OPERATION AND MAINTENANCE ANNUAL REPORT
JULY 2011 THROUGH JUNE 2012

REFUSE HIDEAWAY LANDFILL
7562 U.S. HIGHWAY 14
MIDDLETON, WISCONSIN 53562

Prepared For:

Wisconsin Department of Natural Resources

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1.0 INTRODUCTION

The following Operation and Maintenance (O&M) Annual Report was prepared by Leggette, Brashears & Graham, Inc. (LBG) on behalf of the Wisconsin Department of Natural Resources (Department) for the Refuse Hideaway Landfill (RHL) located at 7562 U.S. Highway 14 in Middleton, Wisconsin (Site). This O&M Annual Report summarizes activities conducted by LBG during the July 2011 through June 2012 contract period. The report includes project background information, a summary of leachate recovery system operational data, a synopsis of landfill gas (LFG) extraction and combustion system operations, an evaluation of landfill surface cover and drainage way conditions, and a description of equipment repair activities. Recommendations for future Site activities are also presented.

The 23-acre RHL, located in the Town of Middleton, Dane County, Wisconsin, was filled with approximately 1.3 million cubic yards of municipal, commercial, and industrial waste. A Site map is included as **Figure 1**. The landfill was closed in May 1988 and was covered in October 1988 with a minimum of 2 feet of clay, 18 inches of general soil, and 6 inches of topsoil. The State of Wisconsin, through the Environmental Repair Program, constructed an active gas extraction and combustion system and a leachate recovery system, which became operational on September 1, 1991. System O&M activities and landfill surface inspections have been conducted since operation began.

The LFG recovery system consists of a blower/flare station, a LFG collection network, and gas monitoring locations. The blower/flare station includes one centrifugal LFG blower, an enclosed flare, a candlestick flare (previously used as a backup combustion unit but now out of service), and associated controls and appurtenances. The LFG collection network consists of 13 extraction wells, 4 drip legs, and associated gas header piping. Eleven monitoring wells are located throughout the Site and an additional ambient air monitoring location has been designated within a nearby Speedway building. The LFG recovery system withdraws gas from

the landfill in order to control surface emissions and subsurface migration. Odors and emissions are controlled by combusting the gas at the flare.

The leachate collection system was upgraded in 1996 and currently consists of pneumatic pumps installed in nine of the extraction wells. The purpose of leachate extraction is to lower leachate head levels and reduce the potential for groundwater contamination. A compressor located near the blower/flare station supplies air to the pneumatic pumps. The leachate is stored onsite in a 25,000-gallon underground storage tank (UST). Leachate is subsequently removed from the tank and transported to the Madison Metropolitan Sewerage District (MMSD) for treatment and disposal.

2.0 LEACHATE RECOVERY SYSTEM

2.1 Leachate Levels within RHL

Leachate levels were measured on a monthly basis in the gas extraction wells using an electric water level indicator. The leachate head measurements in the gas extraction wells are summarized on **Table 1**. Leachate levels in the various extraction wells ranged from approximately 0 feet to 44 feet during the contract period and were consistent with measurements from previous contract years.

2.2 Leachate Quantity

The volume of leachate being recovered has increased significantly during the past three years. The increasing trend is apparent on the graph of annual leachate recovery volumes for the past five years, which is included as **Figure 2**. Elevated volumes of leachate were recovered from July 2009 through June 2012 compared to the period of July 2007 through June 2009 despite lower annual rainfall totals being recorded more recently. The precipitation data was obtained for the Dane County Airport weather station from the National Weather Service's Climate Data Center. The elevated leachate recovery rates are attributable to pump optimization activities being conducted persistently during this timeframe. Approximately 304,143 gallons of leachate were recovered and removed from RHL from July 2011 through June 2012 **(Table 2)**. The decrease in recovered leachate compared to the July 2010 to June 2011 contract period can be largely attributed to the significant repairs conducted on the compressed air delivery system

detailed in Section 2.5. They leachate recovery system was down for repairs from October 2011 through January 2012, and during periods of March and April 2012.

CONTRACT PERIOD	LEACHATE VOLUME RECOVERED (gallons)	ANNUAL RAINFALL TOTAL (inches)	O&M CONTRACTOR
July 2011-June 2012	304,143	22.28	LBG
July 2010-June 2011	563,145	36.67	LBG
July 2009-June 2010	469,239	36.25	LBG
July 2008-June 2009	214,360	37.13	Other consultant
July 2007-June 2008	226,606	55.24	Other consultant

During the current contract period, monthly leachate recovery volumes ranged from no recovery while the system was being repaired to approximately 60,671 gallons. The volume of leachate recovered is influenced by numerous factors including, but not limited to, the number of operational pneumatic pumps, interruptions to compressor operations, the severity of blockages within the leachate piping network (i.e. freezing wellhead conditions, biological fouling, natural scaling), seasonal weather variations, the condition of the clay cap, the frequency and duration of precipitation events, and the corresponding leachate elevation within the landfill. A graph of the monthly leachate recovery volumes is included as **Figure 3**. The highest recovery rate during the contract period was evident during July 2011 and the lowest recovery rate was observed during November and December 2011, when the system was not operational.

2.3 Leachate Quality

Leachate samples were collected on a quarterly basis for laboratory analysis. On September 29, 2011, December 28, 2011, March 29, 2012, and June 11, 2012, leachate samples were collected by LBG personnel by lowering a disposable bailer into the UST. The samples were placed in the appropriate containers, packaged in ice in a cooler, and sent to Test America, Inc. (Wisconsin Certification No. 999580010) for laboratory analysis of 12 inorganic parameters. Pursuant to the MMSD Wastewater Discharge Permit NTO-5.11 (Permit) and the Department's request for proposal, the samples were analyzed for cadmium, chromium, hexavalent chromium, copper, lead, mercury, molybdenum, nickel, selenium, silver, zinc, and total cyanide. As

indicated on **Table 3,** concentrations of the inorganic compounds were less than the discharge permit effluent limitations. The laboratory analytical reports are included in **Appendix I**.

2.4 Leachate Discharge Permit Compliance

The leachate is pumped on an as-needed basis from the UST by A-1 Sewer Service and is transported to a MMSD facility for treatment and disposal as allowed by the Permit. To fulfill the reporting requirements of Permit Part 3, Section 3.01, monitoring results were submitted to the MMSD within sixty days of the end of each quarterly monitoring period. A copy of the Permit is included as **Appendix II**. As stated above, concentrations of the analyzed parameters did not exceed any discharge permit limits.

2.5 Operational Duration and Maintenance Activities

The compressed air delivery system required several significant repairs during the contract period. Historical project information obtained by LBG did not indicate when the desiccant material within the towers had been previously changed. The existing desiccant appeared dirty and saturated with water and oil, suggesting it was well beyond its useful life. Saturated desiccant allows water vapor to remain within the compressed air supply which, during winter months, can freeze within the conduit and restrict air flow to the pneumatic pumps. Efforts to remove the desiccant were initiated during September 2011. While replacing the desiccant in the air drying system, LBG personnel discovered a malfunctioning solenoid relief valve and a missing desiccant screen.

Repairs to the air drying system were delayed when a malfunction of the compressor's slow start controller interrupted troubleshooting activities. A service technician indicated the compressor's controller was likely damaged by a voltage surge. The technician did not believe it would be a recurring issue. Once repairs were completed for the slow-start controller in November 2011, the compressor was restarted and the air dryer system was further inspected by a service technician. Parts were ordered to replace the malfunctioning relief valve and faulty wiring was corrected. Repairs were completed in January 2012 and the system was reassembled and restarted. The presence of water vapor in the supply lines appeared to decrease after the desiccant was replaced and the repairs to the air drying system were made.

During March 2012 site visits, LBG personnel noticed a leak in the O-ring of the coalescing filter of the compressed air delivery system which eventually caused the system to depressurize. The coalescing filter element was beyond its useful life and in need of replacement. A new filter element and O-ring were ordered and installed and the system was restarted in April 2012. The new filter is expected to increase the life of the desiccant in the downstream air drying system.

With an increasing frequency, LBG personnel found the electrical circuit breaker for the compressor tripped and the compressed air delivery system off-line between January 2012 and June 2012. Upon resetting the breaker, the system has operated for a period of time. Additionally, the ventilation fan system for the building housing the compressor is not functioning. These two issues will be addresses during July 2012.

The operation of select leachate pumps remained sporadic. Interruptions to leachate pump operations were primarily caused by the fouling of internal pump components which prevents the pump from properly cycling, fouling of wellhead leachate discharge lines, and water vapor freezing in the compressed air supply lines at the wellhead. As deemed necessary throughout the contract period, leachate pumps were removed for troubleshooting. The pumps were typically cleaned and the magnet spacing was adjusted to allow for proper cycling. Near the end of the contract year, all pumps were cleaned and adjusted as a component of the annual site inspection. Pumps in wells GW7 and GW13 were unable to be pulled from the wells due to blockages within the well casings. Following annual maintenance activities, all pumps were observed regularly cycling, including pumps in GW7 and GW13.

As a component of the annual inspection, a contractor was retained to conduct jetting of the leachate lines, driplegs and cleanouts during June 2012. Approximately 700 feet of leachate lines were cleaned along the Central branch and from the UST inlet. The jetting was completed using similar access ports and in a similar fashion to past jetting events.

3.0 LFG COLLECTION NETWORK

3.1 Operational Duration

The telemetry system and flare controls associated with the LFG collection system were taken off-line or bypassed by a previous operator due to low flare operational temperatures and

malfunctioning sensors/controls. Under this operating scenario, the landfill extraction blower can operate without interruption and directly discharge LFG to the atmosphere when the flame is out. To reduce the volume of LFG directly discharged to the atmosphere and increase the operational duration of the flare, the LFG extraction blower was taken off-line for short periods when methane concentrations were below operating levels or oxygen concentrations were elevated. Cycling the gas extraction system on and off resulted in the extraction blower operating approximately 58 percent of the contract period (**Table 4**). The blower did not experience any malfunctions during the contract period. Preventative maintenance activities (e.g. greasing) were completed.

3.2 Collection Network

The gas extraction system consists of a network of 13 vertical extraction wells. The wells, which connect to a header pipe, are grouped together in "branches". The header pipe from each of the branches is connected to the blower in order to draw the LFG from the wells.

The header piping system is divided into three branches; the North, Central, and South. The branches are also connected by header segments at their extremities to provide redundancy. The pipe segment connecting the South and Central branches at their extremities contains a buried control valve CV1, consisting of a butterfly valve with a geared actuator extended to the surface. The pipe segment connecting the Central and North branches at their extremities contains control valve CV2 (**Figure 1**). The control valves may be opened to re-route flow in the event a branch becomes unusable. The three branches enter the blower station and are valved individually. The three flows are then combined before entering the blower.

Sufficient vacuum was applied to the wells connected to the North and Central branches during the contract period (**Table 5**). However, vacuum cannot be sustained at wellheads GW1 through GW5 on the Southern branch while leachate recovery pumps are operational in GW4 and GW5. Low points within the Southern branch and within the redundant connection between the South branch and the Central branch extremities accumulate liquids which prevent LFG recovery from the Southern branch wells.

Due to stressed vegetation and LFG emanating through the landfill cover in the GW5 area and elevated methane concentrations in property line gas probe GP-11, two lateral wells were installed and connected to the GW5 wellhead during 1993. Despite previous efforts to

rectify these issues, elevated methane concentrations remain in the GW5 area. Furthermore, pressure is observed on a consistent basis within the GW5 lateral extraction wells indicating the build-up of LFG under the landfill cover. A blockage likely exists within the solid pipe that extends halfway through each lateral trench segment. Even if vacuum is restored to the GW5 wellhead, additional efforts will be required to establish vacuum through the GW5 lateral wells.

3.3 Landfill Perimeter Gas Probe Monitoring Points

During the contract period, methane was detected in three perimeter gas probe clusters (G-1S/G-1D, G-2S/G-2D and GP-11S/GP-11D) at concentrations greater than the lower explosive limit (LEL), which is 5 percent by volume. The methane concentrations at these three clusters ranged from non-detect to 11.0 percent by volume (**Table 6**). These clusters are located within approximately 125 feet of the landfill limits **(Figure 1)**. Cluster G-1 is located in the vicinity of the Speedway buildings; however, methane was not detected within the closest Speedway building during the contract period. Clusters G-2 and GP-11 are located in close proximity to the property line. Well GW5 is the closest extraction well to clusters G-2 and GP-11. LFG piping network repairs are warranted in the vicinity of extraction well GW5 in order to recover methane from this area. A methane concentration above the LEL was recorded at GP-6 in November 2011. However, the measurement was not repeatable and is considered to be anomalous.

4.0 LFG COMBUSTION SYSTEM

4.1 Operational Duration

The LFG combustion system was not fully operational during the contract period. As indicated on **Table 4**, the LFG extraction blower operated 58 percent of the time, which is similar to previous years. The flare operated within the range of 32 to 58 percent of the time. The operational hours for the flare increased approximately 47 percent from the previous contract year (2,844 hours in 2011-2012 vs. 1,941 hours in 2010-2011). The telemetry system and select system controls were taken off-line by a previous operator so a more accurate estimate of the flare operational duration cannot be made. On numerous occasions, the LFG collection and combustion systems were taken off-line for a period of a few days in an attempt to reduce

the volume of gas directly discharged to the atmosphere and to improve the operation of the flare by allowing LFG methane concentrations to rebound. Upon system restart, elevated methane concentrations were typically evident. Despite efforts to cycle the LFG recovery system, it may have been emitting LFG directly to the atmosphere up to approximately 94 days out of the contract year. This, however, is the fewest potential direct venting days since LBG has been the O&M contractor (131 days in 2010-2011; 113 days in 2009-2010) and is attributable to persistent system and well optimization.

4.2 Operational Parameters

LFG flow rates varied considerably during the contract period due to the number of extraction wells on-line and other site factors (i.e. leachate head levels). The LFG flow rate measured at Sample Port A ranged from approximately 56 to 230 cubic feet per minute. A summary of blower and flare station flow rates and methane concentrations is attached as **Appendix III**.

4.3 Landfill Gas Sampling and Analysis

Landfill gas samples were collected from sample port A on the common header inlet pipe to the flare on February 1, 2012 and February 8, 2012 by LBG personnel. Samples were collected as grab samples using 6-liter Summa canisters and analyzed for non-methane organic compounds, benzene, and vinyl chloride in order to calculate the landfill's potential to emit (PTE) benzene and vinyl chloride. PTE values are compared to NR 445 thresholds to determine if air treatment is required based on these constituents.

Based on the analytical data and maximum observed flow rate from July 2009 through December 2011, the uncontrolled PTE for benzene and vinyl chloride is 7.5 pounds per year (lbs/year) and 5.6 lbs/year, respectively. These emission rates are below NR 445 threshold values of 228 lbs/year for benzene and 202 lbs/year for vinyl chloride. Analytical data, a summarized data table, and PTE calculations are in **Appendix IV**.

4.4 Troubleshooting Activities

Flare troubleshooting activities have included monitoring wellhead LFG concentrations frequently and adjusting wellhead valves accordingly in order to minimize the oxygen content and to maximize the methane concentration and the flow rate of the gas stream. When these

activities did not produce methane concentrations sufficient for flare operation, the gas extraction system was taken off-line for a few days.

The pilot light would not operate on numerous occasions because the spark rod becomes misaligned due to vibration of the flare and results in an ineffective spark gap. This requires the pilot light assembly to be dismantled, cleaned, and repositioned as accurately as possible.

4.5 Synopsis of Equipment Condition

As indicated by its low operational percentage, the enclosed flare has approached the end of its useful life cycle. The Department has developed a scope of work for the replacement of the gas combustion flare and for the restoration of gas collection from the Southern branch of the LFG network.

5.0 LANDFILL SURFACE COVER AND DRAINAGE INSPECTION

5.1 Landfill Surface

The landfill surface was inspected monthly between the months of April and November to evaluate cap integrity, determine the condition of the drainage ways, and assess the extent of vegetative cover. Limited areas of the landfill cover have experienced minimal settlement resulting in pools of storm water collecting on the landfill surface. No areas of significant erosion or stressed vegetation that need to be addressed by the Department were noted. Small areas of stressed vegetation with some minor erosion were noted along the Southern branch, particularly around GW4 and GW5.

5.2 Sedimentation Basin

The sedimentation basin was visited during June 2012 to evaluate the current depth between the invert of the outlet structure and the top of the sediment. Field measurements indicated that the depth of water within the basin was greater than 3 feet; therefore, the accumulation of sediment has not adversely diminished the allowable storm water storage volume of the basin.

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

Based on the information presented above, the following conclusions have been made:

- Leachate levels in the various extraction wells ranged from approximately 0 feet to 44 feet.
- Approximately 304,143 gallons of leachate were removed from RHL. Despite lower precipitation amounts, the volume of leachate recovered during the past three contract periods has increased significantly in comparison to the volume recovered from July 2007 to June 2009. The increase has been attributed to persistent pump optimization activities.
- Monthly leachate recovery volumes ranged from no recovery while the system was being repaired to 60,671 gallons.
- Concentrations of inorganic compounds in the quarterly leachate samples were less than the discharge permit effluent limitations.
- The compressed air delivery system required significant repairs resulting in several months of down time. The operation of select leachate pumps was interrupted on occasion due to the fouling of internal pump components and wellhead leachate discharge lines and water vapor freezing within the air supply.
- The LFG extraction blower was taken off-line for short periods when methane concentrations were below operating levels or oxygen levels were elevated. The extraction blower operated approximately 58 percent of the contract period.
- Due to the telemetry system and flare controls being taken off-line by a previous operator, the landfill extraction blower can operate without interruption and directly discharge LFG to the atmosphere when the flare is off-line. Due to flame failure within the flare, the LFG recovery system may have been emitting greenhouse gases directly to the atmosphere for up to 94 days out of the contract year.
- Leachate collects in the lateral pipe segment between GW5 and control valve CV1 instead of draining into the conveyance line that slopes from GW5 toward GW4. A low spot(s) has likely developed in the conveyance line for the Southern branch. The

accumulation of leachate or condensate within the low spot(s) blocks LFG from being extracted from the Southern branch.

- The observed pressure within the GW5 lateral extraction wells indicates that there is likely a blockage within the solid pipe that extends halfway through each trench segment.
- Methane was detected in three perimeter gas probe clusters at concentrations greater than the LEL. One cluster is located in the vicinity of the Speedway buildings and two clusters are located in close proximity to the southwestern property line.
- The enclosed flare is approaching the end of its useful life cycle. Plans are underway to replace the flare and control system.
- Landfill surface inspections indicated that limited areas have experienced minimal settlement resulting in pools of storm water collecting on the landfill surface. Small areas of stressed vegetation and erosion have been noted around GW4 and GW5.
- The accumulation of sediment has not adversely diminished the allowable storm water storage volume of the sedimentation basin.

6.2 Recommendations

Based on the Site activities conducted by LBG to date, the following tasks are being recommended for implementation during the subsequent contract year in order to optimize system operations and supplement routine O&M activities:

- Replace the enclosed flare and associated controls and appurtenances in order to eliminate the direct discharge of LFG to the atmosphere.
- Restore gas collection on the southern branch of the collection network in order to:
    - Reduce elevated methane concentrations in perimeter gas probes
    - Reduce the build-up of pressure within the landfill from LFG production
    - Minimize fugitive emissions of LFG through the cover in the vicinity of GW5
- Assess the integrity of the leachate tank and interstitial space leak detection system.
- Assess the perimeter gas monitoring network system.
- Repair the ventilation unit in the compressor enclosure.

TABLES

TABLE 1

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
REFUSE HIDEAWAY LANDFILL
MIDDLETON, WISCONSIN

LEACHATE EXTRACTION WELL SUMMARY

Well	Date	Well Depth	Depth to Leachate (feet)	Leachate Level (feet above well bottom)	Wellhead Pressure (psi)	Primary Counter			Secondary Counter			Comments
						Pump Cycle Reading	Cycles Per Period	Cycles Per Hour	Pump Cycle Reading	Cycles Per Period	Cycles Per Hour	
GW1	7/1/2011	53.7	37.0	16.7								
GW1	8/1/2011	53.7	--	--								
GW1	8/26/2011	53.7	38.5	15.2								
GW1	10/3/2011	53.7	40.0	13.7								
GW1	10/28/2011	53.7	37.5	16.2								
GW1	11/30/2011	53.7	42.0	11.7								
GW1	12/29/2011	53.7	43.0	10.7								
GW1	1/26/2012	53.7	43.0	10.7								
GW1	2/22/2012	53.7	42.5	11.2								
GW1	3/29/2012	53.7	40.0	13.7								
GW1	4/27/2012	53.7	40.0	13.7								
GW1	5/30/2012	53.7	39.5	14.2								
GW1	6/26/2012	53.7	42.0	11.7								
GW2	7/1/2011	53.9	37.0	16.9								
GW2	8/1/2011	53.9	--	--								
GW2	8/26/2011	53.9	38.1	15.8								
GW2	10/3/2011	53.9	38.0	15.9								
GW2	10/28/2011	53.9	35.5	18.4								
GW2	11/30/2011	53.9	37.5	16.4								
GW2	12/29/2011	53.9	38.0	15.9								
GW2	1/26/2012	53.9	38.0	15.9								
GW2	2/22/2012	53.9	38.0	15.9								
GW2	3/29/2012	53.9	38.5	15.4								
GW2	4/27/2012	53.9	38.5	15.4								
GW2	5/30/2012	53.9	38.5	15.4								
GW2	6/26/2012	53.9	37.5	16.4								
GW3	7/1/2011	59.7	56.0	3.7								
GW3	8/1/2011	59.7	--	--								
GW3	8/26/2011	59.7	56.3	3.4								
GW3	10/3/2011	59.7	--	--								Dry
GW3	10/28/2011	59.7	53.0	6.7								
GW3	11/30/2011	59.7	56.5	3.2								
GW3	12/29/2011	59.7	56.0	3.7								
GW3	1/26/2012	59.7	56.0	3.7								

TABLE 1

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
REFUSE HIDEAWAY LANDFILL
MIDDLETON, WISCONSIN

LEACHATE EXTRACTION WELL SUMMARY

Well	Date	Well Depth	Depth to Leachate (feet)	Leachate Level (feet above well bottom)	Wellhead Pressure (psi)	Primary Counter			Secondary Counter			Comments
						Pump Cycle Reading	Cycles Per Period	Cycles Per Hour	Pump Cycle Reading	Cycles Per Period	Cycles Per Hour	
GW3	2/22/2012	59.7	53.0	6.7								
GW3	3/29/2012	59.7	56.0	3.7								
GW3	4/27/2012	59.7	56.0	3.7								
GW3	5/30/2012	59.7	55.5	4.2								
GW3	6/26/2012	59.7	53.0	6.7								
GW4	7/1/2011	~65	57.0	8	33	497,395	59,722	65				Pump observed cycling
GW4	8/1/2011	~65	--	--	--	499710	2,315	3				Pump observed cycling
GW4	8/26/2011	~65	45.8	19.2	80	522,620	22,910	38				Pump not observed cycling
GW4	10/3/2011	~65	42.0	23.0	90	522,629	9	0				Pump not observed cycling
GW4	10/28/2011	~65	39.5	25.5	--	522,629	0	0				Compressor down
GW4	11/30/2011	~65	42.5	22.5	--	522,629	0	0				Compressor down
GW4	12/29/2011	~65	42.0	23.0	--	522,629	0	0				Compressor down
GW4	1/26/2012	~65	58.0	7	80	--	--	--				Pump observed cycling
GW4	2/22/2012	~65	58.0	7	80	532,299	9,679	15				Pump observed cycling
GW4	3/29/2012	~65	43.5	22	0	537,669	5,370	6				Compressor down
GW4	4/27/2012	~65	46.0	19	40	543,378	5,709	8				Pump not observed cycling
GW4	5/30/2012	~65	40.5	25	40	545,378	2,000	3				Pump observed cycling
GW4	6/26/2012	~65	57.0	8	40	546,384	1,006	2				Pump observed cycling - annual cleaning on 6/25/12
GW5	7/1/2011	~70	--	--	35	435,610	0	0	499,721	70,673	77	Pump observed cycling
GW5	8/1/2011	~70	--	--	--	435,614	4	0	531,615	31,894	43	Pump observed cycling
GW5	8/26/2011	~70	--	--	75	--	--	--	616,574	84,959	142	Pump observed cycling
GW5	10/3/2011	~70	42.0	28	90	435,619	5	0	681,341	64,767	71	Pump observed cycling
GW5	10/28/2011	~70	46.0	24	--	435,619	0	0	--	--	--	Compressor down
GW5	11/30/2011	~70	47.0	23	--	435,619	0	0	--	--	--	Compressor down
GW5	12/29/2011	~70	46.0	24	--	435,619	0	0	--	--	--	Compressor down
GW5	1/26/2012	~70	54.5	16	80	435,619	0	0	713,055	31,714	47	Pump observed cycling
GW5	2/22/2012	~70	62.0	8	75	435,619	0	0	764,787	51,732	80	Pump observed cycling
GW5	3/29/2012	~70	49.0	21	0	435,619	0	0	800,324	35,537	41	Compressor down
GW5	4/27/2012	~70	48.5	22	10	435,619	0	0	816,282	15,958	23	Pump observed cycling
GW5	5/30/2012	~70	56.0	14	80	435,619	0	0	933,624	117,342	148	Pump observed cycling
GW5	6/26/2012	~70	53.0	17	40	435,619	0	0	11,995	54,381	84	Pump observed cycling - annual cleaning on 6/25/12
GW6	7/1/2011	40.0	34.0	6.0								

TABLE 1

WISCONSIN DEPARTMENT OF NATURAL RESOURCES

REFUSE HIDEAWAY LANDFILL

MIDDLETON, WISCONSIN

LEACHATE EXTRACTION WELL SUMMARY

Well	Date	Well Depth	Depth to Leachate (feet)	Leachate Level (feet above well bottom)	Wellhead Pressure (psi)	Primary Counter			Secondary Counter			Comments
						Pump Cycle Reading	Cycles Per Period	Cycles Per Hour	Pump Cycle Reading	Cycles Per Period	Cycles Per Hour	
GW6	8/1/2011	40.0	--	--								
GW6	8/26/2011	40.0	35.7	4.3								
GW6	10/3/2011	40.0	35.0	5.0								
GW6	10/28/2011	40.0	36.4	3.6								
GW6	11/30/2011	40.0	35.0	5.0								
GW6	12/29/2011	40.0	35.5	4.5								
GW6	1/26/2012	40.0	34.5	5.5								
GW6	2/22/2012	40.0	34.0	6.0								
GW6	3/29/2012	40.0	34.0	6.0								
GW6	4/27/2012	40.0	34.5	5.5								
GW6	5/30/2012	40.0	--	--								
GW6	6/26/2012	40.0	34.0	6.0								
GW7	7/1/2011	~60	49.0	11	87	997,936	365,791	401	843,534	2	0	Pump observed cycling
GW7	8/1/2011	~60	--	--	85	260,114	262,178	352	843,534	0	0	Pump observed cycling
GW7	8/26/2011	~60	45.8	14	85	265,910	5,796	10	843,534	0	0	Pump observed cycling
GW7	10/3/2011	~60	43.0	17	80	419,001	153,091	168	843,537	3	0	Pump observed cycling
GW7	10/28/2011	~60	44.8	15	--	419,001	0	0	--	--	--	Compressor down
GW7	11/30/2011	~60	48.5	12	--	419,001	0	0	--	--	--	Compressor down
GW7	12/29/2011	~60	47.5	13	--	419,001	0	0	--	--	--	Compressor down
GW7	1/26/2012	~60	50.5	10	90	491,187	72,186	107	843,549	12	0	Pump observed cycling
GW7	2/22/2012	~60	44.0	16	90	545,674	54,487	84	843,549	0	0	Pump not observed cycling
GW7	3/29/2012	~60	44.5	16	0	557,617	11,943	14	843,549	0	0	Compressor down
GW7	4/27/2012	~60	44.5	16	80	558,202	585	1	843,554	5	0	Pump observed cycling
GW7	5/30/2012	~60	43.5	17	80	558,202	0	0	843,554	0	0	Pump observed cycling
GW7	6/26/2012	~60	44.0	16	75	558,209	7	0	843,558	4	0	Pump observed cycling - pump obstructed from removal
GW8	7/1/2011	~69	63.0	6	87	417,214	40,582	44	439,037	20,152	22	Pump observed cycling
GW8	8/1/2011	~69	--	--	70	455,284	38,070	51	468,806	29,769	40	Pump observed cycling
GW8	8/26/2011	~69	43.8	25	80	--	--	--	471,320	2,514	4	Pump not observed cycling
GW8	10/3/2011	~69	49.0	20	80	501,129	45,845	50	509,217	37,897	42	Pump observed cycling
GW8	10/28/2011	~69	39.6	29	--	501,129	0	0	--	--	--	Compressor down
GW8	11/30/2011	~69	47.5	22	--	501,129	0	0	--	--	--	Compressor down
GW8	12/29/2011	~69	--	--	--	501,129	0	0	--	--	--	Compressor down
GW8	1/26/2012	~69	63.0	6	80	517,982	16,853	25	527,095	17,878	27	Pump observed cycling

TABLE 1

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
REFUSE HIDEAWAY LANDFILL
MIDDLETON, WISCONSIN

LEACHATE EXTRACTION WELL SUMMARY

Well	Date	Well Depth	Depth to Leachate (feet)	Leachate Level (feet above well bottom)	Wellhead Pressure (psi)	Primary Counter			Secondary Counter			Comments
						Pump Cycle Reading	Cycles Per Period	Cycles Per Hour	Pump Cycle Reading	Cycles Per Period	Cycles Per Hour	
GW8	2/22/2012	~69	61.0	8	80	540,076	22,094	34	551,680	24,585	38	Pump observed cycling
GW8	3/29/2012	~69	48.0	21	0	550,281	10,205	12	561,352	9,672	11	Compressor down
GW8	4/27/2012	~69	61.0	8	80	566,213	15,932	23	576,283	14,931	21	Pump observed cycling
GW8	5/30/2012	~69	42.5	27	80	602,466	36,253	46	599,861	23,578	30	Pump observed cycling
GW8	6/26/2012	~69	62.0	7	80	619,017	16,551	26	16,907	383,232	591	Pump observed cycling - annual cleaning on 6/26/12
GW9	7/1/2011	~66	60.0	6	85	954,483	24,650	17	346,655	35,156	25	Pump observed cycling
GW9	8/1/2011	~66	--	--	--	--	--	--	--	--	--	Pest control needed (wasps)
GW9	8/26/2011	~66	43.9	22	80	992,198	37,715	63	--	--	--	Pump not observed cycling
GW9	10/3/2011	~66	45.0	21	80	9,589	17,391	19	401,472	54,817	60	Pump observed cycling
GW9	10/28/2011	~65	49.3	17	--	9,589	0	0	--	--	--	Compressor down
GW9	11/30/2011	~65	49.5	17	--	9,589	0	0	--	--	--	Compressor down
GW9	12/29/2011	~65	47.0	19	--	9,589	0	0	--	--	--	Compressor down
GW9	1/26/2012	~65	63.0	3	80	24,061	14,472	22	419,783	18,311	27	Pump not observed cycling
GW9	2/22/2012	~65	63.0	3	80	41,355	17,294	27	440,404	20,621	32	Pump observed cycling
GW9	3/29/2012	~65	56.0	10	0	48,959	7,604	9	447,658	7,254	8	Compressor down
GW9	4/27/2012	~65	62.0	4	80	61,771	12,812	18	461,276	13,618	20	Pump observed cycling
GW9	5/30/2012	~65	63.0	3	80	87,641	25,870	33	487,269	25,993	33	Pump observed cycling - annual cleaning on 5/24/12
GW9	6/26/2012	~65	63.5	3	80	101,621	13,980	22	500,988	13,719	21	Pump observed cycling
GW10	7/1/2011	~70	--	--	60	525,780	24	0				Pump observed cycling - not counting
GW10	8/1/2011	~70	--	--	80	534,288	8,508	11				Pump observed cycling
GW10	8/26/2011	~70	26.0	44	--	542,206	7,918	13				Pump not observed cycling
GW10	10/3/2011	~70	65.0	5	80	553,499	11,293	12				Pump observed cycling
GW10	10/28/2011	~70	58.9	11	--	553,499	0	0				Compressor down
GW10	11/30/2011	~70	60.5	10	--	553,499	0	0				Compressor down
GW10	12/29/2011	~70	61.5	9	--	553,499	0	0				Compressor down
GW10	1/26/2012	~70	65.0	5	80	555,731	2,232	3				Pump observed cycling
GW10	2/22/2012	~70	63.0	7	80	562,570	6,839	11				Pump observed cycling
GW10	3/29/2012	~70	60.5	10	0	566,427	3,857	4				Compressor down
GW10	4/27/2012	~70	64.5	6	70	570,063	3,636	5				Pump not observed cycling
GW10	5/30/2012	~70	57.0	13	70	581,662	11,599	15				Pump observed cycling - annual cleaning on 5/24/12
GW10	6/26/2012	~70	64.0	6	65	583,053	1,391	2				Pump observed cycling

TABLE 1

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
REFUSE HIDEAWAY LANDFILL
MIDDLETON, WISCONSIN

LEACHATE EXTRACTION WELL SUMMARY

Well	Date	Well Depth	Depth to Leachate (feet)	Leachate Level (feet above well bottom)	Wellhead Pressure (psi)	Primary Counter			Secondary Counter			Comments
						Pump Cycle Reading	Cycles Per Period	Cycles Per Hour	Pump Cycle Reading	Cycles Per Period	Cycles Per Hour	
GW11	7/1/2011	~65	46.0	19	--	611,875	79	0	100,858	0	0	Air turned off for repair
GW11	8/1/2011	~65	--	--	50	611,876	1	0	100,860	2	0	Pump observed cycling
GW11	8/26/2011	~65	--	--	--	--	--	--	--	--	--	Pest control needed (wasps)
GW11	10/3/2011	~65	47.0	18	0	612,092	216	0	100,878	18	0	Pump venting to atmosphere
GW11	10/28/2011	~65	43.2	22	--	612,092	0	0	--	--	--	Compressor down
GW11	11/30/2011	~65	43.0	22	--	612,092	0	0	--	--	--	Compressor down
GW11	12/29/2011	~65	46.5	19	--	612,092	0	0	--	--	--	Compressor down
GW11	1/26/2012	~65	45.5	20	10	612,092	0	0	100,878	0	0	Pump not observed cycling
GW11	2/22/2012	~65	43.0	22	5	612,092	0	0	100,878	0	0	Pump not observed cycling
GW11	3/29/2012	~65	43.0	22	0	612,092	0	0	100,878	0	0	Compressor down
GW11	4/27/2012	~65	45.5	20	10	612,093	1	0	100,878	0	0	Pump not observed cycling
GW11	5/30/2012	~65	57.0	8	40	622,325	10,232	13	100,884	6	0	Pump observed cycling - annual cleaning on 5/14/12
GW11	6/26/2012	~65	56.0	9	80	638,440	16,115	25	100,884	0	0	Pump observed cycling
GW12	7/1/2011	~81	44.0	37	0	54,384	0	0	401,676	0	0	Offline for repairs
GW12	8/1/2011	~81	--	--	--	--	--	--	--	--	--	Offline for repairs
GW12	8/26/2011	~81	40.7	40	0	--	--	--	--	--	--	Offline for repairs
GW12	10/3/2011	~81	44.0	37	80	54,393	9	0	401,886	210	0	Pump observed cycling
GW12	10/28/2011	~81	42.2	39	--	54,393	0	0	--	--	--	Compressor down
GW12	11/30/2011	~81	44.5	37	--	54,393	0	0	--	--	--	Compressor down
GW12	12/29/2011	~81	46.0	35	--	54,393	0	0	--	--	--	Compressor down
GW12	1/26/2012	~81	44.0	37	0	54,394	1	0	401,903	17	0	Pump not observed cycling
GW12	2/22/2012	~81	48.0	33	75	54,400	6	0	462,507	60,604	94	Pump not observed cycling
GW12	3/29/2012	~81	50.0	31	0	54,400	0	0	518,135	55,628	64	Compressor down
GW12	4/27/2012	~81	50.0	31	75	54,400	0	0	575,732	57,597	83	Pump not observed cycling
GW12	5/30/2012	~81	48.0	33	70	54,402	2	0	582,585	6,853	9	Pump observed cycling - annual cleaning on 5/14/12
GW12	6/26/2012	~81	49.5	32	75	54,402	0	0	589,781	7,196	11	Pump observed cycling
GW13	7/1/2011	~69	65.0	4	82	624,859	0	0	--	--	--	Cycling, not counting
GW13	8/1/2011	~69	--	--	90	624,859	0	0	--	--	--	Pump not observed cycling
GW13	8/26/2011	~69	44.1	25	80	624,859	0	0	--	--	--	Pump not observed cycling
GW13	10/3/2011	~69	--	--	80	624,859	0	0	--	--	--	Pump not observed cycling
GW13	10/28/2011	~69	64.3	5	--	624,859	0	0	--	--	--	Compressor down
GW13	11/30/2011	~69	--	--	--	624,859	0	0	--	--	--	Compressor down

TABLE 1

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
REFUSE HIDEAWAY LANDFILL
MIDDLETON, WISCONSIN

LEACHATE EXTRACTION WELL SUMMARY

Well	Date	Well Depth	Depth to Leachate (feet)	Leachate Level (feet above well bottom)	Wellhead Pressure (psi)	Primary Counter			Secondary Counter			Comments
						Pump Cycle Reading	Cycles Per Period	Cycles Per Hour	Pump Cycle Reading	Cycles Per Period	Cycles Per Hour	
GW13	12/29/2011	~69	--	--	--	624,859	0	0	--	--	--	Compressor down
GW13	1/26/2012	~69	--	--	80	624,864	5	0	--	--	--	Pump observed cycling
GW13	2/22/2012	~69	--	--	80	624,864	0	0	--	--	--	Pump observed cycling
GW13	3/29/2012	~69	--	--	0	624,864	0	0	--	--	--	Compressor down
GW13	4/27/2012	~69	61.0	8	80	624,864	0	0	5,082	--	--	Pump observed cycling
GW13	5/30/2012	~69	61.5	8	80	624,866	2	0	5,082	0	0	Pump observed cycling - pump obstructed from removal
GW13	6/26/2012	~69	--	--	80	624,866	0	0	5,082	0	0	Pump observed cycling

~ : Value approximated.

