

**Annual Groundwater Monitoring Report
Former Eastgate Landfill
Bellevue, Washington**

July 30, 2015

Prepared for
**The Boeing Company
Seattle, Washington**

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1.0 INTRODUCTION

This report summarizes the results of the interim groundwater monitoring performed in 2015 at the former Eastgate Landfill for The Boeing Company (Boeing). This monitoring report includes an evaluation of the data and recommendations for continued interim groundwater monitoring.

1.1 BACKGROUND

The former Eastgate Landfill was operated by King County from about 1951 until 1964. Thereafter, Cabot, Cabot, & Forbes developed the property, including most of the former landfill, as the I-90 Business Park. Boeing purchased property at the I-90 Business Park, including most of the former landfill, in about 1980. In April 2003, the city of Bellevue (City) purchased approximately 16 acres of the undeveloped portion of the business park property, including a majority of the 9.6-acre former landfill. In December 2005, Schnitzer Northwest LLC (Schnitzer) purchased approximately 13.3 acres of the undeveloped portion of the business park property, including a small portion of the southern edge of the landfill, and, in 2007, began the process of constructing three office buildings around a central courtyard on their property. Construction of the buildings was completed in 2008 and the property was sold to Advanta Office Holdings (Advanta) in 2010.

Under the purchase and sale agreement for the property between Boeing and the City, the City agreed to assume operation of the methane extraction system, and Boeing agreed to retain responsibility for continued groundwater monitoring activities at the site. Although portions of the methane monitoring system and some of the groundwater monitoring wells are located on the Advanta parcel, Boeing continues to be responsible for groundwater monitoring and the City remains responsible for operation of the methane extraction system.

Closure activities performed at the landfill by King County, the City, and Boeing included placement of a cover, groundwater monitoring, leachate collection, and landfill gas collection and combustion. In preparation for the sale of some of the business park property, Boeing requested that the Washington State Department of Ecology (Ecology) make a no-further-action (NFA) determination for the Boeing-owned portion of the landfill. Prior to making that determination, Ecology requested that Boeing conduct additional groundwater monitoring. In July 2000, six monitoring wells (EL-101 through EL-106) were installed around the perimeter of the landfill. Results for four quarterly groundwater monitoring events conducted in 2000-2001 were submitted to Ecology (Landau Associates 2001). Based on those results, Ecology agreed to an interim groundwater monitoring program that included semiannual monitoring during the year 2002 and annual groundwater monitoring thereafter. Ecology also agreed that the number of wells and lists of constituents could be reduced for the interim groundwater monitoring if a constituent or group of constituents is not detected or is detected at concentrations less than or equal to the groundwater screening levels for four consecutive sampling events at a particular well. A work plan for

the interim groundwater monitoring was prepared and submitted to Ecology in March 2002 (Landau Associates 2002a). In 2003, Ecology issued a NFA determination for soil and groundwater, but included requirements for continued monitoring (Ecology 2003). Continued monitoring included interim groundwater monitoring, in accordance with the work plan (Landau Associates 2002a), and confirmational groundwater compliance monitoring.

In 2006, Ecology determined that further action was required to refine the conceptual model of groundwater flow beneath the site and to monitor the impacts on groundwater, if any, due to the Schnitzer development (Ecology 2006). Subsequently, Boeing prepared a work plan (Landau Associates 2006a) to address the further action requirements. The work plan included installation of a piezometer north of the landfill and modification to the frequency and locations of groundwater elevation monitoring. Due to construction activities related to development of the Schnitzer-owned portion of the landfill, the work plan included abandonment and replacement of wells EL-101 and EL-106. Boeing implemented the work plan in 2007. The results for the interim groundwater monitoring conducted since 2002 have been documented in reports previously submitted to Ecology (Landau Associates 2002b, 2003, 2004, 2005, 2006b, 2008, 2009, 2010, 2011a, 2011b, 2012, 2013, and 2014).

This report describes the interim groundwater monitoring performed in 2015.

1.2 SITE DESCRIPTION

The former Eastgate Landfill is located within and adjacent to the I-90 Business Park in Bellevue, Washington. Phantom Lake is located about 2,000 feet (ft) north of and about 83 ft lower in elevation than the former landfill (KCM 1987). The location of the site is shown on Figure 1. The approximate area of the former landfill is shown on Figure 2. A number of office buildings are located in the surrounding business park; however, no buildings have been constructed on the former landfill. The landfill is capped with soil and has a leachate collection system and an active methane collection system in place. In 2008, an office building complex (including three buildings, designated buildings A, B, and C) was constructed by Schnitzer adjacent to the southern end of the landfill. This resulted in construction of low-permeability surfaces (asphalt roadways and parking areas) over a small southern portion of the landfill. Leachate is collected on the north side of the landfill in the French Drain (located on City-owned property) and is discharged to the sanitary sewer. Six monitoring wells (EL-101R, EL-102, EL-103, EL-104, EL-105, and EL-106R), ranging in depth from 26.5 to 75 ft below ground surface (BGS), are located along the perimeter of the landfill. A piezometer, EL-107, is located approximately 450 ft north of the landfill on City-owned property. Monitoring well and piezometer locations are shown on Figure 2. Methane gas extraction wells are also located within the limits of the solid waste landfill and methane gas monitoring wells are located along the perimeter of the landfill, as shown on Figure 2.

2.0 GROUNDWATER MONITORING ACTIVITIES

This section describes water level measurement, groundwater sampling, and groundwater analyses associated with the annual groundwater monitoring event conducted on May 7, 2015.

2.1 WATER LEVEL MEASUREMENTS

In accordance with the planned scope for interim groundwater monitoring presented in the 2014 annual report (Landau Associates 2014), static water levels were measured at each of the six wells (EL-101R, EL-102, EL-103, EL-104, EL-105, and EL-106R); at piezometer EL-107; and at Pond A. Water levels were measured in conjunction with the May 7, 2015 groundwater monitoring event. The depth to groundwater was measured to the nearest 0.01 ft from the top of the polyvinylchloride (PVC) casing (north side of casing) to groundwater using an electric water level indicator. Depth to water measurements at each well and the piezometer were converted to groundwater elevations using surveyed elevations for the top of the PVC casing. At Pond A, water level was measured utilizing the staff gauge installed in the pond. This measurement was converted to a surface water elevation using the surveyed elevation for the top of the staff gauge. Groundwater and surface water elevations are listed in Table 1. The calculated groundwater and surface water elevations were then used to prepare elevation contours of the groundwater surface (shown on Figure 3).

2.2 GROUNDWATER SAMPLING

Groundwater monitoring was conducted in accordance with the *Further Action Groundwater Monitoring Work Plan* (Landau Associates 2006a), subsequent scope reductions [described in the 2009 and 2010 Annual Groundwater Monitoring reports (Landau Associates 2010 and 2011a)], and the *Confirmational Groundwater Sampling Work Plan* (Landau Associates 2002a). Groundwater samples were collected from wells EL-103, EL-105, and EL-106R, and a surface water sample was collected from the French Drain. Sample collection was performed on May 7, 2015.

Groundwater samples were collected from these wells using the procedures described in the *Confirmational Groundwater Monitoring Work Plan* (Landau Associates 2002a) with the following exceptions:

- The sample procedures presented in the *Confirmational Groundwater Monitoring Work Plan* (Landau Associates 2002a) describe the use of dedicated bailers to collect groundwater samples. However, dedicated bladder pumps installed in wells EL-103 and EL-105 were used to purge these wells and to collect groundwater samples. No bladder pump has been installed in well EL-106R; therefore, purging and sampling at this well was performed using a disposable bailer.
- The surface water sample collected from the French Drain was collected using a peristaltic pump.

Each groundwater sample and the surface water sample were collected in appropriate containers, labeled, logged on a chain-of-custody (COC) document, and kept on ice until delivered to the laboratory.

Sample containers, preservatives, and holding times were appropriate for the types of samples collected and the specified analytical methods, in accordance with the *Groundwater Monitoring Work Plan* (Landau Associates 2000).

At the conclusion of sampling, the COC was sealed in a plastic bag and taped inside the cooler lid. The cooler was closed with strapping tape and a custody seal until delivery to the laboratory. Sample custody and documentation in the field and during transportation to the laboratory was conducted in general conformance with the procedures described in the *Confirmational Groundwater Monitoring Work Plan* (Landau Associates 2002a). Sample bottles were obtained new or pre-cleaned from the analytical laboratory.

One blind field duplicate sample, EL-100, was collected at well EL-103. A field trip blank was provided by the analytical laboratory, stored with the collected samples, and analyzed for volatile organic compounds (VOCs).

2.3 GROUNDWATER ANALYSIS

In accordance with the current approved scope of interim groundwater monitoring (Landau Associates 2006a) and the scope reductions described in the 2010 Annual Groundwater Monitoring Reports (Landau Associates 2011a), chemical analysis of the samples collected at the three monitoring wells consisted of the following:

- Volatile Organic Compounds (VOCs) by U.S. Environmental Protection Agency (EPA) Method 8260C at well EL-103.
- Dissolved metals (iron and manganese) by EPA Method 6010B at wells EL-103, EL-105, and EL-106R.
- Dissolved metals (arsenic) by EPA Method 200.8 at wells EL-103 and EL-105.

Samples for dissolved metals analysis (iron, manganese, and arsenic) were field-filtered using a 0.45 micron filter.

The surface water sample collected from the French Drain was analyzed for the following compounds:

- VOCs by EPA Method 8260C
- Dissolved metals (iron, manganese) by EPA Method 6010B
- Chloride by EPA Method 300.0
- N-Ammonia by Standard Method SM20 4500D
- N-Nitrate calculated
- N-Nitrite by EPA Method 353.2
- Nitrate + Nitrite by EPA Method 353.2
- Sulfate by EPA Method 300.0
- Total Organic Carbon (TOC) by Standard Method SM20 5310C
- Chemical Oxygen Demand (COD) by EPA Method 410.4.

3.0 GROUNDWATER MONITORING RESULTS

This section presents the results of the 2015 annual groundwater monitoring that includes groundwater level data and groundwater quality data.

3.1 GROUNDWATER LEVELS

Previous investigations at the site identified two aquifers below the site: a shallow perched aquifer and a deeper intermediate aquifer. The shallow perched aquifer is encountered in the solid waste and alluvial materials and, in some locations, the glacial till underlying the fill and alluvial materials. The deeper intermediate aquifer (advance outwash aquifer) is encountered in the advance outwash. The site monitoring wells and piezometer are screened in the advance outwash aquifer and, therefore, monitor groundwater in the advance outwash aquifer. Groundwater elevations calculated using water level measurements collected from each monitoring well and piezometer and a surface water level measurement at the staff gauge in Pond A in May 2015 were used to evaluate groundwater flow direction in the advance outwash aquifer. The calculated groundwater elevations are presented in Table 1. Groundwater elevation contours were plotted using the calculated groundwater elevations and are shown on Figure 3. The contours indicate the groundwater at the landfill has a generally easterly flow, which is consistent with flow directions previously observed at the landfill (Landau Associates 2001, 2002b, 2003, 2004, 2005, 2006b, 2008, 2009, 2010, 2011a, 2011b, 2012, 2013, and 2014).

3.2 GROUNDWATER QUALITY

Eurofins Lancaster Laboratories Environmental (LLI) located in Lancaster, Pennsylvania, conducted the analyses of the groundwater samples using the analytical procedures referenced in Section 2.3. Following receipt of the analytical results, the data was validated as described in Section 4.2 of the *Confirmational Groundwater Monitoring Work Plan* (Landau Associates 2002a). A summary of the analytical results (with data qualifiers added as appropriate) for the 2015 annual sampling event and historical events at each well is provided in Table 2. Concentrations of detected constituents in the groundwater and surface water samples for the last four sampling events (May 2012, May 2013, May 2014, and May 2015) at wells EL-103, EL-105, EL-106R, and the French Drain were tabulated and are presented in Table 3. The laboratory data reports for the 2015 sampling event are provided in Appendix A. A data quality evaluation for the 2015 sampling event is provided in Appendix B.

The groundwater analytical results for the 2015 annual sampling event indicate the presence of dissolved arsenic, dissolved iron, and dissolved manganese at concentrations above screening levels [0.004 milligrams per liter (mg/L), 0.3 mg/L, and 0.05 mg/L, respectively] at downgradient wells EL-103

and EL-105. The concentration of 1,4-dichlorobenzene [2.2 micrograms per liter ($\mu\text{g}/\text{L}$)] at well EL-103 was also above the screening level (1.8 $\mu\text{g}/\text{L}$). These results are consistent with previous results at these locations.

At crossgradient/downgradient well EL-106R, dissolved iron and dissolved manganese concentrations were above the screening levels, and at the French Drain dissolved iron, dissolved manganese, and 1,4-dichlorobenzene concentrations were above screening levels. These results are consistent with previous results at these locations.

4.0 SCOPE OF CONTINUED INTERIM GROUNDWATER MONITORING

Prior to initiating the final eight confirmational groundwater sampling events (which include analysis for a larger list of constituents), interim groundwater monitoring is being conducted on an annual schedule. Analytical results from this interim monitoring are used to evaluate the likelihood of achieving the confirmational groundwater screening levels and to adjust the scope of continued interim monitoring, as needed.

As shown in Table 3, dissolved metals (arsenic, iron, and manganese) have been detected above the screening level at each location (EL-103, EL-105, and EL-106R) where they have been monitored during the last four quarterly monitoring events. At well EL-103, 1,4-dichlorobenzene has also been detected above the screening level during the last four quarterly monitoring events. These results suggest that achieving confirmational groundwater screening levels is unlikely at this time. As a result, groundwater monitoring at the landfill will continue as an interim program for 2016, and no change to the analyte list is recommended for 2016.

The scope for the 2016 annual interim groundwater monitoring is summarized below and is presented in Table 4:

- Groundwater elevation measurement at monitoring wells EL-101R, EL-102, EL-103, EL-104, EL-105, and EL-106R, and at piezometer EL-107
- Surface water elevation measurement at Pond A
- Chemical analysis as follows:
 - EL-103 for VOCs and dissolved metals (arsenic, iron, and manganese)
 - EL-105 for dissolved metals (arsenic, iron, and manganese)
 - EL-106R for dissolved metals (iron and manganese)
 - French Drain for VOCs, dissolved metals (iron and manganese), and conventional parameters.

The scope of groundwater monitoring will be re-evaluated following the 2016 sampling event.

5.0 SCHEDULE AND REPORTING

The annual groundwater monitoring will be conducted in May 2016 and, in accordance with the *Further Action Groundwater Monitoring Work Plan*, annual groundwater monitoring activities and results will be documented in a report and submitted to Ecology.

6.0 USE OF THIS REPORT

This annual report has been prepared for the exclusive use of The Boeing Company and applicable regulatory agencies for specific application to the former Eastgate Landfill. No other party is entitled to rely on the information, conclusions, and recommendations included in this document without the express written consent of Landau Associates. Further, the reuse of information, conclusions, and recommendations provided herein for extensions of the project or for any other project, without review and authorization by Landau Associates, shall be at the user's sole risk. Landau Associates warrants that within the limitations of scope, schedule, and budget, our services have been provided in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions as this project. We make no other warranty, either express or implied.

We appreciate the opportunity to provide these services and look forward to assisting you in subsequent projects. Please contact us if you have any questions regarding the information contained in this report.

