
CEDAR HILLS REGIONAL LANDFILL QUARTERLY ENVIRONMENTAL MONITORING REPORT

First Quarter 2015



Department of Natural Resources and Parks
Solid Waste Division



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**KING COUNTY SOLID WASTE
CEDAR HILLS REGIONAL LANDFILL
QUARTERLY ENVIRONMENTAL MONITORING REPORT**

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Cedar Hills Regional Landfill Summary of Quarterly Environmental Monitoring First Quarter of 2015

This summary contains a discussion of quarterly environmental monitoring results for groundwater and surface water quality and landfill gas migration monitoring for Cedar Hills Regional Landfill.

Environmental samples were collected and analyzed in accordance with the Quality Assurance Project Plan for Environmental Monitoring at King County Solid Waste Facilities (QAPP). This document contains procedures to ensure data quality, consistency and documentation.

1.0 Quarterly Results and Analysis

This Section discusses the monitoring results and how they compare to previously collected data at the site.

1.1 Groundwater

Groundwater monitoring well details and locations are presented in Table 1 and Figure 1. Monitoring activities for the third quarter are listed in Table 2.

1.11 Regional Aquifer

Regional aquifer analysis results for this quarter are consistent with past results.

For discussion and graphical presentation, monitoring wells are grouped together according to the flow path analysis for the regional aquifer, which was developed in the *Cedar Hills Regional Landfill Technical Memorandum Phase I Investigations Groundwater Monitoring Well System Enhancements*, 2007, and refined in the *Cedar Hills Regional Landfill Regional Aquifer Technical Memorandum*, 2011.

Groundwater elevations and potentiometric surfaces are within historical ranges and reflect seasonal responses to precipitation. Potentiometric Surface Map and Groundwater Flow Analysis can be found in Appendix A. Elevations measured this quarter conform to the current hydrogeologic model.

Exceedances of regulatory standards are tabulated and presented in Table 3. Groundwater samples were analyzed for both dissolved and total metal fractions per WAC 173-351-430(2)(b)(ii) as revised. Results for metals listed in WAC 173-351-990 Appendix I were compared to water quality standards. This has resulted in more exceedances for arsenic but does not indicate a change in water quality as the dissolved concentrations remained similar. These results reflect the change in analytical procedure.

Primary Ground Water Quality Criteria were exceeded for total arsenic in upgradient and crossgradient wells MW-93 and MW-21, MW-99, which generally has arsenic levels exceeding the primary standard was not sampled for metals this quarter. Wells interior, vertical to facilities MW-64, MW-67, MW-68 and MW-100; and downgradient wells MW-69, MW-80, MW-86, MW-89 and MW-91 also exceeded the standard for arsenic. Trichloroethene exceeded the groundwater criterion in upgradient wells MW-76 and MW-82; and vinyl chloride exceeded criteria in MW-65. Secondary standards

(dissolved iron and dissolved manganese) were exceeded in numerous regional wells. These results are consistent with past analyses.

The change to a comparison of Appendix I metals to standards using the total fraction leads to concentration increases as a result of dissolving particulates in the sample rather than filtering them out. This was an expected result of the methodology change.

Trilinear Diagrams (Figures 2 through 6) indicate water quality type (hydrochemical facie) based on dissolved ion distribution. The diagrams are useful to recognize spatial variability, potential analytical error or change in hydrochemical facie over time. All regional samples are within the calcium-magnesium-bicarbonate hydrochemical facie. Data are consistent with previous quarters. Ion balance calculations (Table 4) indicate no analytical error in regional aquifer samples as all samples are within 10% on the ion balance.

Intra-well prediction limits are calculated annually using data collected through the end of the previous calendar year (2014). Comparison to calculated prediction limits provides an indication of whether a change in concentration represents normal variability or a change in water quality. This quarter, *cis*-1,2-dichloroethene in upgradient well MW-59, nitrate in upgradient well MW-76 and barium in upgradient well MW-83 exceeded prediction limits (Table 5). Dissolved rather than total metals are used in the prediction limit evaluation because an adequate background data set of eight samples for total metals has only recently been completed. Future results will be compared to these new background values in future quarterly reports.

Volatile Organic Compound (VOC) detections are presented in Table 6. Present are regularly occurring detections of chlorinated VOCs and their breakdown products from the upgradient Queen City Farms (QCF) Site, which include trichloroethene (TCE) in monitoring wells MW-76, MW-78, MW-82, MW-83, and MW-94; *cis*-1,2-dichloroethene was detected in MW-24, MW-56, MW-59 and MW-76; tetrachloroethene (PCE) in MW-76 and vinyl chloride (VC) in MW-65. These upgradient well detections are consistent with past data and continuing migration from QCF.

Acetone was detected in Field Blanks as well as several groundwater samples, all probable laboratory artifacts. Quality Assurance /Quality Control (QA/QC) samples (field blanks, trip blanks, and method blanks) detections appear in Table 13.

1.12 Perched Zones

Analysis results for the perched zones this quarter are consistent with past results.

Groundwater elevations measured during the quarter are within historical ranges. Samples were collected from nine perched wells, four in the north and west areas of the landfill (MW-27A, MW-28, MW-29, and MW-55), four in the east perched zone (MW-30A, MW-47, MW-62 and MW-EB6); and MW-101 in the South Solid Waste Area. Groundwater quality data for the regularly sampled Perched Zone samples collected

during the first quarter of 2015 are consistent with previous samples.

Exceedances of regulatory standards are tabulated and presented in Table 7. All are consistent with past analyses and known impacts.

Trilinear plots for perched zones samples are all within the calcium-magnesium-bicarbonate hydrochemical facie, as in past samples (Table 8 and Figures 7-9). Cation/Anion balances indicate potential analytical error (greater than 10% ion imbalance) only in perched well MW-62.

As with the regional data, perched zone prediction limits are derived from cumulative data through the end of 2014 and any exceedances of these limits by current results are tabulated (Table 9). There were no prediction limits exceedances in the perched zone.

Volatile Organic Compound detections in the perched zones are presented in Table 10. All are consistent with previous analyses.

1.2 Surface Water

Surface water sampling is attempted monthly at stations located along the drainage courses around the landfill. Samples were collected at 15 surface water stations having adequate flow during the quarter. Samples were also collected at the North Siltation Pond and North Stormwater Lagoon to better characterize flow sources. Monitoring activities are listed in Table 11.

Cedar Hills Regional Landfill is covered by an Industrial Stormwater General Permit issued by the Washington State Department of Ecology. The permit defines discharge Benchmarks, applicable to all facilities and Effluent Limits, applicable specifically to landfills. These values are reproduced in Table 15. Stations SW-N4, SW-SL3 and SW-GS1 are the designated points for comparison to permit benchmarks and effluent limits. Samples were obtained from each designated compliance station monthly this quarter. Compliance sample exceedances are presented in Table 12. The Benchmark for quarterly average turbidity and the effluent limit for daily maximum and monthly average TSS were exceeded at SW-GS1; the copper benchmark was exceeded at SW-N4.

The turbidity and TSS at SW-GS1 result from point source flow exiting the South Siltation Pond. Erosion and Sediment Control (ESC) improvements are in progress at this location.

At SW-N4, a possible point source for the copper benchmark exceedance may be either the North Stormwater Lagoon or the North Siltation Pond, where samples were collected to better characterize flows. ESC improvements are in progress at these ponds as well.

1.3 Landfill Gas

A network of compliance probes are monitored for landfill gas migration around the perimeter of the landfill. Probes are monitored by the landfill gas crew monthly to monitor system performance and quarterly for compliance. No compliance probes exceeded the 5% criteria this quarter.

Detections above the regulatory limit in landfill gas probe GP-33C in September of 2011 prompted actions including: monitoring frequency increases, operational adjustments to increase LFG recovery rates, off-site structure monitoring and preparation of a response plan.

Operational review resulted in modifications to enhance extraction from unlined areas and under liner spaces that could potentially act as gas conveyance pathways.

The plan resulted in installation of 13 borings targeting the potential zone of LFG migration in the native sediments. Eight borings serve as LFG extraction wells and five as monitoring probes. The extraction wells and probes are currently monitored bimonthly. Methane was not detected in any migration monitoring probe during the first quarter..

Data indicate the system has been effective in controlling LFG migration to the perimeter probes with no methane detections this quarter.

Compliance Probe, On-site Buildings and supplemental Monitoring Probe results are presented in Appendix B.

2.0 Analytical Methods

Groundwater quality is evaluated by comparison of analysis results to regulatory standards, geochemical analysis and statistical evaluation. Water quality analytical results for surface water runoff discharged from the landfill site are compared to the limits set in the Industrial Stormwater General Permit. Following is a brief description of each.

2.1 Regulatory Standards

Groundwater monitoring results are compared to Washington State Groundwater Quality Criteria, WAC 173-200 (Table 14). Surface water monitoring results are compared to the *Industrial Stormwater General Permit* Benchmark Criteria or WAC 173-201A Water Quality Standards for Surface Waters of the State of Washington.

2.2 Trilinear Diagrams and Major Ion Balance

Geochemical data are presented on trilinear diagrams. Major cations and anions are plotted on individual triangles as percentages of total milliequivalents per liter (meq/L). These diagrams illustrate differences in major ion chemistry between groundwater samples and can be used to categorize water composition into identifiable groups or hydrochemical facies. These hydrochemical facies reflect distinct compositions of cation and anion concentrations. The value of the diagram lies in pointing out relationships that exist among individual samples. Trilinear Diagrams are included with ionic balance calculations in this report. Ion balance calculations are useful for determining analytical correctness and can be of value in detecting laboratory error or variation in field sampling procedures.

2.3 Prediction Limits

The Prediction Limit is an intra-well statistical test that compares an analytical result to a computed limit value. The limit value is derived from past analytical results from the same well, considered representative historical well data. A value outside of this limiting value is considered evidence that the result is not drawn from the same sample population distribution. The prediction limits generated in this report are based on a 1% false positive rate (type I error) and depend on the background distribution. For each parameter tested, an appropriate background data set is chosen. This background set is updated annually to include recent data that more accurately defines background water quality. The data set is tested for normality by application of the Shapiro-Wilk Test for Normality. If the data fail the test for normality, log transformed data are tested. When normal or transformed normal data sets are determined, a parametric prediction limit is calculated and future results compared to this value. When transformations fail the test for normality, a non-parametric method is applied and future results are compared to this limit.

This test is performed on parameters listed in WAC 173-351-990 Appendix I and is used to detect a change in the population distribution of the individual well. Exceedances detected in Appendix I parameters for the quarter are presented in Table 5 (Regional Aquifer Wells) and Table 9 (Perched Zones Wells).

2.4 Laboratory Data Quality

Laboratory analytical data is reviewed to verify meeting data quality objectives (DQOs) as defined in the Quality Assurance Project Plan for Environmental Monitoring at King County Solid Waste Facilities (QAPP). Occasionally, results identified during this process are deemed to be unsuitable for evaluation purposes. A summary of suspect results can be found in Table 16.