-- : Not measured or not calculated.

psi : Pounds per square inch.

TABLE 2

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
REFUSE HIDEAWAY LANDFILL
MIDDLETON, WISCONSIN

MONTHLY LEACHATE COLLECTION VOLUME

Month	Reported Volume Hauled (gallons)	Cumulative Volume Hauled (gallons)
July 2011	60,671	60,671
August 2011	44,661	105,332
September 2011	24,818	130,150
October 2011	4,606	134,756
January 2012	20,088	154,844
February 2012	40,298	195,142
March 2012	15,055	210,197
April 2012	20,037	230,234
May 2012	45,481	275,715
June 2012	28,428	304,143
Total	**304,143**	

TABLE 3

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
REFUSE HIDEAWAY LANDFILL
MIDDLETON, WISCONSIN

QUARTERLY LEACHATE EFFLUENT ANALYTICAL RESULTS - INORGANICS
(all results are in milligrams per liter (mg/L))

Date	Cadmium	Chromium	Chromium Hexavalent	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Zinc	Cyanide (Total)
Local Ordinance Effluent Limitations* (daily maximum)	**0.25**	**10.0**	**0.5**	**1.5**	**5**	**0.02**	**--**	**2.0**	**0.3**	**3**	**8**	**0.1**
9/29/2011	0.0074	0.058	< 0.030	0.35	0.060	0.000072 J	0.012	0.35	0.0072 J	0.0010 J	4.3	0.0029 J
12/28/2011	0.00078 J	0.014	0.011 J	0.0058 J	< 0.0020	< 0.000070	0.0037 J	0.033	< 0.0025	< 0.00071	0.049	0.0034 J
3/29/2012	0.00096 J	0.013	< 0.0060 H	0.0044 J	< 0.0016	< 0.000070	0.0042 J	0.041	< 0.0027	< 0.0011	0.021	0.011
6/11/2012	0.0010 J	0.024	0.0061 J	0.0023 J	0.0043 J	< 0.000070	< 0.0022	0.078	< 0.0027	< 0.0011	0.0091 J	0.0041 J

* : Madison Metropolitan Sewerage District Use Ordinance - Wastewater Discharge Permit NTO-5.11.
J : Estimated value. Analyte detected at a level less than reporting limit (RL) and greater than or equal to the laboratory method setection limit (MDL).
-- : Effluent limitation not set.
< : Less than laboratory method detection limit.
H : Sample was analyzed past the holding time.

TABLE 4

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
REFUSE HIDEAWAY LANDFILL
MIDDLETON, WISCONSIN

BLOWER AND FLARE STATION OPERATIONAL DURATION

Date	Blower				Flare (Worst Case)*			Comments
	Hour Counter (hours)	Operational Hours Per Period (hours)	Percent Operational (%)	Motor Current (amps)	Hours Per Period (hours)	Operational Hours Per Period (hours)	Percent Operational (%)	
7/1/11 12:00 PM	44,166.0	53	104%	--	51	53	104%	Blower and flare operational upon arrival and departure.
7/8/11 12:50 PM	44,332.8	167	99%	--	169	167	99%	Blower and flare operational upon arrival and departure.
7/12/11 3:30 PM	44,430.8	98	99%	--	99	0 *	0%	Blower operational upon arrival. Flare down upon arrival. Gas recovery system turned off.
7/14/11 5:00 PM	44,430.8	0	0%	--	50	0	0%	Blower and flare down upon arrival. System restarted and operational upon departure.
7/15/11 11:20 AM	44,448.8	18	98%	--	18	18	98%	Blower and flare operational upon arrival and departure.
7/18/11 3:00 PM	44,523.3	75	98%	--	76	75	98%	Blower and flare operational upon arrival and departure.
7/21/11 2:15 PM	44,595.6	72	101%	--	71	72	101%	Blower and flare operational upon arrival and departure.
7/28/11 8:05 AM	44,731.0	135	84%	--	162	0 *	0%	Blower and flare down upon arrival and departure. Blower and flare restarted on 7/29 at 13:00.
7/29/11 1:00 PM	44,731.0	0	0%	--	29	0	0%	Blower and flare down upon arrival. System restarted and operational upon departure.
Monthly Summary		**618**	**85%**		**724**	**332**	**46%**	
8/2/11 11:15 AM	44,826.5	96	101%	--	94	96	101%	Blower and flare operational upon arrival and departure.
8/10/11 1:30 PM	45,020.9	194	100%	--	194	0 *	0%	Blower operational upon arrival. Flare down upon arrival. Gas recovery system turned off.
8/12/11 12:50 PM	45,021.7	1	2%	6.5	47	1	2%	Blower and flare down upon arrival. System restarted and operational upon departure.
8/16/11 4:15 PM	45,120.5	99	99%	--	99	0 *	0%	Blower operational upon arrival. Flare down upon arrival. Gas recovery system turned off.

TABLE 4

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
REFUSE HIDEAWAY LANDFILL
MIDDLETON, WISCONSIN

BLOWER AND FLARE STATION OPERATIONAL DURATION

Date	Blower				Flare (Worst Case)*			Comments
	Hour Counter (hours)	Operational Hours Per Period (hours)	Percent Operational (%)	Motor Current (amps)	Hours Per Period (hours)	Operational Hours Per Period (hours)	Percent Operational (%)	
8/19/11 2:45 PM	45,121.2	1	1%	6.5	71	1	1%	Blower and flare down upon arrival. System restarted and operational upon departure.
8/22/11 1:05 PM	45,190.4	69	98%	--	70	0 *	0%	Blower operational upon arrival. Flare down upon arrival. Gas recovery system turned off.
8/26/11 4:45 PM	45,198.4	8	8%	--	100	8	8%	Blower and flare down upon arrival. System restarted and operational upon departure.
8/31/11 3:20 PM	45,317.0	119	100%	--	119	0 *	0%	Blower operational upon arrival. Flare down upon arrival. Gas recovery system turned off.
Monthly Summary		**586**	**74%**		**794**	**105**	**13%**	
9/2/11 11:55 AM	45,317.2	0	0%	--	45	0	0%	Blower and flare down upon arrival. System restarted and operational upon departure.
9/8/11 3:15 PM	45,464.6	147	100%	7.0	147	0 *	0%	Blower operational upon arrival. Flare down upon arrival. Gas recovery system turned off.
9/12/11 1:15 PM	45,465.2	1	1%	--	94	1	1%	Blower and flare down upon arrival. System restarted and operational upon departure.
9/14/11 2:50 PM	45,514.9	50	100%	--	50	0 *	0%	Blower operational upon arrival. Flare down upon arrival. Gas recovery system turned off.
9/15/11 1:30 PM	45,515.4	1	2%	7.0	23	1	2%	Blower and flare down upon arrival. System restarted and operational upon departure.
9/16/11 12:50 PM	45,538.6	23	99%	--	23	0 *	0%	Blower operational upon arrival. Flare down upon arrival. Gas recovery system turned off.
9/19/11 2:15 PM	45,538.7	0	0%	--	73	0	0%	Blower and flare down upon arrival. System restarted and operational upon departure.
9/20/11 2:10 PM	45,562.5	24	100%	--	24	24	100%	Blower and flare operational upon arrival. Gas recovery system turned off.
9/22/11 3:00 PM	45,564.4	2	4%	7.0	49	2	4%	Blower and flare down upon arrival. System restarted and operational upon departure.

TABLE 4

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
REFUSE HIDEAWAY LANDFILL
MIDDLETON, WISCONSIN

BLOWER AND FLARE STATION OPERATIONAL DURATION

Date	Blower				Flare (Worst Case)*			Comments
	Hour Counter (hours)	Operational Hours Per Period (hours)	Percent Operational (%)	Motor Current (amps)	Hours Per Period (hours)	Operational Hours Per Period (hours)	Percent Operational (%)	
9/23/11 1:30 PM	45,587.0	23	100%	--	23	23	100%	Blower and flare operational upon arrival and departure.
9/26/11 4:00 PM	45,661.7	75	100%	--	74	0 *	0%	Blower operational upon arrival. Flare down upon arrival. Gas recovery system turned off.
9/28/11 11:00 AM	45,661.8	0	0%	--	43	0	0%	Blower and flare down upon arrival. System restarted and operational upon departure.
9/30/11 5:09 PM	45,715.5	54	99%	--	54	0 *	0%	Blower operational upon arrival. Flare down upon arrival. Gas recovery system turned off.
Monthly Summary		**399**	**55%**		**722**	**50**	**7%**	
10/3/11 6:00 PM	45,716.9	1	2%	7.0	73	1	2%	Blower and flare down upon arrival. System restarted and operational upon departure.
10/6/11 1:05 PM	45,784.0	67	100%	--	67	0 *	0%	Blower operational upon arrival. Flare down upon arrival. Gas recovery system turned off.
10/10/11 2:20 PM	45,784.1	0	0%	--	97	0	0%	Blower and flare down upon arrival. System restarted and operational upon departure.
10/11/11 2:12 PM	45,808.0	24	100%	--	24	24	100%	Blower and flare operational upon arrival and departure.
10/12/11 3:25 PM	45,833.2	25	100%	--	25	25	100%	Blower and flare operational upon arrival. System shutdown for expected rain and wind.
10/14/11 1:45 PM	45,833.5	0	1%	7.0	46	0	1%	Blower and flare down upon arrival. System restarted and operational upon departure.
10/17/11 2:25 PM	45,906.2	73	100%	--	73	73	100%	Blower and flare operational upon arrival. System shutdown due to assumed low methane.
10/19/11 3:00 PM	45,906.3	0	0%	--	49	0	0%	Blower and flare down upon arrival. System restarted and operational upon departure.
10/20/11 4:00 PM	45,931.3	25	100%	--	25	25	100%	Blower and flare operational upon arrival. System shutdown due to assumed low methane.

TABLE 4

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
REFUSE HIDEAWAY LANDFILL
MIDDLETON, WISCONSIN

BLOWER AND FLARE STATION OPERATIONAL DURATION

Date	Blower				Flare (Worst Case)*			Comments
	Hour Counter (hours)	Operational Hours Per Period (hours)	Percent Operational (%)	Motor Current (amps)	Hours Per Period (hours)	Operational Hours Per Period (hours)	Percent Operational (%)	
10/21/11 12:50 PM	45,933.4	2	10%	7.0	21	2	10%	Blower and flare down upon arrival System left off due to low methane.
10/24/11 2:50 PM	45,935.2	2	2%	--	74	2	2%	Blower and flare down upon arrival. System restarted and operational upon departure.
10/26/11 1:55 PM	45,982.3	47	100%	--	47	47	100%	Blower and flare operational upon arrival. System shutdown due to low methane.
10/28/11 3:24 PM	45,983.3	1	2%	--	49	1	2%	Blower and flare down upon arrival. System restarted and operational upon departure.
10/31/11 1:45 PM	46,053.6	70	100%	--	70	0 *	0%	Blower operational upon arrival. Flare down upon arrival. Gas recovery system turned off.
Monthly Summary		**338**	**46%**		**741**	**201**	**27%**	
11/3/11 11:30 AM	46,053.6	0	0%	--	70	0	0%	Blower and flare down upon arrival. System restarted and operational upon departure.
11/4/11 12:42 PM	46,078.8	25	100%	--	25	25	100%	Blower and flare operational upon arrival. System shutdown due to high oxygen.
11/11/11 12:55 PM	46,079.4	1	0%	--	168	1	0%	Blower and flare down upon arrival. System restarted and operational upon departure.
11/14/11 12:30 PM	46,151.4	72	101%	--	72	72	101%	Blower and flare operational upon arrival and departure.
11/16/11 2:23 PM	46,201.3	50	100%	7.0	50	50	100%	Blower and flare operational upon arrival. System shutdown due to low methane.
11/18/11 12:58 PM	46,201.4	0	0%	--	47	0	0%	Blower and flare down upon arrival. System restarted and operational upon departure.
11/21/11 8:30 AM	46,268.9	68	100%	--	68	68	100%	Blower and flare operational upon arrival and departure.
11/23/11 12:59 PM	46,321.3	52	100%	--	52	0 *	0%	Blower operational upon arrival. Flare down upon arrival. System shutdown.

TABLE 4

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
REFUSE HIDEAWAY LANDFILL
MIDDLETON, WISCONSIN

BLOWER AND FLARE STATION OPERATIONAL DURATION

Date	Blower				Flare (Worst Case)*			Comments
	Hour Counter (hours)	Operational Hours Per Period (hours)	Percent Operational (%)	Motor Current (amps)	Hours Per Period (hours)	Operational Hours Per Period (hours)	Percent Operational (%)	
11/28/11 10:58 AM	46,321.3	0	0%	--	118	0	0%	Blower and flare down upon arrival. System restarted and operational upon departure.
11/30/11 1:07 PM	46,371.5	50	100%	7.0	50	50	100%	Blower and flare operational upon arrival and departure.
Monthly Summary		**318**	**44%**		**719**	**266**	**37%**	
12/2/11 2:36 PM	46,420.7	49	99%	--	49	0 *	0%	Blower operational upon arrival. Flare down upon arrival. System shutdown due to high oxygen.
12/5/11 1:45 PM	46,420.7	0	0%	--	71	0	0%	Blower and flare down upon arrival. System restarted and operational upon departure.
12/7/11 2:35 PM	46,469.6	49	100%	--	49	49	100%	Blower and flare operational upon arrival and departure.
12/8/11 2:30 PM	46,493.5	24	100%	--	24	24	100%	Blower and flare operational upon arrival and departure.
12/9/11 1:00 PM	46,516.0	23	100%	7.0	23	0 *	0%	Blower operational upon arrival. Flare down upon arrival. System shutdown due to low methane.
12/12/11 1:15 PM	46,516.0	0	0%	--	72	0	0%	Blower and flare down upon arrival. System restarted and operational upon departure.
12/13/11 1:45 PM	46,540.6	25	100%	--	24	25	100%	Blower and flare operational upon arrival and departure.
12/14/11 1:30 PM	46,564.4	24	100%	--	24	24	100%	Blower and flare operational upon arrival and departure.
12/16/11 3:23 PM	46,614.2	50	100%	7.0	50	0 *	0%	Blower operational upon arrival. Flare down upon arrival. System shutdown due to low methane.
12/19/11 1:23 PM	46,614.2	0	0%	--	70	0	0%	Blower and flare down upon arrival. System restarted and operational upon departure.
12/21/11 8:40 AM	46,657.5	43	100%	7.0	43	43	100%	Blower and flare operational upon arrival and departure.

TABLE 4

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
REFUSE HIDEAWAY LANDFILL
MIDDLETON, WISCONSIN

BLOWER AND FLARE STATION OPERATIONAL DURATION

Date	Blower				Flare (Worst Case)*			Comments
	Hour Counter (hours)	Operational Hours Per Period (hours)	Percent Operational (%)	Motor Current (amps)	Hours Per Period (hours)	Operational Hours Per Period (hours)	Percent Operational (%)	
12/27/11 1:14 PM	46,806.0	149	100%	--	149	0 *	0%	Blower operational upon arrival. Flare down upon arrival. System shutdown due to low methane.
12/30/11 1:00 PM	46,806.0	0	0%	7.0	72	0	0%	Blower and flare down upon arrival. System restarted and operational upon departure.
Monthly Summary		**435**	**65%**		**720**	**165**	**23%**	
1/3/12 1:35 PM	46,902.6	97	100%	--	97	0 *	0%	Blower operational upon arrival. Flare down upon arrival. System shutdown.
1/5/12 12:50 PM	46,902.6	0	0%	--	47	0	0%	Blower and flare down upon arrival. System restarted and operational upon departure.
1/6/12 1:40 PM	46,927.4	25	100%	7.0	25	25	100%	Blower and flare operational upon arrival and departure.
1/9/12 1:24 PM	46,999.1	72	100%	--	72	0 *	0%	Blower operational upon arrival. Flare down upon arrival. System restarted and operational upon departure.
1/10/12 1:25 PM	47,023.2	24	100%	--	24	0 *	0%	Blower operational upon arrival. Flare down upon arrival. Shutdown system
1/13/12 2:24 PM	47,024.0	1	1%	7.0	73	0	0%	Blower and flare down upon arrival and departure. System remained down due to high oxygen.
1/16/12 10:00 AM	47,024.1	0	0%	--	68	0	0%	Blower and flare down upon arrival. System restarted and operational upon departure.
1/17/12 1:50 PM	47,051.8	28	100%	--	28	0 *	0%	Blower operational upon arrival. Flare down upon arrival. System restarted and operational upon departure.
1/18/12 11:24 AM	47,073.3	22	100%	7.0	22	22	100%	Blower and flare operational upon arrival and departure.
1/20/12 11:15 AM	47,121.2	48	100%	--	48	0 *	0%	Blower operational upon arrival. Flare down upon arrival. System shutdown.
1/23/12 2:05 PM	47,121.2	0	0%	--	75	0	0%	Blower and flare down upon arrival. System restarted and operational upon departure.

TABLE 4

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
REFUSE HIDEAWAY LANDFILL
MIDDLETON, WISCONSIN

BLOWER AND FLARE STATION OPERATIONAL DURATION

Date	Blower				Flare (Worst Case)*			Comments
	Hour Counter (hours)	Operational Hours Per Period (hours)	Percent Operational (%)	Motor Current (amps)	Hours Per Period (hours)	Operational Hours Per Period (hours)	Percent Operational (%)	
1/25/12 4:20 PM	47,171.4	50	100%	7.0	50	50	100%	Blower and flare operational upon arrival. System shutdown upon departure.
1/30/12 2:35 PM	47,171.4	0	0%	--	118	0	0%	Blower and flare down upon arrival. System restarted and operational upon departure.
1/31/12 2:51 PM	47,196.9	26	105%	7.0	24	0 *	0%	Blower operational upon arrival. Flare down upon arrival. System restarted and operational upon departure.
Monthly Summary		**391**	**58%**		**770**	**97**	**13%**	
2/1/12 11:15 AM	47,217.2	20	100%	--	20	20	100%	Blower and flare operational upon arrival and departure.
2/3/12 11:38 AM	47,265.7	49	100%	--	48	49	100%	Blower and flare operational upon arrival. System shutdown due to high oxygen.
2/6/12 12:30 PM	47,265.7	0	0%	--	73	0	0%	Blower and flare down upon arrival. System restarted and operational upon departure.
2/8/12 1:10 PM	47,314.4	49	100%	--	49	49	100%	Blower and flare operational upon arrival and departure.
2/10/12 12:39 PM	47,361.8	47	100%	7.0	47	47	100%	Blower and flare operational upon arrival. System shutdown due to high oxygen.
2/13/12 10:45 AM	47,361.8	0	0%	--	70	0	0%	Blower and flare down upon arrival. System restarted and operational upon departure.
2/15/12 1:01 PM	47,412.1	50	100%	--	50	50	100%	Blower and flare operational upon arrival and departure.
2/17/12 11:40 AM	47,458.7	47	100%	7.0	47	47	100%	Blower and flare operational upon arrival. System shutdown due to low methane.
2/20/12 1:15 PM	47,458.7	0	0%	--	74	0	0%	Blower and flare down upon arrival. System restarted and operational upon departure.
2/21/12 10:15 AM	47,479.7	21	100%	--	21	21	100%	Blower and flare operational upon arrival and departure.

TABLE 4

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
REFUSE HIDEAWAY LANDFILL
MIDDLETON, WISCONSIN

BLOWER AND FLARE STATION OPERATIONAL DURATION

Date	Blower				Flare (Worst Case)*			Comments
	Hour Counter (hours)	Operational Hours Per Period (hours)	Percent Operational (%)	Motor Current (amps)	Hours Per Period (hours)	Operational Hours Per Period (hours)	Percent Operational (%)	
2/22/12 4:38 PM	47,510.0	30	100%	--	30	30	100%	Blower and flare operational upon arrival and departure.
2/23/12 2:30 PM	47,531.9	22	100%	7.0	22	0 *	0%	Blower operational upon arrival. Flare down upon arrival. System shutdown due to high oxygen.
2/27/12 12:16 PM	47,531.9	0	0%	--	94	0	0%	Blower and flare down upon arrival. System restarted and operational upon departure.
2/29/12 1:55 PM	47,581.5	50	100%	7.0	50	50	100%	Blower and flare down upon arrival and departure.
Monthly Summary		**385**	**55%**		**695**	**363**	**52%**	
3/2/12 1:17 PM	47,628.9	47	100%	--	47	47	100%	Blower and flare operational upon arrival. System shutdown due to weather conditions.
3/5/12 3:10 PM	47,628.9	0	0%	--	74	0	0%	Blower and flare down upon arrival. System restarted and operational upon departure.
3/6/12 1:13 PM	47,650.7	22	99%	--	22	22	99%	Blower and flare operational upon arrival and departure.
3/9/12 2:00 PM	47,723.5	73	100%	7.0	73	73	100%	Blower and flare operational upon arrival. System shutdown due to low methane.
3/12/12 9:15 AM	47,723.5	0	0%	--	67	0	0%	Blower and flare down upon arrival. System restarted and operational upon departure.
3/14/12 1:00 PM	47,775.0	52	100%	--	52	52	100%	Blower and flare operational upon arrival and departure.
3/16/12 12:48 PM	47,822.9	48	100%	7.0	48	48	100%	Blower and flare operational upon arrival. System shutdown due to high oxygen.
3/20/12 11:10 AM	47,822.9	0	0%	--	94	0	0%	Blower and flare down upon arrival. System restarted and operational upon departure.
3/23/12 4:04 PM	47,899.8	77	100%	7.0	77	77	100%	Blower and flare operational upon arrival. System shutdown due to high oxygen.

TABLE 4

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
REFUSE HIDEAWAY LANDFILL
MIDDLETON, WISCONSIN

BLOWER AND FLARE STATION OPERATIONAL DURATION

Date	Blower				Flare (Worst Case)*			Comments
	Hour Counter (hours)	Operational Hours Per Period (hours)	Percent Operational (%)	Motor Current (amps)	Hours Per Period (hours)	Operational Hours Per Period (hours)	Percent Operational (%)	
3/26/12 12:58 PM	47,899.8	0	0%	--	69	0	0%	Blower and flare down upon arrival. System restarted and operational upon departure.
3/29/12 4:30 PM	47,975.3	76	100%	--	76	76	100%	Blower and flare operational upon arrival and departure.
3/30/12 2:19 PM	47,997.2	22	100%	7.0	22	0 *	0%	Blower operational upon arrival. Flare down upon arrival. System shutdown due to high oxygen.
Monthly Summary		**416**	**58%**		**720**	**394**	**55%**	
4/2/12 12:50 PM	47,997.7	1	1%	--	71	1	1%	Blower and flare down upon arrival. System restarted and operational upon departure.
4/6/12 2:03 PM	48,095.0	97	100%	7.0	97	0 *	0%	Blower operational upon arrival. Flare down upon arrival. System shutdown due to high oxygen.
4/9/12 2:00 PM	48,095.0	0	0%	--	72	0	0%	Blower and flare down upon arrival. System restarted and operational upon departure.
4/11/12 2:55 PM	48,143.9	49	100%	--	49	49	100%	Blower and flare operational upon arrival and departure.
4/13/12 12:37 PM	48,189.6	46	100%	7.0	46	0 *	0%	Blower operational upon arrival. Flare down upon arrival. System shutdown due to high oxygen.
4/16/12 11:00 AM	48,189.6	0	0%	--	70	0	0%	Blower and flare down upon arrival and departure.
4/17/12 11:55 AM	48,189.7	0	0%	--	25	0	0%	Blower and flare down upon arrival. System restarted and operational upon departure.
4/20/12 2:30 PM	48,264.2	75	100%	7.0	75	75	100%	Blower and flare operational upon arrival. System shutdown due to high oxygen.
4/23/12 1:57 PM	48,264.3	0	0%	--	71	0	0%	Blower and flare down upon arrival. System restarted and operational upon departure.
4/25/12 2:34 PM	48,312.9	49	100%	7.0	49	49	100%	Blower and flare operational upon arrival and departure.

TABLE 4

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
REFUSE HIDEAWAY LANDFILL
MIDDLETON, WISCONSIN

BLOWER AND FLARE STATION OPERATIONAL DURATION

Date	Blower				Flare (Worst Case)*			Comments
	Hour Counter (hours)	Operational Hours Per Period (hours)	Percent Operational (%)	Motor Current (amps)	Hours Per Period (hours)	Operational Hours Per Period (hours)	Percent Operational (%)	
4/26/12 4:10 PM	48,338.5	26	100%	--	26	26	100%	Blower and flare operational upon arrival and departure.
4/27/12 3:25 PM	48,361.7	23	100%	--	23	23	100%	Blower and flare operational upon arrival. System shutdown due to low methane.
4/30/12 12:46 PM	48,361.7	0	0%	--	69	0	0%	Blower and flare down upon arrival. System restarted and operational upon departure.
Monthly Summary		**365**	**54%**		**742**	**222**	**30%**	
5/3/12 10:31 AM	48,431.5	70	100%	7.0	70	70	100%	Blower and flare operational upon arrival. System shutdown due to high oxygen.
5/7/12 12:07 PM	48,431.5	0	0%	--	98	0	0%	Blower and flare down upon arrival. System restarted and operational upon departure.
5/10/12 10:46 AM	48,502.2	71	100%	7.0	71	71	100%	Blower and flare operational upon arrival and departure.
5/11/12 2:24 PM	48,529.8	28	100%	--	28	28	100%	Blower and flare operational upon arrival. System shutdown due to high oxygen.
5/14/12 12:14 PM	48,529.8	0	0%	--	70	0	0%	Blower and flare down upon arrival. System restarted and operational upon departure.
5/16/12 4:34 PM	48,582.1	52	100%	7.0	52	52	100%	Blower and flare operational upon arrival and departure.
5/18/12 10:10 AM	48,623.7	42	100%	--	42	42	100%	Blower and flare operational upon arrival. System shutdown due to low oxygen.
5/21/12 1:50 PM	48,624.2	1	1%	7.0	76	1	1%	Blower and flare down upon arrival. System restarted and operational upon departure.
5/23/12 12:57 PM	48,671.3	47	100%	--	47	47	100%	Blower and flare operational upon arrival and departure.
5/24/12 1:30 PM	48,695.8	25	100%	--	25	25	100%	Blower and flare operational upon arrival and departure.

TABLE 4

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
REFUSE HIDEAWAY LANDFILL
MIDDLETON, WISCONSIN

BLOWER AND FLARE STATION OPERATIONAL DURATION

Date	Blower				Flare (Worst Case)*			Comments
	Hour Counter (hours)	Operational Hours Per Period (hours)	Percent Operational (%)	Motor Current (amps)	Hours Per Period (hours)	Operational Hours Per Period (hours)	Percent Operational (%)	
5/29/12 9:44 AM	48,812.2	116	100%	--	116	0 *	0%	Blower operational upon arrival. Flare down upon arrival. System restarted and operational upon departure.
5/30/12 4:18 PM	48,842.7	31	100%	--	31	0 *	0%	Blower operational upon arrival. Flare down upon arrival. System shutdown due to high oxygen.
5/31/12 3:49 PM	48,843.1	0	2%	7.0	24	0	2%	Blower and flare down upon arrival. System restarted and operational upon departure.
Monthly Summary		**481**	**64%**		**747**	**335**	**45%**	
6/1/12 2:56 PM	48,866.2	23	100%	--	23	23	100%	Blower and flare operational upon arrival. System shutdown due to high oxygen.
6/4/12 9:51 AM	48,866.7	1	1%	--	67	1	1%	Blower and flare down upon arrival. System restarted and operational upon departure.
6/6/12 1:20 PM	48,918.2	52	100%	7.0	51	52	100%	Blower and flare operational upon arrival and departure.
6/8/12 3:18 PM	48,968.1	50	100%	--	50	0 *	0%	Blower operational upon arrival. Flare down upon arrival. System shutdown due to high oxygen.
6/11/12 5:16 PM	48,968.1	0	0%	--	74	0	0%	Blower and flare down upon arrival. System restarted and operational upon departure.
6/14/12 10:43 AM	49,033.4	65	100%	7.0	65	65	100%	Blower and flare operational upon arrival. System shutdown due to low methane.
6/18/12 9:33 AM	49,033.4	0	0%	7.0	95	0	0%	Blower and flare down upon arrival. System restarted and operational upon departure.
6/20/12 12:08 PM	49,083.9	51	100%	--	51	51	100%	Blower and flare down upon arrival and departure.
6/22/12 1:32 PM	49,133.3	49	100%	--	49	49	100%	Blower and flare operational upon arrival. System shutdown upon departure.
6/26/12 9:42 AM	49,133.3	0	0%	--	92	0	0%	Blower and flare down upon arrival. System restarted and operational upon departure.

TABLE 4

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
REFUSE HIDEAWAY LANDFILL
MIDDLETON, WISCONSIN

BLOWER AND FLARE STATION OPERATIONAL DURATION

Date	Blower				Flare (Worst Case)*			Comments
	Hour Counter (hours)	Operational Hours Per Period (hours)	Percent Operational (%)	Motor Current (amps)	Hours Per Period (hours)	Operational Hours Per Period (hours)	Percent Operational (%)	
6/29/12 3:33 PM	49,211.1	78	100%	--	78	78	100%	Blower and flare operational upon arrival. System shutdown due to high oxygen.
Monthly Summary		**368**	**53%**		**696**	**318**	**46%**	
Annual Summary		**5,098**	**58%**		**8,790**	**2,844**	**32%**	

* Current system configuration does not allow for notification when the flare goes down. Worst case scenario calculated assuming flare went down immediately following departure from site.

-- Not measured.