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0 0.5 1
Miles



Data Source: Esri 2012

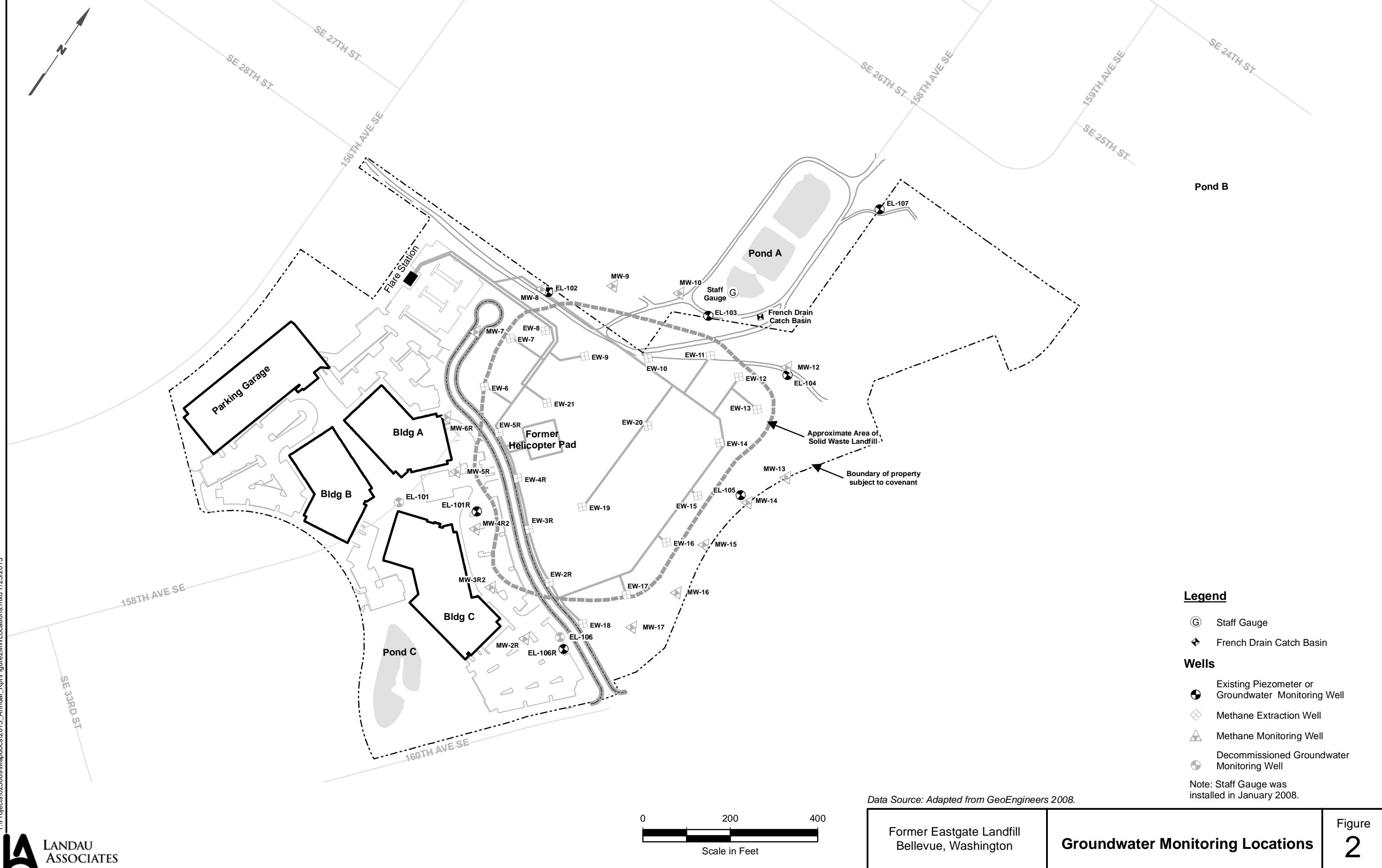
Former Eastgate Landfill
Bellevue, Washington

Vicinity Map

Figure
1



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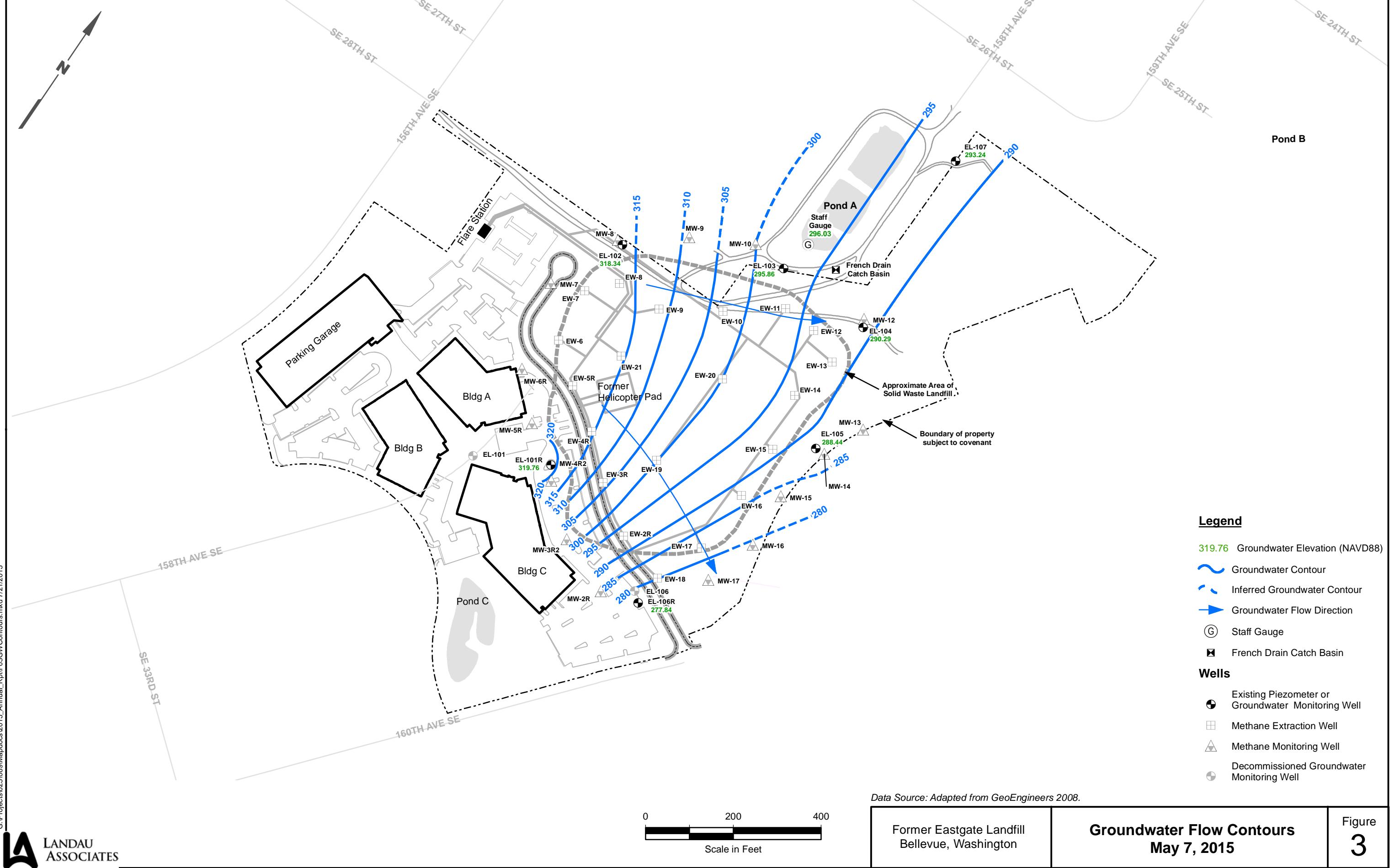


TABLE 1
SUMMARY OF GROUNDWATER ELEVATIONS
FORMER EASTGATE LANDFILL

Well Name	Top of Casing Elevation	WATER ELEVATION																				
		3/18/2002 Water Elevation	8/28/2002 Water Elevation	4/17/2003 Water Elevation	4/8/2004 Water Elevation	5/9/2005 Water Elevation	5/9/2006 Water Elevation	10/9/2007 Water Elevation	1/29/2008 Water Elevation	4/10/2008 Water Elevation	7/9/2008 Water Elevation	10/21/2008 Water Elevation	2/13/2009 Water Elevation	6/24/2009 Water Elevation	9/24/2009 Water Elevation	11/11/2009 Water Elevation	5/13/2010 Water Elevation	5/23/2011 Water Elevation	5/8/2012 Water Elevation	5/13/2013 Water Elevation	5/13/2014 Water Elevation	5/7/2015 Water Elevation
EL-101	349.56	NM	322.42	317.05	326.06	323.81	326.21	-- (a)	--	--	--	--	--	--	--	--	--	--	--	--	--	
EL-101R	347.20	--	--	--	--	--	--	317.04	319.61	--	318.52	319.66	302.02	317.74	317.97	318.30	319.02	320.94	320.30	319.83	320.17	322.12
EL-102	352.83	315.41	318.13	313.81	316.63	313.42	317.01	316.01	313.35	314.38	315.03	313.72	313.45	315.06	313.03	311.83	317.16	322.38	317.22	319.85	317.34	312.71
EL-103	310.07	293.49	292.90	293.47	293.94	294.90	295.43	295.05	295.98	296.03	294.64	294.65	295.33	295.24	294.49	294.85	295.48	296.47	296.68	296.05	296.11	338.62
EL-104	345.33	NM	289.50	288.55	289.33	288.60	289.68	289.51	289.26	289.45	289.42	288.52	288.69	288.95	288.42	288.11	289.32	291.13	290.66	290.53	289.95	255.03
EL-105	343.69	287.25	287.39	286.91	287.48	286.65	287.87	287.47	287.21	287.45	287.19	286.59	286.79	287.05	286.49	286.14	287.47	289.27	288.56	288.59	288.14	290.08
EL-106	345.55	288.93	278.77	278.89	279.15	277.99	279.68	-- (a)	--	--	--	--	--	--	--	--	--	--	--	--	--	
EL-106R	346.17	--	--	--	--	--	--	276.78	276.48	276.73	276.66	276.38	276.41	276.71	276.37	276.25	277.23	278.78	277.76	277.95	277.73	275.36
EL-107	313.43	--	--	--	--	--	--	291.90	292.20	292.74	292.11	291.51	291.39	291.96	291.15	291.05	292.54	292.95	292.92	292.80	292.28	325.36
Pond A/Staff Gauge (b)	301.52	--	--	--	--	--	--	NM	296.30	296.52	296.20	296.22	296.24	296.20	296.18	296.31	296.24	296.23	295.92	296.07	296.02	340.68

(a) Monitoring wells EL-101 and EL-106 were abandoned in 2007.

(b) Staff Gauge Top of Casing Elevation is the surveyed elevation of the top of the staff guage, which measures 6.4 ft in length.

Notes:

Horizontal Datum: NAD 83(91)

Vertical Datum: NAVD 88

To convert elevation shown herein to NGVD 29 Datum subtract 3.48 ft.

TABLE 2
SUMMARY OF GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS
2013 ANNUAL AND HISTORICAL SAMPLING EVENTS
FORMER EASTGATE LANDFILL

Sample Location: Lab Sample ID: Lab Data Package ID: Date Collected:	EL-103 BY07C 7/28/2000	EL-103-Dup BY07G 7/28/2000	EL-103 CO72D 12/13/2000	EL-103-SDup B0L0365-02 CO72 12/13/2000	EL-103 CX61C 3/29/2001	EL-103 DG04C 6/14/2001	EL-103-SDup DG04G DG04 6/14/2001	EL-103 EE52C 6/14/2001	EL-103 ER96C 3/18/2002	EL-103 ER96 8/28/2002	EL-103 FK21D 4/17/2003	EL-103 GN17B 4/8/2004	EL-103-DUP GN17C 4/8/2004	EL-103 IA68D 5/9/2005	EL-103 J158D 5/9/2006	EL-103-DUP J158F 5/9/2006	EL-103 LT43D 10/10/2007	EL-103-DUP LT43B 10/10/2007	EL-103 NV83F 10/21/2008
VOLATILES (µg/L)																			
Method SW8260B/C																			
1,1,1,2-Tetrachloroethane	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.4 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	
1,1,1-Trichloroethane	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.4 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	
1,1,2,2-Tetrachloroethane	1.0 U	1.0 U	0.2 U	0.5 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.4 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	
1,1,2-Trichloro-1,2,2-trifluoroethane	2.0 U	2.0 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.4 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	
1,1,2-Trichloroethane	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.4 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	
1,1-Dichloroethane	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.4 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	
1,1-Dichloroethene	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.4 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	
1,1-Dichloropropene	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.4 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	
1,2,3-Trichlorobenzene	5.0 U	5.0 U	0.5 U	0.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
1,2,3-Trichloropropane	3.0 U	3.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
1,2,4-Trichlorobenzene	5.0 U	5.0 U	0.5 U	0.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
1,2,4-Trimethylbenzene	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.4	0.4 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	
1,2-Dibromo-3-chloropropane	5.0 U	5.0 U	1.0 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U	2.0 U	2.0 U	2.0 U	0.5 U	0.5 U	0.5 U	
1,2-Dichlorobenzene	1.0 U	1.0 U	1.0	0.939	1.3	1.3	1.4	1.9	1.9	1.8	1.9	1.7	1.8	1.7	1.7	1.4	1.4	1.3	
1,2-Dichloroethane	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.4 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	
1,2-Dichloropropane	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.4 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	
1,3,5-Trimethylbenzene	1.0 U	1.0 U	0.2 U	0.5 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.4 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	
1,3-Dichlorobenzene	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.4 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	
1,3-Dichloropropane	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.4 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	
1,4-Dichlorobenzene	1.0 U	1.0 U	0.7	0.674	1.1	1.0	1.1	2.0	1.8	2.3	2.4	2.2	2.4	1.7	1.7	1.7	1.5	1.5	
2,2-Dichloropropane	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.4 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	
2-Butanone	5.0 U	5.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	2.5 U	
2-Chloroethylvinylether	R	R	0.5 U	NA	R	R	R	R	R	0.5 U	1.0 U	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	
2-Chlorotoluene	1.0 U	1.0 U	0.2 U	0.5 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.4 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	
2-Hexanone	5.0 U	5.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.0 U	2.5 U	
4-Chlorotoluene	1.0 U	1.0 U	0.2 U	0.5 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.4 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	
4-Isopropyltoluene	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.4 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	
4-Methyl-2-Pentanone (MIBK)	5.0 U	5.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	
Acetone	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.7	2.1	3.6	3.7	1.8	2.9 U	3.5 U	3 U	3 U	
Acrolein	50 U	50 U	50 U	NA	50 U	50 U	50 U	50 U	50 U	10 U	10 U	10 U	50 U	50 U	50 U	50 U	50 U	50 U	
Acrylonitrile	5.0 U	5.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Benzene	6.1	6.5	4.7	4.98	4.9	4.4	4.7	5.8 J	5.3	5.3	5.5	5.1	5.6	6.4	6.2	6.3	5.1	5.1	
Bromobenzene	1.0 U	1.0 U	0.2 U	0.5 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.4 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	
Bromochloromethane	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U	0												

TABLE 2
SUMMARY OF GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS
2013 ANNUAL AND HISTORICAL SAMPLING EVENTS
FORMER EASTGATE LANDFILL

