	0.08	0.04
EW-1A	0.00	0.00	0.00	0.04	0.00	0.00
EW-2	0.13	0.80	0.01	0.03	0.16	0.05
EW-3	0.15	0.01	0.04	0.10	0.06	0.00
EW-4	0.24	0.10	0.08	0.01	0.06	0.06
EW-5	0.09	0.04	0.01	0.00	0.00	0.01
EW-6	0.94	0.86	0.60	0.92	0.60	0.62
EW-7	2.20	1.70	1.20	2.70	1.00	1.70
EW-8	NA	NA	NA	NA	NA	NA
Vent Stack	NA	NA	NA	NA	NA	NA
LS01	0.005	0.030	0.040	0.02	0.00	0.00
Barometric (in. Hg)	29.95	29.91	30.12	29.75	30.04	30.31

Notes:
SV = Shallow vent
DV = Deep vent
EW = Extraction well
LS = Lift station
NA = Not analyzed as part of O&M
NM = Not measured for specific date
in. = inches
Hg = Mercury
1. Pressure in units of inches of water.
2. All measurements taken with an Alnor 6000AP velometer.
3. Pressure measurements were not conducted at the main vent stack as it is open to the atmosphere.
4. Pressure measurements not collected at SV-4 and DV-9 on 1-9-08 due to flooded vaults.
5. Several pressure measurements not collected on 3-10-08 due to frozen vaults.

APPENDIX C

Table C-4: Landfill Gas Velocity

Table C-4
Landfill Gas Velocity
Blackwell Landfill NPL Site

Vent Number	May-07	July-07	September-07	November-07	January-08	March-08
SV-1	NA	NA	NA	NA	NA	NA
SV-2	NA	NA	NA	NA	NA	NA
SV-3	NA	NA	NA	NA	NA	NA
SV-4	1	0	5	5	NM	NM
SV-5	1	4	2	0	3	NM
SV-6	NA	NA	NA	NA	NA	NA
SV-7	NA	NA	NA	NA	NA	NA
SV-8	1	3	17	0	4	NM
SV-9	37	37	33	22	16	NM
SV-10	NA	NA	NA	NA	NA	NA
SV-11	NA	NA	NA	NA	NA	NA
SV-12	NA	NA	NA	NA	NA	NA
DV-3	NA	NA	NA	NA	NA	NA
DV-4	NA	NA	NA	NA	NA	NA
DV-5	4	102	30	5	5	NM
DV-6	NA	NA	NA	NA	NA	NA
DV-7	NA	NA	NA	NA	NA	NA
DV-8	0	0	3	1	3	NM
DV-9	0	2	4	1	NM	NM
DV-10	3	0	2	0	3	NM
DV-11	NA	NA	NA	NA	NA	NA
DV-13	NA	NA	NA	NA	NA	NA
DV-14	NA	NA	NA	NA	NA	NA
DV-15	50	110	163	29	48	NM
DV-16	148	100	95	90	145	55
DV-17	1	23	16	25	2	NM
DV-18	53	36	38	37	140	NM

Table C-4
Landfill Gas Velocity
Blackwell Landfill NPL Site

Vent Number	May-07	July-07	September-07	November-07	January-08	March-08
EW-1	NA	NA	NA	NA	NA	NA
EW-1A	NA	NA	NA	NA	NA	NA
EW-2	NA	NA	NA	NA	NA	NA
EW-3	NA	NA	NA	NA	NA	NA
EW-4	NA	NA	NA	NA	NA	NA
EW-5	NA	NA	NA	NA	NA	NA
EW-6	NA	NA	NA	NA	NA	NA
EW-7	NA	NA	NA	NA	NA	NA
EW-8	NA	NA	NA	NA	NA	NA
Vent Stack	355	230	370	330	330	242
LS01	NA	NA	NA	NA	NA	NA

Notes:
SV = Shallow vent
DV = Deep vent
EW = Extraction well
LS = Lift station
NM = Not measured for specific date
NA = Not analyzed as part of O&M
1. Velocity in units of standard feet per minute (fpm).
2. All measurements taken with a TSI VELOCICALC Model 8350 velocity/temperature meter.
3. Velocity measurements not collected at SV-4 and DV-9 on 1-9-08 due to flooded vaults.
4. Several velocity measurements not collected on 3-10-08 due to frozen vaults.

APPENDIX C

Table C-5: Landfill Gas Flow Rate

Table C-5
Landfill Gas Flow Rate
Blackwell Landfill NPL Site

Vent Number	May-07	July-07	September-07	November-07	January-08	March-08
SV-1	NA	NA	NA	NA	NA	NA
SV-2	NA	NA	NA	NA	NA	NA
SV-3	NA	NA	NA	NA	NA	NA
SV-4	0.023	0.000	0.116	0.116	NM	NM
SV-5	0.023	0.093	0.047	0.000	0.070	NM
SV-6	NA	NA	NA	NA	NA	NA
SV-7	NA	NA	NA	NA	NA	NA
SV-8	0.023	0.070	0.396	0.000	0.093	NM
SV-9	0.862	0.862	0.769	0.512	0.373	NM
SV-10	NA	NA	NA	NA	NA	NA
SV-11	NA	NA	NA	NA	NA	NA
SV-12	NA	NA	NA	NA	NA	NA
DV-3	NA	NA	NA	NA	NA	NA
DV-4	NA	NA	NA	NA	NA	NA
DV-5	0.093	2.376	0.699	0.116	0.116	NM
DV-6	NA	NA	NA	NA	NA	NA
DV-7	NA	NA	NA	NA	NA	NA
DV-8	0.000	0.000	0.265	0.088	0.265	NM
DV-9	0.000	0.177	0.353	0.088	NM	NM
DV-10	0.265	0.000	0.177	0.000	0.265	NM
DV-11	NA	NA	NA	NA	NA	NA
DV-13	NA	NA	NA	NA	NA	NA
DV-14	NA	NA	NA	NA	NA	NA
DV-15	4.418	9.720	14.403	2.562	4.241	NM
DV-16	13.077	8.836	8.394	7.952	12.812	4.860
DV-17	0.088	2.032	1.414	2.209	0.177	NM
DV-18	4.683	3.181	3.358	3.269	12.370	NM

Table C-5
Landfill Gas Flow Rate
Blackwell Landfill NPL Site

Vent Number	May-07	July-07	September-07	November-07	January-08	March-08
EW-1	NA	NA	NA	NA	NA	NA
EW-1A	NA	NA	NA	NA	NA	NA
EW-2	NA	NA	NA	NA	NA	NA
EW-3	NA	NA	NA	NA	NA	NA
EW-4	NA	NA	NA	NA	NA	NA
EW-5	NA	NA	NA	NA	NA	NA
EW-6	NA	NA	NA	NA	NA	NA
EW-7	NA	NA	NA	NA	NA	NA
EW-8	NA	NA	NA	NA	NA	NA
Vent Stack Flowrate	71.07	46.04	74.07	66.060	66.060	48.450

Notes:
SV = Shallow vent
DV = Deep vent
EW = Extraction well
LS = Lift station
NA =Not analyzed as part of O&M
NM = Not measured for specific date
1. Flowrate in units of cubic feet per minute (CFM).
2. All measurements taken with a TSI VELOCICALC Model 8384 velocity/temperature meter.
3. Velocity measurements not collected at SV-4 and DV-9 on 1-9-08 due to flooded vaults.
4. Several velocity measurements not collected on 3-10-08 due to frozen vaults.

APPENDIX C

Table C-6: TNMOC Emission Rate

Table C-6
TNMOC Emission Rate
Blackwell Landfill NPL Site

Date	I.D. (ft)	Vent Readings			Peak TNMOC Concentration (ppm-carbon)	Peak TNMOC Concentration (ppm-hexane)	TNMOC Emission Rate	
		Velocity (fpm)	Flowrate (ft^3/min)	Flowrate (m^3/min)			(Mg/yr)	(lb/hr)
May-07	0.505	355	71.07	2.01	2,100	350.00	1.42	0.3572
Jul-07	0.505	230	46.04	1.30	2,100	350.00	0.92	0.2314
Sep-07	0.505	370	74.07	2.10	2,100	350.00	1.48	0.3723
Nov-07	0.505	330	66.06	1.87	2,100	350.00	1.32	0.3320
Jan-08	0.505	330	66.06	1.87	2,100	350.00	1.32	0.3320
Mar-08	0.505	242	48.45	1.37	2,100	350.00	0.97	0.2435

Notes:

I.D. = Inside diameter
ft = Feet
fpm = Feet per minute
ft^3/min = Cubic feet per minute
m3/min = Cubic meters per minute
ppm = Parts per million
TNMOC = Total non-methane organic compounds
Mg/yr = Milligrams per year
lb/hr = pound per hour

1. Flowrate in units of cubic feet per minute (CFM).
2. Measurements collected with a Landtec GA90 and TSI VELOCICALC Model 8384 velocity/temperature meter.

JEF/ara
J:\405\0581Blackwell\10th Year Report\Appendices\Appendix C\Table C-6.xls\Table C-6

APPENDIX D

LANDFILL GAS ANALYTICAL DATA

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Thank you for choosing Air Toxics Ltd. To better serve our customers, we are providing your report by e-mail. This document is provided in Portable Document Format which can be viewed with Acrobat Reader by Adobe.

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- Work order Summary;
- Laboratory Narrative;
- Results; and
- Chain of Custody (copy).

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AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0705634B

Work Order Summary

CLIENT:	Mr. Dave Powers MWH Americas, Inc. 175 West Jackson Blvd. Suite 1900 Chicago, IL 60604	**BILL TO:**	Mr. Dave Powers MWH Americas, Inc. 175 West Jackson Blvd. Suite 1900 Chicago, IL 60604
PHONE:	312-831-3000 x3432	**P.O. #**	
FAX:	312-831-3021	**PROJECT #**	4050581.078101 Blackwell
DATE RECEIVED:	05/31/2007	**CONTACT:**	Brandon Dunmore
DATE COMPLETED:	06/13/2007		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.
01A	BW-LFG-STACK-42A	Modified ASTM D-1945	5.0 "Hg
02A	Lab Blank	Modified ASTM D-1945	NA
02B	Lab Blank	Modified ASTM D-1945	NA
03A	LCS	Modified ASTM D-1945	NA
03B	LCS	Modified ASTM D-1945	NA
04A	LCSD	Modified ASTM D-1945	NA
04B	LCSD	Modified ASTM D-1945	NA

CERTIFIED Y: Linda J. Freeman DATE: 06/13/07

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/06, Expiration date: 06/30/07
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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LABORATORY NARRATIVE
Modified ASTM D-1945
MWH Americas, Inc.
Workorder# 0705634B

The laboratory performed analysis via modified ASTM Method D-1945 for Methane and fixed gases in natural gas using GC/FID or GC/TCD. The method involves direct injection of 1.0 mL of sample. See the data sheets for the reporting limits for each compound.

On the analytical column employed for this analysis, Oxygen coelutes with Argon. The corresponding peak is quantitated as Oxygen.

Since Nitrogen is used to pressurize samples, the reported Nitrogen values are calculated by adding all the sample components and subtracting from 100%.

Method modifications taken to run these samples include:

Requirement	*ASTM D-1945*	*ATL Modifications*
Normalization	Sum of original values should not differ from 100.0% by more than 1.0%.	Sum of original values may range between 75-125%. Normalization of data not performed.
Sample analysis	Equilibrate samples to 20-50° F. above source temperature at field sampling	No heating of samples is performed.
Sample calculation	Response factor is calculated using peak height for C5 and lighter compounds.	Peak areas are used for all target analytes to quantitate concentrations.
Reference Standard	Concentration should not be < half of nor differ by more than 2 X the concentration of the sample. Run 2 consecutive checks; must agree within 1%.	A minimum 3-point linear calibration is performed. The acceptance criterion is %RSD <= 25%. All target analytes must be within the linear range of calibration (with the exception of O2, N2, and C6+ Hydrocarbons).
Sample Injection Volume	0.50 mL to achieve Methane linearity.	1.0 mL.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

As per project specific client request the laboratory has reported estimated values for target compound hits that are below the Reporting Limit but greater than the Method Detection Limit. Concentrations that are below the level at which the canister was certified may be false positives.

Definition of Data Qualifying Flags

Six qualifiers may have been used on the data analysis sheets and indicate as follows:

J - Estimated value.
E - Exceeds instrument calibration range.
S - Saturated peak.
Q - Exceeds quality control limits.
U - Compound analyzed for but not detected above the detection limit.
M - Reported value may be biased due to apparent matrix interferences.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

Client Sample ID: BW-LFG-STACK-42A

Lab ID#: 0705634B-01A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.16	1.0
Nitrogen	0.16	11
Methane	0.00016	57
Carbon Dioxide	0.016	31
Ethane	0.0016	0.0024
Ethene	0.0016	0.0016 J
Propane	0.0016	0.00092 J
Isobutane	0.0016	0.00038 J
Pentane	0.0016	0.000096 J

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Client Sample ID: BW-LFG-STACK-42A

Lab ID#: 0705634B-01A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	9060114	Date of Collection:	5/30/07
Dil. Factor:	1.51	Date of Analysis:	6/1/07 11:30 AM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.16	1.0
Nitrogen	0.16	11
Carbon Monoxide	0.016	Not Detected
Methane	0.00016	57
Carbon Dioxide	0.016	31
Ethane	0.0016	0.0024
Ethene	0.0016	0.0016 J
Acetylene	0.0016	Not Detected
Propane	0.0016	0.00092 J
Isobutane	0.0016	0.00038 J
Butane	0.0016	Not Detected
Neopentane	0.0016	Not Detected
Isopentane	0.0016	Not Detected
Pentane	0.0016	0.000096 J
C6+	0.016	Not Detected
Hydrogen	0.016	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Canister

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Client Sample ID: Lab Blank

Lab ID#: 0705634B-02A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	9060106a	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	6/1/07 08:15 AM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.10	Not Detected
Nitrogen	0.10	0.020 J
Carbon Monoxide	0.010	Not Detected
Methane	0.00010	Not Detected
Carbon Dioxide	0.010	Not Detected
Ethane	0.0010	Not Detected
Ethene	0.0010	Not Detected
Acetylene	0.0010	Not Detected
Propane	0.0010	Not Detected
Isobutane	0.0010	Not Detected
Butane	0.0010	Not Detected
Neopentane	0.0010	Not Detected
Isopentane	0.0010	Not Detected
Pentane	0.0010	Not Detected
C6+	0.010	Not Detected

J = Estimated value.

Container Type: NA - Not Applicable

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0705634B-02B

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	9060105b	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	6/1/97 08:26 AM

Compound	Rpt. Limit (%)	Amount (%)
Hydrogen	0.010	Not Detected

Container Type: NA - Not Applicable

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0705634B-03A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	9080103	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/1/07 06:41 AM

Compound	%Recovery
Oxygen	99
Nitrogen	99
Carbon Monoxide	99
Methane	100
Carbon Dioxide	100
Ethane	99
Ethene	100
Acetylene	105
Propane	99
Isobutane	101
Butane	101
Neopentane	100
Isopentane	100
Pentane	100
C6+	101

Container Type: NA - Not Applicable

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0705634B-03B

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	90801046	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	6/1/07 05:04 AM

Compound	%Recovery
Hydrogen	101

Container Type: NA - Not Applicable

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCSD

Lab ID#: 0705634B-04A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	9060133	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	04/07/06 13 PM

Compound	%Recovery
Oxygen	99
Nitrogen	100
Carbon Monoxide	95
Methane	99
Carbon Dioxide	100
Ethane	98
Ethene	99
Acetylene	105
Propane	98
Isobutane	100
Butane	100
Neopentane	99
Isopentane	99
Pentane	99
C6+	102

Container Type: NA - Not Applicable

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Client Sample ID: LCSD

Lab ID#: 0705634B-04B

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	90601326	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	6/1/07 07:50 PM

Compound	%Recovery
Hydrogen	112

Container Type: NA - Not Applicable

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WORK ORDER #: 0705634A

Work Order Summary

CLIENT:	Mr. Dave Powers MWH Americas, Inc. 175 West Jackson Blvd. Suite 1900 Chicago, IL 60604	**BILL TO:**	Mr. Dave Powers MWH Americas, Inc. 175 West Jackson Blvd. Suite 1900 Chicago, IL 60604
PHONE:	312-831-3000 x3432	**P.O. #**	
FAX:	312-831-3021	**PROJECT #**	4050581.078101 Blackwell
DATE RECEIVED:	05/31/2007	**CONTACT:**	Brandon Dunmore
DATE COMPLETED:	06/13/2007		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.
01A	BW-LFG-STACK-42A	Modified TO-14A	5.0 "Hg
02A	Lab Blank	Modified TO-14A	NA
03A	CCV	Modified TO-14A	NA
04A	LCS	Modified TO-14A	NA
04AA	LCSD	Modified TO-14A	NA

CERTIFIED Y: Linda J. Freeman DATE: 06/13/07

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/06, Expiration date: 06/30/07
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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LABORATORY NARRATIVE
Modified TO-14A
MWH Americas, Inc.
Workorder# 0705634A

One 6 Liter Summa Canister sample was received on May 31, 2007. The laboratory performed analysis via modified EPA Method TO-14A using GC/MS in the full scan mode. The method involves concentrating up to 0.2 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

Method modifications taken to run these samples are summarized in the below table. Specific project requirements may over-ride the ATL modifications.