TABLE 5

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
REFUSE HIDEAWAY LANDFILL
MIDDLETON, WISCONSIN

GAS WELL MONITORING RESULTS

Location	Date	CH_4	O_2	CO_2	Balance Gas*	Well Pressure	Valve Position		Gas Velocity	Gas Flow**	Gas Temp
		(%)	(%)	(%)	(%)	(in WC)	Initial (%)	After (%)	(fpm)	(cfm)	(deg F)
GW1	8/1/2011	37.5	2.2	28.2	32.1	0.00	100	100	--	--	--
GW1	8/26/2011	7.0	17.7	5.6	69.7	0.10	100	100	--	--	85.6
GW1	10/3/2011	7.5	19.6	3.2	69.7	-0.05	100	--	--	--	64.0
GW1	10/24/2011	66.0	0.0	56.2	-22.2	0.10	--	100	--	--	66.7
GW1	11/30/2011	16.5	10.1	18.8	54.6	-0.10	100	100	--	--	--
GW1	12/30/2011	58.5	0.0	45.6	-4.1	-0.10	100	100	--	--	--
GW1	1/25/2012	54.5	2.6	35.4	7.5	0.00	100	100	--	--	--
GW1	2/22/2012	45.0	4.8	24.6	25.6	-0.05	100	100	--	--	--
GW1	3/30/2012	40.5	6.7	30.2	22.6	-0.25	100	100	--	--	--
GW1	4/25/2012	43.0	5.8	35.2	16.0	-0.10	100	100	--	--	--
GW1	5/29/2012	38.5	8.1	31.2	22.2	-0.15	100	100	--	--	80.0
GW1	6/20/2012	5.0	18.0	4.8	72.2	0.00	100	100	--	--	100.3
GW2	8/1/2011	0.0	20.9	0.0	79.1	-1.50	100	100	--	--	--
GW2	8/26/2011	0.0	20.9	0.0	79.1	1.10	100	100	--	--	83.5
GW2	10/3/2011	2.1	21.1	6.2	70.6	0.00	100	--	--	--	65.2
GW2	10/24/2011	55.5	0.5	46.2	-2.2	0.00	--	100	--	--	68.0
GW2	11/30/2011	0.0	20.9	0.0	79.1	-1.00	100	100	--	--	--
GW2	12/30/2011	49.0	1.1	43.6	6.3	0.00	100	100	--	--	--
GW2	1/25/2012	0.0	20.9	0.0	79.1	-0.75	100	100	--	--	--
GW2	2/22/2012	0.3	20.9	0.4	78.5	0.00	100	100	--	--	--
GW2	3/30/2012	0.0	20.9	0.0	79.1	0.00	100	100	--	--	--
GW2	4/25/2012	0.0	20.9	0.0	79.1	0.00	100	100	--	--	--
GW2	5/29/2012	0.0	20.9	0.0	79.1	0.00	100	100	--	--	78.7
GW2	6/20/2012	0.6	20.9	0.0	78.6	0.00	100	100	--	--	93.7
GW3	8/1/2011	10.5	17.5	4.8	67.2	-1.00	100	100	--	--	--
GW3	8/26/2011	1.1	20.9	1.0	77.1	-0.15	100	100	--	--	82.9
GW3	10/3/2011	3.6	20.5	2.0	74.0	-0.05	100	--	--	--	63.8
GW3	10/24/2011	75.0	0.4	40.8	-16.2	0.15	--	100	--	--	66.9
GW3	11/30/2011	19.0	13.9	11.6	55.5	-1.10	100	100	--	--	--
GW3	12/30/2011	64.0	1.4	35.4	-0.8	0.25	100	100	--	--	--
GW3	1/25/2012	12.2	19.0	3.6	65.2	-0.60	100	100	--	--	--
GW3	2/22/2012	65.0	19.4	2.4	13.2	-0.60	100	100	--	--	--
GW3	3/30/2012	4.9	18.1	3.0	74.1	0.00	100	100	--	--	--
GW3	4/25/2012	3.3	18.7	2.8	75.3	0.00	100	100	--	--	--
GW3	5/29/2012	32.5	9.4	25.2	32.9	-0.95	100	100	--	--	75.3
GW3	6/20/2012	0.0	20.9	0.0	79.1	-1.05	100	100	--	--	97.3
GW4	8/1/2011	10.5	11.5	17.2	60.8	0.20	100	100	--	--	--
GW4	8/26/2011	81.5	0.0	33.6	-15.1	-0.20	100	100	--	--	81.9
GW4	10/3/2011	84.0	0.0	34.8	-18.8	0.00	100	--	--	--	64.0
GW4	10/24/2011	53.5	7.0	25.6	13.9	0.00	--	100	--	--	63.0
GW4	11/30/2011	76.5	0.0	34.2	-10.7	0.05	100	100	--	--	--
GW4	12/30/2011	69.5	0.0	36.4	-5.9	0.05	100	100	--	--	--
GW4	1/25/2012	78.0	0.4	38.2	-16.6	0.05	100	100	--	--	--
GW4	2/22/2012	76.5	0.0	36.2	-12.7	0.20	100	100	--	--	--
GW4	3/30/2012	75.5	1.8	42.0	-19.3	0.15	100	100	--	--	--
GW4	4/25/2012	69.5	3.1	38.4	-11.0	0.15	100	100	--	--	--
GW4	5/29/2012	78.0	3.2	37.8	-19.0	0.05	100	100	--	--	76.6
GW4	6/20/2012	78.5	3.2	36.6	-18.3	0.00	100	100	--	--	--
GW5	8/1/2011	71.5	0.0	28.4	0.1	0.00	100	100	--	--	--
GW5	8/26/2011	0.5	20.9	1.0	77.7	0.00	100	100	--	--	83.3

TABLE 5

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
REFUSE HIDEAWAY LANDFILL
MIDDLETON, WISCONSIN

GAS WELL MONITORING RESULTS

Location	Date	CH_4 (%)	O_2 (%)	CO_2 (%)	Balance Gas* (%)	Well Pressure (in WC)	Valve Position		Gas Velocity (fpm)	Gas Flow** (cfm)	Gas Temp (deg F)
							Initial (%)	After (%)			
GW5	10/3/2011	80.0	0.0	40.4	-20.4	0.00	100	--	--	--	61.8
GW5	10/24/2011	78.5	0.8	48.4	-27.7	0.00	--	100	--	--	64.5
GW5	11/30/2011	73.0	0.0	38.0	-11.0	0.00	100	100	--	--	--
GW5	12/30/2011	69.5	0.0	37.2	-6.7	0.00	100	100	--	--	--
GW5	1/25/2012	55.0	4.1	29.4	11.5	0.00	100	100	--	--	--
GW5	2/22/2012	64.0	2.3	37.8	-4.1	0.00	100	100	--	--	--
GW5	3/30/2012	74.5	1.9	42.4	-18.8	0.00	100	100	--	--	--
GW5	4/25/2012	64.5	5.3	37.4	-7.2	0.00	100	100	--	--	--
GW5	5/29/2012	38.0	8.6	34.4	19.0	-0.15	100	100	--	--	--
GW5	6/20/2012	55.0	7.3	28.2	9.5	0.00	100	100	--	--	--
GW5 - Lat East	8/1/2011	78.5	0.0	28.0	-6.5	0.40	--	--	--	--	--
GW5 - Lat East	8/26/2011	78.0	0.5	38.8	-17.3	0.60	--	--	--	--	77.9
GW5 - Lat East	10/3/2011	76.5	0.0	42.0	-18.5	0.00	--	--	--	--	--
GW5 - Lat East	10/24/2011	83.0	0.7	45.6	-29.3	0.00	--	0	--	--	--
GW5 - Lat East	11/30/2011	74.0	0.0	40.0	-14.0	0.75	0	0	--	--	--
GW5 - Lat East	12/30/2011	68.5	0.0	37.2	-5.7	2.75	0	0	--	--	--
GW5 - Lat East	1/25/2012	79.5	0.1	38.8	-18.4	-1.00	0	0	--	--	--
GW5 - Lat East	2/22/2012	74.0	0.0	35.2	-9.2	1.50	0	0	--	--	--
GW5 - Lat East	3/30/2012	80.0	0.8	38.0	-18.8	3.00	0	0	--	--	--
GW5 - Lat East	4/25/2012	72.5	4.2	35.8	-12.5	2.50	0	0	--	--	--
GW5 - Lat East	5/29/2012	79.5	3.7	36.6	-19.8	0.60	0	0	--	--	--
GW5 - Lat East	6/20/2012	47.0	9.4	21.4	22.2	0.00	0	0	--	--	--
GW5 - Lat West	8/1/2011	70.5	0.4	35.0	-5.9	0.25	--	--	--	--	--
GW5 - Lat West	8/26/2011	71.5	0.8	45.8	-18.1	-0.40	--	--	--	--	81.1
GW5 - Lat West	10/3/2011	76.5	0.0	45.8	-22.3	0.05	--	--	--	--	
GW5 - Lat West	10/24/2011	80.0	1.0	49.0	-30.0	0.00	--	0	--	--	--
GW5 - Lat West	11/30/2011	72.5	1.6	41.4	-15.5	0.40	0	0	--	--	--
GW5 - Lat West	12/30/2011	68.0	0.5	38.8	-7.3	0.75	0	0	--	--	--
GW5 - Lat West	1/25/2012	72.0	0.7	38.8	-11.5	-0.25	0	0	--	--	--
GW5 - Lat West	2/22/2012	73.0	0.0	36.2	-9.2	0.60	0	0	--	--	--
GW5 - Lat West	3/30/2012	74.5	0.5	39.8	-14.8	2.00	0	0	--	--	--
GW5 - Lat West	4/25/2012	70.5	4.0	38.4	-12.9	1.15	0	0	--	--	--
GW5 - Lat West	5/29/2012	74.0	4.6	43.0	-21.6	0.70	0	0	--	--	--
GW5 - Lat West	6/20/2012	66.0	5.6	38.8	-10.4	0.00	0	0	--	--	--
GW6	8/1/2011	40.0	1.6	26.8	31.6	-27.00	100	100	1400	63.0	--
GW6	8/26/2011	47.0	0.9	35.6	16.5	-28	100	100	2500	112.5	80.2
GW6	10/3/2011	40.5	1.3	34.2	24.0	-25	100	100	1400	63.0	58.8
GW6	10/24/2011	53.5	2.2	39.6	4.7	-26	100	100	1800	81.0	57.3
GW6	11/30/2011	40.0	1.6	34.8	23.6	-27	100	100	1500	67.5	54.3
GW6	12/30/2011	42.0	0.6	36.6	20.8	-25	100	50	--	--	51.6
GW6	1/25/2012	45.0	0.4	37.8	16.8	-27	50	100	--	--	48.3
GW6	1/31/2012	74.5	0.4	44.2	-19.1	--	100	100	--	--	--
GW6	2/22/2012	41.0	0.3	36.2	22.5	-26	100	100	--	--	49.6
GW6	3/30/2012	47.0	1.7	41.4	9.9	-27	100	100	1200	54.0	50.3
GW6	4/25/2012	41.0	5.0	38.2	15.8	-27	100	50	1350	60.8	65.1
GW6	5/29/2012	38.5	5.6	36.6	19.3	-30	50	70	1450	65.3	74.4
GW6	6/20/2012	42.0	6.4	37.0	14.6	-28	70	100	1500	67.5	87.9
GW7	8/1/2011	38.5	1.5	20.0	40.0	-28.00	50	50	1300	58.5	--
GW7	8/26/2011	36.5	5.1	22.0	36.4	-27	50	0	--	--	--
GW7	10/3/2011	64.0	2.0	28.2	5.8	-25	50	50	1100	49.5	64.9

TABLE 5

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
REFUSE HIDEAWAY LANDFILL
MIDDLETON, WISCONSIN

GAS WELL MONITORING RESULTS

Location	Date	CH_4 (%)	O_2 (%)	CO_2 (%)	Balance Gas* (%)	Well Pressure (in WC)	Valve Position		Gas Velocity (fpm)	Gas Flow** (cfm)	Gas Temp (deg F)
							Initial (%)	After (%)			
GW7	10/24/2011	40.5	4.3	26.4	28.8	-26	50	0	--	--	--
GW7	11/30/2011	68.5	1.4	28.8	1.3	-24	0	50	1400	63.0	50.9
GW7	12/30/2011	27.5	5.0	19.6	47.9	-25	50	0	--	--	36.8
GW7	1/25/2012	24.5	5.3	19.4	50.8	-26	0	0	--	--	--
GW7	1/31/2012	76.0	0.3	43.0	-19.3	--	0	100	--	--	--
GW7	2/22/2012	16.0	6.3	15.6	62.1	-26	100	0	--	--	--
GW7	3/30/2012	24.5	6.6	19.2	49.7	-28	0	0	--	--	--
GW7	4/25/2012	17.5	12.1	13.0	57.4	-28	0	0	--	--	--
GW7	5/29/2012	24.5	7.5	20.2	47.8	-30	0	0	--	--	79.1
GW7	6/20/2012	21.0	5.9	23.0	50.1	-28	0	0	--	--	96.7
GW8	8/1/2011	31.0	13.0	7.6	48.4	-28	0	0	--	--	--
GW8	8/26/2011	64.5	3.7	25.2	6.6	-27	0	100	1100	49.5	80.4
GW8	10/3/2011	40.0	7.5	18.4	34.1	-25	100	0	--	--	--
GW8	10/24/2011	44.5	8.3	17.4	29.8	-26	0	0	--	--	--
GW8	11/30/2011	59.5	3.7	24.6	12.2	-26	0	50	1000	45.0	54.6
GW8	12/30/2011	40.0	7.3	17.6	35.1	-26	50	50	--	--	36.1
GW8	1/25/2012	18.5	14.2	7.4	59.9	-27	50	0	--	--	--
GW8	1/31/2012	94.5	0.0	31.8	-26.3	--	0	100	--	--	--
GW8	2/22/2012	19.5	14.4	8.2	57.9	-26	100	0	--	--	--
GW8	3/30/2012	55.0	6.0	24.0	15.0	-26	0	50	2200	99.0	43.8
GW8	4/25/2012	67.0	5.9	30.4	-3.3	-28	50	50	1200	54.0	62.2
GW8	5/29/2012	24.0	15.6	9.0	51.4	-28	50	0	--	--	85.2
GW8	6/20/2012	23.5	15.4	7.6	53.5	-26	0	0	--	--	100.2
GW9	8/1/2011	--	--	--	--	--	50	0	--	--	--
GW9	8/26/2011	19.0	11.9	12.0	57.1	-26	0	0	--	--	--
GW9	10/3/2011	53.5	3.0	12.2	31.3	-25	0	50	800	36.0	65.4
GW9	10/24/2011	30.5	12.8	6.4	50.3	-26	50	0	--	--	--
GW9	11/30/2011	68.0	3.3	16.0	12.7	-24	0	50	700	31.5	51.8
GW9	12/30/2011	43.0	8.9	10.4	37.7	-26	50	50	--	--	32.5
GW9	1/25/2012	8.0	18.3	2.4	71.3	-27	50	0	--	--	--
GW9	1/31/2012	80.0	0.0	41.4	-21.4	--	0	100	--	--	--
GW9	2/22/2012	13.0	16.8	3.6	66.6	-26	100	0	--	--	--
GW9	3/30/2012	8.5	18.6	2.2	70.7	-26	0	0	--	--	--
GW9	4/25/2012	66.5	6.3	19.0	8.2	-28	0	50	1400	63.0	59.8
GW9	5/29/2012	5.0	20.9	1.0	73.1	-28	50	0	--	--	81.6
GW9	6/20/2012	6.5	19.4	1.6	72.5	-28	0	0	--	--	100.2
GW10	8/1/2011	64.0	1.1	20.0	14.9	-28	0	30	750	33.8	--
GW10	8/26/2011	40.5	1.2	25.8	32.5	-4	30	100	1200	54.0	79.3
GW10	10/3/2011	17.5	0.5	23.4	58.6	-16	100	0	--	--	--
GW10	10/24/2011	68.5	1.0	32.4	-1.9	-10	0	50	1500.0	67.5	59.0
GW10	11/30/2011	22.0	0.0	26.0	52.0	-7.5	50	50	750	33.8	58.2
GW10	12/30/2011	23.0	1.5	25.2	50.3	-7.5	50	50	--	--	59.9
GW10	1/25/2012	16.0	0.2	24.6	59.2	-7.0	50	50	--	--	57.5
GW10	1/31/2012	78.0	0.0	41.0	-19.0	--	50	100	--	--	--
GW10	2/22/2012	15.0	1.6	22.2	61.2	-8.5	100	50	--	--	59.5
GW10	3/30/2012	12.0	4.4	20.2	63.4	-10	50	0	--	--	--
GW10	4/25/2012	26.0	3.2	24.4	46.4	-3.5	0	0	--	--	--
GW10	5/29/2012	19.0	4.0	23.0	54.0	-12.0	0	0	--	--	78.6
GW10	6/20/2012	13.0	7.1	19.2	60.7	-7.5	0	0	--	--	98.4
GW11	8/1/2011	17.5	13.0	4.0	65.5	-22	0	0	--	--	--

TABLE 5

WISCONSIN DEPARTMENT OF NATURAL RESOURCES

REFUSE HIDEAWAY LANDFILL

MIDDLETON, WISCONSIN

GAS WELL MONITORING RESULTS

Location	Date	CH_4 (%)	O_2 (%)	CO_2 (%)	Balance Gas* (%)	Well Pressure (in WC)	Valve Position Initial (%)	Valve Position After (%)	Gas Velocity (fpm)	Gas Flow** (cfm)	Gas Temp (deg F)
GW11	8/26/2011	--	--	--	--	--	--	--	--	--	--
GW11	10/3/2011	50.0	4.5	12.4	33.1	-8	0	30	1250	56.3	63.8
GW11	10/24/2011	73.0	0.7	20.5	5.8	-11	30	50	500	22.5	56.9
GW11	11/30/2011	15.0	15.4	7.2	62.4	-22	50	0	--	--	--
GW11	12/30/2011	79.0	0.0	21.6	-0.6	-2.5	0	100	--	--	--
GW11	1/25/2012	12.0	16.8	5.2	66.0	-20.0	100	0	--	--	--
GW11	1/31/2012	80.0	0.4	34.4	-14.8	--	0	100	--	--	--
GW11	2/22/2012	32.0	9.4	14.0	44.6	-24	100	50	--	--	41.3
GW11	3/30/2012	18.5	15.5	9.0	57.0	-17	50	0	--	--	--
GW11	4/25/2012	5.5	20.6	2.6	71.3	-23	0	0	--	--	--
GW11	5/29/2012	40.5	12.7	11.4	35.4	-22	0	50	1100	49.5	81.3
GW11	6/20/2012	61.5	7.4	20.4	10.7	0	0	50	3800	171.0	98.5
GW12	8/1/2011	77.0	0.8	27.0	-4.8	-25	100	50	1000	51.9	--
GW12	8/26/2011	36.5	1.2	29.0	33.3	-28	50	50	1000	45.0	81.3
GW12	10/3/2011	32.0	0.8	29.4	37.8	-24	50	50	1200	54.0	66.2
GW12	10/24/2011	48.0	1.0	33.6	17.4	-26	50	50	750	33.8	67.6
GW12	11/30/2011	23.0	0.5	26.4	50.1	-22	50	0	--	--	--
GW12	12/30/2011	60.0	0.7	33.8	5.5	-24	0	100	--	--	--
GW12	1/25/2012	21.5	0.5	27.0	51.0	-28	100	50	--	--	52.3
GW12	1/31/2012	79.0	0.0	39.6	-18.6	--	50	100	--	--	--
GW12	2/22/2012	18.5	1.8	23.6	56.1	-26	100	0	--	--	--
GW12	3/30/2012	66.5	1.6	36.2	-4.3	-26	0	100	20	0.9	45.4
GW12	4/25/2012	60.0	3.8	39.0	-2.8	-26	100	70	1100	49.5	61.3
GW12	5/29/2012	15.0	5.9	22.2	56.9	-30	70	0	--	--	85.4
GW12	6/20/2012	29.0	4.4	26.0	40.6	-28	0	50	1300	58.5	85.4
GW13	8/1/2011	57.7	5.2	18.2	18.9	-27	0	0	--	--	--
GW13	8/26/2011	63.0	3.4	26.4	7.2	-28	0	100	750	33.8	83.8
GW13	10/3/2011	43.0	6.0	29.2	21.8	-25	100	0	--	--	--
GW13	10/24/2011	71.5	2.0	31.3	-4.8	-26	0	50	750.0	33.8	64.8
GW13	11/30/2011	28.0	9.9	20.8	41.3	-23	50	0	--	--	--
GW13	12/30/2011	49.5	5.6	25.6	19.3	-24	0	50	--	--	--
GW13	1/25/2012	11.0	16.1	8.0	64.9	-26	50	0	--	--	--
GW13	1/31/2012	36.5	5.3	26.0	32.2	--	0	50	--	--	--
GW13	2/22/2012	31.5	8.5	22.4	37.6	-26	50	50	--	--	44.9
GW13	3/30/2012	34.5	8.6	25.8	31.1	-27	50	50	2300	103.5	46.2
GW13	4/25/2012	37.5	9.8	28.0	24.7	-28	50	30	1000	45.0	58.4
GW13	5/29/2012	54.5	5.4	39.6	0.5	-28	30	50	1400	63.0	78.0
GW13	6/20/2012	28.0	12.3	17.6	42.1	-28	50	0	--	--	98.4
Annual Minimum		0.0	0.0			-30.0			20	0.9	32.5
Annual Maximum		94.5	21.1			3.0			3800	171.0	100.3
Annual Average						-12.2			1275	57.5	69.1

* : Balance gas calculated as 100% - ($\%CH_4$+$\%CO_2$+$\%O_2$).

** : Gas Flow (cfm) calculated by multiplying gas velocity (fpm) by pipe area 0.045 (3" diameter).

-- : Not measured.

fpm : Feet per minute.

cfm : Cubic feet per minute.

in WC : Inches of water column.

deg F : Degrees Fahrenheit.

TABLE 6

WISCONSIN DEPARTMENT OF NATURAL RESOURCES

REFUSE HIDEAWAY LANDFILL

MIDDLETON, WISCONSIN

MONTHLY GAS PROBE MONITORING RESULTS

Location	Date	Pressure	CH_4*		O_2	CO_2	Balance Gas**
		(in. WC)	(% LEL)	(% Vol)	(% Vol)	(% Vol)	(% Vol)
G-1S	7/29/11	0.05	--	*11.0*	0.0	14.8	74.2
G-1S	8/26/11	0.00	--	*10.5*	0.0	19.2	70.3
G-1S	10/3/11	0.00	41.0	2.1	0.0	15.0	83.0
G-1S	10/28/11	0.00	1.0	< 0.1	2.6	12.0	85.3
G-1S	11/30/11	0.00	0.0	0.0	20.9	0.0	79.1
G-1S	12/29/11	0.00	0.0	0.0	20.9	0.0	79.1
G-1S	1/27/12	0.00	0.0	0.0	20.9	0.0	79.1
G-1S	2/23/12	0.00	0.0	0.0	20.9	0.0	79.1
G-1S	3/29/12	0.00	0.0	0.0	17.7	1.8	80.5
G-1S	4/25/12	0.00	0.0	0.0	18.5	1.8	79.7
G-1S	5/29/12	0.00	0.0	0.0	20.9	0.0	79.1
G-1S	6/20/12	0.05	0.0	*6.5*	3.5	20.4	69.6
G-1D	7/29/11	0.05	--	*7.5*	0.0	14.8	77.7
G-1D	8/26/11	0.00	--	*7.0*	0.0	18.6	74.4
G-1D	10/3/11	0.00	22.0	1.1	0.4	14.8	83.7
G-1D	10/28/11	0.00	1.0	< 0.1	20.9	0.0	79.1
G-1D	11/30/11	0.00	0.0	0.0	20.9	0.0	79.1
G-1D	12/29/11	0.00	0.0	0.0	20.9	0.0	79.1
G-1D	1/27/12	0.00	0.0	0.0	20.9	0.0	79.1
G-1D	2/23/12	0.00	0.0	0.0	20.9	0.0	79.1
G-1D	3/29/12	0.00	0.0	0.0	12.0	5.4	82.6
G-1D	4/25/12	0.00	0.0	0.0	16.1	4.0	79.9
G-1D	5/29/12	0.00	0.0	0.0	20.9	0.0	79.1
G-1D	6/20/12	0.00	0.0	0.0	19.0	2.6	78.4
G-2S	7/29/11	0.00	--	*6.7*	0.0	15.6	77.7
G-2S	8/26/11	0.00	--	*5.5*	0.0	1.5	93.0
G-2S	10/3/11	0.00	--	*7.5*	0.0	20.6	71.9
G-2S	10/28/11	0.00	2.0	0.1	20.9	0.6	78.4
G-2S	11/30/11	0.00	0.0	0.0	20.9	0.0	79.1
G-2S	12/29/11	0.00	0.0	0.0	20.9	0.0	79.1
G-2S	1/27/12	0.00	0.0	0.0	20.9	0.0	79.1
G-2S	2/23/12	0.00	0.0	0.0	20.9	0.0	79.1
G-2S	3/29/12	0.00	0.0	0.0	20.9	0.0	79.1
G-2S	4/25/12	0.00	0.0	*5.5*	7.6	14.0	72.9
G-2S	5/29/12	0.00	0.0	*7.5*	3.5	20.8	68.2
G-2S	6/20/12	0.05	0.0	*10.5*	3.1	16.8	69.6
G-2D	7/29/11	0.00	0.0	0.0	16.6	2.2	81.2
G-2D	8/26/11	0.00	0.0	0.0	18.0	1.0	81.0
G-2D	10/3/11	0.00	0.0	0.0	15.4	4.2	80.4
G-2D	10/28/11	0.00	--	5.0	0.0	18.8	76.2
G-2D	11/30/11	0.00	0.0	0.0	20.9	0.0	79.1
G-2D	12/29/11	0.00	0.0	0.0	20.9	0.0	79.1
G-2D	1/27/12	0.00	0.0	0.0	20.9	0.0	79.1
G-2D	2/23/12	0.00	0.0	0.0	20.9	0.0	79.1
G-2D	3/29/12	0.00	0.0	0.0	20.3	1.6	78.1
G-2D	4/25/12	0.00	0.0	0.0	10.4	6.8	82.8
G-2D	5/29/12	0.00	0.0	0.0	13.8	7.2	79.0
G-2D	6/20/12	0.05	5.0	3.6	17.8	7.2	71.4
G-6	7/29/11	0.00	0.0	0.0	19.9	0.8	79.3
G-6	8/26/11	0.00	0.0	0.0	20.5	0.8	78.7

TABLE 6

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
REFUSE HIDEAWAY LANDFILL
MIDDLETON, WISCONSIN

MONTHLY GAS PROBE MONITORING RESULTS

Location	Date	Pressure	CH_4*		O_2	CO_2	Balance Gas**
		(in. WC)	(% LEL)	(% Vol)	(% Vol)	(% Vol)	(% Vol)
G-6	10/3/11	0.00	0.0	0.0	11.1	3.8	85.1
G-6	10/28/11	0.00	1.0	0.1	16.1	2.8	81.1
G-6	11/30/11	0.00	--	*19.0*	19.0	1.6	60.4
G-6	12/29/11	0.00	0.0	0.0	20.9	0.0	79.1
G-6	1/27/12	0.00	0.0	0.0	20.9	0.0	79.1
G-6	2/23/12	0.00	0.0	0.0	20.9	0.2	78.9
G-6	3/29/12	0.00	0.0	0.0	20.9	0.4	78.7
G-6	4/25/12	0.00	0.0	0.0	19.7	0.8	79.5
G-6	5/29/12	0.00	0.0	0.0	20.0	2.2	77.8
G-6	6/20/12	0.00	0.0	0.0	20.9	0.0	79.1
G-8	7/29/11	0.00	0.0	0.0	20.9	0.0	79.1
G-8	8/26/11	0.00	0.0	0.0	22.3	0.4	77.3
G-8	10/3/11	0.00	0.0	0.0	20.9	0.0	79.1
G-8	10/28/11	0.00	0.0	0.0	20.9	0.0	79.1
G-8	11/30/11	0.00	0.0	0.0	20.9	0.0	79.1
G-8	12/29/11	0.00	0.0	0.0	20.7	0.0	79.3
G-8	1/27/12	0.00	0.0	0.0	20.9	0.0	79.1
G-8	2/23/12	0.00	0.0	0.0	20.9	0.0	79.1
G-8	3/29/12	0.00	0.0	0.0	20.9	0.0	79.1
G-8	4/25/12	0.00	0.0	0.0	20.9	0.0	79.1
G-8	5/29/12	0.00	0.0	0.0	20.9	0.0	79.1
G-8	6/20/12	0.00	0.0	0.0	20.9	0.0	79.1
G-9	7/29/11	0.00	0.0	0.0	20.9	0.0	79.1
G-9	8/26/11	0.00	0.0	0.0	22.9	0.0	77.1
G-9	10/3/11	0.00	0.0	0.0	20.9	0.0	79.1
G-9	10/28/11	0.00	3.0	0.2	16.2	1.2	82.5
G-9	11/30/11	0.00	0.0	0.0	13.1	3.4	83.5
G-9	12/29/11	0.00	0.0	0.0	13.1	3.6	83.3
G-9	1/27/12	0.00	0.0	0.0	20.9	0.0	79.1
G-9	2/23/12	0.00	0.0	0.0	17.2	1.8	81.0
G-9	3/29/12	0.00	0.0	0.0	20.9	0.0	79.1
G-9	4/25/12	0.00	0.0	0.0	18.8	1.2	80.0
G-9	5/29/12	0.00	0.0	0.0	20.9	0.0	79.1
G-9	6/20/12	0.00	0.0	0.0	20.9	0.0	79.1
G-10	7/29/11	0.50	0.0	0.0	19.7	0.8	79.5
G-10	8/26/11	0.50	0.0	0.0	22.9	0.0	77.1
G-10	10/3/11	0.00	0.0	0.0	20.9	0.0	79.1
G-10	10/28/11	0.25	0.0	0.0	20.9	0.0	79.1
G-10	11/30/11	0.00	0.0	0.0	20.9	0.4	78.7
G-10	12/29/11	0.05	0.0	0.0	18.4	1.2	80.4
G-10	1/27/12	0.00	0.0	0.0	20.9	0.0	79.1
G-10	2/23/12	0.00	0.0	0.0	20.9	0.0	79.1
G-10	3/29/12	0.00	0.0	0.0	20.9	0.0	79.1
G-10	4/25/12	0.00	0.0	0.0	20.9	0.0	79.1
G-10	5/29/12	0.00	0.0	0.0	20.9	0.0	79.1
G-10	6/20/12	0.00	0.0	0.0	20.9	0.0	79.1
GP-11S	7/29/11	0.00	--	*8.5*	0.0	13.0	78.5
GP-11S	8/26/11	0.00	--	*8.0*	0.0	11.5	80.5
GP-11S	10/3/11	0.00	0.0	0.0	18.0	3.4	78.6
GP-11S	10/28/11	0.00	3.0	0.2	17.1	4.0	78.8

TABLE 6

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
REFUSE HIDEAWAY LANDFILL
MIDDLETON, WISCONSIN

MONTHLY GAS PROBE MONITORING RESULTS

Location	Date	Pressure	CH_4*		O_2	CO_2	Balance Gas**
		(in. WC)	(% LEL)	(% Vol)	(% Vol)	(% Vol)	(% Vol)
GP-11S	11/30/11	0.00	0.0	0.0	20.9	0.6	78.5
GP-11S	12/29/11	0.00	0.0	0.0	20.9	0.0	79.1
GP-11S	1/27/12	0.00	0.0	0.0	20.9	0.0	79.1
GP-11S	2/23/12	0.00	0.0	0.0	20.9	0.0	79.1
GP-11S	3/29/12	0.00	0.0	0.0	18.8	1.6	79.6
GP-11S	4/25/12	0.00	0.0	0.0	15.1	3.6	81.3
GP-11S	5/29/12	0.00	48.0	2.4	5.3	10.0	82.3
GP-11S	6/20/12	0.00	0.0	*5.5*	3.6	14.2	76.7
GP-11D	7/29/11	0.00	--	*9.5*	0.0	13.8	76.7
GP-11D	8/26/11	0.00	--	*10.5*	0.0	10.5	79.0
GP-11D	10/3/11	0.00	28.0	1.4	15.2	4.8	78.6
GP-11D	10/28/11	0.00	15.0	0.8	18.2	2.8	78.3
GP-11D	11/30/11	0.00	0.0	0.0	20.9	0.2	78.9
GP-11D	12/29/11	0.00	0.0	0.0	20.9	0.0	79.1
GP-11D	1/27/12	0.00	0.0	0.0	20.9	0.0	79.1
GP-11D	2/23/12	0.00	0.0	0.0	20.9	0.0	79.1
GP-11D	3/29/12	0.00	0.0	0.0	18.6	1.8	79.6
GP-11D	4/25/12	0.00	0.0	0.0	16.8	2.4	80.8
GP-11D	5/29/12	0.00	0.0	*7.5*	3.8	15.0	73.7
GP-11D	6/20/12	0.00	0.0	*8.0*	3.5	16.8	71.7
GPW-1S	7/29/11	0.00	0.0	0.0	18.8	1.8	79.4
GPW-1S	8/26/11	0.00	0.0	0.0	18.1	2.8	79.1
GPW-1S	10/3/11	0.00	0.0	0.0	18.4	2.6	79.0
GPW-1S	10/28/11	0.00	1.0	< 0.1	18.9	2.8	78.3
GPW-1S	11/30/11	0.00	0.0	0.0	18.5	2.4	79.1
GPW-1S	12/29/11	0.00	0.0	0.0	20.9	0.0	79.1
GPW-1S	1/27/12	0.00	0.0	0.0	20.9	0.0	79.1
GPW-1S	2/23/12	0.00	0.0	0.0	19.3	1.2	79.5
GPW-1S	3/29/12	0.00	0.0	0.0	18.9	2.0	79.1
GPW-1S	4/25/12	0.00	0.0	0.0	19.3	2.0	78.7
GPW-1S	5/29/12	0.00	0.0	0.0	18.9	2.0	79.1
GPW-1S	6/20/12	0.00	0.0	0.0	19.0	2.6	78.4
GPW-1M	7/29/11	1.00	0.0	0.0	19.6	0.6	79.8
GPW-1M	8/26/11	0.00	0.0	0.0	20.1	1.2	78.7
GPW-1M	10/3/11	0.00	0.0	0.0	20.5	0.8	78.7
GPW-1M	10/28/11	0.45	0.0	0.0	20.9	0.6	78.5
GPW-1M	11/30/11	0.25	0.0	0.0	18.7	1.6	79.7
GPW-1M	12/29/11	0.00	0.0	0.0	20.9	0.4	78.7
GPW-1M	1/27/12	-0.10	0.0	0.0	20.9	0.0	79.1
GPW-1M	2/23/12	0.00	0.0	0.0	20.9	0.4	78.7
GPW-1M	3/29/12	0.05	0.0	0.0	19.6	1.2	79.2
GPW-1M	4/25/12	0.00	0.0	0.0	20.5	1.0	78.5
GPW-1M	5/29/12	0.00	0.0	0.0	20.9	0.2	78.9
GPW-1M	6/20/12	-0.05	0.0	0.0	20.9	0.0	79.1
GPW-1D	7/29/11	1.00	0.0	0.0	19.7	0.2	80.1
GPW-1D	8/26/11	0.00	0.0	0.0	19.0	1.6	79.4
GPW-1D	10/3/11	0.00	0.0	0.0	18.8	2.2	79.0
GPW-1D	10/28/11	0.45	1.0	< 0.1	19.3	2.2	78.5
GPW-1D	11/30/11	0.35	0.0	0.0	18.8	1.2	80.0
GPW-1D	12/29/11	0.00	0.0	0.0	20.9	0.0	79.1

TABLE 6

WISCONSIN DEPARTMENT OF NATURAL RESOURCES

REFUSE HIDEAWAY LANDFILL

MIDDLETON, WISCONSIN

MONTHLY GAS PROBE MONITORING RESULTS

Location	Date	Pressure	CH_4*		O_2	CO_2	Balance Gas**
		(in. WC)	(% LEL)	(% Vol)	(% Vol)	(% Vol)	(% Vol)
GPW-1D	1/27/12	-0.20	0.0	0.0	20.9	0.0	79.1
GPW-1D	2/23/12	0.00	0.0	0.0	18.7	1.4	79.9
GPW-1D	3/29/12	0.00	0.0	0.0	20.3	1.0	78.7
GPW-1D	4/25/12	0.05	0.0	0.0	19.2	1.6	79.2
GPW-1D	5/29/12	0.05	0.0	0.0	19.2	1.0	79.8
GPW-1D	6/20/12	-0.15	0.0	0.0	20.9	0.0	79.1
Speedway Buildings	7/29/11		0.0	0.0	20.9	0.0	79.1
Speedway Buildings	8/26/11		0.0	0.0	20.4	0.0	79.6
Speedway Buildings	10/3/11		0.0	0.0	20.9	0.0	79.1
Speedway Buildings	10/28/11		0.0	0.0	20.9	0.0	79.1
Speedway Buildings	11/30/11		0.0	0.0	20.9	0.0	79.1
Speedway Buildings	12/29/11		0.0	0.0	20.9	0.0	79.1
Speedway Buildings	1/27/12		0.0	0.0	20.9	0.0	79.1
Speedway Buildings	2/23/12		0.0	0.0	20.9	0.0	79.1
Speedway Buildings	3/29/12		0.0	0.0	20.9	0.0	79.1
Speedway Buildings	4/25/12		0.0	0.0	20.9	0.0	79.1
Speedway Buildings	5/29/12		0.0	0.0	20.9	0.0	79.1
Speedway Buildings	6/20/12		0.0	0.0	20.9	0.0	79.1

% LEL: Percent of lower explosive limit.