	Sample Location: Lab Sample ID: Lab Data Package ID: Date Collected:	EL-103 BY07C 7/28/2000	EL-103-Dup BY07G 7/28/2000	EL-103 CO72D 12/13/2000	EL-103-SDup B0L0365-02 12/13/2000	EL-103 CX61C 3/29/2001	EL-103 DG04C 6/14/2001	EL-103-SDup DG04G 6/14/2001	EL-103 EE52C 3/18/2002	EL-103 ER96C 8/28/2002	EL-103 FK21D 4/17/2003	EL-103 GN17B 4/8/2004	EL-103-DUP GN17C 4/8/2004	EL-103 IA68D 5/9/2005	EL-103 J158D 5/9/2006	EL-103-DUP J158F 5/9/2006	EL-103 LT43D 10/10/2007	EL-103-DUP LT43B 10/10/2007	EL-103 NV83F 10/21/2008
trans-1,2-Dichloroethene		1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.4 U	0.4 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	
trans-1,3-Dichloropropene		1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.4 U	0.4 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	
trans-1,4-Dichloro-2-butene		5.0 U	5.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Trichloroethene		1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.4 U	0.4 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	
Trichlorofluoromethane		1.0 U	1.0 U	0.2 U	0.5 U	0.2 U	0.2 U	0.2 U	0.2 U	0.4 U	0.4 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	
Vinyl Acetate		5.0 U	5.0 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.4 U	0.4 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	
Vinyl Chloride		1.0 U	1.0 U	0.2 U	0.968	0.5	0.4	0.4	0.3	0.2 U	0.4 U	0.4 U	0.4 U	0.2	0.2 U	0.2 U	0.2 U	0.2 U	
PESTICIDES (µg/L) Method 8081A																			
Dieldrin		0.10 U	0.10 U	0.10 U	0.07 U	0.10 U	0.10 U	0.0033 U	0.010 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	
DISSOLVED METALS (mg/L)																			
Arsenic (7060A/200.8)		0.044	0.044	0.039	0.0516	0.040	0.036	0.036	0.028	0.033	0.030	0.031	0.031	0.030	0.037	0.037	0.0152	0.0157	
Cadmium (6010)		0.002 U	0.002 U	0.002 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	NA	NA	NA	NA	NA	NA	
Chromium (6010)		0.005 U	0.005 U	0.005 U	0.00352	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	NA	NA	NA	NA	NA	NA	
Iron (6010B/200.8)		14.8	14.7	11.7	13.1	12.1	11.9	12.1	16.6	14.4	16.8	18.8	17.7	19.7	26.5	26.2	6.7	7.25	
Manganese (6010B/200.8)		3.97	3.91	2.81	0.520	2.84	2.53	2.51	3.36	2.72	3.01	3.16	3.00	3.03	4.66	4.69	3.40	3.54	
CONVENTIONALS																			
Chloride (mg/L) (325.2, 300.0)		23	24	13	16.0	18	16	17	30	22	26	23.3	23.0	NA	NA	NA	NA	NA	
N-Ammonia (mg-N/L) (350.1M, SM4500-NH3D)		100	98	87	85.4	67	62	65	76	81	72	82.6	74.6	NA	NA	NA	NA	NA	
N-Nitrate (mg-N/L) (calc.)		0.010 U	0.010 U	0.010 U	0.1 U	0.019	0.022	0.015	0.010 U	0.026	0.011	0.010 U	0.010 U	NA	NA	NA	NA	NA	
N-Nitrite (mg-N/L) (353.2)		0.010 U	0.012	0.011	0.1 U	0.010 U	0.010 U	0.010 U	0.045	0.010	0.010 U	0.049	0.038	NA	NA	NA	NA	NA	
Nitrate + Nitrite (mg-N/L) (353.2)		0.010 U	0.010 U	0.015	NA	0.019	0.022	0.015	0.032	0.036	0.011	0.032	0.023	NA	NA	NA	NA	NA	
Sulfate (mg/L) (375.2, 300.0)		19	18	11	2.37	9.2	8.8	9.2	6.1	9.5	6.3	8.6 J	7.8 J	NA	NA	NA	NA	NA	
Chemical Oxygen Demand (mg/L) (410.4)		64	70	50 UJ	22.5	37	47	47	55	53	NA	54	55	NA	NA	NA	NA	NA	
Total Organic Carbon (mg/L) (415.1, SM5310C)		24	22	22	20.0 U	20	16	18	19	18	NA	18.7	18.9	NA	NA	NA	NA	NA	
Un-ionized Ammonia (µg NH ₃ /L) (a)																			
Minimum (b)		40	39	34	34	26	24	26	30	32	28	32.6	29.5	NC	NC	NC	NC	NC	
Maximum (c)		36000	36000	32000	31000	24000	22000	24000	28000	29000	26000	30000	27100	NC	NC	NC	NC	NC	
FIELD PARAMETERS																			
pH		6.24	6.24	6.8	6.8	6.54	6.93	6.93	6.71	6.49	6.59	6.65	6.65	6.72	6.58	6.58	7.51	7.51	
Temperature (°C)		20.9	20.9	11.7	11.7	14.0	15.3	15.3	10.6	13.3	11.0	11.1	11.1	11.3	11.0	11.0	11.9	11.6	
Specific Conductivity (µS)		1129	1129	1385	1385	1348	1334	1334	1179	1112	1133	1158	1158	1138	1126	1126	1074	1172	

TABLE 2
SUMMARY OF GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS
2013 ANNUAL AND HISTORICAL SAMPLING EVENTS
FORMER EASTGATE LANDFILL

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SUMMARY OF GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS
2013 ANNUAL AND HISTORICAL SAMPLING EVENTS
FORMER EASTGATE LANDFILL

	Sample Location: Lab Sample ID: Lab Data Package ID: Date Collected:	EL-108 EL-103-DUP NV83C	EL-108 EL-103-DUP PE53C	EL-100 EL-103-DUP QW57D	EL-100 EL-103-DUP QW57F	EL-100 EL-103-DUP SY24A	EL-100 EL-103-DUP SY24B	EL-100 EL-103-DUP 6644943	EL-100 EL-103-DUP 6644945	EL-100 EL-103-DUP 7055035	EL-100 EL-103-DUP 7055037	EL-100 EL-103-DUP 7462651	EL-100 EL-103-DUP 7462647	EL-100 EL-103-DUP 1474176	EL-100 EL-103-DUP 1474176	EL-100 EL-103-DUP 1559679	EL-100 EL-103-DUP 1559679	EL-105 BY07E	EL-105 CO72C	
trans-1,2-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	1.0 U	0.2 U	
trans-1,3-Dichloropropene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	1.0 U	0.2 U	
trans-1,4-Dichloro-2-butene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	
Trichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	
Trichlorofluoromethane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 U	
Vinyl Acetate	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5.0 U	0.2 U	
Vinyl Chloride	0.2 U	0.2	0.2 U	0.2 U	0.2	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	1.0 U	0.2
PESTICIDES (µg/L) Method 8081A																				
Dieldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.10 U	0.10 U	
DISSOLVED METALS (mg/L)																				
Arsenic (7060A/200.8)	0.037	0.035	0.0351	0.0337	0.0345	0.0349	0.0362	0.0338	0.0348	0.0289	0.0282	0.0332	0.0335	0.0352	0.0363	0.008	0.009			
Cadmium (6010)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.002 U	0.002 U	
Chromium (6010)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.005 U	0.005 U	
Iron (6010B/200.8)	18.2	22.3	23.1	21.8	21.9	22.9	22.2	20.2	20.5	20.8	20.4	23.2	20.9	22.6	21.1	5.61	6.34			
Manganese (6010B/200.8)	3.02	3.18	3.21	2.95	3.04	3.3	3.19	2.93	3.26	3.64	3.68	3.78	3.41	2.97	2.83	6.04	5.64			
CONVENTIONALS																				
Chloride (mg/L) (325.2, 300.0)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.9	3.7	
N-Ammonia (mg-N/L) (350.1M, SM4500-NH3D)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.9	3.8	
N-Nitrate (mg-N/L) (calc.)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.010 U	0.010 U	
N-Nitrite (mg-N/L) (353.2)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.010 U	0.010 U	
Nitrate + Nitrite (mg-N/L) (353.2)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.010 U	0.010 U	
Sulfate (mg/L) (375.2, 300.0)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	26	28	
Chemical Oxygen Demand (mg/L) (410.4)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	13	7.6 UJ	
Total Organic Carbon (mg/L) (415.1, SM5310C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.1	3.7	
Un-ionized Ammonia (µg NH ₃ /L) (a)																				
Minimum (b)	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	1.1	1.5	
Maximum (c)	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	1100	1400	
FIELD PARAMETERS																				
pH	7.26	6.93	6.93	7.59	7.59	6.51	6.51	5.99	5.99	6.01	6.01	7.59	7.59	6.36	6.36	5.78	6.4			
Temperature (°C)	11.6	11.5	11.5	12.1	12.1	10.7	10.7	10.7	10.7	10.7	10.7	10.9	10.9	11.3	11.3	19.6	12.6			
Specific Conductivity (µS)	1172	225	225	2402	2402	950	950	1071	1071	886	886	996	996	1054	1054	244	360			

TABLE 2
SUMMARY OF GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS
2013 ANNUAL AND HISTORICAL SAMPLING EVENTS
FORMER EASTGATE LANDFILL

	Sample Location: Lab Sample ID: Lab Data Package ID: Date Collected:	EL-105-SDup CX61E CX61	EL-105 CX61G CX61	EL-105-Dup DG04E DG04	EL-105 EE52F EE52	EL-105 ER96A ER96	EL-105 FK21A FK21	EL-105 GN17F GN17	EL-105 IA68A IA68	EL-105 J158A J158	EL-105 LT43A LT43	EL-105 NV83B NV83	EL-105 PE53G PE53	EL-105 QW57A QW57	EL-105 SY24C SY24	EL-105 6644947 1307589	EL-105 7055039 1389676	EL-105 7462650 1474176
VOLATILES (µg/L) Method SW8260B/C																		
1,1,1,2-Tetrachloroethane		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	NA							
1,1,1-Trichloroethane		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	NA							
1,1,2,2-Tetrachloroethane		0.5 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	NA							
1,1,2-Trichloro-1,2,2-trifluoroethane		NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	NA							
1,1,2-Trichloroethane		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	NA							
1,1-Dichloroethane		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	NA							
1,1-Dichloroethene		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	NA							
1,1-Dichloropropene		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	NA							
1,2,3-Trichlorobenzene		0.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	NA							
1,2,3-Trichloropropane		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	NA							
1,2,4-Trichlorobenzene		0.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	NA							
1,2,4-Trimethylbenzene		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	NA							
1,2-Dibromo-3-chloropropane		0.5 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	NA	NA	NA							
1,2-Dichlorobenzene		0.2 U	0.2 U	0.2 U	0.2	0.2	0.2 U	0.2	NA	NA	NA							
1,2-Dichloroethane		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	NA							
1,2-Dichloropropane		0.227	0.2 U	0.2 U	0.2	0.2	0.2	0.2	NA	NA	NA							
1,3,5-Trimethylbenzene		0.5 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	NA							
1,3-Dichlorobenzene		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	NA							
1,3-Dichloropropane		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	NA							
1,4-Dichlorobenzene		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	NA							
2,2-Dichloropropane		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	NA							
2-Butanone		2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	NA	NA							
2-Chloroethylvinylether		NA	R	R	R	0.5 U	0.5 U	0.5 U	NA	NA	NA							
2-Chlorotoluene		0.5 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	NA							
2-Hexanone		2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	NA	NA							
4-Chlorotoluene		0.5 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	NA							
4-Isopropyltoluene		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	NA							
4-Methyl-2-Pentanone (MIBK)		2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	NA	NA							
Acetone		5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.3 U	1.1	NA	NA	NA							
Acrolein		NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	NA							
Acrylonitrile		NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	NA	NA							
Benzene		0.304	0.3	0.2	0.3	0.3	0.2	0.2	NA	NA	NA							
Bromobenzene		0.5 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	NA							
Bromochloromethane		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	NA							
Bromodichloromethane		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	NA							
Bromoethane		NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	NA							
Bromoform		0.2 U	0.5 U	0.5 U	0.5 U	0.2 U	0.2 U	0.2 U	NA	NA	NA							
Bromomethane		1.0 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	NA							
Carbon Disulfide		0.5 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	NA							
Carbon Tetrachloride		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	NA							
Chlorobenzene		0.2 U	0.2	0.2	0.3	0.3	0.2	0.3 J	0.3	NA	NA	NA						
Chloroethane		1.0 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	NA							
Chloroform		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	NA							
Chloromethane		1.0 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	NA							
cis-1,2-Dichloroethene		2.10	1.8	1.8	1.7	1.6	1.7	1.7	1.4	NA	NA	NA						

TABLE 2
SUMMARY OF GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS
2013 ANNUAL AND HISTORICAL SAMPLING EVENTS
FORMER EASTGATE LANDFILL

	Sample Location: Lab Sample ID: Lab Data Package ID: Date Collected:	EL-105-SDup CX61E BOL0365 3/29/2001	EL-105 CX61G CX61 3/29/2001	EL-105-Dup DG04E CX61 6/14/2001	EL-105 EE52F DG04 3/18/2002	EL-105 ER96A EE52 8/28/2002	EL-105 FK21A ER96 4/17/2003	EL-105 GN17F FK21 4/8/2004	EL-105 IA68A GN17 5/9/2005	EL-105 J158A IA68 5/9/2006	EL-105 LT43A J158 5/9/2006	EL-105 NV83B LT43 10/10/2007	EL-105 PE53G NV83 10/21/2008	EL-105 QW57A PE53 6/25/2009	EL-105 SY24C QW57 5/13/2010	EL-105 SY24 5/13/2010	EL-105 6644947 SY24 05/23/2011	EL-105 7055039 SY24 5/8/2012	EL-105 7462650 1389676 1474176 05/13/2013	EL-105 7462650 1389676 1474176 05/13/2014
trans-1,2-Dichloroethene	0.201	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
trans-1,3-Dichloropropene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
trans-1,4-Dichloro-2-butene	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Trichloroethene	0.323	0.3	0.3	0.2	0.3	0.3	0.3	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Trichlorofluoromethane	0.5 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Vinyl Acetate	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Vinyl Chloride	0.2 U	0.2 U	0.2 U	0.2	0.8	0.5	0.3	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
PESTICIDES (µg/L) Method 8081A																				
Dieldrin	0.07 U	0.10 U	0.10 U	0.10 U	0.0033 U	0.010 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
DISSOLVED METALS (mg/L)																				
Arsenic (7060A/200.8)	0.00994	0.010	0.011	0.010	0.005	0.005	0.007	0.005	0.008	0.006	0.004	0.004	0.0071	0.0098	0.0086	0.0048	0.0088	0.0072	0.009	
Cadmium (6010)	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Chromium (6010)	0.001 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Iron (6010B/200.8)	6.91	7.63	7.77	7.08	3.78	3.25	6.23	3.44	6.30	4.27	2.92	7.10	7.92	6.93	3.20	6.9	6.12	6.42		
Manganese (6010B/200.8)	5.27	5.75	5.80	5.11	4.17	3.56	4.66	3.66	4.19	3.92	3.76	4.7	4.70	4.03	3.06	4.26	4.60	4.49		
CONVENTIONALS																				
Chloride (mg/L) (325.2, 300.0)	3.82	4.9	4.5	4.1	5.4	4.7	4.0	3.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
N-Ammonia (mg-N/L) (350.1M, SM4500-NH3D)	6.35	2.7	2.7	2.4	1.8	1.6	2.0	1.47	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
N-Nitrate (mg-N/L) (calc.)	0.1 U	0.013	0.014	0.13	0.22	0.040	0.026	0.112	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
N-Nitrite (mg-N/L) (353.2)	0.1 U	0.010 U	0.010 U	0.010 U	0.026	0.010 U	0.010 U	0.013	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Nitrate + Nitrite (mg-N/L) (353.2)	NA	0.013	0.014	0.13	0.25	0.040	0.026	0.125	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Sulfate (mg/L) (375.2, 300.0)	28.1	24	24	27	23	31	23	24.8 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Chemical Oxygen Demand (mg/L) (410.4)	10.0 U	10	7.2	16	14	10	NA	9.80	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Total Organic Carbon (mg/L) (415.1, SM5310C)	8.61	5.5	5.2	3.7	3.9	1.6	NA	4.42	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Un-ionized Ammonia (µg NH ₃ /L) (a)																				
Minimum (b)	2.5	1.1	1.1	0.95	0.71	0.63	0.79	0.6	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	
Maximum (c)	2300	979	979	870	653	580	725	533	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	
FIELD PARAMETERS																				
pH	6.4	6.24	6.24	6.52	6.47	6.84	6.38	6.32	6.75	6.1	6.92	6.16	6.88	6.63	6.08	5.22	5.54	6.43		
Temperature (°C)	12.6	16.4	16.4	18.4	12.9	14.1	13.2	13.6	13.4	13.7	14.3	13.6	13.9	15.4	13.9	13.5	13.5	13.3		
Specific Conductivity (µS)	360	359	359	375	242	252	289	245	301	285	271	347	66	8.11	303	339	273			