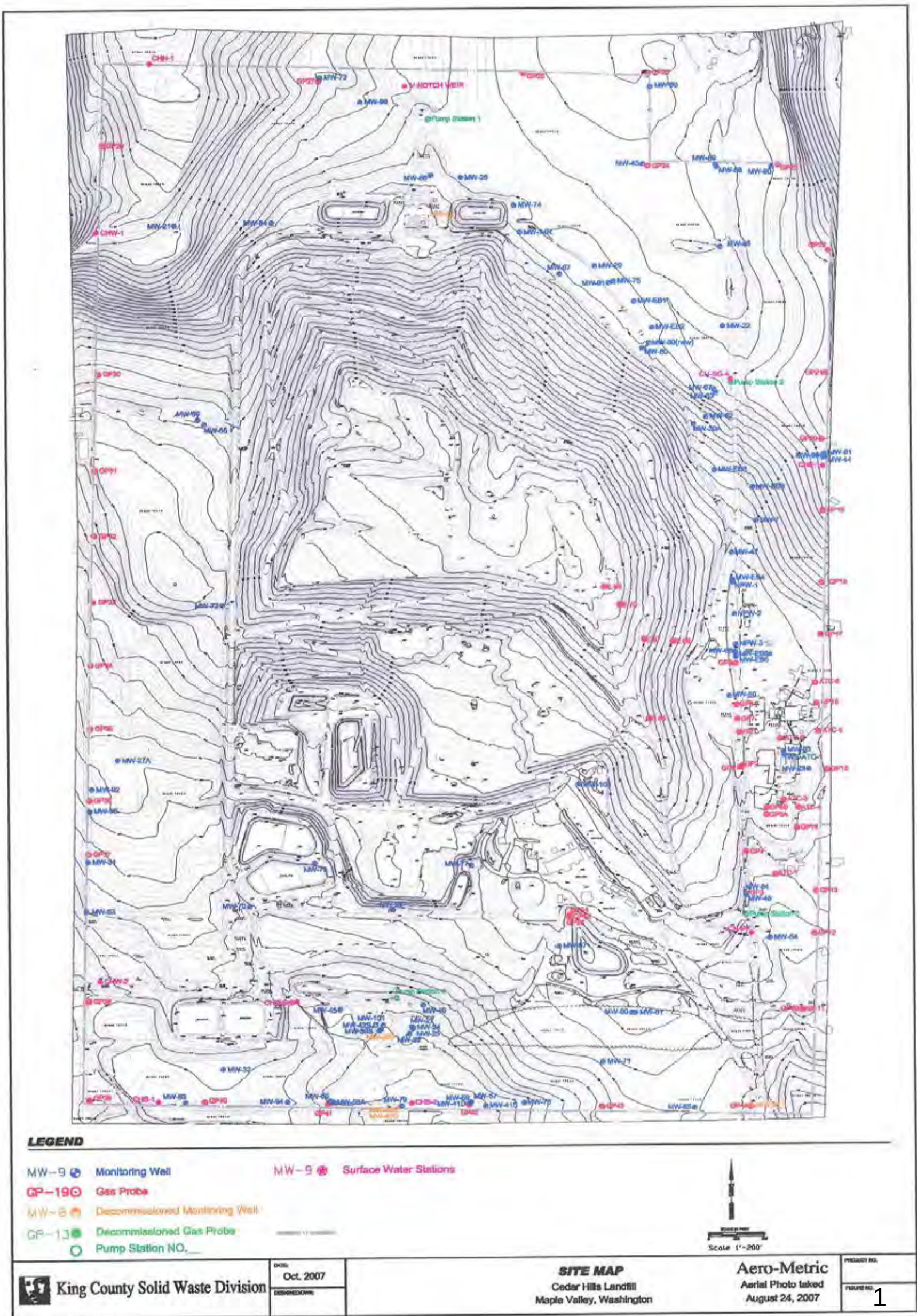


TABLE 1
SUMMARY OF CEDAR HILLS REGIONAL LANDFILL GROUNDWATER WELLS

Well Number	Date Constructed	Aquifer	Zone ¹	Purpose ²	Ground	Top of	Total Well	Screened Interval		Screened Interval		Coordinates	
					Surface Elevation	Well Casing Elevation	Depth	Depth	Depth	Elevation	Elevation	Northing	Easting
MW-24	6/1/1983	Regional	US	WL/WQ	473.8	475.99	193.0	187	192	286.8	281.8	167767.76	1702441.65
MW-54	9/26/1986	Regional	US	WL	579.3	580.43	360.0	329	351	250.3	228.3	168435.53	1702154.28
MW-56	10/12/1988	Regional	US	WL/WQ	479.2	480.33	170.5	156	166	323.2	313.2	167214.82	1698980.77
MW-57	8/22/1988	Regional	US	WL/WQ	455.7	456.64	145.5	129	144	326.7	311.7	167201.99	1699993.32
MW-58A	9/26/1988	Regional	US	WL/WQ	478.6	479.27	220.5	208.5	218.5	270.1	260.1	167207.16	1699006.59
MW-59	8/16/1988	Regional	US	WL/WQ	455.6	457.13	185.5	170.5	180.5	285.1	275.1	167193.44	1699983.91
MW-60	9/13/1991	Regional	US	WL/WQ	564.8	567.15	266.4	230	239	334.8	325.8	167873.2	1701154.47
MW-65	3/29/1993	Regional	US	WL/WQ	543.2	545.83	236.9	225.5	234.3	317.7	308.9	167146.55	1701602.10
MW-76	10/25/1999	Regional	US	WL/WQ	489.8	491.71	155.9	138.7	148.2	351.1	341.6	167193.13	1700376.23
MW-82	11/2/2000	Regional	US	WL/WQ	472.8	474.85	139.5	123.9	133.4	348.9	339.4	167725.31	1699553.72
MW-83	10/27/2000	Regional	US	WL/WQ	494.5	496.81	160.0	144.3	153.8	350.2	340.7	167212.27	1697939.89
MW-94	7/2/2002	Regional	US	WL/WQ	493.2	495.51	168.0	136	144.7	357.2	348.5	167210.22	1698674.21
MW-21	5/17/1983	Regional	UNW	WL/WQ	418.2	420.66	180.0	155	163	263.2	255.2	173876.38	1697901.86
MW-73	7/3/1999	Regional	UNW	WL/WQ	484.3	485.70	218.0	196.2	205.5	288.1	278.8	174995.59	1698954.95
MW-84	10/20/2000	Regional	UNW	WL/WQ	528.7	530.80	250.5	236.2	245.7	292.5	283.0	173894.54	1698602.89
MW-81	10/3/2002	Regional	UNE	WL/WQ	492.2	493.66	199.0	183	192	309.2	300.2	172113.99	1702568.87
MW-99	8/30/2002	Regional	UNE	WL/WQ	491.8	493.64	287.0	270	279	221.8	212.8	172098.73	1702556.06
MW-93	6/24/2002	Regional	CG	WL/WQ	630.2	632.15	350.0	310.3	320.1	319.9	310.1	169851.24	1702259.35
MW-95	7/22/2002	Regional	CG	WL/WQ	568.6	571.54	311.0	254	262.7	314.6	305.9	169426.92	1697265.32
MW-106	2/19/2009	Regional	CG	WL	473.0	475.47	270.0	193	203	280.0	270.0	173461.69	1702536.99
MW-70	5/11/1993	Regional	I	WL/WQ	527.9	530.57	221.5	205.1	218.8	322.8	309.1	168699.89	1698412.97
MW-77	10/12/1999	Regional	I	WL/WQ	550.5	552.67	251.5	230	239.5	320.5	311.0	168999.71	1700007.63
MW-78	10/8/1999	Regional	I	WL/WQ	535.3	537.35	229.5	213	225.5	322.3	309.8	169027.58	1698881.94
MW-100	8/26/2002	Regional	I	WL/WQ	618.4	620.32	124.7	299.3	309.3	319.1	309.1	169610.46	1700791.72
MW-22	5/25/1983	Regional	V	WL	515.0	517.09	284.0	279	283.8	236.0	231.2	173088.17	1701844.34
MW-64	3/22/1993	Regional	V	WL/WQ	594.3	596.55	276.3	260.3	274.1	334.0	320.2	168772.19	1701980.27
MW-66	4/5/1993	Regional	V	WL/WQ	528.6	531.28	250.7	234.2	248	294.4	280.6	174250.32	1699750.19
MW-67	4/28/1993	Regional	V	WL/WQ	514.1	516.43	232.4	216.3	230.1	297.8	284.0	172610.65	1701776.69
MW-68	4/15/1993	Regional	V	WL/WQ	644.8	647.07	354.6	333.5	352.5	311.3	292.3	170609.35	1701917.32
MW-69	4/23/1993	Regional	DW	WL/WQ	651.0	653.69	368.8	357.4	371	293.6	280.0	172400.20	1698061.86
MW-72	8/7/1998	Regional	DW	WL/WQ	669.8	671.87	389.0	366.2	375.8	303.6	294.0	170987.71	1698229.92
MW-74	11/1/2000	Regional	DG	WL/WQ	529.2	531.26	270.0	239.3	248.8	289.9	280.4	173813.79	1700386.85
MW-75	9/24/1999	Regional	DG	WL/WQ	529.8	532.40	287.0	258.7	268.8	271.1	261.0	173432.42	1701059.70
MW-80	2/27/2001	Regional	DG	WL/WQ	528.5	530.41	270.0	249.3	258.8	279.2	269.7	172964.99	1701309.78
MW-85	12/1/2000	Regional	DG	WL/WQ	529.8	531.76	270.0	247.2	256.7	282.6	273.1	173694.52	1701828.95
MW-86	12/12/2000	Regional	DG	WL/WQ	533.9	536.04	282.0	250.5	259.3	283.4	274.6	174917.90	1701331.25
MW-87	11/21/2000	Regional	DG	WL/WQ	535.2	537.31	272.5	251.5	260.8	283.7	274.4	173493.76	1700670.27
MW-88	9/13/2001	Regional	DG	WL/WQ	511.2	513.68	248.5	229.7	239	281.5	272.2	174303.06	1701807.87
MW-89	11/12/2001	Regional	DG	WL/WQ	510.7	512.82	328.0	281.5	290.8	229.2	219.9	174319.44	1701799.57
MW-90	8/14/2002	Regional	DG	WL/WQ	500.2	502.22	300.0	265	274	235.2	226.2	174300.67	1702203.13
MW-91	10/26/2001	Regional	DG	WL/WQ	529.7	532.02	331.0	268.9	289	260.8	240.7	173423.94	1701023.09
MW-43	4/30/1985	Regional	DNF	WL/WQ	544.6	547.06	325.0	299	309	245.6	235.6	174327.14	1701274.23
WS-ATC-1	2/7/1972	Regional	--	WL	624.9	625.51	535.0	325	340	299.9	284.9	169823.34	1702268.95
WS-NPW-1	8/22/1990	Regional	--	WL	644.6	646.33	382.0	365.7	375.7	278.9	268.9	171138.99	1701906.96
WS-NPW-3	6/5/1990	Regional	--	WL	644.3	645.81	376.0	359.4	367.4	284.9	276.9	170663.28	1701922.88

TABLE 1
SUMMARY OF CEDAR HILLS REGIONAL LANDFILL GROUNDWATER WELLS

Well Number	Date Constructed	Aquifer	Zone ¹	Purpose ²	Ground	Top of	Total Well					Coordinates	
					Surface Elevation	Well Casing Elevation	Depth	Screened Interval Depth	Screened Interval Elevation	Screened Interval Depth	Screened Interval Elevation	Northing	Easting
MW-30A	9/6/1989	Perched	EPZ	WL/WQ	567.7	568.43	40.0	25	35	542.7	532.7	172345.48	1701628.59
MW-47	6/31/1985	Perched	EPZ	WL/WQ	633.6	634.60	50.0	23.5	43.5	610.1	590.1	171365.53	1701898.69
MW-48	5/24/1985	Perched	EPZ	WL	593.6	594.49	63.0	37	47	556.6	546.6	168758.73	1701985.17
MW-50	6/3/1985	Perched	EPZ	WL	636.2	637.02	39.5	27.5	37.5	608.7	598.7	170276.14	1701873.92
MW-62	2/1/1990	Perched	EPZ	WL/WQ	555.3	556.21	65.5	44	54	511.3	501.3	172397.77	1701719.18
MW-63	2/12/1990	Perched	EPZ	WL	513.8	515.88	22.0	12	17	501.8	496.8	172580.25	1701786.72
MW-102	1/27/2009	Perched	EPZ	WL	549.7	552.48	50	35	50	515.2	500.2	172313.75	1701858.76
MW-103	1/28/2009	Perched	EPZ	WL	636.8	639.08	40.00	25	35	611.8	601.8	170473.99	1702210.55
MW-104	1/29/2009	Perched	EPZ	WL	626.9	629.68	35.00	22	32	604.9	594.9	171153.34	1702169.14
MW-EB6	11/28/1990	Perched	EPZ	WL/WQ	587.9	589.61	50.0	20	30	567.9	557.9	171862.72	1702049.75
MW-27A	10/3/1985	Perched	NW	WL/WQ	583.2	584.23	80.0	59	69	524.2	514.2	169817.29	1697470.72
MW-28	6/21/1983	Perched	NW	WL/WQ	526.2	527.75	39.0	27	37	499.2	489.2	174231.84	1699966.20
MW-29	6/23/1983	Perched	NW	WL/WQ	531.7	532.92	60.0	17	27	514.7	504.7	173552.23	1700926.39
MW-55	10/2/1986	Perched	NW	WL/WQ	651.1	652.29	67.0	37.5	47.5	613.6	603.6	172364.53	1698110.11
MW-98	3/9/2001	Perched	NW	WL	501.6	503.73	22.5	10.7	20	490.9	481.6	174810.64	1699245.65
MW-25	6/3/1983	Perched	SSWA	WL	473.2	474.41	43.0	18	38	455.2	435.2	167760.97	1699580.14
MW-41S	7/12/1983	Perched	SSWA	WL	460.7	462.44	51.0	8	18	452.7	442.7	167171.51	1700100.82
MW-41D	7/12/1983	Perched	SSWA	WL	460.7	462.32	51.0	30	50	430.7	410.7	167171.51	1700100.82
MW-45	5/17/1985	Perched	SSWA	WL	487.7	488.40	64.0	31	41	447.6	457.6	167907.28	1699058.03
MW-79	11/5/1999	Perched	SSWA	WL	456.9	459.17	56.0	40.5	50	416.4	406.9	167175.91	1699495.56
MW-96	12/18/2001	Perched	SSWA	WL	545.4	547.74	102.9	88.8	97.5	456.6	447.9	168667.73	1699434.47
MW-97	9/5/2001	Perched	SSWA	WL	562.5	564.54	124.7	101	110	461.5	452.5	168380.87	1700636.96
MW-101	6/2/2006	Perched	SSWA	WL/WQ	472.1	474.72	57.50	44	54	428.1	418.1	167791.40	1699364
MW-105	1/30/2009	Perched	SSWA	WL	518.7	521.23	30.00	18	28	500.7	490.7	167697.49	1698320.49

Notes ¹Position of the well screen in the regional aquifer flow path analysis relative to waste placement and site utilities. .

Zone Designations

US = Upgradient South Site Wells

UNW = Upgradient Northwest

UNE = Upgradient Northeast

CG = Cross Gradient

DW = Westside Downgradient

V = Vertical Key Facilities

I = Interior

DNF = Downgradient of North End Facilities outside Refuse Cells

DG = Downgradient Groundwater Flow

²WL = Water Level WQ = Water Quality

TABLE 2
GROUNDWATER MONITORING ACTIVITIES 1st QUARTER 2015

Well ID	Zone	Date	Planned Activity	Sample ID	Comment
MW-21	Regional	1/5/15	Groundwater Elevation Measurement	NA	
MW-21	Regional	1/27/15	Groundwater Sampling	W21-150127-	
MW-22	Regional	1/5/15	Groundwater Elevation Measurement	NA	
MW-24	Regional	1/9/15	Groundwater Elevation Measurement	NA	
MW-24	Regional	1/8/15	Groundwater Sampling	W24-150108-	
MW-25	Perched	1/9/15	Groundwater Elevation Measurement	NA	
MW-27A	Perched	1/9/15	Groundwater Elevation Measurement	NA	
MW-27A	Perched	1/13/15	Groundwater Sampling	W27A150113-	
MW-28	Perched	1/5/15	Groundwater Elevation Measurement	NA	
MW-28	Perched	1/23/15	Groundwater Sampling	W28-150123-	
MW-29	Perched	1/5/15	Groundwater Elevation Measurement	NA	
MW-29	Perched	1/23/15	Groundwater Sampling	W29-150123-	
MW-30A	Perched	1/5/15	Groundwater Elevation Measurement	NA	
MW-30A	Perched	1/14/15	Groundwater Sampling	W30A150114-	
MW-41S	Perched	1/9/15	Groundwater Elevation Measurement	NA	
MW-41D	Perched	1/9/15	Groundwater Elevation Measurement	NA	
MW-43	Regional	1/5/15	Groundwater Elevation Measurement	NA	
MW-43	Regional		Groundwater Sampling		No Sample Pump Malfunction
MW-45	Perched	1/9/15	Groundwater Elevation Measurement	NA	
MW-47	Perched	1/5/15	Groundwater Elevation Measurement	NA	
MW-47	Perched	1/30/15	Groundwater Sampling	W47-150130-	
MW-48	Perched	1/9/15	Groundwater Elevation Measurement	NA	
MW-50	Perched	1/9/15	Groundwater Elevation Measurement	NA	
MW-54	Regional	1/9/15	Groundwater Elevation Measurement	NA	
MW-55	Perched	1/5/15	Groundwater Elevation Measurement	NA	
MW-55	Perched	1/7/15	Groundwater Sampling	W55-150107-	
MW-56	Regional	1/9/15	Groundwater Elevation Measurement	NA	
MW-56	Regional	1/15/15	Groundwater Sampling	W56-150115-	
MW-57	Regional	1/9/15	Groundwater Elevation Measurement	NA	
MW-57	Regional	1/15/15	Groundwater Sampling	W57-150115-	
MW-58A	Regional	1/9/15	Groundwater Elevation Measurement	NA	
MW-59	Regional	1/9/15	Groundwater Elevation Measurement	NA	
MW-59	Regional	1/13/15	Groundwater Sampling	W59-150113-	
MW-60	Regional	1/9/15	Groundwater Elevation Measurement	NA	
MW-60	Regional	1/8/15	Groundwater Sampling	W60-150108-	
MW-62	Perched	1/5/15	Groundwater Elevation Measurement	NA	
MW-62	Perched	1/30/15	Groundwater Sampling	W62-150130-	
MW-63	Perched	1/5/15	Groundwater Elevation Measurement	NA	
MW-64	Regional	1/9/15	Groundwater Elevation Measurement	NA	
MW-64	Regional	1/23/15	Groundwater Sampling	W64-150123-	
MW-65	Regional	1/9/15	Groundwater Elevation Measurement	NA	
MW-65	Regional	1/15/15	Groundwater Sampling	W65-150115-	
MW-66	Regional	1/5/15	Groundwater Elevation Measurement	NA	
MW-66	Regional	1/23/15	Groundwater Sampling	W66-150123-	
MW-67	Regional	1/5/15	Groundwater Elevation Measurement	NA	
MW-67	Regional	1/22/15	Groundwater Sampling	W67-150122-	
MW-68	Regional	1/9/15	Groundwater Elevation Measurement	NA	
MW-68	Regional	1/14/15	Groundwater Sampling	W68-150114-	
MW-69	Regional	1/5/15	Groundwater Elevation Measurement	NA	
MW-69	Regional	1/7/15	Groundwater Sampling	W69-150107-	
MW-70	Regional	1/9/15	Groundwater Elevation Measurement	NA	
MW-70	Regional	1/12/15	Groundwater Sampling	W70-150112-	
MW-72	Regional	1/5/15	Groundwater Elevation Measurement	NA	
MW-72	Regional		Groundwater Sampling		No Sample Pump Malfunction
MW-73	Regional	1/5/15	Groundwater Elevation Measurement	NA	

TABLE 2
GROUNDWATER MONITORING ACTIVITIES 1st QUARTER 2015

Well ID	Zone	Date	Planned Activity	Sample ID	Comment
MW-73	Regional	1/22/15	Groundwater Sampling	W73-150122-	
MW-74	Regional	1/5/15	Groundwater Elevation Measurement	NA	
MW-74	Regional	1/16/15	Groundwater Sampling	W74R150116-	
MW-74	Regional	2/20/15	Groundwater Sampling	W74R150220-	
MW-74	Regional	3/24/15	Groundwater Sampling	W74R150324-	
MW-74	Perched	1/16/15	QA/QC Sample	W74R150116D	Field Duplicate
MW-75	Regional	1/5/15	Groundwater Elevation Measurement	NA	
MW-75	Regional	1/16/15	Groundwater Sampling	W75-150116-	
MW-75	Regional	2/20/15	Groundwater Sampling	W75-150220-	
MW-75	Regional	3/24/15	Groundwater Sampling	W75-150324-	
MW-76	Regional	1/9/15	Groundwater Elevation Measurement	NA	
MW-76	Regional	1/26/15	Groundwater Sampling	W76-150126-	
MW-77	Regional	1/9/15	Groundwater Elevation Measurement	NA	
MW-77	Regional	1/15/15	Groundwater Sampling	W77-150115-	
MW-78	Regional	1/9/15	Groundwater Elevation Measurement	NA	
MW-78	Regional	1/12/15	Groundwater Sampling	W78-150112-	
MW-79	Perched	1/9/15	Groundwater Elevation Measurement	NA	
MW-80	Regional	1/5/15	Groundwater Elevation Measurement	NA	
MW-80	Regional	1/23/15	Groundwater Sampling	W80-150123-	
MW-81	Regional	1/5/15	Groundwater Elevation Measurement	NA	
MW-81	Regional	1/26/15	Groundwater Sampling	W81-150126-	
MW-82	Regional	1/9/15	Groundwater Elevation Measurement	NA	
MW-82	Regional	1/26/15	Groundwater Sampling	W82-150126-	
MW-83	Regional	1/9/15	Groundwater Elevation Measurement	NA	
MW-83	Regional	1/13/15	Groundwater Sampling	W83-150113-	
MW-84	Regional	1/5/15	Groundwater Elevation Measurement	NA	
MW-84	Regional	1/26/15	Groundwater Sampling	W84-150126	
MW-85	Regional	1/5/15	Groundwater Elevation Measurement	NA	
MW-85	Regional	1/28/15	Groundwater Sampling	W85-150128-	
MW-86	Regional	1/5/15	Groundwater Elevation Measurement	NA	
MW-86	Regional	1/27/15	Groundwater Sampling	W86-150127-	
MW-87	Regional	1/5/15	Groundwater Elevation Measurement	NA	
MW-87	Regional	1/16/15	Groundwater Sampling	W87150116-	
MW-87	Regional	2/20/15	Groundwater Sampling	W87-150220-	
MW-87	Regional	3/20/15	Groundwater Sampling	W87-150320-	
MW-88	Regional	1/5/15	Groundwater Elevation Measurement	NA	
MW-88	Regional	1/16/15	Groundwater Sampling	W88-150116-	
MW-89	Regional	1/5/15	Groundwater Elevation Measurement	NA	
MW-89	Regional	1/22/15	Groundwater Sampling	W89-150122-	
MW-90	Regional	1/5/15	Groundwater Elevation Measurement	NA	
MW-90	Regional	1/21/15	Groundwater Sampling	W90-150121-	
MW-90	Regional	1/21/15	QA/QC Sample	W90-150121D	Field Duplicate
MW-91	Regional	1/5/15	Groundwater Elevation Measurement	NA	
MW-91	Regional	1/26/15	Groundwater Sampling	W91-150126-	
MW-93	Regional	1/9/15	Groundwater Elevation Measurement	NA	No Access
MW-93	Regional	1/12/15	Groundwater Sampling	W93-150112-	
MW-94	Regional	1/9/15	Groundwater Elevation Measurement	NA	
MW-94	Regional	1/26/15	Groundwater Sampling	W94-150126-	
MW-95	Regional	1/9/15	Groundwater Elevation Measurement	NA	
MW-95	Regional	1/28/15	Groundwater Sampling	W95-150128-	
MW-96	Perched	1/9/15	Groundwater Elevation Measurement	NA	
MW-97	Perched	1/9/15	Groundwater Elevation Measurement	NA	
MW-98	Perched	1/5/15	Groundwater Elevation Measurement	NA	
MW-99	Regional	1/5/15	Groundwater Elevation Measurement	NA	
MW-99	Regional	1/16/15	Groundwater Sampling	W99-150116-	