% Vol: Percent volume.

* : Percent volume calculated as % LEL/20.

** : Balance gas calculated as 100% - (%CH_4+%CO_2+%O_2).

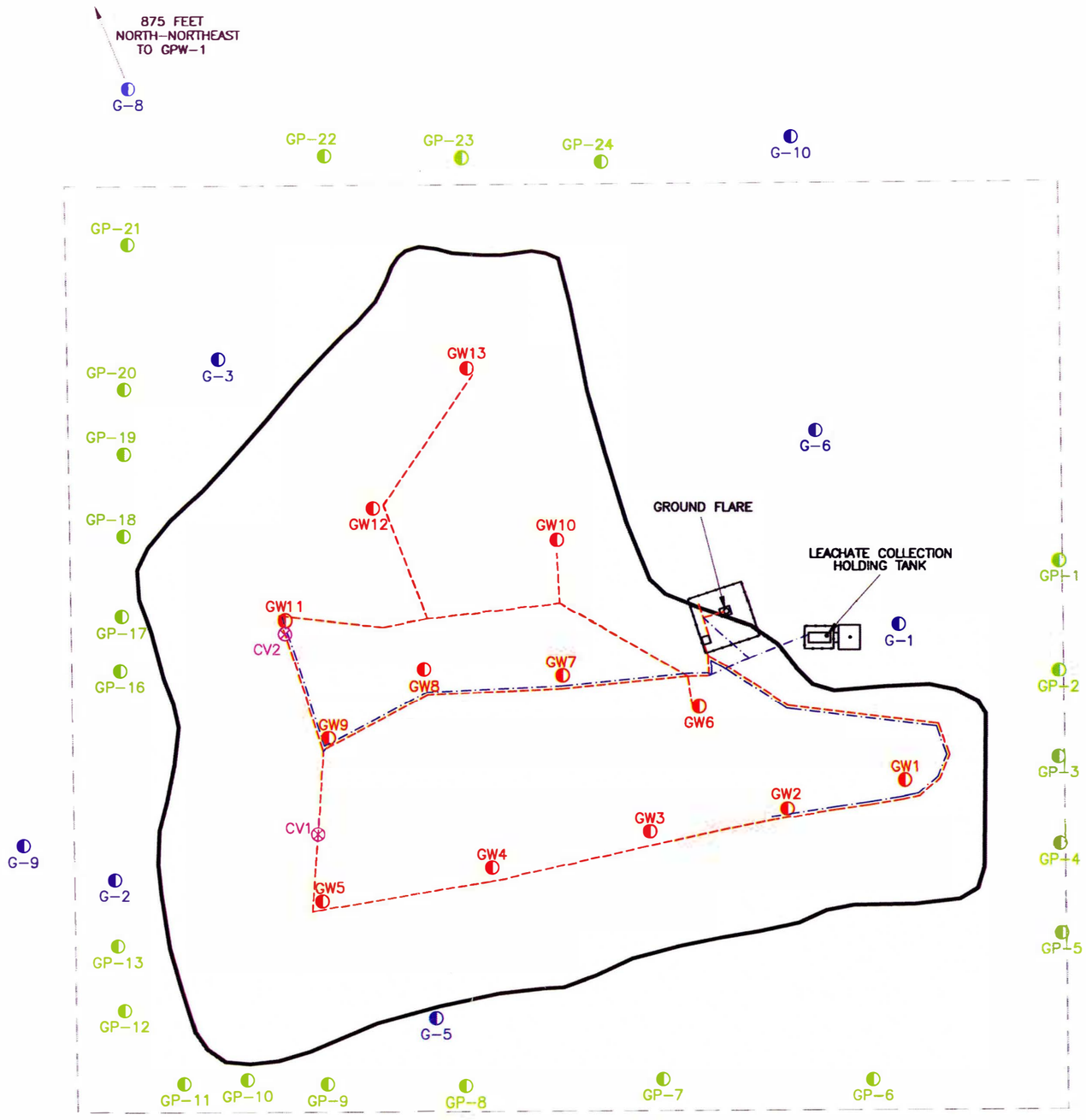
in. WC: Inches of water column.

Values in *italics* font indicate methane concentrations greater than the lower explosive limit (5% volume) in landfill perimeter gas probes located near the property line or in the vicinity of Speedway buildings.

FIGURES

LEGEND

- GW9 — EXISTING LEACHATE/GAS EXTRACTION WELL LOCATION
- G-8 — GAS PROBE LOCATION ("G" SERIES)
- GP-16 — GAS PROBE LOCATION ("GP" SERIES)
- CV1 — CONTROL VALVE LOCATION
- PROPERTY BOUNDARY
- FILL LIMITS
- GAS HEADER PIPE
- LEACHATE CONVEYANCE PIPE
- FENCE LINE



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SCALE IN FEET

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
REFUSE HIDEAWAY LANDFILL
MIDDLETON, WI

SITE MAP

FILE: SITEMAP.DWG | DATE: SEPTEMBER 2009 | FIGURE: 1

Prepared By:
LEGGETTE, BRASHEARS & GRAHAM, INC.
Professional Groundwater and Environmental Engineering Services
6409 Odana Road, Suite C
Madison, WI 53719
608.441.5544

REVISED 5/02

FIGURE 2

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
REFUSE HIDEWAY LANDFILL
MIDDLETON, WISCONSIN

ANNUAL LEACHATE COLLECTION VOLUME (2007-2012)

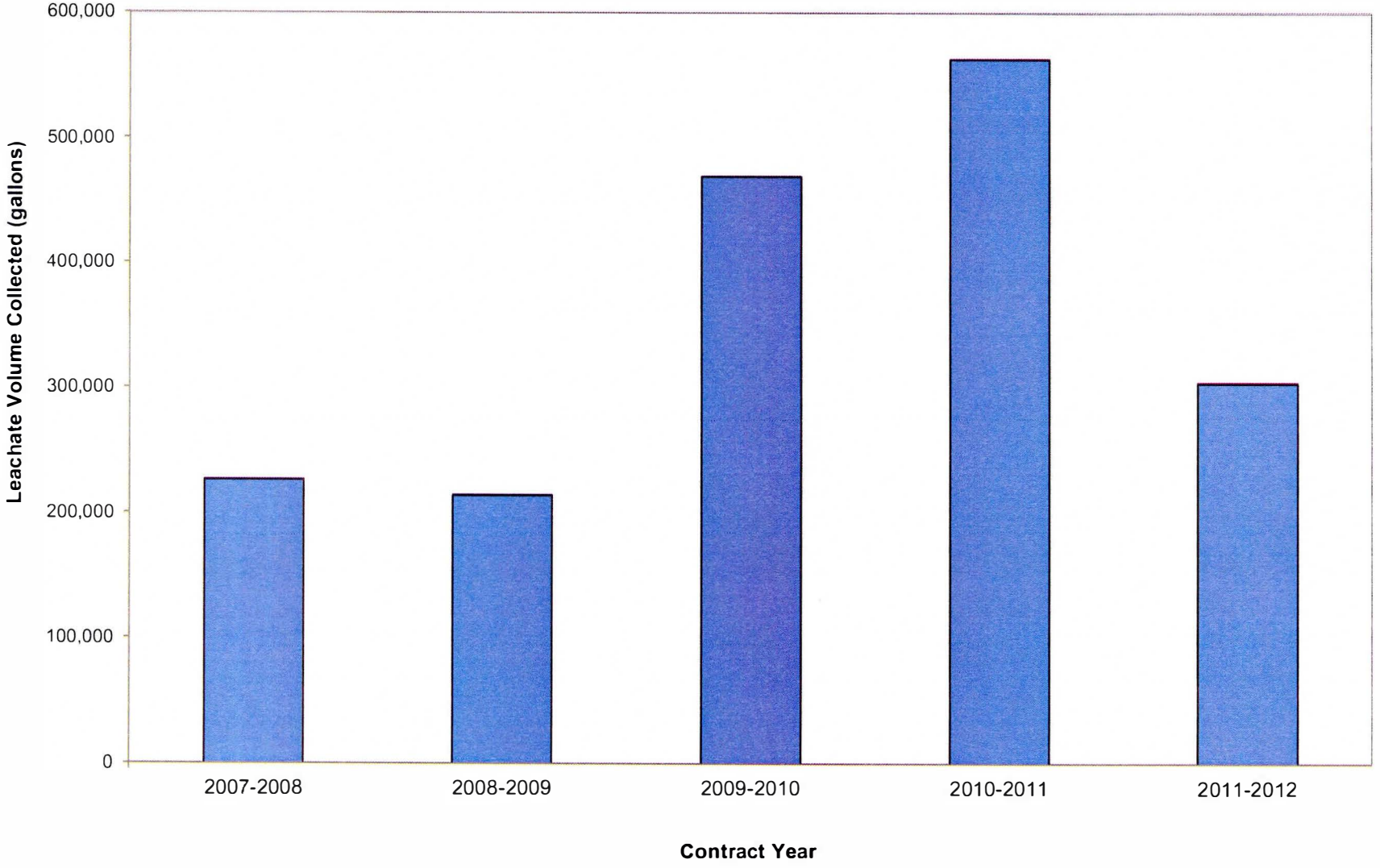
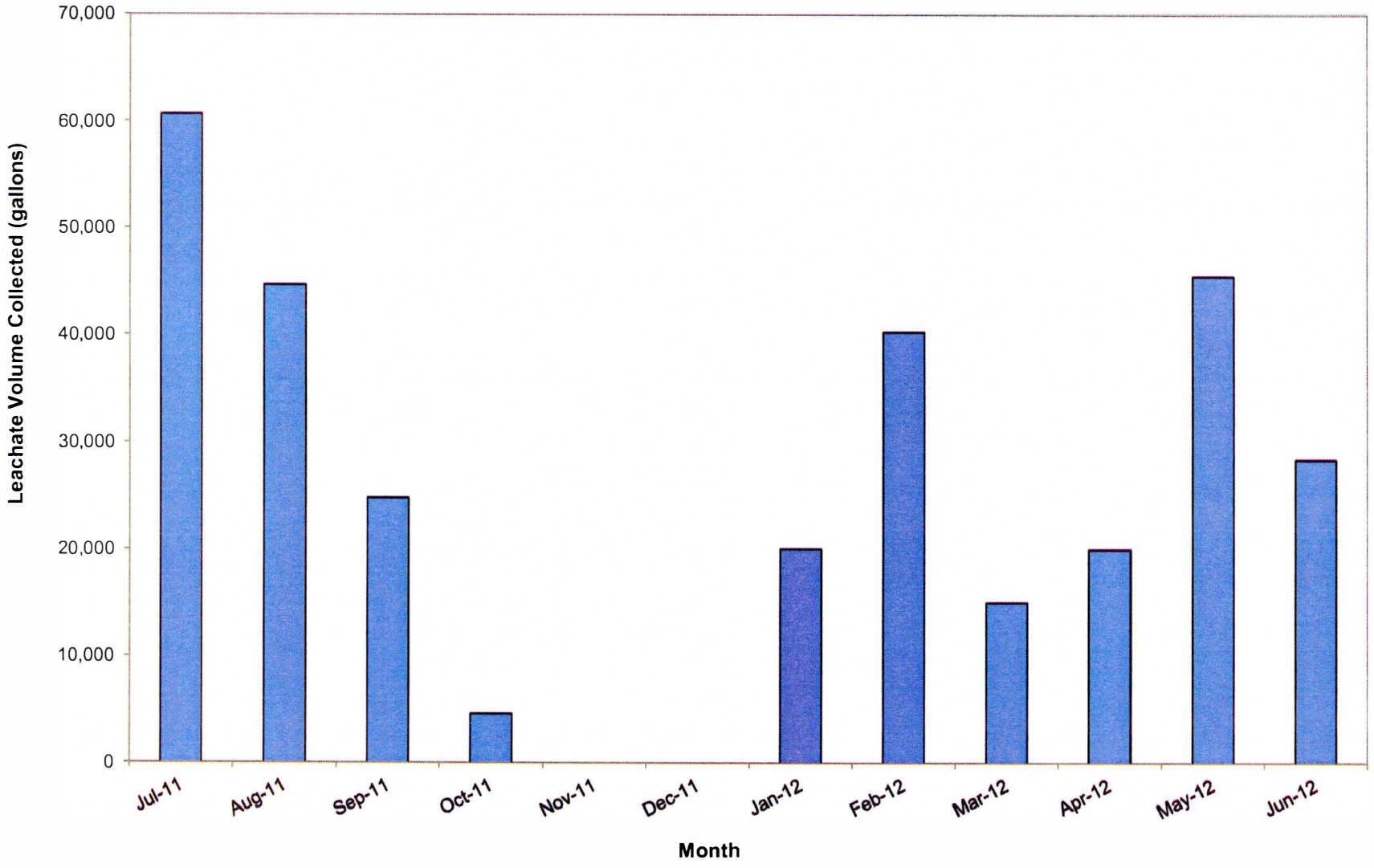


FIGURE 3

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
REFUSE HIDEWAY LANDFILL
MIDDLETON, WISCONSIN

MONTHLY LEACHATE COLLECTION VOLUME (JULY 2011-JUNE 2012)

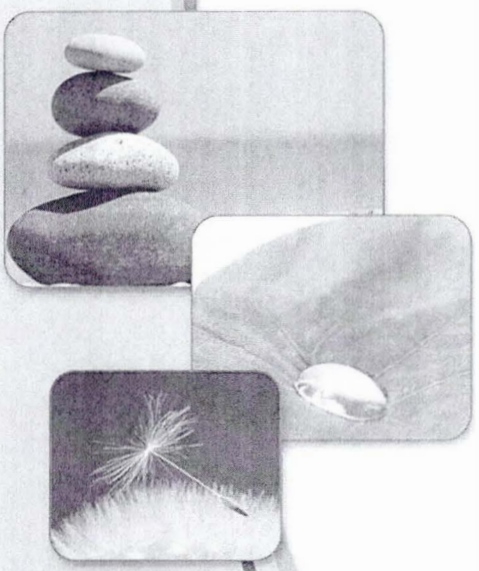


APPENDIX I

LEACHATE LABORATORY ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY DOCUMENTS

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Watertown
1101 Industrial Drive, Suites 9 & 10
Watertown, WI 53094
Tel: 800-833-7036

TestAmerica Job ID: WUI0964
Client Project/Site: Landfill Leachate
Client Project Description: Refuse Hideaway LF

For:
LEGGETTE, BRASHEARS & GRAHAM, INC. (WI)
6409 Odana Road, Suite C
Madison, WI 53719

Attn: Ms. Jennifer Shelton

Dan Milewsky

Authorized for release by:
10/10/2011 05:05:22 PM

Dan F. Milewsky
Project Manager
Dan.Milewsky@testamericainc.com

Table of Contents

Definitions/Glossary

Client: LEGGETTE, BRASHEARS & GRAHAM, INC. (WI)
Project/Site: Landfill Leachate

TestAmerica Job ID: WUI0964

Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: WUI0964

Laboratory: TestAmerica Chicago

Narrative

Job Narrative
500-40058-1

Comments
No additional comments.

Receipt
All samples were received in good condition within temperature requirements.

Metals
No analytical or quality issues were noted.

General Chemistry
No analytical or quality issues were noted.

Detection Summary

Client: LEGGETTE, BRASHEARS & GRAHAM, INC. (WI)
Project/Site: Landfill Leachate

TestAmerica Job ID: WUI0964

Client Sample ID: Leachate

Lab Sample ID: WUI0964-01

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cadmium	0.0074		0.0020	0.00036	mg/L	1		6010B	Total/NA
Chromium	0.058		0.010	0.0015	mg/L	1		6010B	Total/NA
Copper	0.35		0.010	0.0014	mg/L	1		6010B	Total/NA
Lead	0.060		0.0050	0.0020	mg/L	1		6010B	Total/NA
Molybdenum	0.012		0.010	0.0019	mg/L	1		6010B	Total/NA
Nickel	0.35		0.010	0.00081	mg/L	1		6010B	Total/NA
Selenium	0.0072	J	0.010	0.0025	mg/L	1		6010B	Total/NA
Silver	0.0010	J	0.0050	0.00071	mg/L	1		6010B	Total/NA
Zinc	4.3		0.020	0.0066	mg/L	1		6010B	Total/NA
Mercury	0.000072	J	0.00020	0.000070	mg/L	1		7470A	Total/NA
Cyanide, Total	0.0029	J	0.010	0.0011	mg/L	1		335.2	Total/NA

Client: LEGGETTE, BRASHEARS & GRAHAM, INC. (WI)
Project/Site: Landfill Leachate

TestAmerica Job ID: WUI0964

Client Sample ID: Leachate
Date Collected: 09/29/11 10:15
Date Received: 09/30/11 08:55

Lab Sample ID: WUI0964-01
Matrix: Ground Water

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0074		0.0020	0.00036	mg/L		10/03/11 10:56	10/06/11 19:52	1
Chromium	0.058		0.010	0.0015	mg/L		10/03/11 10:56	10/06/11 19:52	1
Copper	0.35		0.010	0.0014	mg/L		10/03/11 10:56	10/06/11 19:52	1
Lead	0.060		0.0050	0.0020	mg/L		10/03/11 10:56	10/06/11 19:52	1
Molybdenum	0.012		0.010	0.0019	mg/L		10/03/11 10:56	10/06/11 19:52	1
Nickel	0.35		0.010	0.00081	mg/L		10/03/11 10:56	10/06/11 19:52	1
Selenium	0.0072	J	0.010	0.0025	mg/L		10/03/11 10:56	10/06/11 19:52	1
Silver	0.0010	J	0.0050	0.00071	mg/L		10/03/11 10:56	10/06/11 19:52	1
Zinc	4.3		0.020	0.0066	mg/L		10/03/11 10:56	10/06/11 19:52	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000072	J	0.00020	0.000070	mg/L		10/07/11 08:20	10/07/11 14:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0029	J	0.010	0.0011	mg/L		10/04/11 07:00	10/04/11 12:23	1

Method: SM 3500CrD - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, Hexavalent	<0.030		0.10	0.030	mg/L		09/30/11 10:00	09/30/11 10:00	10

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 500-127395/1-A
Matrix: Water
Analysis Batch: 127983

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 127395

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.00036		0.0020	0.00036	mg/L		10/03/11 10:56	10/06/11 17:26	1
Chromium	<0.0015		0.010	0.0015	mg/L		10/03/11 10:56	10/06/11 17:26	1
Copper	<0.0014		0.010	0.0014	mg/L		10/03/11 10:56	10/06/11 17:26	1
Lead	<0.0020		0.0050	0.0020	mg/L		10/03/11 10:56	10/06/11 17:26	1
Molybdenum	<0.0019		0.010	0.0019	mg/L		10/03/11 10:56	10/06/11 17:26	1
Nickel	<0.00081		0.010	0.00081	mg/L		10/03/11 10:56	10/06/11 17:26	1
Selenium	<0.0025		0.010	0.0025	mg/L		10/03/11 10:56	10/06/11 17:26	1
Silver	<0.00071		0.0050	0.00071	mg/L		10/03/11 10:56	10/06/11 17:26	1
Zinc	<0.0066		0.020	0.0066	mg/L		10/03/11 10:56	10/06/11 17:26	1

Lab Sample ID: LCS 500-127395/2-A
Matrix: Water
Analysis Batch: 127983

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 127395

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Cadmium	0.0500	0.0483		mg/L		97	80 - 120
Chromium	0.200	0.203		mg/L		101	80 - 120
Copper	0.250	0.249		mg/L		99	80 - 120
Lead	0.100	0.102		mg/L		102	80 - 120
Molybdenum	1.00	1.02		mg/L		102	80 - 120
Nickel	0.500	0.514		mg/L		103	80 - 120
Selenium	0.100	0.0931		mg/L		93	80 - 120
Silver	0.0500	0.0471		mg/L		94	80 - 120
Zinc	0.500	0.505		mg/L		101	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 500-128007/7-A
Matrix: Water
Analysis Batch: 128068

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 128007

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000070		0.00020	0.000070	mg/L		10/07/11 08:20	10/07/11 13:10	1

Lab Sample ID: LCS 500-128007/8-A
Matrix: Water
Analysis Batch: 128068

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 128007

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Mercury	0.00200	0.00193		mg/L		97	80 - 120

Method: 335.2 - Cyanide, Total

Lab Sample ID: MB 500-127494/1-A
Matrix: Water
Analysis Batch: 127559

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 127494

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.0011		0.010	0.0011	mg/L		10/04/11 07:00	10/04/11 12:11	1

Method: 335.2 - Cyanide, Total (Continued)

Lab Sample ID: HLCS 500-127494/3-A
Matrix: Water
Analysis Batch: 127559

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 127494

Analyte	Spike Added	HLCS Result	HLCS Qualifier	Unit	D	% Rec	% Rec. Limits
Cyanide, Total	0.400	0.402		mg/L		100	90 - 110

Lab Sample ID: LCS 500-127494/2-A
Matrix: Water
Analysis Batch: 127559

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 127494

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Cyanide, Total	0.100	0.104		mg/L		104	80 - 120

Lab Sample ID: LLCS 500-127494/4-A
Matrix: Water
Analysis Batch: 127559

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 127494

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	% Rec	% Rec. Limits
Cyanide, Total	0.0400	0.0417		mg/L		104	75 - 125

Method: SM 3500CrD - General Chemistry Parameters

Lab Sample ID: 11I0447-BLK1
Matrix: Water - NonPotable
Analysis Batch: 11I0447

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 11I0447_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, Hexavalent	<0.0030		0.010	0.0030	mg/L		09/23/11 14:10	09/23/11 14:10	1.00

Lab Sample ID: 11I0447-BLK2
Matrix: Water - NonPotable
Analysis Batch: 11I0447

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 11I0447_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, Hexavalent	<0.0030		0.010	0.0030	mg/L		09/29/11 15:10	09/29/11 15:10	1.00

Lab Sample ID: 11I0447-BLK3
Matrix: Water - NonPotable
Analysis Batch: 11I0447

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 11I0447_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, Hexavalent	<0.0030		0.010	0.0030	mg/L		09/30/11 10:00	09/30/11 10:00	1.00

Lab Sample ID: 11I0447-MS1
Matrix: Water - NonPotable
Analysis Batch: 11I0447

Client Sample ID: Leachate
Prep Type: Total
Prep Batch: 11I0447_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	% Rec	% Rec. Limits
Chromium, Hexavalent	<0.030		1.0000	0.957		mg/L		96	73 - 120

Method: SM 3500CrD - General Chemistry Parameters (Continued)

Lab Sample ID: 1110447-MSD1
Matrix: Water - NonPotable
Analysis Batch: 1110447

Client Sample ID: Leachate
Prep Type: Total
Prep Batch: 1110447_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Chromium, Hexavalent	<0.030		1.0000	0.967		mg/L		97	73 - 120	1	8

QC Association Summary

Client: LEGGETTE, BRASHEARS & GRAHAM, INC. (WI)
Project/Site: Landfill Leachate

TestAmerica Job ID: WUI0964

Metals

Prep Batch: 127395

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 500-127395/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 500-127395/1-A	Method Blank	Total/NA	Water	3010A	
WUI0964-01	Leachate	Total/NA	Ground Water	3010A	

Analysis Batch: 127983

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 500-127395/2-A	Lab Control Sample	Total/NA	Water	6010B	127395
MB 500-127395/1-A	Method Blank	Total/NA	Water	6010B	127395
WUI0964-01	Leachate	Total/NA	Ground Water	6010B	127395

Prep Batch: 128007

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 500-128007/8-A	Lab Control Sample	Total/NA	Water	7470A	
MB 500-128007/7-A	Method Blank	Total/NA	Water	7470A	
WUI0964-01	Leachate	Total/NA	Ground Water	7470A	

Analysis Batch: 128068

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 500-128007/8-A	Lab Control Sample	Total/NA	Water	7470A	128007
MB 500-128007/7-A	Method Blank	Total/NA	Water	7470A	128007
WUI0964-01	Leachate	Total/NA	Ground Water	7470A	128007

General Chemistry

Prep Batch: 127494

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
HLCS 500-127494/3-A	Lab Control Sample	Total/NA	Water	Distill/CN	
LCS 500-127494/2-A	Lab Control Sample	Total/NA	Water	Distill/CN	
LLCS 500-127494/4-A	Lab Control Sample	Total/NA	Water	Distill/CN	
MB 500-127494/1-A	Method Blank	Total/NA	Water	Distill/CN	
WUI0964-01	Leachate	Total/NA	Ground Water	Distill/CN	

Analysis Batch: 127559

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
HLCS 500-127494/3-A	Lab Control Sample	Total/NA	Water	335.2	127494
LCS 500-127494/2-A	Lab Control Sample	Total/NA	Water	335.2	127494
LLCS 500-127494/4-A	Lab Control Sample	Total/NA	Water	335.2	127494
MB 500-127494/1-A	Method Blank	Total/NA	Water	335.2	127494
WUI0964-01	Leachate	Total/NA	Ground Water	335.2	127494

WetChem

Analysis Batch: 111I0447

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
111I0447-BLK1	Method Blank	Total	Water - NonPotable	SM 3500CrD	111I0447_P
111I0447-BLK2	Method Blank	Total	Water - NonPotable	SM 3500CrD	111I0447_P
111I0447-BLK3	Method Blank	Total	Water - NonPotable	SM 3500CrD	111I0447_P
111I0447-MS1	Leachate	Total	Water - NonPotable	SM 3500CrD	111I0447_P

WetChem (Continued)

Analysis Batch: 11I0447 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I0447-MSD1	Leachate	Total	Water - NonPotable	SM 3500CrD	11I0447_P
WUI0964-01	Leachate	Total	Ground Water	SM 3500CrD	11I0447_P

Prep Batch: 11I0447_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11I0447-BLK1	Method Blank	Total	Water - NonPotable	NO PREP - WET CHEM	
11I0447-BLK2	Method Blank	Total	Water - NonPotable	NO PREP - WET CHEM	
11I0447-BLK3	Method Blank	Total	Water - NonPotable	NO PREP - WET CHEM	
11I0447-MS1	Leachate	Total	Water - NonPotable	NO PREP - WET CHEM	
11I0447-MSD1	Leachate	Total	Water - NonPotable	NO PREP - WET CHEM	
WUI0964-01	Leachate	Total	Ground Water	NO PREP - WET CHEM	

Lab Chronicle

Client: LEGGETTE, BRASHEARS & GRAHAM, INC. (WI)
Project/Site: Landfill Leachate

TestAmerica Job ID: WUI0964

Client Sample ID: Leachate
Date Collected: 09/29/11 10:15
Date Received: 09/30/11 08:55

Lab Sample ID: WUI0964-01
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			127395	10/03/11 10:56	PFK	TAL CHI
Total/NA	Analysis	6010B		1	127983	10/06/11 19:52	TDS	TAL CHI
Total/NA	Prep	7470A			128007	10/07/11 08:20	JR	TAL CHI
Total/NA	Analysis	7470A		1	128068	10/07/11 14:01	JR	TAL CHI
Total/NA	Prep	Distill/CN			127494	10/04/11 07:00	AAD	TAL CHI
Total/NA	Analysis	335.2		1	127559		AAD	TAL CHI
						(Start): 10/04/11 12:23		
						(End): 10/04/11 12:24		
Total	Analysis	SM 3500CrD		10	1110447	09/30/11 10:00	TDS	TAL WT
Total	Prep	NO PREP - WET CHEM		1.0	1110447_P	09/30/11 10:00	TDS	TAL WT

Laboratory References:
TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708) 534-5200
TAL WT = TestAmerica Watertown, 1101 Industrial Drive, Suites 9 & 10, Watertown, WI 53094, TEL 800-833-7036

Certification Summary

Client: LEGGETTE, BRASHEARS & GRAHAM, INC. (WI)
Project/Site: Landfill Leachate

TestAmerica Job ID: WUI0964

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Watertown		WI Dept of Agriculture (Micro)		105-266
TestAmerica Watertown	Illinois	NELAC	5	100453
TestAmerica Watertown	Minnesota	NELAC	5	055-999-366
TestAmerica Watertown	Wisconsin	State Program	5	128053530
TestAmerica Chicago	ACLASS	DoD ELAP		ADE-1429
TestAmerica Chicago	ACLASS	ISO/IEC 17025		AT-1428
TestAmerica Chicago	Alabama	State Program	4	40461
TestAmerica Chicago	California	NELAC	9	01132CA
TestAmerica Chicago	Florida	NELAC	4	E871072
TestAmerica Chicago	Georgia	Georgia EPD	4	N/A
TestAmerica Chicago	Georgia	State Program	4	939
TestAmerica Chicago	Hawaii	State Program	9	N/A
TestAmerica Chicago	Illinois	NELAC	5	100201
TestAmerica Chicago	Indiana	State Program	5	C-IL-02
TestAmerica Chicago	Iowa	State Program	7	82
TestAmerica Chicago	Kansas	NELAC	7	E-10161
TestAmerica Chicago	Kentucky	Kentucky UST	4	66
TestAmerica Chicago	Kentucky	State Program	4	90023
TestAmerica Chicago	Louisiana	NELAC	6	30720
TestAmerica Chicago	Massachusetts	State Program	1	M-IL035
TestAmerica Chicago	Mississippi	State Program	4	N/A
TestAmerica Chicago	North Carolina	North Carolina DENR	4	291
TestAmerica Chicago	Oklahoma	State Program	6	8908
TestAmerica Chicago	South Carolina	State Program	4	77001
TestAmerica Chicago	Texas	NELAC	6	T104704252-09-TX
TestAmerica Chicago	USDA	USDA		P330-09-00027
TestAmerica Chicago	Virginia	NELAC Secondary AB	3	460142
TestAmerica Chicago	Wisconsin	State Program	5	999580010
TestAmerica Chicago	Wyoming	State Program	8	8TMS-Q

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Method Summary

Client: LEGGETTE, BRASHEARS & GRAHAM, INC. (WI)
Project/Site: Landfill Leachate

TestAmerica Job ID: WUI0964

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL CHI
7470A	Mercury (CVAA)	SW846	TAL CHI
335.2	Cyanide, Total	MCAWW	TAL CHI
SM 3500CrD	General Chemistry Parameters		TAL WT
EPA 335.4	General Chemistry Parameters		TAL CHI
SW 6010B	Metals		TAL CHI
SW 7470A	Metals		TAL CHI

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708) 534-5200

TAL WT = TestAmerica Watertown, 1101 Industrial Drive, Suites 9 & 10, Watertown, WI 53094, TEL 800-833-7036

Sample Summary

Client: LEGGETTE, BRASHEARS & GRAHAM, INC. (WI)
Project/Site: Landfill Leachate

TestAmerica Job ID: WUI0964

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
WUI0964-01	Leachate	Ground Water	09/29/11 10:15	09/30/11 08:55

WUI0964

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Watertown Division
602 Commerce Drive
Watertown, WI 53094

Phone 920-261-1660 or 800-833-7036
Fax 920-261-8120

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring: ____

Client Name: Leggette, Brashears & Graham, Inc. Client #: ____
Address: 6409 Odana Rd. Ste. C
City/State/Zip Code: Madison, WI 53719
Project Manager: Jennifer Shelton
Telephone Number: (608) 310-7672 Fax: ____
Sampler Name: (Print Name) Jackie Gast
Sampler Signature: [signature]
E-mail address: jshelton@lbgmail.com

Project Name: WDNR – Refuse Hideaway
Project #: ____
Site/Location ID: Refuse Hideaway Landfill State: WI
Report To: Jennifer Shelton
Invoice To: Jennifer Shelton
Quote #: ____ PO#: ____

TAT: X Standard; ___ Rush (surcharges may apply)
Date Needed: ____
Fax Results: Y (N)
E-mail: (Y) N

QC Deliverables: ___ None; ___ Level 2 (Batch QC); ___ Level 3; ___ Level 4; Other: ____

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix: SL - Sludge DW - Drinking Water GW - Groundwater S - Soil/Solid WW - Wastewater Specify Other	Preservation & # of Containers: HNO_3 500ml	HCl	NaOH 250ml	H_2SO_4	Methanol	None 250ml	Other (Specify)	Analyze For: Cadmium, Chromium	Copper, Lead	Nickel	Selenium	Silver	Zinc	Molybdenum	Mercury	Hexavalent Chromium	Cyanide	REMARKS
Leachate	9/29/11	1015	G	N	GW	1		1			1		X	X	X	X	X	X	X	X	X	X	