TABLE 2
SUMMARY OF GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS
2013 ANNUAL AND HISTORICAL SAMPLING EVENTS
FORMER EASTGATE LANDFILL

TABLE 2
SUMMARY OF GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS
2013 ANNUAL AND HISTORICAL SAMPLING EVENTS
FORMER EASTGATE LANDFILL

Sample Location: Lab Sample ID: Lab Data Package ID: Date Collected:	EL-105 7879588 1559679 5/7/2015	EL-106 BY07F CO72B BY07 CO72 7/28/2000	EL-106-SDup CX61F B0L0318-03 CO72 B0L0365 12/13/2000	EL-106 DG04F EE52E DG04 6/14/2001	EL-106 EE52 ER96 EE52 3/18/2002	EL-106 ER96B FK21 ER96 8/28/2002	EL-106 FK21B GN17 FK21 4/17/2003	EL-106 GN17E IA68B IA68 4/8/2004	EL-106-DUP IA68F IA68 5/9/2005	EL-106 IA68 J158 5/9/2005	EL-106R LT21B LT21 5/9/2006	EL-106R LT21B LT21 10/10/2007	EL-106R NV83A NV83 10/21/2008	EL-106R PE53E PE53 6/24/2009	EL-106R QW57B QW57 6/13/2010	EL-106R SY24D SY24 5/23/2011
trans-1,2-Dichloroethene	NA	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	NA	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene	NA	5.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	NA	1.0 U	0.2 U	0.5 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA	NA
Vinyl Acetate	NA	5.0 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	NA	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA	NA
PESTICIDES (µg/L) Method 8081A																
Dieldrin	NA	0.10 U	0.10 U	0.07 U	0.10 UJ	0.10 U	0.0033 U	0.010 U	NA	NA	NA	NA	NA	NA	NA	NA
DISSOLVED METALS (mg/L)																
Arsenic (7060A/200.8)	0.0076	0.006	0.008	0.00912	0.007	0.008	0.001	0.002	0.002	0.001	NA	NA	NA	NA	NA	NA
Cadmium (6010)	NA	0.002 U	0.002 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	NA	NA	NA	NA	NA	NA	NA
Chromium (6010)	NA	0.005 U	0.005 U	0.00169	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	NA	NA	NA	NA	NA	NA	NA
Iron (6010B/200.8)	5.47	1.52	8.71	8.88	7.15	6.97	0.46	3.47	3.41	0.12	1.13	1.37	1.29	0.25	2.12	2.13
Manganese (6010B/200.8)	4.11	5.56	11.3	9.77	10.4	8.00	0.621	4.55	4.08	0.550	2.18	2.15	0.079	6.43	8.3	8.59
CONVENTIONALS																
Chloride (mg/L) (325.2, 300.0)	NA	8.0	18	18.5	8.7	4.5	3.4	8.9	7.4	3.5	NA	NA	NA	NA	NA	NA
N-Ammonia (mg-N/L) (350.1M, SM4500-NH3D)	NA	2.7	4.1	5.83	4.3	4.1	0.20	0.46	1.7	0.277	NA	NA	NA	NA	NA	NA
N-Nitrate (mg-N/L) (calc.)	NA	2.2	0.20	0.393	0.072	0.073	3.0	1.3	1.1	1.98	NA	NA	NA	NA	NA	NA
N-Nitrite (mg-N/L) (353.2)	NA	0.022	0.021	0.1 U	0.021	0.010 U	0.012	0.010 U	0.010 U	0.016	NA	NA	NA	NA	NA	NA
Nitrate + Nitrite (mg-N/L) (353.2)	NA	2.3	0.22	NA	0.093	0.073	3.0	1.3	1.1	2.00	NA	NA	NA	NA	NA	NA
Sulfate (mg/L) (375.2, 300.0)	NA	22	30	25.7	18	17	24	23	19	22.5 J	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (mg/L) (410.4)	NA	18	32	UJ	56.5	34	25	9.8	13	NA	15.5	NA	NA	NA	NA	NA
Total Organic Carbon (mg/L) (415.1, SM5310C)	NA	5.6	12	14	12	9.3	4.4	3.7	NA	6.19	NA	NA	NA	NA	NA	NA
Un-ionized Ammonia (µg NH ₃ /L) (a)																
Minimum (b)	NC	1.1	1.6	2.3	1.7	1.6	0.08	0.18	0.67	0.1	NC	NC	NC	NC	NC	NC
Maximum (c)	NC	979	1500	2100	1600	1500	73	167	617	100	NC	NC	NC	NC	NC	NC
FIELD PARAMETERS																
pH	6.17	5.95	6.5	6.5	6.27	6.81	6.37	6.44	6.31	6.23	6.57	NM	6.21	6.84	6.94	7.02
Temperature (°C)	14.0	18.8	15.1	15.1	15.4	19.1	12.4	13.6	12.7	12.9	13.0	NM	12.7	13.6	12.6	14.0
Specific Conductivity (µS)	251	379	764	764	734	624	207	270	359	247	330	NM	252	469	645	121

TABLE 2
SUMMARY OF GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS
2013 ANNUAL AND HISTORICAL SAMPLING EVENTS
FORMER EASTGATE LANDFILL

Sample Location:	EL-106R	EL-106R	EL-106R	EL-106R	French Drain	South Drain	French Drain										
Lab Sample ID:	6644940	7055032	7462649	7879585	CB90	CO72E	CX61H	DG04H	EE52B	EE52A	ER96D	FK21E	GN17D	IA68E	JL58E	LT21A	NV83E
Lab Data Package ID:	1307589	1389676	1474176	1559679	CB90	CO72	CX61	DG04	EE52	EE52	ER96	FK21	GN17	IA68	JL58	LT21	NV83
Date Collected:	5/8/2012	05/13/2013	5/13/2014	5/7/2015	9/1/2000	12/13/2000	3/29/2001	6/14/2001	3/18/2002	3/18/2002	8/28/2002	4/17/2003	4/087/2004	5/9/2005	5/9/2006	10/10/2007	10/21/2008
VOLATILES (µg/L)																	
Method SW8260B/C																	
1,1,1,2-Tetrachloroethane	NA	NA	NA	NA	1.0 U	0.2 U	0.2 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U				
1,1,1-Trichloroethane	NA	NA	NA	NA	1.0 U	0.2 U	0.2 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U				
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	1.0 U	0.2 U	0.2 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U				
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	NA	NA	NA	2.0 U	0.2 U	0.2 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U				
1,1,2-Trichloroethane	NA	NA	NA	NA	1.0 U	0.2 U	0.2 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U				
1,1-Dichloroethane	NA	NA	NA	NA	1.0 U	0.2 U	0.2 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U				
1,1-Dichloroethene	NA	NA	NA	NA	1.0 U	0.2 U	0.2 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U				
1,1-Dichloropropene	NA	NA	NA	NA	1.0 U	0.2 U	0.2 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U				
1,2,3-Trichlorobenzene	NA	NA	NA	NA	5.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U				
1,2,3-Trichloropropane	NA	NA	NA	NA	3.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U				
1,2,4-Trichlorobenzene	NA	NA	NA	NA	5.0 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U				
1,2,4-Trimethylbenzene	NA	NA	NA	NA	1.0 U	0.2	0.2 U	0.3	0.3	0.2 U	0.2 U	0.4 U	0.4 U	0.2 U	0.2	0.2 U	8.2
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	5.0 U	1.0 U	1.0 U	4.0 U	4.0 U	2.0 U	2.0 U	0.5 U	0.5 U				
1,2-Dichlorobenzene	NA	NA	NA	NA	1.0 J	1.8	0.9	1.9	1.6	0.2 U	1.7	1.3	1.7	1.8	1.3	0.5	1.0
1,2-Dichloroethane	NA	NA	NA	NA	1.0 U	0.2 U	0.2 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U				
1,2-Dichloropropane	NA	NA	NA	NA	1.0 U	0.2 U	0.2 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U				
1,3,5-Trimethylbenzene	NA	NA	NA	NA	1.0 U	0.2 U	0.2 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	3.1				
1,3-Dichlorobenzene	NA	NA	NA	NA	1.0 U	0.2 U	0.2 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U				
1,3-Dichloropropane	NA	NA	NA	NA	1.0 U	0.2 U	0.2 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U				
1,4-Dichlorobenzene	NA	NA	NA	NA	3.8	7.0	5.6	8.8	7.0	0.2 U	6.6	6.3	8.3	8.6	6.0	1.9	4.1
2,2-Dichloropropane	NA	NA	NA	NA	1.0 U	0.2 U	0.2 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U				
2-Butanone	NA	NA	NA	NA	5.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	2.5 U				
2-Chloroethylvinylether	NA	NA	NA	NA	5.0 U	0.5 U	R	R	R	0.2 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U	1.0 U
2-Chlorotoluene	NA	NA	NA	NA	1.0 U	0.2 U	0.2 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U				
2-Hexanone	NA	NA	NA	NA	5.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	3.0 U	2.5 U				
4-Chlorotoluene	NA	NA	NA	NA	1.0 U	0.2 U	0.2 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U				
4-Isopropyltoluene	NA	NA	NA	NA	1.0 U	0.2 U	0.2 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2				
4-Methyl-2-Pentanone (MIBK)	NA	NA	NA	NA	5.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	2.5 U				
Acetone	NA	NA	NA	NA	10	1.0 U	1.0 U	1.0 U	1.0 U	2.4	3.1	4.5	4.3	3.3	2.7 U	4.3	3.0 U
Acrolein	NA	NA	NA	NA	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U
Acrylonitrile	NA	NA	NA	NA	5.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U				
Benzene	NA	NA	NA	NA	2.2	6.0	3.3	6.6	4.0	0.2 U	4.3	3.5	5.2	5.2	3.8	0.8	2.3
Bromobenzene	NA	NA	NA	NA	1.0 U	0.2 U	0.2 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U				
Bromochloromethane	NA	NA	NA	NA	1.0 U	0.2 U	0.2 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U				
Bromodichloromethane	NA	NA	NA	NA	1.0 U	0.2 U	0.2 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U				
Bromoethane	NA	NA	NA	NA	2.0 U	0.2 U	0.2 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U				
Bromoform	NA	NA	NA	NA	1.0 U	0.5 U	0.5 U	0.5 U	0.2 U	0.2 U	0.2 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U
Bromomethane	NA	NA	NA	NA	1.0 U	0.2 U	0.2 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.5 U				
Carbon Disulfide	NA																

TABLE 2
SUMMARY OF GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS
2013 ANNUAL AND HISTORICAL SAMPLING EVENTS
FORMER EASTGATE LANDFILL

Sample Location: Lab Sample ID: Lab Data Package ID: Date Collected:	EL-106R 6644940 1307589 5/8/2012	EL-106R 7055032 1389676 05/13/2013	EL-106R 7462649 1474176 5/13/2014	EL-106R 7879585 1559679 5/7/2015	French Drain CB90 9/1/2000	French Drain CO72E 12/13/2000	French Drain CX61H 3/29/2001	French Drain DG04H 6/14/2001	French Drain EE52B 3/18/2002	South Drain EE52A 3/18/2002	French Drain ER96D 8/28/2002	French Drain FK21E 4/17/2003	French Drain GN17D 4/08/2004	French Drain IA68E 5/9/2005	French Drain JL58E 5/9/2006	French Drain LT21A 10/10/2007	French Drain NV83E 10/21/2008
trans-1,2-Dichloroethene	NA	NA	NA	NA	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U
trans-1,3-Dichloropropene	NA	NA	NA	NA	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U
trans-1,4-Dichloro-2-butene	NA	NA	NA	NA	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	NA	NA	NA	NA	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U
Trichlorofluoromethane	NA	NA	NA	NA	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U
Vinyl Acetate	NA	NA	NA	NA	5.0 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	1.0 U
Vinyl Chloride	NA	NA	NA	NA	1.0 U	0.2 U	0.2 U	0.2 U	0.2	0.2 U	0.2 U	0.4 U	0.4 U	0.2 U	0.2	0.2 U	0.2 U
PESTICIDES (µg/L) Method 8081A																	
Dieldrin	NA	NA	NA	NA	0.10 U	0.10 U	0.10 U	0.10 U	0.0033 U	0.0033 U	0.010 U	NA	NA	NA	NA	NA	NA
DISSOLVED METALS (mg/L)																	
Arsenic (7060A/200.8)	NA	NA	NA	NA	0.001 U	0.001	0.002	0.001 U	0.001 U	0.0007	0.001	0.001 U	0.002	0.001 U	0.001 U	0.001	0.0006
Cadmium (6010)	NA	NA	NA	NA	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	NA	NA	NA	NA	NA
Chromium (6010)	NA	NA	NA	NA	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	NA	NA	NA	NA	NA
Iron (6010B/200.8)	3.39	2.49	2.75	2.04	2.76	35.1	35.9	42.8	45.8	0.76	15.8	38.9	62.9	66.7	54.3	2.0	3.86
Manganese (6010B/200.8)	8.28	7.85	6.74	6.36	0.361	0.645	0.767	0.575	0.719	1.35	0.385	0.700	0.777	0.812	0.741	0.352	0.373
CONVENTIONALS																	
Chloride (mg/L) (325.2, 300.0)	NA	NA	NA	NA	76	22	12	25	8.8	1.7	61	8.7	12.4	11.6	11.1	21.7	28.1
N-Ammonia (mg-N/L) (350.1M, SM4500-NH3D)	NA	NA	NA	NA	100	61	33	60	28	0.67	100	38	46.3	46.4	44.5	40.8	70.9
N-Nitrate (mg-N/L) (calc.)	NA	NA	NA	NA	0.72	0.021	0.010 U	0.010	0.010 U	0.34	0.031	0.012	0.010 U	0.050 U	0.020 UJ	0.225	0.177
N-Nitrite (mg-N/L) (353.2)	NA	NA	NA	NA	0.05	0.035	0.038	0.043	0.070	0.010 U	0.052	0.032	0.075	0.092	0.024 J	0.012	0.111
Nitrate + Nitrite (mg-N/L) (353.2)	NA	NA	NA	NA	0.77	0.056	0.046	0.042	0.035	0.34	0.083	0.044	0.010 U	0.050 U	0.020 U	0.237 J	0.288
Sulfate (mg/L) (375.2, 300.0)	NA	NA	NA	NA	23	19	18	12	11	8.5	8.5	12	29.0 J	7.6	3.8 U	537	24.5
Chemical Oxygen Demand (mg/L) (410.4)	NA	NA	NA	NA	88	54 UJ	39	66	40	16	83	NA	48.8	45.8	44.8	NA	57.1
Total Organic Carbon (mg/L) (415.1, SM5310C)	NA	NA	NA	NA	28	18	14	20	12	6.4	30	NA	16.0	16.3	13.5	14.9	19.2
Un-ionized Ammonia (µg NH ₃ /L) (a)																	
Minimum (b)	NC	NC	NC	NC	40	24	13	24	11	0.26	40	15	18.3	18.3	17.6	16.1	28.0
Maximum (c)	NC	NC	NC	NC	36000	22000	12000	22000	10000	243	36000	14000	16800	16800	16100	14800	25700
FIELD PARAMETERS																	
pH	6.56	5.76	6.00	6.23	6.96 J	NM	6.46	6.82	NM	NM	7.03	6.64	6.53	6.71	6.73	7.41	7.75
Temperature (°C)	16.9	13.8	12.7	12.7	NM	NM	11.9	15.2	NM	NM	16.4	10.3	10.2	11.5	10.3	14.2	12.9
Specific Conductivity (µS)	564	515	476	405	2000	NM	628	1529	NM	NM	1665	700	917	949	778	741	1193

