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

BLACKWELL FOREST PRESERVE LANDFILL SITE
DUPAGE COUNTY, ILLINOIS

MWH File No.: 1007333

Prepared For:

Forest Preserve District of
DuPage County, Illinois

Prepared By:

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August 2010

MWH

BUILDING A BETTER WORLD

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Prepared For:

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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
lbs/hr	Pounds per hour
LCS	Leachate Collection System
LFG	Landfill Gas
LS	Lift Station
MCL	Maximum Contaminant Levels
MWH	MWH Americas, Inc.
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 Twelfth 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 2009 through April 2010 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 2009 is provided in the following reports:

- *First Year Report on the Leachate Collection and Landfill Gas Extraction Systems* (Montgomery Watson, 1999c);
- *Second Year Report on the Leachate Collection and Landfill Gas Extraction Systems* (Montgomery Watson, 2000b);
- *Third Year Report on the Leachate Collection and Landfill Gas Extraction Systems* (Montgomery Watson Harza, 2001e);
- *Fourth Year Report on the Leachate Collection and Landfill Gas Extraction Systems* (MWH, 2002d);
- *Fifth Year Report on the Leachate Collection and Landfill Gas Extraction Systems* (MWH, 2003c);
- *Sixth Year Report on the Leachate Collection and Landfill Gas Extraction Systems* (MWH, 2004e);
- *Seventh Year Report on the Leachate Collection and Landfill Gas Extraction Systems* (MWH, 2005d);
- *Eighth Year Report on the Leachate Collection and Landfill Gas Extraction Systems* (MWH, 2006c);
- *Ninth Year Report on the Leachate Collection and Landfill Gas Extraction Systems* (MWH, 2007c);
- *Tenth Year Report on the Leachate Collection and Landfill Gas Extraction Systems* (MWH, 2008c); and
- *Eleventh Year Report on the Leachate Collection and Landfill Gas Extraction Systems* (MWH, 2009e).

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This Twelfth 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 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 leachate collection system;
- Installation of a passive landfill gas venting system;

- Treatment of landfill leachate[1];
- Collecting, analyzing, and evaluating groundwater samples annually; and
- Monitoring performance of the LCS and LFG venting system.

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

- This Section 1.0 presents the purpose of the Twelfth 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 evaluates the leachate and LFG data, and provides evaluations for future O&M inspections and monitoring; and
- Section 7.0 provides the references utilized in this Twelfth Year Report.

[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.

2.0 GENERAL O&M

2.1 DESCRIPTION

General O&M at the Blackwell Landfill from May 2009 through April 2010 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 that 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 12th year with no significant problems to note. Site security measures remained intact with no vandalism or security breaches noted. Vegetation is in good condition and no erosion was noted in areas adjacent to the landfill. An annual burn was conducted on the Blackwell landfill in April 2010 as part of the task of establishing natural prairie cover on 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. In addition, O&M of the landfill cover includes conducting a controlled prairie burn on an annual basis.

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 maintenance issues 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. For the DuPage County area, a rainfall of 4.5 inches within a 24-hour period meets this definition. There were no such rainfall events recorded at the nearby DuPage County Airport between May 2009 and April 2010.

The inspections of the landfill cover were routine, with no significant problems observed. Some surface water ponding was observed on the north side of the landfill near the toboggan run and on the access road near Lift Station 1 (LS01) on the south side of the landfill. No areas of stressed or dead vegetation were noted. Minor erosional ruts were observed during

site inspections made throughout the Twelfth 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 2009 through April 2010).

3.4 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).

In order to continue the development of the Blackwell Landfill prairie, restoration activities are conducted on an annual basis. Targeted weed control using an herbicide is conducted between late spring and early fall. Woody sapling removal and re-seeding of any disturbed areas are also conducted on an as-needed basis. In early fall, native prairie grass seed is collected and dispersed across the Site and fire breaks are mowed around the LCS and LFG components in preparation for the annual prairie burn conducted in the spring. A Root Penetration Assessment is conducted every five years to determine if root masses have compromised the clay cap. The next root penetration evaluation is scheduled to be conducted in the fall of 2010. Summaries of prairie restoration activities conducted over the past nine years can be found in the corresponding standalone reports:

- *First-Year Restoration Monitoring Report for the Blackwell Landfill Prairie Restoration, January 2002* (Conservation Design Forum, 2002a);
- *Second-Year Restoration Monitoring Report for the Blackwell Landfill Prairie Restoration, December 2002* (Conservation Design Forum, 2002b);
- *Third-Year Restoration Monitoring Report for the Blackwell Landfill Prairie Restoration, December 2003* (Conservation Design Forum, 2003);
- *Fourth-Year Restoration Monitoring Report for the Blackwell Landfill Prairie Restoration, December 2004* (Conservation Design Forum, 2004);
- *Fifth-Year Restoration Monitoring Report for the Blackwell Landfill Prairie Restoration, December 2005* (Conservation Design Forum, 2005);
- *Sixth-Year Restoration Monitoring Report for the Blackwell Landfill Prairie*

Restoration, December 2006 (Conservation Design Forum, 2006b);

- *Seventh-Year Restoration Monitoring Report for the Blackwell Landfill Prairie Restoration, January 2008* (Conservation Design Forum, 2007); and
- *Eighth-Year Restoration Monitoring Report for the Blackwell Landfill Prairie Restoration, January 2009* (Conservation Design Forum, 2009).
- *Ninth-Year Restoration Monitoring Report for the Blackwell Landfill Prairie Restoration, January 2010* (Conservation Design Forum, 2010).

Beginning in Spring 2004, controlled burns were executed at the Blackwell Landfill. The following controlled burns have been conducted at the Blackwell Landfill:

- The 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,
- The 2007 prairie burn was conducted on April 9, 2007,
- The 2008 prairie burn was conducted on April 15, 2008, and
- The 2009 prairie burn was conducted on April 23, 2009.

The 2010 Blackwell Landfill prairie burn was conducted on April 15, 2010. 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 (FSP) 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 2010 Blackwell prairie burn activities is presented in the *Phase I Prairie Restoration Controlled Burn Activities Summary Report* (MWH, 2010b).

3.5 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 an effort to eliminate the seep, 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. The trench was installed in June 2002 and was integrated into the existing LCS.

However, the shallow trench did not eliminate the seep. During the past five years of operation, the District and MWH observed a water seep on the north side of the landfill east of the toboggan run. 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 the summer of 2011 in order to eliminate this water seep.

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 three lift stations (LS) that 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 the south stormwater trench at existing manhole MH-20 and it collects condensate that has formed in the gas conveyance pipe from dripleg DL01. The pump in lift station LS02 did not run during Year Twelve because LS02 was dry. The shallow collection trench, installed downslope and north of EW-3, supplies surface water infiltration to lift station LS03. LS03 continued to pump the collected surface water to the leachate holding tank throughout Year Twelve.

4.1.3 Leachate Well Pumps

The nine extraction wells and three lift stations are fitted with pneumatic leachate extraction pumps that are capable of pumping a maximum 4 gallons per minute. Clean Environment® manufactured all of the twelve pneumatic pumps. A description of the Clean Environment® pumps is provided in the Second Year Report (Montgomery Watson, 2000b). Previously, a pump manufactured by the Blackhawk Environmental Company® had been installed in lift station LS03. However, in April 2009, this pump malfunctioned and was replaced by a Clean Environment® 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 is confirmed by observing the cycle counters.

4.1.4 Leachate Holding Tank

A 10,000-gallon double-walled 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). When the tank is full, the collected leachate is loaded 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 11 years, the leachate holding tank has generally been emptied one or 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 Twelfth Year of operation, the components of the LCS were inspected on a bimonthly, quarterly, semi-annual, annual, and as-needed bases in accordance with the schedule provided in Table 6. 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, included the following:

- Replaced malfunctioning Blackhawk Environmental Company® pump in LS01 with rebuilt Clean Environment® pump on May 19, 2009.
- Performed maintenance on pump float in EW-1A on June 9, 2009.
- Cleaned pump in EW-5 on July 22, 2009.
- Drained water in air lines on August 11, 2009.
- Installed new belts on air compressor on October 20, 2009.
- Performed maintenance on pump float in LS02 on February 16, 2010.

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 presented in Drawings 1 to 15 and in Table 1. In general, leachate levels have slightly increased from Year Eleven to Year Twelve (May 2009 through April 2010). Average leachate levels increased in five of the seven extraction wells where leachate levels were measured (EW-1, EW-2, EW-5, EW-6, and EW-7) from Year Eleven to Year Twelve. Conversely, the remaining two extraction wells where leachate levels were measured (EW-1A, and EW-3) showed a decrease 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 the leachate is 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 renewed each time they have expired. The current permit dated April 2, 2010 will expire on March 31, 2015. A copy of the permit is included in Appendix B.

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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 twelve 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.

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 Twelve 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 6,714,300 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 past twelve years are summarized below. This table indicates that a decreased volume of leachate was disposed of in Year Twelve as compared to Year Eleven although the extracted volume is 21% above the average for the 12 years of extraction.

Year	Volume Shipped (gallons)	Percent Change from Annual Average	Number of Leachate Shipments to WWTP
1 (12/97 to 4/99)	912,120	63%	108
2 (5/99 to 4/00)	460,050	-18%	58
3 (5/00 to 4/01)	640,958	15%	82
4 (5/01 to 4/02)	513,900	-8%	65
5 (5/02 to 4/03)	292,000	-48%	45
6 (5/03 to 4/04)	373,300	-33%	58
7 (5/04 to 4/05)	502,700	-10%	63
8 (5/05 to 4/06)	427,400	-24%	56
9 (5/06 to 4/07)	705,800	26%	85
10 (5/07 to 4/08)	482,775	-14%	60
11 (5/08 to 4/09)	725,550	30%	81
12 (5/09 to 4/10)	677,700	21%	83
Annual Average	559,521	NA	70

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 4,822,000 gallons of leachate and the lift stations have removed approximately 1,892,000 gallons of leachate since the LCS was put into operation. Table 4 indicates that 27.6 percent of the total leachate volume removed was removed by just one of the nine extraction wells (i.e., EW-8), extracting 1,855,209 gallons by the end of April 2010. In comparison, the least productive extraction well (EW-6) produced 86,281 gallons and accounted for less than two percent of the total leachate volume removed.

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 typically observed in the spring and fall, and lower removal rates typically observed in the summer and winter.

4.5.3 Lift Stations

Approximately 1,892,000 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 28 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, 2000-EE-0837, 2005-EE-3767, and 2010-EE-0095).

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 Twelfth Year of operation leachate samples were analyzed according to the following schedule:

Date	Analysis	Analytical Parameters[3]
05/13/09	Full Scan	Metals, water quality parameters, and organic toxic pollutants
07/15/09	Partial Scan	Metals, and water quality parameters
11/18/09	Full Scan	Metals, water quality parameters, and organic toxic pollutants
01/13/10	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 (COD), Chloride, Cyanide, Oil and Grease, pH, Phenols, Sulfate, 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.

The leachate analytical results are summarized in Table 5, with the leachate analytical results

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

during the Twelfth Year of LCS operations provided in Appendix B. The data indicate some variation in analyte concentrations between the sampling events. Four volatile organic compounds (VOCs) (i.e., benzene, 2-butanone, chlorobenzene, and xylene) and one semivolatile organic compound (SVOC) (i.e., bis(2-ethylhexyl)phthalate) were detected in leachate samples collected during Year Twelve. This represents a decrease compared to the number of VOCs detected in Year Eleven which had detections of acetone, benzene, 2-butanone, chlorobenzene, ethylbenzene, 4-methyl-2-pentanone, toluene, and xylene. In addition, the number of SVOCs detected in leachate during Year Twelve were fewer than in Year Eleven which had detections of benzoic acid, 1,4-dichlorobenzene, diethylphthalate, and 3&4-methylphenol.

5.0 LANDFILL GAS O&M

5.1 DESCRIPTION

Historically, LFG venting occurred through thirty 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. In 2000, the LCS and LFG systems were augmented so that twelve of the 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 Twelfth Year, the components of the LFG extraction system were inspected on weekly, monthly, quarterly, semi-annual, annual, and as-needed bases in accordance with the schedule provided in Table 6. 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 bimonthly at the main vent stack and LFG vents. The data for the Twelfth Year are provided in Tables C-1 through C-6 in Appendix C.

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

Date	Sample Name
05/13/09	BW-LFGSTACK-50A
07/15/09	BW-LFGSTACK-51A
11/18/09	BW-LFGSTACK-52A
01/13/10	BW-LFGSTACK-53A

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 7. The analytical reports for the Twelfth Year of LFG operations are provided in Appendix D.

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/TO-14A) in addition to methods ASTM D-1945 and EPA 25C.

MWH submitted the *Draft Final Addendum No.9, Quality Assurance Project Plan, Replacement of LFG Primary Analytical Laboratory Provider* (MWH, 2010a) to the U.S. EPA on March 30, 2010. This addendum was prepared for the purpose of changing the primary analytical laboratory from Air Toxics to STAT Analysis Corporation of Chicago, Illinois for the analysis of landfill gas samples at the Blackwell Site. STAT Analysis Corporation will be used to analyze landfill gas samples upon approval of the addendum by the U.S. EPA.

5.4 LFG EMISSIONS

Gas emissions from the LFG vents were monitored on a monthly basis between January 1998 and March 2001 and on a bimonthly basis 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 Twelfth 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 or equal to 1.0 inch of water, with the exception of EW-6. Landfill gas pressures measured greater than 1.0 inch of water during one of the six O&M events at EW-6 during Year Twelve.

The LFG vents show greater variation in static gas pressure than the extraction wells. During the Twelfth Year monitoring period, static gas pressures in the LFG vents ranged from 0.0 to 3.2 inches of water. This static gas pressure range is similar to the pressure ranges in Year Eleven (i.e., 0.0 to 4.0 inches of water), and is within the previous pressure ranges observed 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 some of the vents, methane content showed little variability (e.g., shallow vent [SV]-8 and deep vent [DV]-18). Total methane content at these individual vents was within 10 percent for all measurements conducted during Year 12. In addition, little variation in methane content was observed at the extraction wells. Total methane content at all of the extraction wells, with the exception of EW-8, was within 11 percent for all measurements conducted during Year 12. However, other vents (e.g., DV-5 and DV-15) showed more variability during Year 12 with total methane contents varying by as much as 60 percent. During Year Twelve, the maximum methane content remained between approximately 55 percent and 75 percent of the total LFG in most of the extraction wells, approximately half of the vents, and in the main vent stack. However, the remaining half of the vents had a maximum methane content between zero and 15 percent during Year 12.

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.

Four tables (Tables 7A through 7D) 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 2009, July 2009, November 2009 or January 2010. The tables were prepared using a U.S. EPA approved method and indicate 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 EVALUATIONS AND RECOMMENDATIONS FOR THE LEACHATE COLLECTION AND LANDFILL GAS SYSTEMS

6.1 EVALUATION OF LCS

6.1.1 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 twelve 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 Twelve show an increasing trend in four of eight extraction wells and thirteen of the twenty-five LFG vents. The cumulative increase in leachate levels at these locations throughout the past twelve 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. The second cause may be landfill settlement. As the landfill settles the pore spaces between soil grains are compressed which in turn causes the leachate levels to rise within the extraction wells. In May 2007, MWH had the extraction wells surveyed to check for settlement. There was significant settlement recorded at all of 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 6,714,000 gallons of leachate.

6.1.2 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 twelve 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 demonstrate 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 twelve 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 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, Eighth, Ninth, Tenth, Eleventh, and Twelfth 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, MWH 2008a, MWH 2009d, and MWH 2010c). In summary, no ROD criteria have been exceeded that would require augmentation of the LCS system.

6.1.3 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 twelve 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 2.7 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 eight extraction wells where leachate is measured through the Twelfth Year of operation. This cumulative trend is attributed to settlement of the landfill. The yearly volume of leachate extracted has actually decreased in six of the nine extraction wells (Table 3) compared to last year. The decrease in leachate extraction during Year Twelve as compared to Year Eleven may be attributed to decreased rainfall during Year Twelve. During the twelfth year of operation, the landfill received approximately 29 inches of rainfall compared to Year 11 when the landfill received approximately 44 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 monitoring 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 during Year Three. However, during the eighth year of operation, a new 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.

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

6.2 EVALUATION OF LANDFILL GAS

6.2.1 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.

In August 2000, modifications were made to the LFG extraction system which included 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 the work plan and proposed modifications in a March 24, 2000 letter.

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

6.2.2 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 (lbs/hr) (35 Illinois Administrative Code [IAC] 218.301), and 25 tons per year (5.71 lbs/hr) of total VOCs in a severe ozone non-attainment area.

The calculated TNMOC emissions for the Twelfth Year of O&M operations are summarized in Table C-6 in Appendix C, and indicate a range of 0.06 to 0.15 pounds of TNMOC per hour. In comparison, the emissions range during previous years of O&M operations are shown in Drawing 25 and summarized in the table below:

O&M Year	Calendar Year	TNMOC (lbs/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
11	2008	0.05 to 0.20
12	2009	0.06 to 0.15

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.

6.2.3 Passive vs. Active Gas Extraction

The February 1999 Final O&M Plan specifies that an active LFG extraction system would be installed if there were evidence of uncontrolled LFG releases through or around the landfill cover. Evidence of uncontrolled LFG releases was 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.

Landfill gas has been observed bubbling through the landfill cap over the past several years following rainfall events. Ambient air samples were collected at this location in the past 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.

6.3 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 were reasonably well known.

Over the past twelve years there has been little variability in LFG pressure at the extraction wells. The LFG pressure at most of the extraction wells, with the exception of EW-7, has been in the range of 0.0 to 1.0 inch of water (Drawing 18). In addition, 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 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 twelve years (Drawings 21-23), and LFG static pressures have been in the range of 0.0 to 8.0 inches of water. 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, Ninth, Tenth, and Eleventh Year Reports on the LCS and LFG system (MWH 2002d, MWH 2003c, 2004e, 2005d, 2006c, 2007c, MWH 2008c, and MWH 2009e) 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 bimonthly basis to coincide with the quarterly LFG sampling program already in place.

6.4 WATER SEEPS EVALUATION

During the past five years of operation, the District and MWH observed breakouts of water on the north side of the landfill east of Lift Station 3 (Figure 4). These breakouts are observed downgradient of the Surface Water Collection Trench and 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 evaluated the suspected water migration in the northern area by conducting a subsurface investigation. The objective of this investigation was 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.

7.0 REFERENCES

Warzyn, 1994. Final Remedial Investigation Report, December 1994.

Montgomery Watson, 1995. Draft Feasibility Study, June 1995.

Montgomery Watson, 1997. Revised Pre-Design Report, July 1997.

Montgomery Watson 1998-2000, Quarterly Groundwater Monitoring Reports Round 1 through Round 8, April 1998 – May 2000.

Montgomery Watson, 1999a. Operation and Maintenance Plan, February 1999.

Montgomery Watson, 1999b. Addendum No. 1 to the Final O&M Plan, February 1999.

Montgomery Watson, 1999c. First Year Report on the Leachate Collection and Landfill Gas Extraction Systems, October 1999.

Montgomery Watson and Conservation Design Forum, 2000. Phase I Restoration Plan for the Revegetation of the Blackwell Landfill, October 2000.

Montgomery Watson, 2000a. Final Work Plan Landfill Gas Recreational Use Evaluation, March 2000.

Montgomery Watson, 2000b. Final Second Year Report on the Leachate Collection and Landfill Gas Extraction Systems, December 2000.

Montgomery Watson, 2001a. Revised Long-Term Groundwater Monitoring Program, January 2001.

Montgomery Watson, 2001b. Long-Term Groundwater Monitoring Report, First Round, May 2001.

Montgomery Watson, 2001c. Proposed Water Seep Investigation (letter), June 2001.

Montgomery Watson Harza, 2001d. Landfill Gas Recreational Use Evaluation, August 2001.

Montgomery Watson Harza, 2001e. Third Year Report on the Leachate Collection and Landfill Gas Extraction Systems, October 2001.

Montgomery Watson Harza, 2001f. Water Seep Investigation and Collection Trench Design (letter), December 2001.

Montgomery Watson Harza, 2001g. Proposed Landfill Gas Investigation (letter) December 2001.

Conservation Design Forum, 2002a. First-Year Restoration Monitoring Report for the Blackwell Landfill Prairie Restoration, January 2002.

Conservation Design Forum, 2002b. Second-Year Restoration Monitoring Report for the Blackwell Landfill Prairie Restoration, December 2002.

MWH, 2002a. Long-Term Groundwater Monitoring Report, Second Round, January 2002.

MWH, 2002b. Proposed Regrading of Tube Run Area (letter). March 2002.

MWH, 2002c. Construction Completion Report for the Surface Water Collection Trench, July 2002.

MWH, 2002d. Fourth Year Report on the Leachate Collection and Landfill Gas Extraction Systems, November 2002.

MWH, 2002e. Long-Term Groundwater Monitoring Report, Third Round, November 2002.

Conservation Design Forum, 2003. Third-Year Restoration Monitoring Report for the Blackwell Landfill Prairie Restoration, December 2003.

MWH, 2003a. Landfill Gas Trigger Level Report, February 2003.

MWH, 2003b. Long-Term Groundwater Monitoring Report, Fourth Round, August 2003.

MWH, 2003c. Fifth Year Report on the Leachate Collection and Landfill Gas Extraction Systems, September 2003.

Conservation Design Forum, 2004. Fourth-Year Restoration Monitoring Report for the Blackwell Landfill Prairie Restoration, December 2004.

MWH, 2004a. Field Sampling Plan Addendum No. 8, February 2004.

MWH, 2004b. Burn Plan Guidelines for the Blackwell Forest Preserve Landfill, March 2004.

MWH, 2004c. Long-Term Groundwater Monitoring Report, Fifth Round, March 2004.

MWH, 2004d. Phase I Prairie Restoration Controlled Burn Activities Summary, June 2004.

MWH, 2004e. Sixth Year Report on the Leachate Collection and Landfill Gas Extraction Systems, September 2004.

Conservation Design Forum, 2005. Fifth-Year Restoration Monitoring Report for the Blackwell Landfill Prairie Restoration, December 2005.

MWH, 2005a. Long-Term Groundwater Monitoring Program Summary Report, February 2005.

MWH, 2005b. Phase I Prairie Restoration Controlled Burn Activities Summary, May 2005.

MWH, 2005c. Long-Term Groundwater Monitoring Report, Sixth Round, June 2005.

MWH, 2005d. Seventh Year Report on the Leachate Collection and Landfill Gas Extraction Systems, June 2005.

MWH, 2005e. Landfill Gas Trigger Level Report, July 2005.

Conservation Design Forum, 2006a. Five-Year Root Penetration Assessment for the Blackwell Landfill Prairie Restoration, January 2006.

Conservation Design Forum, 2006b. Sixth-Year Restoration Monitoring Report for the Blackwell Landfill Prairie Restoration, December 2006.

MWH, 2006a. Final Landfill Gas Trigger Level Report, March 2006.

MWH, 2006b. Long-Term Groundwater Monitoring Report, Seventh Round, April 2006.

MWH, 2006c. Eighth Year Report on the Leachate Collection and Landfill Gas Extraction Systems, August 2006.

MWH, 2006d. Long-Term Groundwater Monitoring Report, Eighth Round, December 2006.

MWH, 2007a. Phase I Prairie Restoration Controlled Burn Activities Summary Report, June 2007.

MWH, 2007b. Long-Term Groundwater Monitoring Report, Ninth Round, July 2007.

MWH, 2007c. Ninth Year Report on the Leachate Collection and Landfill Gas Extraction Systems, August 2007.

Conservation Design Forum, 2007. Seventh-Year Restoration Monitoring Report for the Blackwell Landfill Prairie Restoration, January 2008.

MWH, 2008a. Long-Term Groundwater Monitoring Report, Tenth Round, May 2008.

MWH, 2008b. Phase I Prairie Restoration Controlled Burn Activities Summary Report, June 2008.

MWH, 2008c. Tenth Year Report on the Leachate Collection and Landfill Gas Extraction Systems, July 2008.

Conservation Design Forum, 2009. Eighth-Year Restoration Monitoring Report for the Blackwell Landfill Prairie Restoration, January 2009.

MWH, 2009a. Draft Addendum No. 9, Quality Assurance Project Plan, Replacement of LFG Primary Analytical Laboratory Provider, February 2009.

MWH, 2009b. Phase I Prairie Restoration Controlled Burn Activities Summary Report, May 2009.

MWH, 2009c. Monitoring Well Abandonment Report, May 2009.

MWH, 2009d. Long-Term Groundwater Monitoring Report, Eleventh Round, June 2009.

MWH, 2009e. Eleventh Year Report on the Leachate Collection and Landfill Gas Extraction Systems, July 2009.

Conservation Design Forum, 2010. Ninth-Year Restoration Monitoring Report for the Blackwell Landfill Prairie Restoration, January 2010.

MWH, 2010a. Draft Final Addendum No. 9, Quality Assurance Project Plan, Replacement of LFG Primary Analytical Laboratory Provide, March 2010.

MWH, 2010b. Phase I Prairie Restoration Controlled Burn Activities Summary Report, July 2010.

MWH, 2010c. Long-Term Groundwater Monitoring Report, Twelfth Round, July 2010.

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J:\100\7333 Blackwell\4.0 Execution (Project Deliverables)\4.4 Operations & Maintenance\4.4.1 OM Monitoring - FY2010\12th Year O&M Report\BW 12th Year Report_CRD(4).doc
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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

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. Beginning in September 2009, new wellhead configuration allows for leachate level measurement at 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, 3-10-08, 1-21-09, and 1-13-10 due to frozen flush mount vaults.
7. Leachate elevations were not measured at SV-4 and DV-9 on 3-12-07 and 3-8-10 due to flooded vaults.
8. Leachate elevations were not measured at several vaults on 1-9-08, 3-9-09, and 5-13-09 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
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
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

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. Beginning in September 2009, new wellhead configuration allows for leachate level measurement at 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, 3-10-08, 1-21-09, and 1-13-10 due to frozen flush mount vaults.
7. Leachate elevations were not measured at SV-4 and DV-9 on 3-12-07 and 3-8-10 due to flooded vaults.
8. Leachate elevations were not measured at several vaults on 1-9-08, 3-9-09, and 5-13-09 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
1/19/2005	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
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
5/14/2008	733.79		NA	NM	724.25	731.84	730.39	718.07	713.93	738.41	761.53	NA	NA	733.81	NM	715.20	742.93	746.62	727.61	NM
7/9/2008	734.16		NA	727.65	718.82	731.17	729.95	717.37	713.78	738.16	761.52	NA	NA	733.10	703.39	707.77	742.95	746.55	724.43	716.23
9/10/2008	734.07		NA	726.36	713.64	730.85		716.68	713.43	737.39	761.39	NA	NA	732.36	700.68				721.89	713.98
11/19/2008	734.27		NA	728.17	722.76	728.86	731.94	717.59	713.82	737.38	761.47	NA	NA	733.09	702.63	707.73		746.42	727.05	723.24
1/21/2009	NM	NM	NA	NM	NM	728.74	731.60	NM	NM	737.67	NM	NA	NA	NM	NM	707.76	NM	746.58	NM	NM
3/9/2009	NM		NA	NM	724.28	730.20	731.43	720.84	715.04	737.93	761.58	NA	NA	733.51	NM	709.05	NM	746.24	727.42	NM
5/13/2009	734.90		NA	NM	724.29	729.14	731.94	719.10	718.72	738.05	761.63	NA	NA	734.68	NM	707.81	748.07		727.72	NM
7/15/2009	734.19		NA	726.89	719.25	726.79	731.12	717.59	714.32	737.62	761.59	NA	NA	733.28	703.45	707.73	742.97	747.72	724.68	716.19
9/23/2009	733.83	741.36	NA	725.86	715.50	726.21		716.78	725.37	737.20	761.52	NA	NA	732.52	701.49	707.71	742.96	746.72	722.64	714.12
11/18/2009	734.30		NA	728.30	721.86	727.97	729.59	717.44	714.46	737.31	761.51	NA	NA	733.27	701.98	707.49			727.08	722.60
1/13/2010	734.22		NA	NM	NM	728.83	NM	NM	NM	739.47	NM	NA	NA	NM	NM	708.21	NM	NM	NM	NM
3/8/2010	736.07		NA	NM	724.24	727.52	729.48	719.11	721.80	737.20	761.62	NA	NA	733.27	703.63	709.20	742.95	746.59	727.58	NM

Notes:

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3. Blank cells indicate that no leachate was recorded at particular location
4. Beginning in September 2009, new wellhead configuration allows for leachate level measurement at 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, 3-10-08, 1-21-09, and 1-13-10 due to frozen flush mount vaults.
7. Leachate elevations were not measured at SV-4 and DV-9 on 3-12-07 and 3-8-10 due to flooded vaults.
8. Leachate elevations were not measured at several vaults on 1-9-08, 3-9-09, and 5-13-09 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

Notes:

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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, 3-10-08, 1-21-09, and 1-13-10 due to frozen flush mount vaults.
7. Leachate elevations were not measured at SV-4 and DV-9 on 3-12-07 and 3-8-10 due to flooded vaults.
8. Leachate elevations were not measured at several vaults on 1-9-08, 3-9-09, and 5-13-09 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
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
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

Notes:

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3. Blank cells indicate that no leachate was recorded at particular location
4. Beginning in September 2009, new wellhead configuration allows for leachate level measurement at 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, 3-10-08, 1-21-09, and 1-13-10 due to frozen flush mount vaults.
7. Leachate elevations were not measured at SV-4 and DV-9 on 3-12-07 and 3-8-10 due to flooded vaults.
8. Leachate elevations were not measured at several vaults on 1-9-08, 3-9-09, and 5-13-09 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
1/19/2005	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
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
5/14/2008	723.44	752.17	NA	722.21	721.86	702.98	723.12	724.64	742.77	724.39	713.90	734.49	729.60	NA	723.82	722.63	715.82	NA
7/9/2008	722.84	744.08	NA	719.66	720.44	700.00	709.13	NM	742.92	724.75	715.24	737.83	733.02	NA	729.77	723.13	715.19	NA
9/10/2008	721.58	744.91	NA	718.98	720.26	699.05	706.54	NM	742.74	722.18	713.77	726.00	731.75	NA	728.82	723.45	715.07	NA
11/19/2008	723.56	746.45	NA	722.28	722.76	700.54	708.17	715.65	745.16	723.17	713.85	734.02	728.20	NA	731.44	723.93	716.87	NA
1/21/2009	721.45	NM	NA	NM	NM	NM	NM	716.32	NM	NM	713.85	736.88	724.97	NA	731.69	724.35	719.93	NA
3/9/2009	729.95	NM	NA	724.20	727.47	NM	724.17	727.93	749.43	723.36	NM	733.47	729.29	NA	743.08	724.48	718.81	NA
5/13/2009	721.65	750.31	NA	722.44	727.98	703.66	718.35	727.38	753.63	724.19	713.93	737.38	730.07	NA	724.82	724.77	720.33	NA
7/15/2009	721.43	742.55	NA	721.36	723.80	701.04	712.24	723.59	751.43	723.70	712.18	731.63	721.21		729.11	724.79	719.62	NA
9/23/2009	721.42	738.63	NA	721.56	723.02	699.64	708.12	713.97	744.68	723.78	712.43	737.31	725.26	NM	743.04	730.68	721.13	736.06
11/18/2009	721.31	748.22	NA	722.03	727.55	699.72	716.16	726.19		723.40	713.78	730.79	726.95		727.39	730.24	722.15	748.36
1/13/2010	722.14	NM	NA	722.33	NM	NM	717.32	726.65	NM	NM	713.88	737.52	728.86		728.90	725.18	726.48	752.46
3/8/2010	722.14	751.51	NA	721.68	733.55	701.51	720.97	727.34		723.90	713.89	731.38	725.90		741.76	725.18	724.10	750.95

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. Beginning in September 2009, new wellhead configuration allows for leachate level measurement at 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, 3-10-08, 1-21-09, and 1-13-10 due to frozen flush mount vaults.
7. Leachate elevations were not measured at SV-4 and DV-9 on 3-12-07 and 3-8-10 due to flooded vaults.
8. Leachate elevations were not measured at several vaults on 1-9-08, 3-9-09, and 5-13-09 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
YEAR 11	734.07	-	-	727.39	720.75	730.28	731.06	718.11	714.00	-	737.82
YEAR 12	734.59	741.36	-	727.02	721.03	727.74	730.88	718.00	718.93	-	737.81

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
YEAR 11	761.50	-	-	733.17	702.23	709.50	742.94	746.48	725.68	717.82	723.80
YEAR 12	761.57	-	-	733.40	702.64	708.03	744.67	747.01	725.94	717.64	721.68

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	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
YEAR 11	746.90	-	721.47	722.56	700.64	714.23	721.14	744.60	723.57	714.12	733.78
YEAR 12	746.24	-	721.90	727.18	701.11	715.53	724.19	749.91	723.79	713.35	734.34

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	-
YEAR 11	729.47	-	731.44	723.66	716.95	-
YEAR 12	726.38	-	732.50	726.81	722.30	746.96

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)
5/1/2009	18	16	587	2,525	59	428	2	1	5	5,358	0	3,642	5,358	4,484,922	1,560,632	6,045,553
5/6/2009	19	18	650	2,828	66	475	2	2	5	5,935	0	4,065	5,935	4,488,987	1,566,566	6,055,553
5/8/2009	19	18	654	2,782	66	477	3	2	5	5,974	0	4,026	5,974	4,493,014	1,572,540	6,065,553
5/13/2009	0	0	466	2,286	42	704	0	0	0	5,802	0	3,498	5,802	4,496,512	1,578,342	6,074,853
5/15/2009	229	1	841	2,857	89	622	0	0	0	5,360	0	4,640	5,360	4,501,152	1,583,701	6,084,853
5/18/2009	173	51	518	1,785	44	223	5	2	0	7,199	0	2,801	7,199	4,503,953	1,590,900	6,094,853
5/20/2009	18	27	453	1,530	43	421	2	3	0	5,703	0	2,497	5,703	4,506,450	1,596,603	6,103,053
5/22/2009	26	0	353	1,222	32	326	0	0	0	7,042	0	1,958	7,042	4,508,408	1,603,645	6,112,053
5/28/2009	96	82	808	2,096	91	642	3	22	23	6,137	0	3,863	6,137	4,512,272	1,609,782	6,122,053
6/1/2009	86	68	529	1,369	53	504	1	0	0	7,390	0	2,610	7,390	4,514,882	1,617,171	6,132,053
6/3/2009	16	77	619	1,515	75	481	2	101	1	7,113	0	2,887	7,113	4,517,769	1,624,285	6,142,053
6/5/2009	59	75	412	973	39	166	2	1,095	0	6,381	0	2,819	6,381	4,520,588	1,630,665	6,151,253
6/8/2009	0	31	220	525	29	375	0	854	0	6,466	0	2,034	6,466	4,522,622	1,637,131	6,159,753
6/10/2009	43	0	527	1,156	71	272	0	1,157	0	6,775	0	3,225	6,775	4,525,847	1,643,906	6,169,753
6/12/2009	94	0	419	842	44	472	0	565	28	7,036	0	2,464	7,036	4,528,311	1,650,942	6,179,253
6/15/2009	23	11	387	760	39	216	0	0	24	8,540	0	1,460	8,540	4,529,771	1,659,483	6,189,253
6/17/2009	47	52	383	759	47	361	0	11	18	7,822	0	1,678	7,822	4,531,448	1,667,305	6,198,753
6/19/2009	71	35	432	743	51	315	0	16	10	6,828	0	1,672	6,828	4,533,121	1,674,133	6,207,253
6/22/2009	54	61	359	667	52	349	0	21	9	8,428	0	1,572	8,428	4,534,693	1,682,560	6,217,253
6/24/2009	40	76	536	1,000	74	241	0	26	11	7,995	0	2,005	7,995	4,536,698	1,690,556	6,227,253
6/26/2009	49	41	425	684	53	342	0	2	0	6,904	0	1,596	6,904	4,538,293	1,697,460	6,235,753
6/29/2009	23	53	429	789	60	354	0	8	8	8,276	0	1,724	8,276	4,540,018	1,705,736	6,245,753
7/1/2009	100	110	538	881	74	502	0	25	25	7,645	0	2,255	7,645	4,542,273	1,713,381	6,255,653
7/6/2009	69	45	492	799	70	439	6	0	1	8,079	0	1,921	8,079	4,544,194	1,721,460	6,265,653
7/8/2009	60	115	614	999	86	23	14	15	21	8,052	0	1,948	8,052	4,546,142	1,729,512	6,275,653
7/10/2009	63	42	503	786	69	0	6	17	31	8,483	0	1,517	8,483	4,547,659	1,737,994	6,285,653
7/13/2009	71	48	299	731	57	0	3	9	0	8,181	0	1,219	8,181	4,548,878	1,746,176	6,295,053
7/15/2009	73	83	302	528	30	61	49	1,413	0	7,460	0	2,540	7,460	4,551,418	1,753,635	6,305,053
7/17/2009	58	70	350	663	55	0	8	1,283	0	7,213	0	2,487	7,213	4,553,905	1,760,848	6,314,753
7/20/2009	43	46	226	571	47	0	4	10	0	4,453	0	947	4,453	4,554,852	1,765,302	6,320,153
7/22/2009	81	74	771	1,111	80	0	10	31	18	7,824	0	2,176	7,824	4,557,028	1,773,125	6,330,153
7/24/2009	15	14	255	483	40	0	3	8	18	2,664	0	836	2,664	4,557,864	1,775,789	6,333,653
7/27/2009	22	42	287	558	50	950	11	8	0	2,571	0	1,929	2,571	4,559,793	1,778,360	6,338,153
7/29/2009	115	28	347	670	61	464	2	12	0	2,800	0	1,700	2,800	4,561,492	1,781,161	6,342,653
8/3/2009	22	52	347	836	72	766	2	19	0	3,383	0	2,117	3,383	4,563,610	1,784,544	6,348,153
8/5/2009	45	0	311	786	74	566	0	0	0	2,719	0	1,781	2,719	4,565,390	1,787,263	6,352,653
8/10/2009	19	2	415	964	89	498	1	0	11	3,000	0	2,000	3,000	4,567,390	1,790,263	6,357,653
8/12/2009	2	16	218	502	47	265	1	0	3	1,445	0	1,055	1,445	4,568,445	1,791,708	6,360,153
8/17/2009	21	28	394	779	71	341	1	0	20	3,044	0	1,656	3,044	4,570,100	1,794,753	6,364,853
8/24/2009	17	1	456	897	93	879	1	1	10	2,644	0	2,356	2,644	4,572,456	1,797,397	6,369,853
8/31/2009	28	40	422	1,058	108	923	0	0	0	2,420	0	2,580	2,420	4,575,036	1,799,817	6,374,853

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)
9/3/2009	42	37	124	625	58	494	1	0	0	2,620	0	1,380	2,620	4,576,416	1,802,438	6,378,853
9/10/2009	20	14	254	600	65	531	2	0	1	2,513	0	1,487	2,513	4,577,903	1,804,951	6,382,853
9/17/2009	17	21	331	766	88	643	3	0	0	2,132	0	1,868	2,132	4,579,771	1,807,083	6,386,853
9/22/2009	30	39	357	977	115	1,009	3	0	0	1,969	0	2,531	1,969	4,582,302	1,809,052	6,391,353
10/8/2009	37	81	539	1,547	194	1,730	2	0	0	3,370	0	4,130	3,370	4,586,432	1,812,422	6,398,853
10/15/2009	23	23	379	1,064	131	1,008	2	0	0	2,370	0	2,630	2,370	4,589,062	1,814,791	6,403,853
10/22/2009	22	23	325	995	126	1,074	2	0	0	1,932	0	2,568	1,932	4,591,630	1,816,724	6,408,353
10/29/2009	41	44	104	296	41	383	1	0	0	6,590	0	910	6,590	4,592,539	1,823,314	6,415,853
11/5/2009	50	71	217	505	71	495	0	0	0	8,091	0	1,409	8,091	4,593,948	1,831,405	6,425,353
11/10/2009	43	68	242	1,557	72	338	0	0	0	6,680	0	2,320	6,680	4,596,269	1,838,085	6,434,353
11/12/2009	53	61	463	1,861	105	524	5	0	0	6,428	0	3,072	6,428	4,599,341	1,844,513	6,443,853
11/19/2009	36	47	203	598	22	207	2	0	0	5,886	0	1,114	5,886	4,600,455	1,850,398	6,450,853
11/25/2009	72	66	495	1,501	107	803	7	0	6	6,944	0	3,056	6,944	4,603,511	1,857,342	6,460,853
11/30/2009	55	63	549	1,392	117	839	3	0	4	6,975	0	3,025	6,975	4,606,536	1,864,317	6,470,853
12/3/2009	63	88	562	1,212	104	1,132	3	0	8	6,828	0	3,172	6,828	4,609,708	1,871,145	6,480,853
12/10/2009	44	57	383	1,227	91	575	1	0	14	7,008	0	2,392	7,008	4,612,100	1,878,153	6,490,253
12/17/2009	93	191	1	6,103	302	3,279	0	0	30	1	0	9,999	1	4,622,099	1,878,155	6,500,253
12/24/2009	134	89	2,067	4,710	333	2,546	8	0	111	3	0	9,997	3	4,632,096	1,878,158	6,510,253
12/31/2009	0	0	714	1,497	109	910	0	0	0	6,770	0	3,230	6,770	4,635,326	1,884,927	6,520,253
1/7/2010	6	44	646	3,668	123	1,013	0	0	1	0	0	5,500	0	4,640,826	1,884,927	6,525,753
1/14/2010	44	41	1,022	2,791	182	915	4	0	1	0	0	5,000	0	4,645,826	1,884,927	6,530,753
1/15/2010	120	140	1,272	5,202	107	3,142	18	0	0	0	0	10,000	0	4,655,826	1,884,927	6,540,753
1/21/2010	315	301	2,092	5,149	326	1,223	9	298	287	0	0	10,000	0	4,665,826	1,884,927	6,550,753
1/28/2010	93	97	863	2,043	147	1,001	2	5,699	12	41	0	9,959	41	4,675,785	1,884,969	6,560,753
2/5/2010	61	61	1,248	6,426	232	1,902	3	64	2	0	0	10,000	0	4,685,785	1,884,969	6,570,753
2/11/2010	20	24	841	2134	113	1091	1	3275	0	1	0	7,499	1	4,693,284	1,884,969	6,578,253
2/18/2010	92	125	1,947	4,829	348	2,435	0	221	3	0	0	10,000	0	4,703,284	1,884,969	6,588,253
2/25/2010	195	211	1,842	4,324	389	2,585	0	453	1	0	0	10,000	0	4,713,284	1,884,969	6,598,253
3/3/2010	179	263	1,679	3,439	276	2,027	27	402	3	4	0	8,296	4	4,721,580	1,884,973	6,606,553
3/11/2010	87	62	1,316	4,219	296	977	2	139	94	2,708	0	7,192	2,708	4,728,772	1,887,681	6,616,453
3/18/2010	84	70	760	1,846	140	2,000	8	212	131	4,750	0	5,250	4,750	4,734,022	1,892,431	6,626,453
3/25/2010	47	93	1,512	6,515	203	1,452	12	7	159	0	0	10,000	0	4,744,022	1,892,431	6,636,453
3/30/2010	75	78	1,867	6,032	222	1,594	0	107	25	0	0	10,000	0	4,754,022	1,892,431	6,646,453
4/1/2010	105	89	1,081	1,889	179	958	1	0	0	0	0	4,300	0	4,758,322	1,892,431	6,650,753
4/6/2010	23	66	1,031	2,881	74	911	1	8	6	0	0	5,000	0	4,763,322	1,892,431	6,655,753
4/8/2010	24	36	1,260	2,396	115	666	2	0	0	0	0	4,500	0	4,767,822	1,892,431	6,660,253
4/13/2010	143	166	240	2,384	202	1,716	6	48	77	18	0	4,982	18	4,772,804	1,892,449	6,665,253
4/15/2010	314	162	1,673	5,262	72	857	9	392	258	0	0	9,000	0	4,781,804	1,892,449	6,674,253
4/20/2010	171	817	1,986	4,643	266	1,769	2	211	136	0	0	10,000	0	4,791,804	1,892,449	6,684,253
4/23/2010	278	1,016	2,088	4,322	229	1,667	2	167	231	0	0	10,000	0	4,801,804	1,892,449	6,694,253
4/27/2010	1	990	2563	4358	286	1800	0	1	0	0	0	10,000	0	4,811,804	1,892,449	6,704,253
4/29/2010	1	994	2491	4591	312	1611	0	0	0	0	0	10,000	0	4,821,804	1,892,449	6,714,253

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

	Leachate Removal from Individual Extraction Wells (gallons)														
Extraction Well	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	Year 11 May 2008 - April 2009	Year 12 May 2009 - April 2010	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	21,681	5,479	227,574	18,895
EW-1A	547	8,712	4,584	11,029	13,188	4,026	6,016	3,283	19,847	37,715	7,802	6,715	8,682	132,145	10,966
EW-2	914	33,996	40,400	56,970	52,608	18,724	19,915	24,888	16,718	28,422	33,460	61,992	60,181	449,188	37,356
EW-3	3,589	96,472	72,175	144,770	72,347	26,795	18,062	15,188	33,827	147,336	21,994	130,131	166,669	949,355	78,814
EW-4	881	3,024	4,526	11,533	2,985	4,014	12,470	11,077	7,475	11,210	8,075	8,973	9,586	95,831	7,912
EW-5	1,841	32,345	41,765	32,441	22,578	13,805	9,245	10,473	40,402	77,344	53,310	80,697	69,278	485,523	40,307
EW-6	1,608	34,474	14,266	14,331	5,632	3,161	4,358	695	29	3,695	2,031	1,703	300	86,281	7,056
EW-7	2,694	182,798	41,832	31,046	19,308	16,454	11,321	12,159	24,660	87,732	64,204	102,451	18,444	615,103	51,034
EW-8	2,678	183,340	94,186	147,455	143,203	133,632	220,738	303,163	232,709	208,433	100,815	8,545	1,906	1,780,804	148,177
EW Subtotal	**15,585**	**621,248**	**339,205**	**466,718**	**377,122**	**236,403**	**308,793**	**386,164**	**385,105**	**626,574**	**295,475**	**422,887**	**340,524**	**4,821,804**	**400,518**
LS-01	10,082	227,965	120,844	174,240	136,778	55,597	64,507	116,536	42,295	79,226	187,300	302,663	337,176	1,855,209	153,761
LS-02	10,941	26,298	0	0	0	0	0	0	0	0	0	0	0	37,239	2,192
LS Subtotal	**21,023**	**254,264**	**120,844**	**174,240**	**136,778**	**55,597**	**64,507**	**116,536**	**42,295**	**79,226**	**187,300**	**302,663**	**337,176**	**1,892,448**	**155,952**
Total	**36,608**	**875,512**	**460,050**	**640,958**	**513,900**	**292,000**	**373,300**	**502,700**	**427,400**	**705,800**	**482,775**	**725,550**	**677,700**	**6,714,253**	**556,470**
Precipitation (in.)[1]	4.71	43.56	22.13	29.56	38.54	26.79	27.30	29.67	21.64	33.44	25.14	44.04	28.77	375.29	28.87
Total Gallons[2]	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	27,308,104	47,838,062	31,251,159	407,655,460	31,358,112

Notes:

1 = Total precipitation as recorded at the nearby DuPage County Airport

2 = Total gallons of precipitation calculated for the 40-acre Blackwell Landfill

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 (%)
LS-01	1,855,209	12,638	27.6	1,855,209	27.6
EW-8	1,780,804	12,179	26.5	3,636,013	54.2
EW-3	949,355	6,478	14.1	4,585,369	68.3
EW-7	615,103	4,195	9.2	5,200,471	77.5
EW-5	485,523	3,313	7.2	5,685,995	84.7
EW-2	449,188	3,070	6.7	6,135,183	91.4
EW-1	227,574	1,553	3.4	6,362,757	94.8
EW-1A	132,145	901	2.0	6,494,902	96.7
EW-4	95,831	650	1.4	6,590,732	98.2
EW-6	86,281	580	1.3	6,677,014	99.4
LS-02	37,239	180	0.6	6,714,253	100.0
TOTAL	**6,714,253**	**45,737**	**100.0**	**6,714,253**	**100.0**

Notes:

1. Cumulative leachate volumes are from December 1, 1997 to April 30, 2010.
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
Indeno[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.

P = Data flag indicates chemical preservation pH adjusted in lab.

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

W = Data flag indicates reporting limit elevated due to sample matrix.

M- = Data flag indicates MS recovery outside control limits low bias; LCS acceptable.

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
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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

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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
Indeno[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

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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.
P = Data flag indicates chemical preservation pH adjusted in lab.
B = Data flag indicates analyte detected in associated method blank.
W = Data flag indicates reporting limit elevated due to sample matrix.
M- = Data flag indicates MS recovery outside control limits low bias; LCS acceptable.

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
		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
Conventionals														
BOD_5	mg/L	274	246	23	89	186	1,860	4,000	5,800	858	4	51	2,220	352
COD	mg/L	485	570	542	910	272	2,990	22,300	8,520	1,480	39	316	1,210	1,020
Nitrogen Ammonia	mg/L	69.2	96.4	160	449	98	140	256	310	240	23	140	250	360
Oil & Grease	mg/L	3	12	<1	3	<1	28	290	125	5	<1	3	3 P	4
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
Phenol	mg/L	0.14	0.16	0.06	0.05	<0.05	0.68	<0.5 W	2.01	0.38	0.01	0.05	0.23	0.28
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
Total Suspended Solids	mg/L	21	74	64	171	106	106	14,000	39	74	48	192	133	45
Cyanide	mg/L	<0.005	<0.005	0.013	<0.005	<0.005	<0.005	<0.05 W	<0.005	<0.005	<0.005	<0.005	0.005	<0.005
Fluoride	mg/L	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
Nitrate+Nitrite	mg/L	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
Sulfate	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
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
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
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
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
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
Chromium, Hexavalent	mg/L	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
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
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
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
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
Mercury	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005 M-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
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
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
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
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
Volatile Organic Compounds														
Acetone	ug/L	NA	346	NA	<100	NA	1,100	NA	2,970	NA	<100	NA	1,180	NA
Acrolein	ug/L	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
Benzene	ug/L	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA
Bromodichloromethane	ug/L	NA	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	NA
Bromoform	ug/L	NA	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	NA
Bromomethane	ug/L	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA
2-Butanone	ug/L	NA	586	NA	19.3	NA	2,410	NA	6,390	NA	<10.0	NA	2,540	NA
Carbon disulfide	ug/L	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA
Carbon tetrachloride	ug/L	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA
Chlorobenzene	ug/L	NA	<5.0	NA	<5.0	NA	9.9	NA	10.5	NA	<5.0	NA	<5.0	NA
Chlorodibromomethane	ug/L	NA	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	NA
Chloroethane	ug/L	NA	<10.0	NA	<10.0	NA	<10.0	NA	<10.0	NA	<10.0	NA	<10.0	NA
2-Chloroethylvinyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	ug/L	NA	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	NA
Chloromethane	ug/L	NA	<10.0	NA	<10.0	NA	<10.0	NA	<10.0	NA	<10.0	NA	<10.0	NA

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
		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
1,2-Dichloroethane	ug/L	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA
1,1-Dichlorethene	ug/L	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA
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
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
1,2-Dichloroethene (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA
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
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
Ethyl Benzene	ug/L	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA
2-Hexanone	ug/L	NA	<10.0	NA	<10.0	NA	<10.0	NA	30.6	NA	<10.0	NA	<10.0	NA
4-Methyl-2-pentanone	ug/L	NA	16.6	NA	<10.0	NA	40.9	NA	111	NA	<10.0	NA	89.1	NA
Methylene chloride	ug/L	NA	<5.0	NA	<5.0	NA	5.6	NA	8.0	NA	<5.0	NA	7.0	NA
Styrene	ug/L	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA
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
Tetrachloroethene	ug/L	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA
Toluene	ug/L	NA	<5.0	NA	<5.0	NA	5.1	NA	10.1	NA	<5.0	NA	11.0	NA
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
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
Trichloroethene	ug/L	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA
Vinyl Acetate	ug/L	NA	<10.0	NA	<10.0	NA	<10.0	NA	<10.0	NA	<10.0	NA	<10.0	NA
Vinyl Chloride	ug/L	NA	<2.0	NA	<2.0	NA	<2.0	NA	<2.0	NA	<2.0	NA	<2.0	NA
Xylenes (total)	ug/L	NA	<5.0	NA	<5.0	NA	19.9	NA	9.4	NA	<5.0	NA	8.4	NA
Semivolatile Organic Compounds														
Acenaphthene	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA
Acenaphthylene	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA
Anthracene	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA
Benzidine	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA
Benzo[a]anthracene	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA
Benzo[b]fluoranthene	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA
Benzo[k]fluoranthene	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA
Benzo[g,h,i]perylene	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA
Benzo[a]pyrene	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA
Benzoic Acid	ug/L	NA	221	NA	<50	NA	1,580	NA	3,580	NA	<50	NA	<50	NA
Benzyl Alcohol	ug/L	NA	<20	NA	<20	NA	<20	NA	<40	NA	<20	NA	<20	NA
bis(2-chloroethoxy)methane	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA
bis(2-chloroethyl) ether	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA
bis(2-chloroisopropyl) ether	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA
bis(2-ethylhexyl) phthalate	ug/L	NA	<5	NA	<5	NA	<5	NA	<10	NA	<5	NA	59 B	NA
4-Bromophenyl-phenylether	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA
Butylbenzylphthalate	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA
4-Chloroaniline	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA
4-Chloro-3-methylphenol	ug/L	NA	<20	NA	<20	NA	<20	NA	<40	NA	<20	NA	<20	NA
2-Chloronaphthalene	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA
2-Chlorophenol	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA
4-Chlorophenyl-phenylether	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA
Chrysene	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA

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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
		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
1,2-Dichlorobenzene	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA
1,3-Dichlorobenzene	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA
1,4-Dichlorobenzene	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA
3,3-Dichlorobenzidine	ug/L	NA	<20	NA	<20	NA	<20	NA	<40	NA	<20	NA	<20	NA
2,4-Dichlorophenol	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA
Diethylphthalate	ug/L	NA	15	NA	<10	NA	37	NA	79	NA	<10	NA	28	NA
2,4-Dimethylphenol	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA
Dimethylphthalate	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA
Di-n-butylphthalate	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	<50	NA	<50	NA	<50	NA	<100	NA	<50	NA	<50	NA
2,4-Dinitrophenol	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA
2,4-Dinitrotoluene	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA
2,6-Dinitrotoluene	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA
Fluoranthene	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA
Fluorene	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA
Hexachlorobenzene	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA
Hexachlorobutadiene	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA
Hexachlorocyclopentadiene	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA
Hexachloroethane	ug/L	NA	<5	NA	<5	NA	<5	NA	<10	NA	<5	NA	<5	NA
Indeno[1,2,3-cd]pyrene	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA
Isophorone	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA
2-Methylnaphthalene	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA
2-Methylphenol	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	13	NA
3&4-Methylphenol	ug/L	NA	86	NA	<10	NA	1,250	NA	1,780	NA	<10	NA	1,070	NA
Naphthalene	ug/L	NA	<10	NA	<10	NA	<10	NA	226	NA	<10	NA	<10	NA
2-Nitroaniline	ug/L	NA	<50	NA	<50	NA	<50	NA	<100	NA	<50	NA	<50	NA
3-Nitroaniline	ug/L	NA	<50	NA	<50	NA	<50	NA	<100	NA	<50	NA	<50	NA
4-Nitroaniline	ug/L	NA	<20	NA	<20	NA	<20	NA	<20	NA	<20	NA	<20	NA
Nitrobenzene	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA
2-Nitrophenol	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA
4-Nitrophenol	ug/L	NA	<50	NA	<50	NA	<50	NA	<100	NA	<50	NA	<50	NA
N-Nitrosodimethylamine	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA
N-Nitroso-di-n-propylamine	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA
n-Nitrosodiphenylamine	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA
Pentachlorophenol	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA
Phenanthrene	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA
Phenol	ug/L	NA	26	NA	<10	NA	160	NA	305	NA	<10	NA	172	NA
Pyrene	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA
2,4,5-Trichlorophenol	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA
2,4,6-Trichlorophenol	ug/L	NA	<10	NA	<10	NA	<10	NA	<20	NA	<10	NA	<10	NA

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
		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
alpha-BHC	ug/L	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA
beta-BHC	ug/L	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA
delta-BHC	ug/L	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA
Lindane (gamma-BHC)	ug/L	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA
alpha-Chlordane	ug/L	NA	<0.50	NA	<0.50	NA	<0.50	NA	<0.50	NA	<0.50	NA	<0.50	NA
gamma-Chlordane	ug/L	NA	<0.50	NA	<0.50	NA	<0.50	NA	<0.50	NA	<0.50	NA	<0.50	NA
4,4'-DDD	ug/L	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA
4,4'-DDE	ug/L	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA
4,4'-DDT	ug/L	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA
Dieldrin	ug/L	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA
Endosulfan I	ug/L	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA
Endosulfan II	ug/L	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA
Endosulfan sulfate	ug/L	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA
Endrin	ug/L	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA
Endrin aldehyde	ug/L	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA
Endrin ketone	ug/L	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA
Heptachlor	ug/L	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA
Heptachlor epoxide	ug/L	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA
Methoxychlor	ug/L	NA	<0.50	NA	<0.50	NA	<0.50	NA	<0.50	NA	<0.50	NA	<0.50	NA
Toxaphene	ug/L	NA	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	NA	<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.
P = Data flag indicates chemical preservation pH adjusted in lab.
B = Data flag indicates analyte detected in associated method blank.
W = Data flag indicates reporting limit elevated due to sample matrix.
M- = Data flag indicates MS recovery outside control limits low bias; LCS acceptable.