Requirement	*TO-14A*	*ATL Modifications*
Daily CCV	+- 30% Difference	</= 30% Difference with two allowed out up to </=40%.; flag and narrate outliers
Initial Calibration criteria	RSD<30%	RSD</=30%, two compounds allowed up to 40%
BFB absolute abundance criteria	Within 10% of that from previous day	CCV internal standard area counts are compared to ICAL, corrective action for > 40% D
Blank acceptance criteria	<0.20 ppbv	<Reporting Limit
Moisture control	Nafion Dryer	Multisorbent trap
Sample collection media	Summa canister	ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

As per project specific client request the laboratory has reported estimated values for target compound hits that are below the Reporting Limit but greater than the Method Detection Limit. Concentrations that are below the level at which the canister was certified may be false positives.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction no performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV
N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

Client Sample ID: BW-LFG-STACK-42A

Lab ID#: 0705634A-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	15	1700	72	8600
Freon 114	15	340	100	2400
Vinyl Chloride	15	4700	37	12000
Chloroethane	15	500	39	1300
Freon 11	15	16	82	92
Ethanol	59	36 J	110	68 J
Freon 113	15	5.0 J	110	38 J
1,1-Dichloroethene	15	17	58	68
Acetone	59	660	140	1600
2-Propanol	59	110	140	270
Methylene Chloride	15	90	51	310
trans-1,2-Dichloroethene	15	140	58	560
Hexane	15	660	52	2300
1,1-Dichloroethane	15	110	59	450
2-Butanone (Methyl Ethyl Ketone)	15	580	43	1700
cis-1,2-Dichloroethene	15	1300	58	5200
Tetrahydrofuran	15	68	43	200
1,1,1-Trichloroethane	15	21	80	120
Cyclohexane	15	390	50	1300
Benzene	15	470	47	1500
1,2-Dichloroethane	15	8.6 J	59	35 J
Heptane	15	1100	60	4700
Trichloroethene	15	140	79	740
1,2-Dichloropropane	15	38	68	180
1,4-Dioxane	59	44 J	210	160 J
4-Methyl-2-pentanone	15	76	60	310
Toluene	15	1700	55	6400
Tetrachloroethene	15	22	99	150
m,p-Xylene	15	8.7 J	64	38 J

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Client Sample ID: BW-LFG-STACK-42A

Lab ID#: 0705634A-01A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name: 8060608 Date of Collection: 5/30/07
Dil. Factor: 29.3 Date of Analysis: 6/5/07 08:38 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	15	1700	72	8600
Freon 114	15	340	100	2400
Chloromethane	59	Not Detected	120	Not Detected
Vinyl Chloride	15	4700	37	12000
1,3-Butadiene	15	Not Detected	32	Not Detected
Bromomethane	15	Not Detected	57	Not Detected
Chloroethane	15	500	39	1300
Freon 11	15	16	82	92
Ethanol	59	36 J	110	68 J
Freon 113	15	5.0 J	110	38 J
1,1-Dichloroethene	15	17	58	68
Acetone	59	660	140	1600
2-Propanol	59	110	140	270
Carbon Disulfide	15	Not Detected	46	Not Detected
3-Chloropropene	59	Not Detected	180	Not Detected
Methylene Chloride	15	90	51	310
Methyl tert-butyl ether	15	Not Detected	53	Not Detected
trans-1,2-Dichloroethene	15	140	58	560
Hexane	15	660	52	2300
1,1-Dichloroethane	15	110	59	450
2-Butanone (Methyl Ethyl Ketone)	15	580	43	1700
cis-1,2-Dichloroethene	15	1300	58	5200
Tetrahydrofuran	15	68	43	200
Chloroform	15	Not Detected	72	Not Detected
1,1,1-Trichloroethane	15	21	80	120
Cyclohexane	15	390	50	1300
Carbon Tetrachloride	15	Not Detected	92	Not Detected
2,2,4-Trimethylpentane	15	Not Detected	68	Not Detected
Benzene	15	470	47	1500
1,2-Dichloroethane	15	8.6 J	59	35 J
Heptane	15	1100	60	4700
Trichloroethene	15	140	79	740
1,2-Dichloropropane	15	38	68	180
1,4-Dioxane	59	44 J	210	160 J
Bromodichloromethane	15	Not Detected	98	Not Detected
cis-1,3-Dichloropropene	15	Not Detected	66	Not Detected
4-Methyl-2-pentanone	15	76	60	310
Toluene	15	1700	55	6400
trans-1,3-Dichloropropene	15	Not Detected	66	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BW-LFG-STACK-42A

Lab ID#: 0705634A-01A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	8060508	Date of Collection:	6/30/07
Dil. Factor:	29.3	Date of Analysis:	8/5/07 06:38 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,1,2-Trichloroethane	15	Not Detected	80	Not Detected
Tetrachloroethene	15	22	99	150
2-Hexanone	59	Not Detected	240	Not Detected
Dibromochloromethane	15	Not Detected	120	Not Detected
1,2-Dibromoethane (EDB)	15	Not Detected	110	Not Detected
Chlorobenzene	15	Not Detected	67	Not Detected
Ethyl Benzene	15	Not Detected	64	Not Detected
m,p-Xylene	15	8.7 J	64	38 J
o-Xylene	15	Not Detected	64	Not Detected
Styrene	15	Not Detected	62	Not Detected
Bromoform	15	Not Detected	150	Not Detected
Cumene	15	Not Detected	72	Not Detected
1,1,2,2-Tetrachloroethane	15	Not Detected	100	Not Detected
Propylbenzene	15	Not Detected	72	Not Detected
4-Ethyltoluene	15	Not Detected	72	Not Detected
1,3,5-Trimethylbenzene	15	Not Detected	72	Not Detected
1,2,4-Trimethylbenzene	15	Not Detected	72	Not Detected
1,3-Dichlorobenzene	15	Not Detected	88	Not Detected
1,4-Dichlorobenzene	15	Not Detected	88	Not Detected
alpha-Chlorotoluene	15	Not Detected	76	Not Detected
1,2-Dichlorobenzene	15	Not Detected	88	Not Detected
1,2,4-Trichlorobenzene	59	Not Detected	430	Not Detected
Hexachlorobutadiene	59	Not Detected	620	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	92	70-130
4-Bromofluorobenzene	97	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0705634A-02A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	80605086	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	6/5/07 12:57 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	2.0	Not Detected	4.1	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	0.50	Not Detected	1.9	Not Detected
Chloroethane	0.50	Not Detected	1.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	2.0	Not Detected	3.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	2.0	Not Detected	4.8	Not Detected
2-Propanol	2.0	0.30 J	4.9	0.73 J
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	0.50	Not Detected	1.7	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	Not Detected	1.5	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0705634A-02A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	80605063	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 6/5/07 12:57 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	0.23 J	2.6	1.2 J
1,2-Dichlorobenzene	0.50	0.18 J	3.0	1.1 J
1,2,4-Trichlorobenzene	2.0	0.97 J	15	7.2 J
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected

J = Estimated value.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	93	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0705634A-03A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	8060502	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	6/5/07 10:22 AM

Compound	%Recovery
Freon 12	83
Freon 114	92
Chloromethane	98
Vinyl Chloride	88
1,3-Butadiene	82
Bromomethane	99
Chloroethane	86
Freon 11	93
Ethanol	91
Freon 113	91
1,1-Dichloroethene	89
Acetone	94
2-Propanol	87
Carbon Disulfide	91
3-Chloropropene	97
Methylene Chloride	89
Methyl tert-butyl ether	71
trans-1,2-Dichloroethene	88
Hexane	96
1,1-Dichloroethane	92
2-Butanone (Methyl Ethyl Ketone)	86
cis-1,2-Dichloroethene	85
Tetrahydrofuran	86
Chloroform	84
1,1,1-Trichloroethane	89
Cyclohexane	86
Carbon Tetrachloride	96
2,2,4-Trimethylpentane	86
Benzene	86
1,2-Dichloroethane	89
Heptane	81
Trichloroethene	90
1,2-Dichloropropane	90
1,4-Dioxane	92
Bromodichloromethane	91
cis-1,3-Dichloropropene	90
4-Methyl-2-pentanone	92
Toluene	90
trans-1,3-Dichloropropene	93

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0705634A-03A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	8060502	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	6/5/07 10:22 AM

Compound	%Recovery
1,1,2-Trichloroethane	89
Tetrachloroethene	95
2-Hexanone	94
Dibromochloromethane	94
1,2-Dibromoethane (EDB)	91
Chlorobenzene	88
Ethyl Benzene	86
m,p-Xylene	87
o-Xylene	87
Styrene	91
Bromoform	96
Cumene	85
1,1,2,2-Tetrachloroethane	88
Propylbenzene	89
4-Ethyltoluene	90
1,3,5-Trimethylbenzene	91
1,2,4-Trimethylbenzene	87
1,3-Dichlorobenzene	89
1,4-Dichlorobenzene	84
alpha-Chlorotoluene	92
1,2-Dichlorobenzene	85
1,2,4-Trichlorobenzene	75
Hexachlorobutadiene	88

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	94	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	98	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0705634A-04A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	8060503	Date of Collection:	NA
Dil Factor:	1.00	Date of Analysis:	6/5/07 10:50 AM

Compound	%Recovery
Freon 12	90
Freon 114	95
Chloromethane	98
Vinyl Chloride	92
1,3-Butadiene	84
Bromomethane	100
Chloroethane	94
Freon 11	95
Ethanol	106
Freon 113	107
1,1-Dichloroethene	104
Acetone	100
2-Propanol	93
Carbon Disulfide	94
3-Chloropropene	102
Methylene Chloride	101
Methyl tert-butyl ether	87
trans-1,2-Dichloroethene	92
Hexane	99
1,1-Dichloroethane	99
2-Butanone (Methyl Ethyl Ketone)	92
cis-1,2-Dichloroethene	92
Tetrahydrofuran	90
Chloroform	89
1,1,1-Trichloroethane	95
Cyclohexane	90
Carbon Tetrachloride	101
2,2,4-Trimethylpentane	92
Benzene	90
1,2-Dichloroethane	93
Heptane	82
Trichloroethene	93
1,2-Dichloropropane	91
1,4-Dioxane	95
Bromodichloromethane	94
cis-1,3-Dichloropropene	93
4-Methyl-2-pentanone	95
Toluene	99
trans-1,3-Dichloropropene	95

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0705634A-04A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	8060603	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	6/6/07 10:50 AM

Compound	%Recovery
1,1,2-Trichloroethane	93
Tetrachloroethene	99
2-Hexanone	95
Dibromochloromethane	98
1,2-Dibromoethane (EDB)	92
Chlorobenzene	96
Ethyl Benzene	89
m,p-Xylene	96
o-Xylene	89
Styrene	94
Bromoform	101
Cumene	92
1,1,2,2-Tetrachloroethane	88
Propylbenzene	95
4-Ethyltoluene	91
1,3,5-Trimethylbenzene	88
1,2,4-Trimethylbenzene	90
1,3-Dichlorobenzene	97
1,4-Dichlorobenzene	84
alpha-Chlorotoluene	102
1,2-Dichlorobenzene	82
1,2,4-Trichlorobenzene	77
Hexachlorobutadiene	85

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	102	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCSD

Lab ID#: 0705634A-04AA

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	80605b04	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	6/6/07 11:18 AM

Compound	%Recovery
Freon 12	88
Freon 114	94
Chloromethane	101
Vinyl Chloride	92
1,3-Butadiene	84
Bromomethane	101
Chloroethane	93
Freon 11	95
Ethanol	107
Freon 113	106
1,1-Dichloroethene	104
Acetone	97
2-Propanol	94
Carbon Disulfide	94
3-Chloropropene	104
Methylene Chloride	100
Methyl tert-butyl ether	88
trans-1,2-Dichloroethene	92
Hexane	102
1,1-Dichloroethane	100
2-Butanone (Methyl Ethyl Ketone)	90
cis-1,2-Dichloroethene	91
Tetrahydrofuran	90
Chloroform	89
1,1,1-Trichloroethane	95
Cyclohexane	90
Carbon Tetrachloride	100
2,2,4-Trimethylpentane	91
Benzene	91
1,2-Dichloroethane	95
Heptane	83
Trichloroethene	94
1,2-Dichloropropane	92
1,4-Dioxane	96
Bromodichloromethane	94
cis-1,3-Dichloropropene	93
4-Methyl-2-pentanone	95
Toluene	99
trans-1,3-Dichloropropene	93

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCSD

Lab ID#: 0705634A-04AA

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	8060504	Date of Collection:	NA
Dil Factor:	1.00	Date of Analysis:	6/5/07 11:15 AM

Compound	%Recovery
1,1,2-Trichloroethane	92
Tetrachloroethene	99
2-Hexanone	94
Dibromochloromethane	96
1,2-Dibromoethane (EDB)	90
Chlorobenzene	91
Ethyl Benzene	86
m,p-Xylene	87
o-Xylene	88
Styrene	93
Bromoform	99
Cumene	89
1,1,2,2-Tetrachloroethane	86
Propylbenzene	94
4-Ethyltoluene	90
1,3,5-Trimethylbenzene	89
1,2,4-Trimethylbenzene	89
1,3-Dichlorobenzene	94
1,4-Dichlorobenzene	84
alpha-Chlorotoluene	101
1,2-Dichlorobenzene	82
1,2,4-Trichlorobenzene	81
Hexachlorobutadiene	84

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	100	70-130

Air Toxics LTD.

CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice

Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Project Manager: DAVID POWERS

Collected by: (Print and Sign) J. FINGER / A. BUTLER

Company: MWH Email: justin.e.finger@mwhglobal.com

Address: 175 W. JACKSON BLVD SUITE 1900 City: CHICAGO State: IL Zip: 66604

Phone: (312) 831-3000 Fax: (312) 831-3021

Project Info:

P.O. #:

Project #: 4050581.078101

Project Name: BLACKWELL

Turn Around Time:

☒ Normal

☐ Rush

specify

Lab Use Only

Pressurized by: VAR

Date: 5/31/07

Pressurization Gas: N_2 He

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
01A	BW-LFG-STACK-42A	4340	5/30/07	0810-1610	T014 / ASTM 1945 D	-9" Hg	-4" Hg	5.0" Hg	5.0 psi

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
[signature]	5/31/07 1700	T. Lafleur-ATL	5/31/07 0850
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time

Notes:

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	FedEx	8617 5513 1376	NA	good	Yes No None	0705634

Form 1293 rev 1

Atmospheric Analysis & Consulting, Inc.

CLIENT : MWH Americas
AAC PROJECT NO. : 070555
REPORT DATE : 06/02/2007

On May 31, 2007, Atmospheric Analysis & Consulting, Inc. received one (1) Summa Canisters for non-methane organic compounds analysis by EPA 25C. Upon receipt the sample was assigned a unique Laboratory ID number as follows:

Client ID	Lab No.	Initial Pressure	Final Pressure
BW-LFG-Stack-42A	070555-25956	699.7	900.8

EPA 25C Analysis - Up to a 1 mL aliquot of samples is injected into the GC/FID/TCA for analysis in triplicate following EPA 25C as specified in the SOW.

No problems were encountered during receiving, preparation, and/ or analysis of these samples. The test results included in this report meet all requirements of the NELAC Standards and/or AAC SOP# AACI- EPA 25C.

I certify that this data is technically accurate, complete, and in compliance with the terms and conditions of the contract. Release of the data contained in this hardcopy data package and its electronic data deliverable submitted on diskette has been authorized by the Laboratory Director or his designee, as verified by the following signature.

If you have any questions or require further explanation of data results, please contact the undersigned.

Sucha S. Parmar, Ph.D.
President

This report consists of 4 pages.