TABLE 2
GROUNDWATER MONITORING ACTIVITIES 1st QUARTER 2015

Well ID	Zone	Date	Planned Activity	Sample ID	Comment
MW-99	Regional	2/20/15	Groundwater Sampling	W99-150220-	
MW-99	Regional	3/20/15	Groundwater Sampling	W99-150320-	
MW-100	Regional	1/9/15	Groundwater Elevation Measurement	NA	
MW-100	Regional	1/6/15	Groundwater Sampling	W100150106-	
MW-101	Perched	1/9/15	Groundwater Elevation Measurement	NA	
MW-101	Perched	1/23/15	Groundwater Sampling	W101150123-	
MW-102	Perched	1/5/15	Groundwater Elevation Measurement	NA	
MW-103	Perched	1/9/15	Groundwater Elevation Measurement	NA	
MW-104	Perched	1/5/15	Groundwater Elevation Measurement	NA	
MW-105	Perched	1/9/15	Groundwater Elevation Measurement	NA	
MW-106	Regional	1/5/15	Groundwater Elevation Measurement	NA	
MW-EB6	Perched	1/5/15	Groundwater Elevation Measurement	NA	
MW-EB6	Perched	1/30/15	Groundwater Sampling	WB6-150130-	
WS-NPW	Regional	1/22/15	Water Supply Characterization	WNPW150122-	
WS-NPW-1	Regional	1/5/15	Groundwater Elevation Measurement	NA	
WS-NPW-3	Regional	1/5/15	Groundwater Elevation Measurement	NA	
Equipment Blank	NA	1/27/15	QA/QC Sample	WU1H150127E	
Equipment Blank	NA	1/27/15	QA/QC Sample	WU1M150127E	
Equipment Blank	NA	1/27/15	QA/QC Sample	WU1S150127E	
Field Blank	NA	1/27/15	QA/QC Sample	W86-150127F	
Field Blank	NA	1/12/15	QA/QC Sample	W93-150112F	
Field Blank	NA	1/28/15	QA/QC Sample	W95-150128F	

NA = No sample ID assigned, No sample collected.

TABLE 3
SUMMARY OF EXCEEDANCES OF WAC 173-200-040
WATER QUALITY STANDARDS FOR GROUND WATERS OF THE STATE OF WASHINGTON

CEDAR HILLS REGIONAL LANDFILL REGIONAL AQUIFER
(Data Collected from January 1, 2015 to March 31, 2015)

Parameter	Units	Well ID	Sample Date	Sample ID	Sample Value
South, Northeast and Northwest Upgradient and Crossgradient Wells					
Arsenic (Total)	(mg/L)	MW-21	1/27/2015	W21-150127-	0.0011
		MW-93	1/12/2015	W93-150112-	0.0011
Iron (Dissolved)	(mg/L)	MW-21	1/27/2015	W21-150127-	2.03
		MW-24	1/8/2015	W24-150108-	2.86
		MW-57	1/15/2015	W57-150115-	7.69
		MW-59	1/13/2015	W59-150113-	4.54
		MW-65	1/15/2015	W65-150115-	4.55
Manganese (Dissolved)	(mg/L)	MW-21	1/27/2015	W21-150127-	0.0721
		MW-24	1/8/2015	W24-150108-	0.103
		MW-56	1/15/2015	W56-150115-	0.162
		MW-57	1/15/2015	W57-150115-	0.239
		MW-59	1/13/2015	W59-150113-	0.114
		MW-65	1/15/2015	W65-150115-	0.216
		MW-93	1/12/2015	W93-150112-	0.276
		MW-95	1/28/2015	W95-150128-	0.136
Trichloroethene	(ug/L)	MW-76	1/26/2015	W76-150126-	9.09
		MW-82	1/26/2015	W82-150126-	5.59
Vinyl Chloride	(ug/L)	MW-65	1/15/2015	W65-150115-	0.0371
Interior and Vertical to Facilities Wells					
Arsenic (Total)	(mg/L)	MW-64	1/23/2015	W64-150123-	0.113
		MW-67	1/22/2015	W67-150122-	0.173
		MW-68	1/14/2015	W68-150114-	0.856
		MW-100	1/6/2015	W100150106-	0.874
Iron (Dissolved)	(mg/L)	MW-68	1/14/2015	W68-150114-	0.856
		MW-100	1/6/2015	W100150106-	0.874
Manganese (Dissolved)	(mg/L)	MW-67	1/22/2015	W67-150122-	0.148
		MW-68	1/14/2015	W68-150114-	0.294
		MW-100	1/6/2015	W100150106-	0.211

TABLE 3
SUMMARY OF EXCEEDANCES OF WAC 173-200-040
WATER QUALITY STANDARDS FOR GROUND WATERS OF THE STATE OF WASHINGTON
CEDAR HILLS REGIONAL LANDFILL REGIONAL AQUIFER
(Data Collected from January 1, 2015 to March 31, 2015)

Parameter	Units	Well ID	Sample Date	Sample ID	Sample Value
Wells Downgradient to Waste Cells and North end Facilities					
Arsenic (Total)	(mg/L)	MW-69	1/7/2015	W69-150107-	0.00187
		MW-80	1/23/2015	W80-150123-	0.00585
		MW-86	1/27/2015	W86-150127-	0.0014
		MW-89	1/22/2015	W89-150122-	0.0139
		MW-91	1/26/2015	W91-150126-	0.0367
Iron (Dissolved)	(mg/L)	MW-69	1/7/2015	W69-150107-	0.814
		MW-75	1/23/2015	W80-150123-	1.63
		MW-80	1/22/2015	W89-150122-	0.857
		MW-90	1/21/2015	W90-150121-	1.32
		MW-91	1/26/2015	W91-150126-	2.18
Manganese (Dissolved)	(mg/L)	MW-69	1/7/2015	W69-150107-	0.231
		MW-80	1/23/2015	W80-150123-	0.242
		MW-89	1/22/2015	W89-150122-	0.244
		MW-90	1/21/2015	W90-150121-	0.287
		MW-100	1/6/2015	W100150106-	0.211

Table 4
Ion Balance Calculations
Cedar Hills Landfill Regional Aquifer Groundwater Monitoring Wells

Data Collected from January 1, 2015 to March 31, 2015

Site ID			Upgradient South																	
			MW-24 1/8/15			MW-56 1/15/15			MW-57 1/15/15			MW-58A No Sample			MW-59 1/13/15			MW-60 1/8/15		
Cations	MW	n	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)
Calcium	40.1	2	11.5	0.5738523	35.7	14.2	0.7085828	43.9	14.7	0.7335329	35.8	14.7	0.7335329	37.2	13.4	0.6686627	43.7			
Magnesium	24.3	2	8.3	0.6788727	42.3	7.7	0.636906	39.4	8.9	0.7290681	35.6	9.4	0.775972	39.4	7.4	0.6064596	39.7			
Potassium	39.1	1	1.0	0.0243489	1.5	1.0	0.0263439	1.6	0.8	0.0211262	1.0	1.1	0.0271112	1.4	1.1	0.0278784	1.8			
Sodium	23.0	1	5.1	0.2200979	13.7	5.4	0.236192	14.6	6.4	0.2801246	13.7	6.1	0.2657704	13.5	5.1	0.2235777	14.6			
Iron	55.8	2	2.86	0.1024227	6.4	0.03	0.0011818	0.1	7.69	0.2753953	13.4	4.54	0.1625871	8.3	0.03	0.0010744	0.1			
Manganese	54.9	2	0.10	0.0037497	0.2	0.16	0.0058976	0.4	0.24	0.0087007	0.4	0.11	0.0041501	0.2	0.00	4.369E-05	0.0			
Ammonia-N	14.0	1	0.04	0.0030413	0.2	0.01	0.0007139	0.0	0.02	0.0012922	0.1	0.01	0.0007139	0.0	0.02	0.001385	0.1			
Total Cations (meq/L)			1.6			1.6			2.0			2.0			1.5					
Anions																				
Alkalinity, Total			65			56			67			65			74					
Carbonate	60.0	2	0.04804	0.0016012	0.1	0.03795	0.001265	0.1	0.03036	0.0010121	0.1	0.05061	0.0016869	0.1	0.05132	0.0017106	0.1			
Bicarbonate	61.0	1	79.20	1.298203	72.4	68.61	1.1245654	69.7	81.19	1.3307872	69.1	79.69	1.3061162	71.4	90.66	1.4860653	81.7			
Chloride	35.5	1	5.0	0.141878	7.9	4.0	0.1125434	7.0	6.0	0.1681099	8.7	4.4	0.1249542	6.8	4.3	0.1215694	6.7			
Nitrate-N	14.0	1	0.01	0.0007139	0.0	0.27	0.0190619	1.2	0.02	0.0015706	0.1	0.01	0.0007139	0.0	1.11	0.0792461	4.4			
Sulfate	96.1	2	16.9	0.3518722	19.6	17.1	0.3560364	22.1	20.4	0.4247452	22.1	19.0	0.395596	21.6	6.3	0.1305467	7.2			
Total Anions (meq/L)			1.8			1.6			1.9			1.8			1.8					
Total Ions (meq/L)			3.4			3.2			4.0			3.8			3.3					
Cation/Anion Ratio			0.90			1.00			1.06			1.08			0.84					
Percent Difference			-5.5			0.1			3.1			3.7			-8.7					
Trilinear Diagram Data																				
sum (Ca, Mg, Na+K)			1.50			1.61			1.76			1.80			1.53					
Calcium						38.33			44.07			41.59			40.70			43.80		
Magnesium						45.34			39.61			41.33			43.05			39.73		
Sodium + Potassium						16.33			16.33			17.08			16.25			16.47		
sum (SO ₄ , Cl, HCO ₃ +CO ₃)			1.79			1.59			1.92			1.83			1.74					
Sulfate						19.619			22.330			22.069			21.637			7.503		
Chloride						7.910			7.059			8.735			6.834			6.987		
Bicarbonate + Carbonate						72.471			70.611			69.197			71.529			85.510		

Data Collected from January 1, 2015 to March 31, 2015

Cedar Hills Regional Landfill
Environmental Monitoring Report
1st Quarter 2015

Table 4
Ion Balance Calculations
Cedar Hills Landfill Regional Aquifer Groundwater Monitoring Wells

Data Collected from January 1, 2015 to March 31, 2015

Site ID			Upgradient Northwest									Upgradient Northeast					
			MW-21 1/27/15			MW-73 1/22/15			MW-84 1/26/15			MW-81 1/26/15			MW-99 No Results		
Cations	MW	n	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)
Calcium	40.1	2	9.6	0.4780439	36.6	11.8	0.5888224	42.2	10.1	0.503992	35.1	9.9	0.492016	40.7			
Magnesium	24.3	2	6.0	0.4945484	37.8	6.4	0.5249949	37.7	8.3	0.6813413	47.4	5.9	0.4838511	40.0			
Potassium	39.1	1	0.9	0.0231468	1.8	0.8	0.0195149	1.4	1.0	0.0251162	1.7	0.7	0.0187476	1.5			
Sodium	23.0	1	5.4	0.235757	18.0	6.0	0.2596807	18.6	5.2	0.2244477	15.6	4.9	0.2144432	17.7			
Iron	55.8	2	2.03	0.0726986	5.6	0.01	0.0003581	0.0	0.01	0.0003581	0.0	0.01	0.0003581	0.0			
Manganese	54.9	2	0.07	0.0026248	0.2	0.00	3.64E-05	0.0	0.00	8.082E-05	0.0	0.00	3.64E-05	0.0			
Ammonia-N	14.0	1	0.01	0.0007139	0.1	0.01	0.0007139	0.1	0.01	0.0008996	0.1	0.01	0.0007139	0.1			
Total Cations (meq/L)			1.3			1.4			1.4			1.2					
Anions																	
Alkalinity, Total			54			54			61			49					
Carbonate	60.0	2	0.06367	0.0021223	0.2	0.05268	0.0017561	0.1	0.0392	0.0013068	0.1	0.04567	0.0015222	0.1			
Bicarbonate	61.0	1	66.24	1.0857139	83.8	65.89	1.080081	76.0	74.22	1.2165097	73.2	59.81	0.98033	70.7			
Chloride	35.5	1	3.0	0.0837729	6.5	2.5	0.0716441	5.0	5.0	0.1407497	8.5	4.8	0.1351085	9.7			
Nitrate-N	14.0	1	0.01	0.0007139	0.1	1.12	0.07996	5.6	0.50	0.0358392	2.2	1.56	0.1113729	8.0			
Sulfate	96.1	2	5.9	0.1236758	9.5	9.0	0.1873876	13.2	12.9	0.2685888	16.2	7.6	0.1582384	11.4			
Total Anions (meq/L)			1.3			1.4			1.7			1.4					
Total Ions (meq/L)			2.6			2.8			3.1			2.6					
Cation/Anion Ratio			1.01			0.98			0.86			0.87					
Percent Difference			0.4			-0.9			-7.3			-6.8					
Trilinear Diagram Data																	
sum (Ca, Mg, Na+K)			1.23			1.39			1.43			1.21					
Calcium			38.82			42.27			35.12			40.69					
Magnesium			40.16			37.69			47.48			40.02					
Sodium + Potassium			21.02			20.04			17.39			19.29					
			100.0			100.0			100.0								
sum (SO ₄ , Cl, HCO ₃ +CO ₃)			1.30			1.34			1.63			1.28					
Sulfate			9.548			13.975			16.507			12.409					
Chloride			6.468			5.343			8.650			10.595					
Bicarbonate + Carbonate			83.984			80.682			74.843			76.996					

Table 4
Ion Balance Calculations
Cedar Hills Landfill Regional Aquifer Groundwater Monitoring Wells