TABLE 2
SUMMARY OF GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS
2013 ANNUAL AND HISTORICAL SAMPLING EVENTS
FORMER EASTGATE LANDFILL

Sample Location: Lab Sample ID: Lab Data Package ID: Date Collected:	French Drain PE53A 6/24/2009	French Drain QW57E 5/14/2010	French Drain SY24E 05/23/2011	French Drain 6644941 1307589	French Drain 7055033 1389676	French Drain 7462653 1474176	French Drain 7879586 1559679	French Drain 5/13/2014 5/7/2015
VOLATILES (µg/L)								
Method SW8260B/C								
1,1,1,2-Tetrachloroethane	0.2 U	0.2 U	0.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,1-Trichloroethane	0.2 U	0.2 U	0.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.2 U	0.2 U	0.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,1-Dichloroethane	0.2 U	0.2 U	0.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,1-Dichloropropene	0.2 U	0.2 U	0.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichloropropane	0.5 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-Trimethylbenzene	0.2 U	0.2 U	0.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dibromo-3-chloropropane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene	1.6	1.4	0.9	0.9	1.2	0.9	1.2	
1,2-Dichloroethane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2-Dichloropropane	0.2 U	0.2 U	0.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3,5-Trimethylbenzene	0.2 U	0.2 U	0.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-Dichlorobenzene	0.2 U	0.2 U	0.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-Dichloropropane	0.2 U	0.2 U	0.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,4-Dichlorobenzene	5.9	5.1	3.8	3.7	4.5	3.6	4.5	
2,2-Dichloropropane	0.2 U	0.2 U	0.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Butanone	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Chloroethylvinylether	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	
2-Chlorotoluene	0.2 U	0.2 U	0.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Hexanone	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Chlorotoluene	0.2 U	0.2 U	0.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4-Isopropyltoluene	0.2 U	0.2 U	0.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4-Methyl-2-Pentanone (MIBK)	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	5.0 U	5.0 U	5.0 U	25 U	25 U	25 UU	25 U	
Acrolein	5.0 U	5.0 U	5.0 U	25 U	25 U	25 UU	25 U	
Acrylonitrile	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzene	3.2	2.4	1.5	1.5	1.5	1.1	1.2	
Bromobenzene	0.2 U	0.2 U	0.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromochloromethane	0.2 U	0.2 U	0.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane	0.2 U	0.2 U	0.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoethane	0.2 U	0.2 U	0.2 U	NA	NA	NA	NA	
Bromoform	0.2 U	0.2 U	0.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromomethane	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Disulfide	0.2 U	0.2 U	0.2 U	0.5 U	0.5 U	0.5 UU	0.5 U	
Carbon Tetrachloride	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	
Chlorobenzene	24	22	15	16	21	18	21	
Chloroethane	0.2 U	0.2 U	0.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Chloromethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UU	0.5 U	
cis-1,2-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.4	0.2 U	
cis-1,3-Dichloropropene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	
Dibromochloromethane	0.2 U	0.2 U	0.2 U	0.5 U	0.5 U	0.5 U	0.5 U	
Dibromomethane	0.2 U	0.2 U	0.2 U	0.5 U	0.5 U	0.5 U	0.5 U	
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	NA	
Ethylbenzene	0.2 U	0.2 U	0.2 U	0.5 U	0.5 U	0.5 U	0.5 U	
Ethylene Dibromide	0.2 U	0.2 U	0.2 U	0.5 U	0.5 U	0.5 U	0.5 U	
Hexachlorobutadiene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
Isopropylbenzene	3.0	2.6	1.9	1.9	2.5	2.2	2.2	
m,p-Xylene	0.4 U	0.4 U	0.4 U	0.5 U	0.5 U	0.5 U	0.5 U	
Methyl Iodide	1.0 U	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	
Methylene Chloride	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
Naphthalene	11	7.5	3.6	3.3	4.1	2.9	2.5	
n-Butylbenzene	0.9	0.9	0.6	0.6	0.8	0.7	0.7	
n-Propylbenzene	2.7	2.8	1.9	1.8	2.3	1.9	1.9	
o-Xylene	0.2 U	0.2 U	0.2 U	0.5 U	0.5 U	0.5 U	0.5 U	
sec-Butylbenzene	1.3	1.2	0.9	0.9	1.2	1	1.1	
Styrene	0.2 U	0.2 U	0.2 U	0.5 U	0.5 U	0.5 U	0.5 U	
tert-Butylbenzene	0.3	0.2	0.2	0.5 U	0.5 U	0.5 U	0.5 U	
Tetrachloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	
Toluene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	

TABLE 2
SUMMARY OF GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS
2013 ANNUAL AND HISTORICAL SAMPLING EVENTS
FORMER EASTGATE LANDFILL

Sample Location: Lab Sample ID: Lab Data Package ID: Date Collected:	French Drain PE53A 6/24/2009	French Drain QW57E 5/14/2010	French Drain SY24E 05/23/2011	French Drain 6644941 1307589 5/8/2012	French Drain 7055033 1389676 05/13/2013	French Drain 7462653 1474176 5/13/2014	French Drain 7879586 1559679 5/7/2015
trans-1,2-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
trans-1,3-Dichloropropene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
trans-1,4-Dichloro-2-butene	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Trichlorofluoromethane	0.2 U	0.2 U	0.2 U	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl Acetate	1.0 U	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl Chloride	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.3	0.2 U
PESTICIDES (µg/L)							
Method 8081A							
Dieldrin	NA	NA	NA	NA	NA	NA	NA
DISSOLVED METALS (mg/L)							
Arsenic (7060A/200.8)	0.0016	0.0017	NA	NA	NA	NA	NA
Cadmium (6010)	NA	NA	NA	NA	NA	NA	NA
Chromium (6010)	NA	NA	NA	NA	NA	NA	NA
Iron (6010B/200.8)	60.6	62.5	54.1	48.6	65.1	53.1	60.9
Manganese (6010B/200.8)	0.629	0.748	0.835	0.668	0.747	0.778	0.657
CONVENTIONALS							
Chloride (mg/L) (325.2, 300.0)	12.0	8.5	5.2	5.9	8.0	5.7	6.5
N-Ammonia (mg-N/L) (350.1M, SM4500-NH3D)	45.7	34.1	24.9	25.4	30.2	24.9	43.8
N-Nitrate (mg-N/L) (calc.)	0.500 U	0.500 U	0.500 U	0.100 U	0.060	0.10 U	0.10 U
N-Nitrite (mg-N/L) (353.2)	0.500 U	0.500 U	0.100 U	0.073	0.070	0.065	0.18
Nitrate + Nitrite (mg-N/L) (353.2)	0.500 U	0.500 U	0.500 UJ	0.10 U	0.13	0.10 U	0.10 U
Sulfate (mg/L) (375.2, 300.0)	9.5	14.1	0.6	2.1	1.0 U	3.0	1.8
Chemical Oxygen Demand (mg/L) (410.4)	48.3	40.1	43.5	55.5	59.4	50.0 U	50.0 U
Total Organic Carbon (mg/L) (415.1, SM5310C)	16.1	13.0	13.7	24.4	17.9	12.8	14.0
Un-ionized Ammonia (µg NH ₃ /L) (a)							
Minimum (b)	NC	NC	NC	NC	NC	NC	NC
Maximum (c)	NC	NC	NC	NC	NC	NC	NC
FIELD PARAMETERS							
pH	6.96	7.65	7.09	5.91	6.42	7.32	6.35
Temperature (°C)	13.1	11.0	11.8	11.3	13.6	10.8	11.2
Specific Conductivity (µS)	188	1697	537	666	664	637	775

U = Indicates compound was analyzed for, but was not detected at the given reporting limit.

UJ = Indicates the analyte was not detected in the sample; the sample reporting limit is an estimate.

M = Indicates an estimated value of analyte found and confirmed by analyst, but with low spectral match.

J = Indicates the analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

R = The sample results are rejected due to deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

NA = Not analyzed.

NM = Not measured.

NC = Not calculated.

SDup = Split sample collected by Dalton, Olmsted & Fuglevand, Inc. for Spieker Properties, prospective purchaser of property and analyzed by North Creek Analytical, Inc.

(a) Un-ionized ammonia concentrations calculated for T = 5 - 25 °C, and pH = 6.5 - 9 in Lake Sammamish.

(b) Minimum un-ionized ammonia concentrations calculated based on a temperature of 5 °C and a pH of 6.5.

(c) Maximum un-ionized ammonia concentrations calculated based on a temperature of 25 °C and a pH of 9.

TABLE 3
SUMMARY OF GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS
FOR DETECTED CONSTITUENTS FOR LAST FOUR CONSECUTIVE SAMPLING EVENTS
FORMER EASTGATE LANDFILL

Sample Location:		EL-100		EL-100		EL-100		EL-100		EL-100		EL-100		EL-106R		EL-106R	
Lab Sample ID:		EL-103	EL-103-DUP	EL-103	EL-103-DUP	EL-103	EL-103-DUP	EL-103	EL-103-DUP	EL-105	EL-105	EL-105	EL-105	EL-106R	EL-106R	EL-106R	EL-106R
Lab Data Package ID:	Screening	1307589	1307589	1389676	1389676	1474176	1474176	1559679	1559679	1307589	1389676	1474176	1559679	1307589	1389676	1474176	1559679
Date Collected:	Levels (a)	5/8/2012	5/8/2012	05/13/2013	05/13/2013	5/13/2014	5/13/2014	5/7/2015	5/7/2015	5/8/2012	05/13/2013	5/13/2014	5/7/2015	5/8/2012	05/13/2013	5/13/2014	5/7/2015
VOLATILES (µg/L) Method SW8260B/C																	
Vinyl Chloride	0.8	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA							
Acetone	800	16	15	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA					
cis-1,2-Dichloroethene		0.2 U	NA	NA	NA	NA	NA	NA	NA	NA							
Benzene	5	2.2	2.2	2.1	2.0	2.1	1.9	1.9	1.9	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	1000	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA							
Chlorobenzene	100	24	23	24	24	23	24	23	24	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	600	1.5	1.5	1.4	1.4	1.5	1.5	1.4	1.3	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	1.8	2.3	2.2	2.3	2.2	1.9	2.0	2.2	2.1	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	1600	1.2	1.1	1.0	1.0	0.9	0.8	0.8	0.7	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	--	0.5 U	NA	NA	NA	NA	NA	NA	NA	NA							
tert-Butylbenzene	--	0.5 U	NA	NA	NA	NA	NA	NA	NA	NA							
sec-Butylbenzene	--	0.8	0.8	0.7	0.7	0.5	0.5	0.6	0.6	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	--	0.5 U	NA	NA	NA	NA	NA	NA	NA	NA							
Naphthalene	320	0.5 U	NA	NA	NA	NA	NA	NA	NA	NA							
PESTICIDES (µg/L) Method 8081A																	
Dieldrin		NA	NA	NA	NA	NA	NA	NA									
DISSOLVED METALS (mg/L)																	
Arsenic (7060A/200.8)	0.004	0.0338	0.0348	0.0289	0.0282	0.0332	0.0335	0.0352	0.0363	0.0088	0.0072	0.009	0.0076	NA	NA	NA	NA
Cadmium (6010)		NA	NA	NA	NA	NA	NA	NA									
Chromium (6010)		NA	NA	NA	NA	NA	NA	NA									
Iron (6010B/200.8)	0.3	20.2	20.5	20.8	20.4	23.2	20.9	22.6	21.1	6.9	6.12	6.42	5.47	3.39	2.49	2.75	2.04
Manganese (6010B/200.8)	0.05	2.93	3.26	3.64	3.68	3.78	3.41	2.97	2.83	4.26	4.60	4.49	4.11	8.28	7.85	6.74	6.36
CONVENTIONALS																	
Chloride (mg/L) (325.2, 300.0)	230	NA	NA	NA	NA	NA	NA	NA									
N-Ammonia (mg-N/L) (350.1M, SM4500NH3D)	--(b)	NA	NA	NA	NA	NA	NA	NA									
N-Nitrate (mg-N/L) (calc.)	10	NA	NA	NA	NA	NA	NA	NA									
N-Nitrite (mg-N/L) (353.2)	1	NA	NA	NA	NA	NA	NA	NA									
Nitrate + Nitrite (mg-N/L) (353.2)	--	NA	NA	NA	NA	NA	NA	NA									
Sulfate (mg/L) (375.2, 300.0)	250	NA	NA	NA	NA	NA	NA	NA									
Chemical Oxygen Demand (mg/L) (410.4)	--	NA	NA	NA	NA	NA	NA	NA									
Total Organic Carbon (mg/L) (415.1, SM5310C)	--	NA	NA	NA	NA	NA	NA	NA									
FIELD PARAMETERS																	
pH		5.99	5.99	6.01	6.01	7.59	7.59	6.36	6.36	5.22	5.54	6.43	6.17	6.56	5.76	6.00	6.23
Temperature (°C)		10.7	10.7	10.7	10.7	10.9	10.9	11.3	11.3	13.5	13.5	13.3	14.0	16.9	13.8	12.7	
Specific Conductivity (µS)		1071	1071	886	886	996	996	1054	1054	339	273	274	251	564	515	476	405

TABLE 3
SUMMARY OF GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS
FOR DETECTED CONSTITUENTS FOR LAST FOUR CONSECUTIVE SAMPLING EVENTS
FORMER EASTGATE LANDFILL

Sample Location:		French Drain	French Drain	French Drain	French Drain
Lab Sample ID:		6644941	7055033	7462653	7879586
Lab Data Package ID:	Screening Levels (a)	1307589	1389676	1474176	1559679
Date Collected:		5/8/2012	05/13/2013	5/13/2014	5/7/2015
VOLATILES (µg/L) Method SW8260B/C					
Vinyl Chloride	0.8	0.2 U	0.2 U	0.3	0.2 U
Acetone	800	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene		0.2 U	0.2 U	0.4	0.2 U
Benzene	5	1.5	1.5	1.1	1.2
Toluene	1000	0.2 U	0.2 U	0.2 U	0.2 U
Chlorobenzene	100	16	21	18	21
1,2-Dichlorobenzene	600	0.9	1.2	0.9	1.2
1,4-Dichlorobenzene	1.8	3.7	4.5	3.6	4.5
Isopropylbenzene	1600	1.9	2.5	2.2	2.2
n-Propylbenzene	--	1.8	2.3	1.9	1.9
tert-Butylbenzene	--	0.5 U	0.5 U	0.5 U	0.5 U
sec-Butylbenzene	--	0.9	1.2	1	1.1
n-Butylbenzene	--	0.6	0.8	0.7	0.7
Naphthalene	320	3.3	4.1	2.9	2.5
PESTICIDES (µg/L) Method 8081A					
Dieldrin		NA	NA	NA	NA
DISSOLVED METALS (mg/L)					
Arsenic (7060A/200.8)	0.004	NA	NA	NA	NA
Cadmium (6010)		NA	NA	NA	NA
Chromium (6010)		NA	NA	NA	NA
Iron (6010B/200.8)	0.3	48.6	65.1	53.1	60.9
Manganese (6010B/200.8)	0.05	0.668	0.747	0.778	0.657
CONVENTIONALS					
Chloride (mg/L) (325.2, 300.0)	230	5.9	8.0	5.7	6.5
N-Ammonia (mg-N/L) (350.1M, SM4500NH3D)	--(b)	25.4	30.2	24.9	43.8
N-Nitrate (mg-N/L) (calc.)	10	0.10 U	0.06	0.10 U	0.10 U
N-Nitrite (mg-N/L) (353.2)	1	0.073	0.070	0.065	0.18
Nitrate + Nitrite (mg-N/L) (353.2)	--	0.10 U	0.13	0.10 U	0.10 U
Sulfate (mg/L) (375.2, 300.0)	250	2.1	1.0 U	3.0	1.8
Chemical Oxygen Demand (mg/L) (410.4)	--	55.5	59.4	50.0 U	50.0 U
Total Organic Carbon (mg/L) (415.1, SM5310C)	--	24.4	17.9	12.8	14.0
FIELD PARAMETERS					
pH		5.91	6.42	7.32	6.35
Temperature (°C)		11.3	13.6	10.8	11.2
Specific Conductivity (µS)		666	664	637	775

U = Indicates compound was analyzed for, but was not detected at the given reporting limit

NA = Not analyzed.