ACCREDITED IN ACCORDANCE WITH nelac Certificate #E87837

1534 Eastman Avenue • Suite A • Ventura, California 93003 (805) 650-1642 • FAX (805) 650-1644

Atmospheric Analysis & Consulting, Inc.

Laboratory Analysis Report

Client	: **MWH Americas**	**Sampling Date**	: **05/30/07**
Project No.	: **070555**	**Receiving Date**	: **05/31/07**
Matrix	: **air**	**Analysis Date**	: **06/01/07**
Units	: **ppmv**	**Report Date**	: **06/02/07**

EPA Method 25C

Detection Limit:		**1.0 ppmv**
Client Sample ID	**AAC ID**	**NMHC****
BW-LFG-Stack-42A	**070555-25956**	16.3

****Non-Methane Hydrocarbons as Methane**

Dr. Sucha Parmar
Technical Director

1534 Eastman Avenue • Suite A • Ventura, California 93003 (805) 650-1642 • FAX (805) 650-1644

Atmospheric Analysis & Consulting, Inc.

Quality Control/Quality Assurance Report

Analysis Date: 6/1/2007
Analyst: TT/RJ
Units: ppmv

Instrument ID: FID#4
Calibration Date: 2/20/2007

I - Opening Calibration Verification Standard - Method 25C

Analyte	xCF	dCF	%RPD*
CO	3024	2902	4.1
CH4	2626	2626	0.0
CO2	2801	2889	3.1
Propane	8012	7752	3.3

II - Method Blank - Method 25C

AAC ID	Analyte	Sample Result
MB	NMEHC	ND

III - Laboratory Control Spike & Duplicate - Method 25C

AAC ID	Analyte	Spike Added	LCS Result	LCSD Result	LCS % Rec **	LCSD % Rec **	% RPD***
LCS/LCSD	NMEHC	50.0	51.2	51.3	102.3	102.6	0.2

IV - Closing Calibration Verification Standard - Method 25C

Analyte	xCF	dCF	%RPD*
CO	3024	2759	9.2
CH4	2626	2651	1.0
CO2	2801	2812	0.4
Propane	8012	7747	3.4

xCF - Average Calibration Factor from Initial Calibration Curve
dCF - Daily Calibration Factor
* Must be <15%
** Must be 90-110 %
*** Must be <20%

Dr. Sucha Parmar
Technical Director

1534 Eastman Avenue • Suite A • Ventura, California 93003 (805) 650-1642 • FAX (805) 650-1644

CHAIN OF CUSTODY RECORD

Page 1 of 1 pgs

070535

First Environmental Laboratories, Inc.

First Environmental Laboratories
1600 Shore Road, Suite D
Naperville, Illinois 60563
Phone: (630) 778-1200 • Fax: (630) 778-1233
24 Hr. Pager (708) 569-7507
E-mail: info@firstenv.com
IEPA Certification# 100292

AAC
1534 EASTMAN AVE
SUITE A
VENTURA, CA 93003

Company Name: MWH
Street Address: 175 W. JACKSON BLVD SUITE 1900
City: CHICAGO State: IL Zip: 60604
Phone: (312) 831-3000 Fax: (312) 831-3001
Send Report To: JUSTIN FINGER
Sampled By: J. FINGER / A. BUTLER

Project I.D.: BLACKWELL
P.O. #: 4050581, 078101

Matrix Codes: S = Soil W = Water O = Other

Analyses

Date/Time Taken	Sample Description	Matrix	(TNMOC) EPA 25C MOD								Comments	Lab I.D.
5/30/07 0310-1610	BW-LFGSTACK-42A	AIR	X						750156		INITIAL VACUUM: -30 "Hg	
											FINAL VACUUM: -2.5 "Hg	

FOR LAB USE ONLY:

Cooler Temperature: 0.1-6ºC Yes__ No.__ _____ºC
Received within 6 hrs. of collection:_____
Ice Present: Yes__ No__

Sample Refrigerated: Yes__ No__
Refrigerator Temperature:_____ºC
5035 Vials Frozen: Yes__ No__
Freezer Temperature:_____ºC

Containers Received Preserved: ___
Preserved in Lab: ___

Notes and Special Instructions: _____

Relinquished By: [signature] Date/Time 5/30/07 1700 Received By: [signature] Date/Time 5/31/07 925
Relinquished By: _____ Date/Time _____ Received By: _____ Date/Time _____

Rev. 10/04

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Air Toxics Ltd. Introduces the Electronic Report

Thank you for choosing Air Toxics Ltd. To better serve our customers, we are providing your report by e-mail. This document is provided in Portable Document Format which can be viewed with Acrobat Reader by Adobe.

This electronic report includes the following:

- Work order Summary;
- Laboratory Narrative;
- Results; and
- Chain of Custody (copy).

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630

(916) 985-1000 .FAX (916) 985-1020
Hours 8:00 A.M to 6:00 P.M. Pacific

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0708306B

Work Order Summary

CLIENT:	Mr. Dave Powers MWH Americas, Inc. 175 West Jackson Blvd. Suite 1900 Chicago, IL 60604	**BILL TO:**	Mr. Dave Powers MWH Americas, Inc. 175 West Jackson Blvd. Suite 1900 Chicago, IL 60604
PHONE:	312-831-3000 x3432	**P.O. #**	
FAX:	312-831-3021	**PROJECT #**	4050581.088101 Blackwell
DATE RECEIVED:	08/15/2007	**CONTACT:**	Brandon Dunmore
DATE COMPLETED:	08/28/2007		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.
01A	BW-LFGSTACK-43A	Modified ASTM D-1945	5.0 "Hg
02A	Lab Blank	Modified ASTM D-1945	NA
02B	Lab Blank	Modified ASTM D-1945	NA
03A	LCS	Modified ASTM D-1945	NA
03B	LCS	Modified ASTM D-1945	NA
04A	LCSD	Modified ASTM D-1945	NA
04B	LCSD	Modified ASTM D-1945	NA

CERTIFIED BY: Linda A. Truman

Laboratory Director

DATE: 08/28/07

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/07, Expiration date: 06/30/08
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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LABORATORY NARRATIVE
Modified ASTM D-1945
MWH Americas, Inc.
Workorder# 0708306B

One 6 Liter Summa Canister sample was received on August 15, 2007. The laboratory performed analysis via modified ASTM Method D-1945 for Methane and fixed gases in natural gas using GC/FID or GC/TCD. The method involves direct injection of 1.0 mL of sample. See the data sheets for the reporting limits for each compound.

On the analytical column employed for this analysis, Oxygen coelutes with Argon. The corresponding peak is quantitated as Oxygen.

Method modifications taken to run these samples include:

Requirement	*ASTM D-1945*	*ATL Modifications*
Normalization	Sum of original values should not differ from 100.0% by more than 1.0%.	Sum of original values may range between 75-125%. Normalization of data not performed.
Sample analysis	Equilibrate samples to 20-50° F. above source temperature at field sampling	No heating of samples is performed.
Sample calculation	Response factor is calculated using peak height for C5 and lighter compounds.	Peak areas are used for all target analytes to quantitate concentrations.
Reference Standard	Concentration should not be < half of nor differ by more than 2 X the concentration of the sample. Run 2 consecutive checks; must agree within 1%.	A minimum 3-point linear calibration is performed. The acceptance criterion is %RSD </= 25%. All target analytes must be within the linear range of calibration (with the exception of O2, N2, and C6+ Hydrocarbons).
Sample Injection Volume	0.50 mL to achieve Methane linearity.	1.0 mL.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

Since Nitrogen is used to pressurize samples, the Nitrogen values are calculated by adding all the sample components and subtracting from 100%.

As per project specific client request the laboratory has reported estimated values for target compound hits that are below the Reporting Limit but greater than the Method Detection Limit. Concentrations that are

below the level at which the canister was certified may be false positives.

The presence of Carbon Monoxide may have been masked by the Methane peak in sample BW-LFGSTACK-43A.

Definition of Data Qualifying Flags

Six qualifiers may have been used on the data analysis sheets and indicate as follows:
J - Estimated value.
E - Exceeds instrument calibration range.
S - Saturated peak.
Q - Exceeds quality control limits.
U - Compound analyzed for but not detected above the detection limit.
M - Reported value may be biased due to apparent matrix interferences.

File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

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AN ENVIRONMENTAL ANALYTICAL LABORATORY

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

Client Sample ID: BW-LFGSTACK-43A

Lab ID#: 0708306B-01A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.16	0.30
Nitrogen	0.16	11
Methane	0.00016	57
Carbon Dioxide	0.016	32
Ethane	0.0016	0.0025
Ethene	0.0016	0.0014 J
Propane	0.0016	0.0010 J
Isobutane	0.0016	0.00038 J
Pentane	0.0016	0.00010 J
C6+	0.016	0.0020 J

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AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BW-LFGSTACK-43A

Lab ID#: 0708306B-01A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	9082414	Date of Collection:	8/14/07
Dil. Factor:	1.61	Date of Analysis:	8/24/07 11:08 AM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.16	0.30
Nitrogen	0.16	11
Carbon Monoxide	0.016	Not Detected M
Methane	0.00016	57
Carbon Dioxide	0.016	32
Ethane	0.0016	0.0025
Ethene	0.0016	0.0014 J
Acetylene	0.0016	Not Detected
Propane	0.0016	0.0010 J
Isobutane	0.0016	0.00038 J
Butane	0.0016	Not Detected
Neopentane	0.0016	Not Detected
Isopentane	0.0016	Not Detected
Pentane	0.0016	0.00010 J
C6+	0.016	0.0020 J
Hydrogen	0.016	Not Detected

M = Reported value may be biased due to apparent matrix interferences.
J = Estimated value.
Container Type: 6 Liter Summa Canister

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0708306B-02A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	9082409a	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 8/24/07 08:36 AM	

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.10	Not Detected
Nitrogen	0.10	0.044 J
Carbon Monoxide	0.010	Not Detected
Methane	0.00010	Not Detected
Carbon Dioxide	0.010	Not Detected
Ethane	0.0010	Not Detected
Ethene	0.0010	Not Detected
Acetylene	0.0010	Not Detected
Propane	0.0010	Not Detected
Isobutane	0.0010	Not Detected
Butane	0.0010	Not Detected
Neopentane	0.0010	Not Detected
Isopentane	0.0010	Not Detected
Pentane	0.0010	Not Detected
C6+	0.010	Not Detected

J = Estimated value.

Container Type: NA - Not Applicable

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0708306B-02B

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	9082406b	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 8/24/07 05:03 AM	

Compound	Rpt. Limit (%)	Amount (%)
Hydrogen	0.010	Not Detected

Container Type: NA - Not Applicable

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AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0708306B-03A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	9082405	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 8/24/07 04:37 AM	

Compound	%Recovery
Oxygen	100
Nitrogen	100
Carbon Monoxide	99
Methane	98
Carbon Dioxide	100
Ethane	98
Ethene	99
Acetylene	104
Propane	98
Isobutane	100
Butane	100
Neopentane	99
Isopentane	98
Pentane	98
C6+	97

Container Type: NA - Not Applicable

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AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0708306B-03B

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	9082403b	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 8/24/07 03:06 AM	

Compound	%Recovery
Hydrogen	102

Container Type: NA - Not Applicable

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCSD

Lab ID#: 0708306B-04A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	9082424	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 8/24/07 04:25 PM	

Compound	%Recovery
Oxygen	100
Nitrogen	101
Carbon Monoxide	90
Methane	98
Carbon Dioxide	100
Ethane	98
Ethene	98
Acetylene	104
Propane	97
Isobutane	99
Butane	99
Neopentane	98
Isopentane	98
Pentane	98
C6+	98

Container Type: NA - Not Applicable

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AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCSD

Lab ID#: 0708306B-04B

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	9082423b	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 8/24/07 04:01 PM	

Compound	%Recovery
Hydrogen	101

Container Type: NA - Not Applicable

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Thank you for choosing Air Toxics Ltd. To better serve our customers, we are providing your report by e-mail. This document is provided in Portable Document Format which can be viewed with Acrobat Reader by Adobe.

This electronic report includes the following:

- Work order Summary;
- Laboratory Narrative;
- Results; and
- Chain of Custody (copy).

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AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0708306A

Work Order Summary

CLIENT:	Mr. Dave Powers MWH Americas, Inc. 175 West Jackson Blvd. Suite 1900 Chicago, IL 60604	**BILL TO:**	Mr. Dave Powers MWH Americas, Inc. 175 West Jackson Blvd. Suite 1900 Chicago, IL 60604
PHONE:	312-831-3000 x3432	**P.O. #**	
FAX:	312-831-3021	**PROJECT #**	4050581.088101 Blackwell
DATE RECEIVED:	08/15/2007	**CONTACT:**	Brandon Dunmore
DATE COMPLETED:	08/28/2007		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.
01A	BW-LFGSTACK-43A	Modified TO-14A	5.0 "Hg
02A	Lab Blank	Modified TO-14A	NA
03A	CCV	Modified TO-14A	NA
04A	LCS	Modified TO-14A	NA
05A	LCSD	Modified TO-14A	NA

CERTIFIED BY: Linda J. Freeman

Laboratory Director

DATE: 08/28/07

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/07, Expiration date: 06/30/08
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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AN ENVIRONMENTAL ANALYTICAL LABORATORY

LABORATORY NARRATIVE
Modified TO-14A
MWH Americas, Inc.
Workorder# 0708306A

LUMEN DATA VALIDATED

One 6 Liter Summa Canister sample was received on August 15, 2007. The laboratory performed analysis via modified EPA Method TO-14A using GC/MS in the full scan mode. The method involves concentrating up to 0.2 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

Requirement	*TO-14A*	*ATL Modifications*
Daily CCV	+- 30% Difference	</= 30% Difference with two allowed out up to </=40%.; flag and narrate outliers
Initial Calibration criteria	RSD<30%	RSD</=30%, two compounds allowed up to 40%
BFB absolute abundance criteria	Within 10% of that from previous day	CCV internal standard area counts are compared to ICAL, corrective action for > 40% D
Blank acceptance criteria	<0.20 ppbv	<Reporting Limit
Moisture control	Nafion Dryer	Multisorbent trap
Sample collection media	Summa canister	ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

As per project specific client request the laboratory has reported estimated values for target compound hits that are below the Reporting Limit but greater than the Method Detection Limit. Concentrations that are below the level at which the canister was certified may be false positives.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction no performed).