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

Parameter	Units	BW-LCS-43 May-08	BW-LCS-44 Aug-08	BW-LCS-45 Nov-08	BW-LCS-46 Jan-09	BW-LCS-47 May-09	BW-LCS-48 Jul-09	BW-LCS-49 Nov-09	BW-LCS-50 Jan-10	Minimum[1]	Maximum[1]
Conventionals											
BOD_5	mg/L	29	70	708	1,960	16	412	5	90	4	29,100
COD	mg/L	110	744	1,180	2,320	69	571	49	71	39	22,900
Nitrogen Ammonia	mg/L	510	334	117	211	15.7	34	16.4	41.2	15.7	1100
Oil & Grease	mg/L	14	6 P	3	9 P	<1	5	<1	<1	<1 P	526
pH @ 25 °C	units	7.04	7.34	7.10	7.10	6.92	7.01	6.53	6.92	6.42	8.34
Phenol	mg/L	0.07	0.09	0.23	2.21	0.014	0.11	<0.05	<0.010	<0.01	5.7
Total Dissolved Solids	mg/L	1,210	5,020	3,150	4,950	1,320	1,780	1,180	1,400	1,180	23,300
Total Suspended Solids	mg/L	87	30	99	158	79	18	22	50	16	14,000
Cyanide	mg/L	<0.005	0.006	<0.005	<0.005	<0.005	<0.005	0.006	<0.005	<0.005	0.014
Fluoride	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hardness	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	1330	1330
Nitrate+Nitrite	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	0.08	0.08
Sulfate	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	140	192
Inorganics											
Arsenic	mg/L	0.006	0.008	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.02
Barium	mg/L	0.228	0.401	0.545	0.357	0.271	0.360	0.212	0.274	0.045	2.02
Boron	mg/L	0.44	2.31	1.45	2.12	0.54	0.61	0.43	0.53	0.06	7.71
Cadmium	mg/L	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.18
Chromium	mg/L	0.001	0.011	0.004	0.008	<0.001	0.002	<0.001	<0.001	<0.001	0.871
Chromium, Hexavalent	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium, Trivalent	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	0.871	0.871
Copper	mg/L	0.002	0.001	<0.001	<0.001	<0.001	<0.001	0.003	0.004	<0.001	0.297
Iron	mg/L	19.1	6.89	71.1	93.6	19.0	28.0	2.88	19.9	2.88	1300
Lead	mg/L	0.002	<0.002	<0.002	0.004	<0.002	<0.002	<0.002	<0.002	<0.002	0.534
Manganese	mg/L	0.301	0.185	1.04	1.52	0.373	0.833	0.504	0.271	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	<0.001
Nickel	mg/L	0.006	0.052	0.019	0.038	0.004	0.005	0.003	0.008	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	0.004
Silver	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002
Zinc	mg/L	0.516	0.127	0.186	0.662	0.022	0.126	0.021	0.017	0.013	28.8
Volatile Organic Compounds											
Acetone	ug/L	<100	NA	590	NA	<100	NA	<100	NA	78	12,600
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	<5.0	NA	8.5	NA	8.1	NA	<5.0	NA	<5.0	36.2
Bromodichloromethane	ug/L	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	<50
Bromoform	ug/L	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	<50
Bromomethane	ug/L	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<1.0	<100
2-Butanone	ug/L	<10.0	NA	936	NA	10.8	NA	<10.0	NA	<10.0	24,300
Carbon disulfide	ug/L	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	<50
Carbon tetrachloride	ug/L	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	<50
Chlorobenzene	ug/L	8.4	NA	21.2	NA	44.4	NA	<5.0	NA	<5.0	124
Chlorodibromomethane	ug/L	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	<50
Chloroethane	ug/L	<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	<10	<10
Chloroform	ug/L	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	<50
Chloromethane	ug/L	<10.0	NA	<10.0	NA	<10.0	NA	<10.0	NA	<10	<100

Table 5
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Parameter	Units	BW-LCS-43 May-08	BW-LCS-44 Aug-08	BW-LCS-45 Nov-08	BW-LCS-46 Jan-09	BW-LCS-47 May-09	BW-LCS-48 Jul-09	BW-LCS-49 Nov-09	BW-LCS-50 Jan-10	Minimum[1]	Maximum[1]
Volatile Organic Compounds (Continued)											
1,1-Dichloroethane	ug/L	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	10.3
1,2-Dichloroethane	ug/L	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	<50
1,1-Dichlorethene	ug/L	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	<50
cis-1,2-Dichloroethene	ug/L	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	116
trans-1,2-Dichloroethene	ug/L	<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	<5.0	<5.0
1,2-Dichloropropane	ug/L	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	14.2
cis-1,3-Dichloropropene	ug/L	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	<50
trans-1,3-Dichloropropene	ug/L	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	NA	<1.0	<50
Ethyl Benzene	ug/L	<5.0	NA	6.8	NA	<5.0	NA	<5.0	NA	<5.0	48
2-Hexanone	ug/L	<10.0	NA	<10.0	NA	<10.0	NA	<10.0	NA	<10	30.6
4-Methyl-2-pentanone	ug/L	<10.0	NA	29.6	NA	<10.0	NA	<10.0	NA	<10	544
Methylene chloride	ug/L	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	41.5
Styrene	ug/L	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	<50
1,1,2,2-Tetrachloroethane	ug/L	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	<50
Tetrachloroethene	ug/L	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	17.8
Toluene	ug/L	<5.0	NA	9.8	NA	<5.0	NA	<5.0	NA	<5.0	197
1,1,1-Trichloroethane	ug/L	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	<50
1,1,2-Trichloroethane	ug/L	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	<50
Trichloroethene	ug/L	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	NA	<5.0	19
Vinyl Acetate	ug/L	<10.0	NA	<10.0	NA	<10.0	NA	<10.0	NA	<10	<100
Vinyl Chloride	ug/L	<2.0	NA	<2.0	NA	<2.0	NA	<2.0	NA	<2.0	<100
Xylenes (total)	ug/L	8.1	NA	21.1	NA	8.6	NA	<5.0	NA	<5.0	228
Semivolatile Organic Compounds											
Acenaphthene	ug/L	<10	NA	<100	NA	<10	NA	<10	NA	<10	<300
Acenaphthylene	ug/L	<10	NA	<100	NA	<10	NA	<10	NA	<10	<300
Anthracene	ug/L	<10	NA	<100	NA	<10	NA	<10	NA	<10	<300
Benzidine	ug/L	<10	NA	<100	NA	<10	NA	<10	NA	<10	<300
Benzo[a]anthracene	ug/L	<10	NA	<100	NA	<10	NA	<10	NA	<10	<300
Benzo[b]fluoranthene	ug/L	<10	NA	<100	NA	<10	NA	<10	NA	<10	<300
Benzo[k]fluoranthene	ug/L	<10	NA	<100	NA	<10	NA	<10	NA	<10	<300
Benzo[g,h,i]perylene	ug/L	<10	NA	<100	NA	<10	NA	<10	NA	<10	<300
Benzo[a]pyrene	ug/L	<10	NA	<100	NA	<10	NA	<10	NA	<10	<300
Benzoic Acid	ug/L	<50	NA	266	NA	<50	NA	<50	NA	<50	15,400
Benzyl Alcohol	ug/L	<20	NA	<200	NA	<20	NA	<20	NA	<20	<600
bis(2-chloroethoxy)methane	ug/L	<10	NA	<100	NA	<10	NA	<10	NA	<10	<300
bis(2-chloroethyl) ether	ug/L	<10	NA	<100	NA	<10	NA	<10	NA	<10	<300
bis(2-chloroisopropyl) ether	ug/L	<10	NA	<100	NA	<10	NA	<10	NA	<10	<300
bis(2-ethylhexyl) phthalate	ug/L	<5	NA	<50	NA	<5	NA	7	NA	<5.0	7
4-Bromophenyl-phenylether	ug/L	<10	NA	<100	NA	<10	NA	<10	NA	<10	<300
Butylbenzylphthalate	ug/L	<10	NA	<100	NA	<10	NA	<10	NA	<10	<300
4-Chloroaniline	ug/L	<10	NA	<100	NA	<10	NA	<10	NA	<10	<300
4-Chloro-3-methylphenol	ug/L	<20	NA	<200	NA	<20	NA	<20	NA	<10	<600
2-Chloronaphthalene	ug/L	<10	NA	<100	NA	<10	NA	<10	NA	<10	<300
2-Chlorophenol	ug/L	<10	NA	<100	NA	<10	NA	<10	NA	<10	<300
4-Chlorophenyl-phenylether	ug/L	<10	NA	<100	NA	<10	NA	<10	NA	<10	<300
Chrysene	ug/L	<10	NA	<100	NA	<10	NA	<10	NA	<10	<300

Table 5
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Parameter	Units	BW-LCS-43	BW-LCS-44	BW-LCS-45	BW-LCS-46	BW-LCS-47	BW-LCS-48	BW-LCS-49	BW-LCS-50	Minimum[1]	Maximum[1]
		May-08	Aug-08	Nov-08	Jan-09	May-09	Jul-09	Nov-09	Jan-10		
Semivolatile Organic Compounds (Continued)											
Dibenzofuran	ug/L	<10	NA	<100	NA	<10	NA	<10	NA	<10	<300
1,2-Dichlorobenzene	ug/L	<10	NA	<100	NA	<10	NA	<10	NA	<10	<300
1,3-Dichlorobenzene	ug/L	<10	NA	<100	NA	<10	NA	<10	NA	<10	<300
1,4-Dichlorobenzene	ug/L	<10	NA	115	NA	<10	NA	<10	NA	<10	115
3,3-Dichlorobenzidine	ug/L	<20	NA	<200	NA	<20	NA	<20	NA	<20	<600
2,4-Dichlorophenol	ug/L	<10	NA	<100	NA	<10	NA	<10	NA	<10	<300
Diethylphthalate	ug/L	<10	NA	238	NA	<10	NA	<10	NA	<10	238
2,4-Dimethylphenol	ug/L	<10	NA	<100	NA	<10	NA	<10	NA	<10	<300
Dimethylphthalate	ug/L	<10	NA	<100	NA	<10	NA	<10	NA	<10	55
Di-n-butylphthalate	ug/L	<10	NA	<100	NA	<10	NA	<10	NA	<10	<300
4,6-Dinitro-2-methylphenol	ug/L	<50	NA	<500	NA	<50	NA	<50	NA	<50	<1,500
2,4-Dinitrophenol	ug/L	<10	NA	<100	NA	<10	NA	<10	NA	<50	<1,500
2,4-Dinitrotoluene	ug/L	<10	NA	<100	NA	<10	NA	<10	NA	<10	<300
2,6-Dinitrotoluene	ug/L	<10	NA	<100	NA	<10	NA	<10	NA	<10	<300
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<10	<10
Di-n-octylphthalate	ug/L	<10	NA	<100	NA	<10	NA	<10	NA	<10	<300
Fluoranthene	ug/L	<10	NA	<100	NA	<10	NA	<10	NA	<10	<300
Fluorene	ug/L	<10	NA	<100	NA	<10	NA	<10	NA	<10	<300
Hexachlorobenzene	ug/L	<10	NA	<100	NA	<10	NA	<10	NA	<10	<300
Hexachlorobutadiene	ug/L	<10	NA	<100	NA	<10	NA	<10	NA	<10	<300
Hexachlorocyclopentadiene	ug/L	<10	NA	<100	NA	<10	NA	<10	NA	<10	<300
Hexachloroethane	ug/L	<5	NA	<50	NA	<5	NA	<5	NA	<5	<300
Indeno[1,2,3-cd]pyrene	ug/L	<10	NA	<100	NA	<10	NA	<10	NA	<10	<300
Isophorone	ug/L	<10	NA	<100	NA	<10	NA	<10	NA	<10	<300
2-Methylnaphthalene	ug/L	<10	NA	<100	NA	<10	NA	<10	NA	<10	<300
2-Methylphenol	ug/L	<10	NA	<100	NA	<10	NA	<10	NA	<10	<300
3&4-Methylphenol	ug/L	<10	NA	386	NA	<10	NA	<10	NA	<10	10,100
Naphthalene	ug/L	<10	NA	<100	NA	<10	NA	<10	NA	<10	866
2-Nitroaniline	ug/L	<50	NA	<500	NA	<50	NA	<50	NA	<50	<1,500
3-Nitroaniline	ug/L	<50	NA	<500	NA	<50	NA	<50	NA	<50	<1,500
4-Nitroaniline	ug/L	<20	NA	<200	NA	<20	NA	<20	NA	<20	<600
Nitrobenzene	ug/L	<10	NA	<100	NA	<10	NA	<10	NA	<10	<300
2-Nitrophenol	ug/L	<10	NA	<100	NA	<10	NA	<10	NA	<10	<300
4-Nitrophenol	ug/L	<50	NA	<500	NA	<50	NA	<50	NA	<50	<1,500
N-Nitrosodimethylamine	ug/L	<10	NA	<100	NA	<10	NA	<10	NA	<10	<300
N-Nitroso-di-n-propylamine	ug/L	<10	NA	<100	NA	<10	NA	<10	NA	<10	<300
n-Nitrosodiphenylamine	ug/L	<10	NA	<100	NA	<10	NA	<10	NA	<10	<300
Pentachlorophenol	ug/L	<10	NA	<100	NA	<10	NA	<10	NA	<50	<1,500
Phenanthrene	ug/L	<10	NA	<100	NA	<10	NA	<10	NA	<10	<300
Phenol	ug/L	<10	NA	<100	NA	<10	NA	<10	NA	<10	1,900
Pyrene	ug/L	<10	NA	<100	NA	<10	NA	<10	NA	<10	<300
Pyridine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<100	<250
1,2,4-Trichlorobenzene	ug/L	<10	NA	<100	NA	<10	NA	<10	NA	<10	<300
2,4,5-Trichlorophenol	ug/L	<10	NA	<100	NA	<10	NA	<10	NA	<10	<300
2,4,6-Trichlorophenol	ug/L	<10	NA	<100	NA	<10	NA	<10	NA	<10	<300

Table 5
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Parameter	Units	BW-LCS-43 May-08	BW-LCS-44 Aug-08	BW-LCS-45 Nov-08	BW-LCS-46 Jan-09	BW-LCS-47 May-09	BW-LCS-48 Jul-09	BW-LCS-49 Nov-09	BW-LCS-50 Jan-10	Minimum[1]	Maximum[1]
Pesticides											
Aldrin	ug/L	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	<0.5
alpha-BHC	ug/L	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	<0.5
beta-BHC	ug/L	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	<0.5
delta-BHC	ug/L	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	<0.5
Lindane (gamma-BHC)	ug/L	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	<0.5
alpha-Chlordane	ug/L	<0.50	NA	<0.50	NA	<0.50	NA	<0.50	NA	<0.50	<0.5
gamma-Chlordane	ug/L	<0.50	NA	<0.50	NA	<0.50	NA	<0.50	NA	<0.50	<0.5
4,4'-DDD	ug/L	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	<1.10
4,4'-DDE	ug/L	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	<1.10
4,4'-DDT	ug/L	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	<1.10
Dieldrin	ug/L	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	<1.10
Endosulfan I	ug/L	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	<0.5
Endosulfan II	ug/L	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	<1
Endosulfan sulfate	ug/L	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	<1
Endrin	ug/L	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	<1
Endrin aldehyde	ug/L	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	<1
Endrin ketone	ug/L	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	<1
Heptachlor	ug/L	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	<0.5
Heptachlor epoxide	ug/L	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	NA	<0.05	<0.5
Methoxychlor	ug/L	<0.50	NA	<0.50	NA	<0.50	NA	<0.50	NA	<0.50	<5
Toxaphene	ug/L	<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.
P = Data flag indicates chemical preservation pH adjusted in lab.
B = Data flag indicates analyte detected in associated method blank.
W = Data flag indicates reporting limit elevated due to sample matrix.
M- = Data flag indicates MS recovery outside control limits low bias; LCS acceptable.

Table 6
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 6
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 6
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		X		
DV-8		X	X	X
DV-9		X	X	X
DV-10		X	X	X
DV-11		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[4]		X	X	X
EW-1A[4]		X	X	X
EW-2[4]		X	X	X
EW-3[4]		X	X	X
EW-4[4,5]			X	X
EW-5[4]		X	X	X
EW-6[4]		X	X	X
EW-7[4]		X	X	X
EW-8[4,6]				X
LS01[4]			X	X
LS02[7]				X
Main Vent[8]			X	X

Table 6
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. LFG flow velocity and temperature are not measured at extraction wells or lift stations. Pump cycle counts documented.
5. Due to the configuration of EW-4, leachate levels are difficult or impossible to collect.
6. 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.
7. The pneumatic pump from LS02 was removed. No O&M data collected.
8. 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.

ANNUALLY

• Compressor/Dryer Systems	– Perform annual maintenance as necessary

Table 6
Inspection, Monitoring, and Maintenance Schedule
Blackwell Landfill Site

• 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

Table 7
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 7
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
BW-LFGSTACK-46A	May 14, 2008	29.84	1.6	20.00	75.00	31,000	60.0
BW-LFGSTACK-47A	September 10, 2008	30.23	30	1.50	12.00	560,000	666.9
BW-LFGSTACK-48A	November 19, 2008	30.05	32	0.71	10.00	570,000	236.9
BW-LFGSTACK-49A	January 21, 2009	29.99	30	1.60	12.00	560,000	793.9
BW-LFGSTACK-50A	May 13, 2009	29.77	29	1.50	15.00	540,000	694.3
BW-LFGSTACK-51A	July 15, 2009	29.94	30	1.80	12.00	560,000	690.1
BW-LFGSTACK-52A	November 18, 2009	30.03	29	3.50	16.00	510,000	467.3
BW-LFGSTACK-53A	January 13, 2010	30.14	28	2.90	18.00	510,000	242.5
Averages	-	**29.97**	**29**	**3.40**	**15.47**	**525,226**	**963**

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

Table 7A
Cumulative Risk of Exposure to Landfill Gas - May 2009
Recreational Portions of Landfill
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	85	85	2.17E-07	8.96E-06	18.414	0.00017	NA	NA	2.7E-10	6.2E-10			
Benzene	820	820	2.82E-06	1.16E-04	18.414	0.00214	2.73E-02	8.57E-03	3.5E-09	8.1E-09	9.4E-11	9.4E-07	I, I
Benzyl Chloride[4]	<52	26	1.45E-07	5.98E-06	18.414	0.00011	NA	NA	1.8E-10	4.1E-10			
Bromodichloromethane	<52	26	1.88E-07	7.73E-06	18.414	0.00014	NA	NA	2.3E-10	5.4E-10			
Bromoform	<52	26	2.89E-07	1.19E-05	18.414	0.00022	3.85E-03	NA	3.5E-10	8.3E-10	1.4E-12		I
Bromomethane	<52	26	1.09E-07	4.48E-06	18.414	0.00008	NA	1.43E-03	1.3E-10	3.1E-10		2.2E-07	I
2-Butanone (MEK)	190	190	6.03E-07	2.49E-05	18.414	0.00046	NA	1.43E+00	7.4E-10	1.7E-09		1.2E-09	I
Carbon Disulfide	<52	26	8.72E-08	3.59E-06	18.414	0.00007	NA	2.00E-01	1.1E-10	2.5E-10		1.2E-09	I
Carbon Tetrachloride	<52	26	1.76E-07	7.26E-06	18.414	0.00013	5.25E-02	NA	2.2E-10	5.0E-10	1.1E-11		I
Chlorobenzene	230	230	1.14E-06	4.70E-05	18.414	0.00087	NA	5.71E-03	1.4E-09	3.3E-09		5.7E-07	H
Chloroethane	450	450	1.28E-06	5.27E-05	18.414	0.00097	NA	2.86E+00	1.6E-09	3.7E-09		1.3E-09	I
Chloroform	<52	26	1.37E-07	5.64E-06	18.414	0.00010	8.05E-02	NA	1.7E-10	3.9E-10	1.3E-11		I
Chloromethane	<210	105	2.33E-07	9.63E-06	18.414	0.00018	6.30E-03	2.57E-02	2.9E-10	6.7E-10	1.8E-12	2.6E-08	H, I
Dibromochloromethane	<52	26	2.38E-07	9.83E-06	18.414	0.00018	NA	NA	2.9E-10	6.8E-10			
1,2-Dichlorobenzene	22	22	1.42E-07	5.87E-06	18.414	0.00011	NA	5.71E-02	1.7E-10	4.1E-10		7.1E-09	H
1,3-Dichlorobenzene	<52	26	1.68E-07	6.94E-06	18.414	0.00013	NA	NA	2.1E-10	4.8E-10			
1,4-Dichlorobenzene	660	660	4.27E-06	1.76E-04	18.414	0.00324	NA	2.29E-01	5.2E-09	1.2E-08		5.3E-08	I
1,1-Dichloroethane	38	38	1.66E-07	6.83E-06	18.414	0.00013	NA	1.43E-01	2.0E-10	4.7E-10		3.3E-09	H
1,2-Dichloroethane	<52	26	1.13E-07	4.67E-06	18.414	0.00009	9.10E-02	NA	1.4E-10	3.2E-10	1.3E-11		I
1,1-Dichloroethene	<52	26	1.11E-07	4.58E-06	18.414	0.00008	NA	5.71E-02	1.4E-10	3.2E-10		5.6E-09	I
cis-1,2-Dichloroethene	520	520	2.22E-06	9.15E-05	18.414	0.00169	NA	NA	2.7E-09	6.3E-09			
trans-1,2-Dichloroethene	120	120	5.12E-07	2.11E-05	18.414	0.00039	NA	NA	6.3E-10	1.5E-09			
1,2-Dichloropropane	68	68	3.38E-07	1.40E-05	18.414	0.00026	NA	1.14E-03	4.1E-10	9.7E-10		8.5E-07	I
cis-1,3-Dichloropropene	<52	26	1.27E-07	5.24E-06	18.414	0.00010	1.40E-02	5.71E-03	1.6E-10	3.6E-10	2.2E-12	6.4E-08	I, I
trans-1,3-Dichloropropene	<52	26	1.27E-07	5.24E-06	18.414	0.00010	1.40E-02	5.71E-03	1.6E-10	3.6E-10	2.2E-12	6.4E-08	I, I
Ethyl Benzene	3,100	3,100	1.45E-05	5.98E-04	18.414	0.01100	NA	2.86E-01	1.8E-08	4.1E-08		1.4E-07	I
Ethylene Dibromide[5]	<52	26	2.15E-07	8.87E-06	18.414	0.00016	2.10E+00	2.60E-03	2.6E-10	6.1E-10	5.5E-10	2.4E-07	I, I
4-Ethyltoluene	1,600	1,600	8.47E-06	3.49E-04	18.414	0.00643	NA	NA	1.0E-08	2.4E-08			
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	<52	26	2.15E-07	8.85E-06	18.414	0.00016	NA	8.57E+00	2.63E-10	6.13E-10		7.15E-11	H
Freon 114 (C12F4Et)	290	290	2.18E-06	9.00E-05	18.414	0.00166	NA	NA	2.7E-09	6.2E-09			
Freon 12 (C12F2Me)	1,800	1,800	9.58E-06	3.95E-04	18.414	0.00728	NA	5.71E-02	1.2E-08	2.7E-08		4.8E-07	H
Hexachlorobutadiene	<210	105	1.21E-06	4.97E-05	18.414	0.00092	7.70E-02	NA	1.5E-09	3.4E-09	1.1E-10		I
2-Hexanone	<210	105	4.63E-07	1.91E-05	18.414	0.00035	NA	NA	5.7E-10	1.3E-09			

Table 7A
Cumulative Risk of Exposure to Landfill Gas - May 2009
Recreational Portions of Landfill
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]	540,000,000	540,000,000	3.81E-01	1.57E+01	18.414	290	NA	NA	4.7E-04	1.1E-03			
4-Methyl-2-pentanone	310	310	1.37E-06	5.64E-05	18.414	0.00104	NA	8.57E-01	1.7E-09	3.9E-09		4.6E-09	I
Methylene chloride	58	58	2.17E-07	8.94E-06	18.414	0.00016	NA	2.60E-02	2.7E-10	6.2E-10		2.4E-08	
Styrene	120	120	5.50E-07	2.27E-05	18.414	0.00042	NA	2.86E-01	6.7E-10	1.6E-09		5.5E-09	I
1,1,2,2-Tetrachloroethane	<52	26	1.92E-07	7.92E-06	18.414	0.00015	2.03E-01	NA	2.4E-10	5.5E-10	4.8E-11		I
Tetrachloroethene	140	140	1.02E-06	4.22E-05	18.414	0.00078	2.03E-03	1.71E-01	1.3E-09	2.9E-09	2.5E-12	1.7E-08	prov, prov
TNMOC[7]	694,300	694,300	3.67E-04	1.51E-02	18.414	0.27881	NA	NA	4.5E-07	1.0E-06			prov
Toluene	11,000	11,000	4.46E-05	1.84E-03	18.414	0.03389	NA	1.14E-01	5.5E-08	1.3E-07		1.1E-06	I
1,2,4-Trichlorobenzene	<210	105	8.39E-07	3.46E-05	18.414	0.00064	NA	1.14E-03	1.0E-09	2.4E-09		2.1E-06	prov
1,1,1-Trichloroethane	8	8	4.70E-08	1.94E-06	18.414	0.00004	NA	6.29E-01	5.8E-11	1.3E-10		2.1E-10	prov
1,1,2-Trichloroethane	<52	26	1.53E-07	6.30E-06	18.414	0.00012	5.60E-02	NA	1.9E-10	4.4E-10	1.0E-11		I
Trichloroethene	150	150	8.71E-07	3.59E-05	18.414	0.00066	4.00E-01	1.14E-02	1.1E-09	2.5E-09	4.3E-10	2.2E-07	prov, prov
1,2,4-Trimethylbenzene	2,000	2,000	1.06E-05	4.36E-04	18.414	0.00804	NA	1.71E-03	1.3E-08	3.0E-08		1.8E-05	prov
1,3,5-Trimethylbenzene	700	700	3.70E-06	1.53E-04	18.414	0.00281	NA	1.71E-03	4.5E-09	1.1E-08		6.2E-06	prov
Vinyl chloride	3,100	3,100	8.53E-06	3.52E-04	18.414	0.00648	3.08E-02	2.86E-02	1.0E-08	2.4E-08	3.2E-10	8.5E-07	I, I
m,p-Xylene	6,500	6,500	3.04E-05	1.25E-03	18.414	0.02307	NA	2.86E-02	3.7E-08	8.7E-08		3.0E-06	I
o-Xylene	1,800	1,800	8.41E-06	3.47E-04	18.414	0.00639	NA	2.86E-02	1.0E-08	2.4E-08		8.4E-07	I
									Cumulative Risk -->		**1.6E-09**	**3.6E-05**	

Notes:

[1] = Maximum concentration of BW-LFGSTACK-50A.
[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-14 Method
[5] =Ethylene Dibromide is reported as 1,2-Dibromoethane 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 7B
Cumulative Risk of Exposure to Landfill Gas - July 2009
Recreational Portions of Landfill
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	310	310	7.93E-07	3.27E-05	18.414	0.00060	NA	NA	9.7E-10	2.3E-09			
Benzene	860	860	2.96E-06	1.22E-04	18.414	0.00225	2.73E-02	8.57E-03	3.6E-09	8.4E-09	9.9E-11	9.9E-07	I, I
Benzyl Chloride[4]	<47	23.5	1.31E-07	5.40E-06	18.414	0.00010	NA	NA	1.6E-10	3.7E-10			
Bromodichloromethane	<47	23.5	1.70E-07	6.99E-06	18.414	0.00013	NA	NA	2.1E-10	4.8E-10			
Bromoform	<47	23.5	2.62E-07	1.08E-05	18.414	0.00020	3.85E-03	NA	3.2E-10	7.5E-10	1.2E-12		I
Bromomethane	<47	23.5	9.82E-08	4.05E-06	18.414	0.00007	NA	1.43E-03	1.2E-10	2.8E-10		2.0E-07	I
2-Butanone (MEK)	300	300	9.53E-07	3.93E-05	18.414	0.00072	NA	1.43E+00	1.2E-09	2.7E-09		1.9E-09	I
Carbon Disulfide	<47	23.5	7.88E-08	3.25E-06	18.414	0.00006	NA	2.00E-01	9.6E-11	2.3E-10		1.1E-09	I
Carbon Tetrachloride	<47	23.5	1.59E-07	6.56E-06	18.414	0.00012	5.25E-02	NA	1.9E-10	4.5E-10	1.0E-11		I
Chlorobenzene	210	210	1.04E-06	4.29E-05	18.414	0.00079	NA	5.71E-03	1.3E-09	3.0E-09		5.2E-07	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	<47	23.5	1.24E-07	5.09E-06	18.414	0.00009	8.05E-02	NA	1.5E-10	3.5E-10	1.2E-11		I
Chloromethane	<190	95	2.11E-07	8.71E-06	18.414	0.00016	6.30E-03	2.57E-02	2.6E-10	6.0E-10	1.6E-12	2.3E-08	H, I
Dibromochloromethane	<47	23.5	2.16E-07	8.89E-06	18.414	0.00016	NA	NA	2.6E-10	6.2E-10			
1,2-Dichlorobenzene	17	17	1.10E-07	4.54E-06	18.414	0.00008	NA	5.71E-02	1.3E-10	3.1E-10		5.5E-09	H
1,3-Dichlorobenzene	<47	23.5	1.52E-07	6.27E-06	18.414	0.00012	NA	NA	1.9E-10	4.3E-10			
1,4-Dichlorobenzene	450	450	2.91E-06	1.20E-04	18.414	0.00221	NA	2.29E-01	3.6E-09	8.3E-09		3.6E-08	I
1,1-Dichloroethane	73	73	3.18E-07	1.31E-05	18.414	0.00024	NA	1.43E-01	3.9E-10	9.1E-10		6.4E-09	H
1,2-Dichloroethane	<47	23.5	1.02E-07	4.22E-06	18.414	0.00008	9.10E-02	NA	1.3E-10	2.9E-10	1.1E-11		I
1,1-Dichloroethene	11	11	4.70E-08	1.94E-06	18.414	0.00004	NA	5.71E-02	5.7E-11	1.3E-10		2.3E-09	I
cis-1,2-Dichloroethene	880	880	3.76E-06	1.55E-04	18.414	0.00285	NA	NA	4.6E-09	1.1E-08			
trans-1,2-Dichloroethene	120	120	5.12E-07	2.11E-05	18.414	0.00039	NA	NA	6.3E-10	1.5E-09			
1,2-Dichloropropane	75	75	3.73E-07	1.54E-05	18.414	0.00028	NA	1.14E-03	4.6E-10	1.1E-09		9.3E-07	I
cis-1,3-Dichloropropene	<47	23.5	1.15E-07	4.74E-06	18.414	0.00009	1.40E-02	5.71E-03	1.4E-10	3.3E-10	2.0E-12	5.7E-08	I, I
trans-1,3-Dichloropropene	<47	23.5	1.15E-07	4.74E-06	18.414	0.00009	1.40E-02	5.71E-03	1.4E-10	3.3E-10	2.0E-12	5.7E-08	I, I
Ethyl Benzene	3,100	3,100	1.45E-05	5.98E-04	18.414	0.01100	NA	2.86E-01	1.8E-08	4.1E-08		1.4E-07	I
Ethylene Dibromide[5]	<47	23.5	1.94E-07	8.02E-06	18.414	0.00015	2.10E+00	2.60E-03	2.4E-10	5.6E-10	5.0E-10	2.1E-07	I, I
4-Ethyltoluene	1,300	1,300	6.88E-06	2.84E-04	18.414	0.00522	NA	NA	8.4E-09	2.0E-08			
Freon 11 (C13FMe)	11	11	6.65E-08	2.74E-06	18.414	0.00005	NA	2.00E-01	8.1E-11	1.9E-10		9.5E-10	H
Freon 113	<47	23.5	1.94E-07	8.00E-06	18.414	0.00015	NA	8.57E+00	2.37E-10	5.54E-10		6.46E-11	H
Freon 114 (C12F4Et)	390	390	2.94E-06	1.21E-04	18.414	0.00223	NA	NA	3.6E-09	8.4E-09			
Freon 12 (C12F2Me)	1,800	1,800	9.58E-06	3.95E-04	18.414	0.00728	NA	5.71E-02	1.2E-08	2.7E-08		4.8E-07	H
Hexachlorobutadiene	<190	95	1.09E-06	4.50E-05	18.414	0.00083	7.70E-02	NA	1.3E-09	3.1E-09	1.0E-10		I
2-Hexanone	<190	95	4.19E-07	1.73E-05	18.414	0.00032	NA	NA	5.1E-10	1.2E-09			

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Table 7B
Cumulative Risk of Exposure to Landfill Gas - July 2009
Recreational Portions of Landfill
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]	560,000,000	560,000,000	3.96E-01	1.63E+01	18.414	300	NA	NA	4.8E-04	1.1E-03			
4-Methyl-2-pentanone	200	200	8.82E-07	3.64E-05	18.414	0.00067	NA	8.57E-01	1.1E-09	2.5E-09		2.9E-09	I
Methylene chloride	93	93	3.48E-07	1.43E-05	18.414	0.00026	NA	2.60E-02	4.3E-10	9.9E-10		3.8E-08	
Styrene	<47	23.5	1.08E-07	4.44E-06	18.414	0.00008	NA	2.86E-01	1.3E-10	3.1E-10		1.1E-09	I
1,1,2,2-Tetrachloroethane	<47	23.5	1.74E-07	7.16E-06	18.414	0.00013	2.03E-01	NA	2.1E-10	5.0E-10	4.3E-11		I
Tetrachloroethene	320	320	2.34E-06	9.64E-05	18.414	0.00177	2.03E-03	1.71E-01	2.9E-09	6.7E-09	5.8E-12	3.9E-08	prov, prov
TNMOC[7]	690,100	690,100	3.65E-04	1.50E-02	18.414	0.27713	NA	NA	4.5E-07	1.0E-06			prov
Toluene	12,000	12,000	4.87E-05	2.01E-03	18.414	0.03697	NA	1.14E-01	6.0E-08	1.4E-07		1.2E-06	I
1,2,4-Trichlorobenzene	<190	95	7.59E-07	3.13E-05	18.414	0.00058	NA	1.14E-03	9.3E-10	2.2E-09		1.9E-06	prov
1,1,1-Trichloroethane	9.1	9.1	5.35E-08	2.20E-06	18.414	0.00004	NA	6.29E-01	6.5E-11	1.5E-10		2.4E-10	prov
1,1,2-Trichloroethane	<47	23.5	1.38E-07	5.69E-06	18.414	0.00010	5.60E-02	NA	1.7E-10	3.9E-10	9.5E-12		I
Trichloroethene	360	360	2.09E-06	8.62E-05	18.414	0.00159	4.00E-01	1.14E-02	2.6E-09	6.0E-09	1.0E-09	5.2E-07	prov, prov
1,2,4-Trimethylbenzene	1,400	1,400	7.41E-06	3.06E-04	18.414	0.00563	NA	1.71E-03	9.1E-09	2.1E-08		1.2E-05	prov
1,3,5-Trimethylbenzene	530	530	2.80E-06	1.16E-04	18.414	0.00213	NA	1.71E-03	3.4E-09	8.0E-09		4.7E-06	prov
Vinyl chloride	2,700	2,700	7.43E-06	3.06E-04	18.414	0.00564	3.08E-02	2.86E-02	9.1E-09	2.1E-08	2.8E-10	7.4E-07	I, I
m,p-Xylene	5,900	5,900	2.76E-05	1.14E-03	18.414	0.02094	NA	2.86E-02	3.4E-08	7.9E-08		2.8E-06	I
o-Xylene	1,700	1,700	7.95E-06	3.28E-04	18.414	0.00603	NA	2.86E-02	9.7E-09	2.3E-08		7.9E-07	I
									Cumulative Risk -->		**2.1E-09**	**2.9E-05**	

Notes:

[1] = Maximum concentration of BW-LFGSTACK-51A.
[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-14 Method
[5] =Ethylene Dibromide is reported as 1,2-Dibromoethane 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.

Table 7C
Cumulative Risk of Exposure to Landfill Gas - November 2009
Recreational Portions of Landfill
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	330	330	8.44E-07	3.48E-05	18.414	0.00064	NA	NA	1.0E-09	2.4E-09			
Benzene	1,000	1,000	3.44E-06	1.42E-04	18.414	0.00261	2.73E-02	8.57E-03	4.2E-09	9.8E-09	1.1E-10	1.1E-06	I, I
Benzyl Chloride[4]	<25	12.5	6.97E-08	2.87E-06	18.414	0.00005	NA	NA	8.5E-11	2.0E-10			
Bromodichloromethane	<25	12.5	9.02E-08	3.72E-06	18.414	0.00007	NA	NA	1.1E-10	2.6E-10			
Bromoform	<25	12.5	1.39E-07	5.74E-06	18.414	0.00011	3.85E-03	NA	1.7E-10	4.0E-10	6.6E-13		I
Bromomethane	<25	12.5	5.23E-08	2.15E-06	18.414	0.00004	NA	1.43E-03	6.4E-11	1.5E-10		1.0E-07	I
2-Butanone (MEK)	310	310	9.84E-07	4.06E-05	18.414	0.00075	NA	1.43E+00	1.2E-09	2.8E-09		2.0E-09	I
Carbon Disulfide	<25	12.5	4.19E-08	1.73E-06	18.414	0.00003	NA	2.00E-01	5.1E-11	1.2E-10		6.0E-10	I
Carbon Tetrachloride	<25	12.5	8.47E-08	3.49E-06	18.414	0.00006	5.25E-02	NA	1.0E-10	2.4E-10	5.4E-12		I
Chlorobenzene	170	170	8.43E-07	3.47E-05	18.414	0.00064	NA	5.71E-03	1.0E-09	2.4E-09		4.2E-07	H
Chloroethane	320	320	9.09E-07	3.75E-05	18.414	0.00069	NA	2.86E+00	1.1E-09	2.6E-09		9.1E-10	I
Chloroform	<25	12.5	6.57E-08	2.71E-06	18.414	0.00005	8.05E-02	NA	8.0E-11	1.9E-10	6.5E-12		I
Chloromethane	<100	50	1.11E-07	4.58E-06	18.414	0.00008	6.30E-03	2.57E-02	1.4E-10	3.2E-10	8.6E-13	1.2E-08	H, I
Dibromochloromethane	<25	12.5	1.15E-07	4.73E-06	18.414	0.00009	NA	NA	1.4E-10	3.3E-10			
1,2-Dichlorobenzene	18	18	1.17E-07	4.80E-06	18.414	0.00009	NA	5.71E-02	1.4E-10	3.3E-10		5.8E-09	H
1,3-Dichlorobenzene	<25	12.5	8.09E-08	3.34E-06	18.414	0.00006	NA	NA	9.9E-11	2.3E-10			
1,4-Dichlorobenzene	550	550	3.56E-06	1.47E-04	18.414	0.00270	NA	2.29E-01	4.4E-09	1.0E-08		4.4E-08	I
1,1-Dichloroethane	96	96	4.18E-07	1.73E-05	18.414	0.00032	NA	1.43E-01	5.1E-10	1.2E-09		8.4E-09	H
1,2-Dichloroethane	<25	12.5	5.45E-08	2.25E-06	18.414	0.00004	9.10E-02	NA	6.7E-11	1.6E-10	6.1E-12		I
1,1-Dichloroethene	14	14	5.98E-08	2.46E-06	18.414	0.00005	NA	5.71E-02	7.3E-11	1.7E-10		3.0E-09	I
cis-1,2-Dichloroethene	1,500	1,500	6.40E-06	2.64E-04	18.414	0.00486	NA	NA	7.8E-09	1.8E-08			
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	96	96	4.78E-07	1.97E-05	18.414	0.00036	NA	1.14E-03	5.8E-10	1.4E-09		1.2E-06	I
cis-1,3-Dichloropropene	<25	12.5	6.11E-08	2.52E-06	18.414	0.00005	1.40E-02	5.71E-03	7.5E-11	1.7E-10	1.0E-12	3.1E-08	I, I
trans-1,3-Dichloropropene	<25	12.5	6.11E-08	2.52E-06	18.414	0.00005	1.40E-02	5.71E-03	7.5E-11	1.7E-10	1.0E-12	3.1E-08	I, I
Ethyl Benzene	3,600	3,600	1.68E-05	6.94E-04	18.414	0.01278	NA	2.86E-01	2.1E-08	4.8E-08		1.7E-07	I
Ethylene Dibromide[5]	<25	12.5	1.03E-07	4.27E-06	18.414	0.00008	2.10E+00	2.60E-03	1.3E-10	3.0E-10	2.7E-10	1.1E-07	I, I
4-Ethyltoluene	1,700	1,700	9.00E-06	3.71E-04	18.414	0.00683	NA	NA	1.1E-08	2.6E-08			
Freon 11 (C13FMe)	12	12	7.26E-08	2.99E-06	18.414	0.00006	NA	2.00E-01	8.9E-11	2.1E-10		1.0E-09	H
Freon 113	<25	12.5	1.03E-07	4.25E-06	18.414	0.00008	NA	8.57E+00	1.26E-10	2.95E-10		3.44E-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)	2,600	2,600	1.38E-05	5.71E-04	18.414	0.01051	NA	5.71E-02	1.7E-08	4.0E-08		6.9E-07	H
Hexachlorobutadiene	<100	50	5.74E-07	2.37E-05	18.414	0.00044	7.70E-02	NA	7.0E-10	1.6E-09	5.4E-11		I
2-Hexanone	<100	50	2.21E-07	9.09E-06	18.414	0.00017	NA	NA	2.7E-10	6.3E-10			

Table 7C
Cumulative Risk of Exposure to Landfill Gas - November 2009
Recreational Portions of Landfill
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]	510,000,000	510,000,000	3.60E-01	1.49E+01	18.414	274	NA	NA	4.4E-04	1.0E-03			
4-Methyl-2-pentanone	190	190	8.38E-07	3.46E-05	18.414	0.00064	NA	8.57E-01	1.0E-09	2.4E-09		2.8E-09	I
Methylene chloride	65	65	2.43E-07	1.00E-05	18.414	0.00018	NA	2.60E-02	3.0E-10	6.9E-10		2.7E-08	
Styrene	<25	12.5	5.73E-08	2.36E-06	18.414	0.00004	NA	2.86E-01	7.0E-11	1.6E-10		5.7E-10	I
1,1,2,2-Tetrachloroethane	<25	12.5	9.24E-08	3.81E-06	18.414	0.00007	2.03E-01	NA	1.1E-10	2.6E-10	2.3E-11		I
Tetrachloroethene	320	320	2.34E-06	9.64E-05	18.414	0.00177	2.03E-03	1.71E-01	2.9E-09	6.7E-09	5.8E-12	3.9E-08	prov, prov
TNMOC[7]	467,300	467,300	2.47E-04	1.02E-02	18.414	0.18766	NA	NA	3.0E-07	7.1E-07			prov
Toluene	16,000	16,000	6.49E-05	2.68E-03	18.414	0.04929	NA	1.14E-01	7.9E-08	1.9E-07		1.6E-06	I
1,2,4-Trichlorobenzene	<100	50	3.99E-07	1.65E-05	18.414	0.00030	NA	1.14E-03	4.9E-10	1.1E-09		1.0E-06	prov
1,1,1-Trichloroethane	14	14	8.22E-08	3.39E-06	18.414	0.00006	NA	6.29E-01	1.0E-10	2.3E-10		3.7E-10	prov
1,1,2-Trichloroethane	<25	12.5	7.34E-08	3.03E-06	18.414	0.00006	5.60E-02	NA	9.0E-11	2.1E-10	5.0E-12		I
Trichloroethene	410	410	2.38E-06	9.82E-05	18.414	0.00181	4.00E-01	1.14E-02	2.9E-09	6.8E-09	1.2E-09	6.0E-07	prov, prov
1,2,4-Trimethylbenzene	1,900	1,900	1.01E-05	4.15E-04	18.414	0.00764	NA	1.71E-03	1.2E-08	2.9E-08		1.7E-05	prov
1,3,5-Trimethylbenzene	680	680	3.60E-06	1.48E-04	18.414	0.00273	NA	1.71E-03	4.4E-09	1.0E-08		6.0E-06	prov
Vinyl chloride	4,100	4,100	1.13E-05	4.65E-04	18.414	0.00857	3.08E-02	2.86E-02	1.4E-08	3.2E-08	4.3E-10	1.1E-06	I, I
m,p-Xylene	7,400	7,400	3.46E-05	1.43E-03	18.414	0.02627	NA	2.86E-02	4.2E-08	9.9E-08		3.5E-06	I
o-Xylene	2,000	2,000	9.35E-06	3.86E-04	18.414	0.00710	NA	2.86E-02	1.1E-08	2.7E-08		9.3E-07	I
									Cumulative Risk -->		**2.1E-09**	**3.6E-05**	

Notes:

-1 = Maximum concentration of BW-LFGSTACK-52A.
-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-14 Method
-5 =Ethylene Dibromide is reported as 1,2-Dibromoethane 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/ACB/PJV
J:\100\7333 Blackwell\4.0 Execution (Project Deliverables)\4.4 Operations & Maintenance\4.4.1 OM Monitoring - FY2010\12th Year O&M Report\Tables\Table 7C.xls\BW-LFGSTACK-52A
1007333

Table 7D
Cumulative Risk of Exposure to Landfill Gas - January 2010
Recreational Portions of Landfill
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	73	73	1.87E-07	7.70E-06	18.414	0.00014	NA	NA	2.3E-10	5.3E-10			
Benzene	920	920	3.16E-06	1.30E-04	18.414	0.00240	2.73E-02	8.57E-03	3.9E-09	9.0E-09	1.1E-10	1.1E-06	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)	130	130	4.13E-07	1.70E-05	18.414	0.00031	NA	1.43E+00	5.1E-10	1.2E-09		8.2E-10	I
Carbon Disulfide	2.0	2.0	6.70E-09	2.76E-07	18.414	0.00001	NA	2.00E-01	8.2E-12	1.9E-11		9.6E-11	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	240	240	1.19E-06	4.91E-05	18.414	0.00090	NA	5.71E-03	1.5E-09	3.4E-09		6.0E-07	H
Chloroethane	480	480	1.36E-06	5.62E-05	18.414	0.00104	NA	2.86E+00	1.7E-09	3.9E-09		1.4E-09	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	19	19	1.23E-07	5.07E-06	18.414	0.00009	NA	5.71E-02	1.5E-10	3.5E-10		6.2E-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	610	610	3.95E-06	1.63E-04	18.414	0.00300	NA	2.29E-01	4.8E-09	1.1E-08		4.9E-08	I
1,1-Dichloroethane	41	41	1.79E-07	7.37E-06	18.414	0.00014	NA	1.43E-01	2.2E-10	5.1E-10		3.6E-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	14	14	5.98E-08	2.46E-06	18.414	0.00005	NA	5.71E-02	7.3E-11	1.7E-10		3.0E-09	I
cis-1,2-Dichloroethene	640	640	2.73E-06	1.13E-04	18.414	0.00207	NA	NA	3.3E-09	7.8E-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	64	64	3.18E-07	1.31E-05	18.414	0.00024	NA	1.14E-03	3.9E-10	9.1E-10		8.0E-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	3,300	3,300	1.54E-05	6.36E-04	18.414	0.01171	NA	2.86E-01	1.9E-08	4.4E-08		1.5E-07	I
Ethylene Dibromide[5]	3.1	3.1	2.57E-08	1.06E-06	18.414	0.00002	2.10E+00	2.60E-03	3.1E-11	7.3E-11	6.6E-11	2.8E-08	I, I
4-Ethyltoluene	1,500	1,500	7.94E-06	3.27E-04	18.414	0.00603	NA	NA	9.7E-09	2.3E-08			
Freon 11 (C13FMe)	9.3	9.3	5.63E-08	2.32E-06	18.414	0.00004	NA	2.00E-01	6.9E-11	1.6E-10		8.0E-10	H
Freon 113	6.1	6.1	5.03E-08	2.08E-06	18.414	0.00004	NA	8.57E+00	6.16E-11	1.44E-10		1.68E-11	H
Freon 114 (C12F4Et)	270	270	2.03E-06	8.38E-05	18.414	0.00154	NA	NA	2.5E-09	5.8E-09			
Freon 12 (C12F2Me)	1,700	1,700	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	<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			

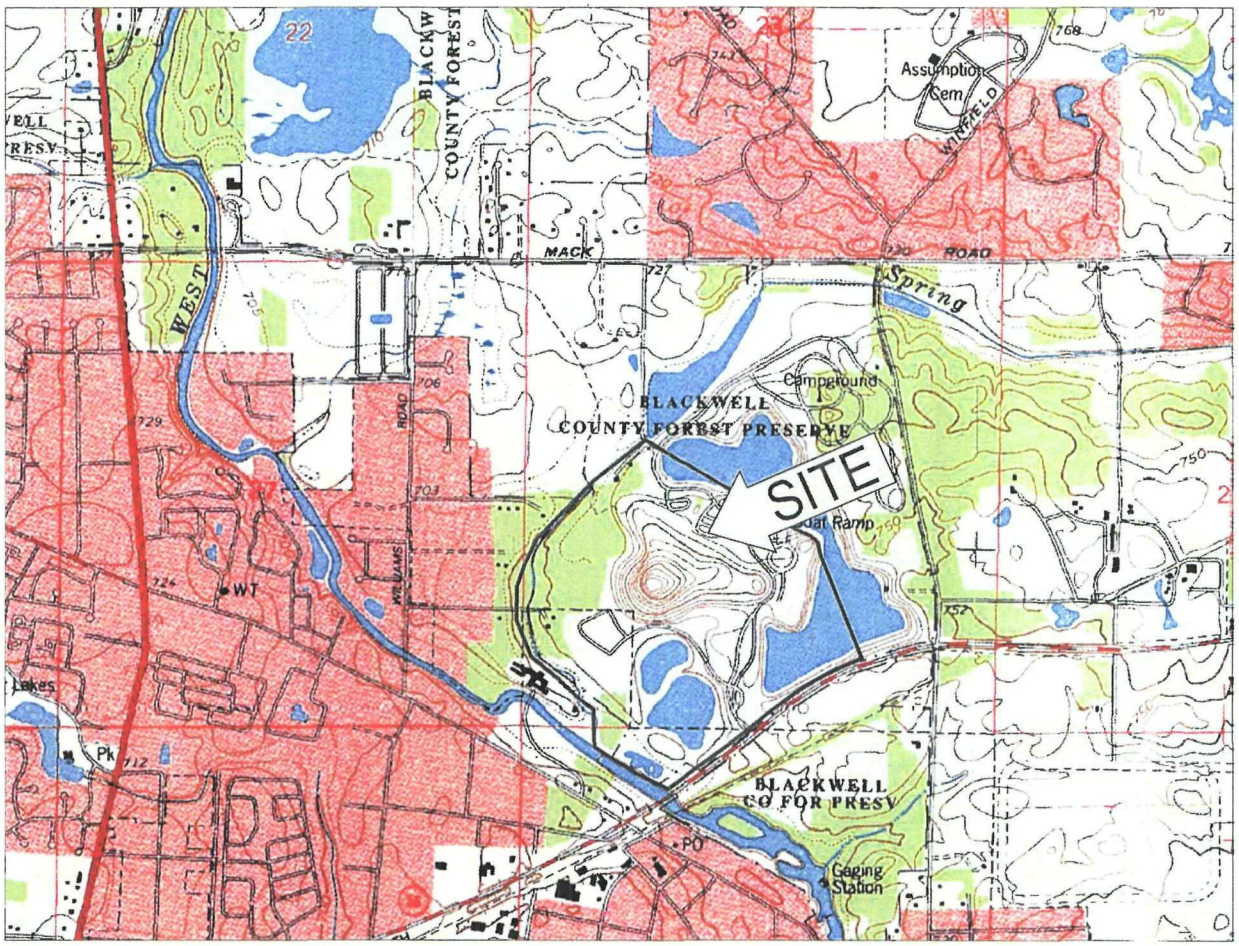
Table 7D
Cumulative Risk of Exposure to Landfill Gas - January 2010
Recreational Portions of Landfill
Blackwell Landfill NPL Site, DuPage County, Illinois

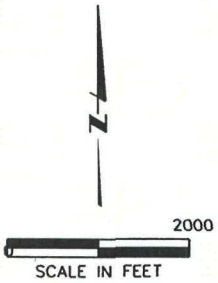
Potential Chemical of Concern	Maximum Concentration[1] $C_{ppb,i}$ (ppbv)	Maximum Concentration (ppbv)	Maximum Concentration[2] g/L	Emission Rate[2] E_i (g/s)	Maximum Unit Concentration (ug/m3)	Maximum Concentration on Blackwell[3] R_i (ug/m3)	Slope Factor (mg/kg-day)-1	RfDi (mg/kg-day)	Cancer Dose (mg/kg-day)	Noncancer Dose (mg/kg-day)	Cancer Risk	Hazard Quotient	References
Methane[6]	510,000,000	510,000,000	3.60E-01	1.49E+01	18.414	274	NA	NA	4.4E-04	1.0E-03			
4-Methyl-2-pentanone	150	150	6.62E-07	2.73E-05	18.414	0.00050	NA	8.57E-01	8.1E-10	1.9E-09		2.2E-09	I
Methylene chloride	36	36	1.35E-07	5.55E-06	18.414	0.00010	NA	2.60E-02	1.6E-10	3.8E-10		1.5E-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	89	89	6.50E-07	2.68E-05	18.414	0.00049	2.03E-03	1.71E-01	8.0E-10	1.9E-09	1.6E-12	1.1E-08	prov, prov
TNMOC[7]	242,500	242,500	1.28E-04	5.29E-03	18.414	0.09738	NA	NA	1.6E-07	3.7E-07			prov
Toluene	9,400	9,400	3.81E-05	1.57E-03	18.414	0.02896	NA	1.14E-01	4.7E-08	1.1E-07		9.6E-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	160	160	9.29E-07	3.83E-05	18.414	0.00071	4.00E-01	1.14E-02	1.1E-09	2.7E-09	4.5E-10	2.3E-07	prov, prov
1,2,4-Trimethylbenzene	1,900	1,900	1.01E-05	4.15E-04	18.414	0.00764	NA	1.71E-03	1.2E-08	2.9E-08		1.7E-05	prov
1,3,5-Trimethylbenzene	690	690	3.65E-06	1.51E-04	18.414	0.00277	NA	1.71E-03	4.5E-09	1.0E-08		6.1E-06	prov
Vinyl chloride	3,700	3,700	1.02E-05	4.20E-04	18.414	0.00773	3.08E-02	2.86E-02	1.2E-08	2.9E-08	3.8E-10	1.0E-06	I, I
m,p-Xylene	6,200	6,200	2.90E-05	1.20E-03	18.414	0.02201	NA	2.86E-02	3.5E-08	8.3E-08		2.9E-06	I
o-Xylene	1,800	1,800	8.41E-06	3.47E-04	18.414	0.00639	NA	2.86E-02	1.0E-08	2.4E-08		8.4E-07	I
									Cumulative Risk -->		**1.1E-09**	**3.3E-05**	

Notes:

[1] = Maximum concentration of BW-LFGSTACK-53A
[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-14 Method
[5] =Ethylene Dibromide is reported as 1,2-Dibromoethane 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.