Special Instructions:

LABORATORY COMMENTS:
Init Lab Temp: 3.5°C Ice
Rec Lab Temp:
Custody Seals: (Y) N N/A
Bottles Supplied by TestAmerica: (Y) N
Method of Shipment: Durham

	Date	Time		Date	Time
Relinquished By: [signature]	9/29/11	1100	Received By: courier		
Relinquished By:			Received By: [signature]	9/30/11	855
Relinquished By:			Received By:		

TAL-0020 (1207)

10/10/2011

Cooler Receipt Log

Work Order(s): LWI0964 Client Name/Project: LB+G # of Coolers: 1

1. How did samples arrive? ☒ Dunham ☐ Fed-Ex ☐ UPS ☐ TestAmerica ☐ Client ☐ USPS ☐ Speedy ☐ _____

Date/time cooler was opened: 9/30/11 855 By: Roy W TEMP. 3.5°C

2. Were custody seals intact, signed and dated correctly? ☒ Intact ☐ Broken ☐ NA
3. TAT (Turn Around Time) ☒ SUBCONTRACTED ☐ HOLD ☐ STANDARD ☐ RUSH
4. Were samples on ice? ☒ Yes ☐ No ☐ Water ☐ Ice & Water
5. Bottles supplied by Test America? ☒ Yes ☐ No
6. Number of containers are noted on COC (Chain of Custody) ? ☒ Yes ☐ No
7. Matrix is identified on COC ? ☒ Yes ☐ No
8. Did all sample containers arrive in good condition? ☒ OK ☐ Broken ☐ Frozen ☐ Slushy

☐ BOD ☐ Bacteria ☐ _____

9. Are there any short hold time tests? (48hrs or less) ☐ No ☒ Yes

Past Hold? ☒ No ☐ Yes

24 hours or less	48 hours		7 days	
Coliform Bacteria			Aqueous Organic Prep	
Fecal (orange)	BOD	CBOD	BNA 8270	DRO (HCL amber)
Total Bacteria (blue)			Herbs	PAH (NT amber)
MPN Bacteria (black)	Nitrite NO2	Nitrate NO3	PCBs	Pest/PCBs
SPC (Standard Plate Count – yellow)	OrthoPhosphate or		PNA	
HPC (Hydrophilic Plate Count - yellow)	OrthoPhosphorus		TS (Total Solids)	TDS
T. Residual Chlorine (NT-bottle)	Surfactants (MBAS)		TSS (Total Suspended Solids)	
CR3 or CR6 (Hex Chromium VI - NT bottle)	Sulfite		Sulfide	
Dissolved Oxygen (DO)	Turbidity		Volatile Solids	

10. Ops Mgr, PM or Analyst informed of short hold?.....Who Traci When 930
11. Other than short hold test , were any samples within 2 days of their hold date ☒ No ☐ Yes

Or past their expiration of hold time ☒ No ☐ Yes

12. Is the date and time of collection recorded on COC? Date ☒ Yes ☐ No on the containers ☒ Yes ☐ No

Time ☒ Yes ☐ No on the containers ☒ Yes ☐ No

13. Are dissolved parameters field filtered or being filtered in the lab? ☐ Field ☐ Lab ☒ NA
14. Are sample volumes adequate and preservatives correct for test requested? Vol.. ☒ Yes ☐ No

Preservatives.... ☒ Yes ☐ No

15. Were correct containers used for the analysis requested? ☒ Yes ☐ No
16. Do VOC samples have air bubbles >6mm? ☐ No ☐ Yes ☒ NA
17. Is an aqueous Trip Blank included? ☐ Yes ☐ No ☒ NA
18. If received, how were DRO soil samples received? ☐ Weighed glass jar ☐ Packed jar
19. Is a Methanol Trip Blank included? ☐ Yes ☐ glass jar ☐ vial ☐ No ☒ NA
20. How were VOC soils received? ☐ Methanol ☐ Sodium Bisulfate ☐ Packed Jar ☐ Encore ☐ Other ☐ Water (see options*)

* ☐ Within 48hrs of sampling ☐ Past 48hrs of sampling ☐ Frozen ☐ Not Frozen

21. Were all sample containers received and match the Sample IDs listed on COC? ☒ Yes ☐ No

If any changes are made to this Work Order after Login, or if comments must be made regarding this cooler, explain them below:

6mm = ------

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc
TestAmerica Watertown
1101 Industrial Drive
Watertown, WI 53094
Tel: (920)261-1660

TestAmerica Job ID: 610-765-1
Client Project/Site: Refuse Hideaway

For:
Leggette, Brashears & Graham, Inc.
6409 Odana Road
Suite C
Madison, Wisconsin 53719

Attn: Jennifer Shelton

Authorized for release by:
1/6/2012 4:37:00 PM

Dan Milewsky
Project Manager II
dan.milewsky@testamericainc.com

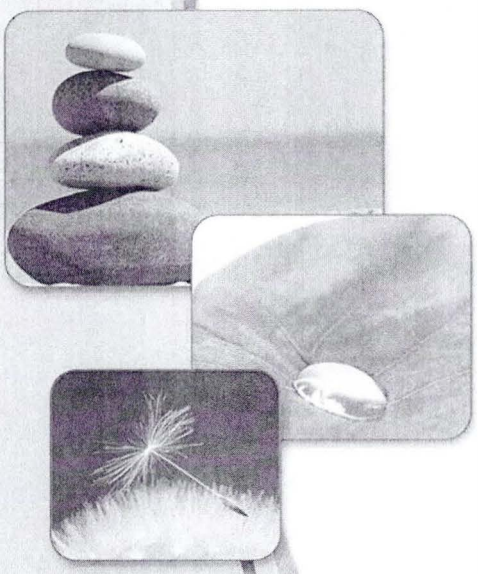


Table of Contents

Definitions/Glossary

Client: Leggette, Brashears & Graham, Inc.
Project/Site: Refuse Hideaway

TestAmerica Job ID: 610-765-1

Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Detection Summary

Client: Leggette, Brashears & Graham, Inc.
Project/Site: Refuse Hideaway

TestAmerica Job ID: 610-765-1

Client Sample ID: Leachate Grab

Lab Sample ID: 610-765-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cadmium	0.00078	J	0.0020	0.00036	mg/L	1		6010B	Total/NA
Chromium	0.014		0.010	0.0015	mg/L	1		6010B	Total/NA
Copper	0.0058	J	0.010	0.0014	mg/L	1		6010B	Total/NA
Molybdenum	0.0037	J	0.010	0.0019	mg/L	1		6010B	Total/NA
Nickel	0.033		0.010	0.00081	mg/L	1		6010B	Total/NA
Zinc	0.049		0.020	0.0066	mg/L	1		6010B	Total/NA
Cyanide, Total	0.0034	J	0.010	0.0011	mg/L	1		335.2	Total/NA
Cr (VI)	0.011	J	0.10	0.0030	mg/L	1		SM 3500 CR D	Total/NA

Client: Leggette, Brashears & Graham, Inc.
Project/Site: Refuse Hideaway

TestAmerica Job ID: 610-765-1

Client Sample ID: Leachate Grab
Date Collected: 12/28/11 11:30
Date Received: 12/29/11 09:45

Lab Sample ID: 610-765-1
Matrix: Water

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.00078	J	0.0020	0.00036	mg/L		01/03/12 08:00	01/04/12 21:01	1
Chromium	0.014		0.010	0.0015	mg/L		01/03/12 08:00	01/04/12 21:01	1
Copper	0.0058	J	0.010	0.0014	mg/L		01/03/12 08:00	01/04/12 21:01	1
Lead	<0.0020		0.0050	0.0020	mg/L		01/03/12 08:00	01/04/12 21:01	1
Molybdenum	0.0037	J	0.010	0.0019	mg/L		01/03/12 08:00	01/04/12 21:01	1
Nickel	0.033		0.010	0.00081	mg/L		01/03/12 08:00	01/04/12 21:01	1
Selenium	<0.0025		0.010	0.0025	mg/L		01/03/12 08:00	01/04/12 21:01	1
Silver	<0.00071		0.0050	0.00071	mg/L		01/03/12 08:00	01/04/12 21:01	1
Zinc	0.049		0.020	0.0066	mg/L		01/03/12 08:00	01/04/12 21:01	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.070		0.20	0.070	ug/L		01/03/12 12:55	01/04/12 11:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0034	J	0.010	0.0011	mg/L		01/04/12 09:55	01/04/12 16:23	1
Cr (VI)	0.011	J	0.10	0.0030	mg/L			12/29/11 10:19	1

QC Sample Results

Client: Leggette, Brashears & Graham, Inc.
Project/Site: Refuse Hideaway

TestAmerica Job ID: 610-765-1

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 500-137261/1-A
Matrix: Water
Analysis Batch: 137397

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 137261

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.00036		0.0020	0.00036	mg/L		01/03/12 08:00	01/04/12 20:53	1
Chromium	<0.0015		0.010	0.0015	mg/L		01/03/12 08:00	01/04/12 20:53	1
Copper	<0.0014		0.010	0.0014	mg/L		01/03/12 08:00	01/04/12 20:53	1
Lead	<0.0020		0.0050	0.0020	mg/L		01/03/12 08:00	01/04/12 20:53	1
Molybdenum	<0.0019		0.010	0.0019	mg/L		01/03/12 08:00	01/04/12 20:53	1
Nickel	<0.00081		0.010	0.00081	mg/L		01/03/12 08:00	01/04/12 20:53	1
Selenium	<0.0025		0.010	0.0025	mg/L		01/03/12 08:00	01/04/12 20:53	1
Silver	<0.00071		0.0050	0.00071	mg/L		01/03/12 08:00	01/04/12 20:53	1
Zinc	<0.0066		0.020	0.0066	mg/L		01/03/12 08:00	01/04/12 20:53	1

Lab Sample ID: LCS 500-137261/2-A
Matrix: Water
Analysis Batch: 137397

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 137261

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	0.0500	0.0459		mg/L		92	80 - 120
Chromium	0.200	0.191		mg/L		95	80 - 120
Copper	0.250	0.238		mg/L		95	80 - 120
Lead	0.100	0.0965		mg/L		97	80 - 120
Molybdenum	1.00	0.993		mg/L		99	80 - 120
Nickel	0.500	0.487		mg/L		97	80 - 120
Selenium	0.100	0.0885		mg/L		88	80 - 120
Silver	0.0500	0.0449		mg/L		90	80 - 120
Zinc	0.500	0.485		mg/L		97	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 500-137331/7-A
Matrix: Water
Analysis Batch: 137362

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 137331

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.070		0.20	0.070	ug/L		01/03/12 12:55	01/04/12 11:52	1

Lab Sample ID: LCS 500-137331/8-A
Matrix: Water
Analysis Batch: 137362

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 137331

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	2.00	1.87		ug/L		94	80 - 120

Method: 335.2 - Cyanide, Total

Lab Sample ID: MB 500-137378/1-A
Matrix: Water
Analysis Batch: 137381

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 137378

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.0011		0.010	0.0011	mg/L		01/04/12 09:55	01/04/12 16:20	1

Method: 335.2 - Cyanide, Total (Continued)

Lab Sample ID: HLCS 500-137378/3-A
Matrix: Water
Analysis Batch: 137381

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 137378

Analyte	Spike Added	HLCS Result	HLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.400	0.361		mg/L		90	90 - 110

Lab Sample ID: LCS 500-137378/2-A
Matrix: Water
Analysis Batch: 137381

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 137378

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.100	0.0975		mg/L		98	80 - 120

Lab Sample ID: LLCS 500-137378/4-A
Matrix: Water
Analysis Batch: 137381

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 137378

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.0400	0.0398		mg/L		100	75 - 125

Method: SM 3500 CR D - Chromium, Hexavalent

Lab Sample ID: MB 610-1130/1
Matrix: Water
Analysis Batch: 1130

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	<0.0030		0.10	0.0030	mg/L			12/29/11 10:19	1

Lab Sample ID: 610-765-1 DU
Matrix: Water
Analysis Batch: 1130

Client Sample ID: Leachate Grab
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Cr (VI)	0.011	J	0.00906	J	mg/L		19	8

QC Association Summary

Client: Leggette. Brashears & Graham, Inc.
Project/Site: Refuse Hideaway

TestAmerica Job ID: 610-765-1

Metals

Prep Batch: 137261

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
610-765-1	Leachate Grab	Total/NA	Water	3010A	
LCS 500-137261/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 500-137261/1-A	Method Blank	Total/NA	Water	3010A	

Prep Batch: 137331

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
610-765-1	Leachate Grab	Total/NA	Water	7470A	
LCS 500-137331/8-A	Lab Control Sample	Total/NA	Water	7470A	
MB 500-137331/7-A	Method Blank	Total/NA	Water	7470A	

Analysis Batch: 137362

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
610-765-1	Leachate Grab	Total/NA	Water	7470A	137331
LCS 500-137331/8-A	Lab Control Sample	Total/NA	Water	7470A	137331
MB 500-137331/7-A	Method Blank	Total/NA	Water	7470A	137331

Analysis Batch: 137397

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
610-765-1	Leachate Grab	Total/NA	Water	6010B	137261
LCS 500-137261/2-A	Lab Control Sample	Total/NA	Water	6010B	137261
MB 500-137261/1-A	Method Blank	Total/NA	Water	6010B	137261

General Chemistry

Analysis Batch: 1130

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
610-765-1	Leachate Grab	Total/NA	Water	SM 3500 CR D	
610-765-1 DU	Leachate Grab	Total/NA	Water	SM 3500 CR D	
MB 610-1130/1	Method Blank	Total/NA	Water	SM 3500 CR D	

Prep Batch: 137378

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
610-765-1	Leachate Grab	Total/NA	Water	Distill/CN	
HLCS 500-137378/3-A	Lab Control Sample	Total/NA	Water	Distill/CN	
LCS 500-137378/2-A	Lab Control Sample	Total/NA	Water	Distill/CN	
LLCS 500-137378/4-A	Lab Control Sample	Total/NA	Water	Distill/CN	
MB 500-137378/1-A	Method Blank	Total/NA	Water	Distill/CN	

Analysis Batch: 137381

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
610-765-1	Leachate Grab	Total/NA	Water	335.2	137378
HLCS 500-137378/3-A	Lab Control Sample	Total/NA	Water	335.2	137378
LCS 500-137378/2-A	Lab Control Sample	Total/NA	Water	335.2	137378
LLCS 500-137378/4-A	Lab Control Sample	Total/NA	Water	335.2	137378
MB 500-137378/1-A	Method Blank	Total/NA	Water	335.2	137378

Lab Chronicle

Client: Leggette, Brashears & Graham, Inc.
Project/Site: Refuse Hideaway

TestAmerica Job ID: 610-765-1

Client Sample ID: Leachate Grab
Date Collected: 12/28/11 11:30
Date Received: 12/29/11 09:45

Lab Sample ID: 610-765-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			137331	01/03/12 12:55	MBG	TAL CHI
Total/NA	Analysis	7470A		1	137362	01/04/12 11:58	MBG	TAL CHI
Total/NA	Prep	3010A			137261	01/03/12 08:00	LAH	TAL CHI
Total/NA	Analysis	6010B		1	137397	01/04/12 21:01	TDS	TAL CHI
Total/NA	Prep	Distill/CN			137378	01/04/12 09:55	TAB	TAL CHI
Total/NA	Analysis	335.2		1	137381		TAB	TAL CHI
						(Start) 01/04/12 16:23		
						(End) 01/04/12 16:24		
Total/NA	Analysis	SM 3500 CR D		1	1130	12/29/11 10:19	TS	TAL WAT

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

TAL WAT = TestAmerica Watertown, 1101 Industrial Drive, Watertown, WI 53094, TEL (920)261-1660

Certification Summary

Client: Leggette, Brashears & Graham, Inc.
Project/Site: Refuse Hideaway

TestAmerica Job ID: 610-765-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Watertown		WI Dept of Agriculture (Micro)		105-266
TestAmerica Watertown	Illinois	NELAC	5	100453
TestAmerica Watertown	Wisconsin	State Program	5	128053530
TestAmerica Chicago	ACLASS	DoD ELAP		ADE-1429
TestAmerica Chicago	ACLASS	ISO/IEC 17025		AT-1428
TestAmerica Chicago	Alabama	State Program	4	40461
TestAmerica Chicago	California	NELAC	9	01132CA
TestAmerica Chicago	Florida	NELAC	4	E871072
TestAmerica Chicago	Georgia	Georgia EPD	4	N/A
TestAmerica Chicago	Georgia	State Program	4	939
TestAmerica Chicago	Hawaii	State Program	9	N/A
TestAmerica Chicago	Illinois	NELAC	5	100201
TestAmerica Chicago	Indiana	State Program	5	C-IL-02
TestAmerica Chicago	Iowa	State Program	7	82
TestAmerica Chicago	Kansas	NELAC	7	E-10161
TestAmerica Chicago	Kentucky	Kentucky UST	4	66
TestAmerica Chicago	Kentucky	State Program	4	90023
TestAmerica Chicago	Louisiana	NELAC	6	30720
TestAmerica Chicago	Massachusetts	State Program	1	M-IL035
TestAmerica Chicago	Mississippi	State Program	4	N/A
TestAmerica Chicago	North Carolina	North Carolina DENR	4	291
TestAmerica Chicago	Oklahoma	State Program	6	8908
TestAmerica Chicago	South Carolina	State Program	4	77001
TestAmerica Chicago	Texas	NELAC	6	T104704252-09-TX
TestAmerica Chicago	USDA	USDA		P330-09-00027
TestAmerica Chicago	Virginia	NELAC Secondary AB	3	460142
TestAmerica Chicago	Wisconsin	State Program	5	999580010
TestAmerica Chicago	Wyoming	State Program	8	8TMS-Q

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Method Summary

Client: Leggette, Brashears & Graham, Inc.
Project/Site: Refuse Hideaway

TestAmerica Job ID: 610-765-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL CHI
7470A	Mercury (CVAA)	SW846	TAL CHI
335.2	Cyanide, Total	MCAWW	TAL CHI
SM 3500 CR D	Chromium, Hexavalent	SM	TAL WAT

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

TAL WAT = TestAmerica Watertown, 1101 Industrial Drive, Watertown, WI 53094, TEL (920)261-1660

Sample Summary

Client: Leggette, Brashears & Graham, Inc.
Project/Site: Refuse Hideaway

TestAmerica Job ID: 610-765-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
610-765-1	Leachate Grab	Water	12/28/11 11:30	12/29/11 09:45

Chain of Custody Record

610-765

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler:	Lab PM: Milewsky, Dan	Carrier Tracking No(s):	COC No: 610-168-17.1
Client Contact: Jennifer Shelton	Phone:	E-Mail: dan.milewsky@testamericainc.com		Page: Page 1 of 1
Company: Leggette, Brashea s & Graham, Inc.		**Analysis Requested**		Job #:
Address: 6409 Odana Road Suite C	Due Date Requested:			
City: Madison	TAT Requested (days):			
State, Zip: WI, 53719				
Phone: 608-332-4116(Tel)	PO #: Purchase Order not required			
Email: jshelton@lbgmad.com	WO #:			
Project Name: Refuse Hideaway	Project #: 61000513			
Site:	SSOW#:			

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B, 7470A 500ml HNO3	335.2 - Cyanide, Total 250ml NaOH	3500_CR_D - Cr (VI) 500ml nitrate	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	B	N		
Leachate	12/28/11	1130	G	Water	N	N	X	X	X		Analysis per 12/15/11 email

Page 13 of 15

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment: dunham

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Adam Both	12/28/11 1200	LBG	Louver		
Relinquished by:	Date/Time:	Company	Received by: Danica H	Date/Time: 12-29-11 9:45	Company: Test America
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: (Δ Yes) Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.0°C

1/6/2012

Login Sample Receipt Checklist

Client: Leggette, Brashears & Graham, Inc.

Job Number: 610-765-1

Login Number: 765
List Number: 1
Creator: Herritz, Danica

List Source: TestAmerica Watertown

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Leggette, Brashears & Graham, Inc.

Job Number: 610-765-1

Login Number: 765
List Number: 1
Creator: Lunt, Jeff T

List Source: TestAmerica Chicago
List Creation: 12/30/11 11:21 AM

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Watertown
1101 Industrial Drive
Suites 9 & 10
Watertown, WI 53094
Tel: (920)261-1660

TestAmerica Job ID: 610-2792-1
Client Project/Site: Refuse Hideaway

For
Leggette, Brashears & Graham, Inc.
6409 Odana Road
Suite C
Madison, Wisconsin 53719

Attn: Jennifer Shelton

Authorized for release by:
4/4/2012 6:23:49 PM

Dan Milewsky
Project Manager II
dan.milewsky@testamericainc.com

Table of Contents

Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: Leggette, Brashears & Graham, Inc.
Project/Site: Refuse Hideaway

TestAmerica Job ID: 610-2792-1

Job ID: 610-2792-1

Laboratory: TestAmerica Watertown

Narrative

Job Narrative
610-2792-1

Comments
No additional comments.

Receipt
All samples were received in good condition within temperature requirements.

Metals
No analytical or quality issues were noted.

General Chemistry
Method(s) SM 3500 CR D: The following sample(s) was analyzed outside of analytical holding time due to samples being received in lab past hold or with insufficient time to complete the analysis within hold time: Leachate Grab (610-2792-1).

Method(s) SM 3500 CR D: <<reporting limit elevated because of background color in sample>>

No other analytical or quality issues were noted.

Detection Summary

Client: Leggette, Brashears & Graham, Inc.
Project/Site: Refuse Hideaway

TestAmerica Job ID: 610-2792-1

Client Sample ID: Leachate Grab

Lab Sample ID: 610-2792-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cadmium	0.00096	J	0.0020	0.00054	mg/L	1		6010B	Total/NA
Chromium	0.013		0.010	0.00096	mg/L	1		6010B	Total/NA
Copper	0.0044	J	0.010	0.0011	mg/L	1		6010B	Total/NA
Molybdenum	0.0042	J	0.010	0.0022	mg/L	1		6010B	Total/NA
Nickel	0.041		0.010	0.0019	mg/L	1		6010B	Total/NA
Zinc	0.021		0.020	0.0047	mg/L	1		6010B	Total/NA
Cyanide, Total	0.011		0.010	0.0011	mg/L	1		335.2	Total/NA

Client Sample Results

Client: Leggette. Brashears & Graham, Inc.
Project/Site: Refuse Hideaway

TestAmerica Job ID: 610-2792-1

Client Sample ID: Leachate Grab
Date Collected: 03/29/12 11:00
Date Received: 03/30/12 11.16

Lab Sample ID: 610-2792-1
Matrix: Leachate

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.00096	J	0.0020	0.00054	mg/L		04/02/12 16:00	04/03/12 18:16	1
Chromium	0.013		0.010	0.00096	mg/L		04/02/12 16:00	04/03/12 18:16	1
Copper	0.0044	J	0.010	0.0011	mg/L		04/02/12 16:00	04/03/12 18:16	1
Lead	<0.0016		0.0050	0.0016	mg/L		04/02/12 16:00	04/03/12 18:16	1
Molybdenum	0.0042	J	0.010	0.0022	mg/L		04/02/12 16:00	04/03/12 18:16	1
Nickel	0.041		0.010	0.0019	mg/L		04/02/12 16:00	04/03/12 18:16	1
Selenium	<0.0027		0.010	0.0027	mg/L		04/02/12 16:00	04/03/12 18:16	1
Silver	<0.0011		0.0050	0.0011	mg/L		04/02/12 16:00	04/03/12 18:16	1
Zinc	0.021		0.020	0.0047	mg/L		04/02/12 16:00	04/03/12 18:16	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.070		0.20	0.070	ug/L		04/03/12 07:35	04/03/12 11:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.011		0.010	0.0011	mg/L		04/02/12 17:23	04/02/12 21:53	1
Cr (VI)	<0.0060	H	0.20	0.0060	mg/L			03/30/12 15:46	2

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 500-145128/1-A
Matrix: Water
Analysis Batch: 145287

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 145128

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.00054		0.0020	0.00054	mg/L		04/02/12 16:00	04/03/12 18:08	1
Chromium	<0.00096		0.010	0.00096	mg/L		04/02/12 16:00	04/03/12 18:08	1
Copper	<0.0011		0.010	0.0011	mg/L		04/02/12 16:00	04/03/12 18:08	1
Lead	<0.0016		0.0050	0.0016	mg/L		04/02/12 16:00	04/03/12 18:08	1
Molybdenum	<0.0022		0.010	0.0022	mg/L		04/02/12 16:00	04/03/12 18:08	1
Nickel	<0.0019		0.010	0.0019	mg/L		04/02/12 16:00	04/03/12 18:08	1
Selenium	<0.0027		0.010	0.0027	mg/L		04/02/12 16:00	04/03/12 18:08	1
Silver	<0.0011		0.0050	0.0011	mg/L		04/02/12 16:00	04/03/12 18:08	1
Zinc	<0.0047		0.020	0.0047	mg/L		04/02/12 16:00	04/03/12 18:08	1

Lab Sample ID: LCS 500-145128/2-A
Matrix: Water
Analysis Batch: 145287

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 145128

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	0.0500	0.0481		mg/L		96	80 - 120
Chromium	0.200	0.201		mg/L		100	80 - 120
Copper	0.250	0.248		mg/L		99	80 - 120
Lead	0.100	0.0992		mg/L		99	80 - 120
Molybdenum	1.00	1.04		mg/L		104	80 - 120
Nickel	0.500	0.482		mg/L		96	80 - 120
Selenium	0.100	0.0878		mg/L		88	80 - 120
Silver	0.0500	0.0484		mg/L		97	80 - 120
Zinc	0.500	0.481		mg/L		96	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 500-145166/7-A
Matrix: Water
Analysis Batch: 145213

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 145166

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.070		0.20	0.070	ug/L		04/03/12 07:35	04/03/12 11:24	1

Lab Sample ID: LCS 500-145166/8-A
Matrix: Water
Analysis Batch: 145213

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 145166

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	2.00	1.98		ug/L		99	80 - 120

Method: 335.2 - Cyanide, Total

Lab Sample ID: MB 500-145125/1-A
Matrix: Water
Analysis Batch: 145221

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 145125

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.00210	J	0.010	0.0011	mg/L		04/02/12 17:23	04/02/12 21:41	1

Method: 335.2 - Cyanide, Total (Continued)

Lab Sample ID: HLCS 500-145125/3-A
Matrix: Water
Analysis Batch: 145221

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 145125

Analyte	Spike Added	HLCS Result	HLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.400	0.389		mg/L		97	90 - 110

Lab Sample ID: LCS 500-145125/2-A
Matrix: Water
Analysis Batch: 145221

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 145125

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.100	0.0993		mg/L		99	80 - 120

Lab Sample ID: LLCS 500-145125/4-A
Matrix: Water
Analysis Batch: 145221

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 145125

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.0400	0.0440		mg/L		110	75 - 125

Method: SM 3500 CR D - Chromium, Hexavalent

Lab Sample ID: MB 610-2283/1
Matrix: Water
Analysis Batch: 2283

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	<0.0030		0.10	0.0030	mg/L			03/29/12 15:46	1

Lab Sample ID: MB 610-2283/7
Matrix: Water
Analysis Batch: 2283

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	<0.0030		0.10	0.0030	mg/L			03/30/12 15:46	1

Lab Sample ID: LCS 610-2283/2
Matrix: Water
Analysis Batch: 2283

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.100	0.105		mg/L		105	

Lab Sample ID: LCS 610-2283/8
Matrix: Water
Analysis Batch: 2283

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.100	0.102		mg/L		102	

Metals

Prep Batch: 145128

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
610-2792-1	Leachate Grab	Total/NA	Leachate	3010A	
LCS 500-145128/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 500-145128/1-A	Method Blank	Total/NA	Water	3010A	

Prep Batch: 145166

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
610-2792-1	Leachate Grab	Total/NA	Leachate	7470A	
LCS 500-145166/8-A	Lab Control Sample	Total/NA	Water	7470A	
MB 500-145166/7-A	Method Blank	Total/NA	Water	7470A	

Analysis Batch: 145213

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
610-2792-1	Leachate Grab	Total/NA	Leachate	7470A	145166
LCS 500-145166/8-A	Lab Control Sample	Total/NA	Water	7470A	145166
MB 500-145166/7-A	Method Blank	Total/NA	Water	7470A	145166

Analysis Batch: 145287

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
610-2792-1	Leachate Grab	Total/NA	Leachate	6010B	145128
LCS 500-145128/2-A	Lab Control Sample	Total/NA	Water	6010B	145128
MB 500-145128/1-A	Method Blank	Total/NA	Water	6010B	145128

General Chemistry

Analysis Batch: 2283

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
610-2792-1	Leachate Grab	Total/NA	Leachate	SM 3500 CR D	
LCS 610-2283/2	Lab Control Sample	Total/NA	Water	SM 3500 CR D	
LCS 610-2283/8	Lab Control Sample	Total/NA	Water	SM 3500 CR D	
MB 610-2283/1	Method Blank	Total/NA	Water	SM 3500 CR D	
MB 610-2283/7	Method Blank	Total/NA	Water	SM 3500 CR D	

Prep Batch: 145125

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
610-2792-1	Leachate Grab	Total/NA	Leachate	Distill/CN	
HLCS 500-145125/3-A	Lab Control Sample	Total/NA	Water	Distill/CN	
LCS 500-145125/2-A	Lab Control Sample	Total/NA	Water	Distill/CN	
LLCS 500-145125/4-A	Lab Control Sample	Total/NA	Water	Distill/CN	
MB 500-145125/1-A	Method Blank	Total/NA	Water	Distill/CN	

Analysis Batch: 145221

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
610-2792-1	Leachate Grab	Total/NA	Leachate	335.2	145125
HLCS 500-145125/3-A	Lab Control Sample	Total/NA	Water	335.2	145125
LCS 500-145125/2-A	Lab Control Sample	Total/NA	Water	335.2	145125
LLCS 500-145125/4-A	Lab Control Sample	Total/NA	Water	335.2	145125
MB 500-145125/1-A	Method Blank	Total/NA	Water	335.2	145125

Lab Chronicle

Client: Leggette, Brashears & Graham, Inc.
Project/Site: Refuse Hideaway

TestAmerica Job ID: 610-2792-1

Client Sample ID: Leachate Grab
Date Collected: 03/29/12 11:00
Date Received: 03/30/12 11:16

Lab Sample ID: 610-2792-1
Matrix: Leachate

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			145166	04/03/12 07:35	JR	TAL CHI
Total/NA	Analysis	7470A		1	145213	04/03/12 11:46	JR	TAL CHI
Total/NA	Prep	3010A			145128	04/02/12 16:00	PJ	TAL CHI
Total/NA	Analysis	6010B		1	145287	04/03/12 18:16	TDS	TAL CHI
Total/NA	Prep	Distill/CN			145125	04/02/12 17:23	TAB	TAL CHI
Total/NA	Analysis	335.2		1	145221		TAB	TAL CHI
						(Start) 04/02/12 21:53		
						(End) 04/02/12 21:53		
Total/NA	Analysis	SM 3500 CR D		2	2283	03/30/12 15:46	TS	TAL WAT

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

TAL WAT = TestAmerica Watertown, 1101 Industrial Drive, Suites 9 & 10, Watertown, WI 53094, TEL (920)261-1660

Certification Summary

Client: Leggette, Brashears & Graham, Inc.
Project/Site: Refuse Hideaway

TestAmerica Job ID: 610-2792-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Watertown	Illinois	NELAC	5	100453
TestAmerica Watertown	WI Dept. of Agriculture	State Program	5	105-266
TestAmerica Watertown	Wisconsin	State Program	5	128053530
TestAmerica Chicago	Alabama	State Program	4	40461
TestAmerica Chicago	California	NELAC	9	01132CA
TestAmerica Chicago	Florida	NELAC	4	E871072
TestAmerica Chicago	Georgia	State Program	4	939
TestAmerica Chicago	Georgia	State Program	4	N/A
TestAmerica Chicago	Hawaii	State Program	9	N/A
TestAmerica Chicago	Illinois	NELAC	5	100201
TestAmerica Chicago	Indiana	State Program	5	C-IL-02
TestAmerica Chicago	Iowa	State Program	7	82
TestAmerica Chicago	Kansas	NELAC	7	E-10161
TestAmerica Chicago	Kentucky	State Program	4	90023
TestAmerica Chicago	Kentucky (UST)	State Program	4	66
TestAmerica Chicago	L-A-B	DoD ELAP		L2304
TestAmerica Chicago	L-A-B	ISO/IEC 17025		L2304
TestAmerica Chicago	Louisiana	NELAC	6	30720
TestAmerica Chicago	Massachusetts	State Program	1	M-IL035
TestAmerica Chicago	Mississippi	State Program	4	N/A
TestAmerica Chicago	North Carolina DENR	State Program	4	291
TestAmerica Chicago	Oklahoma	State Program	6	8908
TestAmerica Chicago	South Carolina	State Program	4	77001
TestAmerica Chicago	Texas	NELAC	6	T104704252-09-TX
TestAmerica Chicago	USDA	Federal		P330-12-00038
TestAmerica Chicago	Virginia	NELAC Secondary AB	3	460142
TestAmerica Chicago	Wisconsin	State Program	5	999580010
TestAmerica Chicago	Wyoming	State Program	8	8TMS-Q

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Method Summary

Client: Leggette, Brashears & Graham, Inc.
Project/Site: Refuse Hideaway

TestAmerica Job ID: 610-2792-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL CHI
7470A	Mercury (CVAA)	SW846	TAL CHI
335.2	Cyanide, Total	MCAWW	TAL CHI
SM 3500 CR D	Chromium, Hexavalent	SM	TAL WAT

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

TAL WAT = TestAmerica Watertown, 1101 Industrial Drive, Suites 9 & 10, Watertown, WI 53094, TEL (920)261-1660

Sample Summary

Client: Leggette. Brashears & Graham, Inc.
Project/Site: Refuse Hideaway

TestAmerica Job ID: 610-2792-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
610-2792-1	Leachate Grab	Leachate	03/29/12 11:00	03/30/12 11:16

610-2792

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Watertown Division
602 Commerce Drive
Watertown, WI 53094

Phone 920-261-1660 or 800-833-7036
Fax 920-261-8120

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring

Client Name: Jennifer Shelton - LBG
Client #:
Address: 6709 Odana Rd suite C
City/State/Zip Code:
Project Manager: Jennifer Shelton
Telephone Number: 608-441-5544
Fax: 608-441-5545
Sampler Name: (Print Name) Adam Both
Sampler Signature:
E-mail address: jshelton@lbgmad.com

Project Name: Refuse Hideaway
Project #:
Site/Location ID: Middleton
State: WI
Report To: Jennifer Shelton
Invoice To: Jennifer Shelton
Quote #:
PO#:

TAT: X Standard; ___ Rush (surcharges may apply)
Date Needed:
Fax Results: Y N
E-mail: (Y) N

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix: SL - Sludge DW - Drinking Water GW - Groundwater S - Soil/Solid WW - Wastewater Specify Other	Preservation & # of Containers: HNO_3 500	HCl	NaOH 250ml	H_2SO_4	Methanol	None 500ml	Other (Specify)	Analyze For: Attached List	QC Deliverables	REMARKS
Leachate	3/29/12	1100	G	N	Leachate	1		1			1		X	None / Level 2 (Batch QC) / Level 3 / Level 4 / Other:	

Special Instructions:

LABORATORY COMMENTS:
Init Lab Temp:
Rec Lab Temp: 1.5°C
Custody Seals: Y N N/A
Bottles Supplied by TestAmerica: (Y) N
Method of Shipment: dunham

	Date	Time		Date	Time
Relinquished By:	3/29/12	1700	Received By: Courier		
Relinquished By:			Received By: Danica H	3/30	1011
Relinquished By:			Received By:		

TAL-0020 (1207)

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4/4/2012

010-2792

Adam Both

From: Adam Both <adam.both@lbgmad.com>
Sent: Monday, March 19, 2012 8:53 AM
To: 'Milewsky, Dan'
Cc: Jennifer Shelton
Subject: Refuse Hideaway Quarterly Sampling

Hi Dan,

We are conducting our quarterly leachate samples from Refuse Hideaway next week (either Tuesday or Wednesday).