J - Estimated value.
E - Exceeds instrument calibration range.
S - Saturated peak.
Q - Exceeds quality control limits.
U - Compound analyzed for but not detected above the reporting limit.
UJ- Non-detected compound associated with low bias in the CCV
N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Summary of Detected Compounds
MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

Client Sample ID: BW-LFGSTACK-43A

Lab ID#: 0708306A-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	20	2500	99	12000
Freon 114	20	400	140	2800
Vinyl Chloride	20	5200	51	13000
Chloroethane	20	650	53	1700
Freon 11	20	19 J	110	110
Ethanol	80	85	150	160
Freon 113	20	9.2 J	150	71 J
1,1-Dichloroethene	20	20	80	81
Acetone	80	810	190	1900
2-Propanol	80	140	200	350
Carbon Disulfide	20	10 J	62	32 J
Methylene Chloride	20	140	70	480
trans-1,2-Dichloroethene	20	160	80	650
Hexane	20	930	71	3300
1,1-Dichloroethane	20	130	81	530
2-Butanone (Methyl Ethyl Ketone)	20	830	59	2400
cis-1,2-Dichloroethene	20	1600	80	6600
Tetrahydrofuran	20	88	59	260
1,1,1-Trichloroethane	20	32	110	170
Cyclohexane	20	530	69	1800
2,2,4-Trimethylpentane	20	83	94	390
Benzene	20	570	64	1800
Heptane	20	1600	82	6700
Trichloroethene	20	180	110	1000
1,2-Dichloropropane	20	48	93	220
4-Methyl-2-pentanone	20	87	82	360
Toluene	20	1800	76	6700
Tetrachloroethene	20	28	140	190
Cumene	20	9.3 J	99	46 J

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AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BW-LFGSTACK-43A

Lab ID#: 0708306A-01A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	8082411	Date of Collection:	8/14/07
Dil. Factor:	40.2	Date of Analysis:	8/24/07 04:58 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	20	2500	99	12000
Freon 114	20	400	140	2800
Chloromethane	80	Not Detected	170	Not Detected
Vinyl Chloride	20	5200	51	13000
1,3-Butadiene	20	Not Detected	44	Not Detected
Bromomethane	20	Not Detected	78	Not Detected
Chloroethane	20	650	53	1700
Freon 11	20	19 J	110	110
Ethanol	80	85	150	160
Freon 113	20	9.2 J	150	71 J
1,1-Dichloroethene	20	20	80	81
Acetone	80	810	190	1900
2-Propanol	80	140	200	350
Carbon Disulfide	20	10 J	62	32 J
3-Chloropropene	80	Not Detected	250	Not Detected
Methylene Chloride	20	140	70	480
Methyl tert-butyl ether	20	Not Detected	72	Not Detected
trans-1,2-Dichloroethene	20	160	80	650
Hexane	20	930	71	3300
1,1-Dichloroethane	20	130	81	530
2-Butanone (Methyl Ethyl Ketone)	20	830	59	2400
cis-1,2-Dichloroethene	20	1600	80	6600
Tetrahydrofuran	20	88	59	260
Chloroform	20	Not Detected	98	Not Detected
1,1,1-Trichloroethane	20	32	110	170
Cyclohexane	20	530	69	1800
Carbon Tetrachloride	20	Not Detected	130	Not Detected
2,2,4-Trimethylpentane	20	83	94	390
Benzene	20	570	64	1800
1,2-Dichloroethane	20	Not Detected	81	Not Detected
Heptane	20	1600	82	6700
Trichloroethene	20	180	110	1000
1,2-Dichloropropane	20	48	93	220
1,4-Dioxane	80	Not Detected	290	Not Detected
Bromodichloromethane	20	Not Detected	130	Not Detected
cis-1,3-Dichloropropene	20	Not Detected	91	Not Detected
4-Methyl-2-pentanone	20	87	82	360
Toluene	20	1800	76	6700
trans-1,3-Dichloropropene	20	Not Detected	91	Not Detected

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AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BW-LFGSTACK-43A

Lab ID#: 0708306A-01A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	8082411	Date of Collection:	8/14/07
Dil. Factor:	40.2	Date of Analysis:	8/24/07 04:58 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,1,2-Trichloroethane	20	Not Detected	110	Not Detected
Tetrachloroethene	20	28	140	190
2-Hexanone	80	Not Detected	330	Not Detected
Dibromochloromethane	20	Not Detected	170	Not Detected
1,2-Dibromoethane (EDB)	20	Not Detected	150	Not Detected
Chlorobenzene	20	Not Detected	92	Not Detected
Ethyl Benzene	20	Not Detected	87	Not Detected
m,p-Xylene	20	Not Detected	87	Not Detected
o-Xylene	20	Not Detected	87	Not Detected
Styrene	20	Not Detected	86	Not Detected
Bromoform	20	Not Detected	210	Not Detected
Cumene	20	9.3 J	99	46 J
1,1,2,2-Tetrachloroethane	20	Not Detected	140	Not Detected
Propylbenzene	20	Not Detected	99	Not Detected
4-Ethyltoluene	20	Not Detected	99	Not Detected
1,3,5-Trimethylbenzene	20	Not Detected	99	Not Detected
1,2,4-Trimethylbenzene	20	Not Detected	99	Not Detected
1,3-Dichlorobenzene	20	Not Detected	120	Not Detected
1,4-Dichlorobenzene	20	Not Detected	120	Not Detected
alpha-Chlorotoluene	20	Not Detected	100	Not Detected
1,2-Dichlorobenzene	20	Not Detected	120	Not Detected
1,2,4-Trichlorobenzene	80	Not Detected	600	Not Detected
Hexachlorobutadiene	80	Not Detected	860	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	100	70-130

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AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0708306A-02A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	8082406	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 8/24/07 11:50 AM	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	2.0	Not Detected	4.1	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	0.50	Not Detected	1.9	Not Detected
Chloroethane	0.50	Not Detected	1.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	2.0	Not Detected	3.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	2.0	Not Detected	4.8	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	0.50	Not Detected	1.7	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	Not Detected	1.5	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrahydrofuran	0.50	0.24 J	1.5	0.72 J
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0708306A-02A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	8082406	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 8/24/07 11:50 AM	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	0.97 J	15	7.2 J
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected

J = Estimated value.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	100	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0708306A-03A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	8082402	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 8/24/07 08:55 AM	

Compound	%Recovery
Freon 12	85
Freon 114	96
Chloromethane	92
Vinyl Chloride	95
1,3-Butadiene	101
Bromomethane	96
Chloroethane	93
Freon 11	94
Ethanol	102
Freon 113	91
1,1-Dichloroethene	93
Acetone	94
2-Propanol	100
Carbon Disulfide	90
3-Chloropropene	105
Methylene Chloride	92
Methyl tert-butyl ether	87
trans-1,2-Dichloroethene	89
Hexane	92
1,1-Dichloroethane	95
2-Butanone (Methyl Ethyl Ketone)	95
cis-1,2-Dichloroethene	93
Tetrahydrofuran	92
Chloroform	84
1,1,1-Trichloroethane	93
Cyclohexane	88
Carbon Tetrachloride	94
2,2,4-Trimethylpentane	95
Benzene	88
1,2-Dichloroethane	91
Heptane	89
Trichloroethene	90
1,2-Dichloropropane	90
1,4-Dioxane	94
Bromodichloromethane	90
cis-1,3-Dichloropropene	93
4-Methyl-2-pentanone	86
Toluene	92
trans-1,3-Dichloropropene	92

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0708306A-03A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	8082402	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 8/24/07 08:55 AM	

Compound	%Recovery
1,1,2-Trichloroethane	96
Tetrachloroethene	92
2-Hexanone	98
Dibromochloromethane	91
1,2-Dibromoethane (EDB)	90
Chlorobenzene	92
Ethyl Benzene	94
m,p-Xylene	91
o-Xylene	91
Styrene	89
Bromoform	95
Cumene	94
1,1,2,2-Tetrachloroethane	92
Propylbenzene	100
4-Ethyltoluene	105
1,3,5-Trimethylbenzene	96
1,2,4-Trimethylbenzene	92
1,3-Dichlorobenzene	92
1,4-Dichlorobenzene	84
alpha-Chlorotoluene	91
1,2-Dichlorobenzene	80
1,2,4-Trichlorobenzene	81
Hexachlorobutadiene	87

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	102	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0708306A-04A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	8082403	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 8/24/07 09:22 AM	

Compound	%Recovery
Freon 12	86
Freon 114	96
Chloromethane	91
Vinyl Chloride	92
1,3-Butadiene	102
Bromomethane	96
Chloroethane	92
Freon 11	96
Ethanol	96
Freon 113	94
1,1-Dichloroethene	92
Acetone	102
2-Propanol	97
Carbon Disulfide	94
3-Chloropropene	103
Methylene Chloride	95
Methyl tert-butyl ether	78
trans-1,2-Dichloroethene	91
Hexane	93
1,1-Dichloroethane	95
2-Butanone (Methyl Ethyl Ketone)	94
cis-1,2-Dichloroethene	95
Tetrahydrofuran	93
Chloroform	86
1,1,1-Trichloroethane	95
Cyclohexane	91
Carbon Tetrachloride	95
2,2,4-Trimethylpentane	97
Benzene	90
1,2-Dichloroethane	94
Heptane	94
Trichloroethene	93
1,2-Dichloropropane	93
1,4-Dioxane	90
Bromodichloromethane	93
cis-1,3-Dichloropropene	97
4-Methyl-2-pentanone	85
Toluene	95
trans-1,3-Dichloropropene	97

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0708306A-04A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	8082403	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 8/24/07 09:22 AM	

Compound	%Recovery
1,1,2-Trichloroethane	102
Tetrachloroethene	97
2-Hexanone	94
Dibromochloromethane	96
1,2-Dibromoethane (EDB)	96
Chlorobenzene	98
Ethyl Benzene	99
m,p-Xylene	96
o-Xylene	95
Styrene	88
Bromoform	98
Cumene	100
1,1,2,2-Tetrachloroethane	95
Propylbenzene	105
4-Ethyltoluene	103
1,3,5-Trimethylbenzene	98
1,2,4-Trimethylbenzene	98
1,3-Dichlorobenzene	98
1,4-Dichlorobenzene	94
alpha-Chlorotoluene	96
1,2-Dichlorobenzene	88
1,2,4-Trichlorobenzene	90
Hexachlorobutadiene	97

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	105	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCSD

Lab ID#: 0708306A-05A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	8082404	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 8/24/07 10:03 AM	

Compound	%Recovery
Freon 12	86
Freon 114	94
Chloromethane	91
Vinyl Chloride	94
1,3-Butadiene	102
Bromomethane	98
Chloroethane	93
Freon 11	96
Ethanol	92
Freon 113	94
1,1-Dichloroethene	93
Acetone	95
2-Propanol	97
Carbon Disulfide	93
3-Chloropropene	105
Methylene Chloride	95
Methyl tert-butyl ether	80
trans-1,2-Dichloroethene	92
Hexane	93
1,1-Dichloroethane	95
2-Butanone (Methyl Ethyl Ketone)	96
cis-1,2-Dichloroethene	94
Tetrahydrofuran	92
Chloroform	85
1,1,1-Trichloroethane	95
Cyclohexane	90
Carbon Tetrachloride	94
2,2,4-Trimethylpentane	96
Benzene	91
1,2-Dichloroethane	95
Heptane	93
Trichloroethene	92
1,2-Dichloropropane	94
1,4-Dioxane	90
Bromodichloromethane	93
cis-1,3-Dichloropropene	96
4-Methyl-2-pentanone	85
Toluene	97
trans-1,3-Dichloropropene	98

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCSD

Lab ID#: 0708306A-05A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	8082404	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 8/24/07 10:03 AM	

Compound	%Recovery
1,1,2-Trichloroethane	102
Tetrachloroethene	96
2-Hexanone	95
Dibromochloromethane	97
1,2-Dibromoethane (EDB)	96
Chlorobenzene	96
Ethyl Benzene	98
m,p-Xylene	96
o-Xylene	96
Styrene	89
Bromoform	100
Cumene	100
1,1,2,2-Tetrachloroethane	96
Propylbenzene	105
4-Ethyltoluene	107
1,3,5-Trimethylbenzene	100
1,2,4-Trimethylbenzene	96
1,3-Dichlorobenzene	99
1,4-Dichlorobenzene	94
alpha-Chlorotoluene	96
1,2-Dichlorobenzene	90
1,2,4-Trichlorobenzene	94
Hexachlorobutadiene	95

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	104	70-130

Air Toxics LTD.

CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Project Manager: DAVID POWERS
Collected by: (Print and Sign) JUSTIN FINSER
Company: MWH
Email:
Address: 115 W. JACKSON BLVD SUITE 1600
City: CHICAGO State: IL Zip: 60604
Phone: (312) 931-3447 Fax: (312) 931-3021

Project Info:
P.O. #:
Project #: 4650581.088101
Project Name: BLACKWELL

Turn Around Time:
☒ Normal
☐ Rush
specify

Lab Use Only
Pressurized by: VAR
Date: 8/16/07
Pressurization Gas: N_2 He

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
01A	BW-LFGSTACK-45A	34471	8/14/07	0645-1945	TO14 / ASTM 1945 D	30" Hg	-3" Hg	5.0" Hg	5.0 psi

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
[signature]	8/14/07 1530	Monica Giesen AIR	8/15/07 8:35
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time

Notes:

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	Fed Ex	857279243259	N/A	Good	Yes No None	0708306

Form 1292 rev.11

Atmospheric Analysis & Consulting, Inc.

CLIENT : MWH Americas
AAC PROJECT NO. : 070903
REPORT DATE : 08/16/2007

On August 15, 2007, Atmospheric Analysis & Consulting, Inc. received one (1) Summa Canisters for Total non-methane organic compounds analysis by EPA 25C. Upon receipt the sample was assigned a unique Laboratory ID number as follows:

Client ID	Lab No.	Initial Pressure	Final Pressure
BW-LFG-Stack-43A	070903-27925	711.5	1001.1

EPA 25C Analysis - Up to a 1 mL aliquot of samples is injected into the GC/FID/TCA for analysis in triplicate following EPA 25C as specified in the SOW.

No problems were encountered during receiving, preparation, and/ or analysis of these samples. The test results included in this report meet all requirements of the NELAC Standards and/or AAC SOP# AACI- EPA 25C.

I certify that this data is technically accurate, complete, and in compliance with the terms and conditions of the contract. Release of the data contained in this hardcopy data package and its electronic data deliverable submitted on diskette has been authorized by the Laboratory Director or his designee, as verified by the following signature.

If you have any questions or require further explanation of data results, please contact the undersigned.

Sucha S. Parmar, Ph.D.
President

This report consists of 4 pages.

ACCREDITED IN ACCORDANCE WITH nelac Certificate#E87837

1534 Eastman Avenue • Suite A • Ventura, California 93003 (805) 650-1642 • FAX (805) 650-1644

Atmospheric Analysis & Consulting, Inc.

Laboratory Analysis Report

Client	**: MWH Americas**	**Sampling Date**	**: 08/14/2007**
Project No.	**: 070903**	**Receiving Date**	**: 08/15/2007**
Matrix	**: Air**	**Analysis Date**	**: 08/15/2007**
Units	**: ppmv**	**Report Date**	**: 08/16/2007**

EPA Method 25C

Detection Limit:		**1.0 ppmv**
Client Sample ID	**AAC ID**	**TNMOC***
BW-LFG-Stack-43A	**070903-27925**	235.1

***Total Non-Methane Organic Compounds as Methane**

Dr. Sucha Parmar
Technical Director

1534 Eastman Avenue • Suite A • Ventura, California 93003 (805) 650-1642 • FAX (805) 650-1644

Atmospheric Analysis & Consulting, Inc.

Quality Control/Quality Assurance Report

Analysis Date: 8/15/2007
Analyst: TT
Units: ppmv

Instrument ID: FID#4
Calibration Date: 6/14/2007

I - Opening Calibration Verification Standard - Method 25C

Analyte	xCF	dCF	%RPD*
CO	3218	3342	3.8
CH4	3185	3281	2.9
CO2	3232	3467	7.0
Propane	9268	9715	4.7

II - Method Blank - Method 25C

AAC ID	Analyte	Sample Result
MB	NMEHC	ND

III - Laboratory Control Spike & Duplicate - Method 25C

AAC ID	Analyte	Spike Added	LCS Result	LCSD Result	LCS % Rec **	LCSD % Rec **	% RPD***
LCS/LCSD	NMEHC	50.0	49.1	49.0	98.3	98.0	0.3

IV - Closing Calibration Verification Standard - Method 25C

Analyte	xCF	dCF	%RPD*
CO	3218	3132	2.7
CH4	3185	3202	0.5
CO2	3232	3165	2.1
Propane	9268	9628	3.8

xCF - Average Calibration Factor from Initial Calibration Curve
dCF - Daily Calibration Factor
* Must be <15%
** Must be 90-110 %
*** Must be <20%

Dr. Sucha Parmar
Technical Director

1534 Eastman Avenue • Suite A • Ventura, California 93003 (805) 650-1642 • FAX (805) 650-1644

CHAIN OF CUSTODY RECORD

Page 1 of 1 pgs

070803

First Environmental Laboratories, Inc.

First Environmental Laboratories
1600 Shore Road, Suite D
Naperville, Illinois 60563
Phone: (630) 778-1200 • Fax: (630) 778-1233
24 Hr. Pager (708) 569-7507
E-mail: info@firstenv.com
IEPA Certification# 100292

AAC
1534 EASTMAN AVE
SUITE A
VENTURA, CA 93003

Company Name: MWH
Street Address: 175 W. JACKSON BLVD SUITE 1900
City: CHICAGO State: IL Zip: 60604
Phone: (312) 831-3000 Fax: (312) 831-3021
Send Report To: JUSTIN FINGER
Sampled By: JUSTIN FINGER

Analyses

Project I.D.: BLACKWELL
P.O. #: 4050581 083101

Matrix Codes: S = Soil W = Water O = Other

Date/Time Taken	Sample Description	Matrix	EPA 25C MOD (TUMC)								Comments	Lab I.D.
8/14/07 0645 1145	BW-LFGSTACK-43A	AIR	X								CANISTER = 0000 33	[illegible]
											INITIAL VAC = -30 "Hg	
											FINAL VAC = -1.5 "Hg	

FOR LAB USE ONLY:

Cooler Temperature: 0.1-6°C Yes__ No.__ _____°C
Received within 6 hrs. of collection:_____
Ice Present: Yes__ No__

Sample Refrigerated: Yes__ No__
Refrigerator Temperature:_____°C
5035 Vials Frozen: Yes__ No__
Freezer Temperature:_____°C

Containers Received Preserved: ___
Preserved in Lab: ___

Notes and Special Instructions: _____

Relinquished By: [signature] Date/Time 8/14/07 1530 Received By: [signature] Date/Time 8/15/07 [illegible]
Relinquished By: _____ Date/Time _____ Received By: _____ Date/Time _____

Rev. 10/04

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Air Toxics Ltd. Introduces the Electronic Report

Thank you for choosing Air Toxics Ltd. To better serve our customers, we are providing your report by e-mail. This document is provided in Portable Document Format which can be viewed with Acrobat Reader by Adobe.