Data Collected from January 1, 2015 to March 31, 2015

Site ID			Cross Gradient						Interior											
			MW-93 1/12/15			MW-95 1/28/15			MW-70 1/12/15			MW-77 1/15/15			MW-78 1/12/15			MW-100 1/6/15		
Cations	MW	n	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)
Calcium	40.1	2	36.2	1.8063872	45.5	19.3	0.9630739	47.4	23.0	1.1477046	43.7	20.3	1.0129741	43.3	16.1	0.8033932	43.8	24.2	1.2075848	41.3
Magnesium	24.3	2	20.3	1.6704382	42.1	9.7	0.8014812	39.4	13.8	1.1355688	43.2	11.8	0.9709936	41.5	8.5	0.7002674	38.2	15.0	1.2343139	42.2
Potassium	39.1	1	1.6	0.0406667	1.0	1.2	0.0312034	1.5	1.8	0.044759	1.7	1.3	0.0329938	1.4	2.2	0.0557569	3.0	1.9	0.0473166	1.6
Sodium	23.0	1	10.1	0.4393258	11.1	5.3	0.2287974	11.3	6.9	0.2992635	11.4	7.4	0.3210123	13.7	6.3	0.272295	14.9	9.0	0.3927834	13.4
Iron	55.8	2	0.01	0.0003581	0.0	0.01	0.0003581	0.0	0.01	0.0003581	0.0	0.01	0.0003581	0.0	0.01	0.0003581	0.0	0.87	0.0312998	1.1
Manganese	54.9	2	0.28	0.0100477	0.3	0.14	0.004951	0.2	0.00	3.64E-05	0.0	0.00	4.987E-05	0.0	0.00	3.64E-05	0.0	0.21	0.0076814	0.3
Ammonia-N	14.0	1	0.05	0.0036339	0.1	0.03	0.002049	0.1	0.01	0.0007139	0.0	0.01	0.0007139	0.0	0.01	0.0007139	0.0	0.01	0.0008067	0.0
Total Cations (meq/L)				4.0			2.0			2.6			2.3			1.8			2.9	
Anions																				
Alkalinity, Total			121			88			99			94			72			135		
Carbonate	60.0	2	0.12624	0.0042082	0.1	0.19931	0.0066439	0.3	0.18362	0.0061206	0.2	0.06205	0.0020684	0.1	0.05068	0.0016892	0.1	0.09311	0.0031038	0.1
Bicarbonate	61.0	1	147.36	2.4154276	60.5	106.34	1.7430933	77.6	120.53	1.9755815	76.3	114.80	1.8816478	78.7	87.49	1.4340945	75.0	164.51	2.6964895	86.3
Chloride	35.5	1	3.0	0.084337	2.1	5.1	0.1438524	6.4	13.0	0.3666827	14.2	9.6	0.2702169	11.3	8.8	0.2473698	12.9	2.8	0.0795419	2.5
Nitrate-N	14.0	1	0.02	0.0010709	0.0	0.01	0.0007139	0.0	0.03	0.002356	0.1	0.78	0.0553295	2.3	0.91	0.0651103	3.4	0.01	0.0007139	0.0
Sulfate	96.1	2	71.3	1.484526	37.2	16.9	0.3518722	15.7	11.4	0.2373576	9.2	8.7	0.1805167	7.6	7.8	0.1626108	8.5	16.6	0.345626	11.1
Total Anions (meq/L)				4.0			2.2			2.6			2.4			1.9			3.1	
Total Ions (meq/L)				8.0			4.3			5.2			4.7			3.7			6.0	
Cation/Anion Ratio				1.00			0.90			1.02			0.98			0.96			0.93	
Percent Difference				-0.2			-5.0			0.8			-1.1			-2.1			-3.4	
Trilinear Diagram Data																				
sum (Ca, Mg, Na+K)				3.96			2.02			2.63			2.34			1.83			2.88	
Calcium					45.65			47.57			43.68			43.33			43.86			41.90
Magnesium					42.22			39.59			43.22			41.53			38.23			42.83
Sodium + Potassium					12.13			12.84			13.09			15.14			17.91			15.27
sum (SO ₄ , Cl, HCO ₃ +CO ₃)				3.99			2.25			2.59			2.33			1.85			3.12	
Sulfate					37.220			15.670			9.179			7.733			8.810			11.061
Chloride					2.115			6.406			14.181			11.575			13.402			2.546
Bicarbonate + Carbonate					60.665			77.923			76.640			80.692			77.788			86.394

Table 4
Ion Balance Calculations
Cedar Hills Landfill Regional Aquifer Groundwater Monitoring Wells

Data Collected from January 1, 2015 to March 31, 2015

Site ID			Vertical to Facilities												Downgradient Northwest					
			MW-64 1/23/15			MW-66 1/23/15			MW-67 1/22/15			MW-68 1/14/15			MW-69 1/7/15			MW-72 No Sample		
Cations	MW	n	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)
Calcium	40.1	2	14.7	0.7335329	37.0	18.9	0.9431138	35.4	32.2	1.6067864	42.5	26.6	1.3273453	42.7	24.0	1.1976048	45.2			
Magnesium	24.3	2	11.2	0.9216211	46.5	16.5	1.3577453	50.9	20.7	1.7033532	45.1	15.9	1.3083728	42.1	12.8	1.0532812	39.7			
Potassium	39.1	1	1.3	0.032738	1.7	1.2	0.0299246	1.1	1.6	0.0411783	1.1	1.6	0.041434	1.3	1.7	0.0427129	1.6			
Sodium	23.0	1	6.5	0.2836044	14.3	7.7	0.3331917	12.5	9.5	0.4145322	11.0	8.9	0.3871287	12.5	7.3	0.3192724	12.0			
Iron	55.8	2	0.11	0.0040468	0.2	0.01	0.0003581	0.0	0.17	0.0061955	0.2	0.86	0.0306552	1.0	0.81	0.0291511	1.1			
Manganese	54.9	2	0.04	0.0013251	0.1	0.00	3.64E-05	0.0	0.15	0.0053879	0.1	0.29	0.010703	0.3	0.23	0.0084095	0.3			
Ammonia-N	14.0	1	0.05	0.0034411	0.2	0.01	0.0007139	0.0	0.01	0.0007139	0.0	0.01	0.0009995	0.0	0.02	0.0012351	0.0			
Total Cations (meq/L)				2.0	99.8		2.7			3.8			3.1			2.7				
Anions																				
Alkalinity, Total			85			114			138			131			129					
Carbonate	60.0	2	0.05347	0.0017825	0.1	0.09451	0.0031504	0.1	0.09966	0.0033222	0.1	0.11372	0.0037906	0.1	0.18145	0.0060483	0.2			
Bicarbonate	61.0	1	103.59	1.6979614	83.9	138.89	2.2765063	80.4	168.16	2.7562622	74.3	159.59	2.6158149	86.1	157.01	2.5735636	85.1			
Chloride	35.5	1	3.3	0.0939272	4.6	6.8	0.1918032	6.8	4.8	0.1353905	3.7	2.9	0.0817984	2.7	4.5	0.1260824	4.2			
Nitrate-N	14.0	1	0.01	0.0007139	0.0	0.70	0.0500464	1.8	0.26	0.0187049	0.5	0.01	0.0007139	0.0	0.01	0.0007139	0.0			
Sulfate	96.1	2	11.0	0.2290292	11.3	14.9	0.3102305	11.0	38.2	0.7953561	21.4	16.2	0.3372976	11.1	15.3	0.3185589	10.5			
Total Anions (meq/L)				2.0	100.0		2.8			3.7			3.0			3.0				
Total Ions (meq/L)				4.0			5.5			7.5			6.1			5.7				
Cation/Anion Ratio				0.98			0.94			1.02			1.02			0.88				
Percent Difference				-1.1			-3.0			0.9			1.1			-6.6				
Trilinear Diagram Data																				
sum (Ca, Mg, Na+K)				1.97			2.66			3.77			3.06			2.61				
Calcium					37.21			35.40		42.67			43.32			45.83				
Magnesium					46.75			50.97		45.23			42.70			40.31				
Sodium + Potassium					16.05			13.63		12.10			13.99			13.85				
					100.0															
sum (SO ₄ , Cl, HCO ₃ +CO ₃)				2.02			2.78			3.69			3.04			3.02				
Sulfate					11.323		11.153	21.552		11.100			10.533							
Chloride					4.644		6.895	3.669		2.692			4.169							
Bicarbonate + Carbonate					84.033		81.952	74.779		86.208			85.297							
					100.0															

Table 4
Ion Balance Calculations
Cedar Hills Landfill Regional Aquifer Groundwater Monitoring Wells

Data Collected from January 1, 2015 to March 31, 2015

Site ID			Downgradient																	
			MW-74 No Results			MW-75 No Results			MW-80 1/23/15			MW-85 1/28/15			MW-87 No Results			MW-91 1/26/15		
Cations	MW	n	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)
Calcium	40.1	2							25.1	1.252495	44.1	25.5	1.272455	43.9				20.9	1.042914	37.6
Magnesium	24.3	2							14.4	1.184941	41.7	15.5	1.275458	44.0				15.6	1.283686	46.3
Potassium	39.1	1							1.5	0.037086	1.3	1.5	0.039388	1.4				1.6	0.039899	1.4
Sodium	23.0	1							6.9	0.298829	10.5	7.1	0.307963	10.6				7.3	0.318402	11.5
Iron	55.8	2							1.63	0.058374	2.1	0.01	0.000358	0.0				2.18	0.07807	2.8
Manganese	54.9	2							0.24	0.00881	0.3	0.00	3.64E-05	0.0				0.28	0.01023	0.4
Ammonia-N	14.0	1							0.01	0.000714	0.0	0.01	0.000714	0.0				0.01	0.000992	0.0
Total Cations (meq/L)									2.8			2.9						2.8		
Anions																				
Alkalinity, Total									102			105						93		
Carbonate	60.0	2							0.08456	0.002819	0.1	0.09766	0.003255	0.1				0.08038	0.002679	0.1
Bicarbonate	61.0	1							124.27	2.036874	65.6	127.90	2.096429	65.4				112.81	1.849042	61.6
Chloride	35.5	1							6.6	0.187008	6.0	9.1	0.256114	8.0				9.1	0.257524	8.6
Nitrate-N	14.0	1							0.02	0.001713	0.1	0.11	0.00771	0.2				0.04	0.002949	0.1
Sulfate	96.1	2							42.2	0.878639	28.3	40.5	0.843244	26.3				42.7	0.88905	29.6
Total Anions (meq/L)									3.1			3.2						3.0		
Total Ions (meq/L)									5.9			6.1						5.8		
Cation/Anion Ratio									0.91			0.90						0.92		
Percent Difference									-4.5			-5.1						-3.9		
Trilinear Diagram Data																				
sum (Ca, Mg, Na+K)									2.77			2.90						2.68		
Calcium												45.16			43.95			38.84		
Magnesium												42.73			44.05			47.81		
Sodium + Potassium												12.11			12.00			13.35		
sum (SO ₄ , Cl, HCO ₃ +CO ₃)									3.11			3.20						3.00		
Sulfate												28.294			26.359			29.652		
Chloride												6.022			8.006			8.589		
Bicarbonate + Carbonate												65.683			65.635			61.759		

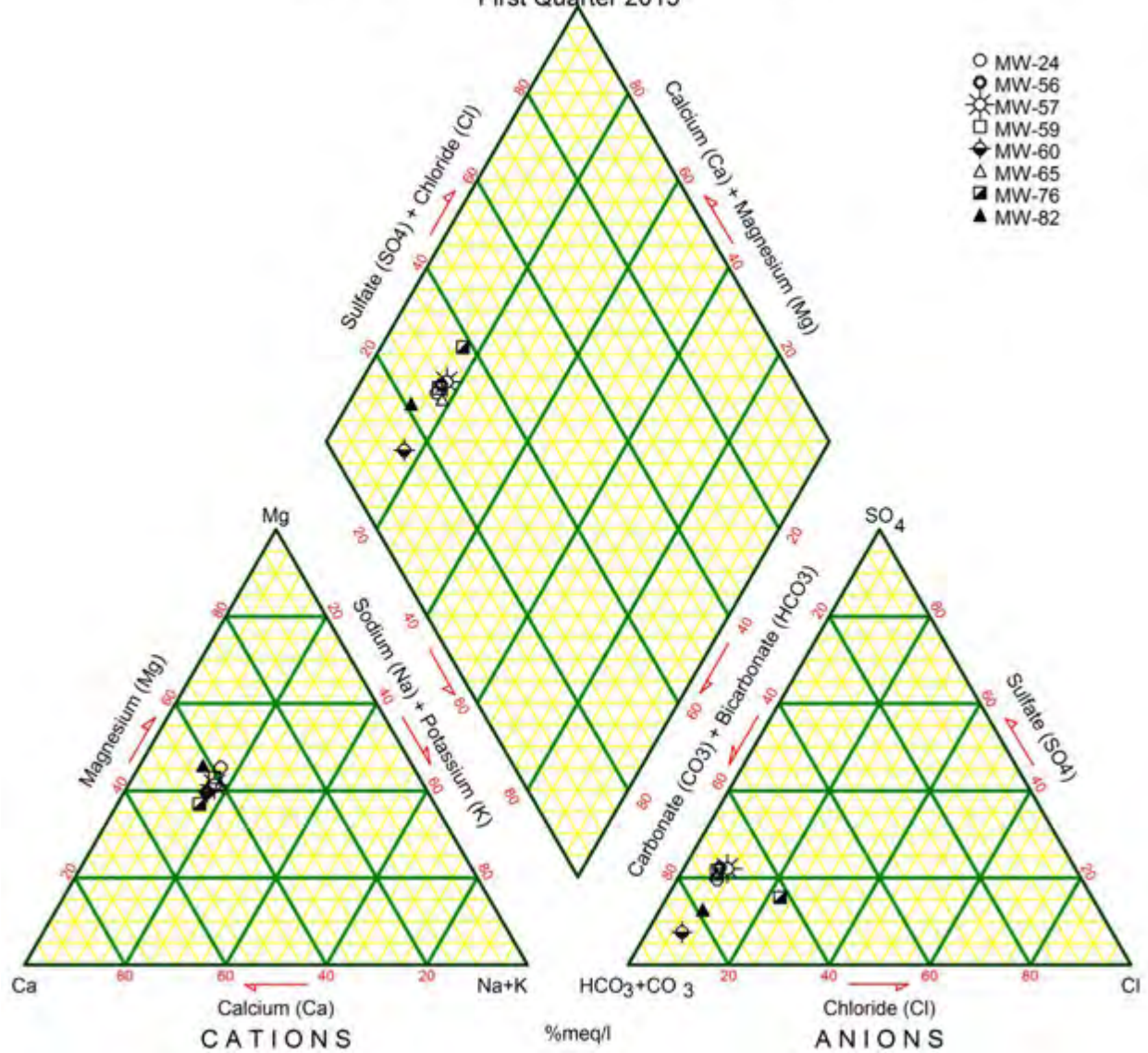
Table 4
Ion Balance Calculations
Cedar Hills Landfill Regional Aquifer Groundwater Monitoring Wells

Data Collected from January 1, 2015 to March 31, 2015

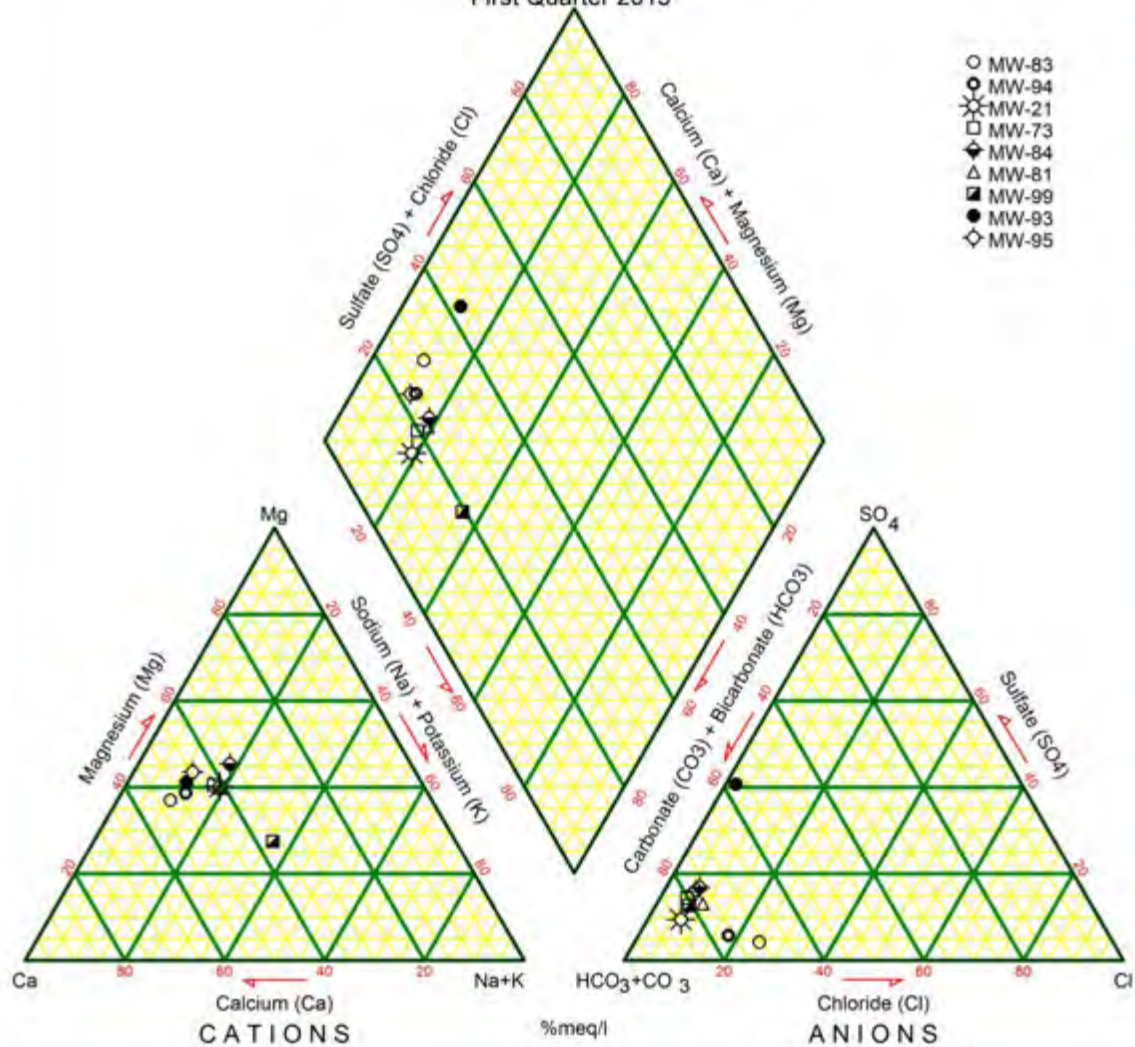
Site ID			Downgradient of North End Facilities														
			MW-86 1/27/15			MW-88 1/16/15			MW-89 1/22/15			MW-90 1/21/15			MW-43 No Sample		
Cations	MW	n	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)
Calcium	40.1	2	12.5	0.6237525	36.3	8.9	0.4461078	33.6	13.4	0.6686627	33.9	16.9	0.8433134	40.4			
Magnesium	24.3	2	9.5	0.7817322	45.5	7.4	0.610574	46.0	10.5	0.8640197	43.8	10.5	0.8640197	41.4			
Potassium	39.1	1	1.0	0.0250395	1.5	0.9	0.0224306	1.7	1.4	0.0365745	1.9	1.3	0.0335053	1.6			
Sodium	23.0	1	6.4	0.2788197	16.2	5.7	0.2466314	18.6	8.3	0.3623351	18.4	6.6	0.2866492	13.7			
Iron	55.8	2	0.21	0.0074131	0.4	0.01	0.0003581	0.0	0.86	0.030691	1.6	1.32	0.047272	2.3			
Manganese	54.9	2	0.00	0.0001642	0.0	0.00	3.64E-05	0.0	0.24	0.0088827	0.5	0.29	0.0104481	0.5			
Ammonia-N	14.0	1	0.01	0.0007139	0.0	0.01	0.0007139	0.1	0.02	0.0012208	0.1	0.02	0.001128	0.1			
Total Cations (meq/L)			1.7			1.3			2.0			2.1					
Anions																	
Alkalinity, Total			66			54			73			71					
Carbonate	60.0	2	0.0479542	0.0015985	0.1	0.0640719	0.0021358	0.2	0.1002104	0.0033404	0.2	0.0974611	0.0032487	0.2			
Bicarbonate	61.0	1	80.91	1.3262015	72.3	65.14	1.0677032	80.8	88.73	1.4544403	74.9	86.30	1.414538	66.6			
Chloride	35.5	1	5.3	0.1480834	8.1	2.2	0.0623361	4.7	4.7	0.1322878	6.8	4.0	0.1131075	5.3			
Nitrate-N	14.0	1	0.41	0.0295567	1.6	0.55	0.0389805	2.9	0.01	0.0007139	0.0	0.01	0.0007139	0.0			
Sulfate	96.1	2	15.8	0.3289693	17.9	7.2	0.1507429	11.4	16.9	0.3518722	18.1	28.5	0.593394	27.9			
Total Anions (meq/L)			1.8			1.3			1.9			2.1					
Total Ions (meq/L)			3.6			2.6			3.9			4.2					
Cation/Anion Ratio			0.94			1.00			1.02			0.98					
Percent Difference			-3.3			0.2			0.8			-0.9					
Trilinear Diagram Data																	
sum (Ca, Mg, Na+K)			1.71			1.33			1.93			2.03					
Calcium			36.49			33.65			34.62			41.59					
Magnesium			45.73			46.06			44.73			42.62					
Sodium + Potassium			17.78			20.30			20.65			15.79					
sum (SO ₄ , Cl, HCO ₃ +CO ₃)			1.80			1.28			1.94			2.12					
Sulfate			18.227			11.750			18.120			27.934					
Chloride			8.205			4.859			6.812			5.324					
Bicarbonate + Carbonate			73.568			83.391			75.068			66.742					