FIGURES





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

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

J:\209\0045 Blackwell\Drawings\2090045_site_loc_map.dwg Jun 01, 2005 – 9:50am

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

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0 250
SCALE IN FEET

LEGEND

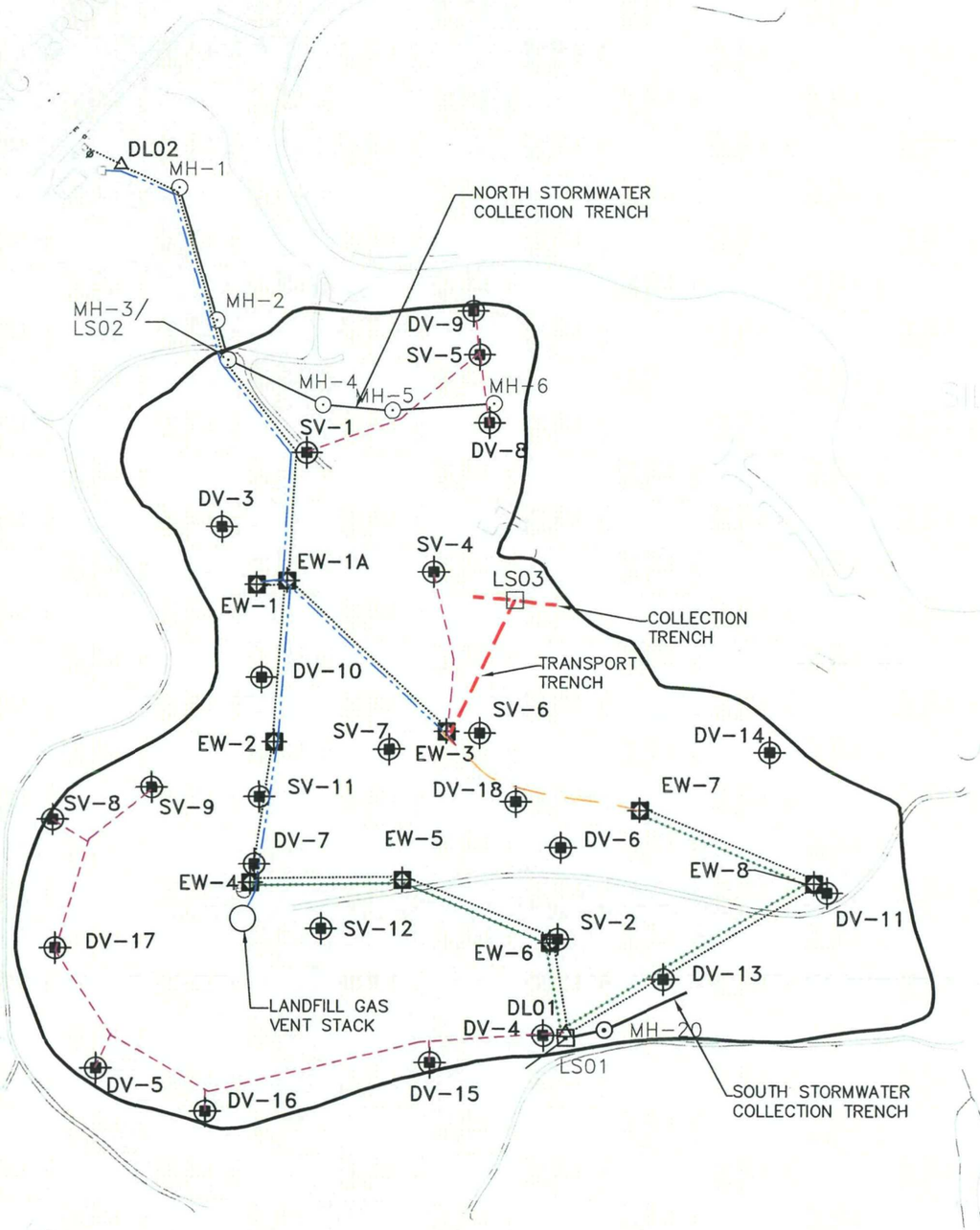
- BUILDING
- PAVED ROAD
- TREE
- BRUSHLINE
- WATER OUTLINE
- FENCE
- INDEX CONTOUR
- LIMITS OF REFUSE
- APPROXIMATE AREA OF REGRADED TUBE RUN (COMPLETED FALL 2002)

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

J:\208\0754 Blackwell\DRAWINGS\Topographic Map 04.dwg May 02, 2005 – 2:25pm



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
- LANDFILL GAS CONVEYANCE PIPE

N

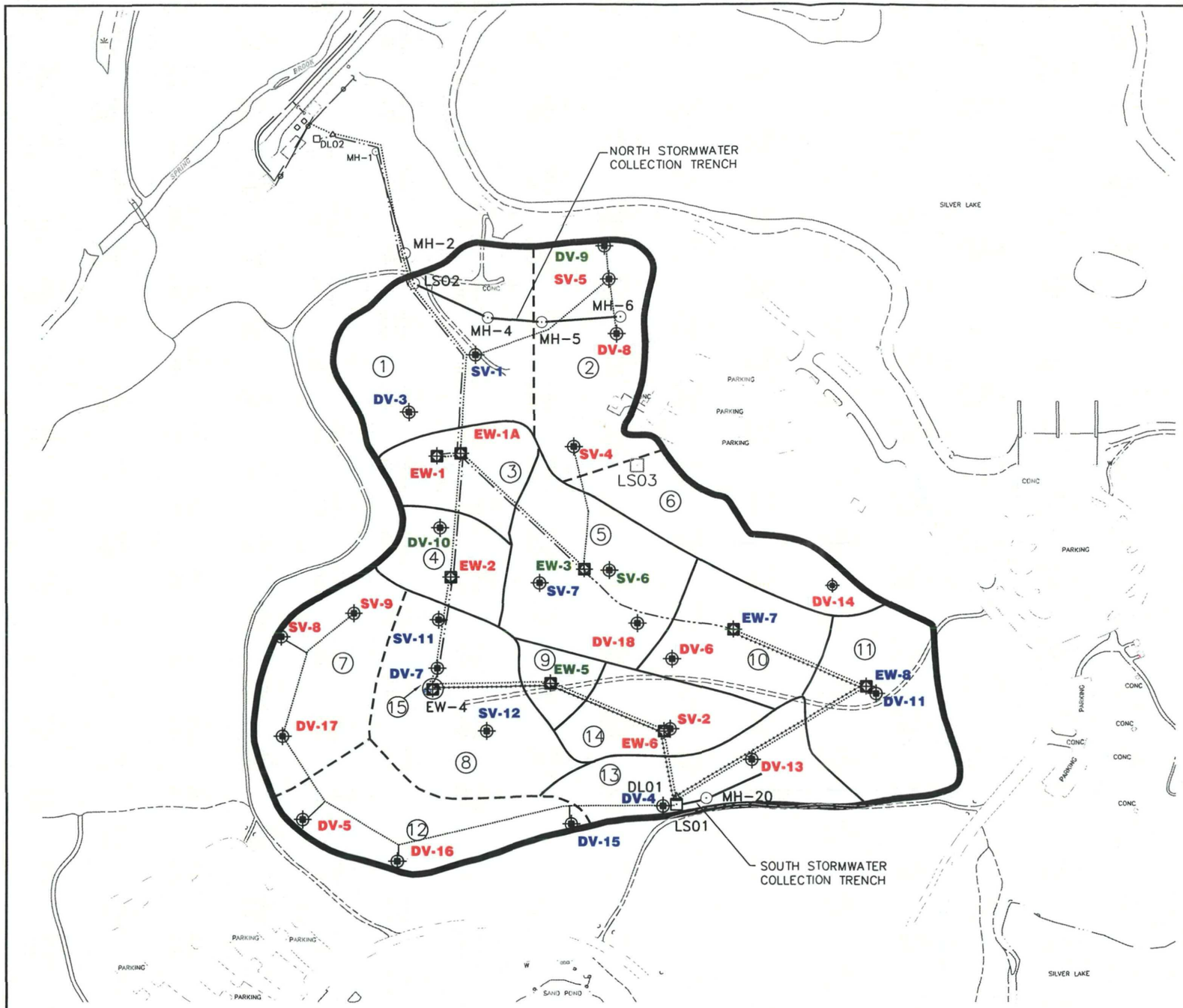
0 250
SCALE IN FEET

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

J:\jobs\405\0581 Blackwell\Drawings\11th Year O&M Report\11th Year_Fig4.dwg Jun 29, 2009 - 11:44am



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
- SV-1 — 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

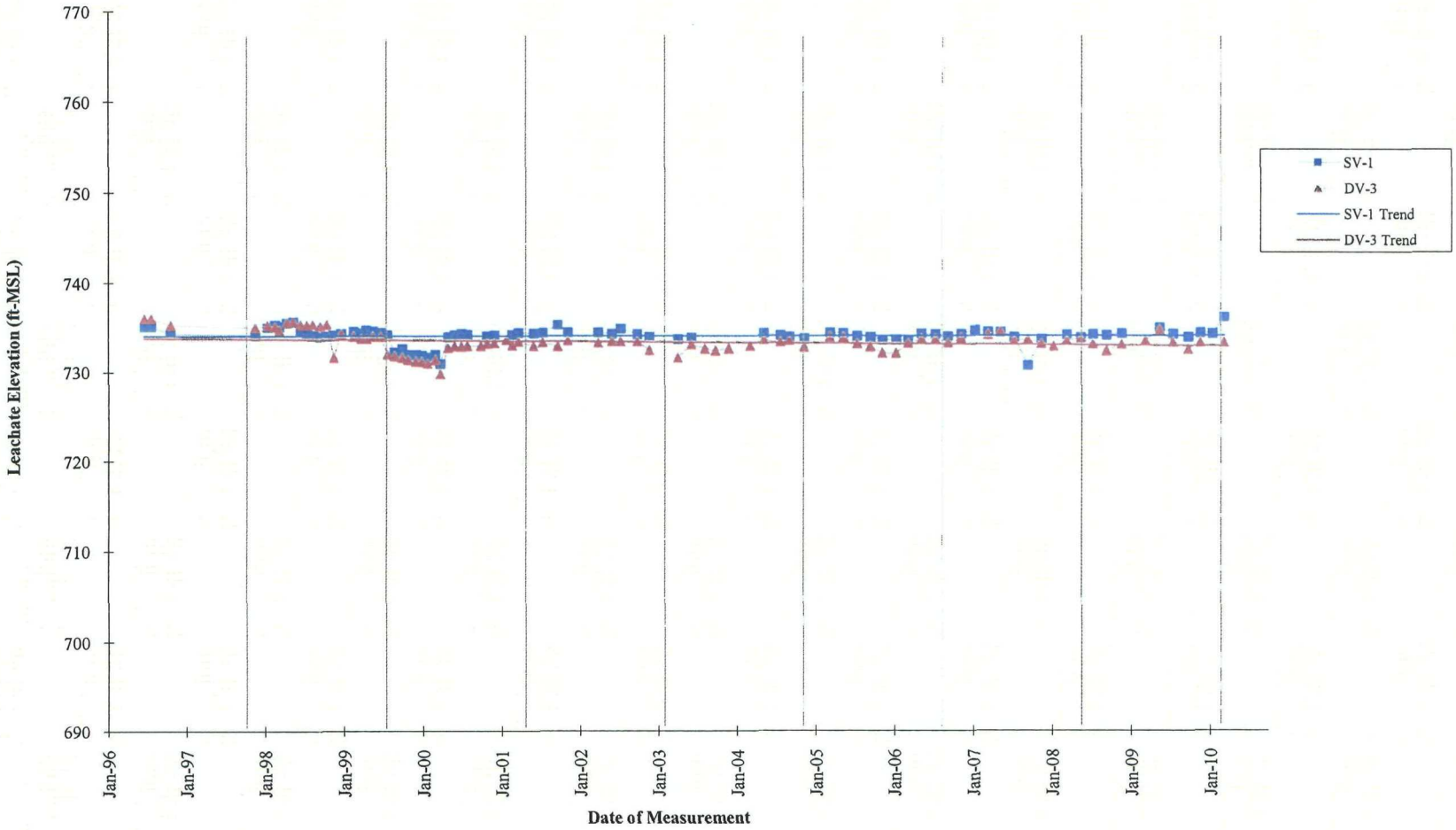
0 250
SCALE IN FEET

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

J:\jobs\100\7333 Blackwell\4.0 Execution (Project Deliverables)\4.1 Drawings\12th Year O&M Report\12th Year_Fig5.dwg Mar 16, 2010 - 1:30pm

DRAWINGS

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



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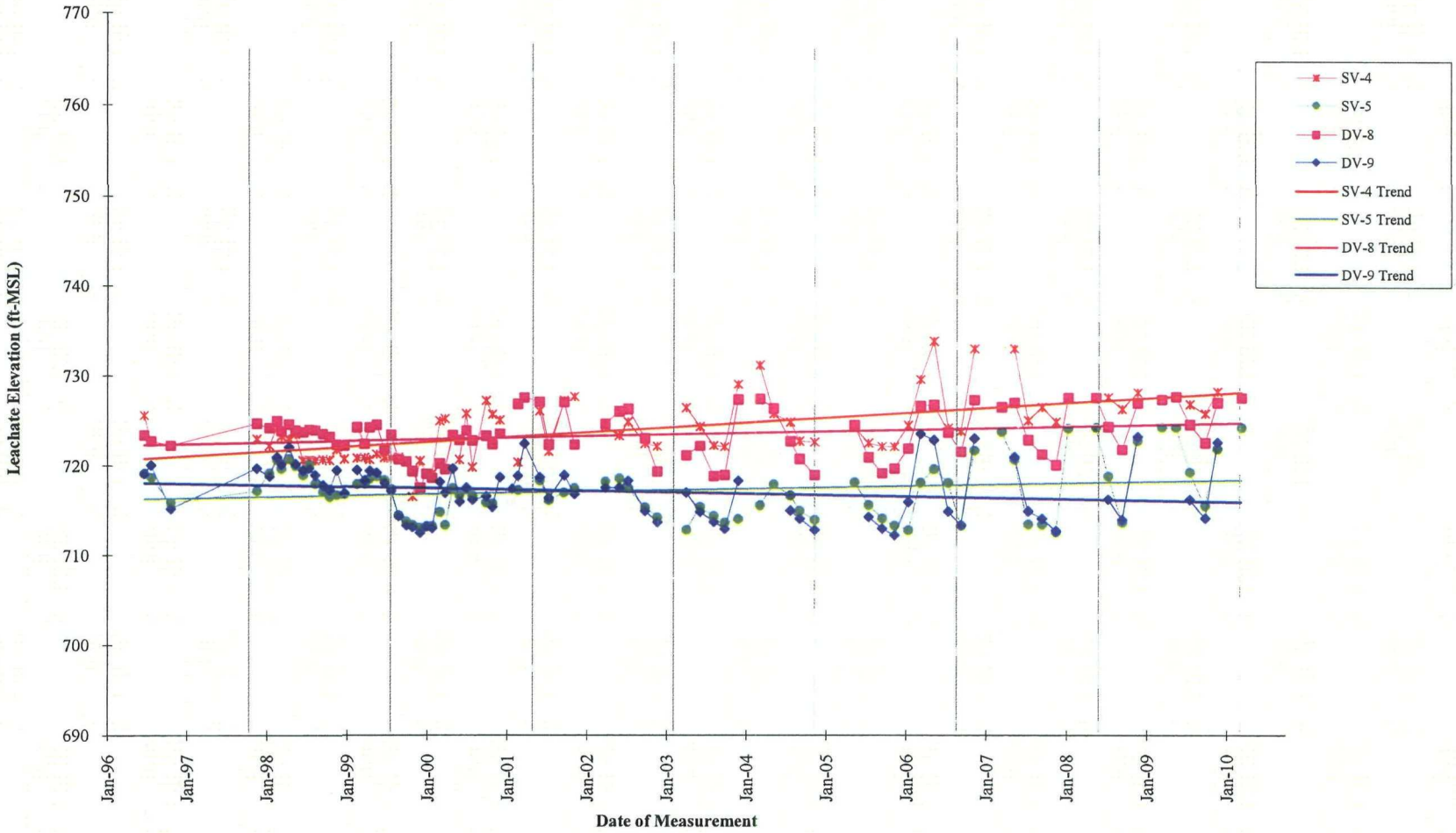
Drawing 2
Leachate Elevations in Landfill Area 2
Blackwell Landfill NPL Site



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Drawings 1-23.xlsx\Drawing 2
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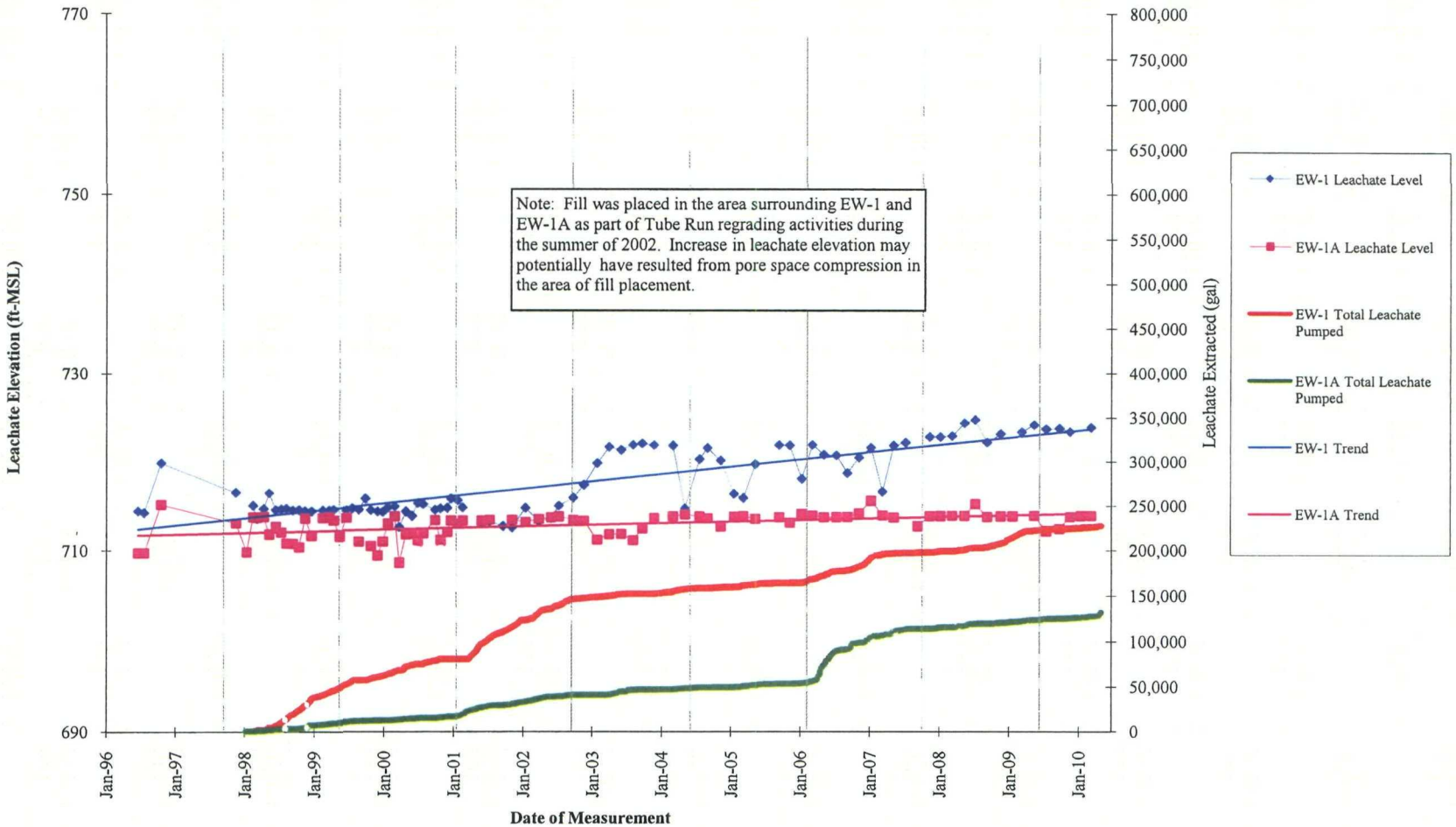
Drawing 3
Leachate Elevations in Landfill Area 3
Blackwell Landfill NPL Site



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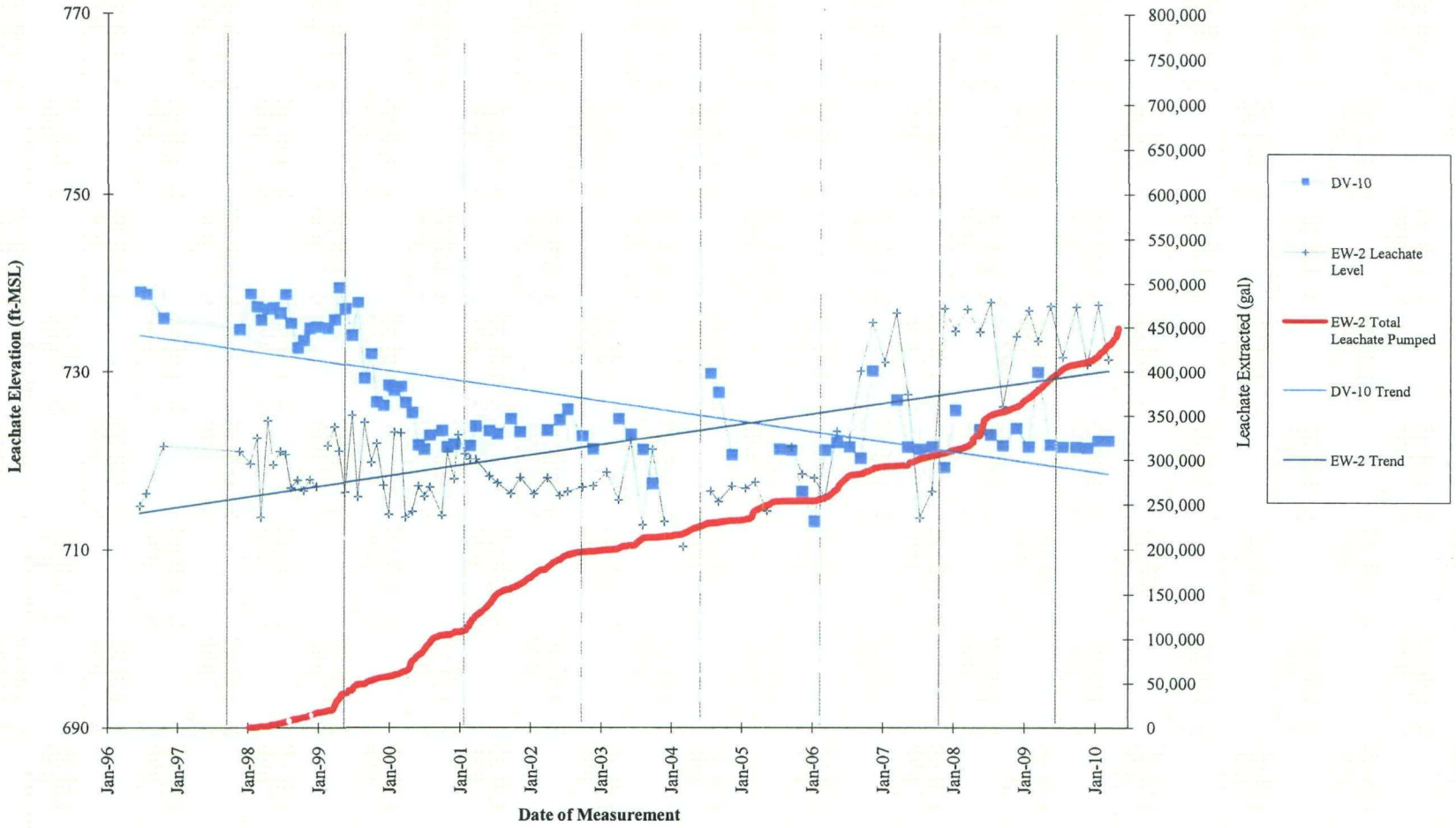
Drawing 4
Leachate Elevations in Landfill Area 4
Blackwell Landfill NPL Site



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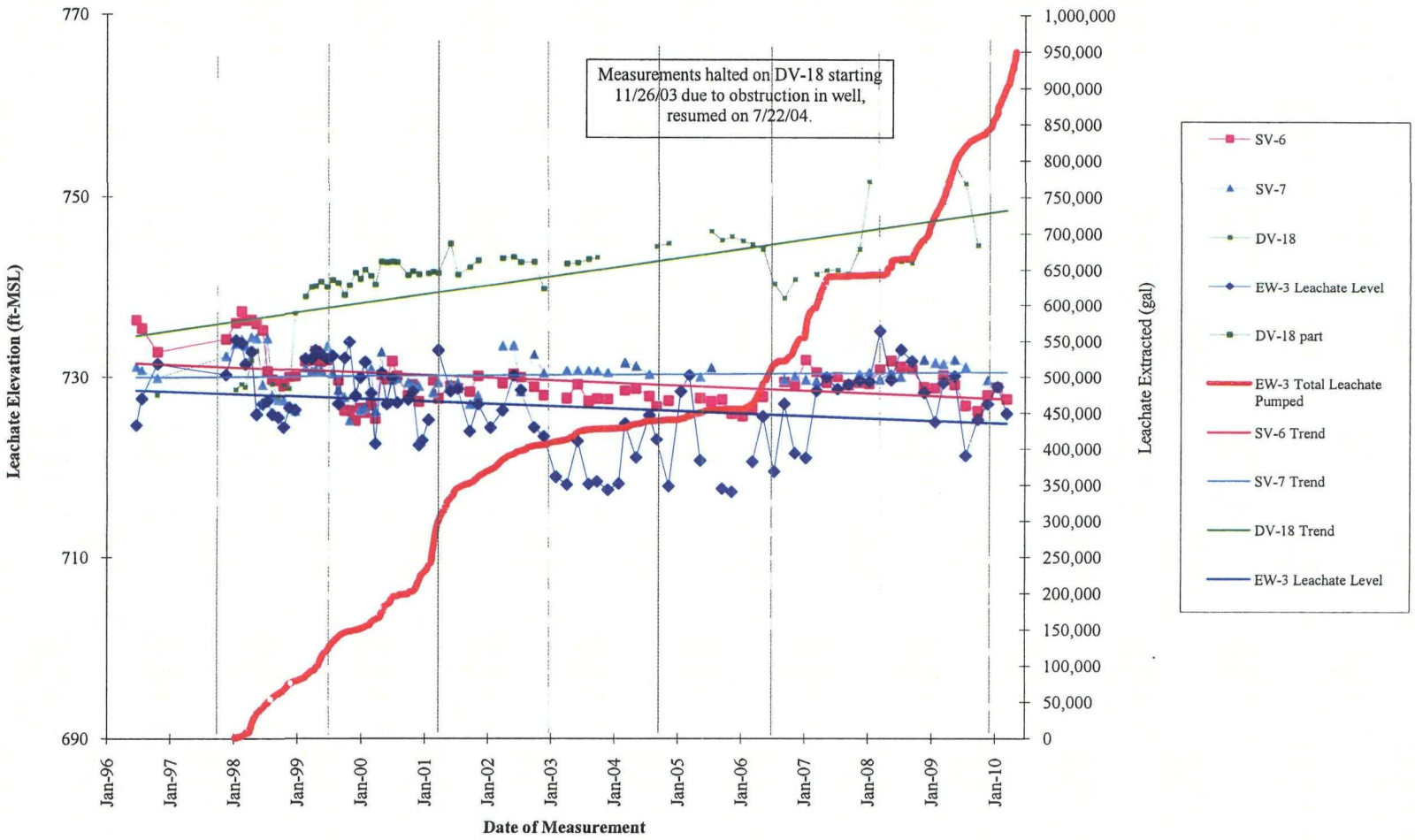
Drawing 5
Leachate Elevations in Landfill Area 5
Blackwell Landfill NPL Site



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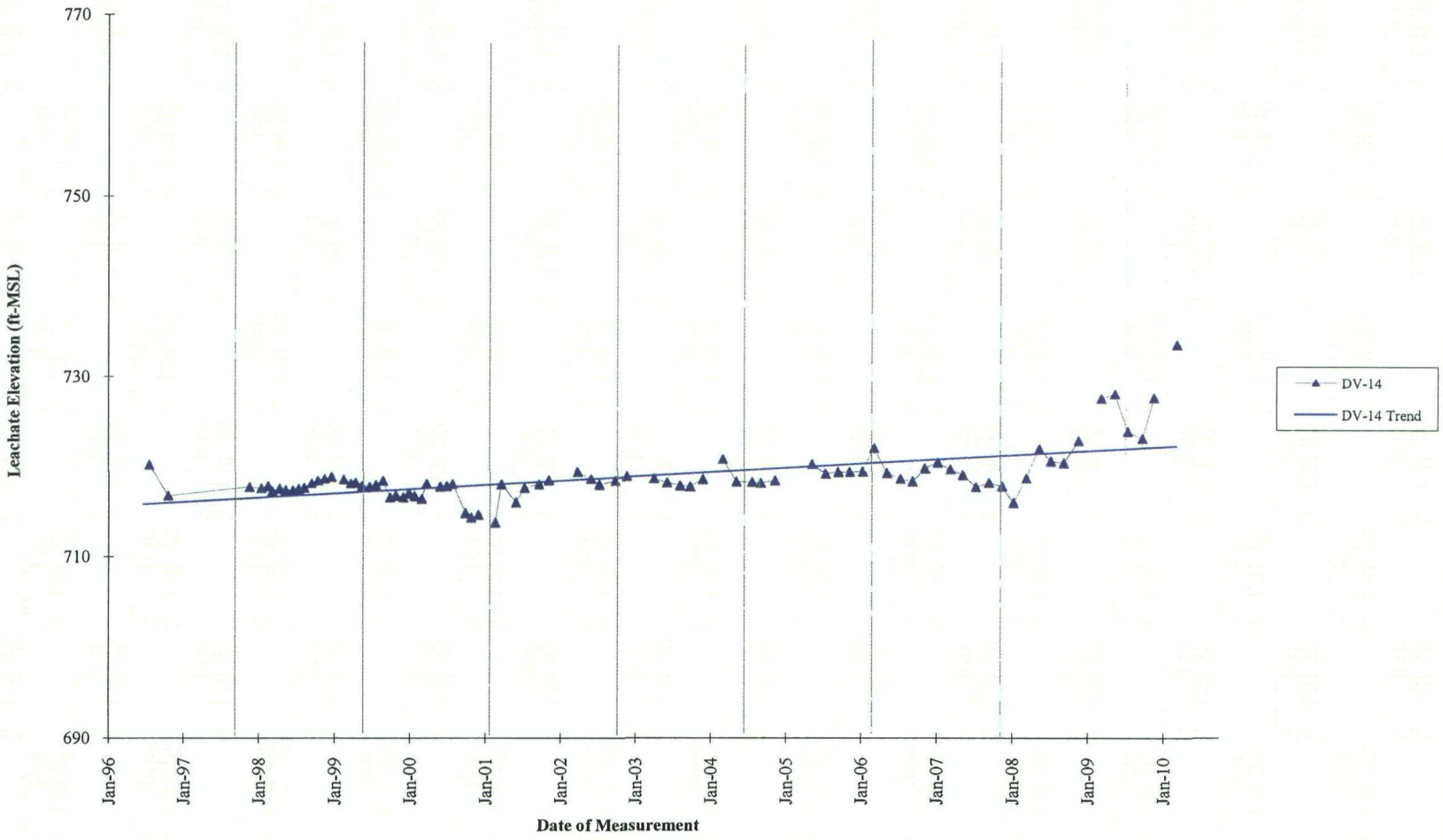
Drawing 6
Leachate Elevations in Landfill Area 6
Blackwell Landfill NPL Site



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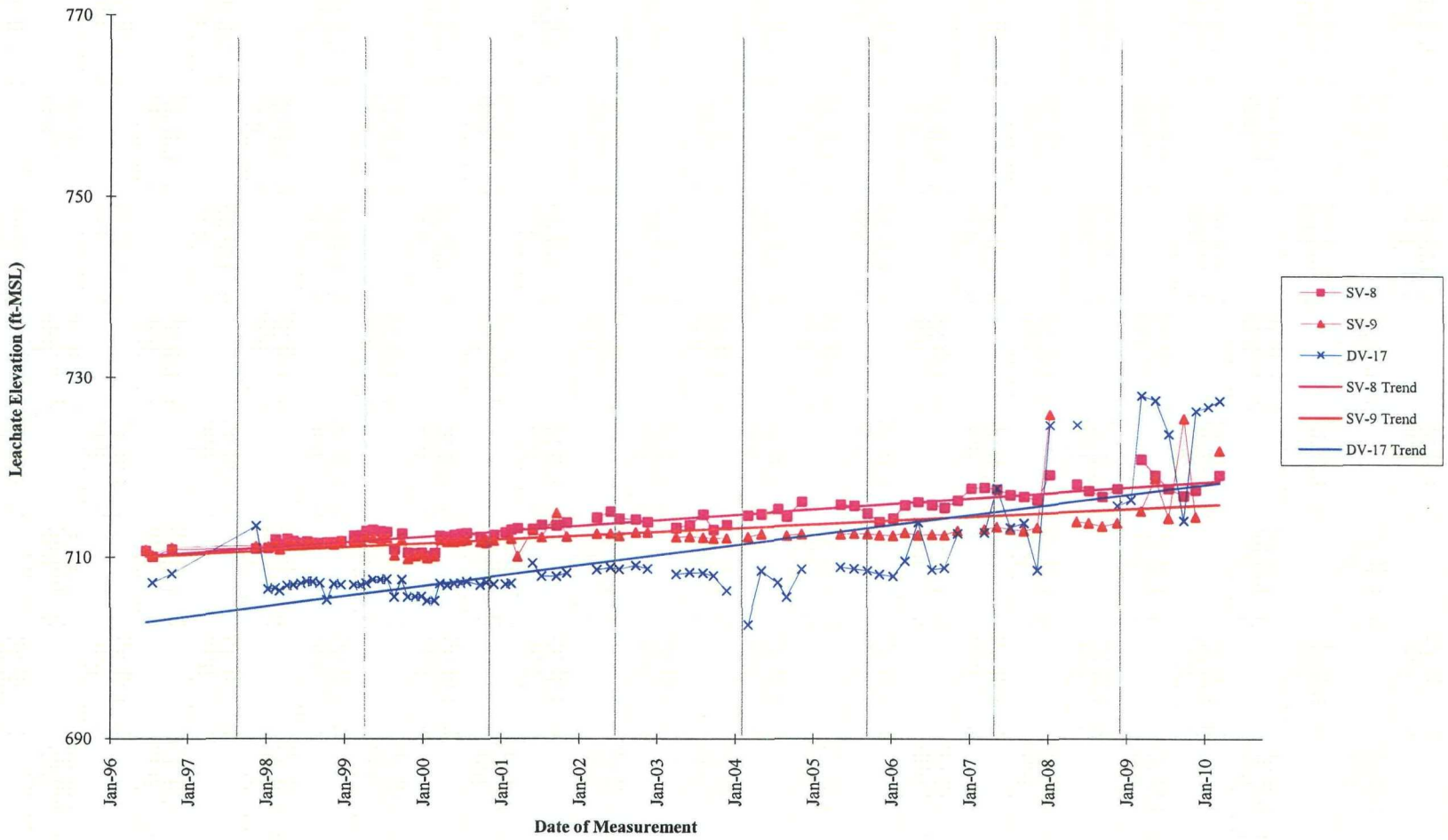
Drawing 7
Leachate Elevations in Landfill Area 7
Blackwell Landfill NPL Site



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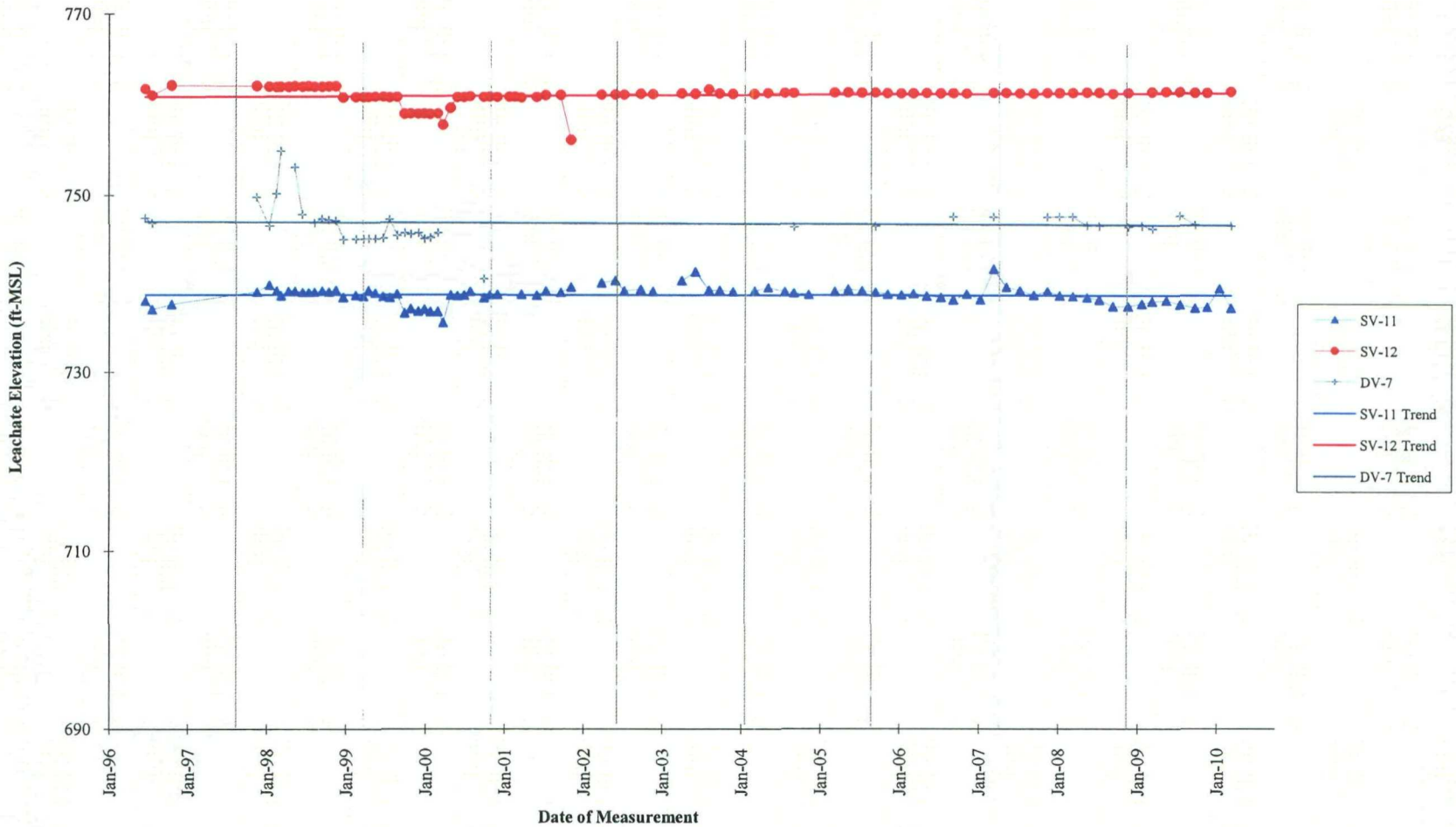
Drawing 8
Leachate Elevations in Landfill Area 8
Blackwell Landfill NPL Site



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Drawings 1-23.xlsx\Drawing 8
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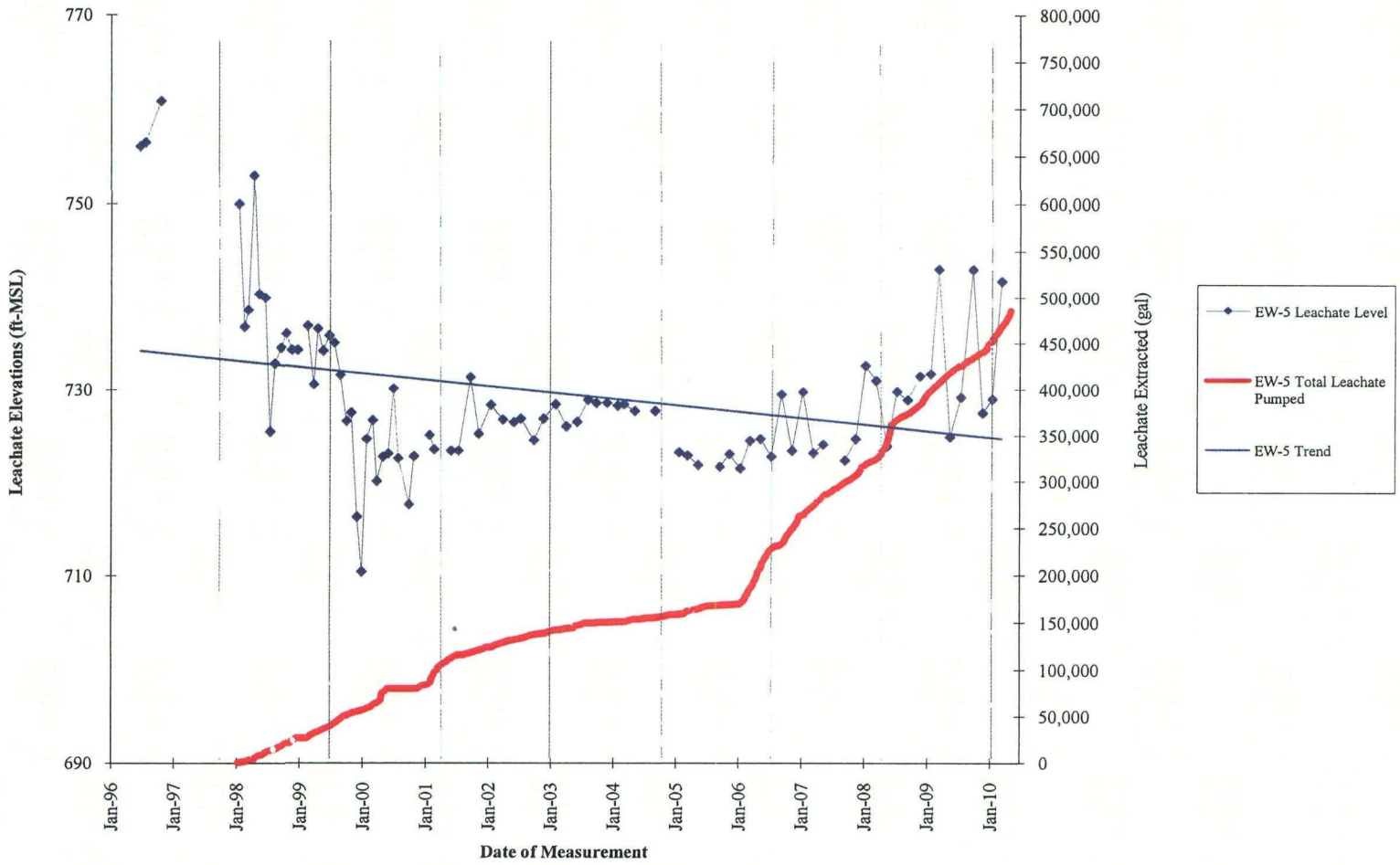
Drawing 9
Leachate Elevations in Landfill Area 9
Blackwell Landfill NPL Site



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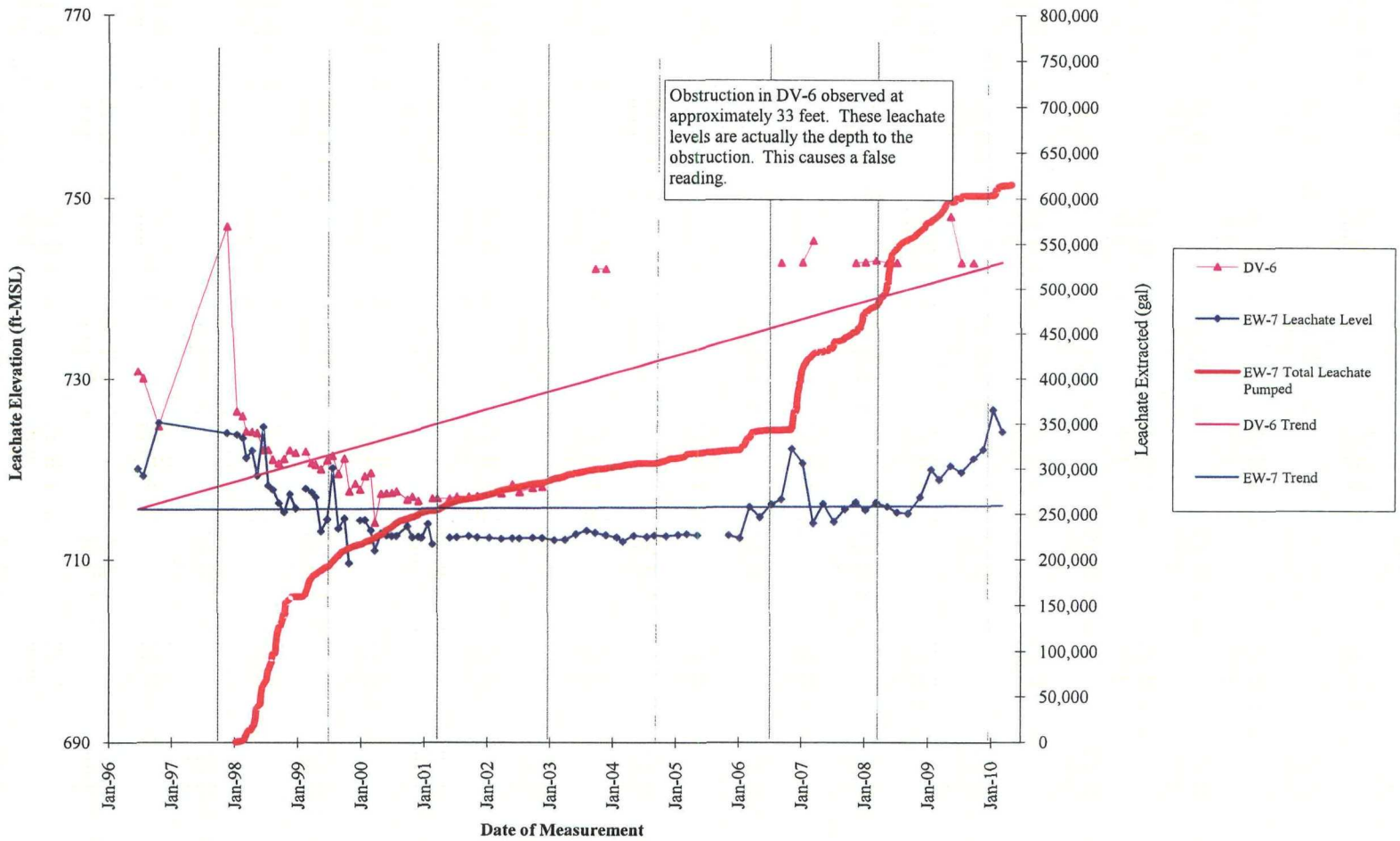
Drawing 10
Leachate Elevations in Landfill Area 10
Blackwell Landfill NPL Site



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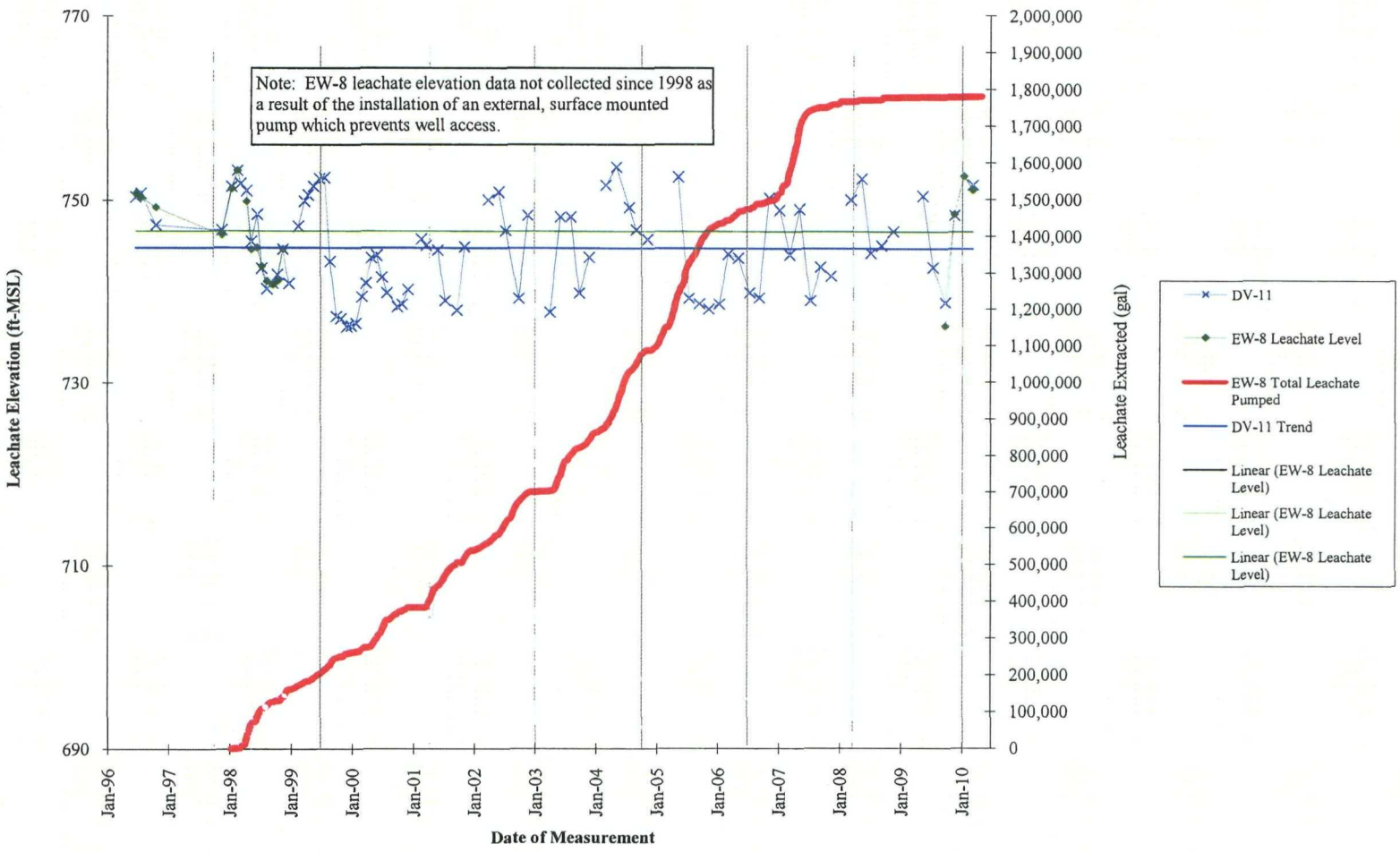
Drawing 11
Leachate Elevations in Landfill Area 11
Blackwell Landfill NPL Site