Can you provide bottles for the following parameters:

Cadmium
Chromium
Copper
Lead
Nickel
Selenium
Silver
Zinc
Molybdenum
Mercury
Hexavalent Chromium
Cyanide

Bottles can be sent to our office. Thanks.

Adam Both
Leggette, Brashears & Graham, Inc.
6409 Odana Road, Suite C
Madison, WI 53719
608.310.7673 - office
608.345.6357 - mobile

Login Sample Receipt Checklist

Client: Leggette, Brashears & Graham, Inc.

Job Number: 610-2792-1

Login Number: 2792
List Number: 1
Creator: Herritz, Danica

List Source: TestAmerica Watertown

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Leggette, Brashears & Graham, Inc

Job Number: 610-2792-1

Login Number: 2792
List Number: 1
Creator: Lunt, Jeff T

List Source: TestAmerica Chicago
List Creation: 03/31/12 12:21 PM

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing	True	
Residual Chlorine Checked.	True	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-47242-1

Client Project/Site: Reuse Hideaway Leachate

For:

Leggette, Brashears & Graham, Inc.
6409 Odana Road
Suite C
Madison, Wisconsin 53719

Attn: Jennifer Shelton

Sandie Fredrick

Authorized for release by:
6/20/2012 2:40:33 PM

Sandie Fredrick
Project Manager I
sandie.fredrick@testamericainc.com

Table of Contents

Client: Leggette, Brashears & Graham, Inc.
Project/Site: Reuse Hideaway Leachate

TestAmerica Job ID: 500-47242-1

Job ID: 500-47242-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative
500-47242-1

Comments
No additional comments.

Receipt
The sample was received on 6/12/2012 10:20 AM, the sample arrived in good condition, properly preserved and, where required, on ice.
The temperature of the cooler at receipt was 1.9° C.

Metals
No analytical or quality issues were noted.

General Chemistry
No analytical or quality issues were noted.

Detection Summary

Client: Leggette. Brashears & Graham, Inc.
Project/Site: Reuse Hideaway Leachate

TestAmerica Job ID: 500-47242-1

Client Sample ID: LEACHATE

Lab Sample ID: 500-47242-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cadmium	0.0010	J	0.0020	0.00054	mg/L	1		6010B	Total/NA
Chromium	0.024		0.010	0.00096	mg/L	1		6010B	Total/NA
Copper	0.0023	J	0.010	0.0011	mg/L	1		6010B	Total/NA
Lead	0.0043	J	0.0050	0.0016	mg/L	1		6010B	Total/NA
Nickel	0.078		0.010	0.0019	mg/L	1		6010B	Total/NA
Zinc	0.0091	J	0.020	0.0047	mg/L	1		6010B	Total/NA
Cyanide, Total	0.0041	J	0.010	0.0035	mg/L	1		335.2	Total/NA
Chromium, hexavalent	0.0061	J	0.010	0.0033	mg/L	1		SM 3500 CR D	Total/NA

Method Summary

Client: Leggette, Brashears & Graham, Inc.
Project/Site: Reuse Hideaway Leachate

TestAmerica Job ID: 500-47242-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL CHI
7470A	Mercury (CVAA)	SW846	TAL CHI
335.2	Cyanide, Total	MCAWW	TAL CHI
SM 3500 CR D	Chromium, Hexavalent	SM	TAL CHI

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater".

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: Leggette. Brashears & Graham, Inc.
Project/Site: Reuse Hideaway Leachate

TestAmerica Job ID: 500-47242-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-47242-1	LEACHATE	Leachate	06/11/12 17:25	06/12/12 10:20

Client: Leggette, Brashears & Graham, Inc.
Project/Site: Reuse Hideaway Leachate

TestAmerica Job ID: 500-47242-1

Client Sample ID: LEACHATE
Date Collected: 06/11/12 17:25
Date Received: 06/12/12 10:20

Lab Sample ID: 500-47242-1
Matrix: Leachate

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0010	J	0.0020	0.00054	mg/L		06/14/12 08:00	06/17/12 17:50	1
Chromium	0.024		0.010	0.00096	mg/L		06/14/12 08:00	06/17/12 17:50	1
Copper	0.0023	J	0.010	0.0011	mg/L		06/14/12 08:00	06/17/12 17:50	1
Lead	0.0043	J	0.0050	0.0016	mg/L		06/14/12 08:00	06/17/12 17:50	1
Molybdenum	<0.0022		0.010	0.0022	mg/L		06/14/12 08:00	06/17/12 17:50	1
Nickel	0.078		0.010	0.0019	mg/L		06/14/12 08:00	06/17/12 17:50	1
Selenium	<0.0027		0.010	0.0027	mg/L		06/14/12 08:00	06/17/12 17:50	1
Silver	<0.0011		0.0050	0.0011	mg/L		06/14/12 08:00	06/17/12 17:50	1
Zinc	0.0091	J	0.020	0.0047	mg/L		06/14/12 08:00	06/17/12 17:50	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.070		0.20	0.070	ug/L		06/19/12 15:45	06/20/12 11:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0041	J	0.010	0.0035	mg/L		06/15/12 15:01	06/15/12 20:49	1
Chromium, hexavalent	0.0061	J	0.010	0.0033	mg/L			06/12/12 12:48	1

Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

QC Association Summary

Client: Leggette, Brashears & Graham, Inc.
Project/Site: Reuse Hideaway Leachate

TestAmerica Job ID: 500-47242-1

Metals

Prep Batch: 152808

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-47242-1	LEACHATE	Total/NA	Leachate	3010A	
LCS 500-152808/2-A	Lab Control Sample	Total/NA	Water	3010A	
LCSD 500-152808/3-A	Lab Control Sample Dup	Total/NA	Water	3010A	
MB 500-152808/1-A	Method Blank	Total/NA	Water	3010A	

Analysis Batch: 153176

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-47242-1	LEACHATE	Total/NA	Leachate	6010B	152808
LCS 500-152808/2-A	Lab Control Sample	Total/NA	Water	6010B	152808
LCSD 500-152808/3-A	Lab Control Sample Dup	Total/NA	Water	6010B	152808
MB 500-152808/1-A	Method Blank	Total/NA	Water	6010B	152808

Prep Batch: 153502

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-47242-1	LEACHATE	Total/NA	Leachate	7470A	
LCS 500-153502/8-A	Lab Control Sample	Total/NA	Water	7470A	
MB 500-153502/7-A	Method Blank	Total/NA	Water	7470A	

Analysis Batch: 153547

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-47242-1	LEACHATE	Total/NA	Leachate	7470A	153502
LCS 500-153502/8-A	Lab Control Sample	Total/NA	Water	7470A	153502
MB 500-153502/7-A	Method Blank	Total/NA	Water	7470A	153502

General Chemistry

Analysis Batch: 152612

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-47242-1	LEACHATE	Total/NA	Leachate	SM 3500 CR D	
LCS 500-152612/4	Lab Control Sample	Total/NA	Water	SM 3500 CR D	
MB 500-152612/3	Method Blank	Total/NA	Water	SM 3500 CR D	

Prep Batch: 153045

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-47242-1	LEACHATE	Total/NA	Leachate	Distill/CN	
LCS 500-153045/2-A	Lab Control Sample	Total/NA	Water	Distill/CN	
MB 500-153045/1-A	Method Blank	Total/NA	Water	Distill/CN	

Analysis Batch: 153083

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-47242-1	LEACHATE	Total/NA	Leachate	335.2	153045
LCS 500-153045/2-A	Lab Control Sample	Total/NA	Water	335.2	153045
MB 500-153045/1-A	Method Blank	Total/NA	Water	335.2	153045

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 500-152808/1-A
Matrix: Water
Analysis Batch: 153176

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 152808

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.00054		0.0020	0.00054	mg/L		06/14/12 08:00	06/17/12 16:25	1
Chromium	<0.00096		0.010	0.00096	mg/L		06/14/12 08:00	06/17/12 16:25	1
Copper	<0.0011		0.010	0.0011	mg/L		06/14/12 08:00	06/17/12 16:25	1
Lead	<0.0016		0.0050	0.0016	mg/L		06/14/12 08:00	06/17/12 16:25	1
Molybdenum	<0.0022		0.010	0.0022	mg/L		06/14/12 08:00	06/17/12 16:25	1
Nickel	<0.0019		0.010	0.0019	mg/L		06/14/12 08:00	06/17/12 16:25	1
Selenium	<0.0027		0.010	0.0027	mg/L		06/14/12 08:00	06/17/12 16:25	1
Silver	<0.0011		0.0050	0.0011	mg/L		06/14/12 08:00	06/17/12 16:25	1
Zinc	<0.0047		0.020	0.0047	mg/L		06/14/12 08:00	06/17/12 16:25	1

Lab Sample ID: LCS 500-152808/2-A
Matrix: Water
Analysis Batch: 153176

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 152808

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	0.0500	0.0473		mg/L		95	80 - 120
Chromium	0.200	0.189		mg/L		94	80 - 120
Copper	0.250	0.244		mg/L		98	80 - 120
Lead	0.100	0.0961		mg/L		96	80 - 120
Molybdenum	1.00	0.990		mg/L		99	80 - 120
Nickel	0.500	0.477		mg/L		95	80 - 120
Selenium	0.100	0.0824		mg/L		82	80 - 120
Silver	0.0500	0.0465		mg/L		93	80 - 120
Zinc	0.500	0.471		mg/L		94	80 - 120

Lab Sample ID: LCSD 500-152808/3-A
Matrix: Water
Analysis Batch: 153176

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 152808

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cadmium	0.0500	0.0480		mg/L		96	80 - 120	1	20
Chromium	0.200	0.190		mg/L		95	80 - 120	1	20
Copper	0.250	0.250		mg/L		100	80 - 120	3	20
Lead	0.100	0.0967		mg/L		97	80 - 120	1	20
Molybdenum	1.00	1.01		mg/L		101	80 - 120	2	20
Nickel	0.500	0.483		mg/L		97	80 - 120	1	20
Selenium	0.100	0.0877		mg/L		88	80 - 120	6	20
Silver	0.0500	0.0463		mg/L		93	80 - 120	0	20
Zinc	0.500	0.480		mg/L		96	80 - 120	2	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 500-153502/7-A
Matrix: Water
Analysis Batch: 153547

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 153502

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.070		0.20	0.070	ug/L		06/19/12 15:45	06/20/12 11:10	1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 500-153502/8-A
Matrix: Water
Analysis Batch: 153547

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 153502

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	2.00	2.17		ug/L		109	80 - 120

Method: 335.2 - Cyanide, Total

Lab Sample ID: MB 500-153045/1-A
Matrix: Water
Analysis Batch: 153083

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 153045

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.0035		0.010	0.0035	mg/L		06/15/12 15:01	06/15/12 20:41	1

Lab Sample ID: LCS 500-153045/2-A
Matrix: Water
Analysis Batch: 153083

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 153045

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.100	0.0947		mg/L		95	80 - 120

Method: SM 3500 CR D - Chromium, Hexavalent

Lab Sample ID: MB 500-152612/3
Matrix: Water
Analysis Batch: 152612

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	<0.0033		0.010	0.0033	mg/L			06/12/12 12:46	1

Lab Sample ID: LCS 500-152612/4
Matrix: Water
Analysis Batch: 152612

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium, hexavalent	0.250	0.260		mg/L		104	80 - 120

Lab Chronicle

Client: Leggette, Brashears & Graham, Inc.
Project/Site: Reuse Hideaway Leachate

TestAmerica Job ID: 500-47242-1

Client Sample ID: LEACHATE
Date Collected: 06/11/12 17:25
Date Received: 06/12/12 10:20

Lab Sample ID: 500-47242-1
Matrix: Leachate

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			152808	06/14/12 08:00	LAH	TAL CHI
Total/NA	Analysis	6010B		1	153176	06/17/12 17:50	TDS	TAL CHI
Total/NA	Prep	7470A			153502	06/19/12 15:45	MBG	TAL CHI
Total/NA	Analysis	7470A		1	153547	06/20/12 11:56	MBG	TAL CHI
Total/NA	Analysis	SM 3500 CR D		1	152612		KD	TAL CHI
						(Start) 06/12/12 12:48		
						(End) 06/12/12 12:49		
Total/NA	Prep	Distill/CN			153045	06/15/12 15:01	TAB	TAL CHI
Total/NA	Analysis	335.2		1	153083		TAB	TAL CHI
						(Start) 06/15/12 20:49		
						(End) 06/15/12 20:50		

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484. TEL (708)534-5200

Certification Summary

Client: Leggette, Brashears & Graham, Inc
Project/Site: Reuse Hideaway Leachate

TestAmerica Job ID: 500-47242-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Chicago	Alabama	State Program	4	40461
TestAmerica Chicago	California	NELAC	9	01132CA
TestAmerica Chicago	Florida	NELAC	4	E871072
TestAmerica Chicago	Georgia	State Program	4	939
TestAmerica Chicago	Georgia	State Program	4	N/A
TestAmerica Chicago	Hawaii	State Program	9	N/A
TestAmerica Chicago	Illinois	NELAC	5	100201
TestAmerica Chicago	Indiana	State Program	5	C-IL-02
TestAmerica Chicago	Iowa	State Program	7	82
TestAmerica Chicago	Kansas	NELAC	7	E-10161
TestAmerica Chicago	Kentucky	State Program	4	90023
TestAmerica Chicago	Kentucky (UST)	State Program	4	66
TestAmerica Chicago	L-A-B	DoD ELAP		L2304
TestAmerica Chicago	L-A-B	ISO/IEC 17025		L2304
TestAmerica Chicago	Louisiana	NELAC	6	30720
TestAmerica Chicago	Massachusetts	State Program	1	M-IL035
TestAmerica Chicago	Mississippi	State Program	4	N/A
TestAmerica Chicago	North Carolina DENR	State Program	4	291
TestAmerica Chicago	North Dakota	State Program	8	R-194
TestAmerica Chicago	Oklahoma	State Program	6	8908
TestAmerica Chicago	South Carolina	State Program	4	77001
TestAmerica Chicago	Texas	NELAC	6	T104704252-09-TX
TestAmerica Chicago	USDA	Federal		P330-12-00038
TestAmerica Chicago	Virginia	NELAC	3	460142
TestAmerica Chicago	Wisconsin	State Program	5	999580010
TestAmerica Chicago	Wyoming	State Program	8	8TMS-Q

Accreditation may not be offered or required for all methods and analyles reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

merica

ENVIRONMENTAL TESTING

et, University Park, IL 60484
5200 Fax: 708.534.5211

(optional)

Report To
Contact: Jennifer Skelton LBG
Company: LBG
Address: 6409 Odana Rd
Address: Madison WI 53719
Phone: 608-441-5544
Fax: 608-441-5545
E-Mail: jskelton@lbgmad.com

(optional)

Bill To
Contact: Jennifer Skelton
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custo

Lab Job #: 500

Chain of Custody Number:

Page ____ of ____

Temperature °C of Cooler:

	Client Project #	Preservative			3	4	8					
Tideaway		Parameter										
, WI	Lab Project #											
be	Lab PM											

	Sampling Date	Sampling Time	# of Containers	Matrix									
~~sate~~	~~6/11/12~~	~~1725~~	~~3~~	~~L~~			~~X~~	~~X~~	~~X~~				
hate	6/11/12	1725	3	L			X	X	X				

(Business Days)
__ 5 Days __ 7 Days __ 10 Days __ 15 Days _____ Other

Sample Disposal
[ ] Return to Client [X] Disposal by Lab [ ] Archive for _____ Months (A fee may be assessed if samples are retained longer

Company	Date	Time	Received By	Company	Date	Time
LBG	6/11/12	1800		TA	6/12/12	1020
Company	Date	Time	Received By	Company	Date	Time
Company	Date	Time	Received By	Company	Date	Time

Lab Courier
Shipped
Hand Delivered

x Key
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments
Metals:
Cadmium, Chromium, Copper, Lead, Nickel, Selenium, Silver, Zinc, Molybdenum

Lab Comments:

Login Sample Receipt Checklist

Client: Leggette, Brashears & Graham, Inc.

Job Number: 500-47242-1

Login Number: 47242
List Number: 1
Creator: Lunt, Jeff T

List Source: TestAmerica Chicago

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	1.9
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

APPENDIX II

MADISON METROPOLITAN SEWERAGE DISTRICT
WASTEWATER DISCHARGE PERMIT NTO-5.11

MADISON METROPOLITAN SEWERAGE DISTRICT

1610 Moorland Road
Madison, WI 53713-3398
Telephone (608) 222-1201
Fax (608) 222-2703

Jon W. Schellpfeiffer
Chief Engineer & Director

Protecting Public Health and the Environment

June 30, 2009

Mr. Corey Pagels
Leggette, Brashears, & Graham, Inc.
6409 Odana Road, Suite C
Madison, WI 53719

Mr. Pagels:

Enclosed is the permit that allows continued hauling of leachate from the Refuse Hideaway Landfill to the Nine Springs Wastewater Treatment Plant. The permit is valid for five years. Two changes from the previous permit (issued to Liesch Environmental) are noteworthy. We have removed the BTEX sampling parameters. Also, we have lengthened the reporting period from 30-days to 60-days from the end of each calendar quarter. Please include a report of your records of hauling volumes where this data is available for the quarterly reports. We appreciate when O&M managers provide us updates on atypical circumstances that they encounter and resolve; please include such narrative data when appropriate in your reports.

You can reach me at extension 362; I'd be glad to discuss these permit matters with you.

Sincerely,

Ralph Erickson
Pretreatment and Waste Acceptance Coordinator

Enclosure:

Cc: Hank Kuehling, WDNR

metrogro

WASTEWATER DISCHARGE PERMIT NTO-5.11

In compliance with the provisions of section 66.24(1)(d) and 66.25(3) of the Wisconsin Statutes. Articles 5 and 6 of the Madison Metropolitan Sewerage District Sewer Use Ordinance, and the District's Policy on Acceptance of Wastewater Containing Non-Typical Organic and Inorganic Constituents,

Wisconsin Department of Natural Resources
BOX 7921 Madison, WI 53707,
for the site,
Refuse Hideaway Landfill,
located at,
US Highway 14, Middleton, WI,
with wastewater O&M provided by,
Leggette, Brashears, & Graham, Inc of Madison

is hereby authorized to discharge leachate from the **Refuse Hideaway Landfill** located at the above address, via a permitted waste hauler, to the Nine Springs Wastewater Treatment Plant in accordance with the effluent limitations, monitoring requirements, and other conditions set forth in this permit.

All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit.

This permit shall be effective for five years. It shall become effective on July 1, 2009 and shall expire at midnight, June 30, 2014. Any appeals to the conditions of this permit must be made to the Chief Engineer and Director within thirty days of the signature date.

The permittee shall not discharge after the date of expiration. If the permittee wishes to continue to discharge after this expiration date an application shall be filed for reissuance of this permit in accordance with the requirements of Article 5 of the Madison Metropolitan Sewerage District Sewer Use Ordinance, at least 30 days prior to the expiration date.

In accordance with Articles 5 and 6 of the Madison Metropolitan Sewerage District Sewer Use Ordinance, the District reserves the right to amend this permit from time to time.

By _____
Jon W. Schellpfeffer
Chief Engineer and Director

Dated this 26th day of June, 2009.

Permit: NTO-5.11 Table of Contents

Part 1 - LIMITS

1.01 INTRODUCTION

(1) Discharges from the outfalls regulated by this permit are subject to the local limits established by the District in the Sewer Use Ordinance 84-001 (Revised February 26, 2007). Based upon these requirements, the District has established the pretreatment standards set forth in secs. 1.02 to 1.03 of this permit.

(2) The permittee shall comply with all requirements imposed by federal, state, and local municipal governments relating to operation of the licensed landfill.

1.02 OUTFALL NTO-5A

(1) Outfall NTO-5A is the discharge point of the leachate collection system serving the Refuse Hideaway Landfill. The permittee has constructed facilities to allow for collection of a representative sample from the on-site 25,000 gallon storage tank. Grab samples will be collected from the discharge point per the requirements of sec. 2.04. Outfall NTO-5A shall contain only leachate.

(2) The Refuse Hideaway Landfill is located outside of the District's sewer service area. Therefore, all leachate from the site must be hauled to the Nine Springs Wastewater Treatment Plant. The waste hauler shall have a Septage Disposal Permit, as issued annually by the District.

(3) The following MMSD limits apply to discharges from Outfall NTO-5A:

Outfall NTO-5A
Applicable Local Limits

Parameter	Local Ordinance Effluent Limitations (daily maximum) (mg/L)	POTW maximum allowance per landfill site
Cadmium (T)	0.25	
Chromium (T)	10.0	
Copper (T)	1.5	
Lead (T)	5.0	
Nickel (T)	2.0	
Selenium (T)	0.3	
Silver (T)	3.0	
Zinc (T)	8.0	
Molybdenum (T)	None set	
Mercury (T)	0.02	

1.03 OTHER OUTFALLS

The Permittee may not discharge groundwater to any location other than as described for the outfalls listed in sub.(1.02). Domestic wastewater shall only flow into any outfalls after the sampling points for process wastewater.

Part 2 - SAMPLING

2.01 SAMPLING FREQUENCY PER MMSD REQUIREMENTS

The Permittee shall sample (self-monitor) for the pollutants shown in the following table.

Outfall	Required Parameters/Measurements & Frequency	
Outfall NTO-5A	Volume	Recorded per load
	ICP metals (9)	Quarterly
	Mercury	Quarterly

2.02 REPRESENTATIVE SAMPLES

The Permittee's self-monitoring shall represent discharges normally occurring during the reporting period.

2.03 SAMPLE COLLECTION AND ANALYSIS

(1) The Permittee shall use the following primary devices for flow measurement:

Outfall	Primary Device
NTO-5A	In-line meter or Pumping runtime records

(2) The Permittee shall collect, preserve, and analyze samples using techniques that provide sufficient precision and accuracy to measure the regulated pollutants at or below the applicable limit to a reasonable degree of scientific certainty, using analytical methods included in 40 CFR Part 136 or ch. NR 219, Wis. Adm. Code, or other methods approved by the Department of Natural Resources. For analysis, the Permittee, whenever possible, shall use a laboratory certified or registered by the Department of Natural Resources, according ch. NR 149, Wis. Adm. Code, for the parameter being analyzed. With prior District approval, per NR 211.15(8), the permittee may be allowed to use a laboratory not certified or registered in Wisconsin.

(3) The District will randomly collect and analyze samples of leachate, taken from the hauling vehicle, to verify leachate quality and treatability.

(4) Samples collected by the Permittee shall be independent of samples collected by the District. The permittee is allowed split samples from District sampling events; however the permittee must collect its own independent samples on a different date per sub. (2.01).

Part 3 - REPORTING

3.01 SELF-MONITORING REPORTS

All self-monitoring results must be submitted to the District within sixty (60) days of the end of a quarterly monitoring period.

(1) All monitoring data is to be reported if the Permittee monitors a pollutant more frequently than required by this permit using the sample type and the sample collection, preservation, and the analytical techniques set forth in sec. 2.03 to 2.04.

(2) Self-monitoring Reporting Format

(a) The Permittee shall report to the District the results of all sampling required by sec. 2.01 to 2.04.

(b) Reports shall include:

1. The place, date, type, and time of the sample or sub-samples;

2. The names of the persons collecting the samples, the persons doing the analyses, and the laboratory performing the analyses;

3. The dates the analyses were performed;

4. The analytical techniques used; and

5. The analytical results.

3.02 REPORT OF VIOLATION AND RESAMPLING

(1) If sampling performed by the Permittee identifies a violation of any applicable pretreatment standard or requirement, the Permittee shall:

(a) Notify the District within 24-hours of becoming aware of the violation,

(b) Provide a written report with sample results to the District within five (5) days after becoming aware of the violation, and

(c) Repeat the sampling and analysis of the violation-parameter(s) and submit the results of the repeat analysis to the District within thirty (30) days after becoming aware of the violation.

(2) The reports required by sub. (1) shall be signed by the responsible corporate officer according to sub. (3.04) and sec. (2.1)(44) of the District Sewer Use Ordinance.

3.03 NOTICE OF INTENT TO CHANGE DISCHARGE

Before any activity that would result in a 25 percent long-term increase or decrease in the volume of non-domestic wastewater discharged by the Permittee or that would significantly change the characteristics of the discharge, the Permittee shall submit a written Notice of Intent to the District (sec. 5.13).

3.04 SIGNATURE BY RESPONSIBLE CORPORATE OFFICER

All reports shall be signed and sworn by a principal executive officer, or his/her designee.

3.05 REPORTING ADDRESSES

The Permittee shall submit all reports required by this permit to the District and the City of Madison Engineering Department at the following addresses:

Madison Metropolitan Sewerage District
1610 Moorland Road
Madison, Wisconsin 53713-3398

Part 4 - SPECIAL CONDITIONS

4.01 DISTRICT RATE DETERMINATIONS AND BILLING

(1) The District will track each load delivered and will prepare quarterly bills for treatment costs. The rate for disposal is based on samples drawn at the Nine Springs Wastewater Treatment Plant for the parameters CBOD, TSS, TKN, and TP. The rate is adjusted annually, in December, based on service charge rates set for the following year. Outside-the-District surcharges apply to this site and are capped at 100% per District policy. Leachate treatment charges have typically been set at two times the minimum hauled wastewater rate, based on historical analytical data for the billing parameters.

(2) The primary contact for the Refuse Hideaway Landfill is Leggette, Brashears, & Graham, Inc. of Madison. Discharges made to the Nine Springs Wastewater Treatment Plant under the provisions of this permit, will be billed quarterly to:

Mr. Corey Pagels
Leggette, Brashears, & Graham, Inc.
6409 Odana Road, Suite C
Madison, WI 53719

Part 5 - GENERAL CONDITIONS

5.01 COMPLIANCE WITH ALL LOCAL, STATE, AND FEDERAL REQUIREMENTS

The Permittee shall comply with all applicable pretreatment standards and requirements set forth in the District Sewer Use Ordinance, the Wisconsin Administrative Code, and the Code of Federal Regulations, regardless of their enumeration in this permit.

5.02 SEVERABILITY

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

5.03 DUTY TO COMPLY

The permittee must comply with all conditions of this permit. Failure to comply with the requirements of this permit may be grounds for administrative action, or enforcement proceedings including civil or criminal penalties, injunctive relief, and summary abatements.

5.04 DUTY TO MITIGATE

The Permittee shall take all reasonable actions necessary to minimize and correct any adverse impacts to the sewerage system or the environment resulting from noncompliance with this permit. The Permittee shall notify the District within 24-hours of its first awareness of the commencement of the adverse impact (upset) in accordance with sec. 5.6.5 of the District Sewer Use Ordinance.

5.05 DUTY TO REAPPLY

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must submit an application for a new permit at least 180-days before the expiration date of this permit.

5.06 CONTINUATION OF EXPIRED PERMIT

An expired permit will continue to be effective and enforceable until the permit is reissued if:

(1) The permittee has submitted a complete permit application at least 180-days prior to the expiration date of the user's existing permit.

(2) The failure to reissue the permit, prior to expiration of the previous permit, is not due to any act or failure to act on the part of the permittee.

5.07 PERMIT MODIFICATION

The District may modify this wastewater discharge permit at any time to reflect changes in federal, state, or local law, to incorporate the terms of an order, or to reflect changed circumstances. Any modifications which result in new conditions in the permit shall include a reasonable time schedule for compliance if necessary.

5.08 PERMIT TRANSFER

Wastewater discharge permits are issued to a specific user for a specific operation and are not assignable to another user or transferable to any other location without prior written approval of the District. Sale of a user shall obligate the purchaser to seek prior written approval of the District for continued discharge to the District sewerage system. If an owner or operator changes without the prior approval of the District, then this permit is void.

5.09 SAMPLING LOCATION

The Permittee may change sampling locations only after receiving approval from the District. The District shall ensure that any change in the Permittee's sampling location will not allow the Permittee to substitute dilution for adequate treatment.

5.10 SAMPLING FACILITIES

(1) The Permittee shall provide sampling facilities that will be accessible and that will provide representative samples of the process wastewater.

(2) The Permittee shall allow the District access to all sampling facilities according to the requirements of sub. (5.11).

5.11 RIGHT OF ENTRY

The Permittee consents to inspection and sampling by the District according to the requirements and limitations set forth in sec. 11.1 of the Sewer Use Ordinance. The permittee shall, after reasonable notification by the District, allow the District or its representatives, exhibiting proper credentials and identification, to enter upon the premises of the permittee at all reasonable hours, for the purposes of inspection, sampling, or records inspection. Reasonable hours in the context of inspection and sampling includes any time the permittee is operating any process which results in a process wastewater discharge to the District sewerage system.

5.12 NO PROPERTY RIGHTS CREATED

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.

5.13 NOTICE OF INTENT

If the permittee is planning to alter or change any activity at the Permittee's facility that would significantly increase or decrease the volume or alter the content of any existing source of wastewater discharge into the District sewerage system must file a written Request to Discharge Form in accordance with Article 5 of the District Sewer Use Ordinance. A significant increase or decrease shall be defined as a 25 percent increase or decrease in the volume of industrial wastewater currently being discharged by a permittee.

5.14 REVIEW OF PROPOSED TREATMENT FACILITIES

(1) If the Permittee is planning to install or modify treatment facilities or operations to comply with a categorical pretreatment standard, a pretreatment standard set forth in sec. 5.2.2 of the District Sewer Use Ordinance, a permit condition, or an order of the District, then the Permittee

shall provide the District with plans, specifications, and operating procedures for the proposed facilities. The District may approve, conditionally approve, or disapprove the plans, specifications, and operating procedures. The Permittee may not begin discharging from the treatment facilities until the Permittee has satisfied the requirements of the District.

(2) The Wisconsin Department of Natural Resources has separate requirements for the review of plans, specifications, and operating procedures of proposed pretreatment facilities, such as the requirements set forth in sec. 144.04, Wis. Stats., and ch. NR 108, Wis. Admin. Code. The Permittee shall comply with these requirements before commencing discharges to the sewerage system.

5.15 ADDITIONAL REPORTS

In addition to the reports required by this permit and the reports specifically required by the District Sewer Use Ordinance, the District may require other reports, management plans, or other information whenever the District finds that such a requirement is necessary to fulfill the District's responsibilities under the Sewer Use Ordinance, or any other local, state, or federal law.

5.16 HAZARDOUS WASTE NOTIFICATION

The permittee shall notify the District, the Department of Natural Resources, and the EPA Regional Waste Management Division Director in writing of any discharge to the sanitary sewer system of a substance which, if otherwise disposed of, would be a hazardous water under 40 CFR Part 261. Such notification must include the name of the hazardous waste as set forth in 40 CFR Part 261, the EPA hazardous waste number, and the type of discharge. If the permittee discharges to the sanitary sewer more than 100 kilograms of such waste per calendar month, the additional notification requirements of 40 CFR sec. 403.12(p) apply. In the case of any notification made under this section, the permittee shall certify that it has a program in place to reduce the volume and toxicity of hazardous wastes generated to the degree it has determined to be economically practical.

5.17 PUBLIC INFORMATION

All written information submitted to the District shall be available upon request to any person for public inspection at the headquarters of the District, according to sec. 19.35, Wis. Stats., unless:

(1) The Permittee provides, at the time the Permittee submits the information, a written notice to the District that the Permittee claims that all or part of the information is exempt from disclosure according to sec. 19.36(5), Wis. Stats.; and

(2) The Permittee demonstrates to the District's satisfaction that the information is a trade secret according to sec. 134.90(1)(c), Wis. Stats.