Cedar Hills Regional Landfill

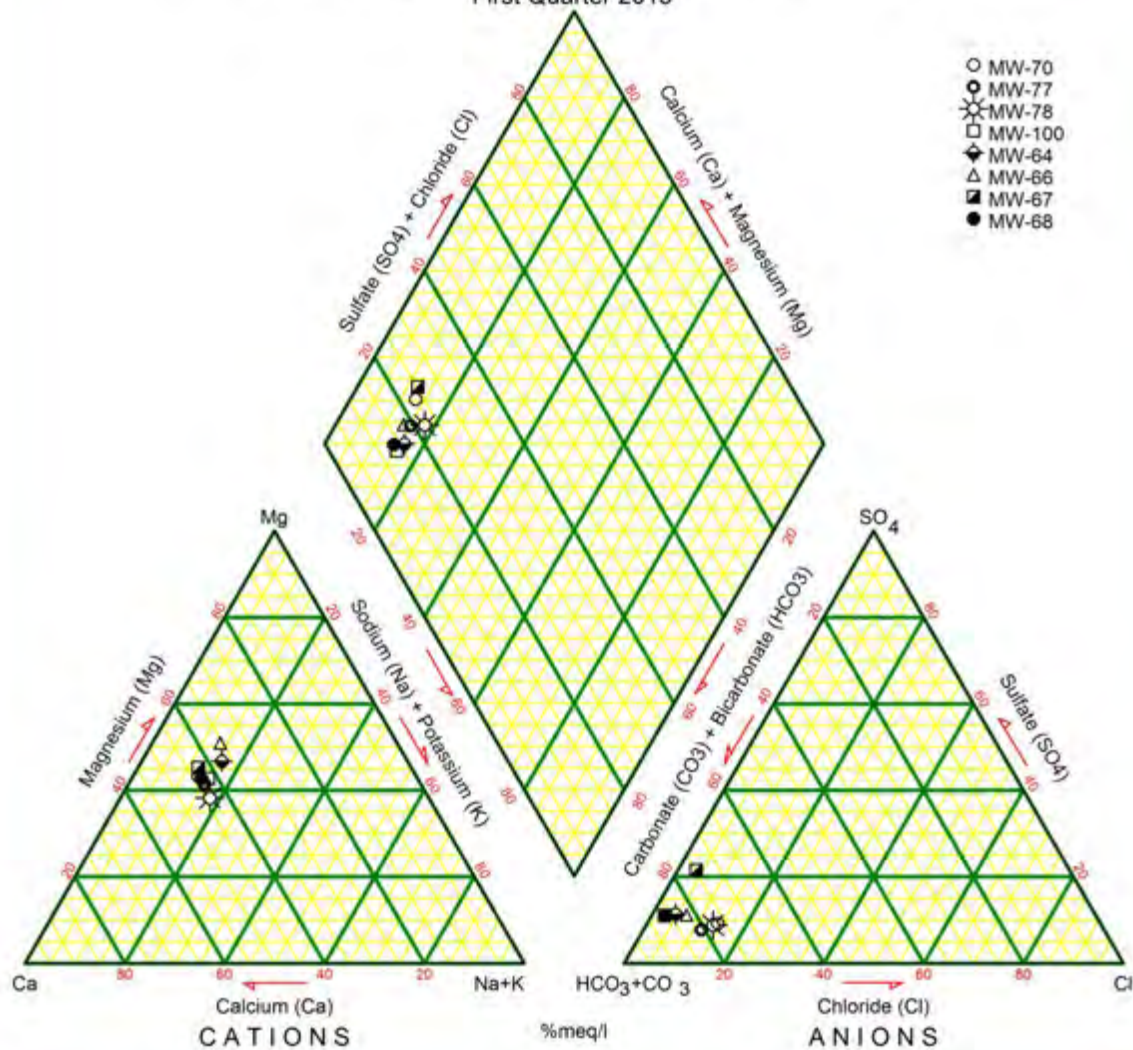
Figure 2. Regional Aquifer South Upgradient Wells
First Quarter 2015



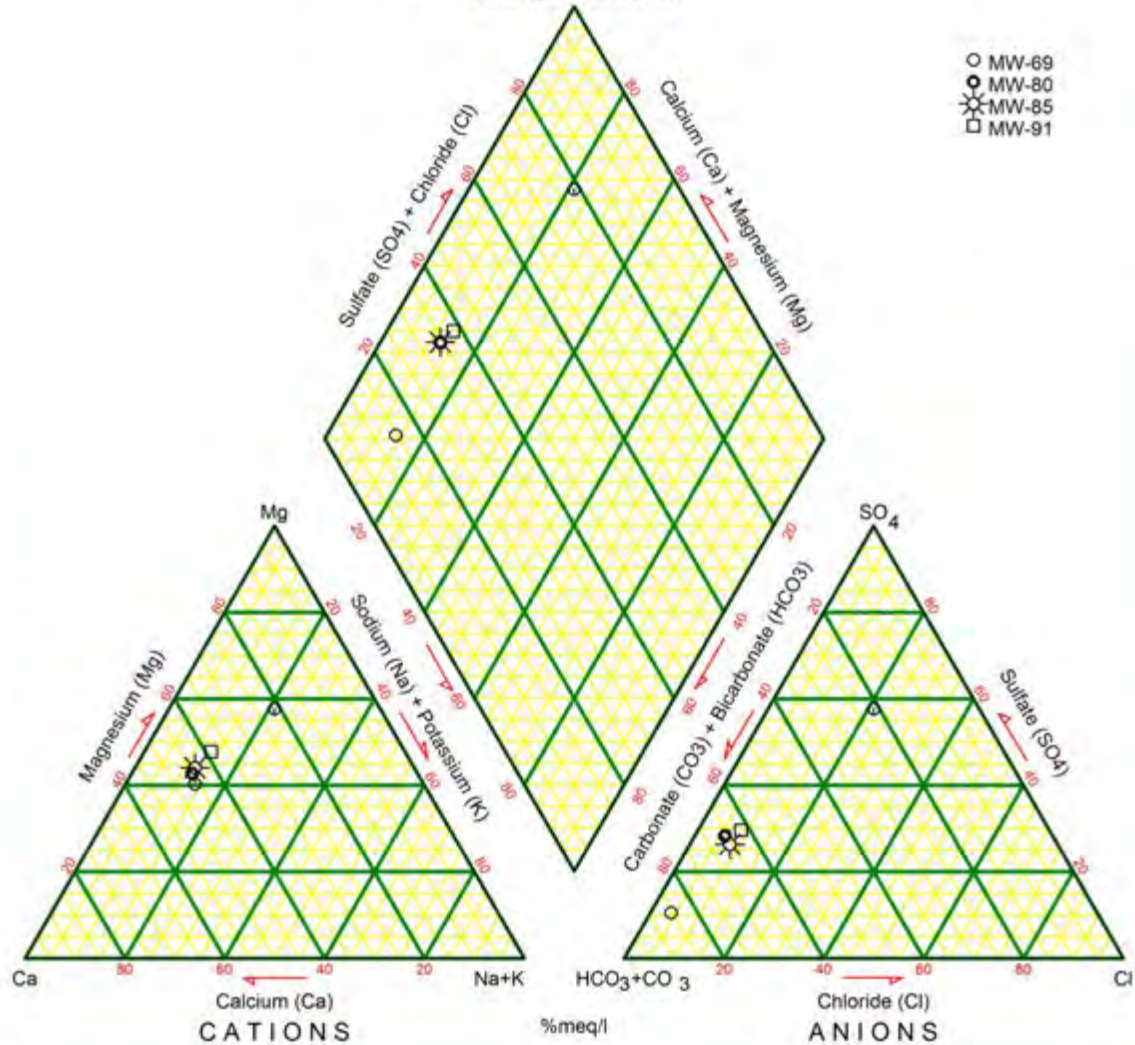
Cedar Hills Regional Landfill
Figure 3. South Upgradient and Crossgradient Wells
First Quarter 2015



Cedar Hills Regional Landfill
Figure 4. Regional Wells Interior and Vertical to Facilities
First Quarter 2015



Cedar Hills Regional Landfill
 Figure 5. Regional Aquifer Downgradient Wells
 First Quarter 2015



Cedar Hills Regional Landfill
Figure 6. Regional Aquifer Wells Downgradient of Northend Facilities
First Quarter 2015

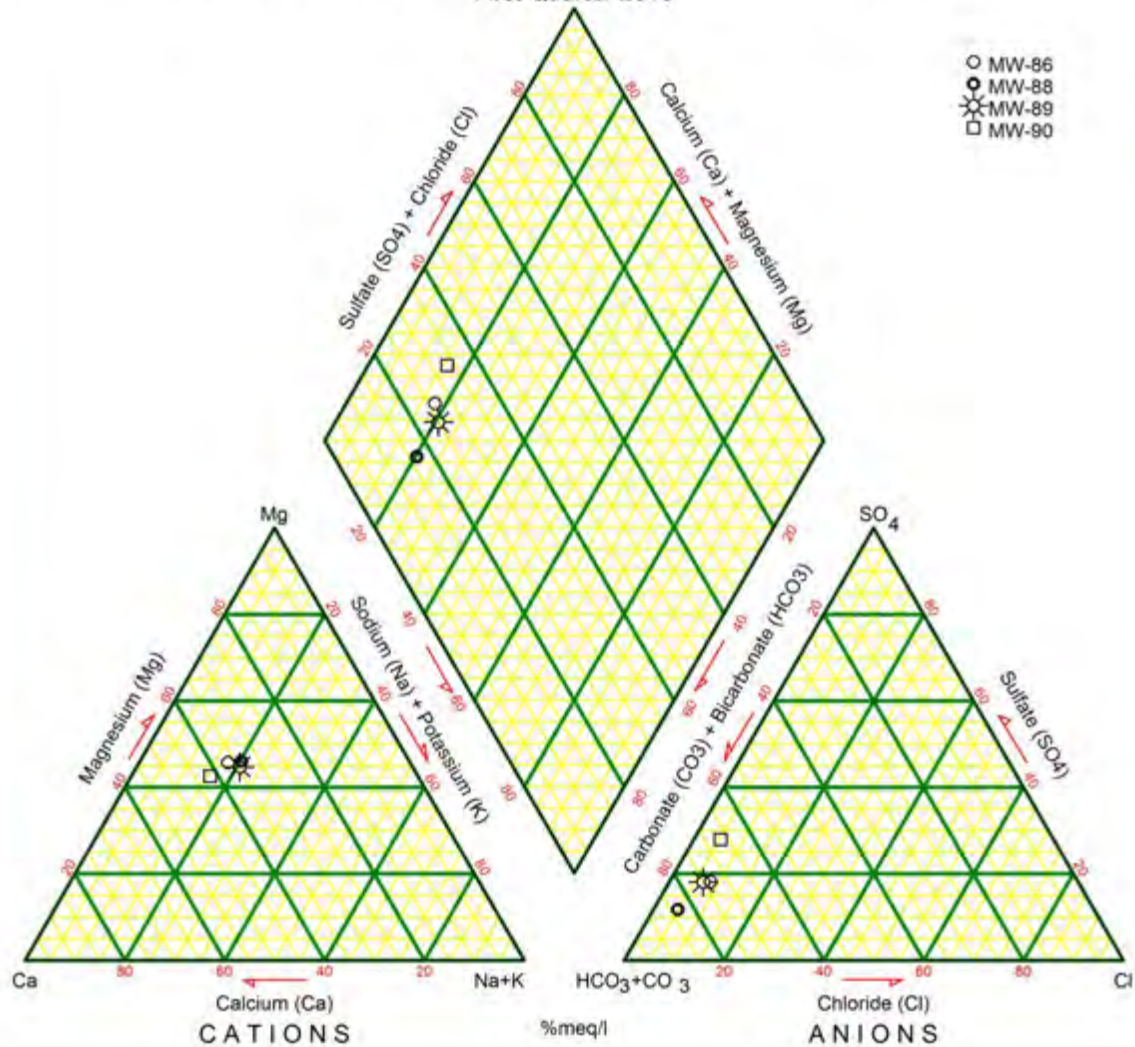


TABLE 5
CEDAR HILLS REGIONAL LANDFILL REGIONAL AQUIFER
SUMMARY OF WAC 173-351 APPENDIX I INTRAWELL PREDICTION LIMIT EXCEEDANCES
(Data Collected from January 1, 2015 to March 31, 2015)

Parameter	Units	Well ID	Sample Date	Sample Value	Intrawell Limit Value
South, Northeast and Northwest Upgradient and Crossgradient Wells					
cis 1,2-Dichloroethene	ug/L	MW-59	01/13/15	0.941	0.895
Nitrate as N	mg/L	MW-76	01/26/15	6	2.45
Barium, Dissolved	mg/L	MW-83	01/13/15	0.0075	0.0070
Interior and Vertical to Facilities Wells					
NO PREDICTION LIMIT EXCEEDANCES THIS QUARTER					
Wells Downgradient to Waste Cells and North end Facilities					
NO PREDICTION LIMIT EXCEEDANCES THIS QUARTER					

TABLE 6
CEDAR HILLS REGIONAL LANDFILL
VOLATILE ORGANIC COMPOUND DETECTIONS IN REGIONAL AQUIFER WELLS
(Data Collected from January 1, 2015 to March 31, 2015)

Analyte	Site ID	Date	Sample ID	ug/L
South, Northeast and Northwest Upgradient and Crossgradient Wells				
Acetone	MW-21	01/27/15	W21-150127-	14.6
	MW-82	01/26/15	W82-150126-	4.1 T
	MW-94	01/26/15	W94-150126-	9.9 T
	MW-95	01/28/15	W95-150128-	35.7
cis-1,2-Dichloroethene	MW-24	1/8/2015	W24-150108-	0.22 T
	MW-56	1/15/2015	W56-150115-	1.19
	MW-59	1/13/2015	W59-150113-	0.941
	MW-76	1/26/2015	W76-150126-	0.674
Tetrachloroethene	MW-76	1/26/2015	W76-150126-	0.475
Trichloroethene	MW-76	1/26/2015	W76-150126-	9.09
	MW-82	1/26/2015	W82-150126-	5.59
	MW-83	1/13/2015	W83-150113-	1.76
	MW-94	1/26/2015	W94-150126-	2.69
Vinyl Chloride	MW-65	1/15/2015	W65-150115-	0.0371
Interior and Vertical to Facilities Wells				
Acetone	MW-64	1/23/2015	W64-150123-	27.3
Trichloroethene	MW-78	1/12/2015	W78-150112-	0.662
Downgradient Wells				
Acetone	MW-66	1/23/2015	W66-150123-	7.9 T
	MW-74	1/16/2015	W74R150116D	4.6 T
	MW-80	1/23/2015	W80-150123-	9.5 T
	MW-85	1/28/2015	W85-150128-	10.4 L
	MW-86	1/27/2015	W86-150127-	48.1
	MW-91	1/26/2015	W91-150126-	13