This electronic report includes the following:

- Work order Summary;
- Laboratory Narrative;
- Results; and
- Chain of Custody (copy).

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630

(916) 985-1000 .FAX (916) 985-1020
Hours 8:00 A.M to 6:00 P.M. Pacific

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0711311B

Work Order Summary

CLIENT:	Mr. Dave Powers MWH Americas, Inc. 175 West Jackson Blvd. Suite 1900 Chicago, IL 60604	**BILL TO:**	Mr. Dave Powers MWH Americas, Inc. 175 West Jackson Blvd. Suite 1900 Chicago, IL 60604
PHONE:	312-831-3000 x3432	**P.O. #**	
FAX:	312-831-3021	**PROJECT #**	4050581.088101 BLACKWELL
DATE RECEIVED:	11/15/2007	**CONTACT:**	Brandon Dunmore
DATE COMPLETED:	11/30/2007		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.
01A	BW-LFG-STACK-44A	Modified ASTM D-1945	0.0 "Hg
02A	Lab Blank	Modified ASTM D-1945	NA
02B	Lab Blank	Modified ASTM D-1945	NA
03A	LCS	Modified ASTM D-1945	NA
03AA	LCSD	Modified ASTM D-1945	NA
03B	LCS	Modified ASTM D-1945	NA
03BB	LCSD	Modified ASTM D-1945	NA
03C	LCS	Modified ASTM D-1945	NA
03CC	LCSD	Modified ASTM D-1945	NA

CERTIFIED BY: Linda J. Freeman

Laboratory Director

DATE: 11/30/07

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/07, Expiration date: 06/30/08
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Air Toxics Ltd.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified ASTM D-1945
MWH Americas, Inc.
Workorder# 0711311B

One 6 Liter Summa Canister sample was received on November 15, 2007. The laboratory performed analysis via modified ASTM Method D-1945 for Methane and fixed gases in natural gas using GC/FID or GC/TCD. The method involves direct injection of 1.0 mL of sample.

On the analytical column employed for this analysis, Oxygen coelutes with Argon. The corresponding peak is quantitated as Oxygen.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

Requirement	*ASTM D-1945*	*ATL Modifications*
Normalization	Sum of original values should not differ from 100.0% by more than 1.0%.	Sum of original values may range between 85-115%. Normalization of data not performed.
Sample analysis	Equilibrate samples to 20-50° F. above source temperature at field sampling	No heating of samples is performed.
Sample calculation	Response factor is calculated using peak height for C5 and lighter compounds.	Peak areas are used for all target analytes to quantitate concentrations.
Reference Standard	Concentration should not be < half of nor differ by more than 2 X the concentration of the sample. Run 2 consecutive checks; must agree within 1%.	A minimum 3-point linear calibration is performed. The acceptance criterion is %RSD <= 15%. All target analytes must be within the linear range of calibration (with the exception of O2, N2, and C6+ Hydrocarbons).
Sample Injection Volume	0.50 mL to achieve Methane linearity.	1.0 mL.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

Since Nitrogen is used to pressurize samples, the Nitrogen values are calculated by adding all the sample components and subtracting from 100%.

As per project specific client request the laboratory has reported estimated values for target compound hits that are below the Reporting Limit but greater than the Method Detection Limit. Concentrations that are

below the level at which the canister was certified may be false positives.

Definition of Data Qualifying Flags

Six qualifiers may have been used on the data analysis sheets and indicate as follows:
J - Estimated value.
E - Exceeds instrument calibration range.
S - Saturated peak.
Q - Exceeds quality control limits.
U - Compound analyzed for but not detected above the detection limit.
M - Reported value may be biased due to apparent matrix interferences.

File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

Client Sample ID: BW-LFG-STACK-44A

Lab ID#: 0711311B-01A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.13	0.42
Nitrogen	0.13	8.6
Methane	0.00013	57
Carbon Dioxide	0.013	34
Ethane	0.0013	0.0025
Ethene	0.0013	0.0014
Propane	0.0013	0.00095 J
Isobutane	0.0013	0.00041 J
Butane	0.0013	0.00012 J
Pentane	0.0013	0.00010 J
C6+	0.013	0.0055 J
Hydrogen	0.013	0.0046 J

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BW-LFG-STACK-44A

Lab ID#: 0711311B-01A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9111908**	**Date of Collection:**	**11/14/07**
Dil. Factor:	**1.34**	**Date of Analysis:**	**11/19/07 03:12 AM**

Compound	**Rpt. Limit (%)**	**Amount (%)**
Oxygen	0.13	0.42
Nitrogen	0.13	8.6
Carbon Monoxide	0.013	Not Detected
Methane	0.00013	57
Carbon Dioxide	0.013	34
Ethane	0.0013	0.0025
Ethene	0.0013	0.0014
Acetylene	0.0013	Not Detected
Propane	0.0013	0.00095 J
Isobutane	0.0013	0.00041 J
Butane	0.0013	0.00012 J
Neopentane	0.0013	Not Detected
Isopentane	0.0013	Not Detected
Pentane	0.0013	0.00010 J
C6+	0.013	0.0055 J
Hydrogen	0.013	0.0046 J

J = Estimated value.

Container Type: 6 Liter Summa Canister

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0711311B-02A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9111906a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/19/07 02:12 AM**	

Compound	**Rpt. Limit (%)**	**Amount (%)**
Oxygen	0.10	Not Detected
Nitrogen	0.10	0.099 J
Carbon Monoxide	0.010	Not Detected
Methane	0.00010	Not Detected
Carbon Dioxide	0.010	Not Detected
Ethane	0.0010	Not Detected
Ethene	0.0010	Not Detected
Acetylene	0.0010	Not Detected
Propane	0.0010	Not Detected
Isobutane	0.0010	Not Detected
Butane	0.0010	Not Detected
Neopentane	0.0010	Not Detected
Isopentane	0.0010	Not Detected
Pentane	0.0010	Not Detected
C6+	0.010	Not Detected

J = Estimated value.

Container Type: NA - Not Applicable

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0711311B-02B

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9111905ba**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/19/07 01:44 AM**	

Compound	**Rpt. Limit (%)**	**Amount (%)**
Hydrogen	0.010	Not Detected

Container Type: NA - Not Applicable

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0711311B-03A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9111931b**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/19/07 07:25 PM**	

Compound	**%Recovery**
Oxygen	101
Nitrogen	101
Carbon Monoxide	95
Carbon Dioxide	99

Container Type: NA - Not Applicable

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCSD

Lab ID#: 0711311B-03AA

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9111932b**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/19/07 07:53 PM**	

Compound	%Recovery
Oxygen	101
Nitrogen	101
Carbon Monoxide	99
Carbon Dioxide	99

Container Type: NA - Not Applicable

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0711311B-03B

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9111927**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/19/07 05:52 PM**	

Compound	%Recovery
Methane	96
Ethane	96
Ethene	97
Acetylene	102
Propane	96
Isobutane	98
Butane	98
Neopentane	97
Isopentane	96
Pentane	96
C6+	97

Container Type: NA - Not Applicable

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCSD

Lab ID#: 0711311B-03BB

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9111928**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/19/07 06:20 PM**	

Compound	%Recovery
Methane	97
Ethane	97
Ethene	97
Acetylene	102
Propane	96
Isobutane	98
Butane	98
Neopentane	97
Isopentane	97
Pentane	97
C6+	97

Container Type: NA - Not Applicable

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0711311B-03C

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9111929b**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/19/07 06:42 PM**	

Compound	**%Recovery**
Hydrogen	89

Container Type: NA - Not Applicable

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCSD

Lab ID#: 0711311B-03CC

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9111930b**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/19/07 07:03 PM**	

Compound	**%Recovery**
Hydrogen	90

Container Type: NA - Not Applicable

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AN ENVIRONMENTAL ANALYTICAL LABORATORY

Air Toxics Ltd. Introduces the Electronic Report

Thank you for choosing Air Toxics Ltd. To better serve our customers, we are providing your report by e-mail. This document is provided in Portable Document Format which can be viewed with Acrobat Reader by Adobe.

This electronic report includes the following:

- Work order Summary;
- Laboratory Narrative;
- Results; and
- Chain of Custody (copy).

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Hours 8:00 A.M to 6:00 P.M. Pacific

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AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0711311A

Work Order Summary

CLIENT:	Mr. Dave Powers MWH Americas, Inc. 175 West Jackson Blvd. Suite 1900 Chicago, IL 60604	**BILL TO:**	Mr. Dave Powers MWH Americas, Inc. 175 West Jackson Blvd. Suite 1900 Chicago, IL 60604
PHONE:	312-831-3000 x3432	**P.O. #**	
FAX:	312-831-3021	**PROJECT #**	4050581.088101 BLACKWELL
DATE RECEIVED:	11/15/2007	**CONTACT:**	Brandon Dunmore
DATE COMPLETED:	11/30/2007		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.
01A	BW-LFG-STACK-44A	Modified TO-14A	0.0 "Hg
02A	Lab Blank	Modified TO-14A	NA
03A	CCV	Modified TO-14A	NA
04A	LCS	Modified TO-14A	NA
04AA	LCSD	Modified TO-14A	NA

CERTIFIED BY: Linda J. Freeman

Laboratory Director

DATE: 11/30/07

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/07, Expiration date: 06/30/08
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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LABORATORY NARRATIVE
Modified TO-14A
MWH Americas, Inc.
Workorder# 0711311A

LUMEN DATA VALIDATED

One 6 Liter Summa Canister sample was received on November 15, 2007. The laboratory performed analysis via modified EPA Method TO-14A using GC/MS in the full scan mode. The method involves concentrating up to 0.2 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

Requirement	*TO-14A*	*ATL Modifications*
Daily CCV	+- 30% Difference	</= 30% Difference with two allowed out up to </=40%.; flag and narrate outliers
Initial Calibration criteria	RSD<30%	RSD</=30%, two compounds allowed up to 40%
BFB absolute abundance criteria	Within 10% of that from previous day	CCV internal standard area counts are compared to ICAL, corrective action for > 40% D
Blank acceptance criteria	<0.20 ppbv	<Reporting Limit
Moisture control	Nafion Dryer	Multisorbent trap
Sample collection media	Summa canister	ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

As per project specific client request the laboratory has reported estimated values for target compound hits that are below the Reporting Limit but greater than the Method Detection Limit. Concentrations that are below the level at which the canister was certified may be false positives.

alpha-Chlorotoluene, 1,2-Dichlorobenzene and 1,2,4-Trichlorobenzene were detected in the laboratory blank analyzed on 11-28-2007 above the reporting limit. Associated samples had no detections for alpha-Chlorotoluene, 1,2-Dichlorobenzene and 1,2,4-Trichlorobenzene.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Summary of Detected Compounds
MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

Client Sample ID: BW-LFG-STACK-44A

Lab ID#: 0711311A-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	22	2300	110	11000
Freon 114	22	370	160	2600
Vinyl Chloride	22	5500	57	14000
Chloroethane	22	530	59	1400
Freon 11	22	28	120	160
Ethanol	89	230	170	440
Freon 113	22	10 J	170	78 J
1,1-Dichloroethene	22	20 J	89	78 J
Acetone	89	860	210	2000
2-Propanol	89	150	220	370
Methylene Chloride	22	130	78	460
trans-1,2-Dichloroethene	22	160	89	640
Hexane	22	900	79	3200
1,1-Dichloroethane	22	130	90	530
2-Butanone (Methyl Ethyl Ketone)	22	960	66	2800
cis-1,2-Dichloroethene	22	1600	89	6200
Tetrahydrofuran	22	74	66	220
1,1,1-Trichloroethane	22	33	120	180
Cyclohexane	22	480	77	1700
2,2,4-Trimethylpentane	22	85	100	400
Benzene	22	810	71	2600
Heptane	22	1800	92	7600
Trichloroethene	22	290	120	1600
1,2-Dichloropropane	22	66	100	310
1,4-Dioxane	89	57 J	320	200 J
4-Methyl-2-pentanone	22	100	92	420
Toluene	22	3400	84	13000
Tetrachloroethene	22	99	150	670
Chlorobenzene	22	12 J	100	58 J
Ethyl Benzene	22	230	97	1000
m,p-Xylene	22	410	97	1800
o-Xylene	22	94	97	410
Propylbenzene	22	13 J	110	64 J
4-Ethyltoluene	22	26	110	130
1,2,4-Trimethylbenzene	22	15 J	110	73 J

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BW-LFG-STACK-44A

Lab ID#: 0711311A-01A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**7112811**	**Date of Collection:**	**11/14/07**
Dil. Factor:	**44.7**	**Date of Analysis:**	**11/28/07 07:46 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	22	2300	110	11000
Freon 114	22	370	160	2600
Chloromethane	89	Not Detected	180	Not Detected
Vinyl Chloride	22	5500	57	14000
1,3-Butadiene	22	Not Detected	49	Not Detected
Bromomethane	22	Not Detected	87	Not Detected
Chloroethane	22	530	59	1400
Freon 11	22	28	120	160
Ethanol	89	230	170	440
Freon 113	22	10 J	170	78 J
1,1-Dichloroethene	22	20 J	89	78 J
Acetone	89	860	210	2000
2-Propanol	89	150	220	370
Carbon Disulfide	22	Not Detected	70	Not Detected
3-Chloropropene	89	Not Detected	280	Not Detected
Methylene Chloride	22	130	78	460
Methyl tert-butyl ether	22	Not Detected	80	Not Detected
trans-1,2-Dichloroethene	22	160	89	640
Hexane	22	900	79	3200
1,1-Dichloroethane	22	130	90	530
2-Butanone (Methyl Ethyl Ketone)	22	960	66	2800
cis-1,2-Dichloroethene	22	1600	89	6200
Tetrahydrofuran	22	74	66	220
Chloroform	22	Not Detected	110	Not Detected
1,1,1-Trichloroethane	22	33	120	180
Cyclohexane	22	480	77	1700
Carbon Tetrachloride	22	Not Detected	140	Not Detected
2,2,4-Trimethylpentane	22	85	100	400
Benzene	22	810	71	2600
1,2-Dichloroethane	22	Not Detected	90	Not Detected
Heptane	22	1800	92	7600
Trichloroethene	22	290	120	1600
1,2-Dichloropropane	22	66	100	310
1,4-Dioxane	89	57 J	320	200 J
Bromodichloromethane	22	Not Detected	150	Not Detected
cis-1,3-Dichloropropene	22	Not Detected	100	Not Detected
4-Methyl-2-pentanone	22	100	92	420
Toluene	22	3400	84	13000
trans-1,3-Dichloropropene	22	Not Detected	100	Not Detected

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BW-LFG-STACK-44A

Lab ID#: 0711311A-01A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**7112811**	**Date of Collection:**	**11/14/07**
Dil. Factor:	**44.7**	**Date of Analysis:**	**11/28/07 07:46 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,1,2-Trichloroethane	22	Not Detected	120	Not Detected
Tetrachloroethene	22	99	150	670
2-Hexanone	89	Not Detected	370	Not Detected
Dibromochloromethane	22	Not Detected	190	Not Detected
1,2-Dibromoethane (EDB)	22	Not Detected	170	Not Detected
Chlorobenzene	22	12 J	100	58 J
Ethyl Benzene	22	230	97	1000
m,p-Xylene	22	410	97	1800
o-Xylene	22	94	97	410
Styrene	22	Not Detected	95	Not Detected
Bromoform	22	Not Detected	230	Not Detected
Cumene	22	Not Detected	110	Not Detected
1,1,2,2-Tetrachloroethane	22	Not Detected	150	Not Detected
Propylbenzene	22	13 J	110	64 J
4-Ethyltoluene	22	26	110	130
1,3,5-Trimethylbenzene	22	Not Detected	110	Not Detected
1,2,4-Trimethylbenzene	22	15 J	110	73 J
1,3-Dichlorobenzene	22	Not Detected	130	Not Detected
1,4-Dichlorobenzene	22	Not Detected	130	Not Detected
alpha-Chlorotoluene	22	Not Detected	120	Not Detected
1,2-Dichlorobenzene	22	Not Detected	130	Not Detected
1,2,4-Trichlorobenzene	89	Not Detected	660	Not Detected
Hexachlorobutadiene	89	Not Detected	950	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	99	70-130