APPENDIX III

BLOWER AND FLARE STATION GAS MONITORING

TABLE A

WISCONSIN DEPARTMENT OF NATURAL RESOURCES

REFUSE HIDEAWAY LANDFILL

MIDDLETON, WISCONSIN

BLOWER AND FLARE STATION GAS MONITORING

Location	Date	Pressure	CH_4		O_2	CO_2	Balance Gas*	Valve Position	Gas Velocity	Gas Flow**	Gas Temp
		(in. WC)	(% LEL)	(% Vol)	(% Vol)	(% Vol)	(% Vol)	(% open)	(fpm)	(cfm)	(deg F)
GROUND FLARE	Sample Port A										
	7/15/2011	0.40		48.0	0.5	34.4	17.1		600	111	--
	7/29/2011	0.55		50.5	0.1	26.4	23.0		300	56	--
	8/12/2011	1.05		43.0	0.0	27.0	30.0		800	148	--
	8/19/2011	1.15		47.5	0.0	27.0	25.5		--	--	--
	8/26/2011	1.30		46.0	1.4	32.4	20.2		800	148	83.7
	9/2/2011	2.00		45.0	0.2	31.6	23.2		1,200	222	82.7
	9/8/2011	1.15		31.5	2.6	26.0	39.9		750	139	--
	9/15/2011	1.75		33.0	1.0	31.2	34.8		1,000	185	82.5
	9/22/2011	1.40		40.5	1.9	31.8	25.8		900	167	83.6
	9/30/2011	0.90		25.5	2.9	28.8	42.8		750	139	77.6
	10/3/2011	0.80		39.5	2.6	30.8	27.1		750	139	81.5
	10/14/2011	2.25		46.0	2.0	31.6	20.4		1,250	231	72.1
	10/21/2011	1.25		38.0	5.1	27.8	29.1		1,000	185	80.2
	10/24/2011	1.50		58.5	1.3	38.4	1.8		1,100	204	78.9
	11/4/2011	1.30		41.5	4.5	31.4	22.6		750	139	70.7
	11/16/2011	1.00		32.0	3.1	30.0	34.9		800	148	73.0
	11/23/2011	0.90		29.5	3.0	31.2	36.3		600	111	72.3
	11/30/2011	0.85		46.0	1.8	32.4	19.8		750	139	70.8
	12/9/2011	0.75		30.5	2.5	30.0	37.0		700	130	68.2
	12/16/2011	0.65		32.0	2.2	31.2	34.6		625	116	66.7
	12/21/2011	1.00		39.0	0.7	33.6	26.7		--	--	--
	12/30/2011	1.00		45.5	0.5	33.4	20.6		--	--	57.3
	1/6/2012	1.00		39.5	1.4	31.8	27.3		40	7	66.3
	1/13/2012	--		37.0	5.8	28.2	29.0		--	--	33.9
	1/18/2012	0.85		38.5	1.3	34.2	26.0		50	9	56.6
	1/25/2012	--		35.5	2.4	31.4	30.7		--	--	55.7
	1/31/2012	1.50		67.0	1.1	34.4	-2.5		--	--	64.5
	2/10/2012	0.65		30.5	5.9	24.2	39.4		--	--	55.9
	2/17/2012	1.25		27.0	4.2	27.6	41.2		--	--	60.2
	2/23/2012	0.55		29.5	5.2	25.2	40.1		--	--	62.2
	2/29/2012	0.65		47.5	2.9	29.6	20.0		--	--	59.1
	3/9/2012	1.50		31.5	3.8	28.0	36.7		--	--	68.7
	3/16/2012	0.70		32.5	3.9	28.6	35.0		--	78.5	80.2
	3/23/2012	0.65		33.0	4.6	30.0	32.4		700	129.5	78.4
	3/30/2012	0.30		43.0	4.6	33.6	18.8		600	111.0	66.7
	4/6/2012	0.55		29.5	8.0	25.4	37.1		--	--	--
	4/13/2012	0.55		30.0	5.1	31.8	33.1		600	111	71.5
	4/20/2012	0.40		35.5	4.2	34.0	26.3		520	96	71.7
	4/25/2012	1.25		40.0	7.6	28.6	23.8		950	176	76.2
	5/3/2012	0.85		37.5	6.8	31.2	24.5		800	148	83.1
	5/10/2012	0.80		33.5	5.8	31.2	29.5		700	130	81.4
	5/16/2012	0.50		33.0	5.9	30.0	31.1		700	130	87.6
	5/21/2012	3.00		49.5	5.2	33.4	11.9		1,150	213	79.5
	5/31/2012	1.70		35.0	4.4	31.0	29.6		900	167	72.3
	6/6/2012	1.00		26.0	8.3	27.0	38.7		900	167	92.1
	6/14/2012	0.95		26.0	8.5	26.4	39.1		800	148	89.7
	6/18/2012	1.45		42.0	6.8	30.4	20.8		1,200	222	88.1
	6/29/2012	0.60		34.0	6.5	28.9	30.6		600	111	100.8
	Sample Port B										
	7/15/2011	0.35		47.5	0.5	34.2	17.8		500	93	--
	7/29/2011	0.45		50.0	0.0	26.4	23.6		300	56	--
	8/12/2011	0.85		42.0	0.0	27.4	30.6		--	--	--

TABLE A

WISCONSIN DEPARTMENT OF NATURAL RESOURCES

REFUSE HIDEAWAY LANDFILL

MIDDLETON, WISCONSIN

BLOWER AND FLARE STATION GAS MONITORING

Location	Date	Pressure	CH_4		O_2	CO_2	Balance Gas*	Valve Position	Gas Velocity	Gas Flow**	Gas Temp
		(in. WC)	(% LEL)	(% Vol)	(% Vol)	(% Vol)	(% Vol)	(% open)	(fpm)	(cfm)	(deg F)
	8/19/2011	0.90		46.0	0.0	26.2	27.8		--	--	--
	8/26/2011	0.95		43.5	1.0	32.4	23.1		750	139	85.6
	9/2/2011	1.50		44.5	0.5	31.8	23.2		1,100	204	81.1
	9/8/2011	0.85		31.0	2.8	26.4	39.8		750	139	--
	9/15/2011	1.25		33.5	0.7	30.8	35.0		800	148	82.7
	9/22/2011	1.00		40.5	1.5	31.8	26.2		750	139	80.9
	9/30/2011	0.70		25.5	3.0	29.0	42.5		750	139	79.8
	10/3/2011	0.75		40.5	2.7	30.8	26.0		700	130	81.3
	10/14/2011	1.75		46.0	1.6	31.4	21.0		1,100	204	72.0
	10/21/2011	1.00		38.5	4.7	28.2	28.6		750	139	80.2
	10/24/2011	1.25		59.0	1.2	38.4	1.4		1,000	185	80.2
	11/4/2011	0.95		41.5	2.7	31.4	24.4		1,000	185	75.5
	11/16/2011	0.75		32.0	2.6	30.0	35.4		700	130	70.3
	11/23/2011	0.75		29.5	1.1	31.4	38.0		600	111	73.7
	11/30/2011	0.65		46.0	2.1	32.2	19.7		700	130	69.9
	12/9/2011	0.55		30.5	2.5	30.0	37.0		600	111	68.0
	12/16/2011	0.45		32.0	2.1	31.4	34.5		600	111	63.3
	12/21/2011	0.75		39.0	1.0	33.6	26.4		--	--	--
	12/30/2011	0.75		45.5	2.4	33.6	18.5		--	--	52.8
	1/6/2012	0.75		39.5	1.5	31.6	27.4		40	7	64.5
	1/13/2012	--		37.5	5.9	28.2	28.4		--	--	33.9
	1/18/2012	0.75		38.5	0.9	34.0	26.6		50	9	57.0
	1/25/2012	--		36.0	2.4	31.6	30.0		--	--	55.7
	1/31/2012	1.60		67.0	0.7	34.2	-1.9		--	--	64.5
	2/10/2012	0.85		30.5	5.7	24.2	39.6		--	--	52.3
	2/17/2012	0.95		27.0	4.4	27.6	41.0		--	--	56.8
	2/23/2012	0.40		30.0	5.2	25.4	39.4		--	--	59.3
	2/29/2012	0.40		47.0	3.0	29.2	20.8		--	--	56.3
	3/9/2012	1.25		31.5	3.8	28.4	36.3		--	--	68.5
	3/16/2012	0.55		32.5	3.8	28.4	35.3		--	78.5	80.3
	3/23/2012	0.50		33.0	4.1	30.2	32.7		500	92.5	78.4
	3/30/2012	0.25		42.0	5.2	33.0	19.8		500	92.5	66.9
	4/6/2012	0.45		29.0	7.5	25.6	37.9		--	--	--
	4/13/2012	0.40		30.5	4.8	31.8	32.9		500	93	73.0
	4/20/2012	0.35		35.5	3.8	34.0	26.7		415	77	68.1
	4/25/2012	1.00		40.5	7.4	28.6	23.5		800	148	75.1
	5/3/2012	0.70		37.5	6.6	30.8	25.1		900	167	83.4
	5/10/2012	0.65		34.5	6.4	31.0	28.1		800	148	84.1
	5/16/2012	0.65		33.5	7.0	30.2	29.3		700	130	86.8
	5/21/2012	2.50		49.5	5.2	33.4	11.9		1,380	255	82.4
	5/31/2012	1.25		35.0	5.0	33.0	27.0		900	167	71.7
	6/6/2012	0.75		27.0	8.3	27.0	37.7		1,000	185	93.1
	6/14/2012	0.75		26.0	8.7	26.4	38.9		900	167	90.1
	6/18/2012	1.30		40.5	7.0	30.2	22.3		1,100	204	89.2
	6/29/2012	0.50		34.0	6.5	29.8	29.7		650	120	101.2
	Sample Port C										
	7/15/2011	0.15		47.5	0.2	34.2	18.1				
	7/29/2011	0.25		51.0	0.0	26.4	22.6				
	8/12/2011	0.60		44.5	0.0	27.2	28.3				
	8/19/2011	0.70		44.0	0.1	25.4	30.5				
	8/26/2011	0.70		42.0	1.1	32.6	24.3				
	9/2/2011	1.00		45.0	0.6	31.8	22.6				
	9/8/2011	0.60		30.5	2.2	26.2	41.1				

TABLE A

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
REFUSE HIDEAWAY LANDFILL
MIDDLETON, WISCONSIN

BLOWER AND FLARE STATION GAS MONITORING

Location	Date	Pressure	CH_4		O_2	CO_2	Balance Gas*	Valve Position	Gas Velocity	Gas Flow**	Gas Temp
		(in. WC)	(% LEL)	(% Vol)	(% Vol)	(% Vol)	(% Vol)	(% open)	(fpm)	(cfm)	(deg F)
	9/15/2011	1.10		31.5	2.0	28.6	37.9				
	9/22/2011	0.80		40.5	1.3	31.8	26.4				
	9/30/2011	0.55		26.0	2.9	28.8	42.3				
	10/3/2011	0.60		40.5	2.6	31.0	25.9				
	10/14/2011	1.25		46.0	1.7	31.4	20.9				
	10/21/2011	0.75		39.0	4.0	29.2	27.8				
	10/24/2011	1.00		59.5	1.2	38.4	0.9				
	11/4/2011	0.75		41.5	3.8	31.6	23.1				
	11/16/2011	0.50		32.0	2.6	30.0	35.4				
	11/23/2011	0.50		29.5	1.5	31.2	37.8				
	11/30/2011	0.15		46.0	1.9	32.2	19.9				
	12/9/2011	0.45		30.5	2.6	30.0	36.9				
	12/16/2011	0.30		32.0	2.1	31.4	34.5				
	12/21/2011	0.50		39.0	0.7	33.6	26.7				
	12/30/2011	0.40		35.5	2.0	33.4	29.1				
	1/6/2012	0.50		40.0	1.7	31.4	26.9				
	1/13/2012	--		35.5	6.6	24.2	33.7				
	1/18/2012	0.50		39.0	1.8	34.4	24.8				
	1/25/2012	--		35.5	2.6	31.2	30.7				
	1/31/2012	1.10		66.5	0.7	34.2	-1.4				
	2/10/2012	0.55		34.5	3.6	28.2	33.7				
	2/17/2012	0.75		27.5	4.4	28.0	40.1				
	2/23/2012	0.30		30.5	4.5	27.0	38.0				
	2/29/2012	0.35		47.5	3.1	29.4	20.0				
	3/9/2012	0.75		31.5	3.8	28.0	36.7				
	3/16/2012	0.40		33.0	3.8	28.4	34.8				
	3/23/2012	0.45		33.0	4.2	30.2	32.6				
	3/30/2012	0.30		40.0	3.0	33.0	24.0				
	4/6/2012	0.25		30.0	7.0	26.0	37.0				
	4/13/2012	0.30		31.0	5.7	32.0	31.3				
	4/20/2012	0.25		35.5	3.7	34.0	26.8				
	4/25/2012	0.80		39.0	6.6	31.2	23.2				
	5/3/2012	0.50		37.0	7.2	31.0	24.8				
	5/10/2012	0.45		34.5	6.0	31.0	28.5				
	5/16/2012	0.50		33.5	6.2	30.0	30.3				
	5/21/2012	2.25		49.5	5.0	33.6	11.9				
	5/31/2012	1.05		35.0	4.9	32.6	27.5				
	6/6/2012	0.50		26.5	7.8	27.0	38.7				
	6/14/2012	0.60		26.0	8.1	26.4	39.5				
	6/18/2012	1.00		40.5	6.5	30.0	23.0				
	6/29/2012	0.40		34.0	6.3	30.0	29.7				
BLOWER					**North Branch**						
	7/15/2011	-27.0		40.0	4.2	24.0	31.8	30	700	55	--
	7/29/2011	-27.0		56.5	1.9	22.2	19.4	50	800	62	--
	8/12/2011	-26.0		36.5	2.4	19.8	41.3	50	750	59	--
	8/19/2011	-26.0		42.0	0.6	22.4	35.0	50	900	70	--
	8/26/2011	-28.0		42.0	2.7	25.2	30.1	100	1,450	113	77.4
	9/2/2011	-26.0		42.0	1.3	25.2	31.5	100	1,500	117	79.5
	9/8/2011	-27.0		21.9	4.5	19.4	54.2	100	900	70	--
	9/15/2011	-27.0		22.5	1.5	24.0	52.0	50	1,000	78	67.2
	9/22/2011	-27.0		30.0	2.3	24.8	42.9	50	1,000	78	61.5
	9/30/2011	-28.0		17.0	3.7	22.2	57.1	50	700	55	63.1
	10/3/2011	-27.0		34.0	4.0	22.0	40.0	30	1,000	78	65.8
	10/14/2011	-24.0		39.5	2.9	24.2	33.4	30	1,250	98	61.3

TABLE A

WISCONSIN DEPARTMENT OF NATURAL RESOURCES

REFUSE HIDEAWAY LANDFILL

MIDDLETON, WISCONSIN

BLOWER AND FLARE STATION GAS MONITORING

Location	Date	Pressure	CH_4		O_2	CO_2	Balance Gas*	Valve Position	Gas Velocity	Gas Flow**	Gas Temp
		(in. WC)	(% LEL)	(% Vol)	(% Vol)	(% Vol)	(% Vol)	(% open)	(fpm)	(cfm)	(deg F)
	10/21/2011	-27.0		22.5	8.9	16.2	52.4	30	600	47	62.5
	10/24/2011	-26.0		55.0	2.4	30.0	12.6	50	1,500	117	61.8
	11/4/2011	-28.0		29.5	4.5	23.2	42.8	--	1,200	94	61.1
	11/16/2011	-27.0		23.5	3.4	24.0	49.1	50	800	62	50.5
	11/23/2011	-28.0		20.0	3.4	23.6	53.0	--	2,000	156	59.5
	11/30/2011	-27.0		34.0	4.6	20.0	41.4	30	600	47	52.3
	12/9/2011	-28.0		13.5	6.7	16.4	63.4	30	600	47	36.3
	12/16/2011	-28.0		13.0	8.3	14.2	64.5	30	750	59	42.9
	12/21/2011	--		--	--	--	--	--	--	--	--
	12/30/2011	-24.0		36.0	1.6	26.2	36.2	100	--	--	36.6
	1/6/2012	-28.0		28.5	2.2	23.8	45.5	30	100	19	43.1
	1/13/2012	--		51.0	1.4	39.2	8.4	30	--	--	26.9
	1/18/2012	-28.0		22.0	1.9	25.0	51.1	50	50	9	30.5
	1/25/2012	--		17.0	3.0	32.2	47.8	30	--	--	35.7
	1/31/2012	-24.0		60.0	2.6	31.4	6.0	50	--	--	45.6
	2/10/2012	-28.0		26.0	3.5	23.4	47.1	30	--	--	27.6
	2/17/2012	-28.0		18.0	3.9	22.2	55.9	30	--	--	36.1
	2/23/2012	-27.0		18.0	7.8	17.0	57.2	30	--	--	41.7
	2/29/2012	-26.0		26.5	3.9	19.8	49.8	0	--	--	39.5
	3/9/2012	-26.0		19.0	12.4	30.4	38.2	--	--	--	48.7
	3/16/2012	-27.0		9.5	4.9	17.0	68.6	30	--	107.3	79.7
	3/23/2012	-27.0		10.0	5.5	17.4	67.1	25	1,400	259.0	64.4
	3/30/2012	-26.0		16.5	9.2	16.4	57.9	0	1,200	222.0	51.2
	4/6/2012	-28.0		21.0	8.0	19.4	51.6	50	1,250	231	67.4
	4/13/2012	-30.0		18.0	7.4	20.0	54.6	50	1,200	222	66.5
	4/20/2012	-30.0		21.5	9.3	17.2	52.0	50	1,700	315	49.4
	4/25/2012	-27.0		42.0	4.8	29.8	23.4	50	1,400	259	62.7
	5/3/2012	-30.0		29.0	7.2	24.4	39.4	50	1,400	259	74.2
	5/10/2012	-28.0		18.0	8.1	21.0	52.9	0	1,100	204	73.7
	5/16/2012	-28.0		7.0	7.4	18.6	67.0	0	1,100	204	76.4
	5/21/2012	-27.0		36.0	6.4	25.6	32.0	50	1,250	231	66.3
	5/31/2012	-26.0		18.0	6.0	22.4	53.6	0	1,060	196	58.4
	6/6/2012	-28.0		12.0	7.5	19.8	60.7	0	1,200	222	85.9
	6/14/2012	-28.0		11.0	7.5	19.2	62.3	0	1,250	231	82.3
	6/18/2012	-26.0		35.5	6.4	21.6	36.5	50	1,250	231	86.7
	6/29/2012	-28.0		21.0	8.9	19.6	50.5	0	1,450	268	93.1
	Central Branch										
	7/15/2011	-27.0		49.0	0.5	36.0	14.5	100	800	62	--
	7/29/2011	-27.0		44.0	0.5	26.6	28.9	100	750	59	--
	8/12/2011	-26.0		46.0	0.2	20.0	33.8	100	1,000	78	--
	8/19/2011	-26.0		46.5	0.2	28.6	24.7	100	1,000	78	--
	8/26/2011	-28.0		47.0	0.4	35.0	17.6	100	1,400	109	76.1
	9/2/2011	-26.0		50.0	0.7	32.8	16.5	100	1,500	117	77.2
	9/8/2011	-28.0		34.5	2.2	29.2	34.1	100	1,450	113	--
	9/15/2011	-27.0		37.0	1.7	32.6	28.7	100	1,600	125	64.0
	9/22/2011	-27.0		42.0	2.6	32.9	22.5	100	1,600	125	62.7
	9/30/2011	-28.0		27.5	3.2	29.0	40.3	100	1,400	109	62.2
	10/3/2011	-27.0		39.5	2.6	32.6	25.3	100	1,500	117	62.4
	10/14/2011	-24.0		46.5	2.0	31.8	19.7	100	2,000	156	59.5
	10/21/2011	-27.0		42.0	3.0	30.8	24.2	100	1,600	125	57.9
	10/24/2011	-26.0		50.4	3.4	36.4	9.8	50	1,600	125	58.2
	11/4/2011	-28.0		45.5	2.1	33.6	18.8	--	1,800	140	59.8
	11/16/2011	-27.0		38.0	1.1	34.0	26.9	100	1,400	109	49.6

TABLE A

WISCONSIN DEPARTMENT OF NATURAL RESOURCES

REFUSE HIDEAWAY LANDFILL

MIDDLETON, WISCONSIN

BLOWER AND FLARE STATION GAS MONITORING

Location	Date	Pressure	CH_4		O_2	CO_2	Balance Gas*	Valve Position	Gas Velocity	Gas Flow**	Gas Temp
		(in. WC)	(% LEL)	(% Vol)	(% Vol)	(% Vol)	(% Vol)	(% open)	(fpm)	(cfm)	(deg F)
	11/23/2011	-29.0		31.0	2.5	31.2	35.3	--	2,100	164	60.9
	11/30/2011	-27.0		47.0	1.2	33.6	18.2	100	1,400	109	49.2
	12/9/2011	-28.0		33.5	2.8	31.4	32.3	100	1,250	98	41.5
	12/16/2011	-28.0		35.0	2.2	33.4	29.4	100	--	--	43.1
	12/21/2011	--		--	--	--	--	--	--	--	--
	12/30/2011	-24.0		41.0	2.8	29.8	26.4	50	--	--	39.0
	1/6/2012	-28.0		41.5	3.5	28.6	26.4	50	400	74	42.0
	1/13/2012	--		55.0	0.0	41.4	3.6	100	--	--	26.4
	1/18/2012	-28.0		38.5	3.5	31.0	27.0	50	40	7	36.8
	1/25/2012	--		43.0	1.0	35.6	20.4	100	--	--	37.7
	1/31/2012	-24.0		61.5	4.0	31.8	2.7	50	--	--	40.4
	2/10/2012	-27.0		37.0	3.7	28.6	30.7	50	--	--	36.3
	2/17/2012	-28.0		31.0	3.7	29.4	35.9	50	--	--	37.7
	2/23/2012	-26.0		39.5	0.5	35.2	24.8	100	--	--	39.3
	2/29/2012	-27.0		47.5	3.6	29.4	19.5	50	--	--	37.9
	3/9/2012	-26.0		32.5	3.6	30.8	33.1	--	--	--	46.4
	3/16/2012	-27.0		38.0	3.4	31.0	27.6	100	--	169.6	80.1
	3/23/2012	-27.0		36.5	4.4	31.0	28.1	100	1,750	323.8	52.1
	3/30/2012	-26.0		41.5	4.1	35.6	18.8	50	1,250	231.3	51.6
	4/6/2012	-26.0		37.0	2.2	35.6	25.2	100	1,300	241	66.0
	4/13/2012	-30.0		35.0	3.0	35.8	26.2	100	1,400	259	66.3
	4/20/2012	-30.0		40.5	3.3	39.8	16.4	100	1,658	307	48.7
	4/25/2012	-28.0		43.0	6.7	32.6	17.7	30	1,200	222	62.9
	5/3/2012	-29.0		52.5	5.4	39.6	2.5	50	1,500	278	75.5
	5/10/2012	-28.0		42.5	4.8	37.8	14.9	50	1,600	296	73.3
	5/16/2012	-28.0		22.0	6.5	28.6	42.9	50	1,600	296	73.3
	5/21/2012	-27.0		51.0	6.1	36.6	6.3	100	2,200	407	60.6
	5/31/2012	-28.0		39.5	4.5	36.0	20.0	70	1,400	259	59.3
	6/6/2012	-28.0		26.0	8.5	25.0	40.5	50	2,500	463	80.3
	6/14/2012	-28.0		25.5	8.2	25.4	40.9	50	2,800	518	80.0
	6/18/2012	-26.0		43.0	6.8	28.2	22.0	50	4,700	870	79.5
	6/29/2012	-28.0		36.5	4.2	36.0	23.3	70	2,500	463	88.8
	South Branch										
	7/15/2011	-18.0		1.7	19.8	1.0	77.5	0.0	100	8	--
	7/29/2011	-27.0		10.0	19.1	0.1	70.8	0.0	0	0	--
	8/12/2011	0.0		0.4	15.8	5.6	78.2	0.0	--	--	--
	8/19/2011	-27.0		20.0	10.4	11.4	58.2	0.0	500	39	--
	8/26/2011	-28.0		5.0	18.0	4.2	72.8	0.0	400	31	78.3
	9/2/2011	-27.0		9.0	16.6	4.8	69.6	0.0	150	12	76.3
	9/8/2011	-28.0		2.7	17.9	1.8	77.7	0.0	600	47	--
	9/15/2011	-27.0		5.5	16.4	6.0	72.1	0.0	500	39	61.8
	9/22/2011	-27.0		6.5	16.7	4.2	72.6	0.0	500	39	64.2
	9/30/2011	-28.0		0.2	20.9	0.0	79.0	0.0	200	16	61.3
	10/3/2011	-27.0		1.2	19.4	1.0	78.4	0.0	--	--	--
	10/14/2011	-24.0		12.5	13.9	8.6	65.0	0.0	--	--	57.0
	10/21/2011	-27.0		1.5	20.9	0.4	77.2	0.0	500	39	66.0
	10/24/2011	-26.0		5.5	17.2	3.0	74.3	0.0	600	47	67.8
	11/4/2011	-28.0		0.0	20.9	0.0	79.1	--	500	39	61.3
	11/16/2011	-27.0		0.3	19.0	0.4	80.4	0.0	500	39	48.3
	11/23/2011	-28.0		0.8	20.8	1.2	77.3	0.0	600	47	56.3
	11/30/2011	-27.0		4.0	18.9	2.8	74.3	0.0	450	35	51.8
	12/9/2011	-28.0		0.2	19.1	0.2	80.5	0.0	200	16	35.2
	12/16/2011	-28.0		0.2	19.3	0.2	80.4	0.0	700	55	41.1

TABLE A

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
REFUSE HIDEAWAY LANDFILL
MIDDLETON, WISCONSIN

BLOWER AND FLARE STATION GAS MONITORING

Location	Date	Pressure	CH_4		O_2	CO_2	Balance Gas*	Valve Position	Gas Velocity	Gas Flow**	Gas Temp
		(in. WC)	(% LEL)	(% Vol)	(% Vol)	(% Vol)	(% Vol)	(% open)	(fpm)	(cfm)	(deg F)
	12/21/2011	--		--	--	--	--	--	--	--	--
	12/30/2011	-24.0		4.6	18.7	3.4	73.3	0.0	--	--	35.4
	1/6/2012	-27.0		0.7	19.6	0.4	79.4	0.0	100	19	50.5
	1/13/2012	--		25.0	7.4	21.8	45.8	0.0	--	--	27.3
	1/18/2012	-26.0		1.1	20.4	1.0	77.5	0.0	--	--	26.2
	1/25/2012	--		5.0	17.7	4.6	72.7	0.0	--	--	35.9
	1/31/2012	-26.0		9.0	17.5	3.2	70.3	0.0	--	--	55.2
	2/10/2012	-28.0		9.0	20.6	0.4	70.0	0.0	--	--	26.6
	2/17/2012	-28.0		0.2	20.3	0.2	79.3	0.0	--	--	35.2
	2/23/2012	-26.0		0.2	20.9	0.0	78.9	0.0	--	--	41.7
	2/29/2012	-26.0		49.0	18.3	1.2	31.5	0.0	--	--	38.8
	3/9/2012	-26.0		12.0	18.0	24.8	45.2	--	--	--	38.1
	3/16/2012	-27.0		5.5	15.9	4.8	73.8	0	--	0.0	72.3
	3/23/2012	-27.0		1.1	19.6	0.7	78.6	0	300	55.5	67.2
	3/30/2012	-27.0		3.6	19.5	2.4	74.5	0	1,150	212.8	52.5
	4/6/2012	-27.0		0.3	20.9	0.0	78.9	0	1,100	204	66.5
	4/13/2012	-30.0		0.0	20.7	0.0	79.3	0	1,200	222	67.0
	4/20/2012	-30.0		3.9	16.9	3.0	76.3	0	580	107	49.2
	4/25/2012	-28.0		8.0	16.9	5.6	69.5	0	1,100	204	66.9
	5/3/2012	-28.0		0.3	19.3	0.0	80.5	0	1,100	204	78.0
	5/10/2012	-28.0		0.0	19.2	0.0	80.8	0	1,000	185	75.3
	5/16/2012	-28.0		0.0	20.8	0.0	79.2	0	1,150	213	---
	5/21/2012	-27.0		11.0	15.7	7.0	66.3	0	1,100	204	79.1
	5/31/2012	-28.0		3.3	18.9	2.6	75.2	0	1,100	204	59.7
	6/6/2012	-30.0		0.1	20.5	0.0	79.4	0	1,100	204	82.3
	6/14/2012	-28.0		0.0	20.6	0.0	79.4	0	1,200	222	81.4
	6/18/2012	-26.0		4.5	18.1	3.8	73.7	0	1,300	241	84.9
	6/29/2012	-28.0		0.0	20.6	0.0	79.4	0	1,300	241	--
	Branches-Total Flow* **										
	7/15/2011									125	
	7/29/2011									121	
	8/12/2011									137	
	8/19/2011									187	
	8/26/2011									254	
	9/2/2011									246	
	9/8/2011									230	
	9/15/2011									242	
	9/22/2011									242	
	9/30/2011									179	
	10/3/2011									195	
	10/14/2011									254	
	10/21/2011									211	
	10/24/2011									289	
	11/4/2011									273	
	11/16/2011									211	
	11/23/2011									367	
	11/30/2011									191	
	12/9/2011									160	
	12/16/2011									113	
	12/21/2011									--	
	12/30/2011									--	
	1/6/2012									111	
	1/13/2012									--	

TABLE A

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
REFUSE HIDEAWAY LANDFILL
MIDDLETON, WISCONSIN

BLOWER AND FLARE STATION GAS MONITORING

Location	Date	Pressure	CH_4		O_2	CO_2	Balance Gas*	Valve Position	Gas Velocity	Gas Flow**	Gas Temp
		(in. WC)	(% LEL)	(% Vol)	(% Vol)	(% Vol)	(% Vol)	(% open)	(fpm)	(cfm)	(deg F)
	1/18/2012									17	
	1/24/2012									--	
	1/31/2012									--	
	2/10/2012									--	
	2/17/2012									--	
	2/23/2012									--	
	2/29/2012									--	
	3/9/2012									--	
	3/16/2012									277	
	3/23/2012									638	
	3/30/2012									666	
	4/6/2012									675	
	4/13/2012									703	
	4/20/2012									729	
	4/25/2012									685	
	5/3/2012									740	
	5/10/2012									685	
	5/16/2012									712	
	5/21/2012									842	
	5/31/2012									659	
	6/6/2012									888	
	6/14/2012									971	
	6/18/2012									1341	
	6/29/2012									971	
	Inlet Sample Port A										
	7/15/2011	-27.0		46.0	1.0	32.4	20.6				
	7/29/2011	-27.0		49.0	1.5	25.0	24.5				
	8/12/2011	-27.0		42.0	1.5	24.8	31.7				
	8/19/2011	-27.0		44.5	0.9	26.2	28.4				
	8/26/2011	-28.0		40.5	2.1	30.0	27.4				
	9/2/2011	-28.0		47.5	1.3	30.0	21.2				
	9/8/2011	-28.0		25.5	3.6	24.8	46.1				
	9/15/2011	-27.0		31.5	2.5	28.6	37.4				
	9/22/2011	-27.0		38.0	3.0	30.0	29.0				
	9/30/2011	-28.0		24.0	3.3	26.8	45.9				
	10/3/2011	-27.0		38.0	2.6	29.4	30.0				
	10/14/2011	-24.0		44.0	2.4	29.6	24.0				
	10/21/2011	-27.0		38.5	4.3	27.6	29.6				
	10/24/2011	-26.0		54.0	2.4	35.4	8.2				
	11/4/2011	-29.0		38.0	3.3	28.8	29.9				
	11/16/2011	-27.0		29.5	3.3	27.8	39.4				
	11/23/2011	-28.0		27.5	1.9	29.0	41.6				
	11/30/2011	-27.0		43.0	2.3	29.6	25.1				
	12/9/2011	-28.0		29.0	2.9	28.2	39.9				
	12/16/2011	-29.0		29.5	4.0	28.6	37.9				
	12/21/2011	--		--	--	--	--				
	12/30/2011	-26.0		39.5	3.3	28.4	28.8				
	1/6/2012	-27.0		35.5	3.8	26.6	34.1				
	1/13/2012	--		55.5	0.0	41.0	3.5				
	1/18/2012	-26.0		32.0	3.6	28.8	35.6				
	1/25/2012	--		35.5	1.8	30.8	31.9				
	1/31/2012	-26.0		61.0	1.5	33.4	4.1				
	2/10/2012	-28.0		30.0	6.8	22.2	41.0				

TABLE A

WISCONSIN DEPARTMENT OF NATURAL RESOURCES

REFUSE HIDEAWAY LANDFILL

MIDDLETON, WISCONSIN

BLOWER AND FLARE STATION GAS MONITORING

Location	Date	Pressure	CH_4		O_2	CO_2	Balance Gas*	Valve Position	Gas Velocity	Gas Flow**	Gas Temp
		(in. WC)	(% LEL)	(% Vol)	(% Vol)	(% Vol)	(% Vol)	(% open)	(fpm)	(cfm)	(deg F)
	2/17/2012	-28.0		25.0	4.2	25.8	45.0				
	2/23/2012	-27.0		27.5	3.7	25.8	43.0				
	2/29/2012	-26.0		41.5	4.2	25.0	29.3				
	3/9/2012	-26.0		29.0	4.0	28.6	38.4				
	3/16/2012	-27.0		33.0	3.4	28.4	35.2				
	3/23/2012	-27.0		31.0	4.6	28.2	36.2				
	3/30/2012	-27.0		41.0	5.6	29.2	24.2				
	4/6/2012	-27.0		28.0	5.8	26.2	40.0				
	4/13/2012	-30.0		29.0	4.4	30.2	36.4				
	4/20/2012	-30.0		33.5	4.8	31.8	29.9				
	4/25/2012	-28.0		42.5	6.3	30.6	20.6				
	5/3/2012	-28.0		36.0	6.4	29.4	28.2				
	5/10/2012	-28.0		27.0	8.6	24.4	40.0				
	5/16/2012	-28.0		30.0	6.6	27.4	36.0				
	5/21/2012	-27.0		43.5	6.1	30.8	19.6				
	5/31/2012	-28.0		38.5	5.5	32.4	23.6				
	6/6/2012	-28.0		24.0	8.9	24.0	43.1				
	6/14/2012	-28.0		23.5	8.9	24.0	43.6				
	6/21/2012	-28.0		40.5	5.8	30.2	23.5				
	6/29/2012	-28.0		36.5	5.8	31.8	25.9				
	Inlet Sample Port B										
	7/15/2011	-27.0		45.0	1.0	32.0	22.0				
	7/29/2011	-27.0		48.0	0.9	25.0	26.1				
	8/12/2011	-27.0		40.0	1.0	24.6	34.4				
	8/19/2011	-27.0		44.5	0.4	26.0	29.1				
	8/26/2011	-28.0		42.0	2.2	30.6	25.2				
	9/2/2011	-28.0		47.0	1.0	30.0	22.0				
	9/8/2011	-28.0		25.5	3.2	25.0	46.3				
	9/15/2011	-27.0		31.0	2.0	28.2	38.8				
	9/22/2011	-27.0		38.0	2.7	29.8	29.5				
	9/30/2011	-28.0		23.5	3.3	26.8	46.4				
	10/3/2011	-27.0		38.0	3.2	29.2	29.6				
	10/14/2011	-24.0		44.5	2.3	29.6	23.6				
	10/21/2011	-27.0		36.5	5.5	26.2	31.8				
	10/24/2011	-26.0		54.0	2.8	35.2	8.0				
	11/4/2011	-29.0		38.0	3.1	28.8	30.1				
	11/16/2011	-27.0		29.5	3.8	27.6	39.1				
	11/23/2011	-28.0		27.5	2.3	29.2	41.0				
	11/30/2011	-27.0		32.0	2.9	29.8	35.3				
	12/9/2011	-28.0		29.0	3.0	28.2	39.8				
	12/16/2011	-29.0		29.5	3.6	28.8	38.1				
	12/21/2011	--		--	--	--	--				
	12/30/2011	-26.0		40.5	3.6	28.6	27.3				
	1/6/2012	-27.0		35.0	3.4	26.6	35.0				
	1/13/2012	--		35.5	5.8	26.6	32.1				
	1/18/2012	-28.0		32.0	3.9	28.6	35.5				
	1/25/2012	--		33.0	3.0	29.0	35.0				
	1/31/2012	-26.0		65.5	0.7	32.8	1.0				
	2/10/2012	-28.0		30.0	6.1	23.0	40.9				
	2/17/2012	-28.0		25.5	5.0	25.8	43.7				
	2/23/2012	-26.0		28.0	4.6	25.6	41.8				
	2/29/2012	-27.0		42.0	5.3	25.0	27.7				
	3/9/2012	-26.0		29.0	4.2	28.6	38.2				