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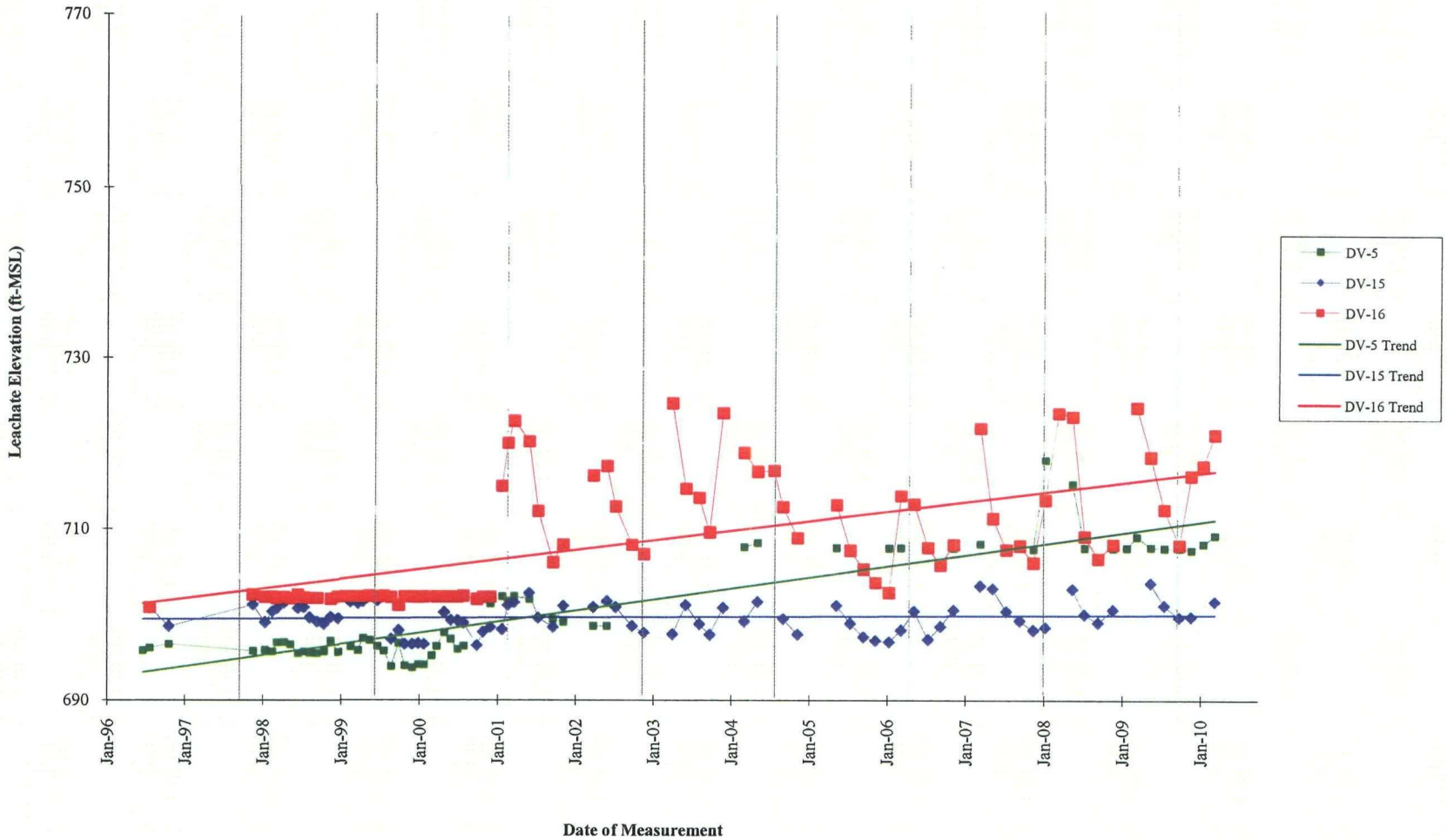
Drawing 12
Leachate Elevations in Landfill Area 12
Blackwell Landfill NPL Site



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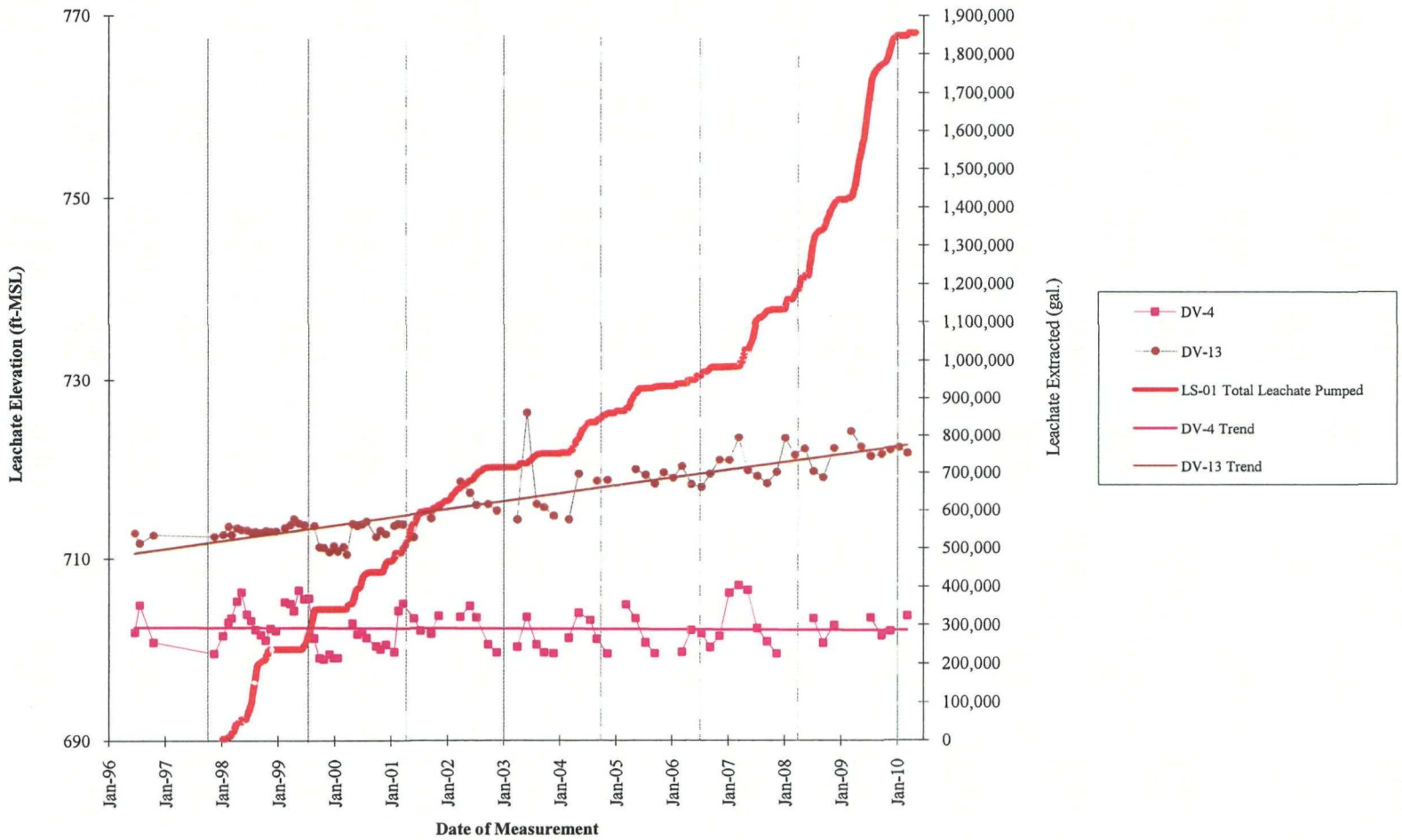
Drawing 13
Leachate Elevations in Landfill Area 13
Blackwell Landfill NPL Site



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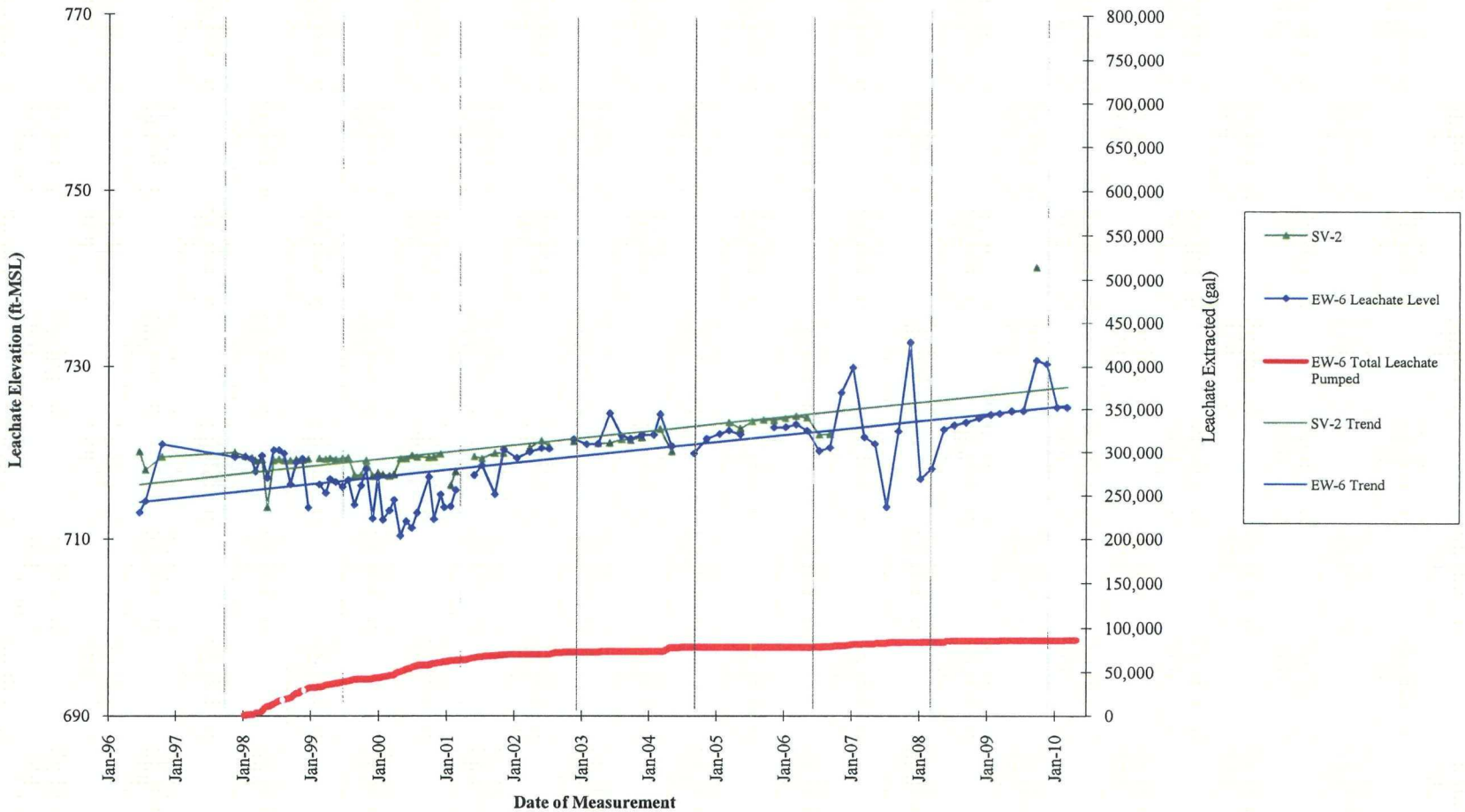
Drawing 14
Leachate Elevations in Landfill Area 14
Blackwell Landfill NPL Site



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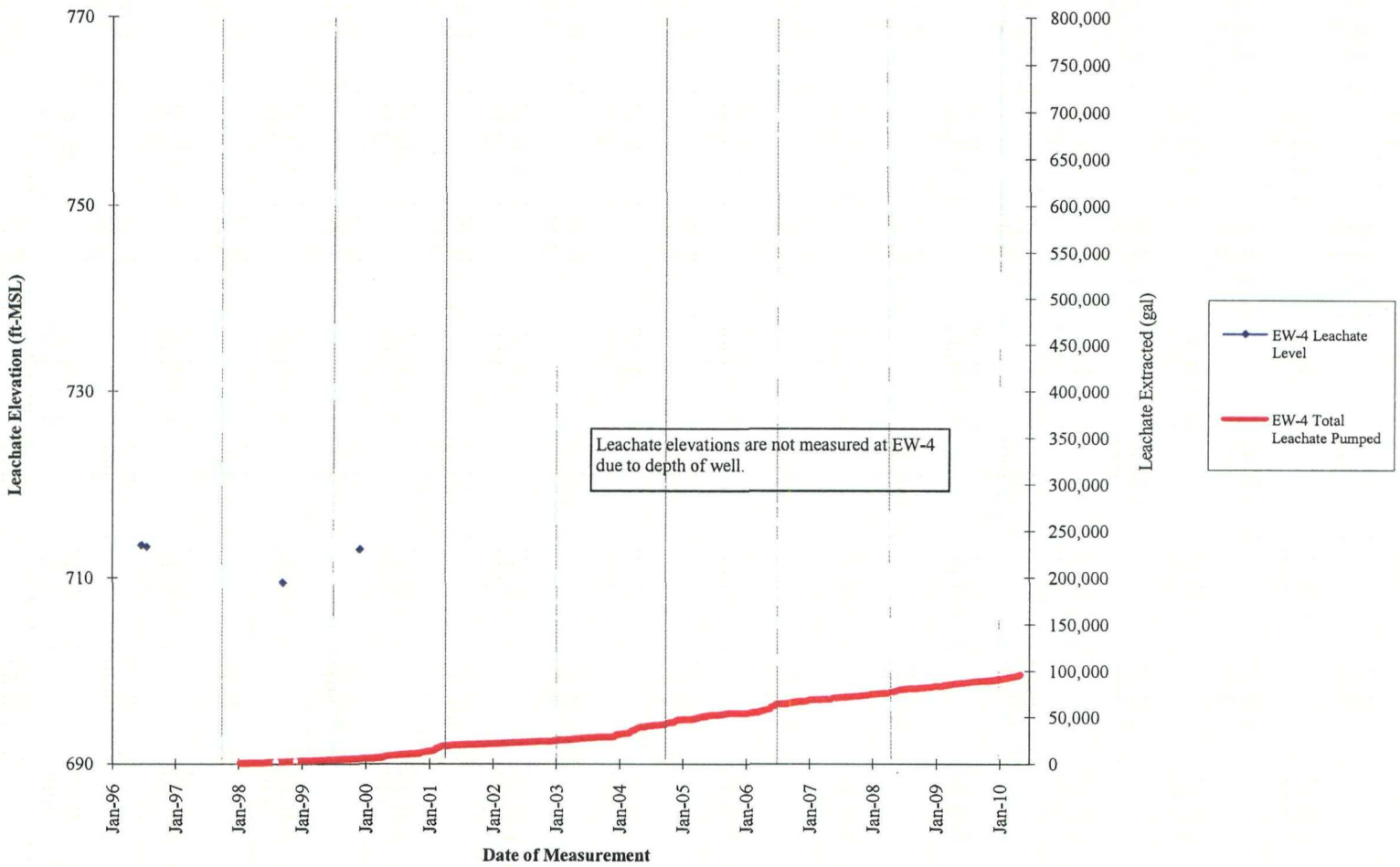
Drawing 15
Leachate Elevations in Landfill Area 15
Blackwell Landfill NPL Site



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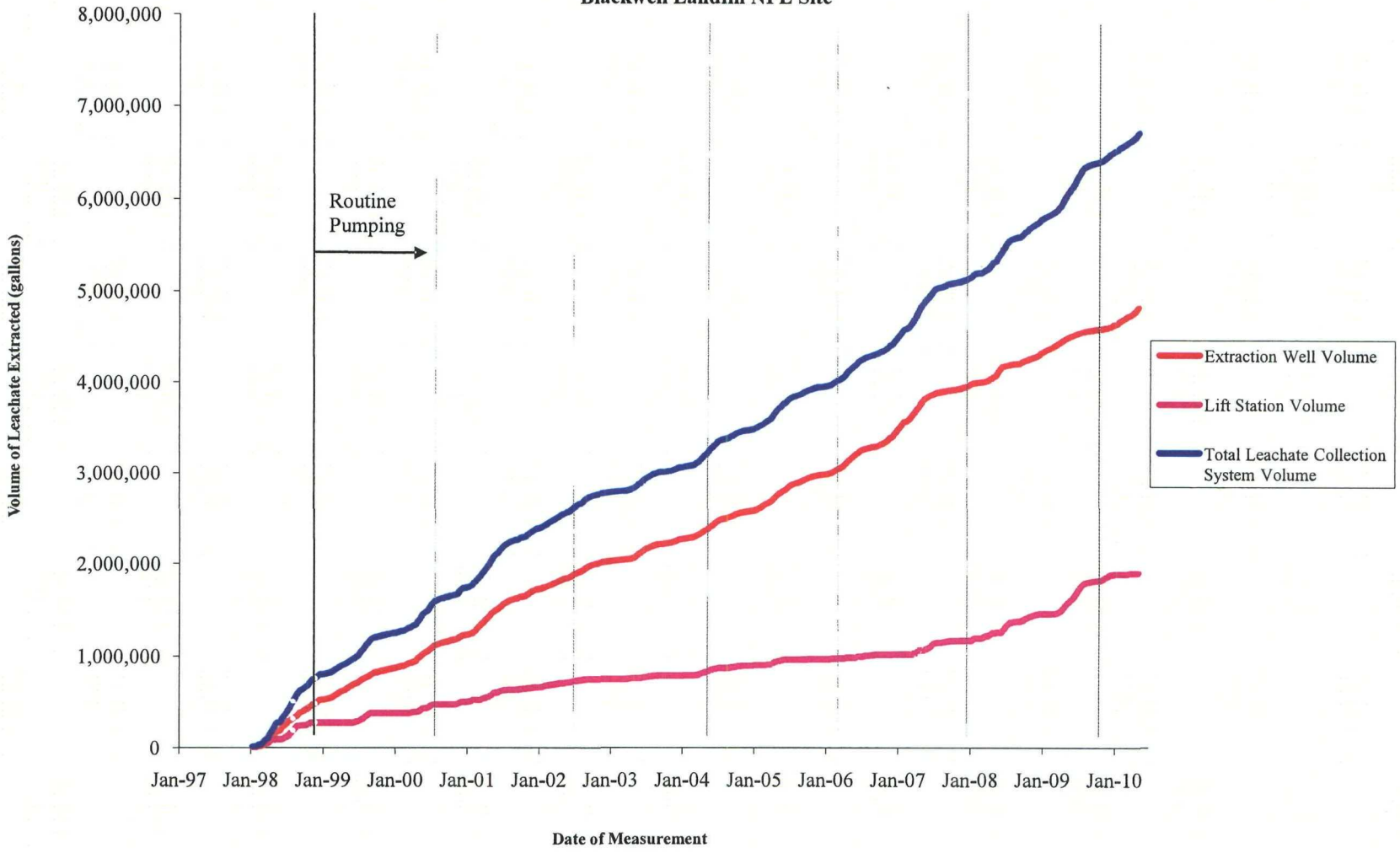
Drawing 16
Cumulative Leachate Pumping Volume
Blackwell Landfill NPL Site



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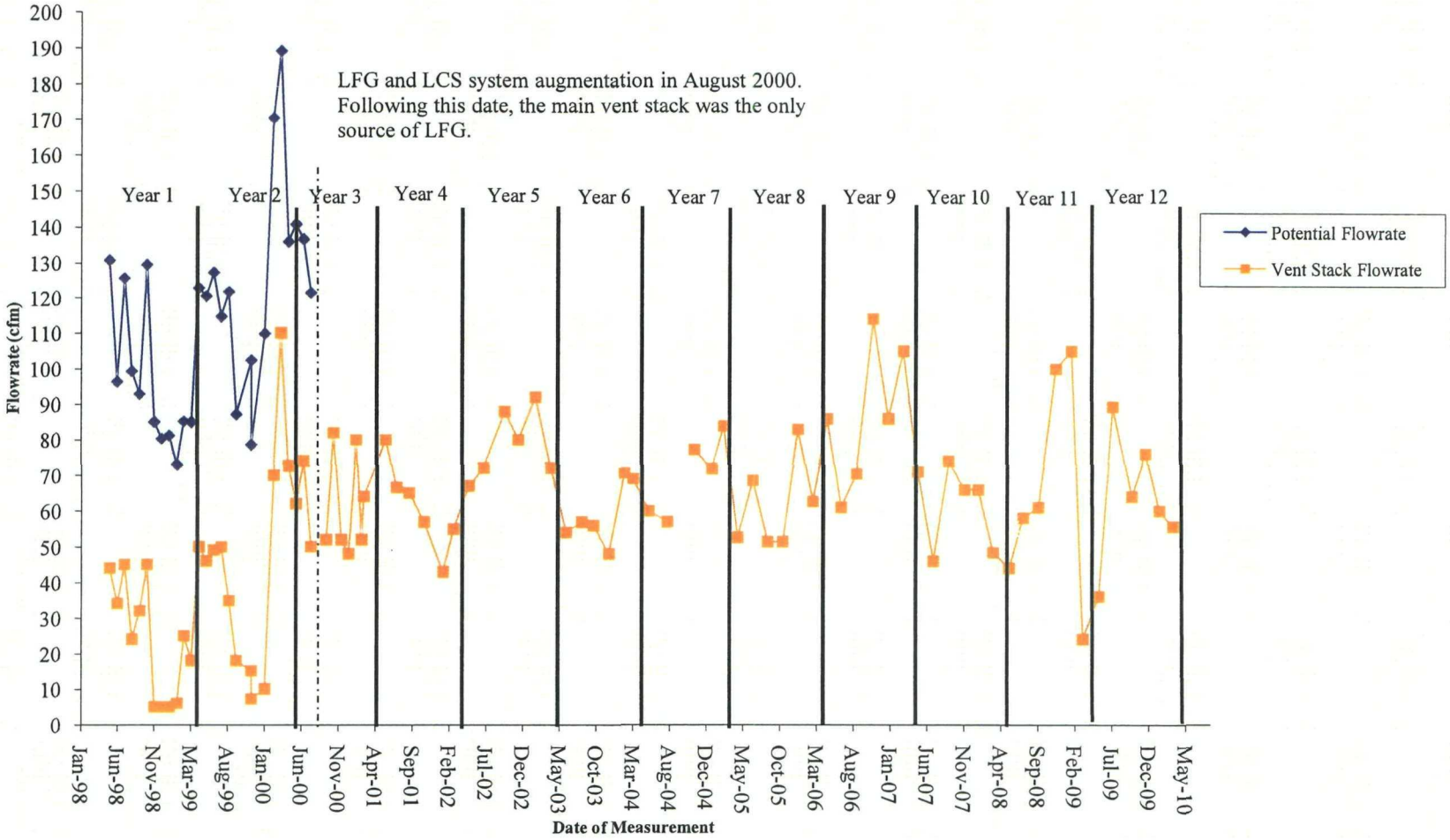
Drawing 17
LFG Flowrate
Blackwell Landfill NPL Site



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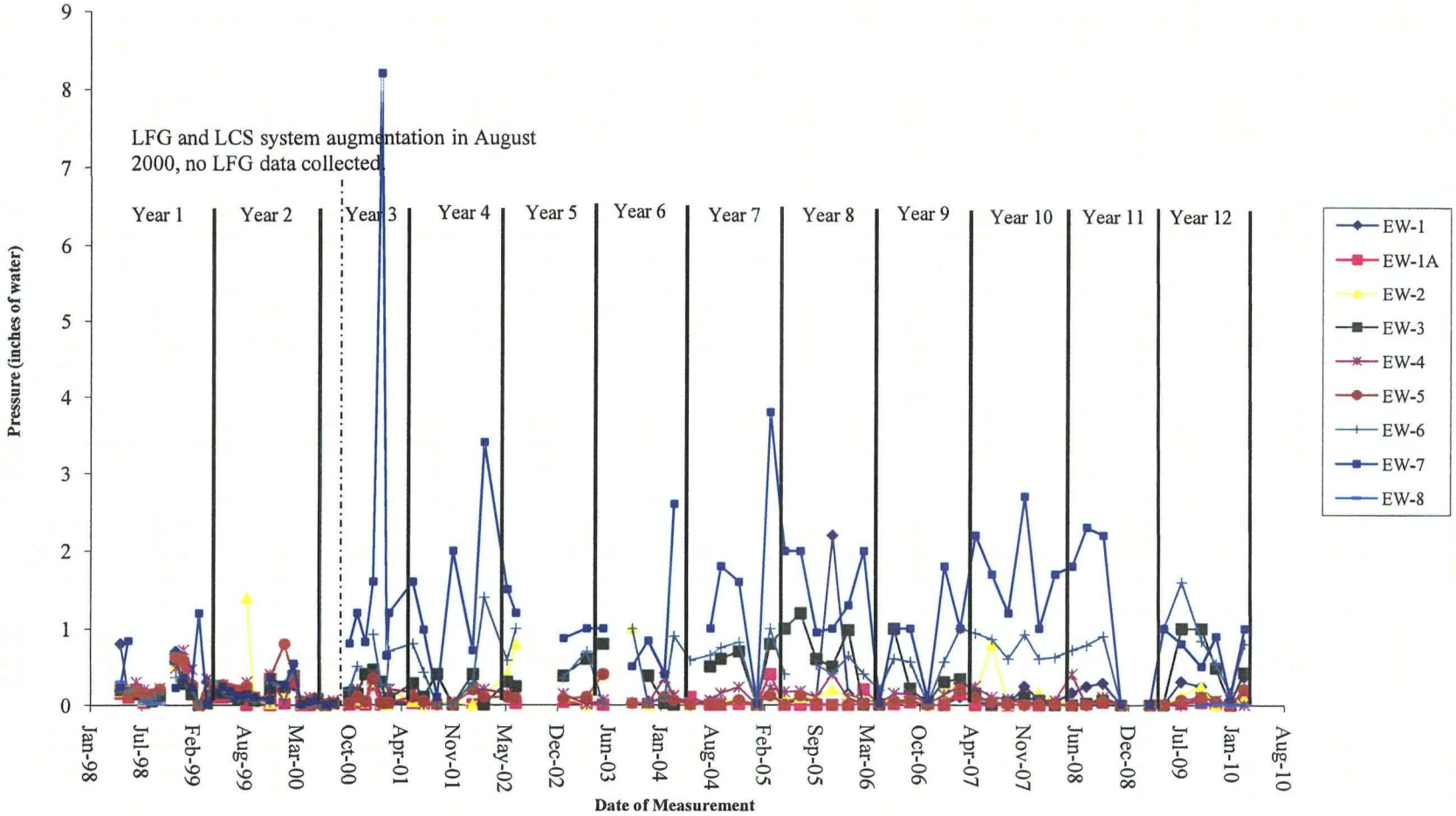
Drawing 18
Static LFG Pressure - Extraction Wells
Blackwell Landfill NPL Site



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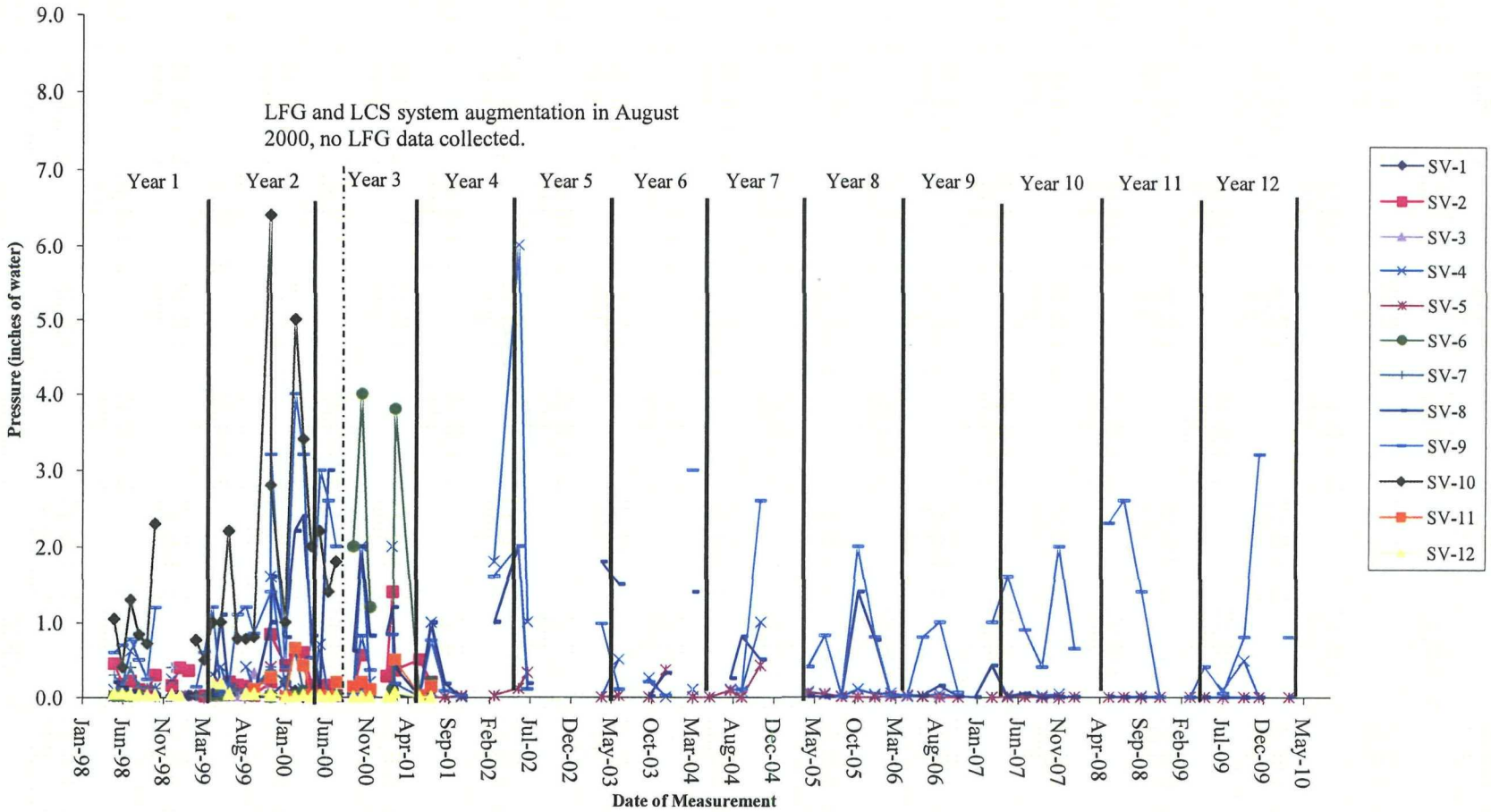
Drawing 19
Static LFG Pressures - Shallow Gas Vents
Blackwell Landfill NPL Site



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Drawings 1-23.xlsx\Drawing 19
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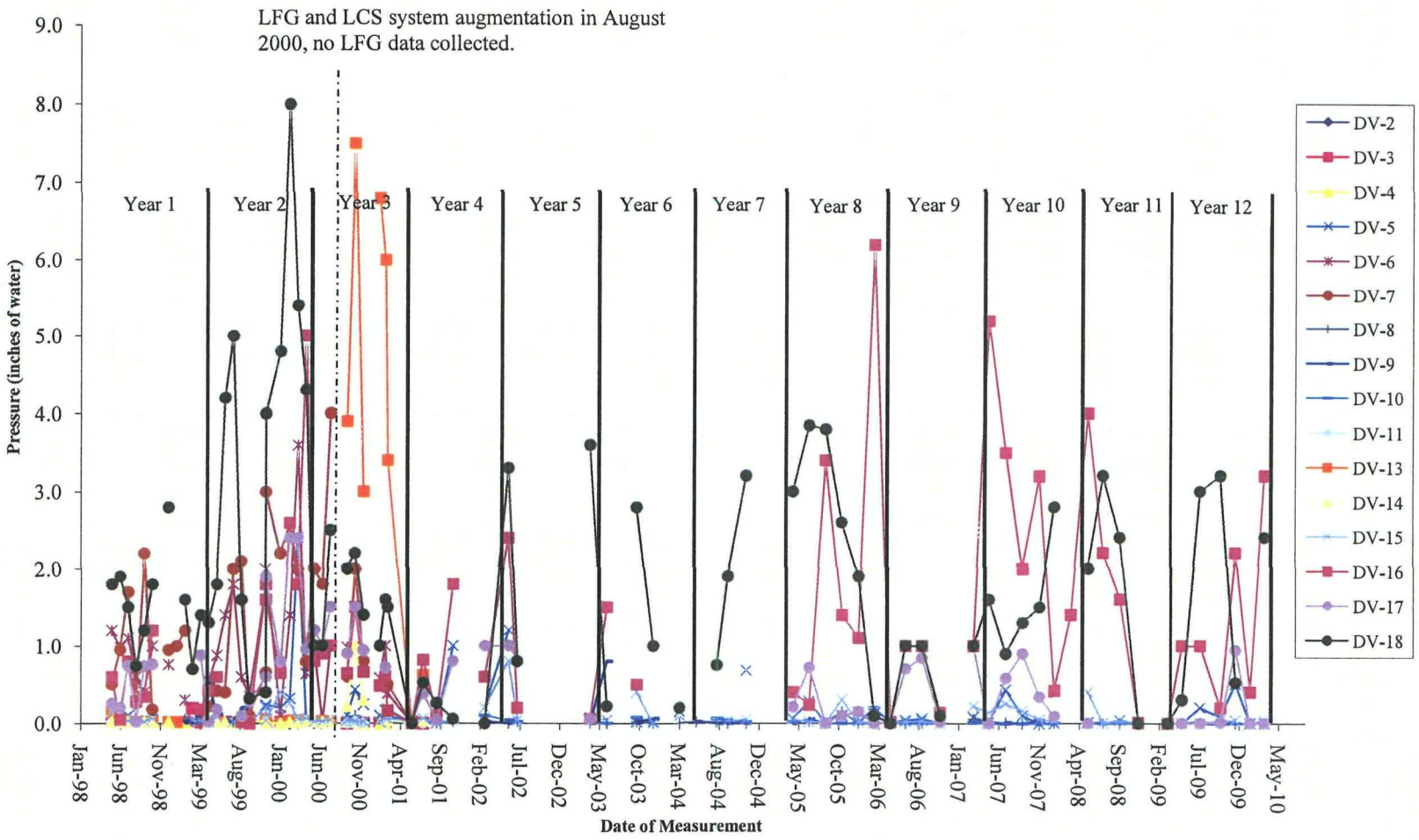
Drawing 20
Static LFG Pressures - Deep Gas Vents
Blackwell Landfill NPL Site



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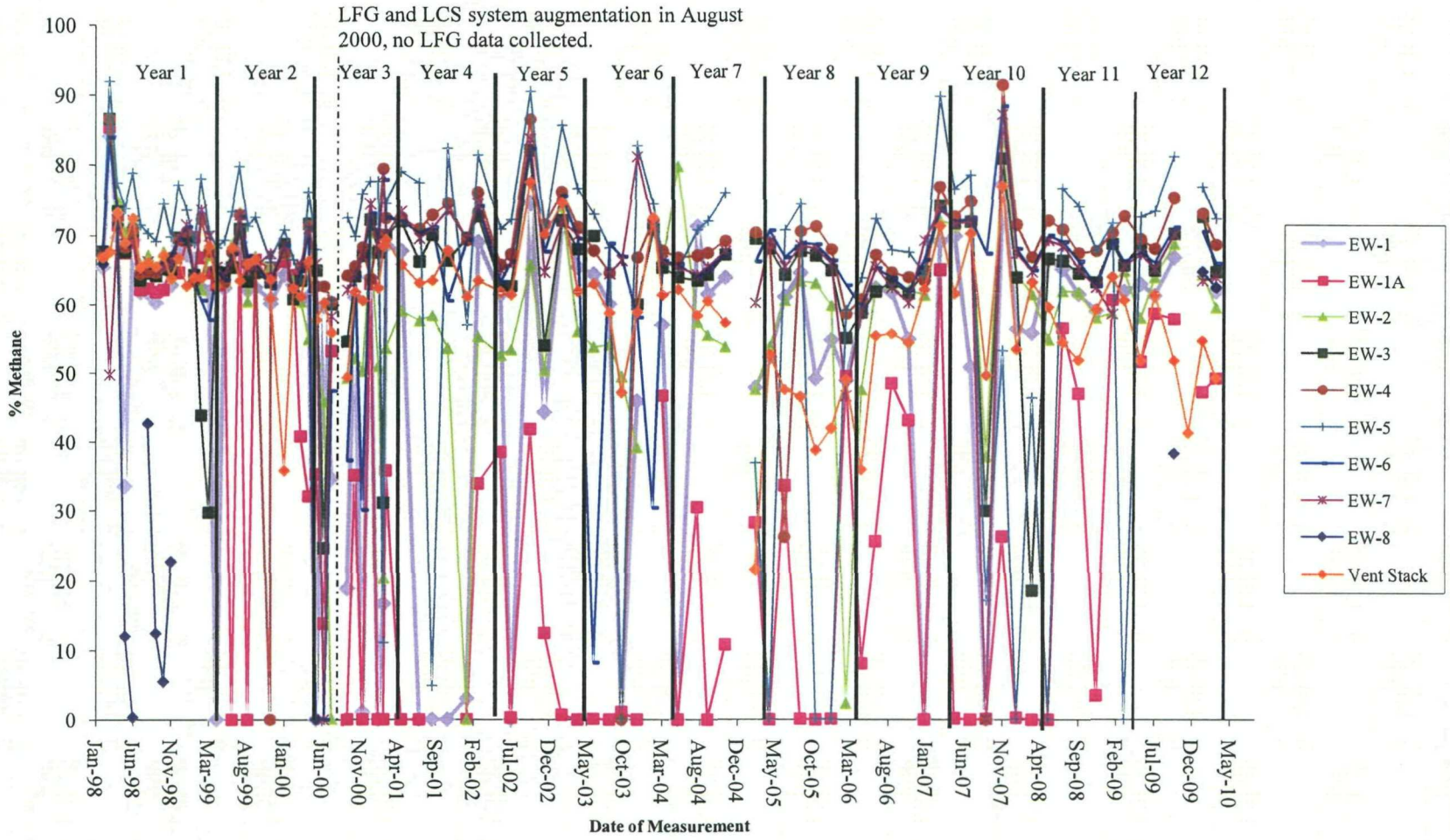
Drawing 21
Methane Content - Extraction Wells
Blackwell Landfill NPL Site



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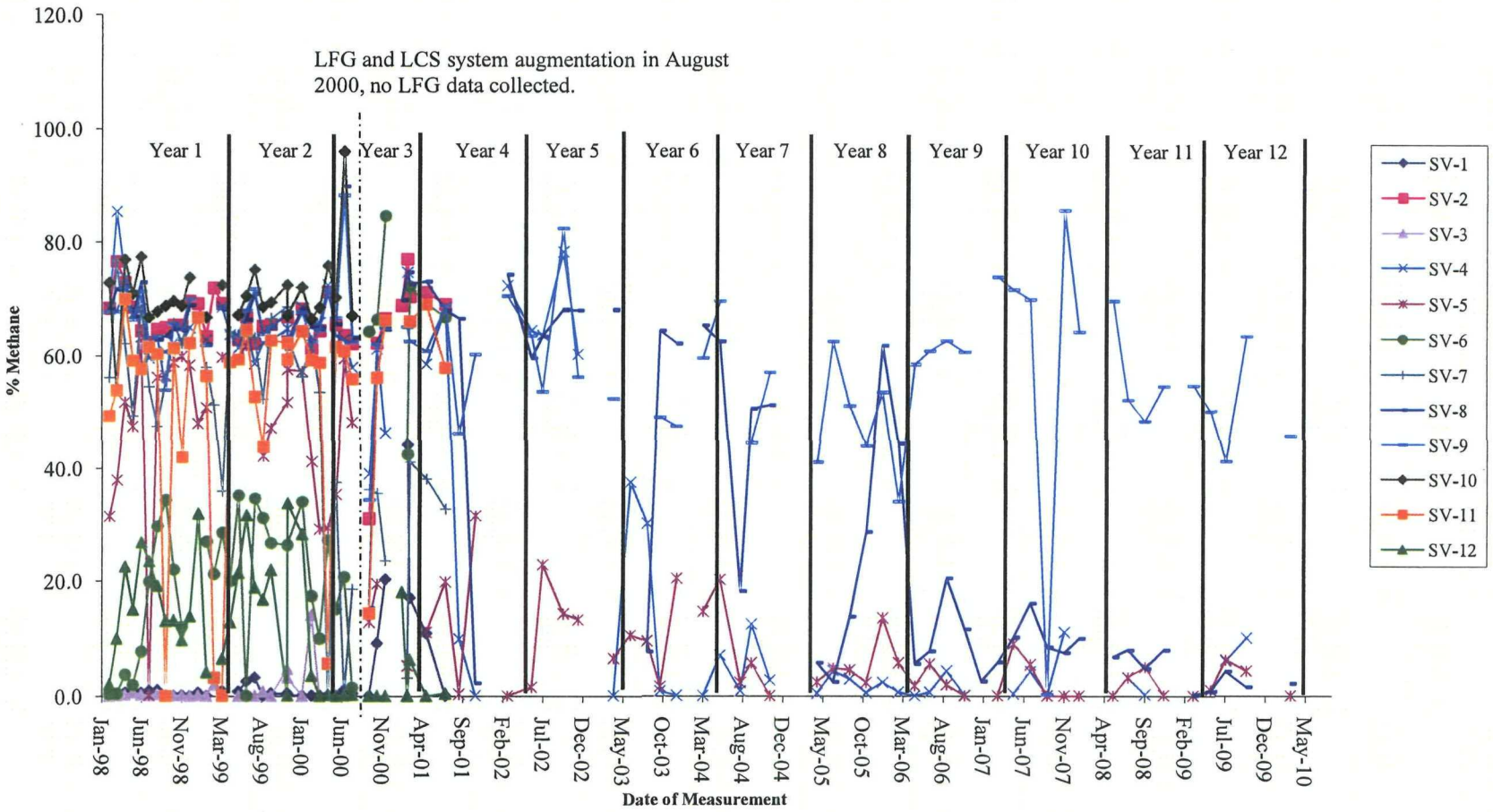
Drawing 22
Methane Content - Shallow Gas Vents
Blackwell Landfill NPL Site



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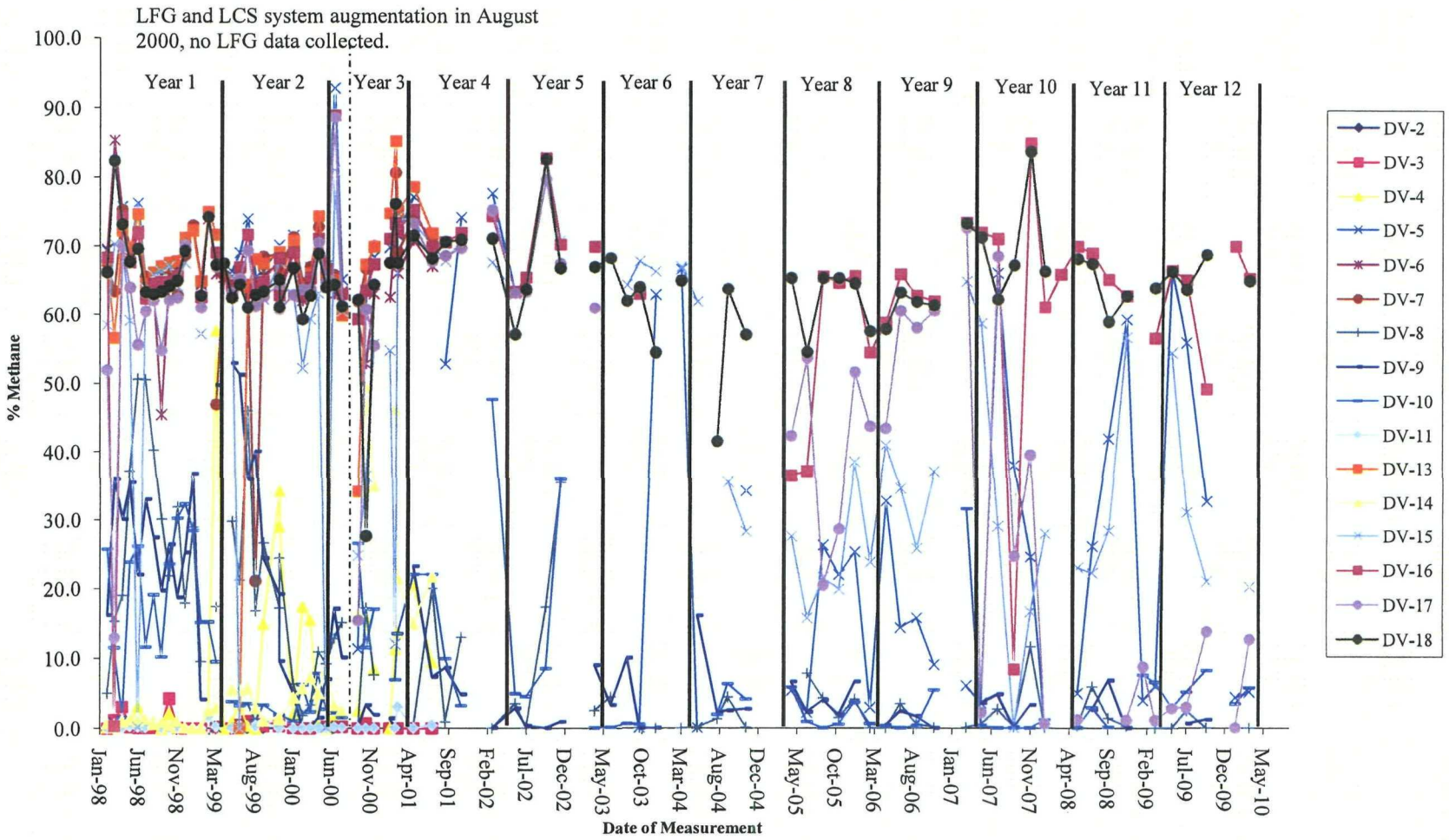
Drawing 23
Methane Content - Deep Gas Vents
Blackwell Landfill NPL Site



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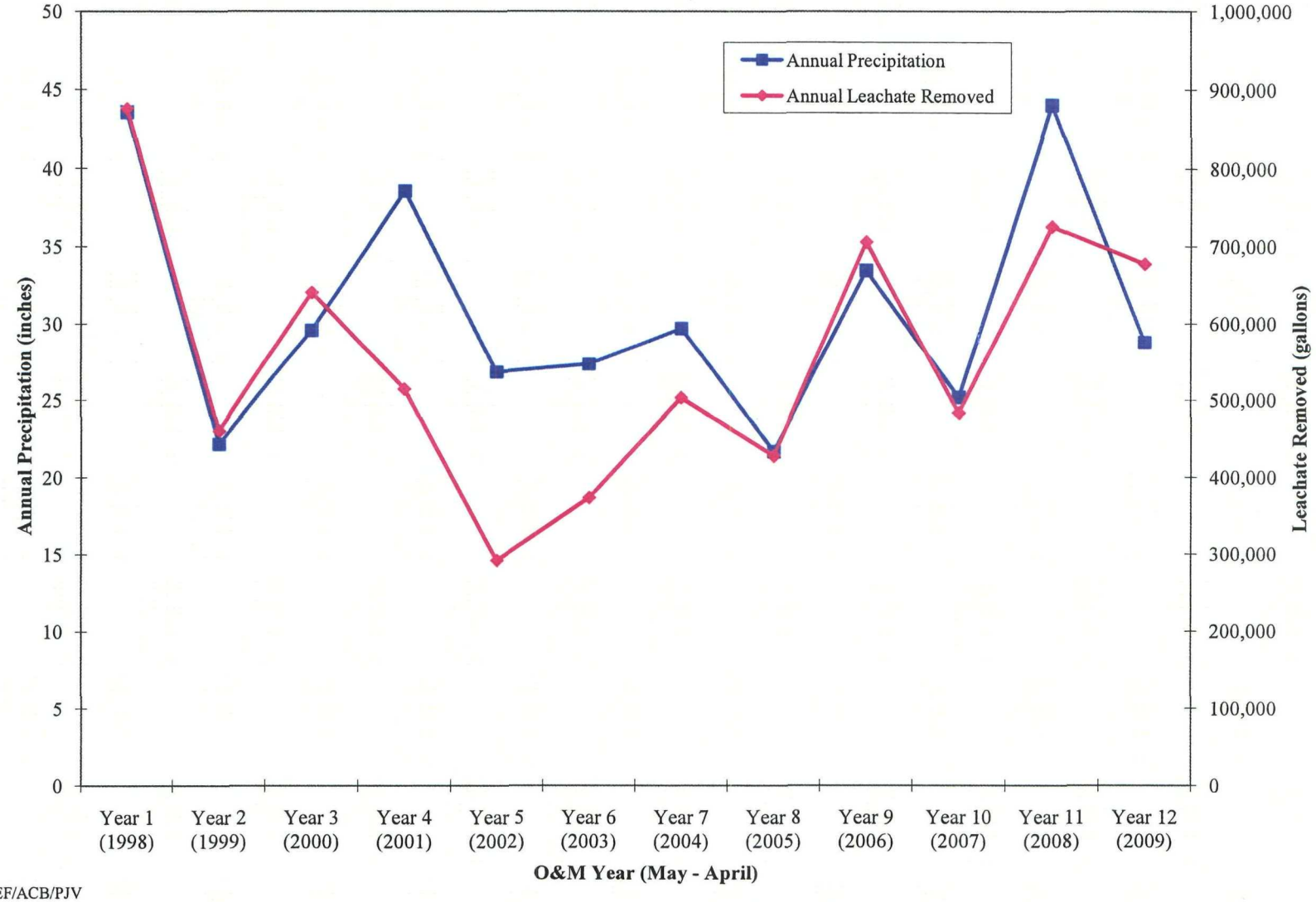
Drawing 24
Annual Precipitation vs. Leachate Removed
Blackwell Landfill NPL Site



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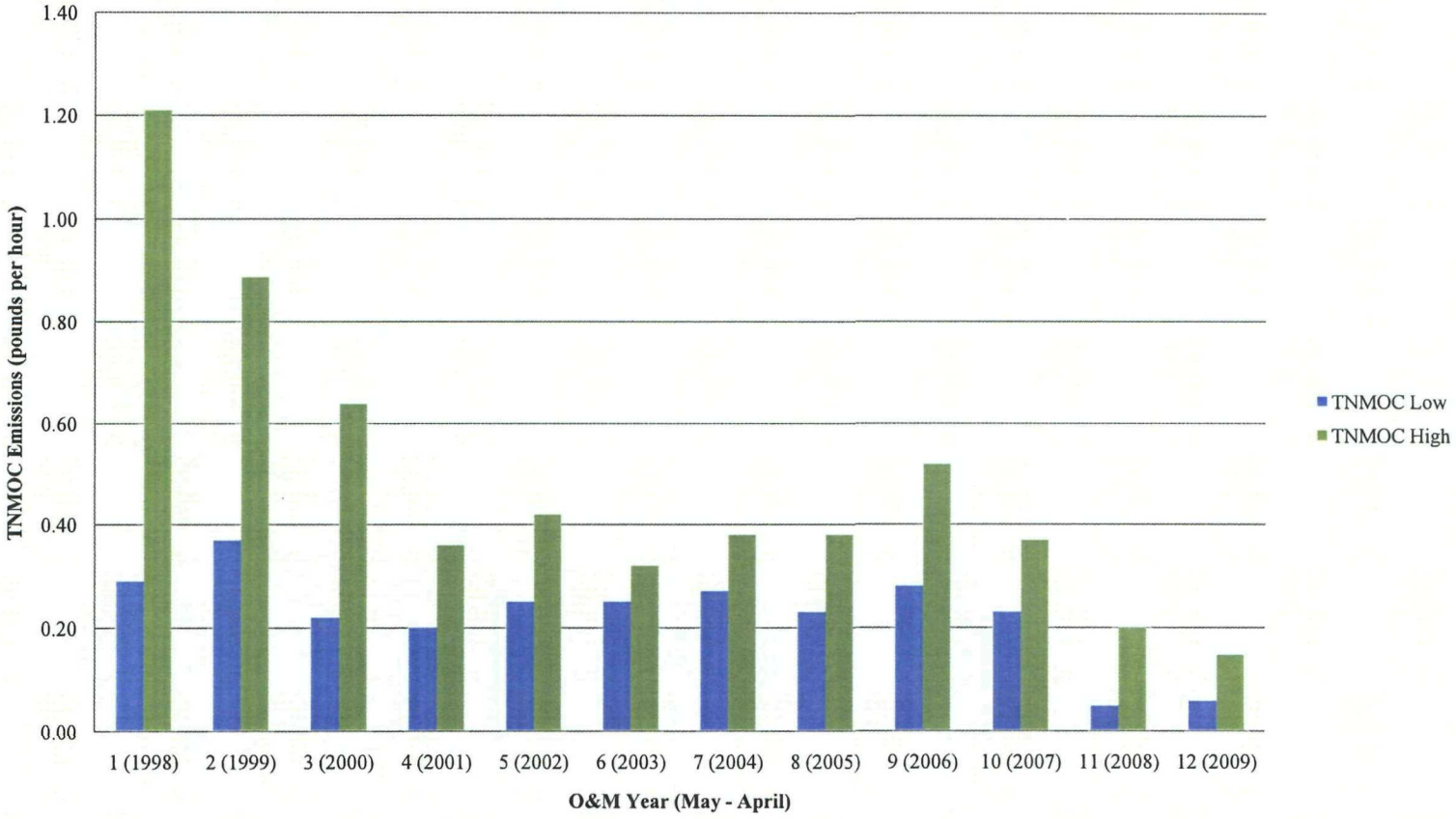
Drawing 25
Range of TNMOC Emissions per Year of Operation
Blackwell Landfill NPL Site