TABLE 7
SUMMARY OF EXCEEDANCES OF WAC 173-200-040
WATER QUALITY STANDARDS FOR GROUND WATERS OF THE STATE OF WASHINGTON

CEDAR HILLS REGIONAL LANDFILL PERCHED ZONES
(Data Collected from January 1, 2015 to March 31, 2015)

Parameter	Units	Well ID	Sample Date	Sample ID	Sample Value
North and West Perched Wells					
pH (field)	(pH units)	MW-28	1/23/15	W28-150123-	5.9
		MW-29	1/23/15	W29-150123-	6.32
Arsenic (Total)	(mg/L)	MW-27A	1/13/2015	W27A150113-	0.0134
Manganese (Dissolved)	(mg/L)	MW-27A	1/13/2015	W27A150113-	0.0519
		MW-55	1/7/2015	W55-150107-	0.172
East Perched Zone Wells					
pH (field)	(pH units)	MW-EB6	1/30/15	WB6-150130-	6.24
Arsenic (Total)	(mg/L)	MW-47	1/30/15	W47-150130-	0.00163
		MW-EB6	1/30/15	WB6-150130-	0.00324
Iron (Dissolved)	(mg/L)	MW-47	1/30/15	W47-150130-	2.42
		MW-EB6	1/30/15	WB6-150130-	0.701
Manganese (Dissolved)	(mg/L)	MW-47	1/30/15	W47-150130-	2.12 D
		MW-EB6	1/30/15	WB6-150130-	0.0556
1,1-Dichloroethane	(ug/L)	MW-30A	1/14/15	W30A150114-	1.98
		MW-62	1/30/15	W62-150130-	1.13
Total Dissolved Solids	(mg/L)	MW-47	1/30/15	W47-150130-	685
Vinyl Chloride	(ug/L)	MW-47	1/30/15	W47-150130-	6.09
South Solid Waste Area Perched Wells					
Arsenic (Total)	(mg/L)	MW-101	1/23/2015	W101150123-	0.00198
Iron (Dissolved)	(mg/L)	MW-101	1/23/2015	W101150123-	0.355
Manganese (Dissolved)	(mg/L)	MW-101	1/23/2015	W101150123-	0.291
Vinyl Chloride	(ug/L)	MW-101	1/23/2015	W101150123-	0.0557

See Data Qualifier List for Qualifier Information.

Table 8
Ion Balance Calculations
Cedar Hills Landfill Perched Zones GW Monitoring Wells

Data Collected from January 1, 2015 to March 31, 2015

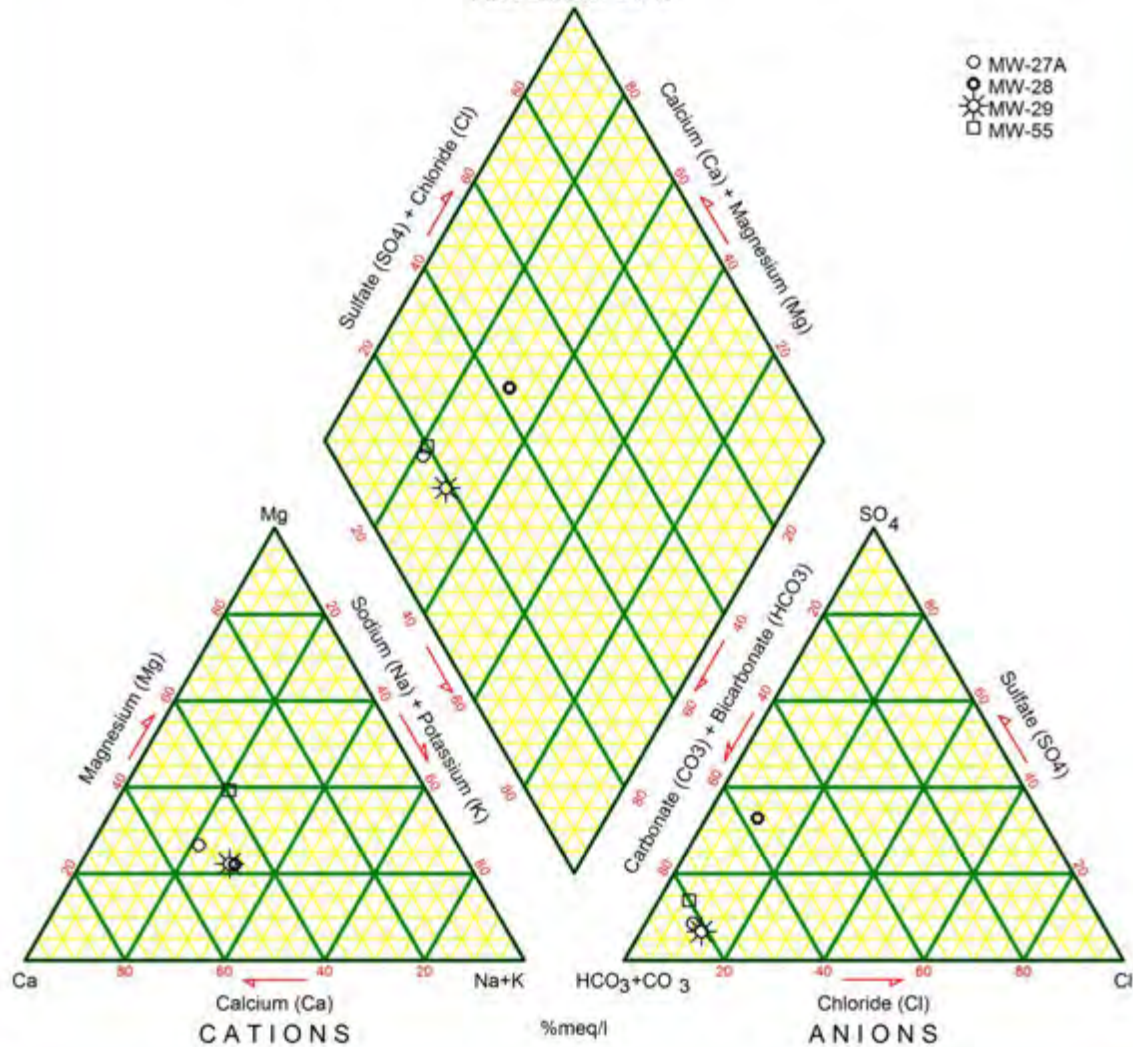
		North and West Perched Wells											
Site ID		MW-27A			MW-28			MW-29			MW-55		
Date		1/13/15			1/23/15			1/23/15			1/7/15		
Cations	MW	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)
Calcium	40.1	2	18.7	0.93313	51.5	7.5	0.37575	46.8	6.2	0.30888	47.8	10.9	0.54391
Magnesium	24.3	2	5.8	0.47891	26.5	2.2	0.17774	22.2	1.8	0.144	22.3	6.6	0.54145
Potassium	39.1	1	3.4	0.08722	4.8	0.9	0.02194	2.7	0.5	0.01299	2.0	1.7	0.0422
Sodium	23.0	1	6.9	0.29926	16.5	5.2	0.22575	28.1	4.1	0.17921	27.7	5.7	0.24968
Iron	55.8	2	0.0	0.00036	0.0	0.0	0.00036	0.0	0.0	0.00057	0.1	0.3	0.01071
Manganese	54.9	2	0.1	0.00189	0.1	0.0	3.6E-05	0.0	0.0	3.6E-05	0.0	0.2	0.00626
Ammonia-N	14.0	1	0.1	0.0095	0.5	0.0	0.00071	0.1	0.0	0.00071	0.1	0.1	0.00496
Total Cations (meq/L)			1.8			0.8		0.6		1.4			
Anions													
Alkalinity, Total			80			23.4		25			65.8		
Carbonate	60.0	2	0.14069	0.00469	0.2	0.00112	3.7E-05	0.0	0.00314	0.0001	0.0	0.16056	0.00535
Bicarbonate	61.0	1	96.70	1.58507	81.3	28.55	0.46789	54.6	30.49	0.49982	69.1	79.95	1.31045
Chloride	35.5	1	6.5	0.18334	9.4	3.0	0.08462	9.9	2.7	0.07503	10.4	3.6	0.10013
Nitrate-N	14.0	1	0.2	0.01085	0.6	0.5	0.03398	4.0	1.5	0.10709	14.8	0.0	0.00071
Sulfate	96.1	2	8.0	0.16615	8.5	13.0	0.27067	31.6	2.0	0.04102	5.7	10.9	0.22695
Total Anions (meq/L)			2.0			0.9		0.7		1.6			
Total Ions (meq/L)			3.8			1.7		1.4		3.0			
Cation/Anion Ratio			0.93			0.94		0.89		0.85			
Percent Difference			-3.7			-3.3		-5.6		-8.0			
TRILINEAR DIAGRAM DATA													
sum (Ca, Mg, Na+K)			1.80			0.80		0.65			1.38		
Calcium				51.9			46.9			47.9		39.5	
Magnesium				26.6			22.2			22.3		39.3	
Sodium + Potassium				21.5			30.9			29.8		21.2	
							100.0			100.0			
sum (SO ₄ , Cl, HCO ₃ +CO ₃)			1.94			0.82		0.62			1.64		
Sulfate				8.6			32.9			6.7		13.8	
Chloride				9.5			10.3			12.2		6.1	
Bicarbonate + Carbonate				82.0			56.8			81.2		80.1	

Table 8
Ion Balance Calculations
Cedar Hills Landfill Perched Zones GW Monitoring Wells

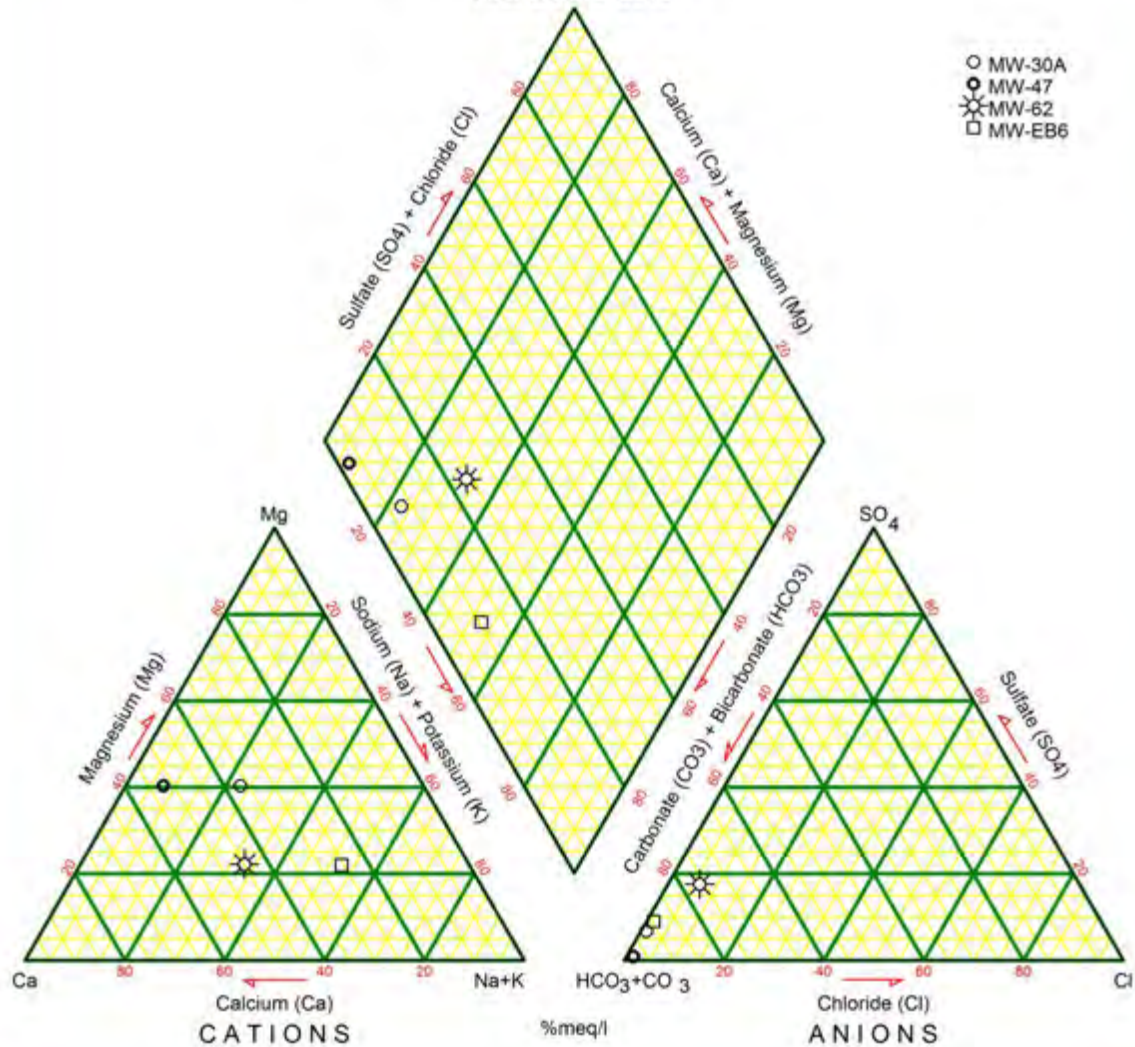
Data Collected from January 1, 2015 to March 31, 2015

Site ID Date	MW	n	East Perched Zone												SSWA		
			MW-30A 1/14/15			MW-47 1/30/15			MW-62 No Sample			MW-EB6 No Sample			MW-101 1/23/15		
Cations			mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)
Calcium	40.1	2	21.6	1.07784	36.7	121.0	6.03792	51.4	15.3	0.76347	44.9	6.3	0.31537	24.3	41.6	2.07585	40.1
Magnesium	24.3	2	14.4	1.18494	40.3	56.9	4.68216	39.8	4.6	0.37688	22.2	3.3	0.27155	20.9	28.9	2.37811	45.9
Potassium	39.1	1	1.5	0.03913	1.3	4.7	0.11944	1.0	0.9	0.02335	1.4	1.1	0.02813	2.2	2.2	0.05729	1.1
Sodium	23.0	1	14.6	0.63507	21.6	17.2	0.74816	6.4	12.3	0.53502	31.5	14.2	0.61767	47.5	14.8	0.64376	12.4
Iron	55.8	2	0.0	0.00036	0.0	2.4	0.08667	0.7	0.0	0.00036	0.0	0.7	0.0251	1.9	0.4	0.01271	0.2
Manganese	54.9	2	0.0	3.6E-05	0.0	2.1	0.07718	0.7	0.0	3.6E-05	0.0	0.1	0.00202	0.2	0.3	0.01059	0.2
Ammonia-N	14.0	1	0.0	0.00071	0.0	0.1	0.00514	0.0	0.0	0.00071	0.0	0.6	0.03991	3.1	0.0	0.00071	0.0
Total Cations (meq/L)				2.9			11.8			1.7			1.3			5.2	
Anions																	
Alkalinity, Total			119			680			73.8			66.3			271		
Carbonate	60.0	2	0.02848	0.00095	0.0	0.27631	0.00921	0.1	0.04333	0.00144	0.1	0.00693	0.00023	0.0	0.14851	0.00495	0.1
Bicarbonate	61.0	1	145.12	2.37869	80.3	829.04	13.5887	97.6	89.95	1.47433	68.3	80.87	1.32557	88.2	330.32	5.41423	97.2
Chloride	35.5	1	1.0	0.02739	0.9	6.9	0.19378	1.4	4.4	0.12354	5.7	0.7	0.0209	1.4	2.7	0.077	1.4
Nitrate-N	14.0	1	5.3	0.37981	12.8	0.0	0.00071	0.0	3.1	0.21846	10.1	0.3	0.02235	1.5	0.1	0.00423	0.1
Sulfate	96.1	2	8.3	0.17365	5.9	6.0	0.12576	0.9	16.4	0.34146	15.8	6.4	0.13346	8.9	3.4	0.06975	1.3
Total Anions (meq/L)				3.0			13.9			2.2			1.5			5.6	
Total Ions (meq/L)				5.9			25.7			3.9			2.8			10.7	
Cation/Anion Ratio				0.99			0.84			0.79			0.87			0.93	
Percent Difference				-0.4			-8.4			-11.9			-7.2			-4	
TRILINEAR DIAGRAM DATA																	
sum (Ca, Mg, Na+K)				2.94			11.59			1.70			1.23			5.16	
Calcium					36.7			52.1			44.94			25.58			40.27
Magnesium					40.3			40.4			22.19			22.03			46.13
Sodium + Potassium					23.0			7.5			32.87			52.39			13.60
											100.0			100.0			
sum (SO ₄ , Cl, HCO ₃ +CO ₃)				2.58			13.92			1.94			1.48			5.57	
Sulfate					6.7			0.9			17.6			9.0			1.3
Chloride					1.1			1.4			6.4			1.4			1.4
Bicarbonate + Carbonate					92.2			97.7			76.0			89.6			97.4
											100.0			100.0			