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AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0711311A-02A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	7112810d	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 11/28/07 06:45 PM	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	2.0	Not Detected	4.1	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	0.50	Not Detected	1.9	Not Detected
Chloroethane	0.50	Not Detected	1.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	2.0	Not Detected	3.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	2.0	Not Detected	4.8	Not Detected
2-Propanol	2.0	0.16 J	4.9	0.40 J
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	0.50	Not Detected	1.7	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	Not Detected	1.5	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	0.25 J	7.2	0.89 J
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected

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AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0711311A-02A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**7112810d**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/28/07 06:45 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	0.14 J	8.2	0.58 J
Dibromochloromethane	0.50	0.12 J	4.2	1.0 J
1,2-Dibromoethane (EDB)	0.50	0.15 J	3.8	1.1 J
Chlorobenzene	0.50	0.11 J	2.3	0.53 J
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	0.14 J	2.1	0.58 J
Bromoform	0.50	0.26 J	5.2	2.7 J
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.50	0.39 J	3.4	2.7 J
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	0.34 J	3.0	2.1 J
1,4-Dichlorobenzene	0.50	0.42 J	3.0	2.6 J
alpha-Chlorotoluene	0.50	0.62	2.6	3.2
1,2-Dichlorobenzene	0.50	0.53	3.0	3.2
1,2,4-Trichlorobenzene	2.0	2.9	15	22
Hexachlorobutadiene	2.0	0.45 J	21	4.8 J

J = Estimated value.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	98	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0711311A-03A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**7112807**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/28/07 04:01 PM**	

Compound	**%Recovery**
Freon 12	98
Freon 114	106
Chloromethane	92
Vinyl Chloride	100
1,3-Butadiene	98
Bromomethane	104
Chloroethane	101
Freon 11	101
Ethanol	95
Freon 113	107
1,1-Dichloroethene	104
Acetone	94
2-Propanol	95
Carbon Disulfide	101
3-Chloropropene	95
Methylene Chloride	97
Methyl tert-butyl ether	103
trans-1,2-Dichloroethene	104
Hexane	101
1,1-Dichloroethane	103
2-Butanone (Methyl Ethyl Ketone)	104
cis-1,2-Dichloroethene	104
Tetrahydrofuran	103
Chloroform	112
1,1,1-Trichloroethane	107
Cyclohexane	102
Carbon Tetrachloride	109
2,2,4-Trimethylpentane	101
Benzene	116
1,2-Dichloroethane	114
Heptane	109
Trichloroethene	110
1,2-Dichloropropane	110
1,4-Dioxane	103
Bromodichloromethane	116
cis-1,3-Dichloropropene	112
4-Methyl-2-pentanone	111
Toluene	109
trans-1,3-Dichloropropene	114

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0711311A-03A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**7112807**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/28/07 04:01 PM**	

Compound	**%Recovery**
1,1,2-Trichloroethane	105
Tetrachloroethene	112
2-Hexanone	104
Dibromochloromethane	115
1,2-Dibromoethane (EDB)	112
Chlorobenzene	109
Ethyl Benzene	108
m,p-Xylene	109
o-Xylene	108
Styrene	118
Bromoform	123
Cumene	112
1,1,2,2-Tetrachloroethane	111
Propylbenzene	109
4-Ethyltoluene	111
1,3,5-Trimethylbenzene	97
1,2,4-Trimethylbenzene	107
1,3-Dichlorobenzene	112
1,4-Dichlorobenzene	114
alpha-Chlorotoluene	116
1,2-Dichlorobenzene	114
1,2,4-Trichlorobenzene	94
Hexachlorobutadiene	97

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	104	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0711311A-04A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	7112808	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 11/28/07 04:47 PM	

Compound	%Recovery
Freon 12	107
Freon 114	113
Chloromethane	97
Vinyl Chloride	106
1,3-Butadiene	102
Bromomethane	111
Chloroethane	108
Freon 11	108
Ethanol	84
Freon 113	127
1,1-Dichloroethene	123
Acetone	99
2-Propanol	65
Carbon Disulfide	109
3-Chloropropene	106
Methylene Chloride	112
Methyl tert-butyl ether	119
trans-1,2-Dichloroethene	111
Hexane	110
1,1-Dichloroethane	115
2-Butanone (Methyl Ethyl Ketone)	101
cis-1,2-Dichloroethene	108
Tetrahydrofuran	94
Chloroform	123
1,1,1-Trichloroethane	116
Cyclohexane	109
Carbon Tetrachloride	119
2,2,4-Trimethylpentane	109
Benzene	125
1,2-Dichloroethane	121
Heptane	118
Trichloroethene	119
1,2-Dichloropropane	118
1,4-Dioxane	82
Bromodichloromethane	124
cis-1,3-Dichloropropene	120
4-Methyl-2-pentanone	88
Toluene	121
trans-1,3-Dichloropropene	119

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0711311A-04A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**7112808**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/28/07 04:47 PM**	

Compound	**%Recovery**
1,1,2-Trichloroethane	110
Tetrachloroethene	117
2-Hexanone	73
Dibromochloromethane	120
1,2-Dibromoethane (EDB)	112
Chlorobenzene	113
Ethyl Benzene	109
m,p-Xylene	112
o-Xylene	111
Styrene	111
Bromoform	124
Cumene	118
1,1,2,2-Tetrachloroethane	108
Propylbenzene	111
4-Ethyltoluene	111
1,3,5-Trimethylbenzene	97
1,2,4-Trimethylbenzene	104
1,3-Dichlorobenzene	110
1,4-Dichlorobenzene	110
alpha-Chlorotoluene	119
1,2-Dichlorobenzene	107
1,2,4-Trichlorobenzene	76
Hexachlorobutadiene	84

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	102	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCSD

Lab ID#: 0711311A-04AA

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	7112809	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 11/28/07 05:33 PM	

Compound	%Recovery
Freon 12	106
Freon 114	111
Chloromethane	95
Vinyl Chloride	106
1,3-Butadiene	102
Bromomethane	112
Chloroethane	108
Freon 11	108
Ethanol	85
Freon 113	126
1,1-Dichloroethene	123
Acetone	99
2-Propanol	65
Carbon Disulfide	110
3-Chloropropene	106
Methylene Chloride	112
Methyl tert-butyl ether	123
trans-1,2-Dichloroethene	110
Hexane	110
1,1-Dichloroethane	115
2-Butanone (Methyl Ethyl Ketone)	101
cis-1,2-Dichloroethene	109
Tetrahydrofuran	95
Chloroform	122
1,1,1-Trichloroethane	116
Cyclohexane	110
Carbon Tetrachloride	118
2,2,4-Trimethylpentane	110
Benzene	124
1,2-Dichloroethane	123
Heptane	118
Trichloroethene	117
1,2-Dichloropropane	116
1,4-Dioxane	81
Bromodichloromethane	124
cis-1,3-Dichloropropene	119
4-Methyl-2-pentanone	88
Toluene	121
trans-1,3-Dichloropropene	119

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCSD

Lab ID#: 0711311A-04AA

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**7112809**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/28/07 05:33 PM**	

Compound	%Recovery
1,1,2-Trichloroethane	110
Tetrachloroethene	116
2-Hexanone	73
Dibromochloromethane	120
1,2-Dibromoethane (EDB)	113
Chlorobenzene	113
Ethyl Benzene	109
m,p-Xylene	111
o-Xylene	112
Styrene	112
Bromoform	125
Cumene	119
1,1,2,2-Tetrachloroethane	109
Propylbenzene	113
4-Ethyltoluene	113
1,3,5-Trimethylbenzene	98
1,2,4-Trimethylbenzene	106
1,3-Dichlorobenzene	112
1,4-Dichlorobenzene	112
alpha-Chlorotoluene	120
1,2-Dichlorobenzene	108
1,2,4-Trichlorobenzene	74
Hexachlorobutadiene	83

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	102	70-130

Air Toxics LTD.

CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and International laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Project Manager DAVID POWERS
Collected by: (Print and Sign) JUSTIN FINGER [signature]
Company MWH Email JUSTIN.E.FINGER@MWHGLOBAL.COM
Address 175 W. JACKSON BLVD SUITE 1900 City CHICAGO State IL Zip 60604
Phone (312) 831-3000 Fax (312) 831-3021

Project Info:
P.O. #
Project # 4050581.088101
Project Name BLACKWELL

Turn Around Time:
☒ Normal
☐ Rush
specify

Lab Use Only
Pressurized by: VAR
Date: 11/16/07
Pressurization Gas: (N) He

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psig)
01A	BW-LFG STACK-44A	25260	11/14/07	0715-1515	~~TO-14~~ TO14/ASTM 1945D	-28.5 "Hg	-1 "Hg	0.0 "Hg	5.0 psi

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
[signature]	11/14/07 1530		
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
		Theresa Stroppke ATL	11/15/07 950

Notes:

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	Fed-ex		NA	Good	Yes No (None)	0711311

Form 1258 rev.11

Atmospheric Analysis & Consulting, Inc.

CLIENT : MWH Americas
AAC PROJECT NO. : 071246
REPORT DATE : 11/17/2007

On November 15, 2007, Atmospheric Analysis & Consulting, Inc. received one (1) Summa Canister for Total non-methane organic compounds analysis by EPA 25C. Upon receipt the sample was assigned a unique Laboratory ID number as follows:

Client ID	Lab No.	Initial Pressure	Final Pressure
BW-LFG-Stack-44A	071246-30365	780.9	930.1

EPA 25C Analysis - Up to a 1 mL aliquot of samples is injected into the GC/FID/TCA for analysis in triplicate following EPA 25C as specified in the SOW.

No problems were encountered during receiving, preparation, and/ or analysis of these samples. The test results included in this report meet all requirements of the NELAC Standards and/or AAC SOP# AACI- EPA 25C.

I certify that this data is technically accurate, complete, and in compliance with the terms and conditions of the contract. Release of the data contained in this hardcopy data package and its electronic data deliverable submitted on diskette has been authorized by the Laboratory Director or his designee, as verified by the following signature.

If you have any questions or require further explanation of data results, please contact the undersigned.

Sucha S. Parmar, Ph.D.
President

This report consists of 6 pages.

ACCREDITED IN ACCORDANCE WITH nelac Certificate #E87837

1534 Eastman Avenue • Suite A • Ventura, California 93003 (805) 650-1642 • FAX (805) 650-1644

Atmospheric Analysis & Consulting, Inc.

Laboratory Analysis Report

Client	**: MWH Americas**	**Sampling Date**	**: 11/14/2007**
Project No.	**: 071246**	**Receiving Date**	**: 11/15/2007**
Matrix	**: Air**	**Analysis Date**	**: 11/16/2007**
Units	**: ppmv**	**Report Date**	**: 11/17/2007**

EPA Method 25C

Detection Limit:		**1.0 ppmv**
Client Sample ID	**AAC ID**	**TNMOC***
BW-LFG-Stack-44A	**071246-30365**	392.2

***Total Non-Methane Organic Compounds as Methane**

Dr. Sucha Parmar
Technical Director

1534 Eastman Avenue • Suite A • Ventura, California 93003 (805) 650-1642 • FAX (805) 650-1644

Atmospheric Analysis & Consulting, Inc.

Quality Control/Quality Assurance Report

Analysis Date: 11/16/2007
Analyst: EV
Units: ppmv

Instrument ID: FID#9
Calibration Date: 11/15/2007

I - Opening Calibration Verification Standard - Method 25C

Analyte	xCF	dCF	%RPD*
CO	10681	9954	7.0
CH4	11914	12394	4.0
CO2	11714	11437	2.4
Propane	27675	27391	1.0

II - Method Blank - Method 25C

AAC ID	Analyte	Sample Result
MB	NMEHC	ND

III - Laboratory Control Spike & Duplicate - Method 25C

AAC ID	Analyte	Spike Added	LCS Result	LCSD Result	LCS % Rec **	LCSD % Rec **	% RPD***
LCS/LCSD	NMEHC	50.0	47.2	50.8	94.5	101.6	7.3

IV - Closing Calibration Verification Standard - Method 25C

Analyte	xCF	dCF	%RPD*
CO	10681	9796	8.6
CH4	11914	13009	8.8
CO2	11714	11302	3.6
Propane	27675	30086	8.3

xCF - Average Calibration Factor from Initial Calibration Curve
dCF - Daily Calibration Factor
* Must be <15%
** Must be 90-110 %
*** Must be <20%

Dr. Sucha Parmar,
Technical Director

1534 Eastman Avenue • Suite A • Ventura, California 93003 (805) 650-1642 • FAX (805) 650-1644

Atmospheric Analysis & Consulting, Inc.

Quality Control/Quality Assurance Report

Date Analyzed: 11/16/2007 **Instrument ID:** TCD#1
Analyst: MH/EV **Units:** %

I - Method Blank-EPA Method 3C

AAC ID	Analyte	MB Concentration
Method Blank	Hydrogen	ND
	Oxygen	ND
	Nitrogen	ND
	CO	ND
	Methane	ND
	CO2	ND

II-Laboratory Control Spike & Duplicate - EPA Method 3C

AAC ID	Analyte	Spike Added	LCS Result	LCSD Result	LCS % Rec *	LCSD % Rec *	% RPD***
Lab Control Standards	Hydrogen	20.0	19.5	19.5	97	98	0.3
	Nitrogen	20.0	20.5	20.7	102	103	1.0
	CO	20.0	18.6	18.7	93	94	0.8
	Methane	20.0	19.3	19.5	97	97	0.8
	CO2	20.0	19.3	19.4	96	97	0.7

III - Duplicate Analysis - EPA Method 3C

AAC ID	Analyte	Sample Concentration	Duplicate Concentration	Mean	% RPD***
071241-30346	Hydrogen	0.00	0.00	0.0	0.0
	Oxygen	8.89	8.85	8.9	0.5
	Nitrogen	54.46	54.30	54.4	0.3
	CO	0.00	0.00	0.0	0.0
	Methane	0.00	0.00	0.0	0.0
	CO2	4.80	4.83	4.8	0.6

IV-Matrix Spike & Duplicate- EPA Method 3C

AAC ID	Analyte	Sample Concentration	Spike Added	MS Result	MSD Result	MS % Rec **	MSD % Rec **	% RPD***
071241-30346	Hydrogen	0.00	10.0	9.2	9.2	92	92	0.4
	Nitrogen	27.19	10.0	37.0	37.7	99	105	6.1
	CO	0.00	10.0	9.6	9.6	96	96	0.1
	Methane	0.00	10.0	10.0	10.0	100	100	0.3
	CO2	2.41	10.0	12.3	12.2	98	98	0.3

** Must be 85-115%*
*** Must be 75-125%*
**** Must be < 25%*

Dr. Sucha Parmar
Technical Director

1534 Eastman Avenue • Suite A • Ventura, California 93003 (805) 650-1642 • FAX (805) 650-1644

Atmospheric Analysis & Consulting, Inc.

Quality Control/Quality Assurance Report

Date Analyzed: 11/16/2007 **Instrument ID: TCD#1**
Analyst: MH/EV **Calibration Date: 08/21/07**

Opening Calibration Verification Standard

Analyte	xLR**	LR	%RPD*
Hydrogen	2127	2010	5.7
Oxygen***	56490	51561	9.1
Nitrogen	59782	59935	0.3
Carbon Monoxide	65600	59716	9.4
Methane	53998	51272	5.2
Carbon Dioxide	88017	83429	5.4

Closing Calibration Verification Standard

Analyte	xLR**	LR	%RPD*
Hydrogen	2127	2112	0.7
Nitrogen	59782	61634	3.1
Carbon Monoxide	65600	61334	6.7
Methane	53998	52612	2.6
Carbon Dioxide	88017	85667	2.7

* Must be <15%
** Linear Response Factor from Initial Calibration Curve
*** Oxygen from Lab Air

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ATMOSPHERIC ANALYSIS & CONSULTING, INC.
1534 Eastman Avenue, Suite A
Ventura, California 93003
Phone (805) 650-1642 Fax (805) 650-1644
E-mail: aaclab@earthlink.net

AAC Project No. 07246

CHAIN OF CUSTODY / ANALYSIS REQUEST FORM

Client Name: MWH

Project name: BLACKWELL

Project Mgr (Print Name): PETER VAGT

Project Number: 4050581.088101

Sampler's Name (Print Name): JUSTIN FINGER / DENISE AMBRUSTER

Sampler's Signature: [signature]

Analysis Requested: EPA 25C MOD (TNMOC)

Send Report:

Attn: JUSTIN FINGER

Phone #: (512) 851-5447

Fax #: (512) 851-5021

Send Invoice to:

Attn:

P.O. #

Turn Around Time

24-Hr ____ 48-Hr ____

5 day ____ Normal X

Other (Specify)

Special Intructions / remarks

AAC Sample No.	Date Sampled	Time Sampled	Sample Type	Client Sample ID/Description	Type/No. of containers	EPA 25C MOD (TNMOC)					
100279	11/14/07	0715	AIR	BW-LFGSTACK-44A	GRAB 1	X					

Relinquished by (Signature)	Print name:	Date/Time	Received by (Signature)	Print Name
[signature]	JUSTIN E. FINGER	11/14/07 1530	[signature]	
Relinquished by (Signature)	Print name:	Date/Time	Received by (Signature)	Print Name

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Air Toxics Ltd. Introduces the Electronic Report

Thank you for choosing Air Toxics Ltd. To better serve our customers, we are providing your report by e-mail. This document is provided in Portable Document Format which can be viewed with Acrobat Reader by Adobe.