APPENDICES

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: 5/8/09

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	123781			
EW01A	506223			
EW02	2315314			
EW03	3412583			
EW04	745733			
EW05	1572429			
EW06	339794			
EW07	1823802			
EW08	34378089			
LS01	7809488			
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: ____

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: DAN ZINNEN Date: 05/13/09

Time	LCS System	Remarks (Reason for System on or off)
9:50	On or Off	O&M work
	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	123781				713
EW01A	506223				3
EW02	2316456				2613
EW03	3418180				8878
EW04	745836				277
EW05	1574152				1933
EW06	339794				0
EW07	1823802				0
EW08	34378089				0
LS01	7823693				16653
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: 5/15/09

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	124494				658
EW01A	506226				195
EW02	2319069				1971
EW03	3427058				6790
EW04	746113				167
EW05	1576085				848
EW06	339794				19
EW07	1823802				6
EW08	34378089				0
LS01	7840346				27382
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 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: 5/18/09

Time	LCS System	Remarks (Reason for System on or off)
11:30	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	125152				72
EW01A	506421				110
EW02	2321040				1820
EW03	3433848				6146
EW04	746280				174
EW05	1576933				1692
EW06	339813				7
EW07	1823808				13
EW08	3437089				Ø
LS01	7867728				22914
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 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: DAN Z Date: 05/20/09

Time	LCS System	Remarks (Reason for System on or off)
9:30	On or Off	SHARPEN 8200
	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	125224			
EW01A	506531			
EW02	2322860			
EW03	3439994			
EW04	746454			
EW05	1578625			
EW06	339820			
EW07	1823821			
EW08	34378089			
LS01	7890642			
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 BERGENTHAL Date: 5/22/09

Time	LCS System	Remarks (Reason for System on or off)
8:30 AM	On or Off	
	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	125323				319
EW01A	506531				273
EW02	2324210				2697
EW03	3444673				6994
EW04	746578				304
EW05	1579872				2142
EW06	339820				10
EW07	1823821				75
EW08	34378089				77
LS01	7917608				20476
LS013	367469				

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: 5/28/09

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	125642				348
EW01A	506804				278
EW02	2326907				2146
EW03	3451667				5557
EW04	746882				215
EW05	1582014				2045
EW06	339830				5
EW07	1823896				0
EW08	34378166				6
LS01	7938084				29991
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): 68 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: 6/1/09

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	125990				51
EW01A	507082				241
EW02	2329053				1944
EW03	3457224				4761
EW04	747097				235
EW05	1584059				1511
EW06	339835				7
EW07	1823896				318
EW08	34378166				2
LS01	7968075				22350
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: DAN ZINNEN Date: 06/03/09

Time	LCS System	Remarks (Reason for System on or off)
10:40	On or Off	SHROOM 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	126041				254
EW01A	507323				326
EW02	2330997				1783
EW03	3461985				4213
EW04	747332				168
EW05	1585570				719
EW06	339842				9
EW07	1824214				4742
EW08	34378168				0
LS01	7990425				27641
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: 6/5/09

Time	LCS System	Remarks (Reason for System on or off)
9:05	(On) or Off	Shipped 9200
	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	126295				0
EW01A	507649				77
EW02	2332780				548
EW03	3466198				1308
EW04	747500				72
EW05	1586289				934
EW06	339851				0
EW07	1828956				2129
EW08	34378168				0
LS01	8018066				16112
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: DAN Z. Date: 06/08/09

Time	LCS System	Remarks (Reason for System on or off)
9:10	(On) or Off	Sheppen 8500
	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	126295				133
EW01A	507726				1
EW02	2333328				1634
EW03	3467506				3586
EW04	747572				219
EW05	1587223				844
EW06	339851				0
EW07	1831085				3588
EW08	34378168				1
LS01	8034178				21018
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: 6/10/09

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	126428				357
EW01A	507727				0
EW02	2334962				1593
EW03	3471092				3198
EW04	7477.91				168
EW05	1588067				1793
EW06	339851				0
EW07	1834673				2147
EW08	34378169				105
LS01	8055196				2633
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: 6/12/09

Time	LCS System	Remarks (Reason for System on or off)
8:15	(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	126785				87
EW01A	507727				40
EW02	2336555				1475
EW03	3474290				2896
EW04	747959				149
EW05	1589860				821
EW06	339851				0
EW07	1836820				0
EW08	34378274				91
LS01	8081930				32527
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: 6/15/09

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	126872				136
EW01A	507767				151
EW02	2338030				1,115
EW03	3477186				2,212
EW04	748108				138
EW05	1590681				1053
EW06	339851				Φ
EW07	1836820				31
EW08	34378365				51
LS01	8114457				22,789
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: DAN ZINNER Date: 06/17/04

Time	LCS System	Remarks (Reason for System on or off)
9:30	On or Off	SHARPEN 9,500
	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	127.008				252
EW01A	507918				123
EW02	2339145				1539
EW03	3479398				9647
EW04	748246				181
EW05	1591734				1122
EW06	339851				0
EW07	1836851				58
EW08	34378416				37
LS01	8137246				24319
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: 6/19/09

Time	LCS System	Remarks (Reason for System on or off)
843	On or Off	Shipped 8600
	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	127260				136
EW01A	508041				156
EW02	2340684				912
EW03	3482043				1694
EW04	748427				133
EW05	1592856				887
EW06	339851				0
EW07	1836909				54
EW08	34378453				22
LS01	8161565				2141C
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: 6/22/09

Time	LCS System	Remarks (Reason for System on or off)
845	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	127396				111
EW01A	508197				209
EW02	2341596				1485
EW03	3483737				2772
EW04	748560				206
EW05	1593743				668
EW06	339851				0
EW07	1836963				73
EW08	34378475				31
LS01	8182975				22158
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: 6/24/09

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	127507				148
EW01A	508407				126
EW02	2343081				1276
EW03	3486509				2086
EW04	748766				163
EW05	1594411				104
EW06	339851				0
EW07	1837036				6
EW08	34378506				0
LS01	8205133				2109
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: 6/26/09

Time	LCS System	Remarks (Reason for System on or off)
8:15	On or Off	SHIPPED 8500
	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	127655				50
EW01A	508533				114
EW02	2344377				918
EW03	3488595				1687
EW04	748929				128
EW05	1595455				759
EW06	339851				0
EW07	1837042				17
EW08	34378506				17
LS01	8226202				7719
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: 6/29/09

Time	LCS System	Remarks (Reason for System on or off)
800 A	On or Off	SWEPED 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	127705			199
EW01A	508647			219
EW02	2345295			1076
EW03	3490284			175
EW04	749057			149
EW05	1696214			999
EW06	339851			0
EW07	1837059			49
EW08	34378523			50
LS01	8243921			1521
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: DAN Date: 7/1/09

Time	LCS System	Remarks (Reason for System on or off)
12:00	(On) or Off	Shipped 9,900
	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	127904				181
EW01A	508866				118
EW02	2346365				1286
EW03	3492037				208
EW04	749205				183
EW05	1597213				1148
EW06	339851				15
EW07	1837108				0
EW08	34378573				2
LS01	8259133				21105
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: 7/6/09

Time	LCS System	Remarks (Reason for System on or off)
900	(On) or Off	SHIPPED 20,000
	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	128085				165
EW01A	508984				315
EW02	2347651				1682
EW03	3498124				2736
EW04	749387				236
EW05	1598361				64
EW06	339866				38
EW07	1637108				41
EW08	3437855				58
LS01	8280238				22053
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: 7/8/09

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	128250				167
EW01A	509299				113
EW02	2349333				1349
EW03	3496860				2108
EW04	749623				184
EW05	1598425				0
EW06	339904				16
EW07	1837149				46
EW08	34378633				83
LS01	8302291				22752
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]~~ RAT Date: 7/10/09

Time	LCS System	Remarks (Reason for System on or off)
8:00 A	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	128419				222
EW01A	509412				150
EW02	2350682				935
EW03	3498968				2289
EW04	749809				180
EW05	1598425				0
EW06	339920				10
EW07	1837195				29
EW08	34378716				0
LS01	8325043				2561
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: 7/13/09

Time	LCS System	Remarks (Reason for System on or off)
745	On or Off	Shipped 9400
	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	128641				150
EW01A	509562				171
EW02	2351617				619
EW03	3501257				1082
EW04	749989				62
EW05	1598425				125
EW06	339930				101
EW07	1837224				2897
EW08	34378716				0
LS01	8350658				15289
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: 7/15/09

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	128791				179
EW01A	509733				215
EW02	2352236				1077
EW03	3502339				2036
EW04	750051				169
EW05	1598550				0
EW06	340031				24
EW07	1840121				6942
EW08	34378716				0
LS01	8365947				22165
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: 7/17/09

Time	LCS System	Remarks (Reason for System on or off)
730	On or Off	Shipped 9700
	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	128970			205
EW01A	509948			219
EW02	2353313			1029
EW03	3504375			273
EW04	750220			228
EW05	1598550			0
EW06	340055			19
EW07	1844063			48
EW08	34378716			0
LS01	8388112			2128
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: 7/20/09

Time	LCS System	Remarks (Reason for System on or off)
830	On or Off	Shipped 5400
	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	129175				107
EW01A	510167				97
EW02	2354392				1016
EW03	3507105				1465
EW04	750444				106
EW05	1598550				0
EW06	340074				13
EW07	1844111				41
EW08	34378716				24
LS01	8409398				10313
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: 7/22/09

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	129282				46
EW01A	510264				45
EW02	2355408				79C
EW03	3508570				1511
EW04	750550				126
EW05	1598550				0
EW06	340087				8
EW07	1844152				26
EW08	34378740				55
LS01	8419711				8327
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: 7/24/09

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	129328				91
EW01A	510309				173
EW02	2356204				1173
EW03	3510081				2285
EW04	750676				203
EW05	1598550				3890
EW06	340095				47
EW07	1844178				33
EW08	34378795				0
LS01	8428038				10525
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: 7/27/09

Time	LCS System	Remarks (Reason for System on or off)
835	On or Off	Shipped 4500
	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	129419			47
EW01A	510482			115
EW02	2357378			1435
EW03	3512366			2769
EW04	750879			252
EW05	1602440			19198
EW06	340142			7
EW07	1844211			50
EW08	34378795			0
LS01	8438563			11566
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: 7/31/09

Time	LCS System	Remarks (Reason for System on or off)
815	On or Off	Shipped 4500
	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	129893				51
EW01A	510597				120
EW02	2358813				803
EW03	3515134				1937
EW04	751131				161
EW05	1604358				1775
EW06	340149				5
EW07	1844261				44
EW08	34378795				1
LS01	8450129				7834
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: 8/3/09

Time	LCS System	Remarks (Reason for System on or off)
900 A	On or Off	Shipped $500
	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	129944				73
EW01A	510717				0
EW02	2359616				509
EW03	3517071				1286
EW04	751298				121
EW05	1606133				926
EW06	340154				0
EW07	1844305				0
EW08	34378796				0
LS01	8457963				4452
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: DAN Z Date: 08/05/09

Time	LCS System	Remarks (Reason for System on or off)
10:10	On or Off	SHIPPED 4500
	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	130017				60
EW01A	510717				6
EW02	2360125				1299
EW03	3518357				3014
EW04	751419				279
EW05	1607059				1558
EW06	340154				4
EW07	1844305				0
EW08	34378796				35
LS01	9462415				9382
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: 8/10/09

Time	LCS System	Remarks (Reason for System on or off)
800 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	130077				6
EW01A	510723				58
EW02	2361424				806
EW03	3521371				1856
EW04	751698				175
EW05	1608617				980
EW06	340158				5
EW07	1844305				0
EW08	34378831				12
LS01	8471797				5342
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: 8/13/09

Time	LCS System	Remarks (Reason for System on or off)
830	On or Off	Shipped 2500
	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	130083				60
EW01A	510781				78
EW02	2362230				1110
EW03	3523227				2195
EW04	751873				201
EW05	1609597				961
EW06	340163				3
EW07	1844305				0
EW08	34378843				57
LS01	8477139				8579
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: 8/17/09

Time	LCS System	Remarks (Reason for System on or off)
815	On or Off	Shipped 4700
	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	130143				74
EW01A	510859				4
EW02	2363340				1972
EW03	3525422				3884
EW04	752074				403
EW05	1610558				3805
EW06	340166				4
EW07	1844365				5
EW08	34378900				45
LS01	8485718				1143
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: 8/24/09

Time	LCS System	Remarks (Reason for System on or off)
800 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	130217				9.2
EW01A	510863				135
EW02	2365312				1409
EW03	3529306				3530
EW04	752477				359
EW05	1614363				3079
EW06	340170				0
EW07	1844310				1
EW08	3437894				1
LS01	8497161				8075
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: 8/31/09

Time	LCS System	Remarks (Reason for System on or off)
800	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	130309				94
EW01A	510998				83
EW02	2366721				280
EW03	3532836				1411
EW04	752836				130
EW05	1617442				1115
EW06	340170				3
EW07	18447311				0
EW08	34378946				0
LS01	8505236				5918
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: 9/3/09

Time	LCS System	Remarks (Reason for System on or off)
730	(On) or Off	Shipped 4000
	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	130403				113
EW01A	511081				76
EW02	2367001				1403
EW03	3534247				3319
EW04	752966				362
EW05	1618557				2937
EW06	340173				9
EW07	1844311				0
EW08	34378946				4
LS01	8511154				13897
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): 80 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: 9/10/09

Time	LCS System	Remarks (Reason for System on or off)
800 A	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	130516				69
EW01A	511157				85
EW02	2368404				1362
EW03	3537566				3149
EW04	753328				363
EW05	1621494				2643
EW06	340182				12
EW07	1844311				0
EW08	34378950				0
LS01	8525051				8769
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: 9/17/09

Time	LCS System	Remarks (Reason for System on or off)
830	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	130585				69
EW01A	511242				91
EW02	2369766				822
EW03	3540715				2252
EW04	753691				264
EW05	1624137				2326
EW06	~~[illegible]~~ 340194				8
EW07	1844311				0
EW08	34378950				0
LS01	8533820				4537
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: 9/22/09

Time	LCS System	Remarks (Reason for System on or off)
900	On or Off	Shipped 4500
	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	130654				142
EW01A	511333				310
EW02	2370588				2065
EW03	3542967				5930
EW04	753955				743
EW05	1626463				6630
EW06	340202				9
EW07	1844311				0
EW08	34378950				0
LS01	8538357				12916
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: Daniel L. Zimmer Date: 10/07/09

Time	LCS System	Remarks (Reason for System on or off)
11:00	(On) or Off	SHOPPED 7500
	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	130796				78
EW01A	511643				78
EW02	2372653				1303
EW03	3548897				3658
EW04	754698				452
EW05	1633093				3467
EW06	340211				8
EW07	1844311				0
EW08	34378950				0
LS01	8551273				8147
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: 10/15/09

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	130874				63
EW01A	511721				65
EW02	2373956				930
EW03	3552555				2845
EW04	755150				361
EW05	1636560				3020
EW06	340219				7
EW07	1844311				0
EW08	34378950				0
LS01	8559420				5525
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: 10/22/09

Time	LCS System	Remarks (Reason for System on or off)
800	(On) or Off	SHIPPED 4500
	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	130937				234
EW01A	511786				247
EW02	2374886				586
EW03	3555400				1628
EW04	755511				230
EW05	1639630				2169
EW06	340226				7
EW07	1844311				0
EW08	34378950				0
LS01	8564445				3736
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: 10/29/09

Time	LCS System	Remarks (Reason for System on or off)
830	On or Off	Shipped 7500
	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	131171				133
EW01A	512033				190
EW02	2375472				582
EW03	3557078				1353
EW04	755741				191
EW05	1641799				1328
EW06	346233				0
EW07	1844311				0
EW08	34378950				0
LS01	8602257				21689
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: 11/5/09

Time	LCS System	Remarks (Reason for System on or off)
8:15	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	131304				120
EW01A	512223				192
EW02	2376054				361
EW03	3558431				4390
EW04	755932				204
EW05	1643127				952
EW06	340233				0
EW07	1844311				0
EW08	24378950				0
LS01	8623946				1883
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: 11/10/09

Time	LCS System	Remarks (Reason for System on or off)
900	On or Off	Shipped 9000
	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	131424				137
EW01A	512415				158
EW02	2376737				1191
EW03	3562821				478°
EW04	756136				271
EW05	1644079				1349
EW06	340233				13
EW07	1844311				0
EW08	34378950				0
LS01	8642776				1654
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: 11/12/09

Time	LCS System	Remarks (Reason for System on or off)
900 A	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	131561				115
EW01A	512573				151
EW02	2377928				649
EW03	3567610				1914
EW04	756407				71
EW05	1645427				664
EW06	340246				5
EW07	1844311				0
EW08	34378950				0
LS01	8659322				18851
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: 11/19/09

Time	LCS System	Remarks (Reason for System on or off)
10:00	(On) or Off	Shipped 7000
	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	131676				162
EW01A	512724				149
EW02	2378577				1120
EW03	3569524				3395
EW04	256478				241
EW05	1646091				1817
EW06	340251				16
EW07	1844311				0
EW08	34378950				14
LS01	8678173				15709
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 BERGENTHAL Date: 11/25/09

Time	LCS System	Remarks (Reason for System on or off)
8:17 am	On or Off	~~[illegible]~~ SHIPPED 10,000
	On or Off	
	On or Off	
	On or Off	

I. Leachate Collection System (LCS)

Pump	Time: 8:17am Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values	Time: ____ Pump Stroke Counter Values
EW01	131838			~~16~~ 149 ~~162~~
EW01A	512873			171 ~~[illegible]~~
EW02	2379697			1484 ~~1520~~
EW03	3572919			3760 ~~3595~~
EW04	756719			317 ~~[illegible]~~
EW05	1647908			2267 ~~1817~~
EW06	340267			9 ~~16~~
EW07	1844311			0 ~~0~~
EW08	34378964			12 ~~14~~
LS01	8693882			1893 ~~[illegible]~~
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: 11/30/09

Time	LCS System	Remarks (Reason for System on or off)
8:00 A	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	131987				159
EW01A	513044				222
EW02	2381181				1420
EW03	3576679				3062
EW04	757036				264
EW05	1650175				2860
EW06	340276				8
EW07	1844311				0
EW08	34378976				20
LS01	8712720				1725
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: 12/3/09

Time	LCS System	Remarks (Reason for System on or off)
945	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	132146				120
EW01A	513266				155
EW02	2382601				1037
EW03	3579741				3322
EW04	757300				245
EW05	1653035				1556
EW06	340284				2
EW07	1844311				0
EW08	34378996				38
LS01	8729971				18972
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: 12/10/09

Time	LCS System	Remarks (Reason for System on or off)
800 A	On or Off	Shipped 9400
	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	132266				75
EW01A	513421				53
EW02	2383638				1
EW03	3583638				4899
EW04	757545				242
EW05	1654591				2632
EW06	340286				0
EW07	1844311				0
EW08	34379034				24
LS01	8748943				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: 12/17/09

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	132341				39
EW01A	513574				92
EW02	2383639				2141
EW03	3587961				4829
EW04	757787				345
EW05	1657223				2637
EW06	740286				8
EW07	1844311				0
EW08	34379058				115
LS01	8748944				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: DREW BERGENTHAL Date: 12/24/09

Time	LCS System	Remarks (Reason for System on or off)
8:00 AM	On or (Off)	TANK FULL
	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	132480				1
EW01A	513666				1
EW02	2385780				1853
EW03	3592840				3885
EW04	758132				282
EW05	1659860				2362
EW06	340294				6
EW07	1844311				6
EW08	34379173				0
LS01	8748947				17577
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 BERLENTHAL Date: 12/31/09

Time	LCS System	Remarks (Reason for System on or off)
8.00 AM	On or Off	TANK FULL SHIPPED 10,000 GALLONS
	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	132481				24
EW01A	513667				185
EW02	2387633				2688
EW03	3596725				15269
EW04	758414				511
EW05	1662222				4217
EW06	340294				0
EW07	1844311				0
EW08	34379173				3
LS01	8766518				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: 1/7/2010

Time	LCS System	Remarks (Reason for System on or off)
1:00	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	132505				82
EW01A	513852				77
EW02	2390321				1847
EW03	3611994				5180
EW04	758925				338
EW05	1666439				1698
EW06	340294				8
EW07	1844311				0
EW08	34379176				1
LS01	8766518				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): 70 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: 1/14/10

Time	LCS System	Remarks (Reason for System on or off)
800	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	132587				65
EW01A	513929				76
EW02	2392218				691
EW03	3617174				2826
EW04	759263				58
EW05	1668137				1707
EW06	340302				10
EW07	1844311				0
EW08	34379177				0
LS01	8766518				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): >0 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: 1/15/10

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	1326652				248
EW01A	514005				237
EW02	2392909				1647
EW03	3620000				4054
EW04	759321				257
EW05	1669844				963
EW06	340312				7
EW07	1844311				235
EW08	34379177				226
LS01	8766518				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): 70 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: 1/21/10

Time	LCS System	Remarks (Reason for System on or off)
600	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	132900				266
EW01A	514242				278
EW02	2394556				2464
EW03	3624054				5833
EW04	759578				421
EW05	1670807				2856
EW06	340319				6
EW07	1844546				16271
EW08	34379403				34
LS01	8766518				118
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

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: 1/28/10

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	1331166				133
EW01A	514520				133
EW02	2397020				2714
EW03	3629887				1372
EW04	759999				504
EW05	16736666				4136
EW06	340325				6
EW07	1860817				140
EW08	34379437				4
LS01	87666636				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): 70 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: 2/5/10

Time	LCS System	Remarks (Reason for System on or off)
845	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	133299				74
EW01A	514653				88
EW02	2399734				3076
EW03	3643859				7803
EW04	760503				415
EW05	1677802				3990
EW06	340331				3
EW07	1860957				11975
EW08	3437944				0
LS01	8766636				2
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

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: 2/11/10

Time	LCS System	Remarks (Reason for System on or off)
830	On or Off	SHIPPED 7500
	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	133373				144
EW01A	514741				194
EW02	2402810				3032
EW03	3651662				7522
EW04	760918				542
EW05	1681792				3793
EW06	340334				0
EW07	1872932				344
EW08	34379441				5
LS01	8766638				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): 74 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: 2/18/10

Time	LCS System	Remarks (Reason for System on or off)
630	(On) or Off	
	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	133517				215
EW01A	514935				233
EW02	2405842				2031
EW03	3659184				4767
EW04	761460				429
EW05	1685585				2850
EW06	340334				0
EW07	1873276				499
EW08	34379446				1
LS01	8766638				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): 74 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: 2/25/10

Time	LCS System	Remarks (Reason for System on or off)
650	(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	133732				220
EW01A	515168				323
EW02	2407873				2059
EW03	3663951				4216
EW04	761889				338
EW05	1688435				2485
EW06	340334				33
EW07	1873775				493
EW08	34379447				4
LS01	8766638				5
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: DAN ZIRREN Date: 03/03/10

Time	LCS System	Remarks (Reason for System on or off)
12:00	On or Off	SHIPPED 8300 GAL
	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	133 952				187
EW01A	515 491				133
EW02	2409 932				2834
EW03	3668 167				9087
EW04	762 227				637
EW05	1690 920				2104
EW06	340 367				4
EW07	1874 268				299
EW08	3437 9451				203
LS01	8766 643				583
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: 3/11/10

Time	LCS System	Remarks (Reason for System on or off)
[illegible]	On or Off	Shipped 9900
	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	134139				178
EW01A	515624				150
EW02	2412766				1618
EW03	3677254				3929
EW04	762865				298
EW05	1693024				425
EW06	340371				17
EW07	1874567				451
EW08	34379654				278
LS01	8772475				1011
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: 3/18/10

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	134317				86
EW01A	575774				109
EW02	2414384				2743
EW03	3681183				1182
EW04	263163				368
EW05	1697281				2635
EW06	340388				22
EW07	1875018				13
EW08	34379932				288
LS01	8782586				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: 3/25/10

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	134403				167
EW01A	515943				125
EW02	2417127				4178
EW03	3693005				1342
EW04	763531				486
EW05	1699916				3567
EW06	340410				0
EW07	1875031				240
EW08	34380220				56
LS01	8782586				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): 70 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: 3/30/2010

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	134570				192
EW01A	516118				163
EW02	2421305				1986
EW03	3706500				3470
EW04	764027				328
EW05	1703483				1759
EW06	340410				1
EW07	1875271				0
EW08	34380276				0
LS01	8782586				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): 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: 4/1/10

Time	LCS System	Remarks (Reason for System on or off)
830	On or Off	Shipped 4300
	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	134762			78
EW01A	516281			226
EW02	2423291			3508
EW03	3709970			9807
EW04	764355			251
EW05	1705242			3100
EW06	340411			3
EW07	1875271			27
EW08	34380276			0
LS01	8782586			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: 4/6/10

Time	LCS System	Remarks (Reason for System on or off)
820	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	134840				61
EW01A	516507				92
EW02	2426799				3178
EW03	3719777				6044
EW04	764606				291
EW05	1708342				1679
EW06	340414				5
EW07	1875298				1
EW08	34380296				0
LS01	8782586				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: 4/8/10

Time	LCS System	Remarks (Reason for System on or off)
830	On or Off	Shipped 4500
	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	134901				72
EW01A	516599				84
EW02	2429927				121
EW03	3725821				1203
EW04	764897				103
EW05	1710021				866
EW06	340419				3
EW07	1825299				24
EW08	34380296				39
LS01	8782586				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: 4/13/10

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	134973				240
EW01A	516683				124
EW02	2430098				127
EW03	3227024				4016
EW04	764999				55
EW05	1710887				654
EW06	340422				7
EW07	1875323				299
EW08	34380335				197
LS01	8782595				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: 4/15/10

Time	LCS System	Remarks (Reason for System on or off)
900	On or Off	Shipped 9000
	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	135213				178
EW01A	516807				852
EW02	2431375				2071
EW03	3731040				4842
EW04	7650054				277
EW05	1711541				1845
EW06	340429				2
EW07	1875622				220
EW08	34380532				142
LS01	8782575				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: 4/20/10

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	135391				245
EW01A	517659				876
EW02	2433446				1842
EW03	3735882				3813
EW04	765331				202
EW05	1713386				1471
EW06	340431				2
EW07	1875842				147
EW08	34380674				204
LS01	8782595				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: Drew Bergenthal Date: 4/23/10

Time	LCS System	Remarks (Reason for System on or off)
8:03	On or Off	DREW 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	135636	~~135637~~			1
EW01A	518555	~~519424~~			869
EW02	2435288				2249
EW03	3739695				3824
EW04	765533				257
EW05	1714857				1579
EW06	~~34033~~ 340433				0
EW07	1875989				1
EW08	34380878				0
LS01	8782595				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: DAN ZINNEN Date: 04/27/10

Time	LCS System	Remarks (Reason for System on or off)
8:07	On or Off	SHIPPED 10,000
9:37	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	135637				1
EW01A	519424				969
EW02	2437537				2249
EW03	3743519				3824
EW04	765784				251
EW05	1716436				1579
EW06	340433				0
EW07	1875990				1
EW08	3438078				0
LS01	3782595				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: 4/29/10

Time	LCS System	Remarks (Reason for System on or off)
830	On or Off	Shipper 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	135638				219
EW01A	520207				1285
EW02	2439500				797
EW03	3747137				2609
EW04	766030				215
EW05	1717706				1949
EW06	340433				0
EW07	1875990				0
EW08	34380878				0
LS01	8782595				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.

APPENDIX A-2

Inspection Report Forms

MWH
MONTGOMERY WATSON HARZA

INSPECTION REPORTING FORM
BLACKWELL LANDFILL SITE

Date: 5/13/09 Time (start): 0745 Time (end): 1230

Monitored By: JUSTIN FINGER / TIM CARROLL

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 %: 83		
Barometric Pressure	Low	Moderate	High	In. Hg: 29.77 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	123781	16,710	121096	29.79
EW01A	506223	68,340	949166	38.29
EW02	2316456	312,722	972983	54.86
EW03	3418180	461,454	009778	38.29
EW04	745836	100,688	307567	—
EW05	1574152	212,511	272998	84.10
EW06	339794	45,872	921676	39.96
EW07	1823802	246,213	634149	52.50
EW08	34378089	4,641,042	1292--	—
~~LS01~~	~~7823693~~	~~1,056,199~~	~~238290~~	~~—~~
LS023	367469	49,608	—	—

Building Inside Temperature (°F): 68 Heater Thermostat Setting (°F): OFF

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

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	0.0	63.0	35.9	0.6	GOOD
EW01A	0.0	51.6	26.2	0.0	GOOD
EW02	0.0	57.9	35.5	0.0	GOOD
EW03	0.0	68.8	33.6	0.0	GOOD
EW04	0.0	69.5	30.9	0.0	GOOD
EW05	0.0	72.7	26.6	0.0	GOOD
EW06	1.0	67.6	33.9	0.0	GOOD
EW07	1.0	67.3	35.1	0.0	GOOD
EW08	—	—	—	—	GOOD

Location	LFG Velocity (fpm)	LFG Flow (cfm)	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Temperature (°F)
Vent Stack	180	36.04	51.7	27.8	1.6	56.3

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	✓		DV-3 & DV-17 RISERS STICK UP - CANNOT CLOSE VALVE COVER, SV-4, DV-4, AND DV-9 HAS FLOODED VALVES

Landfill Cap Repair Areas

Component	Satisfactory	Unsatisfactory	Remarks
Landfill Cap Soils	✓		
Vegetative Cover	✓		
General Drainage	✓		SOME AREAS WITH STANDING WATER, NO MAJOR ROAD OBSERVED

Site Security

Component	Satisfactory	Unsatisfactory	Remarks
Access Roads Conditions	✓		SOME STANDING WATER AND RUTS NEAR LS01
Site Fencing, Gates	✓		
Posted Sign and Notices	✓		

Additional Comments:

MEASUREMENTS WERE NOT COLLECTED AT SV-4, DV-4, AND DV-9 DUE TO FLOODED VAULTS.

DV-8 COULD NOT BE ISOLATED FROM LFG SYSTEM PRIOR TO COLLECTING MEASUREMENTS DUE TO HIGH WATER IN VAULT.

LEACHATE LEVEL WAS NOT MEASURED AT SV-2 BECAUSE THE VENT WAS DRY.

VAULT COVERS [redacted] FOR DV-3 AND DV-17 CAN NOT CLOSE DUE TO INTERFERENCE FROM THE RISERS.

Signature: [signature]

Title: PROJECT SCIENTIST/GEOLOGIST

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MWH
MONTGOMERY WATSON HARZA

INSPECTION REPORTING FORM
BLACKWELL LANDFILL SITE

Date: 7/15/09 Time (start): 0745 Time (end): 1445

Monitored By: JUSTIN FINCOR / TIM CARROLL

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 %: 70		
Barometric Pressure	Low	Moderate	High	In. Hg: 29.94 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	FOR OHM MEASUREMENTS
	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	128646	17,367	153643	30.28
EW01A	509562	68,791	967725	40.04
EW02	2352236	317,552	008916	60.61
EW03	3502339	472,816	096595	47.15
EW04	750051	101,257	313811	DRY
EW05	1598427	215,787	298242	79.81
EW06	[redacted] 339930	45,769	921676	39.94
EW07	1840121	248,416	649298	53.21
EW08	34378716	4,641,127	1292--	—
~~LS01~~	~~8365947~~	~~1,129,403~~	~~238290~~	~~—~~
LS~~02~~03	367469	49,608	—	—

Building Inside Temperature (°F): 75°F Heater Thermostat Setting (°F): OFF

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

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	0.3	61.3	39.9	0.2	GOOD
EW01A	0.02	58.6	29.9	0.0	
EW02	0.12	64.0	40.4	0.3	
EW03	1.0	65.0	39.1	0.3	
EW04	0.0	68.1	33.2	0.1	
~~EW05~~	~~0.06~~	~~73.5~~	~~27.8~~	~~0.0~~	
EW06	1.6	66.1	37.3	0.0	
EW07	0.8	65.2	39.1	0.0	
EW08	0.0	0.2	0.1	20.7	POSSIBLE BLOCKAGE

Location	LFG Velocity (fpm)	LFG Flow (cfm)	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Temperature (°F)
Vent Stack	447	89.49	61.4	34.2	0.5	70.4

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	✓		ABUNDANT VEGETATION
General Drainage	✓		SOME STANDING WATER ON ACCESS ROAD NEAR L601

Site Security

Component	Satisfactory	Unsatisfactory	Remarks
Access Roads Conditions	✓		
Site Fencing, Gates	✓		
Posted Sign and Notices	✓		

Additional Comments: LEACHATE NOT RECORDED AT SV-2 AND EW-04 BECAUSE WELLS WERE DRY.

POSSIBLE BLOCKAGE IN WELL HEAD AT EW-08 RESULTING IN INACCURATE MEASUREMENTS. CURRENT WELL CONFIGURATION AT EW-08 DOES NOT ALLOW ACCESS FOR A WATER LEVEL METER. THEREFORE, DEPTH TO LEACHATE MEASUREMENTS CAN NOT BE COLLECTED AT EW-08.

Signature: [illegible]

Title: GEOLOGIST / PROJECT SCIENTIST

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MWH
MONTGOMERY WATSON HARZA

INSPECTION REPORTING FORM
BLACKWELL LANDFILL SITE

Date: 9/23/09 Time (start): 0745 Time (end): 1330

Monitored By: J. FINGER / A. 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 %: 83		
Barometric Pressure	Low	Moderate	High	In. Hg: 30.08	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	130654	17,639	161827	30.20
EW01A	511333	69,030	981261	39.79
EW02	2370718	320,047	027301	54.93
EW03	3543388	478,358	138084	43.10
EW04	754009	101,792	317963	—
EW05	1627064	219,654	326318	65.88
EW06	340202	45,928	921676	34.05
EW07	1844311	248,982	653002	51.70
EW08	34378950	4,641,159	1292--	50.10
~~LS01~~	~~8539933~~	~~1,152,891~~	~~238290~~	~~—~~
LS023	367469	49,609	—	—

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

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

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	66.8	43.6	0.0	GOOD
EW01A	0.04	57.8	29.3	0.0	GOOD
EW02	0.24	68.8	41.0	0.0	GOOD
EW03	1.00	70.3	40.4	0.3	GOOD
EW04	0.10	75.4	35.1	0.0	GOOD
EW05	0.10	81.3	28.1	0.0	GOOD
EW06	0.84	71.2	39.5	0.0	GOOD
EW07	0.50	70.1	42.3	0.0	GOOD
EW08	0.00	38.2	26.5	6.2	GOOD

Location	LFG Velocity (fpm)	LFG Flow (cfm)	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Temperature (°F)
Vent Stack	320	64.06	51.7	30.6	3.1	67.7

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	✓		NO STANDING WATER OBSERVED

Site Security

Component	Satisfactory	Unsatisfactory	Remarks
Access Roads Conditions	✓		SOME RUTS NEAR L501
Site Fencing, Gates	✓		
Posted Sign and Notices	✓		

Additional Comments: LEACHATE WAS NOT RECORDED AT SV-7 BECAUSE THIS VENT WAS DRY.

Signature: [illegible]

Title: GEOLOGIST / PROJECT SCIENTIST

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MWH
MONTGOMERY WATSON HARZA

INSPECTION REPORTING FORM
BLACKWELL LANDFILL SITE

Date: 11/18/09 Time (start): 0815 Time (end): 1420

Monitored By: JUSTIN FINGER / TIM CARROLL

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 %: 83		
Barometric Pressure	Low	Moderate	High	In. Hg: 30.03 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	131676	17,776	161832	30.58
EW01A	512724	69,218	990161	38.44
EW02	2378577	321,108	035144	61.45
EW03	3569524	481,886	164547	41.41
EW04	756478	102,125	321394	DRY
EW05	1646091	222,222	344929	81.53
EW06	340251	45,934	921676	34.49
EW07	1844311	248,982	653002	50.68
EW08	34378950	4,641,158	1292__	7.80
~~LS01~~	~~8678173~~	~~1,171,553~~	~~238290~~	—
LS03	367469	49,608	—	—

Building Inside Temperature (°F): 76 Heater Thermostat Setting (°F): 55

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

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	0.03	NM	NM	NM	GOOD
EW01A	0.00	NM	NM	NM	GOOD
EW02	0.00	NM	NM	NM	GOOD
EW03	0.48	NM	NM	NM	GOOD
EW04	0.06	NM	NM	NM	GOOD
EW05	0.05	NM	NM	NM	GOOD
EW06	0.54	NM	NM	NM	GOOD
EW07	0.90	NM	NM	NM	GOOD
EW08	0.02	NM	NM	NM	GOOD

Location	LFG Velocity (fpm)	LFG Flow (cfm)	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Temperature (°F)
Vent Stack	380	76.07	41.2	23.1	7.8	49.6

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	✓		DV-18 HAD BLOCKAGE AT 16.8 FT

Landfill Cap Repair Areas

Component	Satisfactory	Unsatisfactory	Remarks
Landfill Cap Soils	✓		
Vegetative Cover	✓		
General Drainage	✓		SOME STANDING WATER BY TUBE SHED AND ON ACCESS RD NEAR LS01

Site Security

Component	Satisfactory	Unsatisfactory	Remarks
Access Roads Conditions	✓		LARGE RUTS ON ACCESS ROAD NEAR LS01
Site Fencing, Gates	✓		
Posted Sign and Notices	✓		

Additional Comments: GAS COMPOSITION MEASUREMENTS NOT COLLECTED DUE TO MALFUNCTION OF LANDTEC GA-90.

LEACHATE LEVELS NOT RECORDED AT SV-2, DV-6, DV-7, AND EW-4 BECAUSE THESE LOCATIONS WERE DRY.

BLOCKAGE AT DV-18 AT A DEPTH OF 16.8 FT PREVENTED LEACHATE LEVEL MEASUREMENT.

LFG BUBBLING OBSERVED NEAR TUBE SHED.

Signature: [signature]

Title: PROJECT SCIENTIST/GEOLOGIST

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MWH
MONTGOMERY WATSON HARZA

INSPECTION REPORTING FORM
BLACKWELL LANDFILL SITE

Date: 1/13/10 Time (start): 0730 Time (end): 1330

Monitored By: JUSTIN FINLOE / 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 %: 81		
Barometric Pressure	Low	Moderate	High	In. Hg: 30.14 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	132505	17,888	NM	NM
EW01A	513852	69,370	998245	38.34
EW02	2391008	322,786	047565	54.72
EW03	3614040	487,895	209373	39.50
EW04	759049	102,472	324877	DRY
EW05	1666921	225,034	365005	80.02
EW06	340294	45,940	921676	39.55
EW07	1844311	248,982	653002	46.35
EW08	34379177	4,641,189	1292--	3.70
LS01	8766518	1,183,480	NM	NM
LS0~~2~~3	367469	49,608	—	—

Building Inside Temperature (°F): 76 Heater Thermostat Setting (°F): 55

Status of Intake Fan (circle one): On Off (Auto @ 90°F)

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	NM	NM	NM	NM	GOOD
EW01A	0.00	47.2	24.7	9.2	GOOD
EW02	0.01	64.4	35.2	0.8	GOOD
EW03	0.01	72.7	32.2	0.1	GOOD
EW04	0.02	73.2	29.6	0.5	GOOD
EW05	0.00	76.9	25.3	0.9	GOOD
EW06	0.16	70.6	33.8	0.2	GOOD
EW07	0.08	63.5	34.9	0.2	GOOD
EW08	0.00	64.8	33.0	1.1	GOOD

Location	LFG Velocity (fpm)	LFG Flow (cfm)	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Temperature (°F)
Vent Stack	300	60.06	54.6	27.3	3.8	31.0

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	✓		DUMP RISER HAS RISEN ABOVE VALVE, PREVENTING LID FROM CLOSING

Landfill Cap Repair Areas

Component	Satisfactory	Unsatisfactory	Remarks
Landfill Cap Soils	✓		HEAVY SNOW COVER
Vegetative Cover	✓		
General Drainage	✓		

Site Security

Component	Satisfactory	Unsatisfactory	Remarks
Access Roads Conditions		✓	ROADS ARE COVERED IN SNOW AND ARE NOT DRIVABLE
Site Fencing, Gates	✓		
Posted Sign and Notices	✓		

Additional Comments: MEASUREMENTS NOT COLLECTED AT SV-4, SV-5, SV-7, SV-8, SV-9, SV-12, DV-3, DV-4, DV-6, DV-7, DV-8, DV-9, DV-11, DV-14, DV-15, DV-18, EW01, AND LS01 BECAUSE VAULTS WERE FROZEN.

LEACHATE LEVELS NOT RECORDED AT SV-2 AND EW04 BECAUSE THESE LOCATIONS WERE DRY.

Signature: [signature] Title: PROJECT SCIENTIST/GEOLOGIST

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MWH
MONTGOMERY WATSON HARZA

INSPECTION REPORTING FORM
BLACKWELL LANDFILL SITE

Date: 3/8/10 Time (start): 0915 Time (end): 1445

Monitored By: JUSTIN FINGER, TIM CARROLL

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 %: 95		
Barometric Pressure	Low	Moderate	High	In. Hg: 30.07 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	133953	18,084	161865	30.08
EW01A	515491	69,592	009275	38.33
EW02	2410888	325,470	067375	60.86
EW03	3670145	495,470	265804	42.46
EW04	762377	102,921	379696	DRY
EW05	1692239	228,453	388171	67.16
EW06	340367	45,950	921676	39.55
EW07	1874609	253,073	653002	48.73
EW08	34379451	4,641,226	1292--	5.21
LS01	8776870	1,184,878	238290	—
LS03	367469	49,609	—	—

Building Inside Temperature (°F): 76 Heater Thermostat Setting (°F): 55

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

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	0.36	61.9	39.3	1.6	GOOD
EW01A	0.07	49.2	27.3	0.0	GOOD
EW02	0.08	59.5	39.8	0.0	GOOD
EW03	0.42	64.8	37.9	0.3	GOOD
EW04	0.00	68.7	32.7	1.0	GOOD
EW05	0.20	72.5	29.1	0.0	GOOD
EW06	0.80	66.0	38.3	0.0	GOOD
EW07	1.00	64.0	39.7	0.1	GOOD
EW08	0.00	62.5	38.3	1.3	GOOD

Location	LFG Velocity (fpm)	LFG Flow (cfm)	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Temperature (°F)
Vent Stack	278	55.65	49.2	29.0	4.5	47.3

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	✓		RISERS AT DV-17 AND DV-3 HAVE RISEN ABOVE VAULT - LIDS DON'T CLOSE

Landfill Cap Repair Areas

Component	Satisfactory	Unsatisfactory	Remarks
Landfill Cap Soils	✓		
Vegetative Cover	✓		
General Drainage	✓		SOME STANDING WATER AT BASE OF TUBE RUN

Site Security

Component	Satisfactory	Unsatisfactory	Remarks
Access Roads Conditions	✓		SOME SNOW AND ICE ON ACCESS ROADS
Site Fencing. Gates	✓		
Posted Sign and Notices	✓		

Additional Comments: LEACHATE MEASUREMENTS WERE NOT COLLECTED AT ~~SV-4 AND DV-9~~ SV-2, SV-7, DV-6, AND EW-4 BECAUSE THESE LOCATIONS WERE DRY.

MEASUREMENTS WERE NOT COLLECTED AT SV-4 AND DV-9 BECAUSE THESE VAULTS WERE FLOODED.

LEACHATE MEASUREMENT WAS NOT COLLECTED AT DV-18 BECAUSE OF A BLOCKAGE.

Signature: [illegible]

Title: PROJECT SCIENTIST / GEOLOGIST

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APPENDIX A-3

Maintenance and Repair Record Forms

BLACKWELL LANDFILL SITE
MAINTENANCE and REPAIR RECORD FORM

Inspector's Name: Ray Babowice
Date of the Record: 5/19/09
Date Problem was Observed: 5/19/09

BRIEF DESCRIPTION OF PROBLEM

Blackhawk pump in LS-1 not working

Person or Contractor Completing Maintenance or Repair: Ray

Completion Date: 5/19/09

MAINTENANCE or REPAIR PERFORMED

Removed Blackhawk pump put in rebuilt clean pump

VERIFICATION OF COMPLETION

Inspector's Name: Ray Babowice
Verification of Completion Date: 5/19/09

Inspector's Signature:Ray Babowice

BLACKWELL LANDFILL SITE
MAINTENANCE and REPAIR RECORD FORM

Inspector's Name: Ray Babowice
Date of the Record: 06/09/09
Date Problem was Observed: 06/09/09

BRIEF DESCRIPTION OF PROBLEM

Pump In EW-1A not cycling

Person or Contractor Completing Maintenance or Repair: Ray.

Completion Date: 06/09/09

MAINTENANCE or REPAIR PERFORMED

Float getting hung up. cleaned float pump is working

VERIFICATION OF COMPLETION

Inspector's Name: Ray Babowice
Verification of Completion Date: 06/09/09

Inspector's Signature:_____

BLACKWELL LANDFILL SITE
MAINTENANCE and REPAIR RECORD FORM

Inspector's Name: Ray Babowice
Date of the Record: 07/22/09
Date Problem was Observed: 07/22/09

BRIEF DESCRIPTION OF PROBLEM

Pump In EW-5 not cycling

Person or Contractor Completing Maintenance or Repair: Ray.

Completion Date: 07/22/09

MAINTENANCE or REPAIR PERFORMED

cleaned pump

VERIFICATION OF COMPLETION

Inspector's Name: Ray Babowice
Verification of Completion Date: 07/22/09

Inspector's Signature:_____

BLACKWELL LANDFILL SITE
MAINTENANCE and REPAIR RECORD FORM

Inspector's Name: Ray Babowice
Date of the Record: 08/11/09
Date Problem was Observed: 08/11/09

BRIEF DESCRIPTION OF PROBLEM

Water in air lines

Person or Contractor Completing Maintenance or Repair: Ray.

Completion Date: 08/11/09

MAINTENANCE *or* REPAIR PERFORMED

Removed water from air lines

VERIFICATION OF COMPLETION

Inspector's Name: Ray Babowice
Verification of Completion Date: 08/11/09

Inspector's Signature:_____

BLACKWELL LANDFILL SITE
MAINTENANCE and REPAIR RECORD FORM

Inspector's Name: Ray Babowice
Date of the Record: 10/20/09
Date Problem was Observed: 10/20/09

BRIEF DESCRIPTION OF PROBLEM

Belt broken on compressor

Person or Contractor Completing Maintenance or Repair: Ray.

Completion Date: 10/20/09

MAINTENANCE or REPAIR PERFORMED

Installed new belts

VERIFICATION OF COMPLETION

Inspector's Name: Ray Babowice
Verification of Completion Date: 10/20

Inspector's Signature:_____

BLACKWELL LANDFILL SITE
MAINTENANCE and REPAIR RECORD FORM

Inspector's Name: Ray Babowice
Date of the Record: 10/21/09
Date Problem was Observed: 10/21/09

BRIEF DESCRIPTION OF PROBLEM

Motor bearing in need of grease

Person or Contractor Completing Maintenance or Repair: Ray.

Completion Date: 10/21/09

MAINTENANCE or REPAIR PERFORMED

Greased motor

VERIFICATION OF COMPLETION

Inspector's Name: Ray Babowice
Verification of Completion Date: 10/21

Inspector's Signature:_____

BLACKWELL LANDFILL SITE
MAINTENANCE and REPAIR RECORD FORM

Inspector's Name: Ray Babowice
Date of the Record: 2/16/10
Date Problem was Observed: 2/16/10

BRIEF DESCRIPTION OF PROBLEM

Pump in LS2 not working

Person or Contractor Completing Maintenance or Repair: Ray.