Bold = Exceedance of screening level.

(a) Screening levels were developed based on federal criteria for drinking water and fresh surface water and practical quantitation limits
(b) Cleanup level is based on un-ionized ammonia, which is calculated based on total ammonia, pH, and temperature

TABLE 4
GROUNDWATER MONITORING SCOPE
FORMER EASTGATE LANDFILL

Groundwater Monitoring Event and Activity	Location and Planned Scope of Groundwater Monitoring								
	EL-101R	EL-102	EL-103	EL-104	EL-105	EL-106R	EL-107	French Drain	Pond A
Groundwater Sampling	--	--	VOCs (a), Dissolved Metals (b)	--	Dissolved Metals (b)	Dissolved Metals (c)	--	VOCs (a), Dissolved Metals (c), and Conventional Parameters (d)	--
Water Level Measurements	X	X	X	X	X	X	X		X

VOCs = volatile organic compounds

(a) U.S. Environmental Protection Agency (EPA) Method 8260C, Boeing 69.

(b) Dissolved metals include arsenic, iron, and manganese. Dissolved metals will be filtered in the field.

(c) Dissolved metals include only iron and manganese. Dissolved metals will be filtered in the field.

(d) Conventions include chloride, N-ammonia, N-nitrate, N-nitrite, nitrate + nitrite, sulfate, total organic carbon, and chemical oxygen demand.

APPENDIX A

Laboratory Data Reports

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

The Boeing Company

May 20, 2015

Project: Boeing Eastgate Landfill

Submittal Date: 05/08/2015
Group Number: 1559679
State of Sample Origin: WA

Client Sample Description

Trip Blank Water
EL-100-150507 Water
EL-100-150507 Dissolved Metals Water
EL-103-150507 Water
EL-103-150507 Dissolved Metals Water
EL-106R-150507 Dissolved Metals Water
FrenchDrain-150507 Water
FrenchDrain-150507 Dissolved Metals Water
EL-105-150507 Dissolved Metals Water

Lancaster Labs (LL) #

7879580
7879581
7879582
7879583
7879584
7879585
7879586
7879587
7879588

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our scopes of accreditation can be viewed at <http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/>.

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Landau Associates, Inc.
Landau Associates
Landau Associates

Attn: Steve Shaw
Attn: Terry McGourty
Attn: Anne Halvorsen



Lancaster Laboratories
Environmental

Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Respectfully Submitted,

Kay Hower
Manager

(510) 672-3979

Project Name: Boeing Eastgate Landfill
LL Group #: 1559679

General Comments:

See the Laboratory Sample Analysis Record section of the Analysis Report for the method references.

All QC met criteria unless otherwise noted in an Analysis Specific Comment below. Refer to the QC Summary for specific values and acceptance criteria.

Project specific QC samples are not included in this data set

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in an Analysis Specific Comment below.

The samples were received at the appropriate temperature and in accordance with the chain of custody unless otherwise noted.

Analysis Specific Comments:**SW-846 6010B, Metals Dissolved**

Batch #: 151311848013 (Sample number(s): 7879582, 7879584-7879585, 7879587-7879588
UNSPK: P879602 BKG: P879602)

The recovery(ies) for the following analyte(s) in the MS and/or MSD was outside the acceptance window: Manganese

EPA 353.2, Wet Chemistry

Batch #: 15135118101B (Sample number(s): 7879586 UNSPK: P877910 BKG: P877910)

The recovery(ies) for the following analyte(s) in the MS was outside the acceptance window: Total Nitrite/Nitrate Nitrogen

SM 5310 C-2000, wet Chemistry

Batch #: 15133049503A (Sample number(s): 7879586 UNSPK: P879602 BKG: P879602)

The recovery(ies) for the following analyte(s) in the MS was outside the acceptance window: Total Organic Carbon

The duplicate RPD for the following analyte(s) exceeded the acceptance window: Total Organic Carbon

EPA 410.4, Wet Chemistry

Batch #: 15131400101B (Sample number(s): 7879586 UNSPK: P879039 BKG: P879039)

The recovery(ies) for the following analyte(s) in the MS was outside the acceptance window: Chemical Oxygen Demand

SM 4500-NH3 D-1997, Wet Chemistry

Batch #: 15134003201A (Sample number(s): 7879586 UNSPK: P879602 BKG: P879602)

The recovery(ies) for the following analyte(s) in the MS and/or MSD was outside the acceptance window: Ammonia-Nitrogen

The relative percent difference(s) for the following analyte(s) in the MS/MSD were outside outside acceptance windows: Ammonia-Nitrogen

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Sample Description: Trip Blank Water
Boeing Eastgate Landfill

LL Sample # WW 7879580
LL Group # 1559679
Account # 13419

Project Name: Boeing Eastgate Landfill

Collected: 05/07/2015

The Boeing Company

Submitted: 05/08/2015 09:25

Reported: 05/20/2015 21:45

EASTT

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260C	ug/l	ug/l	
11996	Acetone	67-64-1	5.0 U	5.0	1
11996	Acrolein	107-02-8	25 U	25	1
11996	Acrylonitrile	107-13-1	5.0 U	5.0	1
11996	Benzene	71-43-2	0.2 U	0.2	1
11996	Bromobenzene	108-86-1	0.5 U	0.5	1
11996	Bromo-chloromethane	74-97-5	0.5 U	0.5	1
11996	Bromo-dichloromethane	75-27-4	0.5 U	0.5	1
11996	Bromoform	75-25-2	0.5 U	0.5	1
11996	Bromo-methane	74-83-9	0.5 U	0.5	1
11996	2-Butanone	78-93-3	5.0 U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5 U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5 U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5 U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5 U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2 U	0.2	1
11996	Chlorobenzene	108-90-7	0.5 U	0.5	1
11996	Chloroethane	75-00-3	0.5 U	0.5	1
11996	Chloroform	67-66-3	0.2 U	0.2	1
11996	Chloromethane	74-87-3	0.5 U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5 U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5 U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5 U	0.5	1
11996	Dibromo-chloromethane	124-48-1	0.5 U	0.5	1
11996	Dibromomethane	74-95-3	0.5 U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0 U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5 U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5 U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5 U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5 U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2 U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2 U	0.2	1
11996	cis-1,2-Dichloroethene	156-59-2	0.2 U	0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2 U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5 U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5 U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5 U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5 U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2 U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2 U	0.2	1
11996	Ethylbenzene	100-41-4	0.5 U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5 U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5 U	0.5	1
11996	2-Hexanone	591-78-6	5.0 U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5 U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5 U	0.5	1
11996	Methyl Iodide	74-88-4	0.5 U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0 U	5.0	1
11996	Methylene Chloride	75-09-2	0.5 U	0.5	1
11996	Naphthalene	91-20-3	0.5 U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5 U	0.5	1
11996	Styrene	100-42-5	0.5 U	0.5	1



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Sample Description: Trip Blank Water
Boeing Eastgate Landfill

LL Sample # WW 7879580
LL Group # 1559679
Account # 13419

Project Name: Boeing Eastgate Landfill

Collected: 05/07/2015

The Boeing Company

Submitted: 05/08/2015 09:25

Reported: 05/20/2015 21:45

EASTT

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260C					
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5 U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2 U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2 U	0.2	1
11996	Toluene	108-88-3	0.2 U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5 U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5 U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5 U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5 U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2 U	0.2	1
11996	Trichloroethene	79-01-6	0.2 U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5 U	0.5	1
11996	1,2,3-Trichloroproppane	96-18-4	1.0 U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5 U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5 U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5 U	0.5	1
11996	Vinyl Chloride	75-01-4	0.2 U	0.2	1
11996	m,p-Xylene	179601-23-1	0.5 U	0.5	1
11996	o-Xylene	95-47-6	0.5 U	0.5	1

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H151382AA	05/18/2015 16:53	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H151382AA	05/18/2015 16:53	Kerri E Legerlotz	1

Sample Description: EL-100-150507 Water
Boeing Eastgate Landfill

LL Sample # WW 7879581
LL Group # 1559679
Account # 13419

Project Name: Boeing Eastgate Landfill

Collected: 05/07/2015 09:00 by RT

The Boeing Company

Submitted: 05/08/2015 09:25

Reported: 05/20/2015 21:45

EA100

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260C	ug/l	ug/l	
11996	Acetone	67-64-1	5.0 U	5.0	1
11996	Acrolein	107-02-8	25 U	25	1
11996	Acrylonitrile	107-13-1	5.0 U	5.0	1
11996	Benzene	71-43-2	1.9	0.2	1
11996	Bromobenzene	108-86-1	0.5 U	0.5	1
11996	Bromochloromethane	74-97-5	0.5 U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5 U	0.5	1
11996	Bromoform	75-25-2	0.5 U	0.5	1
11996	Bromomethane	74-83-9	0.5 U	0.5	1
11996	2-Butanone	78-93-3	5.0 U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5 U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.6	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5 U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5 U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2 U	0.2	1
11996	Chlorobenzene	108-90-7	23	0.5	1
11996	Chloroethane	75-00-3	0.5 U	0.5	1
11996	Chloroform	67-66-3	0.2 U	0.2	1
11996	Chloromethane	74-87-3	0.5 U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5 U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5 U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5 U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5 U	0.5	1
11996	Dibromomethane	74-95-3	0.5 U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0 U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	1.3	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5 U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	2.1	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5 U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2 U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2 U	0.2	1
11996	cis-1,2-Dichloroethene	156-59-2	0.2 U	0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2 U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5 U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5 U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5 U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5 U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2 U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2 U	0.2	1
11996	Ethylbenzene	100-41-4	0.5 U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5 U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5 U	0.5	1
11996	2-Hexanone	591-78-6	5.0 U	5.0	1
11996	Isopropylbenzene	98-82-8	0.7	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5 U	0.5	1
11996	Methyl Iodide	74-88-4	0.5 U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0 U	5.0	1
11996	Methylene Chloride	75-09-2	0.5 U	0.5	1
11996	Naphthalene	91-20-3	0.5 U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5 U	0.5	1



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Sample Description: EL-100-150507 Water
Boeing Eastgate Landfill

LL Sample # WW 7879581
LL Group # 1559679
Account # 13419

Project Name: Boeing Eastgate Landfill

Collected: 05/07/2015 09:00 by RT

The Boeing Company

Submitted: 05/08/2015 09:25

Reported: 05/20/2015 21:45

EA100

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260C					
11996	Styrene	100-42-5	0.5 U	0.5	1
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5 U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2 U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2 U	0.2	1
11996	Toluene	108-88-3	0.2 U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5 U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5 U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5 U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5 U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2 U	0.2	1
11996	Trichloroethene	79-01-6	0.2 U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5 U	0.5	1
11996	1,2,3-Trichloroproppane	96-18-4	1.0 U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5 U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5 U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5 U	0.5	1
11996	Vinyl Chloride	75-01-4	0.2 U	0.2	1
11996	m,p-Xylene	179601-23-1	0.5 U	0.5	1
11996	o-Xylene	95-47-6	0.5 U	0.5	1

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H151382AA	05/18/2015 17:15	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H151382AA	05/18/2015 17:15	Kerri E Legerlotz	1

Sample Description: EL-100-150507 Dissolved Metals Water
Boeing Eastgate Landfill

LL Sample # WW 7879582
LL Group # 1559679
Account # 13419

Project Name: Boeing Eastgate Landfill

Collected: 05/07/2015 09:00 by RT The Boeing Company

Submitted: 05/08/2015 09:25

Reported: 05/20/2015 21:45

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
Metals Dissolved		EPA 200.8 rev 5.4	mg/l	mg/l	
06025	Arsenic	7440-38-2	0.0363	0.0020	1
		SW-846 6010B	mg/l	mg/l	
01754	Iron	7439-89-6	21.1	0.200	1
07058	Manganese	7439-96-5	2.83	0.0050	1

General Sample Comments

State of Washington Lab Certification No. C457

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution Factor
					Date and Time			
06025	Arsenic	EPA 200.8 rev 5.4	1	151287050005A	05/13/2015	03:46	Tara L Snyder	1
01754	Iron	SW-846 6010B	1	151311848013	05/13/2015	01:53	Tara L Snyder	1
07058	Manganese	SW-846 6010B	1	151311848013	05/13/2015	01:53	Tara L Snyder	1
07050	ICP/MS EPA-600 Digest	EPA 200.8 rev 5.4	1	151287050005	05/11/2015	10:07	James L Mertz	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	151311848013	05/12/2015	10:34	James L Mertz	1

Sample Description: EL-103-150507 Water
Boeing Eastgate Landfill

LL Sample # WW 7879583
LL Group # 1559679
Account # 13419

Project Name: Boeing Eastgate Landfill

Collected: 05/07/2015 11:30 by RT

The Boeing Company

Submitted: 05/08/2015 09:25

Reported: 05/20/2015 21:45

EA103

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260C	ug/l	ug/l	
11996	Acetone	67-64-1	5.0 U	5.0	1
11996	Acrolein	107-02-8	25 U	25	1
11996	Acrylonitrile	107-13-1	5.0 U	5.0	1
11996	Benzene	71-43-2	1.9	0.2	1
11996	Bromobenzene	108-86-1	0.5 U	0.5	1
11996	Bromochloromethane	74-97-5	0.5 U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5 U	0.5	1
11996	Bromoform	75-25-2	0.5 U	0.5	1
11996	Bromomethane	74-83-9	0.5 U	0.5	1
11996	2-Butanone	78-93-3	5.0 U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5 U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.6	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5 U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5 U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2 U	0.2	1
11996	Chlorobenzene	108-90-7	24	0.5	1
11996	Chloroethane	75-00-3	0.5 U	0.5	1
11996	Chloroform	67-66-3	0.2 U	0.2	1
11996	Chloromethane	74-87-3	0.5 U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5 U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5 U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5 U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5 U	0.5	1
11996	Dibromomethane	74-95-3	0.5 U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0 U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	1.4	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5 U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	2.2	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5 U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2 U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2 U	0.2	1
11996	cis-1,2-Dichloroethene	156-59-2	0.2 U	0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2 U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5 U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5 U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5 U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5 U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2 U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2 U	0.2	1
11996	Ethylbenzene	100-41-4	0.5 U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5 U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5 U	0.5	1
11996	2-Hexanone	591-78-6	5.0 U	5.0	1
11996	Isopropylbenzene	98-82-8	0.8	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5 U	0.5	1
11996	Methyl Iodide	74-88-4	0.5 U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0 U	5.0	1
11996	Methylene Chloride	75-09-2	0.5 U	0.5	1
11996	Naphthalene	91-20-3	0.5 U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5 U	0.5	1



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Sample Description: EL-103-150507 Water
Boeing Eastgate Landfill