This electronic report includes the following:

- Work order Summary;
- Laboratory Narrative;
- Results; and
- Chain of Custody (copy).

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Hours 8:00 A.M to 6:00 P.M. Pacific

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0802294B

Work Order Summary

CLIENT:	Mr. Dave Powers MWH Americas, Inc. 175 West Jackson Blvd. Suite 1900 Chicago, IL 60604	**BILL TO:**	Accounts Payable MWH Americas, Inc. PO Box 6610 Broomfield, CO 80021
PHONE:	312-831-3000 x3432	**P.O. #**	
FAX:	312-831-3021	**PROJECT #**	4050581.088101 BLACKWELL
DATE RECEIVED:	02/14/2008	**CONTACT:**	Brandon Dunmore
DATE COMPLETED:	02/28/2008		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	BW-LFGSTACK-45A	Modified ASTM D-1945	1.0 psi	5 psi
02A	Lab Blank	Modified ASTM D-1945	NA	NA
02B	Lab Blank	Modified ASTM D-1945	NA	NA
03A	LCS	Modified ASTM D-1945	NA	NA
03AA	LCSD	Modified ASTM D-1945	NA	NA
04A	LCS	Modified ASTM D-1945	NA	NA
04AA	LCSD	Modified ASTM D-1945	NA	NA

CERTIFIED BY: Linda J. Freeman DATE: 02/28/08

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/07, Expiration date: 06/30/08
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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LABORATORY NARRATIVE
Modified ASTM D-1945
MWH Americas, Inc.
Workorder# 0802294B

One 6 Liter Summa Canister sample was received on February 14, 2008. The laboratory performed analysis via modified ASTM Method D-1945 for Methane and fixed gases in natural gas using GC/FID or GC/TCD. The method involves direct injection of 1.0 mL of sample.

On the analytical column employed for this analysis, Oxygen coelutes with Argon. The corresponding peak is quantitated as Oxygen.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

Requirement	*ASTM D-1945*	*ATL Modifications*
Normalization	Sum of original values should not differ from 100.0% by more than 1.0%.	Sum of original values may range between 85-115%. Normalization of data not performed.
Sample analysis	Equilibrate samples to 20-50° F. above source temperature at field sampling	No heating of samples is performed.
Sample calculation	Response factor is calculated using peak height for C5 and lighter compounds.	Peak areas are used for all target analytes to quantitate concentrations.
Reference Standard	Concentration should not be < half of nor differ by more than 2 X the concentration of the sample. Run 2 consecutive checks; must agree within 1%.	A minimum 3-point linear calibration is performed. The acceptance criterion is %RSD </= 15%. All target analytes must be within the linear range of calibration (with the exception of O2, N2, and C6+ Hydrocarbons).
Sample Injection Volume	0.50 mL to achieve Methane linearity.	1.0 mL.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

Since Nitrogen is used to pressurize samples, the Nitrogen values are calculated by adding all the sample components and subtracting from 100%.

As per project specific client request the laboratory has reported estimated values for target compound hits that are below the Reporting Limit but greater than the Method Detection Limit. Concentrations that are

below the level at which the canister was certified may be false positives.

Definition of Data Qualifying Flags

Six qualifiers may have been used on the data analysis sheets and indicate as follows:
J - Estimated value.
E - Exceeds instrument calibration range.
S - Saturated peak.
Q - Exceeds quality control limits.
U - Compound analyzed for but not detected above the detection limit.
M - Reported value may be biased due to apparent matrix interferences.

File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

Client Sample ID: BW-LFGSTACK-45A

Lab ID#: 0802294B-01A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.12	0.32
Nitrogen	0.12	6.7
Methane	0.00012	60
Carbon Dioxide	0.012	33
Ethane	0.0012	0.0022
Ethene	0.0012	0.0017
Propane	0.0012	0.0010 J
Isobutane	0.0012	0.00040 J
Butane	0.0012	0.00010 J
Pentane	0.0012	0.000092 J
C6+	0.012	0.0032 J
Hydrogen	0.012	0.0026 J

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AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BW-LFGSTACK-45A

Lab ID#: 0802294B-01A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9022113**	**Date of Collection:**	**2/13/08**
Dil. Factor:	**1.25**	**Date of Analysis:**	**2/21/08 09:45 AM**

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.12	0.32
Nitrogen	0.12	6.7
Carbon Monoxide	0.012	Not Detected
Methane	0.00012	60
Carbon Dioxide	0.012	33
Ethane	0.0012	0.0022
Ethene	0.0012	0.0017
Acetylene	0.0012	Not Detected
Propane	0.0012	0.0010 J
Isobutane	0.0012	0.00040 J
Butane	0.0012	0.00010 J
Neopentane	0.0012	Not Detected
Isopentane	0.0012	Not Detected
Pentane	0.0012	0.000092 J
C6+	0.012	0.0032 J
Hydrogen	0.012	0.0026 J

J = Estimated value.

Container Type: 6 Liter Summa Canister

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AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0802294B-02A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9022104a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/21/08 01:29 AM**	

Compound	**Rpt. Limit (%)**	**Amount (%)**
Oxygen	0.10	0.0055 J
Nitrogen	0.10	0.093 J
Carbon Monoxide	0.010	Not Detected
Methane	0.00010	Not Detected
Carbon Dioxide	0.010	Not Detected
Ethane	0.0010	Not Detected
Ethene	0.0010	Not Detected
Acetylene	0.0010	Not Detected
Propane	0.0010	0.000026 J
Isobutane	0.0010	Not Detected
Butane	0.0010	Not Detected
Neopentane	0.0010	Not Detected
Isopentane	0.0010	Not Detected
Pentane	0.0010	Not Detected
C6+	0.010	Not Detected

J = Estimated value.

Container Type: NA - Not Applicable

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0802294B-02B

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9022103ba**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/21/08 01:04 AM**	

Compound	**Rpt. Limit (%)**	**Amount (%)**
Hydrogen	0.010	Not Detected

Container Type: NA - Not Applicable

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0802294B-03A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9022126**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/21/08 07:17 PM**	

Compound	**%Recovery**
Oxygen	100
Nitrogen	99
Carbon Monoxide	97
Methane	100
Carbon Dioxide	99
Ethane	100
Ethene	100
Acetylene	103
Propane	100
Isobutane	98
Butane	98
Neopentane	99
Isopentane	99
Pentane	99
C6+	100

Container Type: NA - Not Applicable

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCSD

Lab ID#: 0802294B-03AA

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9022127**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/21/08 08:11 PM**	

Compound	**%Recovery**
Oxygen	100
Nitrogen	99
Carbon Monoxide	98
Methane	100
Carbon Dioxide	98
Ethane	100
Ethene	99
Acetylene	103
Propane	100
Isobutane	98
Butane	98
Neopentane	99
Isopentane	98
Pentane	99
C6+	100

Contains

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0802294B-04A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9022128b**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 2/21/08 08:59 PM**

Compound	**%Recovery**
Hydrogen	99

Container Type: NA - Not Applicable

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCSD

Lab ID#: 0802294B-04AA

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9022129b**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/21/08 09:23 PM**	

Compound	**%Recovery**
Hydrogen	99

Container Type: NA - Not Applicable

Air Toxics LTD.

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Thank you for choosing Air Toxics Ltd. To better serve our customers, we are providing your report by e-mail. This document is provided in Portable Document Format which can be viewed with Acrobat Reader by Adobe.

This electronic report includes the following:

- Work order Summary;
- Laboratory Narrative;
- Results; and
- Chain of Custody (copy).

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Hours 8:00 A.M to 6:00 P.M. Pacific

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0802294A

Work Order Summary

CLIENT:	Mr. Dave Powers MWH Americas, Inc. 175 West Jackson Blvd. Suite 1900 Chicago, IL 60604	**BILL TO:**	Accounts Payable MWH Americas, Inc. PO Box 6610 Broomfield, CO 80021
PHONE:	312-831-3000 x3432	**P.O. #**	
FAX:	312-831-3021	**PROJECT #**	4050581.088101 BLACKWELL
DATE RECEIVED:	02/14/2008	**CONTACT:**	Brandon Dunmore
DATE COMPLETED:	02/28/2008		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	BW-LFGSTACK-45A	Modified TO-15 (5&20 ppbv)	1.0 psi	5 psi
02A	Lab Blank	Modified TO-15 (5&20 ppbv)	NA	NA
03A	CCV	Modified TO-15 (5&20 ppbv)	NA	NA
04A	LCS	Modified TO-15 (5&20 ppbv)	NA	NA
04AA	LCSD	Modified TO-15 (5&20 ppbv)	NA	NA

CERTIFIED BY: Linda J. Freeman

Laboratory Director

DATE: 02/28/08

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/07, Expiration date: 06/30/08
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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LABORATORY NARRATIVE
Modified TO-15 (5 & 20 ppbv)
MWH Americas, Inc.
Workorder# 0802294A

One 6 Liter Summa Canister sample was received on February 14, 2008. The laboratory performed the analysis via Modified Method TO-15 using GC/MS in the full scan mode. The method involves up to a 50 mL sample aliquot into a vapor management system. Following dehumidification the sample passes directly into the GC/MS for analysis.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

Requirement	*TO-15*	*ATL Modifications*
Daily CCV	+- 30% Difference	</= 30% Difference with two allowed out up to </=40%.; flag and narrate outliers
Sample collection media	Summa canister	ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

As per project specific client request the laboratory has reported estimated values for target compound hits that are below the Reporting Limit but greater than the Method Detection Limit. Concentrations that are below the level at which the canister was certified may be false positives.

All Quality Control Limit failures and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page. Target compound non-detects in the samples that are associated with high bias in QC analyses have not been flagged.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction no

performed).

J - Estimated value.
E - Exceeds instrument calibration range.
S - Saturated peak.
Q - Exceeds quality control limits.
U - Compound analyzed for but not detected above the reporting limit.
UJ- Non-detected compound associated with low bias in the CCV
N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS

Client Sample ID: BW-LFGSTACK-45A

Lab ID#: 0802294A-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	12	3600	62	18000
Freon 114	12	430	87	3000
Vinyl Chloride	12	6700	32	17000
Chloroethane	12	260	33	700
Freon 11	12	35	70	200
Freon 113	12	9.4 J	96	72 J
1,1-Dichloroethene	12	16	50	63
Acetone	50	740	120	1800
2-Propanol	50	57	120	140
Methylene Chloride	12	100	43	350
trans-1,2-Dichloroethene	12	150	50	600
Hexane	12	790	44	2800
1,1-Dichloroethane	12	44	50	180
2-Butanone (Methyl Ethyl Ketone)	12	1300	37	3700
cis-1,2-Dichloroethene	12	720	50	2800
Tetrahydrofuran	12	110	37	330
Cyclohexane	12	400	43	1400
2,2,4-Trimethylpentane	12	80	58	370
Benzene	12	650	40	2100
Heptane	12	1700	51	6900
Trichloroethene	12	110	67	610
1,2-Dichloropropane	12	50	58	230
1,4-Dioxane	50	12 J	180	42 J
4-Methyl-2-pentanone	12	120	51	500
Toluene	12	2200	47	8300
Tetrachloroethene	12	30	85	200
Chlorobenzene	12	9.6 J	58	44 J
Ethyl Benzene	12	170	54	740
m,p-Xylene	12	310	54	1300
o-Xylene	12	64	54	280
Cumene	12	10 J	61	51 J
Propylbenzene	12	7.1 J	61	35 J
4-Ethyltoluene	12	17	61	82
1,3,5-Trimethylbenzene	12	7.6 J	61	38 J
1,2,4-Trimethylbenzene	12	12	61	61

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Client Sample ID: BW-LFGSTACK-45A

Lab ID#: 0802294A-01A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	**c022235**	**Date of Collection:**	**2/13/08**
Dil. Factor:	**2.50**	**Date of Analysis:**	**2/22/08 04:41 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	12	3600	62	18000
Freon 114	12	430	87	3000
Chloromethane	50	Not Detected	100	Not Detected
Vinyl Chloride	12	6700	32	17000
1,3-Butadiene	12	Not Detected	28	Not Detected
Bromomethane	12	Not Detected	48	Not Detected
Chloroethane	12	260	33	700
Freon 11	12	35	70	200
Ethanol	50	Not Detected	94	Not Detected
Freon 113	12	9.4 J	96	72 J
1,1-Dichloroethene	12	16	50	63
Acetone	50	740	120	1800
2-Propanol	50	57	120	140
Carbon Disulfide	12	Not Detected	39	Not Detected
3-Chloropropene	50	Not Detected	160	Not Detected
Methylene Chloride	12	100	43	350
Methyl tert-butyl ether	12	Not Detected	45	Not Detected
trans-1,2-Dichloroethene	12	150	50	600
Hexane	12	790	44	2800
1,1-Dichloroethane	12	44	50	180
2-Butanone (Methyl Ethyl Ketone)	12	1300	37	3700
cis-1,2-Dichloroethene	12	720	50	2800
Tetrahydrofuran	12	110	37	330
Chloroform	12	Not Detected	61	Not Detected
1,1,1-Trichloroethane	12	Not Detected	68	Not Detected
Cyclohexane	12	400	43	1400
Carbon Tetrachloride	12	Not Detected	79	Not Detected
2,2,4-Trimethylpentane	12	80	58	370
Benzene	12	650	40	2100
1,2-Dichloroethane	12	Not Detected	50	Not Detected
Heptane	12	1700	51	6900
Trichloroethene	12	110	67	610
1,2-Dichloropropane	12	50	58	230
1,4-Dioxane	50	12 J	180	42 J
Bromodichloromethane	12	Not Detected	84	Not Detected
cis-1,3-Dichloropropene	12	Not Detected	57	Not Detected
4-Methyl-2-pentanone	12	120	51	500
Toluene	12	2200	47	8300
trans-1,3-Dichloropropene	12	Not Detected	57	Not Detected

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AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BW-LFGSTACK-45A

Lab ID#: 0802294A-01A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	**c022235**	**Date of Collection:**	**2/13/08**
Dil. Factor:	**2.50**	**Date of Analysis:**	**2/22/08 04:41 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,1,2-Trichloroethane	12	Not Detected	68	Not Detected
Tetrachloroethene	12	30	85	200
2-Hexanone	50	Not Detected	200	Not Detected
Dibromochloromethane	12	Not Detected	110	Not Detected
1,2-Dibromoethane (EDB)	12	Not Detected	96	Not Detected
Chlorobenzene	12	9.6 J	58	44 J
Ethyl Benzene	12	170	54	740
m,p-Xylene	12	310	54	1300
o-Xylene	12	64	54	280
Styrene	12	Not Detected	53	Not Detected
Bromoform	12	Not Detected	130	Not Detected
Cumene	12	10 J	61	51 J
1,1,2,2-Tetrachloroethane	12	Not Detected	86	Not Detected
Propylbenzene	12	7.1 J	61	35 J
4-Ethyltoluene	12	17	61	82
1,3,5-Trimethylbenzene	12	7.6 J	61	38 J
1,2,4-Trimethylbenzene	12	12	61	61
1,3-Dichlorobenzene	12	Not Detected	75	Not Detected
1,4-Dichlorobenzene	12	Not Detected	75	Not Detected
alpha-Chlorotoluene	12	Not Detected	65	Not Detected
1,2-Dichlorobenzene	12	Not Detected	75	Not Detected
1,2,4-Trichlorobenzene	50	Not Detected	370	Not Detected
Hexachlorobutadiene	50	Not Detected	530	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	96	70-130