Cedar Hills Regional Landfill
Figure 7. Perched Zones Wells North and West
First Quarter 2015



Cedar Hills Regional Landfill
Figure 8. East Perched Zone Wells
First Quarter 2015



Cedar Hills Regional Landfill
 Figure 9. South Solid Waste Area Perched Zone Wells
 First Quarter 2015

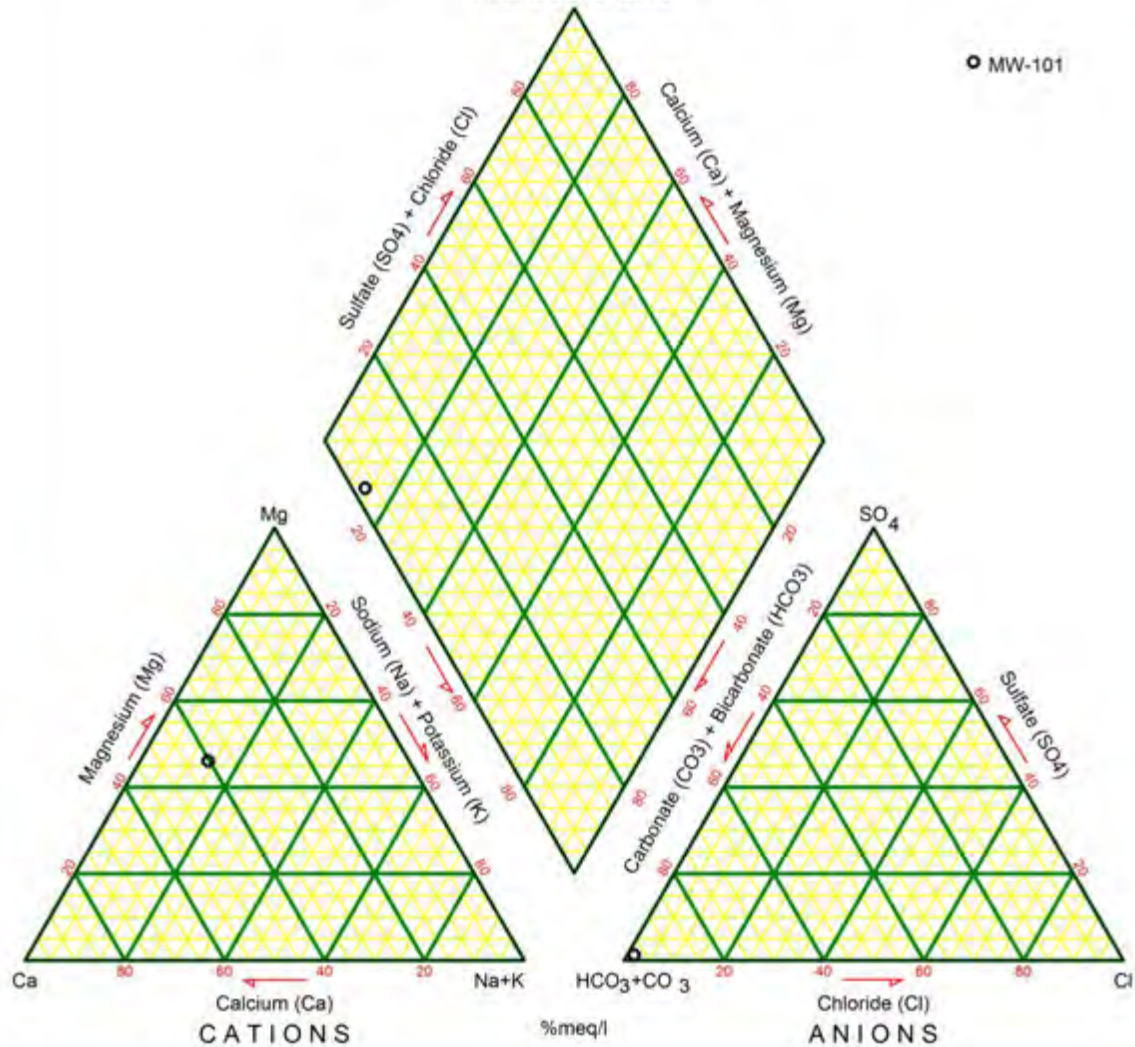


TABLE 9
CEDAR HILLS REGIONAL LANDFILL PERCHED ZONES
SUMMARY OF WAC 173-351 APPENDIX I INTRAWELL PREDICTION LIMIT EXCEEDANCES
(Data Collected from January 1, 2015 to March 31, 2015)

Parameter	Units	Well ID	Sample Date	Sample Value	Limit Value
NO PERCHED ZONE PREDICTION LIMIT EXCEEDANCES THIS QUARTER					

TABLE 10
CEDAR HILLS REGIONAL LANDFILL
VOLATILE ORGANIC COMPOUND DETECTIONS IN PERCHED ZONE WELLS
(Data Collected from January 1, 2015 to March 31, 2015)

Analyte	Site ID	Date	Sample ID	ug/L
North and West Perched Wells				
Acetone	MW-28	1/23/2015	W28-150123-	5.4 T
East Perched Zone Wells				
Acetone	MW-47	1/30/2015	W47-150130-	17
	MW-62	1/30/2015	W62-150130-	8.6 T
	MW-EB6	1/30/2015	WB6-150130-	19
Chloroethane	MW-47	1/30/2015	W47-150130-	0.25 T
1,1-Dichloroethane	MW-30A	1/14/2015	W30A150114-	1.98
	MW-47	1/30/2015	W47-150130-	0.756
	MW-62	1/30/2015	W62-150130-	1.13
cis-1,2-Dichloroethene	MW-30A	1/14/2015	W30A150114-	2.85
	MW-47	1/30/2015	W47-150130-	3.66
	MW-62	1/30/2015	W62-150130-	2.89
Dichlorodifluoromethane	MW-47	1/30/2015	W47-150130-	7.48
Trichloroethene	MW-30A	1/14/2015	W30A150114-	1.01
Vinyl Chloride	MW-47	1/30/2015	W47-150130-	6.09
South Solid Waste Area Perched Wells				
Acetone	MW-101	1/23/2015	W101150123-	7.5 T
Vinyl Chloride	MW-101	1/23/2015	W101150123-	0.0557

See Data Qualifier List for Qualifier Information.

Table 11
Surface Water Monitoring Activities 1st Quarter 2015

Station ID	Date	Planned Activity	Sample ID	Comment
SW-E1	1/20/15	Quarterly Characterization Sample	SE1-150120Q	
SW-E1	2/23/15	Monthly Characterization Sample	SE1-150223M	
SW-E1	3/17/15	Monthly Characterization Sample	SE1-150317M	
SW-GS1	1/20/15	NPDES Permit Sample	SGS1150120P	
SW-GS1	2/9/15	NPDES Permit Sample	SGS1150209P	
SW-GS1	2/23/15	Monthly Characterization Sample	SGS1150223M	
SW-GS1	3/16/15	Monthly Characterization Sample	SGS1150316M	
SW-LP1	1/13/15	South Lagoon Inlet Characterization	SLP1150113P	
SW-LP1	2/18/15	South Lagoon Inlet Characterization	SLP1150218P	
SW-LP1	3/18/15	South Lagoon Inlet Characterization	SLP1150318P	
SW-LP2	1/13/15	South Lagoon Inlet Characterization	SLP2150113P	
SW-LP2	2/18/15	South Lagoon Inlet Characterization	SLP2150218P	
SW-LP2	3/18/15	South Lagoon Inlet Characterization	SLP2150318P	
SW-LP3	1/13/15	South Lagoon Inlet Characterization	NA ¹	No Flow, No Sample
SW-LP3	2/18/15	South Lagoon Inlet Characterization	NA	No Flow, No Sample
SW-LP3	3/18/15	South Lagoon Inlet Characterization	NA	No Flow, No Sample
SW-MC	1/21/15	Quarterly Characterization Sample	SMC-150121Q	
SW-MC	2/24/15	Monthly Characterization Sample	SMC-150224M	
SW-MC	3/18/15	Monthly Characterization Sample	SMC-150318M	
SW-N1	1/20/15	Quarterly Characterization Sample	SN1-150120Q	
SW-N1	2/23/15	Monthly Characterization Sample	SN1-150223M	
SW-N1	3/17/15	Monthly Characterization Sample	SN1-150317M	
SW-N4	1/21/15	Quarterly Characterization Sample	SN4-150121Q	
SW-N4	2/9/15	NPDES Permit Sample	SN4-150209P	
SW-N4	2/23/15	Monthly Characterization Sample	SN4-150223M	
SW-N4	3/17/15	Monthly Characterization Sample	SN4-150317M	
SW-N4	3/13/15	North Storm Lagoon/Pond Characterization	SN4-150313C	
SW-NSLI	3/13/15	North Storm Lagoon Characterization	SNSLI150313C	
SW-NSLO	3/13/15	North Storm Lagoon Characterization	SNSLO150313C	
SW-NSPI	3/13/15	North Storm Pond Characterization	SNSPI150313C	
SW-NSPO	3/13/15	North Storm Pond Characterization	SNSPO150313C	
SW-S1	2/23/15	Monthly Characterization Sample	SS1-150223M	
SW-S1	3/16/15	Monthly Characterization Sample	SS1-150316M	
SW-S1	1/20/15	Quarterly Characterization Sample	SS2-150120Q	
SW-S2	2/23/15	Monthly Characterization Sample	SS2-150223M	
SW-S2	3/16/15	Monthly Characterization Sample	SS2-150316M	
SW-S2		Monthly Characterization Sample	NA	
SW-S3	1/20/15	Quarterly Characterization Sample	SS3-150120Q	
SW-S3	2/23/15	Monthly Characterization Sample	NA	No Flow, No Sample
SW-S3	3/16/15	Monthly Characterization Sample	NA	No Flow, No Sample
SW-SL3	1/13/15	Quarterly Characterization Sample	SSL3150113P	
SW-SL3	1/20/15	Quarterly Characterization Sample	SSL3150120Q	
SW-SL3	2/9/15	NPDES Permit Sample	SSL3150209P	
SW-SL3	2/18/15	NPDES Permit Sample	SSL3150218P	
SW-SL3	2/23/15	Monthly Characterization Sample	SSL3150223M	

Table 11
Surface Water Monitoring Activities 1st Quarter 2015

Station ID	Date	Planned Activity	Sample ID	Comment
SW-SL3	3/16/15	Monthly Characterization Sample	SSL3150316M	
SW-SL3	3/18/15	NPDES Permit Sample	SSL3150318P	
SW-TD1	1/30/15	Area 5 Top Deck Monitoring	NA	No Flow, No Sample
SW-TD2	1/30/15	Area 5 Top Deck Monitoring	NA	No Flow, No Sample
SW-TD4	1/30/15	Area 5 Top Deck Monitoring	NA	No Flow, No Sample
SW-TD6	1/30/15	Area 5 Top Deck Monitoring	NA	No Flow, No Sample
SW-TD1	2/4/15	Area 5 Top Deck Monitoring	STD1150204-	
SW-TD2	2/27/15	Area 5 Top Deck Monitoring	STD2150227-	
SW-TD4	2/27/15	Area 5 Top Deck Monitoring	STD4150227-	
SW-TD6	2/9/15	Area 5 Top Deck Monitoring	STD6150209-	
SW-V	1/20/15	Quarterly Characterization Sample	SV--150120Q	
SW-V	2/23/15	Monthly Characterization Sample	SV--150223M	
SW-V	3/17/15	Quarterly Characterization Sample	NA	No Sample, Unsafe Access
SW-W	1/21/15	Quarterly Characterization Sample	SW--150121Q	
SW-W	2/24/15	Monthly Characterization Sample	SW--150224M	
SW-W	3/18/15	Monthly Characterization Sample	SW--150318M	
SW-W1	1/20/15	Quarterly Characterization Sample	SW1-150120Q	
SW-W1	2/23/15	Monthly Characterization Sample	SW1-150223M	
SW-W1	3/17/15	Monthly Characterization Sample	SW1-150317M	
SW-W2	1/20/15	Quarterly Characterization Sample	SW2150120Q	
SW-W2	2/23/15	Monthly Characterization Sample	SW2-150223M	
SW-W2	3/16/15	Monthly Characterization Sample	SW2-150316M	
Field Blank	1/20/15	QA/QC Sample	SE1-150120F	
Field Blank	2/23/15	QA/QC Sample	SGS1150223F	
Field Blank	2/24/15	QA/QC Sample	SW--150224F	
Staff Gages	1/20/15	Monthly Stream Gage Levels	NA	
Staff Gages	2/23/15	Monthly Stream Gage Levels	NA	
Staff Gages	3/16/15	Monthly Stream Gage Levels	NA	
Staff Gages	3/17/15	Monthly Stream Gage Levels	NA	

¹ No sample ID assigned, No sample collected.

TABLE 12
CEDAR HILLS LANDFILL
SUMMARY OF ISGP* STORMWATER PERMIT EXCEEDANCES
(Data Collected from January 1, 2015 to March 31, 2015)

Parameter	Units	Sampling Location	Date	Value	Regulatory Limit	Type
Turbidity (Quarterly Average)	NTU	SW-GS1	1st Quarter	81	25	Benchmark
TSS (Monthly Average)	mg/L	SW-GS1	March	44.5	27	Effluent Limit
Copper, Total (Quarterly Average)	ug/L	SW-N4	1st Quarter	14.38	14	Benchmark

* ISGP - Industrial General Stormwater Permit

TABLE 13
CEDAR HILLS REGIONAL LANDFILL
VOLATILE ORGANIC COMPOUND DETECTIONS IN BLANKS
(Data Collected from January 1, 2015 to March 31, 2015)

Analyte	Site ID	Date	Sample ID	ug/L
Acetone	FIELD BLANK	1/27/2015	W86-150127F	11
	FIELD BLANK	1/28/2015	W95-150128F	12.9
Toluene	FIELD BLANK	1/12/2015	W93-150112F	0.27 T

See Data Qualifier List for Qualifier Information.

Table 14
Groundwater Quality Criteria

			Ground Water Quality Criteria	
	Analyte	CAS No.	Criterion*	
I.	PRIMARY AND SECONDARY CONTAMINANTS AND RADIONUCLIDES			
	A. Primary Contaminants			
	Barium	7440-39-3	1.0	mg/L
	Cadmium	7440-43-9	0.005	mg/L
	Chromium	7440-47-3	0.05	mg/L
	Lead	7439-92-1	0.015	mg/L
	Mercury	7439-97-6	0.002	mg/L
	Selenium	7782-49-2	0.01	mg/L
	Silver	7440-22-4	0.05	mg/L
	Fluoride	16984-48-8	4.0	mg/L
	Nitrate	14797-55-8	10.0	mg/L
	Endrin	72-20-8	0.2	ug/L
	Methoxychlor	72-43-5	40	ug/L
	1,1,1-Trichloroethane	71-55-6	200	ug/L
	2,4-D	94-75-7	70	ug/L
	2,4,5-TP	93-72-1	100	ug/L
	Total Coliforms		1/100	mL
	B. Secondary Standards			
	Copper	7440-50-8	1.0	mg/L
	Iron	7439-89-6	0.3	mg/L
	Manganese	7439-96-5	0.05	mg/L
	Zinc	7440-66-6	5.0	mg/L
	Chloride	16887-00-6	250	mg/L
	Sulfate	14808-79-8	250	mg/L
	Total Dissolved Solids		500	mg/L
	Foaming Agents		0.5	mg/L
	pH	12408-02-5	6.5-8.5	units
	Corrosivity		non-corrosive	
	Color		15	units
	Odor-Threshold		3	units
	C. Radionuclides and Radioactivity			
	Gross Alpha particle activity		15	pCi/L
	Gross Beta particle activity		50	pCi/L
	Tritium	10028-17-8	20,000	pCi/L
	Strontium	7440-24-6	8	pCi/L
	Radium 226 & Radium 228		5	pCi/L
	Radium 226	13982-63-3	3	pCi/L
II.	CARCINOGENS			
	1,1-Dichloroethane	75-34-3	1	ug/L
	1,2-Dichloroethane	107-06-2	0.5	ug/L
	1,2-Dichloropropane	78-87-5	0.6	ug/L
	1,2-Dimethylhydrazine	540-73-8	60	ug/L
	1,2-Diphenylhydrazine	122-66-7	0.09	ug/L
	1,3-Dichloropropene tot.	542-75-6	0.2	ug/L
	1,4-Dichlorobenzene	106-46-7	4	ug/L
	1,4-Dioxane	123-91-1	7	ug/L
	2,3,7,8-Tetrachlorodibenzo-p-dioxin	1746-01-6	0.000006	ug/L
	2,4,6-Trichlorophenol	88-06-2	4.0	ug/L
	2,4-Dinitrotoluene	121-14-2	0.1	ug/L
	2,4-Toluenediamine	95-80-7	0.002	ug/L
	2,6-Dinitrotoluene	606-20-2	0.1	ug/L
	2-Methoxy-5-nitroaniline	99-59-2	2.0	ug/L
	2-Methylaniline	95-53-4	0.2	ug/L
	2-Methylaniline hydrochloride	636-21-5	0.5	ug/L
	3,3'-Dichlorobenzidine	91-94-1	0.2	ug/L
	3,3'-Dimethoxybenzidine	119-90-4	6.0	ug/L
	3,3-Dimethylbenzidine	119-93-7	0.007	ug/L
	4,4'-Methylene bis(N,N'-dimethyl) aniline	101-61-1	2.0	ug/L
	4-Chloro-2-methyl aniline	95-69-2	0.1	ug/L
	4-Chloro-2-methyl aniline hydrochloride	3165-93-3	0.2	ug/L
	Acrylamide	79-06-1	0.02	ug/L
	Acrylonitrile	107-13-1	0.07	ug/L
	Aldrin	309-00-2	0.005	ug/L
	Aniline	62-53-3	14	ug/L
	Aramite	140-57-8	3	ug/L
	Arsenic	7440-38-2	0.00005	mg/L
	Azobenzene	103-33-3	0.7	ug/L
	Benzene	71-43-2	1	ug/L