TABLE A

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
REFUSE HIDEAWAY LANDFILL
MIDDLETON, WISCONSIN

BLOWER AND FLARE STATION GAS MONITORING

Location	Date	Pressure	CH_4		O_2	CO_2	Balance Gas*	Valve Position	Gas Velocity	Gas Flow**	Gas Temp
		(in. WC)	(% LEL)	(% Vol)	(% Vol)	(% Vol)	(% Vol)	(% open)	(fpm)	(cfm)	(deg F)
	3/16/2012	-27.0		30.5	4.0	26.6	38.9				
	3/23/2012	-27.0		31.0	4.8	28.0	36.2				
	3/30/2012	-27.0		45.0	5.9	30.4	18.7				
	4/6/2012	-28.0		28.0	6.4	26.2	39.4				
	4/13/2012	-30.0		28.5	5.3	30.2	36.0				
	4/20/2012	-30.0		33.5	4.8	31.8	29.9				
	4/25/2012	-28.0		46.0	5.9	34.8	13.3				
	5/3/2012	-28.0		35.0	7.2	28.8	29.0				
	5/10/2012	-28.0		26.5	8.7	24.0	40.8				
	5/16/2012	-28.0		29.5	7.4	27.6	35.5				
	5/21/2012	-27.0		44.5	5.9	31.2	18.4				
	5/31/2012	-28.0		38.0	6.1	33.2	22.7				
	6/6/2012	-30.0		24.5	8.3	25.2	42.0				
	6/14/2012	-28.0		23.5	8.7	24.4	43.4				
	6/18/2012	-28.0		40.0	6.9	30.2	22.9				
	6/29/2012	-28.0		35.5	6.1	30.8	27.6				
	Outlet Sample Port A										
	7/15/2011	0.45		45.5	0.5	34.2	19.8				
	7/29/2011	0.75		49.5	0.2	26.4	23.9				
	8/12/2011	1.75		40.5	0.2	26.6	32.7				
	8/19/2011	1.35		46.5	0.0	27.6	25.9				
	8/26/2011	1.45		44.5	1.3	32.8	21.4				
	9/2/2011	3.00		46.0	0.0	31.8	22.2				
	9/8/2011	1.35		26.0	2.3	26.6	45.1				
	9/15/2011	2.50		33.5	0.9	30.8	34.8				
	9/22/2011	1.50		40.5	1.6	31.8	26.1				
	9/30/2011	1.15		25.5	2.8	28.8	42.9				
	10/3/2011	1.20		40.0	2.5	31.0	26.5				
	10/14/2011	2.75		47.0	1.2	31.8	20.0				
	10/21/2011	1.70		39.5	4.6	28.2	27.7				
	10/24/2011	1.75		58.0	1.4	38.6	2.0				
	11/4/2011	1.45		41.0	2.3	31.4	25.3				
	11/16/2011	1.20		31.5	2.9	29.6	36.0				
	11/23/2011	1.10		29.5	1.4	31.4	37.7				
	11/30/2011	1.00		45.5	2.1	32.2	20.2				
	12/9/2011	0.80		31.0	2.5	30.6	35.9				
	12/16/2011	1.00		32.0	2.6	31.2	34.2				
	12/21/2011	1.50		38.5	1.0	33.8	26.7				
	12/30/2011	1.20		43.0	2.6	30.8	23.6				
	1/6/2012	1.20		36.5	2.8	28.2	32.5				
	1/13/2012	--		38.5	5.4	28.4	27.7				
	1/18/2012	1.10		34.5	--	30.8	34.7				
	1/25/2012	--		36.0	2.5	31.8	29.7				
	1/31/2012	2.50		68.5	0.0	35.4	-3.9				
	2/10/2012	1.30		29.5	6.0	23.8	40.7				
	2/17/2012	1.40		27.0	4.8	26.8	41.4				
	2/23/2012	0.75		29.5	5.2	26.0	39.3				
	2/29/2012	0.85		44.5	4.5	26.8	24.2				
	3/9/2012	2.00		30.0	4.0	28.4	37.6				
	3/16/2012	0.80		32.5	3.8	28.2	35.5				
	3/23/2012	0.75		33.0	4.5	30.0	32.5				
	3/30/2012	0.60		47.5	5.2	32.6	14.7				
	4/6/2012	0.65		29.5	7.3	25.8	37.4				

TABLE A

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
REFUSE HIDEAWAY LANDFILL
MIDDLETON, WISCONSIN

BLOWER AND FLARE STATION GAS MONITORING

Location	Date	Pressure	CH_4		O_2	CO_2	Balance Gas*	Valve Position	Gas Velocity	Gas Flow**	Gas Temp
		(in. WC)	(% LEL)	(% Vol)	(% Vol)	(% Vol)	(% Vol)	(% open)	(fpm)	(cfm)	(deg F)
	4/13/2012	0.65		31.0	4.9	32.0	32.1				
	4/20/2012	0.45		35.5	4.4	34.0	26.1				
	4/25/2012	1.50		41.0	6.3	29.2	23.5				
	5/3/2012	1.10		36.0	6.1	31.0	26.9				
	5/10/2012	0.90		28.5	8.6	24.8	38.1				
	5/16/2012	1.05		32.0	6.6	30.2	31.2				
	5/21/2012	3.25		49.5	5.0	33.4	12.1				
	5/31/2012	4.00		35.5	4.4	33.0	27.1				
	6/6/2012	1.25		27.0	8.1	27.0	37.9				
	6/14/2012	1.20		25.5	8.5	26.4	39.6				
	6/18/2012	1.95		43.5	5.9	33.0	17.6				
	6/29/2012	0.75		34.5	6.4	30.6	28.5				
2011-2012 Contract Year Average				37.7	3.6						

* : Balance gas calculated as 100% - (%CH_4+%CO_2+%O_2).

** : Gas flow (cfm) calculated by multiplying gas velocity (fpm) by 0.045 (3" diameter), 0.078 (4" blower inlet), or 0.185 (6" flare inlet).

*** : Total flow is the sum of flow values from the northern, central and southern branches.

in WC : Inches of water column.

% Vol : Percent volume.

% LEL : Percent of lower explosive limit.

-- : Not measured or not applicable.

fpm : Feet per minute.

cfm : Cubic feet per minute.

deg F : Degrees Fahrenheit.

APPENDIX IV

LANDFILL GAS SAMPLING AND ANALYSIS INFORMATION

TABLE 1

WISCONSIN DEPARTMENT OF NATURAL RESOURCES

REFUSE HIDEAWAY LANDFILL

MIDDLETON, WISCONSIN

LANDFILL GAS ANALYTICAL RESULTS

Sampling Location	Date	TO-15		EPA 25C	EPA 3C				
		Benzene (ppb v/v)	Vinyl Chloride (ppb v/v)	NMOC as Carbon (ppm-C)	Carbon Dioxide (% v/v)	Methane (% v/v)	Nitrogen (% v/v)	Oxygen (% v/v)	Wells On-Line
Sample Port A	2/1/2012	150	140	490	26	37	31	3.8	6, 7, 8, 9, 10, 11, 12, 13
Sample Port A	2/8/2012	120	100	300	17	21	48	9.6	6, 7, 8, 9, 10, 11, 12, 13

Sample collected in a 6L Summa Canister

ppb v/v: parts per billion by volume

ppm-C: parts per million as Carbon

% v/v: percent by volume

NMOC: Nonmethane Organic Compounds

TO-15: Method for analysis of Volatile Organic Compounds in Ambient Air

EPA 25C: Method for analysis of NMOC

EPA 3C: Method for analysis of Fixed Gases from Stationary Sources

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
REFUSE HIDEAWAY LANDFILL
MIDDLETON, WISCONSIN

CALCULATION OF LANDFILL POTENTIAL TO EMIT

Calculated by: Jennifer Shelton
Checked by: Richard Stoor

STATEMENT OF PROBLEM:

Calculate the landfill's potential to emit (PTE) benzene and vinyl chloride. Compare PTE values to NR 445 thresholds to determine if air treatment is required based on these constituents.

PROJECT CONSTRAINTS:

Pressure, P =	1	atm
Temperature, T =	60	degrees F
	289	degrees Kelvin
Contaminant concentration, C (ppb v/v)=		Maximum concentration reported in table below.
Ideal Gas Constant =	0.08206	$\frac{l*atm}{gmol*K}$
Maximum Observerd Flowrate, Q (cfm) =	463	Max flowrate for period of July 2009 through December 2011 Value recorded on January 11, 2011. (May 24, 2011 flowrate of 648 cfm appears anamolous)

Sampling Location	Date	Concentration, C	
		Benzene (ppb v/v)	Vinyl Chloride (ppb v/v)
Molecular Weight (MW) (g/mol)		**78.1**	**62.494**
Sample Port A	2/1/2012	150	140
Sample Port A	2/8/2012	120	100

CALCULATION:

$$C\left(\frac{mg}{m^3}\right) = \frac{P(atm)}{R\left(\frac{l \cdot atm}{gmol \cdot K}\right) \cdot T(K)} \cdot C\left(\frac{ppb \cdot v}{v}\right) \cdot MW\left(\frac{g}{gmol}\right) \cdot \frac{1000 \cdot l}{m^3} \cdot \frac{1000 \cdot mg}{g} \cdot \frac{1}{1x10^9}$$

$$PTE\left(\frac{lb}{yr}\right) = C\left(\frac{mg}{m^3}\right) \cdot Q\left(\frac{ft^3}{\min}\right) \cdot \frac{1440 \cdot \min}{day} \cdot \frac{365 \cdot day}{yr} \cdot \frac{m^3}{35.31 \cdot ft^3} \cdot \frac{1 \cdot lb}{453600 \cdot mg}$$

Compound	Atomic Weight, MW (g/mol)	Maximum Concentration, C (ppb v/v)	Concentration, C (mg/m^3)	Max Observed Flowrate, Q (cfm)	PTE Uncontrolled (lb/yr)	NR 455 Threshold (lb/yr)
Benzene	78.1	150	0.494	463	7.5	228
Vinyl Chloride	62.494	140	0.369	463	5.6	202

CONCLUSION:

The landfill's PTE for benzene and vinyl chloride are less than NR 445 threshold values.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc
TestAmerica Watertown
1101 Industrial Drive
Watertown, WI 53094
Tel: (920)261-1660

TestAmerica Job ID: 610-1491-1
Client Project/Site: Refuse Hideaway Landfill

For:
Leggette, Brashears & Graham, Inc.
6409 Odana Road
Suite C
Madison, Wisconsin 53719

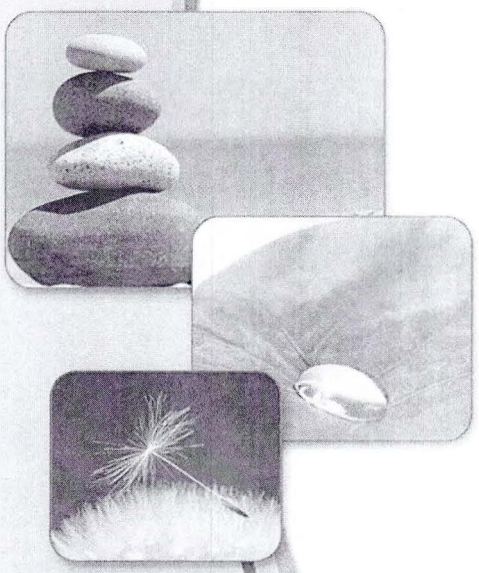
Attn: Jennifer Shelton

Sandie Fredrick

Authorized for release by:
2/15/2012 5:59:43 PM
Sandie Fredrick
Project Manager I
sandie.fredrick@testamericainc.com

Designee for

Dan Milewsky
Project Manager II
dan.milewsky@testamericainc.com



LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

Table of Contents

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: Leggette. Brashears & Graham, Inc.
Project/Site: Refuse Hideaway Landfill

TestAmerica Job ID: 610-1491-1

Job ID: 610-1491-1

Laboratory: TestAmerica Watertown

Narrative

Job Narrative
610-1491-1

Comments
No additional comments.

Receipt
All samples were received in good condition within temperature requirements.

Air Toxics
Method(s) TO-15: The following sample(s) was diluted due to the abundance of non-target analytes: LFG - Sample Port A (610-1491-1). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

Detection Summary

Client: Leggette, Brashears & Graham, Inc.
Project/Site: Refuse Hideaway Landfill

TestAmerica Job ID: 610-1491-1

Client Sample ID: LFG - Sample Port A

Lab Sample ID: 610-1491-1

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Benzene	150		5.0	5.0	ppb v/v	25.1		TO-15	Total/NA
Vinyl chloride	140		5.0	5.0	ppb v/v	25.1		TO-15	Total/NA
NMOC as Carbon	490		9.2	9.2	ppm-C	1.54		EPA 25C	Total/NA
Carbon dioxide	26		0.077	0.077	% v/v	1.54		EPA 3C	Total/NA
Methane	37		0.062	0.062	% v/v	1.54		EPA 3C	Total/NA
Nitrogen	31		0.77	0.77	% v/v	1.54		EPA 3C	Total/NA
Oxygen	3.8		0.062	0.062	% v/v	1.54		EPA 3C	Total/NA

Client: Leggette, Brashears & Graham, Inc.
Project/Site: Refuse Hideaway Landfill

TestAmerica Job ID: 610-1491-1

Client Sample ID: LFG - Sample Port A
Date Collected: 02/01/12 11:05
Date Received: 02/01/12 12:00
Sample Container: Summa Canister 6L

Lab Sample ID: 610-1491-1
Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	150		5.0	5.0	ppb v/v			02/14/12 04:16	25.1
Vinyl chloride	140		5.0	5.0	ppb v/v			02/14/12 04:16	25.1

Method: EPA 25C - Nonmethane Organic Compounds (NMOC)

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
NMOC as Carbon	490		9.2	9.2	ppm-C			02/09/12 16:33	1.54

Method: EPA 3C - Fixed Gases from Stationary Sources

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon dioxide	26		0.077	0.077	% v/v			02/09/12 16:33	1.54
Methane	37		0.062	0.062	% v/v			02/09/12 16:33	1.54
Nitrogen	31		0.77	0.77	% v/v			02/09/12 16:33	1.54
Oxygen	3.8		0.062	0.062	% v/v			02/09/12 16:33	1.54

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Lab Sample ID: MB 200-33599/4
Matrix: Air
Analysis Batch: 33599

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.20		0.20	0.20	ppb v/v			02/13/12 16:34	1
Vinyl chloride	<0.20		0.20	0.20	ppb v/v			02/13/12 16:34	1

Lab Sample ID: LCS 200-33599/3
Matrix: Air
Analysis Batch: 33599

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	10.0	8.03		ppb v/v		80	70 - 130
Vinyl chloride	10.0	8.30		ppb v/v		83	70 - 130

Method: EPA 25C - Nonmethane Organic Compounds (NMOC)

Lab Sample ID: MB 200-33449/3
Matrix: Air
Analysis Batch: 33449

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
NMOC as Carbon	<6.0		6.0	6.0	ppm-C			02/09/12 12:11	1

Lab Sample ID: LCS 200-33449/2
Matrix: Air
Analysis Batch: 33449

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
NMOC as Carbon	750	796		ppm-C		106	70 - 130

Method: EPA 3C - Fixed Gases from Stationary Sources

Lab Sample ID: MB 200-33450/3
Matrix: Air
Analysis Batch: 33450

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon dioxide	<0.050		0.050	0.050	% v/v			02/09/12 12:11	1
Methane	<0.040		0.040	0.040	% v/v			02/09/12 12:11	1
Nitrogen	<0.50		0.50	0.50	% v/v			02/09/12 12:11	1
Oxygen	<0.040		0.040	0.040	% v/v			02/09/12 12:11	1

Lab Sample ID: LCS 200-33450/2
Matrix: Air
Analysis Batch: 33450

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Carbon dioxide	5.00	4.91		% v/v		98	70 - 130
Methane	4.00	3.68		% v/v		92	70 - 130
Nitrogen	5.00	4.66		% v/v		93	70 - 130
Oxygen	4.00	3.48		% v/v		87	70 - 130

QC Association Summary

Client: Leggette. Brashears & Graham, Inc.
Project/Site: Refuse Hideaway Landfill

TestAmerica Job ID: 610-1491-1

Air - GC/MS VOA

Analysis Batch: 33599

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
610-1491-1	LFG - Sample Port A	Total/NA	Air	TO-15	
LCS 200-33599/3	Lab Control Sample	Total/NA	Air	TO-15	
MB 200-33599/4	Method Blank	Total/NA	Air	TO-15	

Air - GC VOA

Analysis Batch: 33449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
610-1491-1	LFG - Sample Port A	Total/NA	Air	EPA 25C	
LCS 200-33449/2	Lab Control Sample	Total/NA	Air	EPA 25C	
MB 200-33449/3	Method Blank	Total/NA	Air	EPA 25C	

Analysis Batch: 33450

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
610-1491-1	LFG - Sample Port A	Total/NA	Air	EPA 3C	
LCS 200-33450/2	Lab Control Sample	Total/NA	Air	EPA 3C	
MB 200-33450/3	Method Blank	Total/NA	Air	EPA 3C	

Lab Chronicle

Client: Leggette. Brashears & Graham, Inc.
Project/Site: Refuse Hideaway Landfill

TestAmerica Job ID: 610-1491-1

Client Sample ID: LFG - Sample Port A
Date Collected: 02/01/12 11:05
Date Received: 02/01/12 12:00

Lab Sample ID: 610-1491-1
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		25.1	33599	02/14/12 04:16	WRD	TAL BUR
Total/NA	Analysis	EPA 25C		1.54	33449	02/09/12 16:33	MRV	TAL BUR
Total/NA	Analysis	EPA 3C		1.54	33450	02/09/12 16:33	MRV	TAL BUR

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Certification Summary

Client: Leggette. Brashears & Graham. Inc.
Project/Site: Refuse Hideaway Landfill

TestAmerica Job ID: 610-1491-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Watertown		WI Dept of Agricullure (Micro)		105-266
TestAmerica Watertown	Illinois	NELAC	5	100453
TestAmerica Watertown	Wisconsin	State Program	5	128053530
TestAmerica Burlington	ACLASS	DoD ELAP		ADE-1492
TestAmerica Burlington	Connecticut	State Program	1	PH-0751
TestAmerica Burlington	Delaware	Delaware DNREC	3	NA
TestAmerica Burlington	Florida	NELAC Secondary AB	4	E87467
TestAmerica Burlington	Louisiana	NELAC Secondary AB	6	176292
TestAmerica Burlington	Maine	State Program	1	VT00008
TestAmerica Burlington	Minnesota	State Program	5	050-999-436
TestAmerica Burlington	New Hampshire	NELAC	1	200610
TestAmerica Burlington	New Jersey	NELAC	2	VT972
TestAmerica Burlington	New York	NELAC	2	10391
TestAmerica Burlington	Pennsylvania	NELAC	3	68-00489
TestAmerica Burlington	Rhode Island	State Program	1	LAO00298
TestAmerica Burlington	USDA	USDA		P330-11-00093
TestAmerica Burlington	Vermont	State Program	1	VT-4000
TestAmerica Burlington	Virginia	NELAC Secondary AB	3	460209

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Method Summary

Client: Leggette, Brashears & Graham, Inc.
Project/Site: Refuse Hideaway Landfill

TestAmerica Job ID: 610-1491-1

Method	Method Description	Protocol	Laboratory
TO-15	Volatile Organic Compounds in Ambient Air	EPA	TAL BUR
EPA 25C	Nonmethane Organic Compounds (NMOC)	EPA	TAL BUR
EPA 3C	Fixed Gases from Stationary Sources	EPA	TAL BUR

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Sample Summary

Client: Leggette. Brashears & Graham, Inc.
Project/Site: Refuse Hideaway Landfill

TestAmerica Job ID: 610-1491-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
610-1491-1	LFG - Sample Port A	Air	02/01/12 11:05	02/01/12 12:00

610-1491

TestAmerica Burlington
30 Community Drive
Suite 11
South Burlington, VT 05403
phone 802-660-1990 fax 802-660-1919

Canister Samples Chain of Custody Record

TestAmerica Analytical Testing Corp. assumes no liability with respect to the collection and shipment of these samples.

Client Contact Information	Project Manager: Jennifer Shelton	Samples Collected By: AFB	1 of 1 COCs
Company: LBG, Inc	Phone: 608-441-5544		
Address: 6409 Odana Rd Ste 11	Email: jshelton@lbgmail.com		
City/State/Zip Madison WI 53719			
Phone: 608-441-5544	Site Contact: Adam Both		
FAX: 608-441-5545	TA Contact: Kathryn Kelly		
Project Name: DNR-RHL	Analysis Turnaround Time		
Site: Refuse Hideaway Landfill	Standard (Specify)		
PO #	Rush (Specify)		

	Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
01	LFG - Sample Port A	2/1/12	1105	1105	-29.0	-5.0	4904	3866	X		X	X								

Temperature (Fahrenheit)			
	Interior	Ambient	
Start			
Stop			

Pressure (inches of Hg)			
	Interior	Ambient	
Start			
Stop			

Special Instructions/QC Requirements & Comments:

Samples Shipped by: Fed Ex	Date/Time: 2/1/12 1200	Samples Received by: [signature] 2/2/12 1000
Samples Relinquished by: [signature]	Date/Time: 2/1/12 1200	Received by:
Relinquished by:	Date/Time:	Received by:

Lab Use Only Shipper Name: Opened by: Condition:

2/15/2012

Login Sample Receipt Checklist

Client: Leggette, Brashears & Graham, Inc.

Job Number: 610-1491-1

Login Number: 1491
List Number: 1
Creator: Kelly, Kathryn A

List Source: TestAmerica Watertown

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background		
The cooler's custody seal, if present, is intact.		
The cooler or samples do not appear to have been compromised or tampered with.		
Samples were received on ice.		
Cooler Temperature is acceptable.		
Cooler Temperature is recorded.		
COC is present.		
COC is filled out in ink and legible.		
COC is filled out with all pertinent information.		
Is the Field Sampler's name present on COC?		
There are no discrepancies between the sample IDs on the containers and the COC.		
Samples are received within Holding Time.		
Sample containers have legible labels.		
Containers are not broken or leaking.		
Sample collection date/times are provided.		
Appropriate sample containers are used.		
Sample bottles are completely filled.		
Sample Preservation Verified.		
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs		
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.		
Multiphasic samples are not present.		
Samples do not require splitting or compositing.		
Residual Chlorine Checked.		

Login Sample Receipt Checklist

Client: Leggette, Brashears & Graham, Inc.

Job Number: 610-1491-1

Login Number: 1491
List Number: 1
Creator: Holt, Jamie

List Source: TestAmerica Burlington
List Creation: 02/06/12 10:44 AM

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	N/A	Not present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	AMBIENT
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Watertown
1101 Industrial Drive
Watertown, WI 53094
Tel: (920)261-1660

TestAmerica Job ID: 610-1678-1
Client Project/Site: Refuse Hideaway Landfill

For
Leggette, Brashears & Graham, Inc.
6409 Odana Road
Suite C
Madison, Wisconsin 53719

Attn: Jennifer Shelton

Brian J. DeJong

Authorized for release by:
2/20/2012 1:41:48 PM
Brian DeJong
Project Manager I
brian.dejong@testamericainc.com

Designee for

Dan Milewsky
Project Manager II
dan.milewsky@testamericainc.com

Table of Contents

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 610-1678-1

Laboratory: TestAmerica Watertown

Narrative

Job Narrative
610-1678-1

Comments
No additional comments.

Receipt
All samples were received in good condition within temperature requirements.

Air Toxics
Method(s) TO-15: The following sample(s) was diluted due to the abundance of non-target analytes. Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

Detection Summary

Client: Leggette, Brashears & Graham, Inc
Project/Site: Refuse Hideaway Landfill

TestAmerica Job ID: 610-1678-1

Client Sample ID: LFG Sample Port A

Lab Sample ID: 610-1678-1

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Benzene	120		2.0	2.0	ppb v/v	10		TO-15	Total/NA
Vinyl chloride	100		2.0	2.0	ppb v/v	10		TO-15	Total/NA
NMOC as Carbon	300		8.5	8.5	ppm-C	1.42		EPA 25C	Total/NA
Carbon dioxide	17		0.071	0.071	% v/v	1.42		EPA 3C	Total/NA
Methane	21		0.057	0.057	% v/v	1.42		EPA 3C	Total/NA
Nitrogen	48		0.71	0.71	% v/v	1.42		EPA 3C	Total/NA
Oxygen	9.6		0.057	0.057	% v/v	1.42		EPA 3C	Total/NA

Client: Leggette, Brashears & Graham, Inc.
Project/Site: Refuse Hideaway Landfill

TestAmerica Job ID: 610-1678-1

Client Sample ID: LFG Sample Port A
Date Collected: 02/08/12 12:20
Date Received: 02/13/12 14:50
Sample Container: Summa Canister 6L

Lab Sample ID: 610-1678-1
Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	120		2.0	2.0	ppb v/v			02/15/12 20:22	10
Vinyl chloride	100		2.0	2.0	ppb v/v			02/15/12 20:22	10

Method: EPA 25C - Nonmethane Organic Compounds (NMOC)

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
NMOC as Carbon	300		8.5	8.5	ppm-C			02/16/12 12:15	1.42

Method: EPA 3C - Fixed Gases from Stationary Sources

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon dioxide	17		0.071	0.071	% v/v			02/16/12 12:15	1.42
Methane	21		0.057	0.057	% v/v			02/16/12 12:15	1.42
Nitrogen	48		0.71	0.71	% v/v			02/16/12 12:15	1.42
Oxygen	9.6		0.057	0.057	% v/v			02/16/12 12:15	1.42

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Lab Sample ID: MB 200-33705/5
Matrix: Air
Analysis Batch: 33705

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.20		0.20	0.20	ppb v/v			02/15/12 15:00	1
Vinyl chloride	<0.20		0.20	0.20	ppb v/v			02/15/12 15:00	1

Lab Sample ID: LCS 200-33705/4
Matrix: Air
Analysis Batch: 33705

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	10.0	12.4		ppb v/v		124	70 - 130
Vinyl chloride	10.0	10.3		ppb v/v		103	70 - 130

Method: EPA 25C - Nonmethane Organic Compounds (NMOC)

Lab Sample ID: MB 200-33794/3
Matrix: Air
Analysis Batch: 33794

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
NMOC as Carbon	<6.0		6.0	6.0	ppm-C			02/16/12 11:10	1

Lab Sample ID: LCS 200-33794/2
Matrix: Air
Analysis Batch: 33794

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
NMOC as Carbon	750	766		ppm-C		102	70 - 130

Method: EPA 3C - Fixed Gases from Stationary Sources

Lab Sample ID: MB 200-33795/3
Matrix: Air
Analysis Batch: 33795

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon dioxide	<0.050		0.050	0.050	% v/v			02/16/12 11:10	1
Methane	<0.040		0.040	0.040	% v/v			02/16/12 11:10	1
Nitrogen	<0.50		0.50	0.50	% v/v			02/16/12 11:10	1
Oxygen	<0.040		0.040	0.040	% v/v			02/16/12 11:10	1

Lab Sample ID: LCS 200-33795/2
Matrix: Air
Analysis Batch: 33795

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Carbon dioxide	5.00	4.96		% v/v		99	70 - 130
Methane	4.00	3.75		% v/v		94	70 - 130
Nitrogen	5.00	4.69		% v/v		94	70 - 130
Oxygen	4.00	3.51		% v/v		88	70 - 130

QC Association Summary

Client: Leggette, Brashears & Graham, Inc.
Project/Site: Refuse Hideaway Landfill

TestAmerica Job ID: 610-1678-1

Air - GC/MS VOA

Analysis Batch: 33705

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
610-1678-1	LFG Sample Port A	Total/NA	Air	TO-15	
LCS 200-33705/4	Lab Control Sample	Total/NA	Air	TO-15	
MB 200-33705/5	Method Blank	Total/NA	Air	TO-15	

Air - GC VOA

Analysis Batch: 33794

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
610-1678-1	LFG Sample Port A	Total/NA	Air	EPA 25C	
LCS 200-33794/2	Lab Control Sample	Total/NA	Air	EPA 25C	
MB 200-33794/3	Method Blank	Total/NA	Air	EPA 25C	

Analysis Batch: 33795

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
610-1678-1	LFG Sample Port A	Total/NA	Air	EPA 3C	
LCS 200-33795/2	Lab Control Sample	Total/NA	Air	EPA 3C	
MB 200-33795/3	Method Blank	Total/NA	Air	EPA 3C	

Lab Chronicle

Client: Leggette, Brashears & Graham, Inc
Project/Site: Refuse Hideaway Landfill

TestAmerica Job ID: 610-1678-1

Client Sample ID: LFG Sample Port A
Date Collected: 02/08/12 12:20
Date Received: 02/13/12 14:50

Lab Sample ID: 610-1678-1
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		10	33705	02/15/12 20:22	PAD	TAL BUR
Total/NA	Analysis	EPA 25C		1.42	33794	02/16/12 12:15	MRV	TAL BUR
Total/NA	Analysis	EPA 3C		1.42	33795	02/16/12 12:15	MRV	TAL BUR

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Certification Summary

Client: Leggette, Brashears & Graham, Inc
Project/Site: Refuse Hideaway Landfill

TestAmerica Job ID: 610-1678-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Watertown		WI Dept of Agriculture (Micro)		105-266
TestAmerica Watertown	Illinois	NELAC	5	100453
TestAmerica Watertown	Wisconsin	State Program	5	128053530
TestAmerica Burlington	ACLASS	DoD ELAP		ADE-1492
TestAmerica Burlington	Connecticut	State Program	1	PH-0751
TestAmerica Burlington	Delaware	Delaware DNREC	3	NA
TestAmerica Burlington	Florida	NELAC Secondary AB	4	E87467
TestAmerica Burlington	Louisiana	NELAC Secondary AB	6	176292
TestAmerica Burlington	Maine	State Program	1	VT00008
TestAmerica Burlington	Minnesota	State Program	5	050-999-436
TestAmerica Burlington	New Hampshire	NELAC	1	200610
TestAmerica Burlington	New Jersey	NELAC	2	VT972
TestAmerica Burlington	New York	NELAC	2	10391
TestAmerica Burlington	Pennsylvania	NELAC	3	68-00489
TestAmerica Burlington	Rhode Island	State Program	1	LAO00298
TestAmerica Burlington	USDA	USDA		P330-11-00093
TestAmerica Burlington	Vermont	State Program	1	VT-4000
TestAmerica Burlington	Virginia	NELAC Secondary AB	3	460209

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Method Summary

Client: Leggette, Brashears & Graham, Inc.
Project/Site: Refuse Hideaway Landfill

TestAmerica Job ID: 610-1678-1

Method	Method Description	Protocol	Laboratory
TO-15	Volatile Organic Compounds in Ambient Air	EPA	TAL BUR
EPA 25C	Nonmethane Organic Compounds (NMOC)	EPA	TAL BUR
EPA 3C	Fixed Gases from Stationary Sources	EPA	TAL BUR

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Sample Summary

Client: Leggette, Brashears & Graham, Inc.
Project/Site: Refuse Hideaway Landfill

TestAmerica Job ID: 610-1678-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
610-1678-1	LFG Sample Port A	Air	02/08/12 12:20	02/13/12 14:50

TestAmerica Burlington
30 Community Drive
Suite 11
South Burlington, VT 05403
phone 802-660-1990 fax 802-660-1919

610-1678

Canister Samples Chain of Custody Record

TestAmerica Analytical Testing Corp. assumes no liability with respect to the collection and shipment of these samples.

Client Contact Information	Project Manager: Jennifer Shelton	Samples Collected By: AFB	1 of 1 COCs
Company: LBG, Inc	Phone: 608-441-5544		
Address: 6409 Odana Rd Ste 11	Email: jshelton@lbgmad.com		
City/State/Zip Madison WI 53719			
Phone: 608-441-5544	Site Contact: Adam Both		
FAX: 608-441-5545	TA Contact: Kathryn Kelly		
Project Name: DNR-RHL	Analysis Turnaround Time		
Site: Refuse Hideaway Landfill	Standard (Specify) X		
PO #	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
1 LFG Sample PortA	2/8/12	1220	1220	-29	-2	4904	4361	X		X	X							X	

Temperature (Fahrenheit)	Interior	Ambient	
Start			
Stop			

Pressure (inches of Hg)	Interior	Ambient	
Start			
Stop			

Special Instructions/QC Requirements & Comments:

Samples Shipped by: Adam Both	Date/Time: 2/8/12 1400	Samples Received by:	
Samples Relinquished by: Adam Both	Date/Time: 2/8/12 1400	Received by: TA BUK 2/10/12 1010	
Relinquished by:	Date/Time:	Received by:	

Lab Use Only Shipper Name: Opened by: Condition:

[redacted]

Login Sample Receipt Checklist

Client: Leggette, Brashears & Graham, Inc.

Job Number: 610-1678-1

Login Number: 1678
List Number: 1
Creator: Stark, Adam

List Source: TestAmerica Watertown

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	False	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

Login Sample Receipt Checklist

Client: Leggette, Brashears & Graham, Inc.

Job Number: 610-1678-1

Login Number: 1678
List Number: 1
Creator: Matot, Wade M

List Source: TestAmerica Burlington
List Creation: 02/14/12 09:54 AM

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	N/A	Not present
The cooler or samples do not appear to have been compromised or tampered with	True	
Samples were received on ice.	N/A	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.