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AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0802294A-02A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	**c022233a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/22/08 03:27 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	5.0	Not Detected	25	Not Detected
Freon 114	5.0	Not Detected	35	Not Detected
Chloromethane	20	Not Detected	41	Not Detected
Vinyl Chloride	5.0	Not Detected	13	Not Detected
1,3-Butadiene	5.0	Not Detected	11	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	5.0	Not Detected	13	Not Detected
Freon 11	5.0	Not Detected	28	Not Detected
Ethanol	20	1.8 J	38	3.5 J
Freon 113	5.0	Not Detected	38	Not Detected
1,1-Dichloroethene	5.0	Not Detected	20	Not Detected
Acetone	20	Not Detected	48	Not Detected
2-Propanol	20	Not Detected	49	Not Detected
Carbon Disulfide	5.0	Not Detected	16	Not Detected
3-Chloropropene	20	Not Detected	63	Not Detected
Methylene Chloride	5.0	0.92 J	17	3.2 J
Methyl tert-butyl ether	5.0	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	5.0	Not Detected	20	Not Detected
Hexane	5.0	Not Detected	18	Not Detected
1,1-Dichloroethane	5.0	Not Detected	20	Not Detected
2-Butanone (Methyl Ethyl Ketone)	5.0	Not Detected	15	Not Detected
cis-1,2-Dichloroethene	5.0	Not Detected	20	Not Detected
Tetrahydrofuran	5.0	Not Detected	15	Not Detected
Chloroform	5.0	Not Detected	24	Not Detected
1,1,1-Trichloroethane	5.0	Not Detected	27	Not Detected
Cyclohexane	5.0	Not Detected	17	Not Detected
Carbon Tetrachloride	5.0	Not Detected	31	Not Detected
2,2,4-Trimethylpentane	5.0	Not Detected	23	Not Detected
Benzene	5.0	Not Detected	16	Not Detected
1,2-Dichloroethane	5.0	Not Detected	20	Not Detected
Heptane	5.0	Not Detected	20	Not Detected
Trichloroethene	5.0	Not Detected	27	Not Detected
1,2-Dichloropropane	5.0	Not Detected	23	Not Detected
1,4-Dioxane	20	Not Detected	72	Not Detected
Bromodichloromethane	5.0	Not Detected	34	Not Detected
cis-1,3-Dichloropropene	5.0	Not Detected	23	Not Detected
4-Methyl-2-pentanone	5.0	Not Detected	20	Not Detected
Toluene	5.0	Not Detected	19	Not Detected
trans-1,3-Dichloropropene	5.0	Not Detected	23	Not Detected

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AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0802294A-02A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	**c022233a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/22/08 03:27 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,1,2-Trichloroethane	5.0	Not Detected	27	Not Detected
Tetrachloroethene	5.0	Not Detected	34	Not Detected
2-Hexanone	20	Not Detected	82	Not Detected
Dibromochloromethane	5.0	Not Detected	42	Not Detected
1,2-Dibromoethane (EDB)	5.0	Not Detected	38	Not Detected
Chlorobenzene	5.0	Not Detected	23	Not Detected
Ethyl Benzene	5.0	Not Detected	22	Not Detected
m,p-Xylene	5.0	Not Detected	22	Not Detected
o-Xylene	5.0	Not Detected	22	Not Detected
Styrene	5.0	Not Detected	21	Not Detected
Bromoform	5.0	Not Detected	52	Not Detected
Cumene	5.0	Not Detected	24	Not Detected
1,1,2,2-Tetrachloroethane	5.0	Not Detected	34	Not Detected
Propylbenzene	5.0	Not Detected	24	Not Detected
4-Ethyltoluene	5.0	Not Detected	24	Not Detected
1,3,5-Trimethylbenzene	5.0	Not Detected	24	Not Detected
1,2,4-Trimethylbenzene	5.0	Not Detected	24	Not Detected
1,3-Dichlorobenzene	5.0	Not Detected	30	Not Detected
1,4-Dichlorobenzene	5.0	Not Detected	30	Not Detected
alpha-Chlorotoluene	5.0	Not Detected	26	Not Detected
1,2-Dichlorobenzene	5.0	Not Detected	30	Not Detected
1,2,4-Trichlorobenzene	20	Not Detected	150	Not Detected
Hexachlorobutadiene	20	Not Detected	210	Not Detected

J = Estimated value.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	93	70-130
4-Bromofluorobenzene	96	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0802294A-03A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	**c022231**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/22/08 02:19 PM**	

Compound	%Recovery
Freon 12	92
Freon 114	100
Chloromethane	122
Vinyl Chloride	113
1,3-Butadiene	113
Bromomethane	101
Chloroethane	104
Freon 11	98
Ethanol	111
Freon 113	107
1,1-Dichloroethene	102
Acetone	95
2-Propanol	104
Carbon Disulfide	99
3-Chloropropene	96
Methylene Chloride	108
Methyl tert-butyl ether	72
trans-1,2-Dichloroethene	96
Hexane	102
1,1-Dichloroethane	95
2-Butanone (Methyl Ethyl Ketone)	88
cis-1,2-Dichloroethene	93
Tetrahydrofuran	104
Chloroform	93
1,1,1-Trichloroethane	90
Cyclohexane	93
Carbon Tetrachloride	95
2,2,4-Trimethylpentane	94
Benzene	96
1,2-Dichloroethane	104
Heptane	96
Trichloroethene	94
1,2-Dichloropropane	92
1,4-Dioxane	91
Bromodichloromethane	98
cis-1,3-Dichloropropene	88
4-Methyl-2-pentanone	86
Toluene	90
trans-1,3-Dichloropropene	91

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AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0802294A-03A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	**c022231**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/22/08 02:19 PM**	

Compound	**%Recovery**
1,1,2-Trichloroethane	92
Tetrachloroethene	98
2-Hexanone	90
Dibromochloromethane	100
1,2-Dibromoethane (EDB)	92
Chlorobenzene	89
Ethyl Benzene	90
m,p-Xylene	89
o-Xylene	91
Styrene	91
Bromoform	101
Cumene	96
1,1,2,2-Tetrachloroethane	96
Propylbenzene	97
4-Ethyltoluene	101
1,3,5-Trimethylbenzene	103
1,2,4-Trimethylbenzene	110
1,3-Dichlorobenzene	110
1,4-Dichlorobenzene	85
alpha-Chlorotoluene	77
1,2-Dichlorobenzene	117
1,2,4-Trichlorobenzene	130
Hexachlorobutadiene	120

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	114	70-130

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AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0802294A-04A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	**c022229**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/22/08 01:15 PM**	

Compound	%Recovery
Freon 12	95
Freon 114	100
Chloromethane	115
Vinyl Chloride	112
1,3-Butadiene	112
Bromomethane	98
Chloroethane	103
Freon 11	98
Ethanol	106
Freon 113	109
1,1-Dichloroethene	100
Acetone	95
2-Propanol	104
Carbon Disulfide	102
3-Chloropropene	97
Methylene Chloride	108
Methyl tert-butyl ether	77
trans-1,2-Dichloroethene	98
Hexane	98
1,1-Dichloroethane	95
2-Butanone (Methyl Ethyl Ketone)	89
cis-1,2-Dichloroethene	92
Tetrahydrofuran	103
Chloroform	92
1,1,1-Trichloroethane	91
Cyclohexane	91
Carbon Tetrachloride	94
2,2,4-Trimethylpentane	92
Benzene	98
1,2-Dichloroethane	106
Heptane	98
Trichloroethene	95
1,2-Dichloropropane	90
1,4-Dioxane	89
Bromodichloromethane	99
cis-1,3-Dichloropropene	86
4-Methyl-2-pentanone	86
Toluene	91
trans-1,3-Dichloropropene	96

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0802294A-04A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	**c022229**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/22/08 01:15 PM**	

Co	%Recovery
[illegible]	102
[illegible]rachloroethene	107
2-He[illegible]	96
Dib[illegible]	109
[illegible]	101
Chloro[illegible]	98
Ethyl Benzene	97
m,p-Xylene	99
o-Xylene	99
Styrene	103
Bromoform	114
Cumene	110
1,1,2,2-Tetrachloroethane	106
Propylbenzene	109
4-Ethyltoluene	115
1,3,5-Trimethylbenzene	116
1,2,4-Trimethylbenzene	124
1,3-Dichlorobenzene	124
1,4-Dichlorobenzene	97
alpha-Chlorotoluene	85
1,2-Dichlorobenzene	132 Q
1,2,4-Trichlorobenzene	149 Q
Hexachlorobutadiene	139 Q

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	102	70-130

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AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCSD

Lab ID#: 0802294A-04AA

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	**c022230**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/22/08 01:46 PM**	

Compound	%Recovery
Freon 12	96
Freon 114	100
Chloromethane	118
Vinyl Chloride	93
1,3-Butadiene	106
Bromomethane	103
Chloroethane	109
Freon 11	100
Ethanol	112
Freon 113	112
1,1-Dichloroethene	104
Acetone	100
2-Propanol	109
Carbon Disulfide	104
3-Chloropropene	100
Methylene Chloride	111
Methyl tert-butyl ether	78
trans-1,2-Dichloroethene	100
Hexane	104
1,1-Dichloroethane	100
2-Butanone (Methyl Ethyl Ketone)	92
cis-1,2-Dichloroethene	95
Tetrahydrofuran	108
Chloroform	96
1,1,1-Trichloroethane	93
Cyclohexane	94
Carbon Tetrachloride	97
2,2,4-Trimethylpentane	96
Benzene	100
1,2-Dichloroethane	109
Heptane	100
Trichloroethene	97
1,2-Dichloropropane	93
1,4-Dioxane	95
Bromodichloromethane	101
cis-1,3-Dichloropropene	89
4-Methyl-2-pentanone	91
Toluene	94
trans-1,3-Dichloropropene	102

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AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCSD

Lab ID#: 0802294A-04AA

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	**c022230**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/22/08 01:46 PM**	

Compound	%Recovery
1,1,2-Trichloroethane	104
Tetrachloroethene	110
2-Hexanone	103
Dibromochloromethane	113
1,2-Dibromoethane (EDB)	104
Chlorobenzene	102
Ethyl Benzene	102
m,p-Xylene	102
o-Xylene	104
Styrene	109
Bromoform	118
Cumene	113
1,1,2,2-Tetrachloroethane	110
Propylbenzene	111
4-Ethyltoluene	118
1,3,5-Trimethylbenzene	121
1,2,4-Trimethylbenzene	131 Q
1,3-Dichlorobenzene	130
1,4-Dichlorobenzene	103
alpha-Chlorotoluene	92
1,2-Dichlorobenzene	140 Q
1,2,4-Trichlorobenzene	169 Q
Hexachlorobutadiene	153 Q

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	102	70-130

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CHAIN-OF-CUSTODY RECORD

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180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Project Manager: DAVID POWERS
Collected by: (Print and Sign) JUSTIN FINGER
Company: MWH
Email: JUSTIN.E.FINGER@MWHGLOBAL.COM
Address: 175 W. JACKSON BLVD SUITE 1900 City: CHICAGO State: IL Zip: 60604
Phone: (312) 831-3000 Fax: (312) 831-3021

Project Info:
P.O. #:
Project #: 4050581.08810
Project Name: BLACKWELL

Turn Around Time:
☒ Normal
☐ Rush
specify

Lab Use Only
Pressurized by:
Date:
Pressurization Gas: N_2 He

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final psig
01A	BW-LFGSTACK-45A	3713	2/13/08	0730-1530	TO14 / ASTM 1945D	-30" Hg	0" Hg		

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
[signature]	2/13/08 1600	Monica Gregson ATL	2/14/08
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time

Notes: gc

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	Fed Ex		N/A	Good	Yes No (None)	0802294

Form 1292 rev.11

Atmospheric Analysis & Consulting, Inc.

CLIENT : MWH Americas
AAC PROJECT NO. : 080076
REPORT DATE : 02/18/2008

On February 14, 2008 Atmospheric Analysis & Consulting, Inc. received one (1) Summa Canister for Total non-methane organic compounds analysis by EPA 25C. Upon receipt the sample was assigned a unique Laboratory ID number as follows:

Client ID	Lab No.	Initial Pressure	Final Pressure
BW-LFG-Stack-45A	080076-31506	803.8	1003.9

EPA 25C Analysis - Up to a 1 mL aliquot of samples is injected into the GC/FID/TCA for analysis in triplicate following EPA 25C as specified in the SOW.

No problems were encountered during receiving, preparation, and/ or analysis of these samples. The test results included in this report meet all requirements of the NELAC Standards and/or AAC SOP# AACI- EPA 25C.

I certify that this data is technically accurate, complete, and in compliance with the terms and conditions of the contract. Release of the data contained in this hardcopy data package and its electronic data deliverable submitted on diskette has been authorized by the Laboratory Director or his designee, as verified by the following signature.

If you have any questions or require further explanation of data results, please contact the undersigned.

Sucha S. Parmar, Ph.D.
President

This report consists of 4 pages.

ACCREDITED IN ACCORDANCE WITH nelac Certificate #E87837

1534 Eastman Avenue • Suite A • Ventura, California 93003 (805) 650-1642 • FAX (805) 650-1644

Atmospheric Analysis & Consulting, Inc.

Laboratory Analysis Report

Client	: **MWH Americas**	**Sampling Date**	: **02/13/2008**
Project No.	: **080076**	**Receiving Date**	: **02/14/2008**
Matrix	: **Air**	**Analysis Date**	: **02/14/2008**
Units	: **ppmv**	**Report Date**	: **02/18/2008**

EPA Method 25C

Detection Limit:		**1.0 ppmv**
Client Sample ID	**AAC ID**	**TNMOC***
BW-LFG-Stack-45A	**080076-31506**	229.6

***Total Non-Methane Organic Compounds as Methane**

Dr. Sucha Parmar
Technical Director

1534 Eastman Avenue • Suite A • Ventura, California 93003 (805) 650-1642 • FAX (805) 650-1644

Atmospheric Analysis & Consulting, Inc.

Quality Control/Quality Assurance Report

Analysis Date: 2/14/2008
Analyst: TT
Units: ppmv

Instrument ID: FID#9
Calibration Date: 1/18/2008

I - Opening Calibration Verification Standard - Method 25C

Analyte	xCF	dCF	%RPD*
CO	11713	10989	6.4
CH4	11996	11397	5.1
CO2	11842	11366	4.1
Propane	33025	30881	6.7

II - Method Blank - Method 25C

AAC ID	Analyte	Sample Result
MB	NMEHC	ND

III - Laboratory Control Spike & Duplicate - Method 25C

AAC ID	Analyte	Spike Added	LCS Result	LCSD Result	LCS % Rec **	LCSD % Rec **	% RPD***
LCS/LCSD	NMEHC	50.0	50.5	52.4	101.0	104.9	3.8

IV - Closing Calibration Verification Standard - Method 25C

Analyte	xCF	dCF	%RPD*
CO	11713	11272	3.8
CH4	11996	12905	7.3
CO2	11842	11980	1.2
Propane	33025	33665	1.9

xCF - Average Calibration Factor from Initial Calibration Curve
dCF - Daily Calibration Factor
* Must be <15%
** Must be 90-110 %
*** Must be <20%

Dr. Sucha Parmar,
Technical Director

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ATMOSPHERIC ANALYSIS & CONSULTING, INC.
1534 Eastman Avenue, Suite A
Ventura, California 93003
Phone (805) 650-1642 Fax (805) 650-1644
E-mail: aaclab@earthlink.net

AAC Project No. 080076

CHAIN OF CUSTODY / ANALYSIS REQUEST FORM

Client Name	Project Name	Analysis Requested	Send Report:
MWH	BLACKWELL		
Project Mgr (Print Name): DAVID POWERS	Project Number: 4050581.088101		Attn: JUSTIN FINGER
Sampler's Name (Print Name): JUSTIN FINGER	Sampler's Signature: [signature]		Phone #: (312) 831-3447
			Fax #: (312) 831-3021

AAC Sample No.	Date Sampled	Time Sampled	Sample Type	Client Sample ID/Description	Type/No. of containers	EPA 25C MOD (TNMOC)						
31506	2/13/08	0730-1530	GRAB	BW-LFGSTACK-45A	AIR 1	X						

Send Invoice to:

Attn:

P.O. #

Turn Around Time

24-Hr ____ 48-Hr ____

5 day ____ Normal X

Other (Specify)

Special Intructions / remarks:

Relinquished by (Signature)	Print name:	Date/Time	Received by (Signature)	Print Name
[signature]	JUSTIN E. FINGER	2/13/08 1600	[signature]	Thien Tran 2/14/08 8:10
Relinquished by (Signature)	Print name:	Date/Time	Received by (Signature)	Print Name