LL Sample # WW 7879583
LL Group # 1559679
Account # 13419

Project Name: Boeing Eastgate Landfill

Collected: 05/07/2015 11:30 by RT

The Boeing Company

Submitted: 05/08/2015 09:25

Reported: 05/20/2015 21:45

EA103

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260C	ug/l	ug/l	
11996	Styrene	100-42-5	0.5 U	0.5	1
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5 U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2 U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2 U	0.2	1
11996	Toluene	108-88-3	0.2 U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5 U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5 U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5 U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5 U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2 U	0.2	1
11996	Trichloroethene	79-01-6	0.2 U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5 U	0.5	1
11996	1,2,3-Trichloroproppane	96-18-4	1.0 U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5 U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5 U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5 U	0.5	1
11996	Vinyl Chloride	75-01-4	0.2 U	0.2	1
11996	m,p-Xylene	179601-23-1	0.5 U	0.5	1
11996	o-Xylene	95-47-6	0.5 U	0.5	1

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H151382AA	05/18/2015 17:36	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H151382AA	05/18/2015 17:36	Kerri E Legerlotz	1

Sample Description: EL-103-150507 Dissolved Metals Water
Boeing Eastgate Landfill

LL Sample # WW 7879584
LL Group # 1559679
Account # 13419

Project Name: Boeing Eastgate Landfill

Collected: 05/07/2015 11:30 by RT The Boeing Company

Submitted: 05/08/2015 09:25

Reported: 05/20/2015 21:45

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
	Metals Dissolved				
06025	Arsenic	EPA 200.8 rev 5.4 7440-38-2	mg/l 0.0352	mg/l 0.0020	1
		SW-846 6010B	mg/l	mg/l	
01754	Iron	7439-89-6	22.6	0.200	1
07058	Manganese	7439-96-5	2.97	0.0050	1

General Sample Comments

State of Washington Lab Certification No. C457

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution Factor
					Date and Time			
06025	Arsenic	EPA 200.8 rev 5.4	1	151287050005A	05/13/2015	03:47	Tara L Snyder	1
01754	Iron	SW-846 6010B	1	151311848013	05/13/2015	01:56	Tara L Snyder	1
07058	Manganese	SW-846 6010B	1	151311848013	05/13/2015	01:56	Tara L Snyder	1
07050	ICP/MS EPA-600 Digest	EPA 200.8 rev 5.4	1	151287050005	05/11/2015	10:07	James L Mertz	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	151311848013	05/12/2015	10:34	James L Mertz	1



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Sample Description: EL-106R-150507 Dissolved Metals Water
Boeing Eastgate LandfillLL Sample # WW 7879585
LL Group # 1559679
Account # 13419

Project Name: Boeing Eastgate Landfill

Collected: 05/07/2015 08:20 by RT The Boeing Company

Submitted: 05/08/2015 09:25

Reported: 05/20/2015 21:45

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
Metals Dissolved	SW-846 6010B		mg/l	mg/l	
01754 Iron		7439-89-6	2.04	0.200	1
07058 Manganese		7439-96-5	6.36	0.0050	1

General Sample Comments

State of Washington Lab Certification No. C457

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	151311848013	05/13/2015 01:59	Tara L Snyder	1
07058	Manganese	SW-846 6010B	1	151311848013	05/13/2015 01:59	Tara L Snyder	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	151311848013	05/12/2015 10:34	James L Mertz	1

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Sample Description: FrenchDrain-150507 Water
Boeing Eastgate Landfill

LL Sample # WW 7879586
LL Group # 1559679
Account # 13419

Project Name: Boeing Eastgate Landfill

Collected: 05/07/2015 12:30 by RT

The Boeing Company

Submitted: 05/08/2015 09:25

Reported: 05/20/2015 21:45

EAFRE

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260C	ug/l	ug/l	
11996	Acetone	67-64-1	5.0 U	5.0	1
11996	Acrolein	107-02-8	25 U	25	1
11996	Acrylonitrile	107-13-1	5.0 U	5.0	1
11996	Benzene	71-43-2	1.2	0.2	1
11996	Bromobenzene	108-86-1	0.5 U	0.5	1
11996	Bromochloromethane	74-97-5	0.5 U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5 U	0.5	1
11996	Bromoform	75-25-2	0.5 U	0.5	1
11996	Bromomethane	74-83-9	0.5 U	0.5	1
11996	2-Butanone	78-93-3	5.0 U	5.0	1
11996	n-Butylbenzene	104-51-8	0.7	0.5	1
11996	sec-Butylbenzene	135-98-8	1.1	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5 U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5 U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2 U	0.2	1
11996	Chlorobenzene	108-90-7	21	0.5	1
11996	Chloroethane	75-00-3	0.5 U	0.5	1
11996	Chloroform	67-66-3	0.2 U	0.2	1
11996	Chloromethane	74-87-3	0.5 U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5 U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5 U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5 U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5 U	0.5	1
11996	Dibromomethane	74-95-3	0.5 U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0 U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	1.2	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5 U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	4.5	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5 U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2 U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2 U	0.2	1
11996	cis-1,2-Dichloroethene	156-59-2	0.2 U	0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2 U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5 U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5 U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5 U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5 U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2 U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2 U	0.2	1
11996	Ethylbenzene	100-41-4	0.5 U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5 U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5 U	0.5	1
11996	2-Hexanone	591-78-6	5.0 U	5.0	1
11996	Isopropylbenzene	98-82-8	2.2	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5 U	0.5	1
11996	Methyl Iodide	74-88-4	0.5 U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0 U	5.0	1
11996	Methylene Chloride	75-09-2	0.5 U	0.5	1
11996	Naphthalene	91-20-3	2.5	0.5	1
11996	n-Propylbenzene	103-65-1	1.9	0.5	1



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Sample Description: FrenchDrain-150507 Water
Boeing Eastgate Landfill

LL Sample # WW 7879586
LL Group # 1559679
Account # 13419

Project Name: Boeing Eastgate Landfill

Collected: 05/07/2015 12:30 by RT

The Boeing Company

Submitted: 05/08/2015 09:25

Reported: 05/20/2015 21:45

EAFRE

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260C	ug/l	ug/l	
11996	Styrene	100-42-5	0.5	U	0.5
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2
11996	Tetrachloroethene	127-18-4	0.2	U	0.2
11996	Toluene	108-88-3	0.2	U	0.2
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2
11996	Trichloroethene	79-01-6	0.2	U	0.2
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5
11996	1,2,3-Trichloroproppane	96-18-4	1.0	U	1.0
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5
11996	Vinyl Acetate	108-05-4	0.5	U	0.5
11996	Vinyl Chloride	75-01-4	0.2	U	0.2
11996	m,p-Xylene	179601-23-1	0.5	U	0.5
11996	o-Xylene	95-47-6	0.5	U	0.5
Wet Chemistry	EPA 300.0		mg/l	mg/l	
00224	Chloride	16887-00-6	6.5		2.0
00228	Sulfate	14808-79-8	1.8		1.0
	EPA 353.2		mg/l	mg/l	
00220	Nitrate Nitrogen	14797-55-8	0.10	U	0.10
00219	Nitrite Nitrogen	14797-65-0	0.18		0.050
07882	Total Nitrite/Nitrate Nitrogen	n.a.	0.10	U	0.10
	SM 5310 C-2000		mg/l	mg/l	
00273	Total Organic Carbon	n.a.	14.0		1.0
	EPA 410.4		mg/l	mg/l	
04001	Chemical Oxygen Demand	n.a.	50.0	U	50.0
	SM 4500-NH3 D-1997		mg/l	mg/l	
12677	Ammonia-Nitrogen	7664-41-7	43.8		5.0
					25

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.



2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: FrenchDrain-150507 Water
Boeing Eastgate LandfillLL Sample # WW 7879586
LL Group # 1559679
Account # 13419**Project Name:** Boeing Eastgate Landfill

Collected: 05/07/2015 12:30 by RT

The Boeing Company

Submitted: 05/08/2015 09:25

Reported: 05/20/2015 21:45

EAFRE

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H151382AA	05/18/2015 17:57	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H151382AA	05/18/2015 17:57	Kerri E Legerlotz	1
00224	Chloride	EPA 300.0	2	15128667601B	05/12/2015 17:36	Drew M Gerhart	5
00228	Sulfate	EPA 300.0	1	15128667601B	05/08/2015 17:01	Drew M Gerhart	1
00220	Nitrate Nitrogen	EPA 353.2	1	15137106101B	05/17/2015 18:17	Joseph E McKenzie	1
00219	Nitrite Nitrogen	EPA 353.2	1	15128105012A	05/08/2015 16:44	Drew M Gerhart	1
07882	Total Nitrite/Nitrate Nitrogen	EPA 353.2	1	15135118101B	05/15/2015 15:55	Venia B McFadden	1
00273	Total Organic Carbon	SM 5310 C-2000	1	15133049503A	05/13/2015 11:58	James S Mathiot	1
04001	Chemical Oxygen Demand	EPA 410.4	1	15131400101B	05/11/2015 07:17	Susan A Engle	1
12677	Ammonia-Nitrogen	SM 4500-NH ₃ D-1997	1	15134003201A	05/14/2015 18:59	Michelle L Lalli	25



2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: FrenchDrain-150507 Dissolved Metals Water
Boeing Eastgate Landfill

LL Sample # WW 7879587
LL Group # 1559679
Account # 13419

Project Name: Boeing Eastgate Landfill

Collected: 05/07/2015 12:30 by RT The Boeing Company

Submitted: 05/08/2015 09:25

Reported: 05/20/2015 21:45

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
Metals Dissolved	SW-846 6010B		mg/l	mg/l	
01754 Iron		7439-89-6	60.9	0.200	1
07058 Manganese		7439-96-5	0.657	0.0050	1

General Sample Comments

State of Washington Lab Certification No. C457

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	151311848013	05/13/2015 02:09	Tara L Snyder	1
07058	Manganese	SW-846 6010B	1	151311848013	05/13/2015 02:09	Tara L Snyder	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	151311848013	05/12/2015 10:34	James L Mertz	1



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Sample Description: EL-105-150507 Dissolved Metals Water
Boeing Eastgate LandfillLL Sample # WW 7879588
LL Group # 1559679
Account # 13419**Project Name:** Boeing Eastgate Landfill

Collected: 05/07/2015 14:05 by RT The Boeing Company

Submitted: 05/08/2015 09:25

Reported: 05/20/2015 21:45

EA105

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
Metals Dissolved 06025	EPA 200.8 rev 5.4 Arsenic	7440-38-2	0.0076	mg/l 0.0020	1
01754	SW-846 6010B Iron	7439-89-6	5.47	mg/l 0.200	1
07058	Manganese	7439-96-5	4.11	mg/l 0.0050	1

General Sample Comments

State of Washington Lab Certification No. C457

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06025	Arsenic	EPA 200.8 rev 5.4	1	151287050005A	05/13/2015 03:49	Tara L Snyder	1
01754	Iron	SW-846 6010B	1	151311848013	05/13/2015 02:13	Tara L Snyder	1
07058	Manganese	SW-846 6010B	1	151311848013	05/13/2015 02:13	Tara L Snyder	1
07050	ICP/MS EPA-600 Digest	EPA 200.8 rev 5.4	1	151287050005	05/11/2015 10:07	James L Mertz	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	151311848013	05/12/2015 10:34	James L Mertz	1

Quality Control Summary

Client Name: The Boeing Company
Reported: 05/20/2015 21:45

Group Number: 1559679

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD RPD</u>	<u>Max</u>
Batch number: H151382AA			Sample number(s): 7879580-7879581,7879583,7879586					
Acetone	5.0	U	5.0 ug/l	82	90	66-132	9	30
Acrolein	25	U	25. ug/l	75	81	44-122	8	30
Acrylonitrile	5.0	U	5.0 ug/l	94	101	75-133	8	30
Benzene	0.2	U	0.2 ug/l	102	100	80-120	2	30
Bromobenzene	0.5	U	0.5 ug/l	95	96	80-120	2	30
Bromo(chloromethane	0.5	U	0.5 ug/l	108	107	80-125	1	30
Bromodichloromethane	0.5	U	0.5 ug/l	99	100	80-120	1	30
Bromoform	0.5	U	0.5 ug/l	92	92	64-134	0	30
Bromomethane	0.5	U	0.5 ug/l	107	107	62-126	0	30
2-Butanone	5.0	U	5.0 ug/l	88	98	75-128	11	30
n-Butylbenzene	0.5	U	0.5 ug/l	99	97	80-120	2	30
sec-Butylbenzene	0.5	U	0.5 ug/l	98	97	80-120	1	30
tert-Butylbenzene	0.5	U	0.5 ug/l	95	95	80-120	0	30
Carbon Disulfide	0.5	U	0.5 ug/l	104	102	70-128	2	30
Carbon Tetrachloride	0.2	U	0.2 ug/l	101	99	80-135	3	30
Chlorobenzene	0.5	U	0.5 ug/l	95	95	80-120	0	30
Chloroethane	0.5	U	0.5 ug/l	105	104	68-120	1	30
Chloroform	0.2	U	0.2 ug/l	101	101	80-120	0	30
Chloromethane	0.5	U	0.5 ug/l	98	95	55-125	3	30
2-Chlorotoluene	0.5	U	0.5 ug/l	96	97	80-120	0	30
4-Chlorotoluene	0.5	U	0.5 ug/l	95	95	80-120	1	30
1,2-Dibromo-3-chloropropane	0.5	U	0.5 ug/l	81	91	72-136	11	30
Dibromo(chloromethane	0.5	U	0.5 ug/l	97	97	80-126	0	30
Dibromomethane	0.5	U	0.5 ug/l	102	103	80-120	2	30
trans-1,4-Dichloro-2-butene	5.0	U	5.0 ug/l	92	104	14-166	12	30
1,2-Dichlorobenzene	0.5	U	0.5 ug/l	94	94	80-120	1	30
1,3-Dichlorobenzene	0.5	U	0.5 ug/l	94	94	80-120	0	30
1,4-Dichlorobenzene	0.5	U	0.5 ug/l	96	96	80-120	0	30
1,1-Dichloroethane	0.5	U	0.5 ug/l	100	101	80-120	1	30
1,2-Dichloroethane	0.2	U	0.2 ug/l	99	100	80-125	1	30
1,1-Dichloroethene	0.2	U	0.2 ug/l	104	103	80-120	0	30
cis-1,2-Dichloroethene	0.2	U	0.2 ug/l	102	102	80-120	1	30
trans-1,2-Dichloroethene	0.2	U	0.2 ug/l	106	103	80-120	3	30
1,2-Dichloropropane	0.5	U	0.5 ug/l	101	102	80-120	0	30
1,3-Dichloropropane	0.5	U	0.5 ug/l	94	94	80-120	1	30
2,2-Dichloropropane	0.5	U	0.5 ug/l	103	102	60-139	1	30
1,1-Dichloropropene	0.5	U	0.5 ug/l	101	100	80-120	2	30
cis-1,3-Dichloropropene	0.2	U	0.2 ug/l	102	103	80-120	1	30
trans-1,3-Dichloropropene	0.2	U	0.2 ug/l	99	98	77-126	2	30
Ethylbenzene	0.5	U	0.5 ug/l	94	93	80-120	1	30
Ethylene dibromide	0.5	U	0.5 ug/l	100	99	80-120	1	30
Hexachlorobutadiene	0.5	U	0.5 ug/l	82	81	74-123	2	30
2-Hexanone	5.0	U	5.0 ug/l	87	97	72-124	11	30

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: The Boeing Company
Reported: 05/20/2015 21:45