Completion Date: 2/16/10

MAINTENANCE or REPAIR PERFORMED

Pump float fixed

VERIFICATION OF COMPLETION

Inspector's Name: Ray Babowice
Verification of Completion Date: 2/16

Inspector's 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	5/1/09	005415097 005415098	9000	ADVanced	RAY	
	Comments					
2	05/06/09	005415099 005415100	10,000	ADVANCED	DAN ZIMMER	
	Comments	NO TRUCKS CAME ON 05/04/09				
3	5/08/09	005415101 005415102	10,000	ADVanced	RAY	
	Comments					
4	05/13/09	005415103 005415104	9300	ADVANCED	DAN ZIMMER	
	Comments					
5	05/15/09	005415105 005415106	10,000	ADVanced	RAY	
	Comments					
6	05/18/09	005415107 005415108	10,000	ADVanced	RAY	
	Comments					
7	05/20/09	005415109 004752871	8,200	ADVANCED	DAN Z	
	Comments					
8	5/22/09	004752872 004752873	9,000	ADVANCED	DREW BERGENTHAL	
	Comments					
9	5/28/09	004752874 004752875	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	6/1/09	004752876 004752877	10,000	Advanced	RAY	
	Comments					
2	06/03/09	004752878 004752879	10,000	Advanced	Dan Z	
	Comments					
3	6/5/09	004752880 004752881	9200	Advanced	RAY	
	Comments					
4	6/8/09	004752882 004752883	8500	Advanced	RAY	
	Comments					
5	6/10/09	004752884 004752885	10,000	Advanced	RAY	
	Comments					
6	6/12/09	004752886 004752887	9500	Advanced	RAY	
	Comments					
7	6/15/09	004752888 004752889	10,000	Advanced	RAY	
	Comments					
8	06/17/09	004752890 004752891	9,500	Advanced	Dan Z	
	Comments					
9	6/19/09	004752892 004752893	8500	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	6/22/09	004752894 004752895	10,000	Advanced	RAY	
	Comments					
2	6/24/09	004752896 004752897	10,000	Advanced	RAY	
	Comments					
3	6/26/09	004752898 004752899	8500	Advanced	RAY	
	Comments					
4	6/29/09	004752900 004752901	10,000	Advanced	RAY	
	Comments					
5	07/01/09	004752902 004752903	9,900	Advanced	DAN Z	
	Comments					
6	7/6/09	004752904 004752905	10,000	Advanced	RAY	
	Comments					
7	7/8/09	004752906 004752907	10,000	Advanced	RAY	
	Comments					
8	7/10/09	004752908 004752909	10,000	Advanced	RAY	
	Comments					
9	7/13/09	004752910 004752911	9400	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	7/15/09	005798266 005798267	10,000	ADVanced	RAY	
	Comments					
2	7/17/09	004752912 004752913	9700	ADVanced	RAY	
	Comments					
3	7/20/09	004752914	5400	ADVanced	RAY	
	Comments					
4	7/22/09	004752915 004752916	10,000	ADVanced	RAY	
	Comments					
5	7/24/09	004752917	3500	ADVanced	RAY	
	Comments					
6	7/27/09	004752918	4500	ADVanced	RAY	
	Comments					
7	7/29/09	004752919	4500	ADVanced	RAY	
	Comments					
8	8/3/09	005807212	5500	ADVanced	RAY	
	Comments					
9	08/05/09	005807213	4500	ADVANCED	DAN Z	
	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	8/10/09	005807214	5000	Advanced	RAY	
	Comments					
2	8/12	005807215	2500	Advanced	RAY	
	Comments					
3	8/17/09	005807216	4700	Advanced	RAY	
	Comments					
4	8/24/09	005807217	5000	Advanced	RAY	
	Comments					
5	8/31/09	005807218	5000	Advanced	RAY	
	Comments					
6	9/3/09	005807219	4000	Advanced	RAY	
	Comments					
7	9/10/09	005807220	4000	Advanced	RAY	
	Comments					
8	9/17/09	005807221	4000	Advanced	RAY	
	Comments					
9	9/22/09	005807222	4500	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	10/08/09	005807223 005807224	7500	ADVANCO	DAN ZIMMER	
	Comments					
2	10/15/09	005807225	5000	ADVanced	RAY	
	Comments					
3	10/22/09	005807226	4500	ADVanced	RAY	
	Comments					
4	10/29/09	005807227 005807228	7500	ADVanced	RAY	
	Comments					
5	11/5/09	005807229 005807230	9500	ADVanced	RAY	
	Comments					
6	11/10/09	005807231 005807232	9000	ADVanced	RAY	
	Comments					
7	11/12/09	005807233 005807234	9500	ADVanced	RAY	
	Comments					
8	11/19/09	005807235 005807236	7000	ADVanced	RAY	
	Comments					
9	11/25/09	005807237 005807238	10,000	ADVANCED	DREW BERGENTHAL	
	Comments					

1-800 842 9790

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	11/30/09	005807239 40	10,000	North Birch	RAY	[signature]
	Comments					
2	12/3/09	005807241 005807242	10,000	Advanced	RAY	[signature]
	Comments					
3	12/10/09	005807243 44	9400	Advanced	RAY	[signature]
	Comments					
4	12/17/09	005807245 46	10,000	Advanced	RAY	[signature]
	Comments					
5	12/24/09	005807247 005807248	10,000	ADVANCED	DREW	[signature]
	Comments					
6	12/31/09	005807249 005807250	10,000	ADVANCED	DREW	[signature]
	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	1/7/10	005807251	5500	Advanced	RAY	
	Comments					
2	1/14/10	005807252	5000	Advanced	RAY	
	Comments					
3	1/15/10	005807253 005807254	10,000	Advanced	RAY	
	Comments					
4	1/21/10	005807255 256	10,000	Advanced	RAY	
	Comments					
5	1/28/10	005807257 258	10,000	Advanced	RAY	
	Comments					
6	2/5/10	005807259 260	10,000	Advance	RAY	
	Comments					
7	2/11/10	005807261 262	7500	Advance	RAY	
	Comments					
8	2/18/10	005807263 264	10,000	Advance	RAY	
	Comments					
9	2/25/10	005807265 005807266	10,000	Advance	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	03/03/10	005807267 268	8300	Advanced	DAN Z	Daniel J Zimmerman
	Comments					
2	3/11/10	006992508	9900	ADVanced	RAY	Ray B
	Comments					
3	3/18/10	006992711 006992710	10,000	ADVanced	RAY	Ray B
	Comments					
4	3/25/10	006992833 006992834	10,000	ADVanced	RAY	Ray B
	Comments					
5	3/30/10	005807270 005807269	10,000	ADVanced	RAY	Ray B
	Comments					
6	4/1/10	005807271	4300	ADVanced	RAY	Ray B
	Comments					
7	4/6/10	007001677	5000	ADVanced	RAY	Ray B
	Comments					
8	4/8/10	7001863 [redacted]	4500	ADVanced	RAY	Ray B
	Comments					
9	4/13/10	5807272	5000	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	4/15/10	5807203,74	9000	ADVanced	RAY	
	Comments					
2	4/20/10	5807275,76	10,000	Advanced	RAY	
	Comments					
3	04/23/10 4/23/10	7001551 7001552	10,000	ADVANCED	DREW BERLENTHAL	DLZ Drew Berlenthal
	Comments					
4	4/29/10	7501548 7501547	10,000	ADVanced	RAY	
	Comments					
5	5/4/10	7001893 7001894	10,000	ADVanced	RAY	
	Comments					
6	5/6/10	5807277 5807278	10,000	ADVanced	RAY	
	Comments					
7	5/11/10	7501717 7501718	10,000	ADVANCED	DREW BERLENTHAL	Drew Berlenthal
	Comments					
8	5/13/10	5807279 5807280	10,000	ADVanced	RAY	
	Comments					
9						
	Comments					

APPENDIX A-5

Landfill Gas Vent Monitoring Forms

Gas Vent Monitoring Form
Blackwell Landfill NPL Site, DuPage County, Illinois

Date: 5/13/2009
Time: 0745-1230
Monitored By: JEF/TPC

Temperature(° F): 62
Humidity (%): 83%
Barometric Pressure (in. Hg): 29.77

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	4.49	734.90	NA	NA	NA	0.172	NA	NA	NA	NA	NA	
SV-2	766.04	53.25	24.73	741.31	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	1.45	724.29	1.0	0.5	20.2	0.172	1	0.023	0.040	0.00	55.6	
SV-6	760.46	45.70	31.32	729.14	NA	NA	NA	0.172	NA	NA	NA	NA	NA	
SV-7	781.01	64.70	49.07	731.94	NA	NA	NA	0.172	NA	NA	NA	NA	NA	
SV-8	723.03	25.20	3.93	719.10	0.7	0.7	20.4	0.172	1	0.023	0.040	0.00	56.9	
SV-9	748.77	50.00	30.05	718.72	50.1	27.8	4.7	0.172	25	0.582	0.992	0.40	56.4	
SV-11	807.38	91.40	69.33	738.05	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
SV-12	823.82	83.80	62.19	761.63	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
DV-3	749.29	36.75	14.61	734.68	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	12.54	707.81	66.5	33.8	0.2	0.172	190	4.425	7.542	0.00	58.6	
DV-6	775.56	68.25	27.49	748.07	NA	NA	NA	0.172	NA	NA	NA	NA	NA	
DV-7	829.62	86.90	83.03	746.59	NA	NA	NA	0.336	NA	NA	NA	NA	NA	Dry - elevation represents bottom of well
DV-8	728.73	27.60	1.01	727.72	0.0	0.3	20.4	0.336	1	0.088	0.151	0.00	56.2	
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	43.40	721.65	2.9	2.3	19.3	0.336	3	0.265	0.452	0.00	56.6	
DV-11	753.50	34.75	3.19	750.31	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
DV-13	746.29	53.60	23.85	722.44	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
DV-14	738.22	33.10	10.24	727.98	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
DV-15	736.17	43.00	32.51	703.66	54.4	28.3	3.7	0.336	41	3.623	6.175	0.00	55.0	
DV-16	733.85	34.00	15.50	718.35	66.5	33.5	0.0	0.336	120	10.603	18.072	1.00	54.6	
DV-17	729.07	37.20	1.69	727.38	2.8	1.7	19.0	0.336	1	0.088	0.151	0.00	58.1	
DV-18	775.13	54.20	21.50	753.63	66.3	35.1	0.5	0.336	33	2.916	4.970	0.30	58.1	
EW-1	753.98	43.85	29.79	724.19	63.0	35.9	0.6	NA	NA	NA	NA	0.00	54.7	Vault counter 121096
EW-1A	752.22	42.50	38.29	713.93	51.6	26.2	0.0	NA	NA	NA	NA	0.00	55.4	Vault counter 949166
EW-2	792.24	81.50	54.86	737.38	57.9	35.5	0.0	NA	NA	NA	NA	0.00	54.3	Vault counter 972983
EW-3	768.36	62.40	38.29	730.07	68.8	33.6	0.0	NA	NA	NA	NA	0.00	56.3	Vault counter 009778
EW-4	835.30	NA	NA	NA	69.5	30.9	0.0	NA	NA	NA	NA	0.00	56.6	Vault counter 307567
EW-5	808.92	89.90	84.10	724.82	72.7	26.6	0.0	NA	NA	NA	NA	0.00	55.6	Vault counter 272998
EW-6	764.73	64.60	39.96	724.77	67.6	33.9	0.0	NA	NA	NA	NA	1.00	57.9	Vault counter 921676
EW-7	772.83	63.10	52.50	720.33	67.3	35.1	0.0	NA	NA	NA	NA	1.00	54.7	Vault counter 634149
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					51.7	27.8	1.6	0.505	180	36.04	61.417	NA	56.3	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)= 58.67

**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	% CH_4	% CO_2	% O_2	
LS01	NA	0.0	0.7	20.1	counter = 238290 p = 0.0

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
Blackwell Landfill NPL Site, DuPage County, Illinois

Date: 7/15/2009
Time: 0745-1400
Monitored By: JEF/TPC

Temperature(° F): 77
Humidity (%): 70%
Barometric Pressure (in. Hg): 29.94

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	5.20	734.19	NA	NA	NA	0.172	NA	NA	NA	NA	NA	
SV-2	766.04	53.25	24.72	741.32	NA	NA	NA	0.172	NA	NA	NA	NA	NA	Dry - elevation represents bottom of well
SV-4	741.36	27.15	14.47	726.89	6.0	3.3	19.7	0.172	2	0.047	0.041	0.10	85.1	
SV-5	725.74	27.00	6.49	719.25	6.2	5.3	17.7	0.172	2	0.047	0.041	0.00	85.0	
SV-6	760.46	45.70	33.67	726.79	NA	NA	NA	0.172	NA	NA	NA	NA	NA	
SV-7	781.01	64.70	49.89	731.12	NA	NA	NA	0.172	NA	NA	NA	NA	NA	
SV-8	723.03	25.20	5.44	717.59	4.2	2.7	19.9	0.172	2	0.047	0.041	0.00	75.0	
SV-9	748.77	50.00	34.45	714.32	41.2	26.8	5.8	0.172	33	0.769	0.684	0.05	73.9	
SV-11	807.38	91.40	69.76	737.62	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
SV-12	823.82	83.80	62.23	761.59	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
DV-3	749.29	36.75	16.01	733.28	NA	NA	NA	0.172	NA	NA	NA	NA	NA	
DV-4	723.25	27.10	19.80	703.45	NA	NA	NA	0.172	NA	NA	NA	NA	NA	
DV-5	720.35	29.00	12.62	707.73	55.8	36.9	0.0	0.172	138	3.214	2.859	0.20	72.7	
DV-6	775.56	68.25	32.59	742.97	NA	NA	NA	0.172	NA	NA	NA	NA	NA	
DV-7	829.62	86.90	81.90	747.72	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
DV-8	728.73	27.60	4.05	724.68	2.4	2.0	19.8	0.336	0	0.000	0.000	0.00	84.5	
DV-9	723.56	22.40	7.37	716.19	0.6	0.3	20.9	0.336	0	0.000	0.000	0.00	84.6	
DV-10	765.05	67.40	43.62	721.43	5.1	3.1	19.8	0.336	5	0.442	0.393	0.02	91.0	
DV-11	753.50	34.75	10.95	742.55	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
DV-13	746.29	53.60	24.93	721.36	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
DV-14	738.22	33.10	14.42	723.80	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
DV-15	736.17	43.00	35.13	701.04	31.0	18.9	10.2	0.336	30	2.651	2.358	0.00	74.8	
DV-16	733.85	34.00	21.61	712.24	65.1	36.7	0.0	0.336	140	12.370	11.003	1.00	71.1	
DV-17	729.07	37.20	5.48	723.59	2.9	1.6	20.2	0.336	1	0.088	0.079	0.00	73.4	
DV-18	775.13	54.20	23.70	751.43	63.6	38.7	0.0	0.336	37	3.269	2.908	3.00	77.3	
EW-1	753.98	43.85	30.28	723.70	61.3	39.9	0.2	NA	NA	NA	NA	0.30	86.9	Vault counter 153643
EW-1A	752.22	42.50	40.04	712.18	58.6	29.9	0.0	NA	NA	NA	NA	0.02	86.0	Vault counter 967725
EW-2	792.24	81.50	60.61	731.63	64.0	40.4	0.3	NA	NA	NA	NA	0.12	84.6	Vault counter 008916
EW-3	768.36	62.40	47.15	721.21	65.0	39.1	0.3	NA	NA	NA	NA	1.00	71.2	Vault counter 096595
EW-4	835.30	NA	106.00	729.30	68.1	33.2	0.1	NA	NA	NA	NA	0.00	74.4	Vault counter 313811 Dry - elevation represents bottom of well
EW-5	808.92	89.90	79.81	729.11	73.5	27.8	0.0	NA	NA	NA	NA	0.06	77.4	Vault counter 298242
EW-6	764.73	64.60	39.94	724.79	66.1	37.3	0.0	NA	NA	NA	NA	1.60	75.4	Vault counter 921676
EW-7	772.83	63.10	53.21	719.62	65.2	39.1	0.0	NA	NA	NA	NA	0.80	72.9	Vault counter 649298
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					61.4	34.2	0.5	0.505	447	89.49	79.593	NA	70.4	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)= 112.43

**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	% CH_4	% CO_2	% O_2
LS01	NA	1.2	8.2	18.4

counter = 238290
p = 0.0

Gas Vent Monitoring Form
Blackwell Landfill NPL Site, DuPage County, Illinois

Date: 9/23/2009
Time: 0745 - 1330
Monitored By: JEF/ACB

Temperature(° F): 78
Humidity (%): 83%
Barometric Pressure (in. Hg): 30.08

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	5.56	733.83	NA	NA	NA	0.172	NA	NA	NA	NA	NA	
SV-2	766.04	53.25	24.68	741.36	NA	NA	NA	0.172	NA	NA	NA	NA	NA	
SV-4	741.36	27.15	15.50	725.86	10.0	5.6	17.6	0.172	1	0.023	0.029	0.48	78.2	
SV-5	725.74	27.00	10.24	715.50	4.3	3.8	18.5	0.172	2	0.047	0.058	0.00	76.5	
SV-6	760.46	45.70	34.25	726.21	NA	NA	NA	0.172	NA	NA	NA	NA	NA	
SV-7	781.01	64.70	51.50	729.51	NA	NA	NA	0.172	NA	NA	NA	NA	NA	Dry - elevation represents bottom of well
SV-8	723.03	25.20	6.25	716.78	1.5	1.0	20.0	0.172	0	0.000	0.000	0.00	69.4	
SV-9	748.77	50.00	23.40	725.37	63.4	40.4	0.8	0.172	35	0.815	1.014	0.80	68.3	
SV-11	807.38	91.40	70.18	737.20	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
SV-12	823.82	83.80	62.30	761.52	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
DV-3	749.29	36.75	16.77	732.52	NA	NA	NA	0.172	NA	NA	NA	NA	NA	
DV-4	723.25	27.10	21.76	701.49	NA	NA	NA	0.172	NA	NA	NA	NA	NA	
DV-5	720.35	29.00	12.64	707.71	32.6	19.6	9.8	0.172	79	1.840	2.289	0.08	68.8	
DV-6	775.56	68.25	32.60	742.96	NA	NA	NA	0.172	NA	NA	NA	NA	NA	
DV-7	829.62	86.90	82.90	746.72	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
DV-8	728.73	27.60	6.09	722.64	0.0	0.0	20.4	0.336	0	0.000	0.000	0.00	74.9	
DV-9	723.56	22.40	9.44	714.12	1.2	1.2	20.0	0.336	2	0.177	0.220	0.00	80.2	
DV-10	765.05	67.40	43.63	721.42	8.2	5.1	18.1	0.336	1	0.088	0.110	0.01	77.1	
DV-11	753.50	34.75	14.87	738.63	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
DV-13	746.29	53.60	24.73	721.56	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
DV-14	738.22	33.10	15.20	723.02	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
DV-15	736.17	43.00	36.53	699.64	20.9	11.7	13.8	0.336	5	0.442	0.550	0.04	67.4	
DV-16	733.85	34.00	25.73	708.12	49.2	31.0	4.5	0.336	110	9.720	12.090	0.20	67.2	
DV-17	729.07	37.20	15.10	713.97	13.7	7.6	16.1	0.336	6	0.530	0.659	0.01	70.4	
DV-18	775.13	54.20	30.45	744.68	68.7	39.7	0.0	0.336	30	2.651	3.297	3.20	67.2	
EW-1	753.98	43.85	30.20	723.78	66.8	43.6	0.0	NA	NA	NA	NA	0.24	71.9	Vault counter 161827
EW-1A	752.22	42.50	39.79	712.43	57.8	29.3	0.0	NA	NA	NA	NA	0.04	68.4	Vault counter 981261
EW-2	792.24	81.50	54.93	737.31	68.8	41.0	0.0	NA	NA	NA	NA	0.24	72.2	Vault counter 027301
EW-3	768.36	62.40	43.10	725.26	70.3	40.4	0.3	NA	NA	NA	NA	1.00	65.7	Vault counter 138084
EW-4	835.30	NA	NM	NM	75.4	35.1	0.0	NA	NA	NA	NA	0.10	67.9	Vault counter 317963
EW-5	808.92	89.90	65.88	743.04	81.3	28.1	0.0	NA	NA	NA	NA	0.10	69.8	Vault counter 326318
EW-6	764.73	64.60	34.05	730.68	71.2	39.5	0.0	NA	NA	NA	NA	0.84	64.2	Vault counter 921676
EW-7	772.83	63.10	51.70	721.13	70.1	42.3	0.0	NA	NA	NA	NA	0.50	62.0	Vault counter 653002
EW-8	756.16	43.70	20.10	736.06	38.2	26.5	6.2	NA	NA	NA	NA	0.00	73.9	Vault counter 1292__ Last 2 digits not readable
Main Vent					51.7	30.6	3.1	0.505	320	64.06	79.685	NA	67.7	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)= 80.39

**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	% CH_4	% CO_2	% O_2	
LS01	NA	1.4	9.7	17.4	counter = 238290 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
Blackwell Landfill NPL Site, DuPage County, Illinois

Date: 11/18/2009
Time: 0815 - 1430
Monitored By: JEF/TPC

Temperature(° F): 46
Humidity (%): 83%
Barometric Pressure (in. Hg): 30.03

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	5.09	734.30	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	13.06	728.30	NM	NM	NM	0.172	0	0.000	0.000	0.00	46.9	
SV-5	725.74	27.00	3.88	721.86	NM	NM	NM	0.172	0	0.000	0.000	0.00	48.8	
SV-6	760.46	45.70	32.49	727.97	NA	NA	NA	0.172	NA	NA	NA	NA	NA	
SV-7	781.01	64.70	51.42	729.59	NA	NA	NA	0.172	NA	NA	NA	NA	NA	
SV-8	723.03	25.20	5.59	717.44	NM	NM	NM	0.172	2	0.047	0.052	0.00	49.4	
SV-9	748.77	50.00	34.31	714.46	NM	NM	NM	0.172	4	0.093	0.103	3.20	48.0	
SV-11	807.38	91.40	70.07	737.31	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
SV-12	823.82	83.80	62.31	761.51	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
DV-3	749.29	36.75	16.02	733.27	NA	NA	NA	0.172	NA	NA	NA	NA	NA	
DV-4	723.25	27.10	21.27	701.98	NA	NA	NA	0.172	NA	NA	NA	NA	NA	
DV-5	720.35	29.00	12.86	707.49	NM	NM	NM	0.172	7	0.163	0.180	0.50	55.2	
DV-6	775.56	68.25	32.60	742.96	NA	NA	NA	0.172	NA	NA	NA	NA	NA	Dry - elevation represents bottom of well
DV-7	829.62	86.90	81.88	747.74	NA	NA	NA	0.336	NA	NA	NA	NA	NA	Dry - elevation represents bottom of well
DV-8	728.73	27.60	1.65	727.08	NM	NM	NM	0.336	1	0.088	0.098	0.00	50.6	
DV-9	723.56	22.40	0.96	722.60	NM	NM	NM	0.336	0	0.000	0.000	0.00	48.9	
DV-10	765.05	67.40	43.74	721.31	NM	NM	NM	0.336	2	0.177	0.195	0.00	49.0	
DV-11	753.50	34.75	5.28	748.22	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
DV-13	746.29	53.60	24.26	722.03	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
DV-14	738.22	33.10	10.67	727.55	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
DV-15	736.17	43.00	36.45	699.72	NM	NM	NM	0.336	21	1.856	2.052	0.04	48.6	
DV-16	733.85	34.00	17.69	716.16	NM	NM	NM	0.336	100	8.836	9.772	2.20	53.9	
DV-17	729.07	37.20	2.88	726.19	NM	NM	NM	0.336	5	0.442	0.489	0.94	51.8	
DV-18	775.13	54.20	16.89	758.24	NM	NM	NM	0.336	30	2.651	2.931	0.52	48.0	Dry - elevation represents bottom of well
EW-1	753.98	43.85	30.58	723.40	NM	NM	NM	NA	NA	NA	NA	0.03	49.3	Vault counter 161832
EW-1A	752.22	42.50	38.44	713.78	NM	NM	NM	NA	NA	NA	NA	0.00	51.7	Vault counter 990161
EW-2	792.24	81.50	61.45	730.79	NM	NM	NM	NA	NA	NA	NA	0.00	49.8	Vault counter 035144
EW-3	768.36	62.40	41.41	726.95	NM	NM	NM	NA	NA	NA	NA	0.48	48.5	Vault counter 164547
EW-4	835.30	NA	105.82	729.48	NM	NM	NM	NA	NA	NA	NA	0.06	52.3	Vault counter 321394 Dry - elevation represents bottom of well
EW-5	808.92	89.90	81.53	727.39	NM	NM	NM	NA	NA	NA	NA	0.05	47.3	Vault counter 344929
EW-6	764.73	64.60	34.49	730.24	NM	NM	NM	NA	NA	NA	NA	0.54	54.7	Vault counter 921676
EW-7	772.83	63.10	50.68	722.15	NM	NM	NM	NA	NA	NA	NA	0.90	50.1	Vault counter 653002
EW-8	756.16	43.70	7.80	748.36	NM	NM	NM	NA	NA	NA	NA	0.02	47.5	Vault counter 1292__ Last 2 digits not readable
Main Vent					41.2	23.1	7.8	0.505	380	76.07	84.128	NA	49.6	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)= 90.43

**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	% CH_4	% CO_2	% O_2
LS01	NA	NM	NM	NM

counter = 238290
p = 0.0

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
Blackwell Landfill NPL Site, DuPage County, Illinois

Date: 1/13/2010
Time: 0730 - 1330
Monitored By: JEF/ACB

Temperature(° F): 33
Humidity (%): 81%
Barometric Pressure (in. Hg): 30.14

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	5.17	734.22	NA	NA	NA	0.172	NA	NA	NA	NA	NA	
SV-2	766.04	53.25	24.71	741.33	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 frozen vault
SV-5	725.74	27.00	NM	NM	NM	NM	NM	0.172	NM	NM	NM	NM	NM	Not measured due to frozen vault
SV-6	760.46	45.70	31.63	728.83	NA	NA	NA	0.172	NA	NA	NA	NA	NA	
SV-7	781.01	64.70	NM	NM	NA	NA	NA	0.172	NA	NA	NA	NA	NA	Not measured due to frozen vault
SV-8	723.03	25.20	NM	NM	NM	NM	NM	0.172	NM	NM	NM	NM	NM	Not measured due to frozen vault
SV-9	748.77	50.00	NM	NM	NM	NM	NM	0.172	NM	NM	NM	NM	NM	Not measured due to frozen vault
SV-11	807.38	91.40	67.91	739.47	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
SV-12	823.82	83.80	NM	NM	NA	NA	NA	0.336	NA	NA	NA	NA	NA	Not measured due to frozen vault
DV-3	749.29	36.75	NM	NM	NA	NA	NA	0.172	NA	NA	NA	NA	NA	Not measured due to frozen vault
DV-4	723.25	27.10	NM	NM	NA	NA	NA	0.172	NA	NA	NA	NA	NA	Not measured due to frozen vault
DV-5	720.35	29.00	12.14	708.21	4.3	2.7	19.4	0.172	0	0.000	0.000	0.00	23.7	
DV-6	775.56	68.25	NM	NM	NA	NA	NA	0.172	NA	NA	NA	NA	NA	Not measured due to frozen vault
DV-7	829.62	86.90	NM	NM	NA	NA	NA	0.336	NA	NA	NA	NA	NA	Not measured due to frozen vault
DV-8	728.73	27.60	NM	NM	NM	NM	NM	0.336	NM	NM	NM	NM	NM	Not measured due to frozen vault
DV-9	723.56	22.40	NM	NM	NM	NM	NM	0.336	NM	NM	NM	NM	NM	Not measured due to frozen vault
DV-10	765.05	67.40	42.91	722.14	3.4	3.8	18.8	0.336	0	0.000	0.000	0.00	28.8	
DV-11	753.50	34.75	NM	NM	NA	NA	NA	0.336	NA	NA	NA	NA	NA	Not measured due to frozen vault
DV-13	746.29	53.60	23.96	722.33	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
DV-14	738.22	33.10	NM	NM	NA	NA	NA	0.336	NA	NA	NA	NA	NA	Not measured due to frozen vault
DV-15	736.17	43.00	NM	NM	NM	NM	NM	0.336	NM	NM	NM	NM	NM	Not measured due to frozen vault
DV-16	733.85	34.00	16.53	717.32	70.0	33.3	1.1	0.336	136	12.017	16.673	0.40	31.0	
DV-17	729.07	37.20	2.42	726.65	0.0	0.1	21.0	0.336	0	0.000	0.000	0.00	22.1	
DV-18	775.13	54.20	NM	NM	NM	NM	NM	0.336	NM	NM	NM	NM	NM	Not measured due to frozen vault
EW-1	753.98	43.85	NM	NM	NM	NM	NM	NA	NA	NA	NA	NM	NM	Vault counter NM Not measured due to frozen vault
EW-1A	752.22	42.50	38.34	713.88	47.2	24.7	9.2	NA	NA	NA	NA	0.00	41.7	Vault counter 998245
EW-2	792.24	81.50	54.72	737.52	64.4	35.2	0.8	NA	NA	NA	NA	0.01	28.8	Vault counter 047565
EW-3	768.36	62.40	39.50	728.86	72.7	32.2	0.1	NA	NA	NA	NA	0.01	27.5	Vault counter 209373
EW-4	835.30	NA	104.85	730.45	73.2	29.6	0.5	NA	NA	NA	NA	0.02	43.0	Vault counter 324877 Dry - elevation represents bottom of well
EW-5	808.92	89.90	80.02	728.90	76.9	25.3	0.9	NA	NA	NA	NA	0.00	35.1	Vault counter 365005
EW-6	764.73	64.60	39.55	725.18	70.6	33.8	0.2	NA	NA	NA	NA	0.16	54.1	Vault counter 921676
EW-7	772.83	63.10	46.35	726.48	63.5	34.9	0.2	NA	NA	NA	NA	0.08	49.3	Vault counter 653002
EW-8	756.16	43.70	3.70	752.46	64.8	33.0	1.1	NA	NA	NA	NA	0.00	35.6	Vault counter 1292 Last 2 digits not readable
Main Vent					54.6	27.3	3.8	0.505	300	60.06	83.327	NA	31.0	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)= 72.08

**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	% CH_4	% CO_2	% O_2	
LS01	NA	NM	NM	NM	counter = NM p = NM

LS01 not measured due to frozen vault

Gas Vent Monitoring Form
Blackwell Landfill NPL Site, DuPage County, Illinois

Date: 3/8/2010
Time: 0915 - 1445
Monitored By: JEF/TPC

Temperature(° F): 44
Humidity (%): 95%
Barometric Pressure (in. Hg): 30.07

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	3.32	736.07	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	NM	NM	NM	NM	NM	0.172	NM	NM	NM	NM	NM	Not measured due to flooded vault
SV-5	725.74	27.00	1.50	724.24	0.0	0.0	20.7	0.172	1	0.023	0.032	0.00	53.7	
SV-6	760.46	45.70	32.94	727.52	NA	NA	NA	0.172	NA	NA	NA	NA	NA	
SV-7	781.01	64.70	51.53	729.48	NA	NA	NA	0.172	NA	NA	NA	NA	NA	Dry - elevation represents bottom of well
SV-8	723.03	25.20	3.92	719.11	2.1	1.0	18.3	0.172	7	0.163	0.226	0.01	46.9	
SV-9	748.77	50.00	26.97	721.80	45.7	30.6	6.1	0.172	16	0.373	0.517	0.80	46.0	
SV-11	807.38	91.40	70.18	737.20	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
SV-12	823.82	83.80	62.20	761.62	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
DV-3	749.29	36.75	16.02	733.27	NA	NA	NA	0.172	NA	NA	NA	NA	NA	
DV-4	723.25	27.10	19.62	703.63	NA	NA	NA	0.172	NA	NA	NA	NA	NA	
DV-5	720.35	29.00	11.15	709.20	5.1	2.8	16.2	0.172	18	0.419	0.582	0.00	47.5	
DV-6	775.56	68.25	32.61	742.95	NA	NA	NA	0.172	NA	NA	NA	NA	NA	
DV-7	829.62	86.90	83.03	746.59	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
DV-8	728.73	27.60	1.15	727.58	0.0	0.0	20.1	0.336	0	0.000	0.000	0.00	50.0	
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	42.91	722.14	5.7	3.6	18.6	0.336	1	0.088	0.123	0.02	50.5	
DV-11	753.50	34.75	1.99	751.51	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
DV-13	746.29	53.60	24.61	721.68	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
DV-14	738.22	33.10	4.67	733.55	NA	NA	NA	0.336	NA	NA	NA	NA	NA	
DV-15	736.17	43.00	34.66	701.51	20.1	11.8	9.9	0.336	30	2.651	3.677	0.04	48.0	
DV-16	733.85	34.00	12.88	720.97	65.3	37.9	2.5	0.336	94	8.306	11.521	3.20	46.8	
DV-17	729.07	37.20	1.73	727.34	12.6	4.8	16.9	0.336	19	1.679	2.329	0.00	46.3	
DV-18	775.13	54.20	16.88	758.25	64.9	36.5	0.2	0.336	31	2.739	3.799	2.40	48.0	Dry - elevation represents bottom of well
EW-1	753.98	43.85	30.08	723.90	61.9	39.3	1.6	NA	NA	NA	NA	0.36	48.9	Vault counter 161865
EW-1A	752.22	42.50	38.33	713.89	49.2	27.3	0.0	NA	NA	NA	NA	0.07	49.8	Vault counter 009275
EW-2	792.24	81.50	60.86	731.38	59.5	39.8	0.0	NA	NA	NA	NA	0.08	47.6	Vault counter 067375
EW-3	768.36	62.40	42.46	725.90	64.8	37.9	0.3	NA	NA	NA	NA	0.42	48.6	Vault counter 265804
EW-4	835.30	NA	105.00	730.30	68.7	32.7	1.0	NA	NA	NA	NA	0.00	50.5	Vault counter 379696 Dry - elevation represents bottom of well
EW-5	808.92	89.90	67.16	741.76	72.5	29.1	0.0	NA	NA	NA	NA	0.20	49.2	Vault counter 388171
EW-6	764.73	64.60	39.55	725.18	66.0	38.3	0.0	NA	NA	NA	NA	0.80	54.2	Vault counter 921676
EW-7	772.83	63.10	48.73	724.10	64.0	39.7	0.1	NA	NA	NA	NA	1.00	51.4	Vault counter 653002
EW-8	756.16	43.70	5.21	750.95	62.5	38.3	1.3	NA	NA	NA	NA	0.00	57.1	Vault counter 1292__ Last 2 digits not readable
Main Vent					49.2	29.0	4.5	0.505	278	55.65	77.195	NA	47.3	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)= 72.10

**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	% CH_4	% CO_2	% O_2	
LS01	NA	0.0	0.1	18.8	counter = 238290 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

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
WATER POLLUTION CONTROL PERMIT

LOG NUMBERS: 0095-10 **PERMIT NO.:** 2010-EE-0095

FINAL PLANS, SPECIFICATIONS, APPLICATION AND SUPPORTING DOCUMENTS **DATE ISSUED:** April 2, 2010
PREPARED BY: Forest Preserve District of DuPage County

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 (306 BOD_5 P.E.) of landfill leachate from Blackwell Forest Preserve Landfill for discharge into the headworks of Wheaton Sanitary District STP for treatment.

This operating permit expires on March 31, 2015.

This permit renews and replaces Permit Number 2005-EE-3767 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.

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.

THE STANDARD CONDITIONS OF ISSUANCE INDICATED ON THE REVERSE SIDE MUST BE COMPLIED WITH IN FULL. READ ALL CONDITIONS CAREFULLY.

SAK:MEL:009510.wpd

DIVISION OF WATER POLLUTION CONTROL

cc: EPA - Des Plaines FOS
Wheaton Sanitary District
Records - Industrial
Binds

Alan Keller, P.E.
Manager, Permit Section

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
WATER POLLUTION CONTROL PERMIT

LOG NUMBERS: 0095-10 PERMIT NO.: 2010-EE-0095

FINAL PLANS, SPECIFICATIONS, APPLICATION AND SUPPORTING DOCUMENTS
PREPARED BY: Forest Preserve District of DuPage County

DATE ISSUED: April 2, 2010

SUBJECT: FOREST PRESERVE DISTRICT OF DUPAGE COUNTY - Blackwell Landfill -- Leachate Disposal -- Tributary to Wheaton Sanitary District STP

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: 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 21, 2009

Mr. David Powers
MONTGOMERY WATSON HARZA
175 West Jackson Boulevard,
Suite 1900
Chicago, IL 60604

Project ID: Blackwell P.O. # 4050581.098101
First Environmental File ID: 9-1861
Date Received: May 13, 2009

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 002205: effective 02/06/09 through 02/28/10.

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. # 4050581.098101**

First Environmental File ID: **9-1861**

Date Received: **May 13, 2009**

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

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

Analytical Report

Client:	MONTGOMERY WATSON HARZA	**Date Collected:**	05/13/09
Project ID:	Blackwell P.O. # 4050581.098101	**Time Collected:**	7:00
Sample ID:	BW-LCS-47	**Date Received:**	05/13/09
Sample No:	9-1861-001	**Date Reported:**	05/21/09

Analyte	Result	R.L.	Units	Date Analyzed	Method	Flag
Phenols	0.014	0.010	mg/L	05/14/09	420.4R1.0	
Total Suspended Solids	79	1	mg/L	05/15/09	2540D	
Total Dissolved Solids	1,320	10	mg/L	05/14/09	2540C	
pH @ 25°C	6.92		Units	05/13/09 15:15	4500H+,B	
COD	69	10	mg/L	05/14/09	5220D	
BOD, 5 Day	16	1	mg/L	05/13/09 15:00	5210B	
Oil & Grease	< 1	1	mg/L	05/21/09	1664A	
Ammonia (as N)	15.7	0.10	mg/L	05/18/09	350.1R2.0	
Cyanide, Total	< 0.005	0.005	mg/L	05/14/09	335.4R1.0	

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:**	05/13/09
Project ID:	Blackwell P.O. # 4050581.098101	**Time Collected:**	7:00
Sample ID:	BW-LCS-47	**Date Received:**	05/13/09
Sample No:	9-1861-001	**Date Reported:**	05/21/09

Analyte	Result	R.L.	Units	Flags
Volatile Organic Compounds **Method: 5030B/8260B**				
Analysis Date: 05/16/09				
Acetone	< 100	100	ug/L	
Benzene	8.1	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)	10.8	10.0	ug/L	
Carbon disulfide	< 5.0	5.0	ug/L	
Carbon tetrachloride	< 5.0	5.0	ug/L	
Chlorobenzene	44.4	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	8.6	5.0	ug/L	

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Analytical Report

Client:	MONTGOMERY WATSON HARZA	**Date Collected:**	05/13/09
Project ID:	Blackwell P.O. # 4050581.098101	**Time Collected:**	7:00
Sample ID:	BW-LCS-47	**Date Received:**	05/13/09
Sample No:	9-1861-001	**Date Reported:**	05/21/09

Analyte	Result	R.L.	Units	Flags
Semi-Volatile Compounds **Method: 8270C**		**Preparation Method 3510C**		
Analysis Date: 05/15/09		Preparation Date: 05/14/09		
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	< 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:**	05/13/09
Project ID:	Blackwell P.O. # 4050581.098101	**Time Collected:**	7:00
Sample ID:	BW-LCS-47	**Date Received:**	05/13/09
Sample No:	9-1861-001	**Date Reported:**	05/21/09

Analyte	Result	R.L.	Units	Flags
Semi-Volatile Compounds	**Method: 8270C**	**Preparation Method 3510C**		
Analysis Date: 05/15/09		Preparation Date: 05/14/09		
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	
Pesticides	**Method: 8081A**	**Preparation Method 3510C**		
Analysis Date: 05/18/09		Preparation Date: 05/18/09		
Aldrin	< 0.05	0.05	ug/L	
alpha-BHC	< 0.05	0.05	ug/L	

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Analytical Report

Client:	MONTGOMERY WATSON HARZA	**Date Collected:**	05/13/09
Project ID:	Blackwell P.O. # 4050581.098101	**Time Collected:**	7:00
Sample ID:	BW-LCS-47	**Date Received:**	05/13/09
Sample No:	9-1861-001	**Date Reported:**	05/21/09

Analyte		Result	R.L.	Units	Flags
Pesticides	**Method: 8081A**		**Preparation Method 3510C**		
Analysis Date: 05/18/09			Preparation Date: 05/18/09		
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: 05/15/09					
Mercury		< 0.0005	0.0005	mg/L	
Total Metals	**Method: 6010B**		**Preparation Method 3010A**		
Analysis Date: 05/15/09			Preparation Date: 05/14/09		
Arsenic		< 0.002	0.002	mg/L	
Barium		0.271	0.001	mg/L	
Cadmium		< 0.001	0.001	mg/L	
Chromium		< 0.001	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		0.54	0.01	mg/L	
Copper		< 0.001	0.001	mg/L	
Iron		19.0	0.01	mg/L	
Manganese		0.373	0.001	mg/L	

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Analytical Report

Client:	MONTGOMERY WATSON HARZA	**Date Collected:**	05/13/09
Project ID:	Blackwell P.O. # 4050581.098101	**Time Collected:**	7:00
Sample ID:	BW-LCS-47	**Date Received:**	05/13/09
Sample No:	9-1861-001	**Date Reported:**	05/21/09

Analyte		Result	R.L.	Units	Flags
Total Metals	**Method: 6010B**		**Preparation Method 3010A**		
Analysis Date: 05/15/09			Preparation Date: 05/14/09		
Nickel		0.004	0.001	mg/L	
Zinc		0.022	0.005	mg/L	

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Analytical Report

Client: MONTGOMERY WATSON HARZA
Project ID: Blackwell P.O. # 4050581.098101
Sample ID: Trip Blank
Sample No: 9-1861-002

Date Collected:
Time Collected:
Date Received: 05/13/09
Date Reported: 05/21/09

Analyte	Result	R.L.	Units	Flags
Volatile Organic Compounds **Method: 5030B/8260B**				
Analysis Date: 05/15/09				
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 ___ of 1 pgs

First Environmental Laboratories, Inc.

First Environmental Laboratories
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E-mail: firstinfo@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.E.FINGER@MWHGLOBAL.COM
Send Report To: JUSTIN FINGER Via: Fax ☐ e-mail ☒
Sampled By: J. FINGER / T. CARROLL

Project I.D.: BLACKWELL
P.O. #.: 4050581. 098101

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, Silver, Zinc	Copper, Cyanide, Iron (total), Lead, Manganese, Mercury, Nickel, pH, Phenols, Selenium, Silver, Zinc	Mercury, Nickel, pH, Phenols, Selenium, Silver, Zinc	BOD, COD, Oil and Grease, Ammonia (as N)	Total Dissolved Solids, Total Suspended Solids	Acid Compounds, Base/Neutrals	Pesticides	Comments	Lab I.D.
5/13/09 0700	BW-LCS-47	W	X	X	X	X	X	X	X	X		9-1861-001
5/13/09 0630	TRIP BLANK	W	X									002

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: ☑ Yes ☐ No
Need to meet: IL. TACO ☐ IN. RISC ☐

Notes and Special Instructions: _____

Relinquished By: [signature] Date/Time 5/13/09 1235 Received By: [signature] Date/Time 5/13/09 1235
Relinquished By: _____ Date/Time _____ Received By: _____ Date/Time _____

Rev. 9/08

First Environmental Laboratories, Inc.

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July 22, 2009

Mr. Justin Finger
MONTGOMERY WATSON HARZA
175 West Jackson Boulevard,
Suite 1900
Chicago, IL 60604

Project ID: Blackwell PO# 4050581.098101
First Environmental File ID: 9-2794
Date Received: July 15, 2009

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 002205: effective 02/06/09 through 02/28/10.

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,

Lorrie Franklin

Lorrie Franklin
Project Manager

First Environmental Laboratories, Inc.

IL ELAP / NELAC Accreditation # 100292

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Case Narrative

MONTGOMERY WATSON HARZA

Project ID: **Blackwell PO# 4050581.098101**

First Environmental File ID: **9-2794**

Date Received: **July 15, 2009**

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:**	07/15/09
Project ID:	Blackwell PO# 4050581.098101	**Time Collected:**	7:00
Sample ID:	BW-LCS-48	**Date Received:**	07/15/09
Sample No:	9-2794-001	**Date Reported:**	07/22/09

Analyte		Result	R.L.	Units	Flags
Total Metals	**Method: 7470A**				
Analysis Date: 07/17/09					
Mercury		< 0.0005	0.0005	mg/L	
Total Metals	**Method: 6010B**		**Preparation Method 3010A**		
Analysis Date: 07/21/09			Preparation Date: 07/16/09		
Arsenic		< 0.002	0.002	mg/L	
Barium		0.360	0.001	mg/L	
Cadmium		< 0.001	0.001	mg/L	
Chromium		0.002	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		0.61	0.01	mg/L	
Copper		< 0.001	0.001	mg/L	
Iron		28.0	0.01	mg/L	
Manganese		0.833	0.001	mg/L	
Nickel		0.005	0.001	mg/L	
Zinc		0.126	0.005	mg/L	
Phenols	**Method: 420.1**				
Analysis Date: 07/17/09					
Phenols		0.110	0.010	mg/L	
Total Suspended Solids	**Method: 2540D**				
Analysis Date: 07/16/09					
Total Suspended Solids		18	1	mg/L	
Total Dissolved Solids	**Method: 2540C**				
Analysis Date: 07/15/09					
Total Dissolved Solids		1,780	10	mg/L	
pH @ 25°C	**Method: 4500H+,B**				
Analysis Date: 07/15/09 14:50					
pH @ 25°C		7.01		Units	
COD	**Method: 5220D**				
Analysis Date: 07/16/09					
COD		571	10	mg/L	
BOD, 5 Day	**Method: 5210B**				
Analysis Date: 07/15/09 16:00					
BOD, 5 Day		412	1	mg/L	

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Analytical Report

Client:	MONTGOMERY WATSON HARZA	**Date Collected:**	07/15/09
Project ID:	Blackwell PO# 4050581.098101	**Time Collected:**	7:00
Sample ID:	BW-LCS-48	**Date Received:**	07/15/09
Sample No:	9-2794-001	**Date Reported:**	07/22/09

Analyte		Result	R.L.	Units	Flags
Oil & Grease	**Method: 1664A**				
Analysis Date: 07/17/09					
Oil & Grease		5	1	mg/L	
Ammonia (as N)	**Method: 4500NH3,D**				
Analysis Date: 07/16/09					
Ammonia (as N)		34.0	0.10	mg/L	
Cyanide, Total	**Method: 4500CN,C,E**				
Analysis Date: 07/17/09					
Cyanide, Total		< 0.005	0.005	mg/L	

First Environmental Laboratories, Inc.

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CHAIN OF CUSTODY RECORD

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.E.FINGER@MWHGLOBAL.COM
Send Report To: JUSTIN FINGER Via: Fax ☐ e-mail ☒
Sampled By: JUSTIN FINGER / TIM CARROLL

Project I.D.: BLACKWELL
P.O. #: 4050581.098101

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.
7/15/09 0700	BW-LCS-48	W	X	X	X	X	X	X	X						9-2794-001

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: ☐ Yes ☐ No
Need to meet: IL. TACO ☐ IN. RISC ☐

Notes and Special Instructions: ___

Relinquished By: [signature] Date/Time 7/15/09 1210 Received By: [signature] Date/Time 7/15/09 1210
Relinquished By: ___ Date/Time ___ Received By: ___ Date/Time ___

Rev. 9/08

First Environmental Laboratories, Inc.

IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

November 25, 2009

Mr. Justin Finger
MONTGOMERY WATSON HARZA
175 West Jackson Boulevard,
Suite 1900
Chicago, IL 60604

Project ID: Blackwell P.O. # 1007333.04811001
First Environmental File ID: 9-4898
Date Received: November 18, 2009

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 002205: effective 02/06/09 through 02/28/10.

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 P.O. # 1007333.04811001**

First Environmental File ID: **9-4898**

Date Received: **November 18, 2009**

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.

Method Comments

Lab Number	Sample ID	Comments:
9-4898-001	BW-LCS-49	*Semi-Volatile Compounds* Surrogate recovery outside control limits; high bias due to matrix interference.

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Analytical Report

Client:	MONTGOMERY WATSON HARZA	**Date Collected:**	11/18/09
Project ID:	Blackwell P.O. # 1007333.04811001	**Time Collected:**	8:00
Sample ID:	BW-LCS-49	**Date Received:**	11/18/09
Sample No:	9-4898-001	**Date Reported:**	11/25/09

Analyte	Result	R.L.	Units	Date Analyzed	Method	Flag
Phenols	< 0.05	0.05	mg/L	11/23/09	420.1	
Total Suspended Solids	22	1	mg/L	11/18/09	2540D	
Total Dissolved Solids	1,180	10	mg/L	11/19/09	2540C	
pH @ 25°C	6.53		Units	11/18/09 13:30	4500H+,B	
COD	49	10	mg/L	11/20/09	5220D	
BOD, 5 Day	5	1	mg/L	11/19/09 10:00	5210B	
Oil & Grease	< 1	1	mg/L	11/20/09	1664A	
Ammonia (as N)	16.4	0.10	mg/L	11/23/09	350.1R2.0	
Cyanide, Total	0.006	0.005	mg/L	11/20/09	4500CN,C,E	

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Analytical Report

Client:	MONTGOMERY WATSON HARZA	**Date Collected:**	11/18/09
Project ID:	Blackwell P.O. # 1007333.04811001	**Time Collected:**	8:00
Sample ID:	BW-LCS-49	**Date Received:**	11/18/09
Sample No:	9-4898-001	**Date Reported:**	11/25/09

Analyte	Result	R.L.	Units	Flags
Volatile Organic Compounds **Method: 5030B/8260B**				
Analysis Date: 11/20/09				
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:**	11/18/09
Project ID:	Blackwell P.O. # 1007333.04811001	**Time Collected:**	8:00
Sample ID:	BW-LCS-49	**Date Received:**	11/18/09
Sample No:	9-4898-001	**Date Reported:**	11/25/09

Analyte	Result	R.L.	Units	Flags
Semi-Volatile Compounds **Method: 8270C**		**Preparation Method 3510C**		
Analysis Date: 11/23/09		Preparation Date: 11/23/09		
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	7	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:**	11/18/09
Project ID:	Blackwell P.O. # 1007333.04811001	**Time Collected:**	8:00
Sample ID:	BW-LCS-49	**Date Received:**	11/18/09
Sample No:	9-4898-001	**Date Reported:**	11/25/09

Analyte	Result	R.L.	Units	Flags
Semi-Volatile Compounds	**Method: 8270C**	**Preparation Method 3510C**		
Analysis Date: 11/23/09		Preparation Date: 11/23/09		
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	
Pesticides	**Method: 8081A**	**Preparation Method 3510C**		
Analysis Date: 11/20/09		Preparation Date: 11/19/09		
Aldrin	< 0.05	0.05	ug/L	
alpha-BHC	< 0.05	0.05	ug/L	

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Analytical Report

Client:	MONTGOMERY WATSON HARZA	**Date Collected:**	11/18/09
Project ID:	Blackwell P.O. # 1007333.04811001	**Time Collected:**	8:00
Sample ID:	BW-LCS-49	**Date Received:**	11/18/09
Sample No:	9-4898-001	**Date Reported:**	11/25/09

Analyte		Result	R.L.	Units	Flags
Pesticides	**Method: 8081A**		**Preparation Method 3510C**		
Analysis Date: 11/20/09			Preparation Date: 11/19/09		
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: 11/20/09					
Mercury		< 0.0005	0.0005	mg/L	
Total Metals	**Method: 6010B**		**Preparation Method 3010A**		
Analysis Date: 11/23/09			Preparation Date: 11/19/09		
Arsenic		< 0.002	0.002	mg/L	
Barium		0.212	0.001	mg/L	
Cadmium		< 0.001	0.001	mg/L	
Chromium		< 0.001	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		0.43	0.01	mg/L	
Copper		0.003	0.001	mg/L	
Iron		2.88	0.01	mg/L	
Manganese		0.504	0.001	mg/L	

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Analytical Report

Client:	MONTGOMERY WATSON HARZA	**Date Collected:**	11/18/09
Project ID:	Blackwell P.O. # 1007333.04811001	**Time Collected:**	8:00
Sample ID:	BW-LCS-49	**Date Received:**	11/18/09
Sample No:	9-4898-001	**Date Reported:**	11/25/09

Analyte	Result	R.L.	Units	Flags
Total Metals **Method: 6010B**		**Preparation Method 3010A**		
Analysis Date: 11/23/09		Preparation Date: 11/19/09		
Nickel	0.003	0.001	mg/L	
Zinc	0.021	0.005	mg/L	

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Analytical Report

Client: MONTGOMERY WATSON HARZA
Project ID: Blackwell P.O. # 1007333.04811001
Sample ID: Trip Blank
Sample No: 9-4898-002

Date Collected:
Time Collected:
Date Received: 11/18/09
Date Reported: 11/25/09

Analyte	Result	R.L.	Units	Flags
Volatile Organic Compounds **Method: 5030B/8260B**				
Analysis Date: 11/20/09				
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

First Environmental Laboratories, Inc.

First Environmental Laboratories
1600 Shore Road, Suite D
Naperville, Illinois 60563
Phone: (630) 778-1200 • Fax: (630) 778-1233
E-mail: firstinfo@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.E.FINGER@MWHGLOBAL.COM
Send Report To: JUSTIN FINGER Via: Fax ☐ e-mail ☒
Sampled By: JUSTIN FINGER / TIM CARROLL

Project I.D.: BLACKWELL
P.O. #.: 1007333.04811001

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, Silver, Zinc	BOD, COD, Oil & Grease, Ammonia (as N)	Total Dissolved Solids, Total Suspended Solids	Acid Compounds, Base/Neutrals	Pesticides	Comments	Lab I.D.
11/18/09 0800	BW-LCS-49	W	X	X	X	X	X	X	X	9-4899-001
11/18/09 0700	TRIP BLANK	W	X							-002

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: ☐ Yes ☐ No
Need to meet: IL. TACO ☐ IN. RISC ☐

Notes and Special Instructions:

Relinquished By: [signature] Date/Time 11/18/09 1145 Received By: [signature] Date/Time 11/18/09 1145
Relinquished By: Date/Time Received By: Date/Time

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January 21, 2010

Mr. Justin Finger
MONTGOMERY WATSON HARZA
175 West Jackson Boulevard,
Suite 1900
Chicago, IL 60604

Project ID: Blackwell P.O. # 1007333.04811001
First Environmental File ID: 10-0118
Date Received: January 13, 2010

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 002205: effective 02/06/09 through 02/28/10.

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 P.O. # 1007333.04811001**

First Environmental File ID: **10-0118**

Date Received: **January 13, 2010**

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.
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Analytical Report

Client:	MONTGOMERY WATSON HARZA	**Date Collected:**	01/13/10
Project ID:	Blackwell P.O. # 1007333.04811001	**Time Collected:**	10:50
Sample ID:	BW-LCS-50	**Date Received:**	01/13/10
Sample No:	10-0118-001	**Date Reported:**	01/21/10

Analyte	Result	R.L.	Units	Date Analyzed	Method	Flag
Phenols	< 0.010	0.010	mg/L	01/15/10	420.1	
Total Suspended Solids	50	1	mg/L	01/14/10	2540D	
Total Dissolved Solids	1,400	10	mg/L	01/13/10	2540C	
pH @ 25°C	6.92		Units	01/13/10 13:30	4500H+,B	
COD	71	10	mg/L	01/15/10	5220D	
BOD, 5 Day	90	1	mg/L	01/13/10 15:30	5210B	
Oil & Grease	< 1	1	mg/L	01/14/10	1664A	P
Ammonia (as N)	41.2	0.10	mg/L	01/15/10	350.1R2.0	
Cyanide, Total	< 0.005	0.005	mg/L	01/14/10	4500CN,C,E	

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:**	01/13/10
Project ID:	Blackwell P.O. # 1007333.04811001	**Time Collected:**	10:50
Sample ID:	BW-LCS-50	**Date Received:**	01/13/10
Sample No:	10-0118-001	**Date Reported:**	01/21/10

Analyte		Result	R.L.	Units	Flags
Total Metals	**Method: 7470A**				
Analysis Date: 01/15/10					
Mercury		< 0.0005	0.0005	mg/L	
Total Metals	**Method: 6010B**		**Preparation Method 3010A**		
Analysis Date: 01/14/10			Preparation Date: 01/14/10		
Arsenic		< 0.002	0.002	mg/L	
Barium		0.274	0.001	mg/L	
Cadmium		< 0.001	0.001	mg/L	
Chromium		< 0.001	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		0.53	0.01	mg/L	
Copper		0.004	0.001	mg/L	
Iron		19.9	0.01	mg/L	
Manganese		0.271	0.001	mg/L	
Nickel		0.008	0.001	mg/L	
Zinc		0.017	0.005	mg/L	

CHAIN OF CUSTODY RECORD

First Environmental Laboratories, Inc.

First Environmental Laboratories
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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.E.FINGER@MWHGLOBAL.COM
Send Report To: JUSTIN FINGER Via: Fax ☐ e-mail ☒
Sampled By: JUSTIN FINGER / AMANDA BUTLER

Project I.D.: BLACKWELL
P.O. #.: 1007333.04811001

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.
1/13/10 1050	BW-LCS-50	W	X	X	X	X	X	X	X								10-01115-001

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: ☐ Yes ☐ No
Need to meet: IL. TACO ☐ IN. RISC ☐

Notes and Special Instructions:

Relinquished By: [signature] Date/Time 1/13/10 1110 Received By: [signature] Date/Time 1/13/10 1110
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	May-09			July-09			September-09			November-09			January-10			March-10		
Number	% 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	% CH_4	%CO_2	%O_2
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	NM	NM	NM	6.0	3.3	19.7	10.0	5.6	17.6	NM	NM	NM	NM	NM	NM	NM	NM	NM
SV-5	1.0	0.5	20.2	6.2	5.3	17.7	4.3	3.8	18.5	NM	NM	NM	NM	NM	NM	0.0	0.0	20.7
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	0.7	0.7	20.4	4.2	2.7	19.9	1.5	1.0	20.0	NM	NM	NM	NM	NM	NM	2.1	1.0	18.3
SV-9	50.1	27.8	4.7	41.2	26.8	5.8	63.4	40.4	0.8	NM	NM	NM	NM	NM	NM	45.7	30.6	6.1
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	66.5	33.8	0.2	55.8	36.9	0.0	32.6	19.6	9.8	NM	NM	NM	4.3	2.7	19.4	5.1	2.8	16.2
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	0.0	0.3	20.4	2.4	2.0	19.8	0.0	0.0	20.4	NM	NM	NM	NM	NM	NM	0.0	0.0	20.1
DV-9	NM	NM	NM	0.6	0.3	20.9	1.2	1.2	20.0	NM	NM	NM	NM	NM	NM	NM	NM	NM
DV-10	2.9	2.3	19.3	5.1	3.1	19.8	8.2	5.1	18.1	NM	NM	NM	3.4	3.8	18.8	5.7	3.6	18.6
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	54.4	28.3	3.7	31.0	18.9	10.2	20.9	11.7	13.8	NM	NM	NM	NM	NM	NM	20.1	11.8	9.9
DV-16	66.5	33.5	0.0	65.1	36.7	0.0	49.2	31.0	4.5	NM	NM	NM	70.0	33.3	1.1	65.3	37.9	2.5
DV-17	2.8	1.7	19.0	2.9	1.6	20.2	13.7	7.6	16.1	NM	NM	NM	0.0	0.1	21.0	12.6	4.8	16.9
DV-18	66.3	35.1	0.5	63.6	38.7	0.0	68.7	39.7	0.0	NM	NM	NM	NM	NM	NM	64.9	36.5	0.2
EW-1	63.0	35.9	0.6	61.3	39.9	0.2	66.8	43.6	0.0	NM	NM	NM	NM	NM	NM	61.9	39.3	1.6
EW-1A	51.6	26.2	0.0	58.6	29.9	0.0	57.8	29.3	0.0	NM	NM	NM	47.2	24.7	9.2	49.2	27.3	0.0
EW-2	57.9	35.5	0.0	64.0	40.4	0.3	68.8	41.0	0.0	NM	NM	NM	64.4	35.2	0.8	59.5	39.8	0.0
EW-3	68.8	33.6	0.0	65.0	39.1	0.3	70.3	40.4	0.3	NM	NM	NM	72.7	32.2	0.1	64.8	37.9	0.3
EW-4	69.5	30.9	0.0	68.1	33.2	0.1	75.4	35.1	0.0	NM	NM	NM	73.2	29.6	0.5	68.7	32.7	1.0
EW-5	72.7	26.6	0.0	73.5	27.8	0.0	81.3	28.1	0.0	NM	NM	NM	76.9	25.3	0.9	72.5	29.1	0.0
EW-6	67.6	33.9	0.0	66.1	37.3	0.0	71.2	39.5	0.0	NM	NM	NM	70.6	33.8	0.2	66.0	38.3	0.0
EW-7	67.3	35.1	0.0	65.2	39.1	0.0	70.1	42.3	0.0	NM	NM	NM	63.5	34.9	0.2	64.0	39.7	0.1
EW-8	NA	NA	NA	NA	NA	NA	38.2	26.5	6.2	NM	NM	NM	64.8	33.0	1.1	62.5	38.3	1.3
Vent Stack	51.7	27.8	1.6	61.4	34.2	0.5	51.7	30.6	3.1	41.2	23.1	7.8	54.6	27.3	3.8	49.2	29.0	4.5
LS01	0.0	0.7	20.1	1.2	8.2	18.4	1.4	9.7	17.4	NM	NM	NM	NM	NM	NM	0.0	0.1	18.8

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 collected with a Landtec GA-90 gas analyzer.
2. Several measurements not collected on 5-13-09 due to flooded vaults
3. No measurements collected on 11-18-09 due to equipment failure
4. Several measurements not collected on 1-13-10 due to frozen vaults
5. Measurements not collected at SV-4 and DV-9 on 3-8-10 due to flooded vaults.