Group Number: 1559679

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD RPD</u>	<u>RPD Max</u>
Isopropylbenzene	0.5	U	0.5	ug/l 94	91	80-120	3	30
4-Isopropyltoluene	0.5	U	0.5	ug/l 94	93	80-120	1	30
Methyl Iodide	0.5	U	0.5	ug/l 101	100	79-120	1	30
4-Methyl-2-pentanone	5.0	U	5.0	ug/l 87	94	71-123	9	30
Methylene Chloride	0.5	U	0.5	ug/l 103	103	80-120	1	30
Naphthalene	0.5	U	0.5	ug/l 82	84	72-120	2	30
n-Propylbenzene	0.5	U	0.5	ug/l 97	97	80-120	0	30
Styrene	0.5	U	0.5	ug/l 98	96	80-120	2	30
1,1,1,2-Tetrachloroethane	0.5	U	0.5	ug/l 94	93	80-120	1	30
1,1,2,2-Tetrachloroethane	0.2	U	0.2	ug/l 101	101	80-120	0	30
Tetrachloroethene	0.2	U	0.2	ug/l 94	92	80-120	2	30
Toluene	0.2	U	0.2	ug/l 97	95	80-120	2	30
112Trichloro122Trifluoroethane	0.5	U	0.5	ug/l 104	100	75-120	3	30
1,2,3-Trichlorobenzene	0.5	U	0.5	ug/l 78	82	75-120	4	30
1,2,4-Trichlorobenzene	0.5	U	0.5	ug/l 84	84	80-120	1	30
1,1,1-Trichloroethane	0.5	U	0.5	ug/l 100	99	80-120	1	30
1,1,2-Trichloroethane	0.2	U	0.2	ug/l 99	98	80-120	0	30
Trichloroethene	0.2	U	0.2	ug/l 103	103	80-120	0	30
Trichlorofluoromethane	0.5	U	0.5	ug/l 107	102	64-141	5	30
1,2,3-Trichloropropane	1.0	U	1.0	ug/l 100	100	80-120	1	30
1,2,4-Trimethylbenzene	0.5	U	0.5	ug/l 98	97	80-120	1	30
1,3,5-Trimethylbenzene	0.5	U	0.5	ug/l 97	97	80-120	0	30
Vinyl Acetate	0.5	U	0.5	ug/l 86	87	18-200	1	30
Vinyl Chloride	0.2	U	0.2	ug/l 105	103	59-124	3	30
m,p-Xylene	0.5	U	0.5	ug/l 95	94	80-120	2	30
o-Xylene	0.5	U	0.5	ug/l 94	94	80-120	0	30
Batch number: 151287050005A			Sample number(s): 7879582, 7879584, 7879588					
Arsenic		0.0020 U	0.0020 mg/l	100		85-115		
Batch number: 151311848013			Sample number(s): 7879582, 7879584-7879585, 7879587-7879588					
Iron		0.200 U	0.200 mg/l	104		80-120		
Manganese		0.0050 U	0.0050 mg/l	103		80-120		
Batch number: 15128105012A			Sample number(s): 7879586					
Nitrite Nitrogen		0.050 U	0.050 mg/l	102		90-110		
Batch number: 15128667601B			Sample number(s): 7879586					
Chloride		0.40 U	0.40 mg/l	98		90-110		
Sulfate		1.0 U	1.0 mg/l	97		90-110		
Batch number: 15133049503A			Sample number(s): 7879586					
Total Organic Carbon		1.0 U	1.0 mg/l	105		91-113		
Batch number: 15135118101B			Sample number(s): 7879586					
Total Nitrite/Nitrate Nitrogen		0.10 U	0.10 mg/l	99	103	90-110	4	20
Batch number: 15137106101B			Sample number(s): 7879586					
Nitrate Nitrogen		0.10 U	0.10 mg/l	104		90-110		
Batch number: 15131400101B			Sample number(s): 7879586					
Chemical Oxygen Demand		50.0 U	50.0 mg/l	100	100	94-110	0	3
Batch number: 15134003201A			Sample number(s): 7879586					
Ammonia-Nitrogen		0.20 U	0.20 mg/l	102		80-120		

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: The Boeing Company
Reported: 05/20/2015 21:45

Group Number: 1559679

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD RPD</u>	<u>BKG MAX</u>	<u>DUP Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup Max</u>
Batch number: 151287050005A Arsenic	98		Sample number(s): 7879582, 7879584, 7879588 UNSPK: P880326 BKG: P880326 70-130 0.0024 0.0021 14 (1) 20						
Batch number: 151311848013 Iron	90	91	Sample number(s): 7879582, 7879584-7879585, 7879587-7879588 UNSPK: P879602 BKG: P879602 1 20 0.347 3 (1) 20	75-125	20	0.356	0.347	3 (1)	20
Manganese	-3 (2)	-456		75-125	9	20	27.4	26.3	4 (2)
Batch number: 15128105012A Nitrite Nitrogen	97		Sample number(s): 7879586 UNSPK: P879503 BKG: P879503 90-110 0.050 U 0.050 U 0 (1) 20						
Batch number: 15128667601B Chloride	104		Sample number(s): 7879586 UNSPK: 7879586 BKG: 7879586 90-110 6.5 6.5 0 (1) 20						
Sulfate	93			90-110		1.8	1.6	11 (1)	20
Batch number: 15133049503A Total Organic Carbon	44*		Sample number(s): 7879586 UNSPK: P879602 BKG: P879602 63-142 2.0 1.7 20* (1) 4						
Batch number: 15135118101B Total Nitrite/Nitrate Nitrogen	82*		Sample number(s): 7879586 UNSPK: P877910 BKG: P877910 90-110 25.3 25.1 1 2						
Batch number: 15137106101B Nitrate Nitrogen	110		Sample number(s): 7879586 UNSPK: P879573 BKG: P879573 90-110 0.10 U 0.10 U 0 (1) 2						
Batch number: 15131400101B Chemical Oxygen Demand	92*		Sample number(s): 7879586 UNSPK: P879039 BKG: P879039 94-110 50.0 50.0 U 0 (1) 9						
Batch number: 15134003201A Ammonia-Nitrogen	94	59*	Sample number(s): 7879586 UNSPK: P879602 BKG: P879602 80-120 37* 23 0.85 0.78 9 (1) 20						

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 8260C Boeing 69

Batch number: H151382AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7879580	104	106	96	96
7879581	102	107	95	100
7879583	103	107	95	100
7879586	101	105	94	100
Blank	101	107	97	96
LCS	99	104	97	98

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: The Boeing Company
Reported: 05/20/2015 21:45

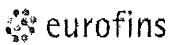
Group Number: 1559679

Surrogate Quality Control

LCSD	100	105	97	98
Limits:	77-114	74-113	77-110	78-110

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.



Lancaster Laboratories
Environmental

Sample Administration Receipt Documentation Log

Doc Log ID:

68676

Group Number(s):

1559679

Client: BOEING

BELLEVUE, WA EASTGATE LANDFILL

Delivery and Receipt Information

Delivery Method:	<u>Fed Ex</u>	Arrival Timestamp:	<u>05/08/2015 9:25</u>
Number of Packages:	<u>1</u>	Number of Projects:	<u>1</u>
State/Province of Origin:	<u>WA</u>		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	VOA Vial Headspace ≥ 6mm:	No
Samples Chilled:	Yes	Total Trip Blank Qty:	2
Paperwork Enclosed:	Yes	Trip Blank Type:	HCL
Samples Intact:	Yes	Air Quality Samples Present:	No
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

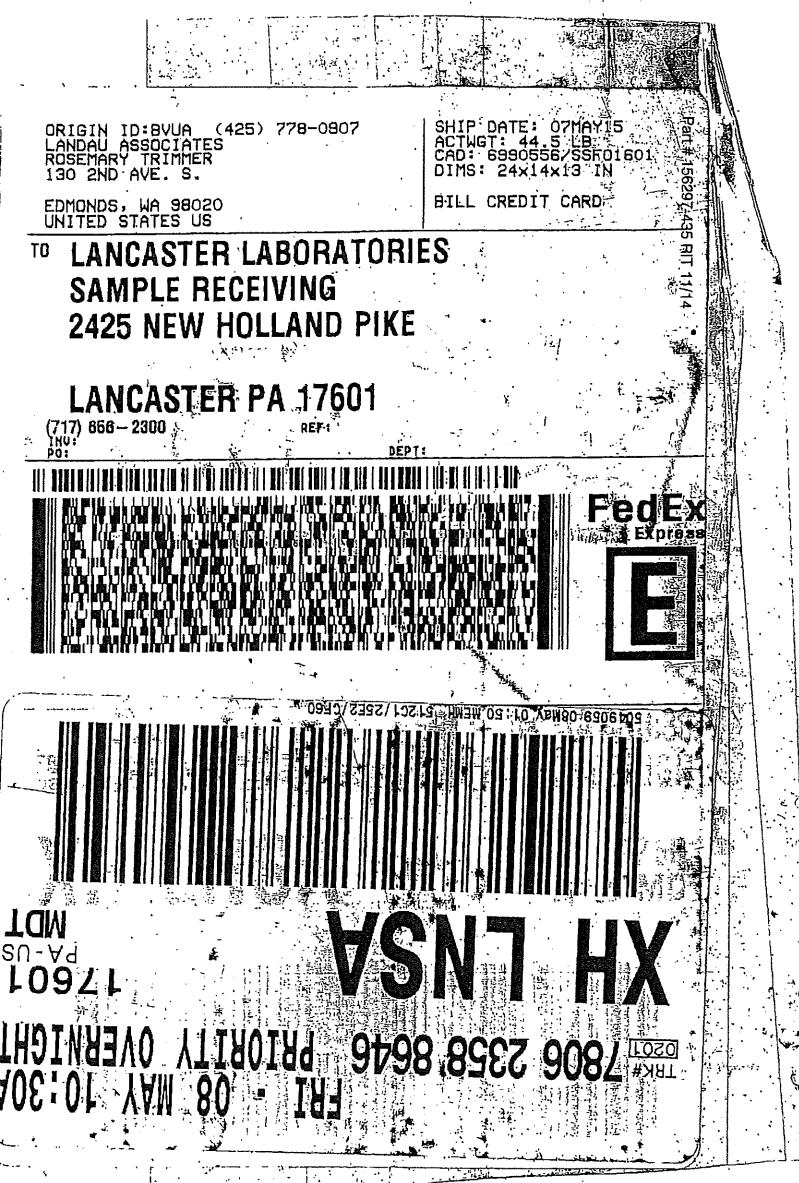
Unpacked by Corey Eshleman (3647) at 10:55 on 05/08/2015

Samples Chilled Details: BELLEVUE, WA EASTGATE LANDFILL

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT121	0.9	DT	Wet	Y	Bagged	N

1559679



Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
µg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	L	liter(s)
m3	cubic meter(s)	µL	microliter(s)
		pg/L	picogram/liter
<	less than		
>	greater than		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

Laboratory Data Qualifiers:

- B - Analyte detected in the blank
- C - Result confirmed by reanalysis
- E - Concentration exceeds the calibration range
- J (or G, I, X) - estimated value \geq the Method Detection Limit (MDL or DL) and the < Limit of Quantitation (LOQ or RL)
- P - Concentration difference between the primary and confirmation column >40%. The lower result is reported.
- U - Analyte was not detected at the value indicated
- V - Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference...

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, ISO17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

APPENDIX B

Laboratory Data Quality Evaluation

TECHNICAL MEMORANDUM



TO: Project File

FROM: Terry McGourty and Anne Halvorsen

DATE: July 24, 2015

**RE: BOEING COMPANY'S FORMER EASTGATE LANDFILL
MAY 7, 2015 INTERIM GROUNDWATER MONITORING SAMPLE RESULTS
LABORATORY DATA QUALITY EVALUATION**

This technical memorandum provides the results of a data quality evaluation for five groundwater samples and one trip blank collected at the former Eastgate Landfill on May 7, 2015. A data quality evaluation was performed for the following analyses:

- Volatile organic compounds [VOCs; U.S. Environmental Protection Agency (EPA) Method SW8260C]
- Dissolved metals [EPA Method 200.8 Rev 5.4 (arsenic) and Method 6010B (iron and manganese)]
- Ammonia as nitrogen (EPA Method SM 4500-NH3 D-1997)
- Total Organic Carbon (TOC; Method SM 5310 C-2000)
- Chemical Oxygen Demand (COD; EPA Method 410.4)
- Chloride (EPA Method 300.0)
- Nitrate as nitrogen, Nitrite as nitrogen, and total Nitrite/Nitrate as Nitrogen (EPA Method 353.2)
- Sulfate (EPA Method 300.0).

All of the above analyses were performed by Eurofins Lancaster Laboratories Environmental, LLC (LLI) located in Lancaster, Pennsylvania. This data quality evaluation covers LLI data package 1559679.

The data quality evaluation was performed in accordance with the *Confirmational Groundwater Monitoring Former Eastgate Landfill Work Plan* (Landau Associates 2002), and with applicable portions of the EPA *Contract Laboratory Program National Functional Guidelines for Organic* (EPA 1999 and 2008) and *Inorganic Data Review* (EPA 2004 and 2010).

The evaluation considered the following elements:

- Chain-of-custody records
- Holding times
- Blank results (laboratory, method, and field)
- Surrogate recoveries
- Matrix spike (MS), matrix spike duplicate (MSD), and laboratory replicate results

- Laboratory control sample (LCS), laboratory control sample duplicate (LCSD), and Standard Reference Material results
- Duplicate analyses
- Quantitation limits
- Completeness.

Data validation qualifiers are added to sample results based on the evaluation of data quality. The absence of a data qualifier indicates that the data is acceptable without qualification. The data quality evaluation is summarized below. All sample results are acceptable without qualification.

SAMPLE CONDITIONS AND ANALYSIS

A signed chain-of-custody record was attached to this data package. The laboratory received all samples in good condition and all analyses were performed as requested. Upon receipt by LLI, the sample container information was compared to the associated chain-of-custody and the cooler temperature was recorded. Temperature in the cooler (0.9°C) was within the EPA-recommended limit of $0^{\circ}\text{C} \pm 6^{\circ}\text{C}$. Data was not qualified based upon the cooler temperature.

HOLDING TIMES

For all analyses and all samples, the time between sample collection, extraction (if applicable), and analysis was determined to be within EPA- and project-specified holding times. No qualification of the data is necessary.

METHOD BLANKS

At least one method blank was analyzed with this batch of samples for each analysis. No contamination was detected in the method blanks. No qualification of the data is necessary.

FIELD TRIP BLANKS

One trip blank was submitted for VOC analysis with this data package. No contamination was detected in the trip blank. No qualification of the data is necessary.

SURROGATE SPIKE RECOVERIES

All surrogate recoveries for all organic analyses were within laboratory control limits. No qualification of the data is necessary.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE/LABORATORY DUPLICATE

Matrix spike (MS) and laboratory duplicate samples were analyzed with the conventional analyses. The MS and duplicate samples were prepared using a project sample spiked with appropriate target analytes. Recoveries were within the laboratory or method control limits. No qualification of the data is necessary.

LABORATORY CONTROL SAMPLE (BLANK SPIKE) RESULTS

At least one laboratory control sample (LCS) and/or laboratory control sample duplicate (LCSD) was analyzed with this batch of samples for each analysis. Recoveries and relative percent differences (RPDs) for the laboratory control samples and associated duplicates were within the current laboratory-specified control limits. No qualification of the data is necessary.

FIELD DUPLICATE RESULTS

One blind field duplicate sample pair (EL-100/EL-103) was collected with the groundwater samples meeting the requirement specified in the work plan of one duplicate per 20 samples, but no less than one blank per sampling round. RPDs between the blind field duplicate sample and parent results were within the project-specified control limit of 20 percent. No qualification of the data was necessary.

LABORATORY AUDIT/CORRECTIVE ACTION RECORDS

No audit or corrective actions were necessary.

REPORTING LIMITS

Method and/or project-specified reporting limits were met for each sample for each analysis.

OVERALL DATA QUALITY AND COMPLETENESS

Data precision was evaluated through laboratory duplicates, field duplicates, and laboratory control sample duplicates. Data accuracy was evaluated through laboratory control samples, matrix spikes, and surrogate spikes. Based on this data quality evaluation, all qualified data and non-qualified data were determined to be acceptable. The completeness for this set of data is 100 percent, which exceeds the project goal of 90 percent.

REFERENCES

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