APPENDIX C

Table C-2: Landfill Gas Temperature

Table C-2
Landfill Gas Temperature
Blackwell Landfill NPL Site

Vent Number	May-09	Jul-09	Sep-09	Nov-09	Jan-10	Mar-10
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	NM	85.1	78.2	46.9	NM	NM
SV-5	55.6	85.0	76.5	48.8	NM	53.7
SV-6	NA	NA	NA	NA	NA	NA
SV-7	NA	NA	NA	NA	NA	NA
SV-8	56.9	75.0	69.4	49.4	NM	46.9
SV-9	56.4	73.9	68.3	48.0	NM	46.0
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	58.6	72.7	68.8	55.2	23.7	47.5
DV-6	NA	NA	NA	NA	NA	NA
DV-7	NA	NA	NA	NA	NA	NA
DV-8	56.2	84.5	74.9	50.6	NM	50.0
DV-9	NM	84.6	80.2	48.9	NM	NM
DV-10	56.6	91.0	77.1	49.0	28.8	50.5
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	55.0	74.8	67.4	48.6	NM	48.0
DV-16	54.6	71.1	67.2	53.9	31.0	46.8
DV-17	58.1	73.4	70.4	51.8	22.1	46.3
DV-18	58.1	77.3	67.2	48.0	NM	48.0

Table C-2
Landfill Gas Temperature
Blackwell Landfill NPL Site

Vent Number	May-09	Jul-09	Sep-09	Nov-09	Jan-10	Mar-10
EW-1	54.7	86.9	71.9	49.3	NM	48.9
EW-1A	55.4	86.0	68.4	51.7	41.7	49.8
EW-2	54.3	84.6	72.2	49.8	28.8	47.6
EW-3	56.3	71.2	65.7	48.5	27.5	48.6
EW-4	56.6	74.4	67.9	52.3	43.0	50.5
EW-5	55.6	77.4	69.8	47.3	35.1	49.2
EW-6	57.9	75.4	64.2	54.7	54.1	54.2
EW-7	54.7	72.9	62.0	50.1	49.3	51.4
EW-8	NA	NA	73.9	47.5	35.6	57.1
Vent Stack	56.3	70.4	67.7	49.6	31.0	47.3
LS01	56.5	75.3	66.1	47.5	NM	48.4

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. Temperature in units of degrees Fahrenheit.
2. All measurements taken with a TSI VELOCICALC Model 8384 velocity/temperature meter.
3. Several temperature measurements not collected on 5-13-09 due to flooded vaults.
4. Several temperature measurements not collected on 1-13-10 due to frozen vaults.
5. Temperature measurements not collected at SV-4 and DV-9 on 3-8-10 due to flooded vaults.

APPENDIX C

Table C-3: Static Landfill Gas Pressure

Table C-3
Static Landfill Gas Pressure
Blackwell Landfill NPL Site

Vent Number	May-09	Jul-09	Sep-09	Nov-09	Jan-10	Mar-10
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	NM	0.10	0.48	0.00	NM	NM
SV-5	0.00	0.00	0.00	0.00	NM	0.00
SV-6	NA	NA	NA	NA	NA	NA
SV-7	NA	NA	NA	NA	NA	NA
SV-8	0.00	0.00	0.00	0.00	NM	0.01
SV-9	0.40	0.05	0.80	3.20	NM	0.80
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	0.00	0.20	0.08	0.50	0.00	0.00
DV-6	NA	NA	NA	NA	NA	NA
DV-7	NA	NA	NA	NA	NA	NA
DV-8	0.00	0.00	0.00	0.00	NM	0.00
DV-9	NM	0.00	0.00	0.00	NM	NM
DV-10	0.00	0.02	0.01	0.00	0.00	0.02
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	0.00	0.00	0.04	0.04	NM	0.04
DV-16	1.00	1.00	0.20	2.20	0.40	3.20
DV-17	0.00	0.00	0.01	0.94	0.00	0.00
DV-18	0.30	3.00	3.20	0.52	NM	2.40

Table C-3
Static Landfill Gas Pressure
Blackwell Landfill NPL Site

Vent Number	May-09	Jul-09	Sep-09	Nov-09	Jan-10	Mar-10
SV-1	NA	NA	NA	NA	NA	NA
EW-1	0.00	0.30	0.24	0.03	NM	0.36
EW-1A	0.00	0.02	0.04	0.00	0.00	0.07
EW-2	0.00	0.12	0.24	0.00	0.01	0.08
EW-3	0.00	1.00	1.00	0.48	0.01	0.42
EW-4	0.00	0.00	0.10	0.06	0.02	0.00
EW-5	0.00	0.06	0.10	0.05	0.00	0.20
EW-6	1.00	1.60	0.84	0.54	0.16	0.80
EW-7	1.00	0.80	0.50	0.90	0.08	1.00
EW-8	NA	NA	0.00	0.02	0.00	0.00
Vent Stack	NA	NA	NA	NA	NA	NA
LS01	0.00	0.00	0.03	0.00	NM	0.00
Barometric (in. Hg)	29.77	29.94	30.08	30.03	30.14	30.07

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. Pressure measurements were not conducted at the main vent stack as it is open to the atmosphere.
3. All measurements taken with an Alnor 6000AP velometer.
4. Pressure measurements not collected at several locations on 5-13-09 due to flooded vaults.
5. Pressure measurements not collected at several locations on 1-13-10 due to frozen vaults.
6. Pressure measurements not collected at SV-4 and DV-9 on 3-8-10 due to flooded vaults.

APPENDIX C

Table C-4: Landfill Gas Velocity

Table C-4
Landfill Gas Velocity
Blackwell Landfill NPL Site

Vent Number	May-09	July-09	September-09	November-09	January-10	March-10
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	NM	2	1	0	NM	NM
SV-5	1	2	2	0	NM	1
SV-6	NA	NA	NA	NA	NA	NA
SV-7	NA	NA	NA	NA	NA	NA
SV-8	1	2	0	2	NM	7
SV-9	25	33	35	4	NM	16
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	190	138	79	7	0	18
DV-6	NA	NA	NA	NA	NA	NA
DV-7	NA	NA	NA	NA	NA	NA
DV-8	1	0	0	1	NM	0
DV-9	NM	0	2	0	NM	NM
DV-10	3	5	1	2	0	1
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	41	30	5	21	NM	30
DV-16	120	140	110	100	136	94
DV-17	1	1	6	5	0	19
DV-18	33	37	30	30	NM	31

Table C-4
Landfill Gas Velocity
Blackwell Landfill NPL Site

Vent Number	May-09	July-09	September-09	November-09	January-10	March-10
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	180	447	320	380	300	278
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 collected with a TSI VELOCICALC Model 8384 velocity/temperature meter.
3. Velocity measurements not collected at several locations on 5-13-09 due to flooded vaults.
4. Velocity measurements not collected at several locations on 1-13-10 due to frozen vaults.
5. Velocity measurements not collected at SV-4 and DV-9 on 3-8-10 due to flooded vaults.

APPENDIX C

Table C-5: Landfill Gas Flow Rate

Table C-5
Landfill Gas Flow Rate
Blackwell Landfill NPL Site

Vent Number	May-09	July-09	September-09	November-09	January-10	March-10
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	NM	0.047	0.023	0.000	NM	NM
SV-5	0.023	0.047	0.047	0.000	NM	0.023
SV-6	NA	NA	NA	NA	NA	NA
SV-7	NA	NA	NA	NA	NA	NA
SV-8	0.023	0.047	0.000	0.047	NM	0.163
SV-9	0.582	0.769	0.815	0.093	NM	0.373
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	4.425	3.214	1.840	0.163	0.000	0.419
DV-6	NA	NA	NA	NA	NA	NA
DV-7	NA	NA	NA	NA	NA	NA
DV-8	0.088	0.000	0.000	0.088	NM	0.000
DV-9	NM	0.000	0.177	0.000	NM	NM
DV-10	0.265	0.442	0.088	0.177	0.000	0.088
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	3.623	2.651	0.442	1.856	NM	2.651
DV-16	10.603	12.370	9.720	8.836	12.017	8.306
DV-17	0.088	0.088	0.530	0.442	0.000	1.679
DV-18	2.916	3.269	2.651	2.651	NM	2.739

Table C-5
Landfill Gas Flow Rate
Blackwell Landfill NPL Site

Vent Number	May-09	July-09	September-09	November-09	January-10	March-10
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	36.04	89.49	64.06	76.07	60.06	55.65
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. Flowrate in units of cubic feet per minute (CFM).
2. All measurements collected with a TSI VELOCICALC Model 8384 velocity/temperature meter.
3. Velocity measurements not collected at several locations on 5-13-09 due to flooded vaults.
4. Velocity measurements not collected at several locations on 1-13-10 due to frozen vaults.
5. Velocity measurements not collected at SV-4 and DV-9 on 3-8-10 due to flooded 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-09	0.505	180	36.04	1.02	694.3	115.72	0.24	0.0599
Jul-09	0.505	447	89.49	2.53	694.3	115.72	0.59	0.1487
Sep-09	0.505	320	64.06	1.81	694.3	115.72	0.42	0.1064
Nov-09	0.505	380	76.07	2.15	694.3	115.72	0.50	0.1264
Jan-10	0.505	300	60.06	1.70	694.3	115.72	0.40	0.0998
Mar-10	0.505	278	55.65	1.58	694.3	115.72	0.37	0.0925

Notes:

I.D. = Inside diameter
ft = Feet
fpm = Feet per minute
ft^3/min = Cubic feet per minute
m^3/min = Cubic meters per minute
ppm = Parts per million
TNMOC = Total non-methane organic compounds
Mg/yr = Milligrams per year
lb/hr = Pounds 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.

APPENDIX D

LANDFILL GAS ANALYTICAL DATA

Air Toxics LTD.
Laboratory Services Since 1989

5/29/2009
Mr. Dave Powers
MWH Americas, Inc.
175 West Jackson Blvd.
Suite 1900
Chicago IL 60604

Project Name: Blackwell
Project #: 4050581.098101
Workorder #: 0905373A

Dear Mr. Dave Powers

The following report includes the data for the above referenced project for sample(s) received on 5/15/2009 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-14A are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for you air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Brandon Dunmore at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Brandon M. Dunmore

Brandon Dunmore
Project Manager

Air Toxics LTD.
Laboratory Services Since 1989

WORK ORDER #: 0905373A

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 #**	4050581.098101 Blackwell
DATE RECEIVED:	05/15/2009	**CONTACT:**	Brandon Dunmore
DATE COMPLETED:	05/28/2009		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	BW-LFGSTACK-50A	Modified TO-14A	4.0 "Hg	5 psi
02A	Lab Blank	Modified TO-14A	NA	NA
03A	CCV	Modified TO-14A	NA	NA
04A	LCS	Modified TO-14A	NA	NA
04AA	LCSD	Modified TO-14A	NA	NA

CERTIFIED BY: Linda L. Freeman DATE: 05/29/09

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/08, Expiration date: 06/30/09
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 TO-14A
MWH Americas, Inc.
Workorder# 0905373A

One 6 Liter Summa Canister sample was received on May 15, 2009. 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 (0.2 ppbv for compounds reported at 0.5 ppbv and 0.8 ppbv for compounds reported at 2.0 ppbv) 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.
Laboratory Services Since 1989

Summary of Detected Compounds
MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

Client Sample ID: BW-LFGSTACK-50A

Lab ID#: 0905373A-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	52	1800	250	9000
Freon 114	52	290	360	2000
Vinyl Chloride	52	3100	130	7900
Chloroethane	52	450	140	1200
Freon 11	52	19 J	290	110 J
Acetone	210	85 J	490	200 J
Methylene Chloride	52	58	180	200
trans-1,2-Dichloroethene	52	120	200	470
Hexane	52	700	180	2500
1,1-Dichloroethane	52	38 J	210	150 J
2-Butanone (Methyl Ethyl Ketone)	52	190	150	550
cis-1,2-Dichloroethene	52	520	200	2100
Tetrahydrofuran	52	78	150	230
1,1,1-Trichloroethane	52	8.0 J	280	44 J
Cyclohexane	52	370	180	1300
2,2,4-Trimethylpentane	52	72	240	340
Benzene	52	820	160	2600
Heptane	52	1600	210	6700
Trichloroethene	52	150	280	830
1,2-Dichloropropane	52	68	240	310
4-Methyl-2-pentanone	52	310	210	1300
Toluene	52	11000	190	42000
Tetrachloroethene	52	140	350	940
Chlorobenzene	52	230	240	1100
Ethyl Benzene	52	3100	220	13000
m,p-Xylene	52	6500	220	28000
o-Xylene	52	1800	220	8000
Styrene	52	120	220	530
Cumene	52	460	250	2300
Propylbenzene	52	540	250	2700
4-Ethyltoluene	52	1600	250	7900
1,3,5-Trimethylbenzene	52	700	250	3500
1,2,4-Trimethylbenzene	52	2000	250	9700
1,4-Dichlorobenzene	52	660	310	4000
1,2-Dichlorobenzene	52	22 J	310	130 J

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: BW-LFGSTACK-50A

Lab ID#: 0905373A-01A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**r052706**	**Date of Collection: 5/13/09 3:35:00 PM**	
Dil. Factor:	**103**	**Date of Analysis: 5/27/09 12:04 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	52	1800	250	9000
Freon 114	52	290	360	2000
Chloromethane	210	Not Detected	420	Not Detected
Vinyl Chloride	52	3100	130	7900
1,3-Butadiene	52	Not Detected	110	Not Detected
Bromomethane	52	Not Detected	200	Not Detected
Chloroethane	52	450	140	1200
Freon 11	52	19 J	290	110 J
Ethanol	210	Not Detected	390	Not Detected
Freon 113	52	Not Detected	390	Not Detected
1,1-Dichloroethene	52	Not Detected	200	Not Detected
Acetone	210	85 J	490	200 J
2-Propanol	210	Not Detected	510	Not Detected
Carbon Disulfide	52	Not Detected	160	Not Detected
3-Chloropropene	210	Not Detected	640	Not Detected
Methylene Chloride	52	58	180	200
Methyl tert-butyl ether	52	Not Detected	180	Not Detected
trans-1,2-Dichloroethene	52	120	200	470
Hexane	52	700	180	2500
1,1-Dichloroethane	52	38 J	210	150 J
2-Butanone (Methyl Ethyl Ketone)	52	190	150	550
cis-1,2-Dichloroethene	52	520	200	2100
Tetrahydrofuran	52	78	150	230
Chloroform	52	Not Detected	250	Not Detected
1,1,1-Trichloroethane	52	8.0 J	280	44 J
Cyclohexane	52	370	180	1300
Carbon Tetrachloride	52	Not Detected	320	Not Detected
2,2,4-Trimethylpentane	52	72	240	340
Benzene	52	820	160	2600
1,2-Dichloroethane	52	Not Detected	210	Not Detected
Heptane	52	1600	210	6700
Trichloroethene	52	150	280	830
1,2-Dichloropropane	52	68	240	310
1,4-Dioxane	210	Not Detected	740	Not Detected
Bromodichloromethane	52	Not Detected	340	Not Detected
cis-1,3-Dichloropropene	52	Not Detected	230	Not Detected
4-Methyl-2-pentanone	52	310	210	1300
Toluene	52	11000	190	42000
trans-1,3-Dichloropropene	52	Not Detected	230	Not Detected

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: BW-LFGSTACK-50A

Lab ID#: 0905373A-01A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**r052706**	**Date of Collection:**	**5/13/09 3:35:00 PM**
Dil. Factor:	**103**	**Date of Analysis:**	**5/27/09 12:04 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,2-Trichloroethane	52	Not Detected	280	Not Detected
Tetrachloroethene	52	140	350	940
2-Hexanone	210	Not Detected	840	Not Detected
Dibromochloromethane	52	Not Detected	440	Not Detected
1,2-Dibromoethane (EDB)	52	Not Detected	400	Not Detected
Chlorobenzene	52	230	240	1100
Ethyl Benzene	52	3100	220	13000
m,p-Xylene	52	6500	220	28000
o-Xylene	52	1800	220	8000
Styrene	52	120	220	530
Bromoform	52	Not Detected	530	Not Detected
Cumene	52	460	250	2300
1,1,2,2-Tetrachloroethane	52	Not Detected	350	Not Detected
Propylbenzene	52	540	250	2700
4-Ethyltoluene	52	1600	250	7900
1,3,5-Trimethylbenzene	52	700	250	3500
1,2,4-Trimethylbenzene	52	2000	250	9700
1,3-Dichlorobenzene	52	Not Detected	310	Not Detected
1,4-Dichlorobenzene	52	660	310	4000
alpha-Chlorotoluene	52	Not Detected	270	Not Detected
1,2-Dichlorobenzene	52	22 J	310	130 J
1,2,4-Trichlorobenzene	210	Not Detected	1500	Not Detected
Hexachlorobutadiene	210	Not Detected	2200	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	107	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Lab Blank

Lab ID#: 0905373A-02A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	r052705a	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 5/27/09 10:53 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	0.26 J	4.9	0.64 J
Carbon Disulfide	0.50	0.048 J	1.6	0.15 J
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

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Lab Blank

Lab ID#: 0905373A-02A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**r052705a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 5/27/09 10:53 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	0.066 J	3.8	0.51 J
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	0.048 J	2.1	0.20 J
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	0.074 J	3.4	0.51 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	0.035 J	2.4	0.17 J
1,2,4-Trimethylbenzene	0.50	0.039 J	2.4	0.19 J
1,3-Dichlorobenzene	0.50	0.10 J	3.0	0.62 J
1,4-Dichlorobenzene	0.50	0.12 J	3.0	0.74 J
alpha-Chlorotoluene	0.50	0.18 J	2.6	0.94 J
1,2-Dichlorobenzene	0.50	0.11 J	3.0	0.69 J
1,2,4-Trichlorobenzene	2.0	0.26 J	15	2.0 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	97	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	91	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: CCV

Lab ID#: 0905373A-03A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**r052702**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 5/27/09 08:51 AM**

Compound	%Recovery
Freon 12	107
Freon 114	102
Chloromethane	96
Vinyl Chloride	86
1,3-Butadiene	97
Bromomethane	94
Chloroethane	80
Freon 11	104
Ethanol	100
Freon 113	98
1,1-Dichloroethene	96
Acetone	91
2-Propanol	95
Carbon Disulfide	89
3-Chloropropene	91
Methylene Chloride	95
Methyl tert-butyl ether	101
trans-1,2-Dichloroethene	92
Hexane	90
1,1-Dichloroethane	93
2-Butanone (Methyl Ethyl Ketone)	99
cis-1,2-Dichloroethene	96
Tetrahydrofuran	94
Chloroform	102
1,1,1-Trichloroethane	99
Cyclohexane	93
Carbon Tetrachloride	101
2,2,4-Trimethylpentane	96
Benzene	96
1,2-Dichloroethane	100
Heptane	95
Trichloroethene	108
1,2-Dichloropropane	92
1,4-Dioxane	92
Bromodichloromethane	101
cis-1,3-Dichloropropene	95
4-Methyl-2-pentanone	92
Toluene	97
trans-1,3-Dichloropropene	96

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: CCV

Lab ID#: 0905373A-03A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**r052702**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 5/27/09 08:51 AM**

Compound	%Recovery
1,1,2-Trichloroethane	94
Tetrachloroethene	98
2-Hexanone	90
Dibromochloromethane	101
1,2-Dibromoethane (EDB)	103
Chlorobenzene	96
Ethyl Benzene	95
m,p-Xylene	97
o-Xylene	95
Styrene	101
Bromoform	106
Cumene	98
1,1,2,2-Tetrachloroethane	80
Propylbenzene	96
4-Ethyltoluene	96
1,3,5-Trimethylbenzene	93
1,2,4-Trimethylbenzene	94
1,3-Dichlorobenzene	90
1,4-Dichlorobenzene	91
alpha-Chlorotoluene	89
1,2-Dichlorobenzene	87
1,2,4-Trichlorobenzene	81
Hexachlorobutadiene	84

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	99	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS

Lab ID#: 0905373A-04A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**r052703**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 5/27/09 09:24 AM**

Compound	%Recovery
Freon 12	97
Freon 114	92
Chloromethane	89
Vinyl Chloride	80
1,3-Butadiene	84
Bromomethane	89
Chloroethane	72
Freon 11	95
Ethanol	66
Freon 113	101
1,1-Dichloroethene	97
Acetone	89
2-Propanol	90
Carbon Disulfide	84
3-Chloropropene	86
Methylene Chloride	94
Methyl tert-butyl ether	94
trans-1,2-Dichloroethene	86
Hexane	85
1,1-Dichloroethane	91
2-Butanone (Methyl Ethyl Ketone)	91
cis-1,2-Dichloroethene	98
Tetrahydrofuran	89
Chloroform	97
1,1,1-Trichloroethane	96
Cyclohexane	88
Carbon Tetrachloride	96
2,2,4-Trimethylpentane	89
Benzene	91
1,2-Dichloroethane	96
Heptane	90
Trichloroethene	85
1,2-Dichloropropane	87
1,4-Dioxane	87
Bromodichloromethane	96
cis-1,3-Dichloropropene	89
4-Methyl-2-pentanone	88
Toluene	95
trans-1,3-Dichloropropene	89

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS

Lab ID#: 0905373A-04A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**r052703**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 5/27/09 09:24 AM**

Compound	%Recovery
1,1,2-Trichloroethane	87
Tetrachloroethene	93
2-Hexanone	82
Dibromochloromethane	95
1,2-Dibromoethane (EDB)	92
Chlorobenzene	90
Ethyl Benzene	88
m,p-Xylene	90
o-Xylene	91
Styrene	93
Bromoform	102
Cumene	96
1,1,2,2-Tetrachloroethane	94
Propylbenzene	93
4-Ethyltoluene	92
1,3,5-Trimethylbenzene	88
1,2,4-Trimethylbenzene	89
1,3-Dichlorobenzene	87
1,4-Dichlorobenzene	86
alpha-Chlorotoluene	88
1,2-Dichlorobenzene	83
1,2,4-Trichlorobenzene	77
Hexachlorobutadiene	79

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	99	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCSD

Lab ID#: 0905373A-04AA

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**r052704**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 5/27/09 09:57 AM**	

Compound	%Recovery
Freon 12	95
Freon 114	90
Chloromethane	87
Vinyl Chloride	79
1,3-Butadiene	83
Bromomethane	89
Chloroethane	71
Freon 11	93
Ethanol	64
Freon 113	100
1,1-Dichloroethene	95
Acetone	87
2-Propanol	90
Carbon Disulfide	83
3-Chloropropene	85
Methylene Chloride	92
Methyl tert-butyl ether	92
trans-1,2-Dichloroethene	83
Hexane	84
1,1-Dichloroethane	88
2-Butanone (Methyl Ethyl Ketone)	91
cis-1,2-Dichloroethene	97
Tetrahydrofuran	88
Chloroform	96
1,1,1-Trichloroethane	95
Cyclohexane	86
Carbon Tetrachloride	95
2,2,4-Trimethylpentane	88
Benzene	91
1,2-Dichloroethane	94
Heptane	90
Trichloroethene	85
1,2-Dichloropropane	86
1,4-Dioxane	86
Bromodichloromethane	97
cis-1,3-Dichloropropene	89
4-Methyl-2-pentanone	88
Toluene	96
trans-1,3-Dichloropropene	90

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCSD

Lab ID#: 0905373A-04AA

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**r052704**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 5/27/09 09:57 AM**	

Compound	%Recovery
1,1,2-Trichloroethane	89
Tetrachloroethene	93
2-Hexanone	83
Dibromochloromethane	97
1,2-Dibromoethane (EDB)	93
Chlorobenzene	92
Ethyl Benzene	89
m,p-Xylene	92
o-Xylene	92
Styrene	94
Bromoform	104
Cumene	97
1,1,2,2-Tetrachloroethane	97
Propylbenzene	95
4-Ethyltoluene	93
1,3,5-Trimethylbenzene	90
1,2,4-Trimethylbenzene	91
1,3-Dichlorobenzene	90
1,4-Dichlorobenzene	89
alpha-Chlorotoluene	91
1,2-Dichlorobenzene	86
1,2,4-Trichlorobenzene	80
Hexachlorobutadiene	82

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	102	70-130

Air Toxics LTD.
Laboratory Services Since 1989

6/4/2009
Mr. Dave Powers
MWH Americas, Inc.
175 West Jackson Blvd.
Suite 1900
Chicago IL 60604

Project Name: Blackwell
Project #: 4050581.098101
Workorder #: 0905373BR1

Dear Mr. Dave Powers

The following report includes the data for the above referenced project for sample(s) received on 5/15/2009 at Air Toxics Ltd.

The data and associated QC analyzed by Modified ASTM D-1945 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for you air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Brandon Dunmore at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Brandon M. Dunmore

Brandon Dunmore
Project Manager

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 .FAX (916) 985-1020
Hours 6:30 A.M to 5:30 PST

Air Toxics LTD.
Laboratory Services Since 1989

WORK ORDER #: 0905373BR1

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 #**	4050581.098101 Blackwell
DATE RECEIVED:	05/15/2009	**CONTACT:**	Brandon Dunmore
DATE COMPLETED:	05/26/2009		
DATE REISSUED:	06/04/2009		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	BW-LFGSTACK-50A	Modified ASTM D-1945	4.0 "Hg	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
03B	LCS	Modified ASTM D-1945	NA	NA
03BB	LCSD	Modified ASTM D-1945	NA	NA

CERTIFIED BY: Linda L. Freeman

Laboratory Director

DATE: 06/04/09

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/08, Expiration date: 06/30/09
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# 0905373BR1

One 6 Liter Summa Canister sample was received on May 15, 2009. 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.

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 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

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 WORKORDER WAS REISSUED ON 6/04/09 TO REPORT THE CORRECT RESULT FOR NITROGEN IN SAMPLE BW-LFGSTACK-50A.

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.
Laboratory Services Since 1989

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

Client Sample ID: BW-LFGSTACK-50A

Lab ID#: 0905373BR1-01A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.16	1.5
Nitrogen	0.16	15
Methane	0.00016	54
Carbon Dioxide	0.016	29
Ethane	0.0016	0.0024
Ethene	0.0016	0.0012 J
Propane	0.0016	0.00081 J
Isobutane	0.0016	0.00030 J
Butane	0.0016	0.00011 J
Pentane	0.0016	0.000091 J
C6+	0.016	0.012 J

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: BW-LFGSTACK-50A

Lab ID#: 0905373BR1-01A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9051907**	**Date of Collection:**	**5/13/09 3:35:00 PM**
Dil. Factor:	**1.55**	**Date of Analysis:**	**5/19/09 02:50 PM**

Compound	**Rpt. Limit (%)**	**Amount (%)**
Oxygen	0.16	1.5
Nitrogen	0.16	15
Carbon Monoxide	0.016	Not Detected
Methane	0.00016	54
Carbon Dioxide	0.016	29
Ethane	0.0016	0.0024
Ethene	0.0016	0.0012 J
Acetylene	0.0016	Not Detected
Propane	0.0016	0.00081 J
Isobutane	0.0016	0.00030 J
Butane	0.0016	0.00011 J
Neopentane	0.0016	Not Detected
Isopentane	0.0016	Not Detected
Pentane	0.0016	0.000091 J
C6+	0.016	0.012 J
Hydrogen	0.016	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Canister

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Lab Blank

Lab ID#: 0905373BR1-02A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9051906a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 5/19/09 12:11 PM**	

Compound	**Rpt. Limit (%)**	**Amount (%)**
Oxygen	0.10	0.0063 J
Nitrogen	0.10	0.033 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
Hydrogen	0.010	Not Detected

J = Estimated value.

Container Type: NA - Not Applicable

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Lab Blank

Lab ID#: 0905373BR1-02B

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9051905b**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 5/19/09 11:22 AM**	

Compound	**Rpt. Limit (%)**	**Amount (%)**
Hydrogen	0.010	Not Detected

Container Type: NA - Not Applicable

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS

Lab ID#: 0905373BR1-03A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9051902**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 5/19/09 08:37 AM**

Compound	%Recovery
Oxygen	100
Nitrogen	100
Carbon Monoxide	103
Methane	101
Carbon Dioxide	100
Ethane	99
Ethene	100
Acetylene	95
Propane	100
Isobutane	99
Butane	100
Neopentane	99
Isopentane	98
Pentane	98
C6+	98

Container Type: NA - Not Applicable

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCSD

Lab ID#: 0905373BR1-03AA

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9051917**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 5/19/09 07:41 PM**

Compound	%Recovery
Oxygen	100
Nitrogen	100
Carbon Monoxide	102
Methane	102
Carbon Dioxide	101
Ethane	100
Ethene	101
Acetylene	96
Propane	101
Isobutane	100
Butane	100
Neopentane	99
Isopentane	99
Pentane	99
C6+	99

Container Type: NA - Not Applicable

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS

Lab ID#: 0905373BR1-03B

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9051904b**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 5/19/09 10:00 AM**

Compound	%Recovery
Hydrogen	105

Container Type: NA - Not Applicable

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCSD

Lab ID#: 0905373BR1-03BB

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9051918b**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 5/19/09 08:20 PM**	

Compound	**%Recovery**
Hydrogen	106

Container Type: NA - Not Applicable

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. SNEER/T. CARROLL
Company: MWH
Email: JUSTIN.A.PIERER@MWHGLOBAL.COM
Address: 135 W. JACKSON BLVD, SUITE 1900 City: CHICAGO State: IL Zip: 60604
Phone: (312) 831-3000 Fax: (312) 831-3021

Project Info:
P.O. #:
Project #: 4050581.098101
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 (psi)
014	BW-LFGSTACK-5BA	9933	5/13/09	0735-1535	TO14A/ASTM 1945 D	-29"Hg	-6"Hg		

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
[signature]	5/13/09 1600	Monica Greggen ATL	5/15/09 910
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time

Notes:
CHECK FLOW CONTROLLER TO SEE IF ANY DAMAGE WAS SUSTAINED DURING SHIPMENT, THUS AFFECTING SAMPLE RESULTS.

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	Fed Ex		MA	Good	Yes No None	0905373

Form 1290 rev.11

Atmospheric Analysis & Consulting, Inc.

CLIENT : MWH Americas
AAC PROJECT NO. : 090322
REPORT DATE : 05/26/2009

On May 14, 2009 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-LFGSTACK-50A	090322-38435	643.7	900.0

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 this sample. 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**	: **05/13/2009**
Project No.	: **090322**	**Receiving Date**	: **05/14/2009**
Matrix	: **Air**	**Analysis Date**	: **05/15/2009**
Units	: **ppmv**	**Report Date**	: **05/26/2009**

EPA Method 25C

Detection Limit:		**1.0 ppmv**
Client Sample ID	**AAC ID**	**TNMOC***
BW-LFGSTACK-49A	**090039-36900**	694.3

***Total Non-Methane Organic Compounds as Methane**

Sucha Parmar, Ph.D
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: 5/15/2009
Analyst: DN
Units: ppmv

Instrument ID: FID#9
Calibration Date: 1/18/2008

I - Opening Calibration Verification Standard - Method 25C

Analyte	xCF	dCF	%RPD*
CO	11713	11621	0.8
CH4	11996	12530	4.4
CO2	11842	12174	2.8
Propane	33025	32973	0.2

II - Method Blank - Method 25C

AAC ID	Analyte	Sample Result
MB	TNMOC	ND

III - Laboratory Control Spike & Duplicate - Method 25C

AAC ID	Analyte	Spike Added	LCS Result	LCSD Result	LCS % Rec **	LCSD % Rec **	% RPD***
LCS/LCSD	TNMOC	50.0	49.9	52.0	99.8	104.1	4.2

IV - Closing Calibration Verification Standard - Method 25C

Analyte	xCF	dCF	%RPD*
CO	11713	11250	4.0
CH4	11996	12019	0.2
CO2	11842	11474	3.1
Propane	33025	32589	1.3

xCF - Average Calibration Factor from Initial Calibration Curve
dCF - Daily Calibration Factor
* Must be <15%
** Must be 90-110 %
*** Must be <20%

Sucha Parmar, Ph.D
Technical Director

1534 Eastman Avenue • Suite A • Ventura, California 93003 (805) 650-1642 • FAX (805) 650-1644

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. 090322

CHAIN OF CUSTODY / ANALYSIS REQUEST FORM

Client Name: MWH
Project Name: BLACKWELL
Project Mgr (Print Name): DAVID POWERS
Project Number: 4050581.098101
Sampler's Name (Print Name): JUSTIN FINGER / TIM CARROLL
Sampler's Signature: [signature]

Analysis Requested: EPA 25C (MOD) (TNMOC)

AAC Sample No.	Date Sampled	Time Sampled	Sample Type	Client Sample ID/Description	Type/No. of containers	EPA 25C (MOD) (TNMOC)
38435	5/13/09	0735-1535	TIME-INTEGRATED	BW-LFGSTACK-50A	AIR 1	X

Send Report:
Attn: JUSTIN FINGER
Phone #: (312) 831-3447
Fax #: (312) 831-3021

Send Invoice to:
Attn:
P.O. #

Turn Around Time
24-Hr ____ 48-Hr ____
5 day ____ Normal X
Other (Specify)

Special Intructions / remarks:
INITIAL VACUUM = -30" Hg
FINAL VACUUM = -6" Hg
CANISTER # 000156

Relinquished by (Signature)	Print name:	Date/Time	Received by (Signature)	Print Name
[signature]	JUSTIN FINGER	5/13/09 1600		
Relinquished by (Signature)	**Print name:**	**Date/Time**	**Received by (Signature)**	**Print Name**
		5/14/09 10:00	[signature]	Benjamin Witten

Air Toxics LTD.
Laboratory Services Since 1989

8/3/2009
Mr. Dave Powers
MWH Americas, Inc.
175 West Jackson Blvd.
Suite 1900
Chicago IL 60604

Project Name: BLACKWELL
Project #: 4050581.098101
Workorder #: 0907340A

Dear Mr. Dave Powers

The following report includes the data for the above referenced project for sample(s) received on 7/16/2009 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-14A are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Brandon Dunmore at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Brandon M. Dunmore

Brandon Dunmore
Project Manager

Air Toxics LTD.
Laboratory Services Since 1989

WORK ORDER #: 0907340A

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 #**	4050581.098101 BLACKWELL
DATE RECEIVED:	07/16/2009	**CONTACT:**	Brandon Dunmore
DATE COMPLETED:	08/01/2009		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	BW-LFGSTACK-51A	Modified TO-14A	5.5 "Hg	5 psi
02A	Lab Blank	Modified TO-14A	NA	NA
03A	CCV	Modified TO-14A	NA	NA
04A	LCS	Modified TO-14A	NA	NA
04AA	LCSD	Modified TO-14A	NA	NA

CERTIFIED BY: Linda L. Freeman

Laboratory Director

DATE: 08/03/09

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/08, Expiration date: 06/30/09
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 TO-14A
MWH Americas, Inc.
Workorder# 0907340A

One 6 Liter Summa Canister sample was received on July 16, 2009. 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

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.

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 reported result for Cumene in sample BW-LFGSTACK-51A may be biased high due to co-elution with a non target compound with similar characteristic ions.

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.
Laboratory Services Since 1989

Summary of Detected Compounds
MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

Client Sample ID: BW-LFGSTACK-51A

Lab ID#: 0907340A-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	47	1800	230	8800
Freon 114	47	390	330	2800
Vinyl Chloride	47	2700	120	6900
Chloroethane	47	260	120	690
Freon 11	47	11 J	260	61 J
Ethanol	190	98 J	350	180 J
1,1-Dichloroethene	47	11 J	180	45 J
Acetone	190	310	440	730
Methylene Chloride	47	93	160	320
trans-1,2-Dichloroethene	47	120	180	490
Hexane	47	610	160	2200
1,1-Dichloroethane	47	73	190	300
2-Butanone (Methyl Ethyl Ketone)	47	300	140	890
cis-1,2-Dichloroethene	47	880	180	3500
1,1,1-Trichloroethane	47	9.1 J	260	50 J
Cyclohexane	47	330	160	1100
Benzene	47	860	150	2700
Heptane	47	1400	190	5800
Trichloroethene	47	360	250	1900
1,2-Dichloropropane	47	75	220	350
1,4-Dioxane	190	140 J	680	500 J
4-Methyl-2-pentanone	47	200	190	830
Toluene	47	12000	180	46000
Tetrachloroethene	47	320	320	2200
Chlorobenzene	47	210	220	970
Ethyl Benzene	47	3100	200	14000
m,p-Xylene	47	5900	200	25000
o-Xylene	47	1700	200	7400
Cumene	47	410	230	2000
Propylbenzene	47	460	230	2300
4-Ethyltoluene	47	1300	230	6500
1,3,5-Trimethylbenzene	47	530	230	2600
1,2,4-Trimethylbenzene	47	1400	230	6900
1,4-Dichlorobenzene	47	450	280	2700
1,2-Dichlorobenzene	47	17 J	280	100 J

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Laboratory Services Since 1989

Client Sample ID: BW-LFGSTACK-51A

Lab ID#: 0907340A-01A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	y072914	Date of Collection:	7/15/09 3:30:00 PM
Dil. Factor:	93.7	Date of Analysis:	7/29/09 03:15 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	47	1800	230	8800
Freon 114	47	390	330	2800
Chloromethane	190	Not Detected	390	Not Detected
Vinyl Chloride	47	2700	120	6900
1,3-Butadiene	47	Not Detected	100	Not Detected
Bromomethane	47	Not Detected	180	Not Detected
Chloroethane	47	260	120	690
Freon 11	47	11 J	260	61 J
Ethanol	190	98 J	350	180 J
Freon 113	47	Not Detected	360	Not Detected
1,1-Dichloroethene	47	11 J	180	45 J
Acetone	190	310	440	730
2-Propanol	190	Not Detected	460	Not Detected
Carbon Disulfide	47	Not Detected	140	Not Detected
3-Chloropropene	190	Not Detected	590	Not Detected
Methylene Chloride	47	93	160	320
Methyl tert-butyl ether	47	Not Detected U J	170	Not Detected U J
trans-1,2-Dichloroethene	47	120	180	490
Hexane	47	610	160	2200
1,1-Dichloroethane	47	73	190	300
2-Butanone (Methyl Ethyl Ketone)	47	300	140	890
cis-1,2-Dichloroethene	47	880	180	3500
Tetrahydrofuran	47	Not Detected	140	Not Detected
Chloroform	47	Not Detected	230	Not Detected
1,1,1-Trichloroethane	47	9.1 J	260	50 J
Cyclohexane	47	330	160	1100
Carbon Tetrachloride	47	Not Detected	290	Not Detected
2,2,4-Trimethylpentane	47	Not Detected	220	Not Detected
Benzene	47	860	150	2700
1,2-Dichloroethane	47	Not Detected	190	Not Detected
Heptane	47	1400	190	5800
Trichloroethene	47	360	250	1900
1,2-Dichloropropane	47	75	220	350
1,4-Dioxane	190	140 J	680	500 J
Bromodichloromethane	47	Not Detected	310	Not Detected
cis-1,3-Dichloropropene	47	Not Detected	210	Not Detected
4-Methyl-2-pentanone	47	200	190	830
Toluene	47	12000	180	46000
trans-1,3-Dichloropropene	47	Not Detected	210	Not Detected

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: BW-LFGSTACK-51A

Lab ID#: 0907340A-01A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**y072914**	**Date of Collection:**	**7/15/09 3:30:00 PM**
Dil. Factor:	**93.7**	**Date of Analysis:**	**7/29/09 03:15 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,2-Trichloroethane	47	Not Detected	260	Not Detected
Tetrachloroethene	47	320	320	2200
2-Hexanone	190	Not Detected	770	Not Detected
Dibromochloromethane	47	Not Detected	400	Not Detected
1,2-Dibromoethane (EDB)	47	Not Detected	360	Not Detected
Chlorobenzene	47	210	220	970
Ethyl Benzene	47	3100	200	14000
m,p-Xylene	47	5900	200	25000
o-Xylene	47	1700	200	7400
Styrene	47	Not Detected	200	Not Detected
Bromoform	47	Not Detected	480	Not Detected
Cumene	47	410	230	2000
1,1,2,2-Tetrachloroethane	47	Not Detected	320	Not Detected
Propylbenzene	47	460	230	2300
4-Ethyltoluene	47	1300	230	6500
1,3,5-Trimethylbenzene	47	530	230	2600
1,2,4-Trimethylbenzene	47	1400	230	6900
1,3-Dichlorobenzene	47	Not Detected	280	Not Detected
1,4-Dichlorobenzene	47	450	280	2700
alpha-Chlorotoluene	47	Not Detected	240	Not Detected
1,2-Dichlorobenzene	47	17 J	280	100 J
1,2,4-Trichlorobenzene	190	Not Detected	1400	Not Detected
Hexachlorobutadiene	190	Not Detected	2000	Not Detected

J = Estimated value.
UJ = Non-detected compound associated with low bias in the CCV
Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	74	70-130
Toluene-d8	90	70-130
4-Bromofluorobenzene	101	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Lab Blank

Lab ID#: 0907340A-02A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	y072911a	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 7/29/09 10:38 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	0.080 J	1.6	0.25 J
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 U J	1.8	Not Detected U J
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	0.063 J	1.8	0.22 J
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	0.39 J	7.2	1.4 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	0.052 J	1.9	0.19 J
trans-1,3-Dichloropropene	0.50	0.098 J	2.3	0.44 J

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Lab Blank

Lab ID#: 0907340A-02A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**y072911a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/29/09 10:38 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	0.26 J	8.2	1.1 J
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	0.092 J	3.8	0.71 J
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	0.052 J	2.2	0.23 J
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	0.074 J	2.1	0.32 J
Bromoform	0.50	0.11 J	5.2	1.1 J
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.50	0.11 J	3.4	0.78 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	0.078 J	2.4	0.38 J
1,3-Dichlorobenzene	0.50	0.19 J	3.0	1.2 J
1,4-Dichlorobenzene	0.50	0.20 J	3.0	1.2 J
alpha-Chlorotoluene	0.50	0.25 J	2.6	1.3 J
1,2-Dichlorobenzene	0.50	0.21 J	3.0	1.3 J
1,2,4-Trichlorobenzene	2.0	0.61 J	15	4.6 J
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected

J = Estimated value.
UJ = Non-detected compound associated with low bias in the CCV
Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	76	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	103	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: CCV

Lab ID#: 0907340A-03A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**y072908**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/29/09 08:09 AM**	

Compound	%Recovery
Freon 12	88
Freon 114	112
Chloromethane	79
Vinyl Chloride	82
1,3-Butadiene	77
Bromomethane	90
Chloroethane	78
Freon 11	88
Ethanol	81
Freon 113	103
1,1-Dichloroethene	77
Acetone	79
2-Propanol	82
Carbon Disulfide	83
3-Chloropropene	84
Methylene Chloride	77
Methyl tert-butyl ether	68 Q
trans-1,2-Dichloroethene	89
Hexane	74
1,1-Dichloroethane	78
2-Butanone (Methyl Ethyl Ketone)	85
cis-1,2-Dichloroethene	78
Tetrahydrofuran	82
Chloroform	80
1,1,1-Trichloroethane	91
Cyclohexane	81
Carbon Tetrachloride	98
2,2,4-Trimethylpentane	76
Benzene	87
1,2-Dichloroethane	88
Heptane	88
Trichloroethene	97
1,2-Dichloropropane	83
1,4-Dioxane	95
Bromodichloromethane	95
cis-1,3-Dichloropropene	92
4-Methyl-2-pentanone	89
Toluene	93
trans-1,3-Dichloropropene	99

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: CCV

Lab ID#: 0907340A-03A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**y072908**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/29/09 08:09 AM**	

Compound	**%Recovery**
1,1,2-Trichloroethane	101
Tetrachloroethene	114
2-Hexanone	92
Dibromochloromethane	120
1,2-Dibromoethane (EDB)	110
Chlorobenzene	108
Ethyl Benzene	105
m,p-Xylene	105
o-Xylene	106
Styrene	106
Bromoform	121
Cumene	104
1,1,2,2-Tetrachloroethane	99
Propylbenzene	102
4-Ethyltoluene	109
1,3,5-Trimethylbenzene	109
1,2,4-Trimethylbenzene	111
1,3-Dichlorobenzene	126
1,4-Dichlorobenzene	126
alpha-Chlorotoluene	114
1,2-Dichlorobenzene	127
1,2,4-Trichlorobenzene	110
Hexachlorobutadiene	97

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	78	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	106	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS

Lab ID#: 0907340A-04A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**y072909**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 7/29/09 08:58 AM**

Compound	%Recovery
Freon 12	74
Freon 114	101
Chloromethane	69 Q
Vinyl Chloride	70
1,3-Butadiene	67
Bromomethane	77
Chloroethane	70
Freon 11	78
Ethanol	51 Q
Freon 113	105
1,1-Dichloroethene	74
Acetone	76
2-Propanol	72
Carbon Disulfide	73
3-Chloropropene	76
Methylene Chloride	72
Methyl tert-butyl ether	60
trans-1,2-Dichloroethene	82
Hexane	69
1,1-Dichloroethane	74
2-Butanone (Methyl Ethyl Ketone)	77
cis-1,2-Dichloroethene	79
Tetrahydrofuran	72
Chloroform	76
1,1,1-Trichloroethane	82
Cyclohexane	74
Carbon Tetrachloride	89
2,2,4-Trimethylpentane	70
Benzene	80
1,2-Dichloroethane	79
Heptane	80
Trichloroethene	87
1,2-Dichloropropane	76
1,4-Dioxane	84
Bromodichloromethane	85
cis-1,3-Dichloropropene	83
4-Methyl-2-pentanone	80
Toluene	88
trans-1,3-Dichloropropene	86

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS

Lab ID#: 0907340A-04A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**y072909**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 7/29/09 08:58 AM**

Compound	%Recovery
1,1,2-Trichloroethane	91
Tetrachloroethene	104
2-Hexanone	79
Dibromochloromethane	106
1,2-Dibromoethane (EDB)	94
Chlorobenzene	96
Ethyl Benzene	93
m,p-Xylene	94
o-Xylene	95
Styrene	90
Bromoform	108
Cumene	95
1,1,2,2-Tetrachloroethane	87
Propylbenzene	92
4-Ethyltoluene	97
1,3,5-Trimethylbenzene	95
1,2,4-Trimethylbenzene	96
1,3-Dichlorobenzene	111
1,4-Dichlorobenzene	112
alpha-Chlorotoluene	96
1,2-Dichlorobenzene	109
1,2,4-Trichlorobenzene	98
Hexachlorobutadiene	86

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	77	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	104	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCSD

Lab ID#: 0907340A-04AA

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**y072910**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 7/29/09 09:45 AM**

Compound	%Recovery
Freon 12	73
Freon 114	101
Chloromethane	69 Q
Vinyl Chloride	70
1,3-Butadiene	67
Bromomethane	78
Chloroethane	71
Freon 11	78
Ethanol	52 Q
Freon 113	106
1,1-Dichloroethene	75
Acetone	75
2-Propanol	71
Carbon Disulfide	72
3-Chloropropene	77
Methylene Chloride	71
Methyl tert-butyl ether	57 Q
trans-1,2-Dichloroethene	82
Hexane	69
1,1-Dichloroethane	73
2-Butanone (Methyl Ethyl Ketone)	79
cis-1,2-Dichloroethene	79
Tetrahydrofuran	72
Chloroform	75
1,1,1-Trichloroethane	82
Cyclohexane	75
Carbon Tetrachloride	89
2,2,4-Trimethylpentane	70
Benzene	79
1,2-Dichloroethane	78
Heptane	80
Trichloroethene	88
1,2-Dichloropropane	76
1,4-Dioxane	84
Bromodichloromethane	84
cis-1,3-Dichloropropene	82
4-Methyl-2-pentanone	79
Toluene	88
trans-1,3-Dichloropropene	86

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCSD

Lab ID#: 0907340A-04AA

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**y072910**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 7/29/09 09:45 AM**

Compound	%Recovery
1,1,2-Trichloroethane	92
Tetrachloroethene	104
2-Hexanone	79
Dibromochloromethane	107
1,2-Dibromoethane (EDB)	94
Chlorobenzene	97
Ethyl Benzene	94
m,p-Xylene	93
o-Xylene	95
Styrene	90
Bromoform	108
Cumene	95
1,1,2,2-Tetrachloroethane	87
Propylbenzene	93
4-Ethyltoluene	98
1,3,5-Trimethylbenzene	96
1,2,4-Trimethylbenzene	97
1,3-Dichlorobenzene	112
1,4-Dichlorobenzene	110
alpha-Chlorotoluene	97
1,2-Dichlorobenzene	110
1,2,4-Trichlorobenzene	98
Hexachlorobutadiene	85

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	75	70-130
Toluene-d8	93	70-130
4-Bromofluorobenzene	104	70-130

Air Toxics LTD.
Laboratory Services Since 1989

7/27/2009
Mr. Dave Powers
MWH Americas, Inc.
175 West Jackson Blvd.
Suite 1900
Chicago IL 60604

Project Name: BLACKWELL
Project #: 4050581.098101
Workorder #: 0907340B

Dear Mr. Dave Powers

The following report includes the data for the above referenced project for sample(s) received on 7/16/2009 at Air Toxics Ltd.

The data and associated QC analyzed by Modified ASTM D-1945 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Brandon Dunmore at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Brandon M. Dunmore

Brandon Dunmore
Project Manager

Air Toxics LTD.
Laboratory Services Since 1989

WORK ORDER #: 0907340B

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 #**	4050581.098101 BLACKWELL
DATE RECEIVED:	07/16/2009	**CONTACT:**	Brandon Dunmore
DATE COMPLETED:	07/27/2009		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	BW-LFGSTACK-51A	Modified ASTM D-1945	5.5 "Hg	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 L. Truman DATE: 07/27/09

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/08, Expiration date: 06/30/09
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# 0907340B

One 6 Liter Summa Canister sample was received on July 16, 2009. 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.
Laboratory Services Since 1989

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

Client Sample ID: BW-LFGSTACK-51A

Lab ID#: 0907340B-01A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.16	1.8
Nitrogen	0.16	12
Methane	0.00016	56
Carbon Dioxide	0.016	30
Ethane	0.0016	0.0024
Ethene	0.0016	0.0012 J
Propane	0.0016	0.00072 J
Isobutane	0.0016	0.00042 J
Butane	0.0016	0.000096 J
Pentane	0.0016	0.000081 J
C6+	0.016	0.013 J

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: BW-LFGSTACK-51A

Lab ID#: 0907340B-01A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9072412**	**Date of Collection:**	**7/15/09 3:30:00 PM**
Dil. Factor:	**1.64**	**Date of Analysis:**	**7/24/09 11:39 AM**

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.16	1.8
Nitrogen	0.16	12
Carbon Monoxide	0.016	Not Detected
Methane	0.00016	56
Carbon Dioxide	0.016	30
Ethane	0.0016	0.0024
Ethene	0.0016	0.0012 J
Acetylene	0.0016	Not Detected
Propane	0.0016	0.00072 J
Isobutane	0.0016	0.00042 J
Butane	0.0016	0.000096 J
Neopentane	0.0016	Not Detected
Isopentane	0.0016	Not Detected
Pentane	0.0016	0.000081 J
C6+	0.016	0.013 J
Hydrogen	0.016	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Canister

Air Toxics LTD.
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Client Sample ID: Lab Blank

Lab ID#: 0907340B-02A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9072405a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/24/09 08:39 AM**	

Compound	**Rpt. Limit (%)**	**Amount (%)**
Oxygen	0.10	0.0061 J
Nitrogen	0.10	0.019 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.
Laboratory Services Since 1989

Client Sample ID: Lab Blank

Lab ID#: 0907340B-02B

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9072403ba**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/24/09 07:41 AM**	

Compound	**Rpt. Limit (%)**	**Amount (%)**
Hydrogen	0.010	Not Detected

Container Type: NA - Not Applicable

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS

Lab ID#: 0907340B-03A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9072430**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 7/24/09 09:14 PM**

Compound	%Recovery
Oxygen	100
Nitrogen	100
Carbon Monoxide	103
Methane	97
Carbon Dioxide	101
Ethane	96
Ethene	97
Acetylene	93
Propane	97
Isobutane	97
Butane	97
Neopentane	95
Isopentane	96
Pentane	96
C6+	99

Container Type: NA - Not Applicable

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCSD

Lab ID#: 0907340B-03AA

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9072431**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 7/24/09 09:36 PM**

Compound	%Recovery
Oxygen	100
Nitrogen	100
Carbon Monoxide	103
Methane	96
Carbon Dioxide	101
Ethane	95
Ethene	96
Acetylene	93
Propane	96
Isobutane	97
Butane	97
Neopentane	96
Isopentane	96
Pentane	97
C6+	100

Container Type: NA - Not Applicable

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS

Lab ID#: 0907340B-04A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9072428b**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 7/24/09 08:27 PM**

Compound	%Recovery
Hydrogen	104

Container Type: NA - Not Applicable

Air Toxics LTD.
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Client Sample ID: LCSD

Lab ID#: 0907340B-04AA

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9072429b**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 7/24/09 08:49 PM**

Compound	%Recovery
Hydrogen	103

Container Type: NA - Not Applicable

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 / TIM CARROLL
Company: MWH
Email: JUSTIN.E.FINGER@MWHGLOBAL.COM
Address: 175 W. JACKSON BLVD, SUITE 1500
City: CHICAGO
State: IL
Zip: 60604
Phone: (312) 831-3000
Fax: (312) 831-3021

Project Info:
P.O. #:
Project #: 4050581.098101
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 (psi)
01A	BW-LFGSTACK-51A	12936	7/15/09	0730-1530	TO14A/ASTM 1945D	-29.5 Hg	-5.5 Hg		

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
[signature]	7/15/09 1600	Monica Gregen ATL	7/16/09 845

Notes: PLEASE CHECK THAT FLOW CONTROLLER HAS NOT BEEN DAMAGED DURING SHIPPING, THUS AFFECTING SAMPLE RESULTS.

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	Fed Ex		NA	Good	Yes No None	0907340

Form 1293 rev.

Atmospheric Analysis & Consulting, Inc.

CLIENT : MWH Americas
AAC PROJECT NO. : 090467
REPORT DATE : 07/16/2009

On July 16, 2009 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-LFGSTACK-51A	090467-39253	461.3	921.4

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 this sample. 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 Ave., Ste. A • Ventura, • CA 93003 (805) 650-1642 • FAX (805) 650-1644 • www.aaclab.com

Atmospheric Analysis & Consulting, Inc.

Laboratory Analysis Report

Client	: **MWH Americas**	**Sampling Date**	: **07/15/2009**
Project No.	: **090467**	**Receiving Date**	: **07/16/2009**
Matrix	: **Air**	**Analysis Date**	: **07/16/2009**
Units	: **ppmv**	**Report Date**	: **07/17/2009**

EPA Method 25C

Detection Limit:		**1.0 ppmv**
Client Sample ID	**AAC ID**	**TNMOC***
BW-LFGSTACK-51A	**090467-39253**	690.1

***Total Non-Methane Organic Compounds as Methane**

Sucha Parmar, Ph.D
Technical Director

1534 Eastman Ave., Ste. A • Ventura, • CA 93003 (805) 650-1642 • FAX (805) 650-1644 • www.aaclab.com

Atmospheric Analysis & Consulting, Inc.

Quality Control/Quality Assurance Report

Analysis Date: 7/16/2009
Analyst: DN
Units: ppmv

Instrument ID: FID#9
Calibration Date: 1/18/2008

I - Opening Calibration Verification Standard - Method 25C

Analyte	xCF	dCF	%RPD*
CO	11713	11860	1.3
CH4	11996	12614	5.0
CO2	11842	12220	3.1
Propane	33025	32967	0.2

II - Method Blank - Method 25C

AAC ID	Analyte	Sample Result
MB	TNMOC	ND

III - Laboratory Control Spike & Duplicate - Method 25C

AAC ID	Analyte	Spike Added	LCS Result	LCSD Result	LCS % Rec **	LCSD % Rec **	% RPD***
LCS/LCSD	TNMOC	50.0	54.5	54.8	108.9	109.6	0.6

IV - Closing Calibration Verification Standard - Method 25C

Analyte	xCF	dCF	%RPD*
CO	11713	10733	8.7
CH4	11996	12960	7.7
CO2	11842	11766	0.6
Propane	33025	32792	0.7

xCF - Average Calibration Factor from Initial Calibration Curve
dCF - Daily Calibration Factor
* Must be <15%
** Must be 90-110 %
*** Must be <20%

Sucha Parmar, Ph.D
Technical Director

1534 Eastman Ave., Ste. A • Ventura, • CA 93003 (805) 650-1642 • FAX (805) 650-1644 • www.aaclab.com

ATMOSPHERIC ANALYSIS & CONSULTING, INC.
1534 Eastman Avenue, Suite A
Ventura, California 93003
Phone (805) 650-1642 Fax (805) 650-1644
E-mail: info@aaclab.com

AAC Project No. 090467

CHAIN OF CUSTODY/ ANALYSIS REQUEST FORM

Client Name: MWH

Project Name: BLACKWELL

Project Mgr (Print Name): DAVID POWERS

Project Number: 4050581.098101

Sampler's Name (Print Name): JUSTIN FINGER / JIM CARROLL

Sampler's Signature: [signature]

Analysis Requested: EPA 25C (mod) [TNMOC]

AAC Sample No.	Date Sampled	Time Sampled	Sample Type	Client Sample ID/Description	Type/No. of Containers	EPA 25C (mod) [TNMOC]
39253	7/15/09	0730-1530	TIME-INTEGRATED	BW-LFGSTACK-51A	AIR 1	X

Send report:

Attn: JUSTIN FINGER

Phone#: (312) 831-3447

Fax#: (312) 831-3021

Send invoice to:

Attn:

P.O. #

Turnaround Time

24-Hr ____ 48-Hr ____

5 Day ____ Normal X

Other (Specify) ____

Special Instructions/remarks:

INITIAL VAC = -28" Hg

FINAL VAC = -11" Hg

CANISTER # 000134

Relinquished by (Signature):	Print Name:	Date/Time	Received by (signature):	Print Name
[signature]	JUSTIN FINGER	7/15/09 1600		
Relinquished by (Signature):	Print Name:	Date/Time	Received by (signature):	Print Name
		7/16/2009 1000	[signature]	Benjamin Witten

Air Toxics LTD.
Laboratory Services Since 1989

12/6/2009
Mr. Dave Powers
MWH Americas, Inc.
175 West Jackson Blvd.
Suite 1900
Chicago IL 60604

Project Name: Blackwell
Project #: 1007333.04811001
Workorder #: 0911446A

Dear Mr. Dave Powers

The following report includes the data for the above referenced project for sample(s) received on 11/19/2009 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-14A are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Ausha Scott
Project Manager

Air Toxics LTD.
Laboratory Services Since 1989

WORK ORDER #: 0911446A

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 #**	1007333.04811001 Blackwell
DATE RECEIVED:	11/19/2009	**CONTACT:**	Ausha Scott
DATE COMPLETED:	12/05/2009		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	BW-LFGSTACK-52A	Modified TO-14A	3.5 "Hg	5 psi
02A	Lab Blank	Modified TO-14A	NA	NA
03A	CCV	Modified TO-14A	NA	NA
04A	LCS	Modified TO-14A	NA	NA
04AA	LCSD	Modified TO-14A	NA	NA

CERTIFIED BY: Linda L. Freeman

Laboratory Director

DATE: 12/06/09

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/10
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified TO-14A Soil Gas
MWH Americas, Inc.
Workorder# 0911446A

One 6 Liter Summa Canister sample was received on November 19, 2009. The laboratory performed analysis via modified EPA Method TO-14A using GC/MS in the full scan mode. The method involves concentrating up to 50 mLs 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*
Initial Calibration	+- 30 % RSD	</= 30 % RSD with 2 compounds allowed out to < 40 %.
Daily CCV	+- 30 % D	</= 30 % D with 2 allowed out up to 40%; flag and narrate associated sample results
BFB Tune Absolute Abundance Criteria	Within 10% of that from the previous day.	CCV Internal Standard area counts are compared to the ICAL; corrective action for > 40 %D
Blank acceptance criteria	< 0.2 ppbv	< RL
Sampling Drying System	Nafion Dryer	Multisorbent concentrator
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.
Laboratory Services Since 1989

Summary of Detected Compounds
MODIFIED EPA METHOD TO-14A GC/MS

Client Sample ID: BW-LFGSTACK-52A

Lab ID#: 0911446A-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	25	2600	120	13000
Freon 114	25	370	180	2600
Vinyl Chloride	25	4100	65	11000
Chloroethane	25	320	67	860
Freon 11	25	12 J	140	66 J
Ethanol	100	620	190	1200
1,1-Dichloroethene	25	14 J	100	55 J
Acetone	100	330	240	780
2-Propanol	100	48 J	250	120 J
Methylene Chloride	25	65	88	220
trans-1,2-Dichloroethene	25	150	100	600
Hexane	25	870	89	3100
1,1-Dichloroethane	25	96	100	390
2-Butanone (Methyl Ethyl Ketone)	25	310	75	930
cis-1,2-Dichloroethene	25	1500	100	5800
Tetrahydrofuran	25	130	75	380
1,1,1-Trichloroethane	25	14 J	140	75 J
Cyclohexane	25	490	87	1700
Benzene	25	1000	81	3300
Heptane	25	1800	100	7200
Trichloroethene	25	410	140	2200
1,2-Dichloropropane	25	96	120	440
1,4-Dioxane	100	110	360	400
4-Methyl-2-pentanone	25	190	100	790
Toluene	25	16000	96	60000
Tetrachloroethene	25	320	170	2200
Chlorobenzene	25	170	120	780
Ethyl Benzene	25	3600	110	16000
m,p-Xylene	25	7400	110	32000
o-Xylene	25	2000	110	8600
Cumene	25	300	120	1500
Propylbenzene	25	560	120	2700
4-Ethyltoluene	25	1700	120	8200
1,3,5-Trimethylbenzene	25	680	120	3300
1,2,4-Trimethylbenzene	25	1900	120	9500
1,4-Dichlorobenzene	25	550	150	3300
1,2-Dichlorobenzene	25	18 J	150	110 J

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: BW-LFGSTACK-52A

Lab ID#: 0911446A-01A

MODIFIED EPA METHOD TO-14A GC/MS

File Name:	**b113016**	**Date of Collection:**	**11/18/09 3:35:00 PM**
Dil. Factor:	**5.07**	**Date of Analysis:**	**11/30/09 07:17 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	25	2600	120	13000
Freon 114	25	370	180	2600
Chloromethane	100	Not Detected	210	Not Detected
Vinyl Chloride	25	4100	65	11000
1,3-Butadiene	25	Not Detected	56	Not Detected
Bromomethane	25	Not Detected	98	Not Detected
Chloroethane	25	320	67	860
Freon 11	25	12 J	140	66 J
Ethanol	100	620	190	1200
Freon 113	25	Not Detected	190	Not Detected
1,1-Dichloroethene	25	14 J	100	55 J
Acetone	100	330	240	780
2-Propanol	100	48 J	250	120 J
Carbon Disulfide	25	Not Detected	79	Not Detected
3-Chloropropene	100	Not Detected	320	Not Detected
Methylene Chloride	25	65	88	220
Methyl tert-butyl ether	25	Not Detected	91	Not Detected
trans-1,2-Dichloroethene	25	150	100	600
Hexane	25	870	89	3100
1,1-Dichloroethane	25	96	100	390
2-Butanone (Methyl Ethyl Ketone)	25	310	75	930
cis-1,2-Dichloroethene	25	1500	100	5800
Tetrahydrofuran	25	130	75	380
Chloroform	25	Not Detected	120	Not Detected
1,1,1-Trichloroethane	25	14 J	140	75 J
Cyclohexane	25	490	87	1700
Carbon Tetrachloride	25	Not Detected	160	Not Detected
2,2,4-Trimethylpentane	25	Not Detected	120	Not Detected
Benzene	25	1000	81	3300
1,2-Dichloroethane	25	Not Detected	100	Not Detected
Heptane	25	1800	100	7200
Trichloroethene	25	410	140	2200
1,2-Dichloropropane	25	96	120	440
1,4-Dioxane	100	110	360	400
Bromodichloromethane	25	Not Detected	170	Not Detected
cis-1,3-Dichloropropene	25	Not Detected	120	Not Detected
4-Methyl-2-pentanone	25	190	100	790
Toluene	25	16000	96	60000
trans-1,3-Dichloropropene	25	Not Detected	120	Not Detected

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: BW-LFGSTACK-52A

Lab ID#: 0911446A-01A

MODIFIED EPA METHOD TO-14A GC/MS

File Name:	**b113016**	**Date of Collection:**	**11/18/09 3:35:00 PM**
Dil. Factor:	**5.07**	**Date of Analysis:**	**11/30/09 07:17 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,2-Trichloroethane	25	Not Detected	140	Not Detected
Tetrachloroethene	25	320	170	2200
2-Hexanone	100	Not Detected	420	Not Detected
Dibromochloromethane	25	Not Detected	220	Not Detected
1,2-Dibromoethane (EDB)	25	Not Detected	190	Not Detected
Chlorobenzene	25	170	120	780
Ethyl Benzene	25	3600	110	16000
m,p-Xylene	25	7400	110	32000
o-Xylene	25	2000	110	8600
Styrene	25	Not Detected	110	Not Detected
Bromoform	25	Not Detected	260	Not Detected
Cumene	25	300	120	1500
1,1,2,2-Tetrachloroethane	25	Not Detected	170	Not Detected
Propylbenzene	25	560	120	2700
4-Ethyltoluene	25	1700	120	8200
1,3,5-Trimethylbenzene	25	680	120	3300
1,2,4-Trimethylbenzene	25	1900	120	9500
1,3-Dichlorobenzene	25	Not Detected	150	Not Detected
1,4-Dichlorobenzene	25	550	150	3300
alpha-Chlorotoluene	25	Not Detected	130	Not Detected
1,2-Dichlorobenzene	25	18 J	150	110 J
1,2,4-Trichlorobenzene	100	Not Detected	750	Not Detected
Hexachlorobutadiene	100	Not Detected	1100	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	102	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Lab Blank

Lab ID#: 0911446A-02A

MODIFIED EPA METHOD TO-14A GC/MS

File Name:	**b113015a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/30/09 06:56 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	Not Detected	38	Not Detected
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	Not Detected	17	Not Detected
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

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Lab Blank

Lab ID#: 0911446A-02A

MODIFIED EPA METHOD TO-14A GC/MS

File Name:	**b113015a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/30/09 06:56 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	2.1 J	150	15 J
Hexachlorobutadiene	20	Not Detected	210	Not Detected

J = Estimated value.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	100	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: CCV

Lab ID#: 0911446A-03A

MODIFIED EPA METHOD TO-14A GC/MS

File Name:	**b113003**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 11/30/09 09:08 AM**

Compound	%Recovery
Freon 12	97
Freon 114	92
Chloromethane	96
Vinyl Chloride	94
1,3-Butadiene	93
Bromomethane	88
Chloroethane	95
Freon 11	93
Ethanol	92
Freon 113	90
1,1-Dichloroethene	96
Acetone	92
2-Propanol	93
Carbon Disulfide	90
3-Chloropropene	92
Methylene Chloride	94
Methyl tert-butyl ether	114
trans-1,2-Dichloroethene	91
Hexane	95
1,1-Dichloroethane	95
2-Butanone (Methyl Ethyl Ketone)	92
cis-1,2-Dichloroethene	93
Tetrahydrofuran	93
Chloroform	92
1,1,1-Trichloroethane	93
Cyclohexane	93
Carbon Tetrachloride	92
2,2,4-Trimethylpentane	96
Benzene	93
1,2-Dichloroethane	95
Heptane	96
Trichloroethene	88
1,2-Dichloropropane	93
1,4-Dioxane	90
Bromodichloromethane	91
cis-1,3-Dichloropropene	91
4-Methyl-2-pentanone	91
Toluene	94
trans-1,3-Dichloropropene	90

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: CCV

Lab ID#: 0911446A-03A

MODIFIED EPA METHOD TO-14A GC/MS

File Name:	**b113003**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 11/30/09 09:08 AM**

Compound	%Recovery
1,1,2-Trichloroethane	91
Tetrachloroethene	91
2-Hexanone	89
Dibromochloromethane	93
1,2-Dibromoethane (EDB)	89
Chlorobenzene	88
Ethyl Benzene	90
m,p-Xylene	90
o-Xylene	90
Styrene	92
Bromoform	94
Cumene	90
1,1,2,2-Tetrachloroethane	92
Propylbenzene	90
4-Ethyltoluene	90
1,3,5-Trimethylbenzene	88
1,2,4-Trimethylbenzene	94
1,3-Dichlorobenzene	86
1,4-Dichlorobenzene	86
alpha-Chlorotoluene	91
1,2-Dichlorobenzene	84
1,2,4-Trichlorobenzene	74
Hexachlorobutadiene	77

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	100	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS

Lab ID#: 0911446A-04A

MODIFIED EPA METHOD TO-14A GC/MS

File Name:	**b113004**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 11/30/09 09:34 AM**

Compound	%Recovery
Freon 12	87
Freon 114	87
Chloromethane	91
Vinyl Chloride	87
1,3-Butadiene	87
Bromomethane	82
Chloroethane	92
Freon 11	86
Ethanol	130
Freon 113	76
1,1-Dichloroethene	80
Acetone	83
2-Propanol	84
Carbon Disulfide	85
3-Chloropropene	86
Methylene Chloride	79
Methyl tert-butyl ether	105
trans-1,2-Dichloroethene	84
Hexane	86
1,1-Dichloroethane	85
2-Butanone (Methyl Ethyl Ketone)	84
cis-1,2-Dichloroethene	84
Tetrahydrofuran	86
Chloroform	83
1,1,1-Trichloroethane	86
Cyclohexane	86
Carbon Tetrachloride	85
2,2,4-Trimethylpentane	87
Benzene	86
1,2-Dichloroethane	88
Heptane	88
Trichloroethene	83
1,2-Dichloropropane	88
1,4-Dioxane	86
Bromodichloromethane	84
cis-1,3-Dichloropropene	86
4-Methyl-2-pentanone	87
Toluene	85
trans-1,3-Dichloropropene	86

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS

Lab ID#: 0911446A-04A

MODIFIED EPA METHOD TO-14A GC/MS

File Name:	**b113004**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 11/30/09 09:34 AM**

Compound	%Recovery
1,1,2-Trichloroethane	89
Tetrachloroethene	87
2-Hexanone	90
Dibromochloromethane	87
1,2-Dibromoethane (EDB)	89
Chlorobenzene	85
Ethyl Benzene	89
m,p-Xylene	89
o-Xylene	88
Styrene	89
Bromoform	90
Cumene	86
1,1,2,2-Tetrachloroethane	92
Propylbenzene	87
4-Ethyltoluene	87
1,3,5-Trimethylbenzene	87
1,2,4-Trimethylbenzene	93
1,3-Dichlorobenzene	86
1,4-Dichlorobenzene	89
alpha-Chlorotoluene	84
1,2-Dichlorobenzene	88
1,2,4-Trichlorobenzene	81
Hexachlorobutadiene	87

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	103	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCSD

Lab ID#: 0911446A-04AA

MODIFIED EPA METHOD TO-14A GC/MS

File Name:	**b113014**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/30/09 06:08 PM**	

Compound	%Recovery
Freon 12	88
Freon 114	87
Chloromethane	91
Vinyl Chloride	88
1,3-Butadiene	86
Bromomethane	80
Chloroethane	87
Freon 11	86
Ethanol	137
Freon 113	77
1,1-Dichloroethene	79
Acetone	80
2-Propanol	81
Carbon Disulfide	82
3-Chloropropene	81
Methylene Chloride	79
Methyl tert-butyl ether	93
trans-1,2-Dichloroethene	83
Hexane	87
1,1-Dichloroethane	83
2-Butanone (Methyl Ethyl Ketone)	83
cis-1,2-Dichloroethene	82
Tetrahydrofuran	85
Chloroform	83
1,1,1-Trichloroethane	83
Cyclohexane	85
Carbon Tetrachloride	81
2,2,4-Trimethylpentane	88
Benzene	83
1,2-Dichloroethane	85
Heptane	87
Trichloroethene	81
1,2-Dichloropropane	85
1,4-Dioxane	82
Bromodichloromethane	80
cis-1,3-Dichloropropene	82
4-Methyl-2-pentanone	83
Toluene	81
trans-1,3-Dichloropropene	80

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCSD

Lab ID#: 0911446A-04AA

MODIFIED EPA METHOD TO-14A GC/MS

File Name:	**b113014**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 11/30/09 06:08 PM**

Compound	%Recovery
1,1,2-Trichloroethane	85
Tetrachloroethene	83
2-Hexanone	82
Dibromochloromethane	82
1,2-Dibromoethane (EDB)	83
Chlorobenzene	81
Ethyl Benzene	84
m,p-Xylene	84
o-Xylene	82
Styrene	82
Bromoform	80
Cumene	79
1,1,2,2-Tetrachloroethane	84
Propylbenzene	81
4-Ethyltoluene	79
1,3,5-Trimethylbenzene	79
1,2,4-Trimethylbenzene	83
1,3-Dichlorobenzene	75
1,4-Dichlorobenzene	77
alpha-Chlorotoluene	70
1,2-Dichlorobenzene	76
1,2,4-Trichlorobenzene	66 Q
Hexachlorobutadiene	68 Q

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	101	70-130

Air Toxics LTD.
Laboratory Services Since 1989

12/4/2009
Mr. Dave Powers
MWH Americas, Inc.
175 West Jackson Blvd.
Suite 1900
Chicago IL 60604

Project Name: Blackwell
Project #: 1007333.04811001
Workorder #: 0911446B

Dear Mr. Dave Powers

The following report includes the data for the above referenced project for sample(s) received on 11/19/2009 at Air Toxics Ltd.

The data and associated QC analyzed by Modified ASTM D-1945 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Ausha Scott
Project Manager

Air Toxics LTD.
Laboratory Services Since 1989

WORK ORDER #: 0911446B

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 #**	1007333.04811001 Blackwell
DATE RECEIVED:	11/19/2009	**CONTACT:**	Ausha Scott
DATE COMPLETED:	12/04/2009		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	BW-LFGSTACK-52A	Modified ASTM D-1945	3.5 "Hg	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
03B	LCS	Modified ASTM D-1945	NA	NA
03BB	LCSD	Modified ASTM D-1945	NA	NA

CERTIFIED BY: Linda L. Truman DATE: 12/04/09

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/10
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# 0911446B

One 6 Liter Summa Canister sample was received on November 19, 2009. 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.

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 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

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.

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.
Laboratory Services Since 1989

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

Client Sample ID: BW-LFGSTACK-52A

Lab ID#: 0911446B-01A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.15	3.5
Nitrogen	0.15	16
Methane	0.00015	51
Carbon Dioxide	0.015	29
Ethane	0.0015	0.0022
Ethene	0.0015	0.0011 J
Propane	0.0015	0.00065 J
Isobutane	0.0015	0.00035 J
Butane	0.0015	0.000095 J
Pentane	0.0015	0.000081 J
C6+	0.015	0.013 J
Hydrogen	0.015	0.0023 J

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: BW-LFGSTACK-52A

Lab ID#: 0911446B-01A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9120222**	**Date of Collection:**	**11/18/09 3:35:00 PM**
Dil. Factor:	**1.52**	**Date of Analysis:**	**12/2/09 08:36 PM**

Compound	**Rpt. Limit (%)**	**Amount (%)**
Oxygen	0.15	3.5
Nitrogen	0.15	16
Carbon Monoxide	0.015	Not Detected
Methane	0.00015	51
Carbon Dioxide	0.015	29
Ethane	0.0015	0.0022
Ethene	0.0015	0.0011 J
Acetylene	0.0015	Not Detected
Propane	0.0015	0.00065 J
Isobutane	0.0015	0.00035 J
Butane	0.0015	0.000095 J
Neopentane	0.0015	Not Detected
Isopentane	0.0015	Not Detected
Pentane	0.0015	0.000081 J
C6+	0.015	0.013 J
Hydrogen	0.015	0.0023 J

J = Estimated value.

Container Type: 6 Liter Summa Canister

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Lab Blank

Lab ID#: 0911446B-02A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9120204a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/2/09 08:47 AM**	

Compound	**Rpt. Limit (%)**	**Amount (%)**
Oxygen	0.10	0.0090 J
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

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Lab Blank

Lab ID#: 0911446B-02B

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9120203b**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/2/09 08:14 AM**	

Compound	**Rpt. Limit (%)**	**Amount (%)**
Hydrogen	0.010	Not Detected

Container Type: NA - Not Applicable

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS

Lab ID#: 0911446B-03A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9120223**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/2/09 08:59 PM**	

Compound	%Recovery
Oxygen	98
Nitrogen	99
Carbon Monoxide	99
Methane	99
Carbon Dioxide	101
Ethane	98
Ethene	98
Acetylene	94
Propane	98
Isobutane	98
Butane	98
Neopentane	97
Isopentane	97
Pentane	98
C6+	98

Container Type: NA - Not Applicable

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCSD

Lab ID#: 0911446B-03AA

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9120224**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 12/2/09 09:59 PM**

Compound	%Recovery
Oxygen	102
Nitrogen	103
Carbon Monoxide	103
Methane	99
Carbon Dioxide	105
Ethane	98
Ethene	98
Acetylene	94
Propane	98
Isobutane	98
Butane	98
Neopentane	97
Isopentane	97
Pentane	98
C6+	97

Container Type: NA - Not Applicable

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS

Lab ID#: 0911446B-03B

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9120225b**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 12/2/09 10:21 PM**

Compound	**%Recovery**
Hydrogen	105

Container Type: NA - Not Applicable

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCSD

Lab ID#: 0911446B-03BB

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9120226b**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/2/09 10:42 PM**	

Compound	%Recovery
Hydrogen	107

Container Type: NA - Not Applicable

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 FINCER, TIM CARROLL / [signature]
Company: MWH
Email: JUSTIN.E.FINCER@AECOM.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 #: 1007333.04811001
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 (psi)
DA	BW-LFGSTACK-52A	4370	11/18/09	0735-1535	TO14A/ASTM 1945D	-28"Hg	-4"Hg		

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
[signature]	11/18/09 1600	Monica Gregson ATL	11/19/09 900
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time

Notes: PLEASE CHECK THAT FLOW CONTROLLER WAS NOT DAMAGED DURING SHIPPING, THUS AFFECTING SAMPLE RESULTS.

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	Fed Ex		NA	Good	Yes No None	0911446

Form 1293 rev.11

Atmospheric Analysis & Consulting, Inc.

CLIENT : MWH Americas
AAC PROJECT NO. : 090939
REPORT DATE : 11/23/2009

On November 19, 2009 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-LFGSTACK-52A	090939-42136	685.7	902.3

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 this sample. 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 Ave., Ste. A • Ventura, • CA 93003 (805) 650-1642 • FAX (805) 650-1644 • www.aaclab.com

Atmospheric Analysis & Consulting, Inc.

Laboratory Analysis Report

Client	: **MWH Americas**	**Sampling Date**	: **11/18/2009**
Project No.	: **090939**	**Receiving Date**	: **11/19/2009**
Matrix	: **Air**	**Analysis Date**	: **11/20/2009**
Units	: **ppmv**	**Report Date**	: **11/23/2009**

EPA Method 25C

Detection Limit:		**1.0 ppmv**
Client Sample ID	**AAC ID**	**TNMOC***
BW-LFGSTACK-52A	**090939-42136**	467.3

***Total Non-Methane Organic Compounds as Methane**

Sucha Parmar, Ph.D
Technical Director

1534 Eastman Ave., Ste. A • Ventura, • CA 93003 (805) 650-1642 • FAX (805) 650-1644 • www.aaclab.com

Atmospheric Analysis & Consulting, Inc.

Quality Control/Quality Assurance Report

Analysis Date: 11/20/2009
Analyst: DN
Units: ppmv

Instrument ID: FID#9
Calibration Date: 1/18/2008

I - Opening Calibration Verification Standard - Method 25C

Analyte	xCF	dCF	%RPD*
CO	11713	12637	7.6
CH4	11996	13017	8.2
CO2	11842	12961	9.0
Propane	33025	35496	7.2

II - Method Blank - Method 25C

AAC ID	Analyte	Sample Result
MB	TNMOC	ND

III - Laboratory Control Spike & Duplicate - Method 25C

AAC ID	Analyte	Spike Added	LCS Result	LCSD Result	LCS % Rec **	LCSD % Rec **	% RPD***
LCS/LCSD	TNMOC	50.0	53.6	52.1	107.1	104.2	2.7

IV - Closing Calibration Verification Standard - Method 25C

Analyte	xCF	dCF	%RPD*
CO	11713	10628	9.7
CH4	11996	12528	4.3
CO2	11842	10741	9.7
Propane	33025	32158	2.7

xCF - Average Calibration Factor from Initial Calibration Curve
dCF - Daily Calibration Factor
* Must be <15%
** Must be 90-110 %
*** Must be <20%

Sucha Parmar, Ph.D
Technical Director

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ATMOSPHERIC ANALYSIS & CONSULTING, INC.
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Phone (805) 650-1642 Fax (805) 650-1644
E-mail: info@aaclab.com

AAC Project No. 090939 Page 1 of _

CHAIN OF CUSTODY / ANALYSIS REQUEST FORM

Client Name: MWH
Project Name: BLACKWELL
Project Mgr (Print Name): DAVID POWERS
Project Number: 1007333.04811001
Sampler's Name (Print Name): JUSTIN FINLER / TIM CARROLL
Sampler's Signature: [signature]

Analysis Requested: EPA 25C MOD (TNMOC)

AAC Sample No.	Date Sampled	Time Sampled	Sample Type	Client Sample ID/Description	Type/No. of containers	EPA 25C MOD (TNMOC)
42136	11/18/09	0735-1535	TIME-INTEGRATED	BW-LFGSTACK-52A	AIR 1	X

Send Report:
Attn: JUSTIN FINLER
Phone #: (312) 831-3447
Fax #: (312) 851-3021

Send Invoice to:
Attn:
P.O. #

Turn Around Time
24-Hr ____ 48-Hr ____
5 day ____ Normal X
Other (Specify)

Special Intructions / remarks:
INITIAL VAC = -27" Hg
FINAL VAC = -3" Hg
CANISTER # 000020

Relinquished by (Signature)	Print name:	Date/Time	Received by (Signature)	Print Name
[signature]	JUSTIN FINLER	11/18/09 1600		
Relinquished by (Signature)	Print name:	Date/Time	Received by (Signature)	Print Name

Air Toxics LTD.
Laboratory Services Since 1989

1/27/2010
Mr. Dave Powers
MWH Americas, Inc.
175 West Jackson Blvd.
Suite 1900
Chicago IL 60604

Project Name: Blackwell
Project #: 1007333.04811001
Workorder #: 1001243A

Dear Mr. Dave Powers

The following report includes the data for the above referenced project for sample(s) received on 1/14/2010 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-14A (5&20 ppbv) are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Ausha Scott
Project Manager

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 .FAX (916) 985-1020
Hours 6:30 A.M to 5:30 PST

Air Toxics LTD.
Laboratory Services Since 1989

WORK ORDER #: 1001243A

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 #**	1007333.04811001 Blackwell
DATE RECEIVED:	01/14/2010	**CONTACT:**	Ausha Scott
DATE COMPLETED:	01/27/2010		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	BW-LFGSTACK-53A	Modified TO-14A (5&20 pp	3.2 "Hg	5 psi
02A	Lab Blank	Modified TO-14A (5&20 pp	NA	NA
03A	CCV	Modified TO-14A (5&20 pp	NA	NA
04A	LCS	Modified TO-14A (5&20 pp	NA	NA
04AA	LCSD	Modified TO-14A (5&20 pp	NA	NA

CERTIFIED BY: Linda J. Freeman DATE: 01/27/10

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/10
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 TO-14A Soil Gas
MWH Americas, Inc.
Workorder# 1001243A

One 6 Liter Summa Canister sample was received on January 14, 2010. The laboratory performed analysis via modified EPA Method TO-14A using GC/MS in the full scan mode. The method involves concentrating up to 50 mLs 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*
Initial Calibration	+- 30 % RSD	</= 30 % RSD with 2 compounds allowed out to < 40 %.
Daily CCV	+- 30 % D	</= 30 % D with 2 allowed out up to 40%; flag and narrate associated sample results
BFB Tune Absolute Abundance Criteria	Within 10% of that from the previous day.	CCV Internal Standard area counts are compared to the ICAL; corrective action for > 40 %D
Blank acceptance criteria	< 0.2 ppbv	< RL
Sampling Drying System	Nafion Dryer	Multisorbent concentrator
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

All Quality Control Limit exceedences 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.

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 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.
Laboratory Services Since 1989

Summary of Detected Compounds
MODIFIED EPA METHOD TO-14A GC/MS

Client Sample ID: BW-LFGSTACK-53A

Lab ID#: 1001243A-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	12	1700	62	8600
Freon 114	12	270	87	1900
Vinyl Chloride	12	3700	32	9500
Chloroethane	12	480	33	1200
Freon 11	12	9.3 J	70	52 J
Freon 113	12	6.1 J	96	47 J
1,1-Dichloroethene	12	14	50	57
Acetone	50	73	120	170
2-Propanol	50	3.7 J	120	9.1 J
Carbon Disulfide	12	2.0 J	39	6.2 J
Methylene Chloride	12	36	43	120
trans-1,2-Dichloroethene	12	150	50	600
Hexane	12	920	44	3200
1,1-Dichloroethane	12	41	50	160
2-Butanone (Methyl Ethyl Ketone)	12	130	37	390
cis-1,2-Dichloroethene	12	640	50	2500
Tetrahydrofuran	12	100	37	300
Cyclohexane	12	520	43	1800
2,2,4-Trimethylpentane	12	85	58	400
Benzene	12	920	40	2900
Heptane	12	1800	51	7500
Trichloroethene	12	160	67	880
1,2-Dichloropropane	12	64	58	300
1,4-Dioxane	50	30 J	180	110 J
4-Methyl-2-pentanone	12	150	51	610
Toluene	12	9400	47	35000
Tetrachloroethene	12	89	85	600
1,2-Dibromoethane (EDB)	12	3.1 J	96	24 J
Chlorobenzene	12	240	58	1100
Ethyl Benzene	12	3300	54	14000
m,p-Xylene	12	6200	54	27000
o-Xylene	12	1800	54	7800
Cumene	12	300	61	1500
Propylbenzene	12	530	61	2600
4-Ethyltoluene	12	1500	61	7300
1,3,5-Trimethylbenzene	12	690	61	3400
1,2,4-Trimethylbenzene	12	1900	61	9200

Air Toxics LTD.
Laboratory Services Since 1989

Summary of Detected Compounds
MODIFIED EPA METHOD TO-14A GC/MS

Client Sample ID: BW-LFGSTACK-53A

Lab ID#: 1001243A-01A

1,4-Dichlorobenzene	12	610	75	3700
1,2-Dichlorobenzene	12	19	75	120

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: BW-LFGSTACK-53A

Lab ID#: 1001243A-01A

MODIFIED EPA METHOD TO-14A GC/MS

File Name:	**b011820**	**Date of Collection:**	**1/13/10 2:25:00 PM**
Dil. Factor:	**2.50**	**Date of Analysis:**	**1/18/10 06:46 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	12	1700	62	8600
Freon 114	12	270	87	1900
Chloromethane	50	Not Detected	100	Not Detected
Vinyl Chloride	12	3700	32	9500
1,3-Butadiene	12	Not Detected	28	Not Detected
Bromomethane	12	Not Detected	48	Not Detected
Chloroethane	12	480	33	1200
Freon 11	12	9.3 J	70	52 J
Ethanol	50	Not Detected	94	Not Detected
Freon 113	12	6.1 J	96	47 J
1,1-Dichloroethene	12	14	50	57
Acetone	50	73	120	170
2-Propanol	50	3.7 J	120	9.1 J
Carbon Disulfide	12	2.0 J	39	6.2 J
3-Chloropropene	50	Not Detected	160	Not Detected
Methylene Chloride	12	36	43	120
Methyl tert-butyl ether	12	Not Detected	45	Not Detected
trans-1,2-Dichloroethene	12	150	50	600
Hexane	12	920	44	3200
1,1-Dichloroethane	12	41	50	160
2-Butanone (Methyl Ethyl Ketone)	12	130	37	390
cis-1,2-Dichloroethene	12	640	50	2500
Tetrahydrofuran	12	100	37	300
Chloroform	12	Not Detected	61	Not Detected
1,1,1-Trichloroethane	12	Not Detected	68	Not Detected
Cyclohexane	12	520	43	1800
Carbon Tetrachloride	12	Not Detected	79	Not Detected
2,2,4-Trimethylpentane	12	85	58	400
Benzene	12	920	40	2900
1,2-Dichloroethane	12	Not Detected	50	Not Detected
Heptane	12	1800	51	7500
Trichloroethene	12	160	67	880
1,2-Dichloropropane	12	64	58	300
1,4-Dioxane	50	30 J	180	110 J
Bromodichloromethane	12	Not Detected	84	Not Detected
cis-1,3-Dichloropropene	12	Not Detected	57	Not Detected
4-Methyl-2-pentanone	12	150	51	610
Toluene	12	9400	47	35000
trans-1,3-Dichloropropene	12	Not Detected	57	Not Detected

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: BW-LFGSTACK-53A

Lab ID#: 1001243A-01A

MODIFIED EPA METHOD TO-14A GC/MS

File Name:	**b011820**	**Date of Collection:**	**1/13/10 2:25:00 PM**
Dil. Factor:	**2.50**	**Date of Analysis:**	**1/18/10 06:46 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	89	85	600
2-Hexanone	50	Not Detected	200	Not Detected
Dibromochloromethane	12	Not Detected	110	Not Detected
1,2-Dibromoethane (EDB)	12	3.1 J	96	24 J
Chlorobenzene	12	240	58	1100
Ethyl Benzene	12	3300	54	14000
m,p-Xylene	12	6200	54	27000
o-Xylene	12	1800	54	7800
Styrene	12	Not Detected	53	Not Detected
Bromoform	12	Not Detected	130	Not Detected
Cumene	12	300	61	1500
1,1,2,2-Tetrachloroethane	12	Not Detected	86	Not Detected
Propylbenzene	12	530	61	2600
4-Ethyltoluene	12	1500	61	7300
1,3,5-Trimethylbenzene	12	690	61	3400
1,2,4-Trimethylbenzene	12	1900	61	9200
1,3-Dichlorobenzene	12	Not Detected	75	Not Detected
1,4-Dichlorobenzene	12	610	75	3700
alpha-Chlorotoluene	12	Not Detected	65	Not Detected
1,2-Dichlorobenzene	12	19	75	120
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	102	70-130
4-Bromofluorobenzene	100	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Lab Blank

Lab ID#: 1001243A-02A

MODIFIED EPA METHOD TO-14A GC/MS

File Name:	**b011816a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 1/18/10 02:56 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	Not Detected	38	Not Detected
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	1.8 J	17	6.4 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

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Lab Blank

Lab ID#: 1001243A-02A

MODIFIED EPA METHOD TO-14A GC/MS

File Name:	**b011816a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 1/18/10 02:56 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	102	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	98	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: CCV

Lab ID#: 1001243A-03A

MODIFIED EPA METHOD TO-14A GC/MS

File Name:	**b011802**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 1/18/10 07:30 AM**

Compound	%Recovery
Freon 12	116
Freon 114	115
Chloromethane	121
Vinyl Chloride	118
1,3-Butadiene	120
Bromomethane	111
Chloroethane	119
Freon 11	115
Ethanol	112
Freon 113	116
1,1-Dichloroethene	116
Acetone	117
2-Propanol	110
Carbon Disulfide	118
3-Chloropropene	114
Methylene Chloride	100
Methyl tert-butyl ether	136 Q
trans-1,2-Dichloroethene	114
Hexane	116
1,1-Dichloroethane	115
2-Butanone (Methyl Ethyl Ketone)	120
cis-1,2-Dichloroethene	115
Tetrahydrofuran	119
Chloroform	114
1,1,1-Trichloroethane	115
Cyclohexane	113
Carbon Tetrachloride	117
2,2,4-Trimethylpentane	116
Benzene	120
1,2-Dichloroethane	117
Heptane	118
Trichloroethene	115
1,2-Dichloropropane	115
1,4-Dioxane	116
Bromodichloromethane	118
cis-1,3-Dichloropropene	115
4-Methyl-2-pentanone	117
Toluene	118
trans-1,3-Dichloropropene	115

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: CCV

Lab ID#: 1001243A-03A

MODIFIED EPA METHOD TO-14A GC/MS

File Name:	**b011802**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 1/18/10 07:30 AM**

Compound	%Recovery
1,1,2-Trichloroethane	115
Tetrachloroethene	116
2-Hexanone	117
Dibromochloromethane	121
1,2-Dibromoethane (EDB)	115
Chlorobenzene	112
Ethyl Benzene	113
m,p-Xylene	114
o-Xylene	112
Styrene	120
Bromoform	121
Cumene	114
1,1,2,2-Tetrachloroethane	113
Propylbenzene	115
4-Ethyltoluene	115
1,3,5-Trimethylbenzene	112
1,2,4-Trimethylbenzene	120
1,3-Dichlorobenzene	110
1,4-Dichlorobenzene	110
alpha-Chlorotoluene	121
1,2-Dichlorobenzene	108
1,2,4-Trichlorobenzene	101
Hexachlorobutadiene	107

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	101	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS

Lab ID#: 1001243A-04A

MODIFIED EPA METHOD TO-14A GC/MS

File Name:	**b011803**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 1/18/10 07:53 AM**

Compound	%Recovery
Freon 12	99
Freon 114	99
Chloromethane	99
Vinyl Chloride	99
1,3-Butadiene	102
Bromomethane	95
Chloroethane	98
Freon 11	98
Ethanol	94
Freon 113	87
1,1-Dichloroethene	87
Acetone	92
2-Propanol	91
Carbon Disulfide	98
3-Chloropropene	96
Methylene Chloride	75
Methyl tert-butyl ether	110
trans-1,2-Dichloroethene	96
Hexane	98
1,1-Dichloroethane	93
2-Butanone (Methyl Ethyl Ketone)	96
cis-1,2-Dichloroethene	94
Tetrahydrofuran	96
Chloroform	95
1,1,1-Trichloroethane	96
Cyclohexane	96
Carbon Tetrachloride	97
2,2,4-Trimethylpentane	98
Benzene	98
1,2-Dichloroethane	94
Heptane	97
Trichloroethene	97
1,2-Dichloropropane	96
1,4-Dioxane	98
Bromodichloromethane	95
cis-1,3-Dichloropropene	97
4-Methyl-2-pentanone	97
Toluene	94
trans-1,3-Dichloropropene	98

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS

Lab ID#: 1001243A-04A

MODIFIED EPA METHOD TO-14A GC/MS

File Name:	**b011803**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 1/18/10 07:53 AM**	

Compound	**%Recovery**
1,1,2-Trichloroethane	100
Tetrachloroethene	99
2-Hexanone	104
Dibromochloromethane	102
1,2-Dibromoethane (EDB)	101
Chlorobenzene	98
Ethyl Benzene	100
m,p-Xylene	102
o-Xylene	99
Styrene	112
Bromoform	106
Cumene	98
1,1,2,2-Tetrachloroethane	101
Propylbenzene	102
4-Ethyltoluene	104
1,3,5-Trimethylbenzene	101
1,2,4-Trimethylbenzene	109
1,3-Dichlorobenzene	101
1,4-Dichlorobenzene	103
alpha-Chlorotoluene	111
1,2-Dichlorobenzene	104
1,2,4-Trichlorobenzene	120
Hexachlorobutadiene	132 Q

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	101	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCSD

Lab ID#: 1001243A-04AA

MODIFIED EPA METHOD TO-14A GC/MS

File Name:	**b011821**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 1/18/10 07:07 PM**	

Compound	%Recovery
Freon 12	101
Freon 114	105
Chloromethane	103
Vinyl Chloride	101
1,3-Butadiene	105
Bromomethane	96
Chloroethane	102
Freon 11	96
Ethanol	100
Freon 113	89
1,1-Dichloroethene	89
Acetone	95
2-Propanol	92
Carbon Disulfide	95
3-Chloropropene	94
Methylene Chloride	78
Methyl tert-butyl ether	104
trans-1,2-Dichloroethene	99
Hexane	102
1,1-Dichloroethane	96
2-Butanone (Methyl Ethyl Ketone)	99
cis-1,2-Dichloroethene	95
Tetrahydrofuran	99
Chloroform	95
1,1,1-Trichloroethane	92
Cyclohexane	99
Carbon Tetrachloride	91
2,2,4-Trimethylpentane	102
Benzene	100
1,2-Dichloroethane	94
Heptane	101
Trichloroethene	97
1,2-Dichloropropane	99
1,4-Dioxane	100
Bromodichloromethane	92
cis-1,3-Dichloropropene	94
4-Methyl-2-pentanone	99
Toluene	95
trans-1,3-Dichloropropene	92

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCSD

Lab ID#: 1001243A-04AA

MODIFIED EPA METHOD TO-14A GC/MS

File Name:	**b011821**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 1/18/10 07:07 PM**

Compound	%Recovery
1,1,2-Trichloroethane	99
Tetrachloroethene	98
2-Hexanone	104
Dibromochloromethane	95
1,2-Dibromoethane (EDB)	100
Chlorobenzene	96
Ethyl Benzene	98
m,p-Xylene	100
o-Xylene	97
Styrene	109
Bromoform	93
Cumene	95
1,1,2,2-Tetrachloroethane	98
Propylbenzene	98
4-Ethyltoluene	100
1,3,5-Trimethylbenzene	97
1,2,4-Trimethylbenzene	107
1,3-Dichlorobenzene	97
1,4-Dichlorobenzene	102
alpha-Chlorotoluene	92
1,2-Dichlorobenzene	101
1,2,4-Trichlorobenzene	114
Hexachlorobutadiene	115

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	100	70-130

Air Toxics LTD.
Laboratory Services Since 1989

1/27/2010
Mr. Dave Powers
MWH Americas, Inc.
175 West Jackson Blvd.
Suite 1900
Chicago IL 60604

Project Name: Blackwell
Project #: 1007333.04811001
Workorder #: 1001243B

Dear Mr. Dave Powers

The following report includes the data for the above referenced project for sample(s) received on 1/14/2010 at Air Toxics Ltd.

The data and associated QC analyzed by Modified ASTM D-1945 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Ausha Scott
Project Manager

Air Toxics LTD.
Laboratory Services Since 1989

WORK ORDER #: 1001243B

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 #**	1007333.04811001 Blackwell
DATE RECEIVED:	01/14/2010	**CONTACT:**	Ausha Scott
DATE COMPLETED:	01/27/2010		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	BW-LFGSTACK-53A	Modified ASTM D-1945	3.2 "Hg	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
03B	LCS	Modified ASTM D-1945	NA	NA
03BB	LCSD	Modified ASTM D-1945	NA	NA

CERTIFIED BY: Linda L. Freeman DATE: 01/27/10

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/10
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# 1001243B

One 6 Liter Summa Canister sample was received on January 14, 2010. 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.

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 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

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.

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.
Laboratory Services Since 1989

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

Client Sample ID: BW-LFGSTACK-53A

Lab ID#: 1001243B-01A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.15	2.9
Nitrogen	0.15	18
Methane	0.00015	51
Carbon Dioxide	0.015	28
Ethane	0.0015	0.0023
Ethene	0.0015	0.0010 J
Propane	0.0015	0.00071 J
Isobutane	0.0015	0.00030 J
Butane	0.0015	0.000098 J
Pentane	0.0015	0.00010 J
C6+	0.015	0.012 J

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: BW-LFGSTACK-53A

Lab ID#: 1001243B-01A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9011819**	**Date of Collection:**	**1/13/10 2:25:00 PM**
Dil. Factor:	**1.50**	**Date of Analysis:**	**1/18/10 06:23 PM**

Compound	**Rpt. Limit (%)**	**Amount (%)**
Oxygen	0.15	2.9
Nitrogen	0.15	18
Carbon Monoxide	0.015	Not Detected
Methane	0.00015	51
Carbon Dioxide	0.015	28
Ethane	0.0015	0.0023
Ethene	0.0015	0.0010 J
Acetylene	0.0015	Not Detected
Propane	0.0015	0.00071 J
Isobutane	0.0015	0.00030 J
Butane	0.0015	0.000098 J
Neopentane	0.0015	Not Detected
Isopentane	0.0015	Not Detected
Pentane	0.0015	0.00010 J
C6+	0.015	0.012 J
Hydrogen	0.015	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Canister

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Lab Blank

Lab ID#: 1001243B-02A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9011804a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 1/18/10 09:55 AM**	

Compound	**Rpt. Limit (%)**	**Amount (%)**
Oxygen	0.10	0.020 J
Nitrogen	0.10	0.084 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.
Laboratory Services Since 1989

Client Sample ID: Lab Blank

Lab ID#: 1001243B-02B

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9011803b**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 1/18/10 09:32 AM**	

Compound	**Rpt. Limit (%)**	**Amount (%)**
Hydrogen	0.010	Not Detected

Container Type: NA - Not Applicable

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS

Lab ID#: 1001243B-03A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9011824**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 1/18/10 09:19 PM**	

Compound	**%Recovery**
Oxygen	100
Nitrogen	100
Carbon Monoxide	101
Methane	99
Carbon Dioxide	101
Ethane	100
Ethene	100
Acetylene	103
Propane	99
Isobutane	99
Butane	97
Neopentane	99
Isopentane	100
Pentane	99
C6+	99

Container Type: NA - Not Applicable

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCSD

Lab ID#: 1001243B-03AA

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9011825**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 1/18/10 09:50 PM**

Compound	%Recovery
Oxygen	99
Nitrogen	100
Carbon Monoxide	101
Methane	100
Carbon Dioxide	101
Ethane	101
Ethene	101
Acetylene	104
Propane	99
Isobutane	100
Butane	98
Neopentane	99
Isopentane	100
Pentane	99
C6+	98

Container Type: NA - Not Applicable

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS

Lab ID#: 1001243B-03B

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9011826b**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 1/18/10 10:15 PM**

Compound	%Recovery
Hydrogen	104

Container Type: NA - Not Applicable

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCSD

Lab ID#: 1001243B-03BB

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9011827b**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 1/18/10 10:49 PM**

Compound	%Recovery
Hydrogen	104

Container Type: NA - Not Applicable

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 FINCER/AMANDA BUTLER
Company MWH Email JUSTIN.E.FINCER@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 # 1007333.04811001
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 (psi)
01A	BW-LFGSTACK-53A	35162	1/13/10	0725-1425	TO14A / ASTM 1945D	-29"Hg	-3"Hg		

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
[signature]	1/13/10 1500	[signature]	1/14/10 95 / 1/14/09 mw
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time

Notes:
PLEASE CHECK THAT FLOW CONTROLLER WAS NOT DAMAGED DURING SHIPPING, THUS AFFECTING SAMPLE RESULTS.

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	Fedex		NA	good	Yes No None	1001243

Form 1293 rev.11

Atmospheric Analysis & Consulting, Inc.

CLIENT : MWH Americas
AAC PROJECT NO. : 100020
REPORT DATE : 01/15/2010

On January 14, 2010 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-LFGSTACK-53A	100020-42794	780.0	900.6

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 this sample. 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 aeal Certificate #E87837

1534 Eastman Ave., Ste. A • Ventura, • CA 93003 (805) 650-1642 • FAX (805) 650-1644 • www.aaclab.com

Atmospheric Analysis & Consulting, Inc.

Laboratory Analysis Report

Client	: **MWH Americas**	**Sampling Date**	: **01/13/2010**
Project No.	: **100020**	**Receiving Date**	: **01/14/2010**
Matrix	: **Air**	**Analysis Date**	: **01/15/2010**
Units	: **ppmv**	**Report Date**	: **01/15/2010**

EPA Method 25C

Detection Limit:		**1.0 ppmv**
Client Sample ID	**AAC ID**	**TNMOC***
BW-LFGSTACK-53A	**100020-42794**	242.5

***Total Non-Methane Organic Compounds as Methane**

Sucha Parmar, Ph.D
Technical Director

1534 Eastman Ave., Ste. A • Ventura, • CA 93003 (805) 650-1642 • FAX (805) 650-1644 • www.aaclab.com

Atmospheric Analysis & Consulting, Inc.

Quality Control/Quality Assurance Report

Analysis Date: 1/15/2010
Analyst: TT
Units: ppmv

Instrument ID: FID#9
Calibration Date: 1/4/2010

I - Opening Calibration Verification Standard - Method 25C

Analyte	xCF	dCF	%RPD*
CO	10775	11115	3.1
CH4	11591	11684	0.8
CO2	10798	10973	1.6
Propane	30263	30005	0.9

II - Method Blank - Method 25C

AAC ID	Analyte	Sample Result
MB	TNMOC	ND

III - Laboratory Control Spike & Duplicate - Method 25C

AAC ID	Analyte	Spike Added	LCS Result	LCSD Result	LCS % Rec **	LCSD % Rec **	% RPD***
LCS/LCSD	TNMOC	50.0	52.2	50.1	104.5	100.1	4.2

IV - Closing Calibration Verification Standard - Method 25C

Analyte	xCF	dCF	%RPD*
CO	10775	10526	2.3
CH4	11591	11152	3.9
CO2	10798	10849	0.5
Propane	30263	29480	2.6

xCF - Average Calibration Factor from Initial Calibration Curve
dCF - Daily Calibration Factor
* Must be <15%
** Must be 90-110 %
*** Must be <20%

Sucha Parmar, Ph.D
Technical Director

1534 Eastman Ave., Ste. A • Ventura, • CA 93003 (805) 650-1642 • FAX (805) 650-1644 • www.aaclab.com

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. 100020 Page 1 of 1

CHAIN OF CUSTODY / ANALYSIS REQUEST FORM

Client Name: MWH
Project Name: BLACKWELL
Project Mgr (Print Name): DAVID POWERS
Project Number: 1007333.04811001
Sampler's Name (Print Name): JUSTIN FINCER / AMANDA BUTLER
Sampler's Signature: [signature]

Analysis Requested: EPA 25C (MOD) (TNMEC)

Send Report:
Attn: JUSTIN FINCER
Phone #: (312) 831-3447
Fax #: (312) 831-3021

Send Invoice to:
Attn:
P.O. #

Turn Around Time
24-Hr ____ 48-Hr ____
5 day ____ Normal X
Other (Specify)

Special Intructions / remarks:
CANISTER # 000073
INITIAL VAC = -30" Hg
FINAL VAC =

AAC Sample No.	Date Sampled	Time Sampled	Sample Type	Client Sample ID/Description	Type/No. of containers	EPA 25C (MOD) (TNMEC)
42794	1/13/10	0725-1425	TIME-INTEGRATED	BW-LFG-STACK-53A	AIR 1	X

Relinquished by (Signature)	Print name:	Date/Time	Received by (Signature)	Print Name
[signature]	JUSTIN FINCER	1/13/10 1500		
Relinquished by (Signature)	Print name:	Date/Time	Received by (Signature)	Print Name
		1/14/2010 1000	[signature]	Benjamin L