Table 14
Groundwater Quality Criteria

Analyte	CAS No.	Ground Water Quality Criteria Criterion*	
Benzidine	92-87-5	0.0004	ug/L
Benzo(a)pyrene	50-32-8	0.008	ug/L
Benzotrchloride	98-07-7	0.007	ug/L
Benzyl chloride	100-44-7	0.5	ug/L
Bis(2-ethylhexyl)phthalate	117-81-7	6	ug/L
Bis(chloroethyl)ether	111-44-4	0.07	ug/L
Bis(chloromethyl)ether	542-88-1	0.0004	ug/L
Bromodichloromethane	75-27-4	0.3	ug/L
Bromoform	75-25-2	5	ug/L
Carbazole	86-74-8	5	ug/L
Carbon Tetrachloride	56-23-5	0.3	ug/L
Chlordane	5103-71-9	0.06	ug/L
Chlorodibromomethane	124-48-1	0.5	ug/L
Chloroform	67-66-3	7	ug/L
Chlorthalonil	1897-45-6	30	ug/L
DDT (includes DDE and DDD)	50-29-3, 72-55-9, 72-54-8	0.3	ug/L
Diallate	2303-16-4	1	ug/L
Dichlorovos	62-73-7	0.3	ug/L
Dieldrin	60-57-1	0.005	ug/L
Direct Black 38	1937-37-7	0.009	ug/L
Direct Blue 6	2602-46-2	0.009	ug/L
Direct Brown 95	16071-86-6	0.009	ug/L
Epichlorohydrin	106-89-8	8	ug/L
Ethyl acrylate	140-88-5	2	ug/L
Ethylene dibromide	106-93-4	0.001	ug/L
Ethylene thiourea	96-45-7	2	ug/L
Folpet	133-07-3	20	ug/L
Furazolidone	67-45-8	0.02	ug/L
Furium	531-82-8	0.002	ug/L
Furmecyclox	60568-05-0	3	ug/L
Heptachlor	76-44-8	0.02	ug/L
Heptachlor epoxide	1024-57-3	0.009	ug/L
Hexachlorobenzene	118-74-1	0.05	ug/L
Hexachlorocyclohexane (alpha)	319-84-6	0.001	ug/L
Hexachlorocyclohexane (technical)	608-73-1	0.05	ug/L
Hexachlorodibenzo-p-dioxin, mix	34465-46-8	0.00001	ug/L
Hydrazine/hydrazine sulfate	302-01-2/10034-93-2	0.03	ug/L
Lindane	58-89-9	0.06	ug/L
Methylene Chloride	75-09-2	5	ug/L
Mirex	2385-85-5	0.05	ug/L
Nitrofurazone	59-87-0	0.06	ug/L
N-Nitrosodiethanolamine	1116-54-7	0.03	ug/L
N-Nitrosodiethylamine	55-18-5	0.0005	ug/L
N-Nitrosodimethylamine	62-75-9	0.002	ug/L
N-Nitroso-di-n-butylamine	924-16-3	0.02	ug/L
N-Nitroso-di-n-propylamine	621-64-7	0.01	ug/L
N-Nitrosodiphenylamine	86-30-6	17.0	ug/L
N-Nitroso-N-methylethylamine	10595-95-6	0.004	ug/L
N-Nitrosopyrrolidine	930-55-2	0.04	ug/L
o-Chloronitrobenzene	88-73-3	3	ug/L
o-Phenylenediamine	95-54-5	0.005	ug/L
o-Toluidine	95-53-4	0.2	ug/L
p,a,a,a-Tetrachlorotoluene	5216-25-1	0.004	ug/L
PAHs [Benzo(a)pyrene]		0.01	ug/L
PBBs	59536-65-1	0.01	ug/L
PCBs c	27323-18-8	0.01	ug/L
p-Chloronitrobenzene	100-00-5	5	ug/L
Propylene oxide	75-56-9]	0.01	ug/L
Tetrachloroethylene	127-18-4	0.8	ug/L
Toxaphene c	8001-35-2	0.08	ug/L
Trichloroethylene (TCE)	79-01-6	3	ug/L
Trimethyl phosphate	512-56-1	2.0	ug/L
Vinyl chloride	75-01-4	0.02	ug/L
NOTES: pCi/L=picocuries per liter mg/L=milligrams per liter ug/L=micrograms per liter *Ground Water Quality Criteria=173-200 WAC Water Quality Standards for Ground Waters of the State of Washington			

TABLE 15
CEDAR HILLS LANDFILL
INDUSTRIAL STORMWATER GENERAL PERMIT

BENCHMARKS and EFFLUENT LIMITS

Parameter	Units	Minimum Sampling Frequency	Benchmark	Effluent Limit	
				Monthly Average	Daily Maximum
pH	Std. Units	Quarterly	5.0 to 9.0	6.0 to 9.0	
Turbidity	NTU	Quarterly	25	--	--
Oil Sheen	Yes/No	Quarterly	None Visible	--	--
Copper, Total	ug/L	Quarterly	14	--	--
Zinc, Total	ug/L	Quarterly	117	110	200
BOD	mg/L	Quarterly	--	37	140
TSS	mg/L	Quarterly	--	27	88
Ammonia-N	mg/L	Quarterly	--	4.9	10
Alpha Terpineol	ug/L	Quarterly	--	16	33
Benzoic Acid	ug/L	Quarterly	--	71	120
4-Methylphenol*	ug/L	Quarterly	--	14	25
Phenol	ug/L	Quarterly	--	15	26

* Analytical result reported as the total of 3-Methylphenol (CAS RN 108-39-4) and 4-Methylphenol (CAS RN 106-44-5)

TABLE 16
CEDAR HILLS REGIONAL LANDFILL
LABORATORY DATA REVIEW - SUSPECT DATA ALL MATRICES
(Data Collected from January 1, 2015 to March 31, 2015)

Parameter	Units	Well ID	Sample Date	Sample ID	Sample Value	Cause of Unuseability
Acetone	ug/L	MW-21	1/27/2015	W21-150127-	14.6	Blank Contamination
		MW-85	1/28/2015	W85-150128-	10.4 L	Blank Contamination
		MW-86	1/27/2015	W86-150127-	48.1	Blank Contamination
		MW-95	1/28/2015	W95-150128-	35.7	Blank Contamination

APPENDIX A

Potentiometric Surface Maps and Aquifer Flow Calculations



King County

Water and Land Resources Division

Department of Natural Resources and Parks

King Street Center

201 South Jackson Street, Suite 600

Seattle, WA 98104-3855

206-477-4800 Fax 206-296-0192

TTY Relay: 711

Memorandum

May 18, 2015

TO: Tom Theno, Engineer II, Engineering Services Section, Solid Waste Division,
Department of Natural Resources and Parks (DNRP)

FM: Sevin Bilir, Environmental Scientist III, Science and Technical Support Section,
Water and Land Resources Division, DNRP

RE: Potentiometric Groundwater Surface Maps & Groundwater Velocity Calculations
First Quarter 2015 Results
Cedar Hills Landfill, King County, Washington
Project No. 1033379 – Task 02.14.137.20

The King County Water and Land Resources Division (KCWLR Division) submits this memorandum report on groundwater conditions during the first quarter of 2015 for the Cedar Hills Landfill (landfill), in accordance with the *Proposal for Potentiometric Groundwater Surface Maps & Groundwater Velocity Calculations* (KCWLR Division, 2013). King County Solid Waste Division (KCSWD) personnel measured groundwater elevations at the landfill on January 5, 2015. These measurements were received by KCWLR Division on April 14, 2015 and were used to:

1. Evaluate the potentiometric groundwater surface elevation for the regional aquifer;
2. Determine the groundwater flow direction and horizontal gradient for the regional aquifer; and
3. Calculate the groundwater velocity of the regional aquifer.

There have been no significant changes in the interpreted groundwater conditions since the report submitted for the fourth quarter of the 2014 monitoring event.

Groundwater Elevation Data

KCSWD attempted groundwater level measurements at 43 monitoring wells during the first quarter of 2015. These wells were completed in the regional aquifer as referred to in

Potentiometric Groundwater Surface Mapping and Groundwater Velocity Calculation – Cedar Hills Landfill (Aspect, 2010).

Table 1 lists the well identifications, locations, well details, measured groundwater levels and calculated groundwater elevations for the regional aquifer. Wells with screened intervals within ten feet of the water table were used for potentiometric surface mapping purposes. A total of 26 wells with water levels within ten feet of the top of screen were selected.

Figure 1 shows well locations, groundwater elevations at the 26 selected wells, groundwater potentiometric surface contours, and interpreted groundwater flow direction in the regional aquifer for the January 5, 2015 measurement event.

Direction of Groundwater Flow

Figure 1 shows interpreted groundwater potentiometric surface contours and groundwater flow directions in the regional aquifer, based on the January 5, 2015 measurements. Groundwater elevations indicate that groundwater in the regional aquifer generally flowed north beneath the southern and central portions of the landfill with minor components of flow to the north-northwest and north-northeast. At the northern end of the landfill, groundwater generally flowed to the north and north-northeast.

Groundwater Parameters

Horizontal groundwater velocity was calculated using the following formula:

$$\text{where: } v = \frac{1}{n_{eff}} K \frac{\Delta H}{\Delta L}$$

$$\begin{aligned} v &= \text{Groundwater velocity [L/t]} \\ n_{eff} &= \text{Effective porosity [dimensionless]} \\ K &= \text{Hydraulic conductivity [L/t]} \\ \frac{\Delta H}{\Delta L} &= \text{Hydraulic gradient [L/L]} \end{aligned}$$

Horizontal groundwater velocity was calculated for the regional aquifer below the landfill. Horizontal groundwater velocity was calculated for the southern, central, and northern portions of the regional aquifer, based on spatial differences in aquifer parameters and hydraulic gradients. The hydraulic conductivity and effective porosity values were based on the range referred to in the *Potentiometric Groundwater Surface Mapping and Groundwater Velocity Calculation – Cedar Hills Landfill (Aspect, 2010)*.

Table 2 presents a summary of the groundwater parameters used to calculate a groundwater velocity from the first quarter 2015 data. The hydraulic gradient was greatest under the southern portion of the landfill and smallest under the northern portion. On January 5, 2015, average horizontal groundwater velocity within the regional aquifer ranged from 0.012 feet per day (ft/d) under the southern portion of the landfill to 2.1 ft/d under the central portion of the landfill.

References

Aspect Consulting (Aspect). 2010. *Potentiometric Groundwater Surface Mapping and Groundwater Velocity Calculation – Cedar Hills Landfill*. Unpublished work. April 30.

King County Water & Land Resources Division (KCWLR Division). 2013. *Proposal for Potentiometric Groundwater Surface Maps & Groundwater Velocity Calculations*. Unpublished.

Thank you for the opportunity to provide hydrogeologic services to the KCSWD. If you have any questions, please feel free to contact me at 206-477-4646 or sevin.bilir@kingcounty.gov.

Sincerely,



Sevin Bilir, WA LHG
Environmental Scientist III
King County Water and Land Resources Division

Enclosures:

- Table 1: Groundwater Elevations - First Quarter 2015
- Table 2: Groundwater Parameters - First Quarter 2015
- Figure 1: Groundwater Potentiometric Surface Map – First Quarter 2015 – Regional Aquifer

Table 1: Groundwater Elevations – First Quarter 2015

Cedar Hills Regional Landfill
King County, Washington

Regional Aquifer Unit	Well Identification	X (ft)	Y (ft)	Top of Casing Elevation (ft MSL)	Top of Screen Elevation (ft)	Bottom of Screen Elevation (ft)	January 5, 2015	
							Measured Depth to Water (ft)	Groundwater Elevations (ft MSL)
Wells with water levels within 10 feet of the top of screen	MW-60	1701154.47	167873.20	567.15	334.81	325.81	227.22	339.93
	MW-64	1701980.27	168772.19	596.55	334.03	320.23	265.58	330.97
	MW-66	1699750.19	174250.32	531.28	294.39	280.59	238.27	293.01
	MW-67	1701776.69	172610.65	516.43	297.80	284.00	220.44	295.99
	MW-68	1701917.32	170609.35	647.07	311.29	292.29	332	315.07
	MW-69	1698061.86	172400.20	653.69	293.57	279.97	356.34	297.35
	MW-70	1698412.97	168699.89	530.57	322.75	309.05	204.91	325.66
	MW-72	1698229.92	170987.71	671.87	303.63	294.03	361.34	310.53
	MW-73	1698954.95	174995.59	485.70	288.11	278.81	190.8	294.9
	MW-74R	1700386.85	173813.79	531.26	289.90	280.40	239.88	291.38
	MW-76	1700376.23	167193.13	491.71	351.06	341.56	134.48	357.23
	MW-77	1700007.63	168999.71	552.67	320.47	310.97	226.5	326.17
	MW-78	1698881.94	169027.58	537.35	322.34	309.84	212.29	325.06
	MW-81	1702568.87	172113.99	493.66	309.19	300.19	183.83	309.83
	MW-82	1699553.72	167725.31	474.85	348.88	339.38	123.71	351.14
	MW-83	1697939.89	167212.27	496.81	350.19	340.69	144.76	352.05
	MW-84	1698602.89	173894.54	530.80	292.46	282.96	235.8	295
	MW-85	1701828.95	173694.52	531.76	282.56	273.06	245.94	285.82
	MW-86	1701331.25	174917.90	536.04	283.43	274.63	249.16	286.88
	MW-87	1700670.27	173493.76	537.31	283.68	274.38	248.1	289.21
	MW-88	1701807.87	174303.06	513.68	281.52	272.22	227.03	286.65
	MW-93	1702259.35	169851.24	632.15	319.87	310.07	308.32	323.83
	MW-94	1698674.21	167210.22	495.51	357.22	348.52	142	353.51
	MW-95	1697265.32	169426.92	571.54	314.60	305.90	251.05	320.49
	MW-100	1700791.72	169610.46	620.32	319.06	309.06	297.78	322.54
	MW-106	1702536.99	173461.69	475.47	280.04	270.04	190.58	284.89
Wells with water levels greater than 10 feet above the top of screen	MW-21	1697901.86	173876.38	420.66	263.22	255.22	124.87	295.79
	MW-22P	1701844.34	173088.17	517.09	236.02	231.22	232.12	284.97
	MW-24	1699582.39	167767.76	475.99	286.76	281.76	144.95	331.04
	MW-43	1701274.23	174327.14	547.06	245.63	235.63	262.83	284.23
	MW-54	1702154.28	168435.53	580.43	250.25	228.25	278.3	302.13
	MW-56	1698980.77	167214.82	480.33	323.15	313.15	126.66	353.67
	MW-57	1699993.32	167201.99	456.64	326.65	311.65	101.15	355.49
	MW-58A	1699006.59	167207.16	479.27	270.05	260.05	148.72	330.55
	MW-59	1699983.91	167193.44	457.13	285.08	275.08	123.36	333.77
	MW-65	1701602.10	167146.55	545.83	317.71	308.91	208.74	337.09
	MW-75	1701059.70	173432.42	532.40	271.10	261.00	245.41	286.99
	MW-80	1701309.78	172964.99	530.41	279.17	269.67	238.96	291.45
	MW-89	1701799.57	174319.44	512.82	229.20	219.90	231.7	281.12
	MW-90	1702203.13	174300.67	502.22	235.16	226.16	221.31	280.91
	MW-91	1701023.09	173423.94	532.02	260.81	240.71	246.67	285.35
	MW-99	1702556.06	172098.73	493.64	221.77	212.77	200.21	293.43
	NPW-1	1701906.96	171138.99	646.33	299.87	284.87	332.66	313.67
	NPW-3	1701922.88	170663.28	645.81	284.87	276.87	330.95	314.86

Notes

1. Water level measurements made by KCSWD personnel.
2. Reference datum for XY coordinates is the North American Datum of 1927 (NAD27)
3. Elevations reported in feet above Mean Sea Level based on the National Geodetic Vertical Datum, 1929.

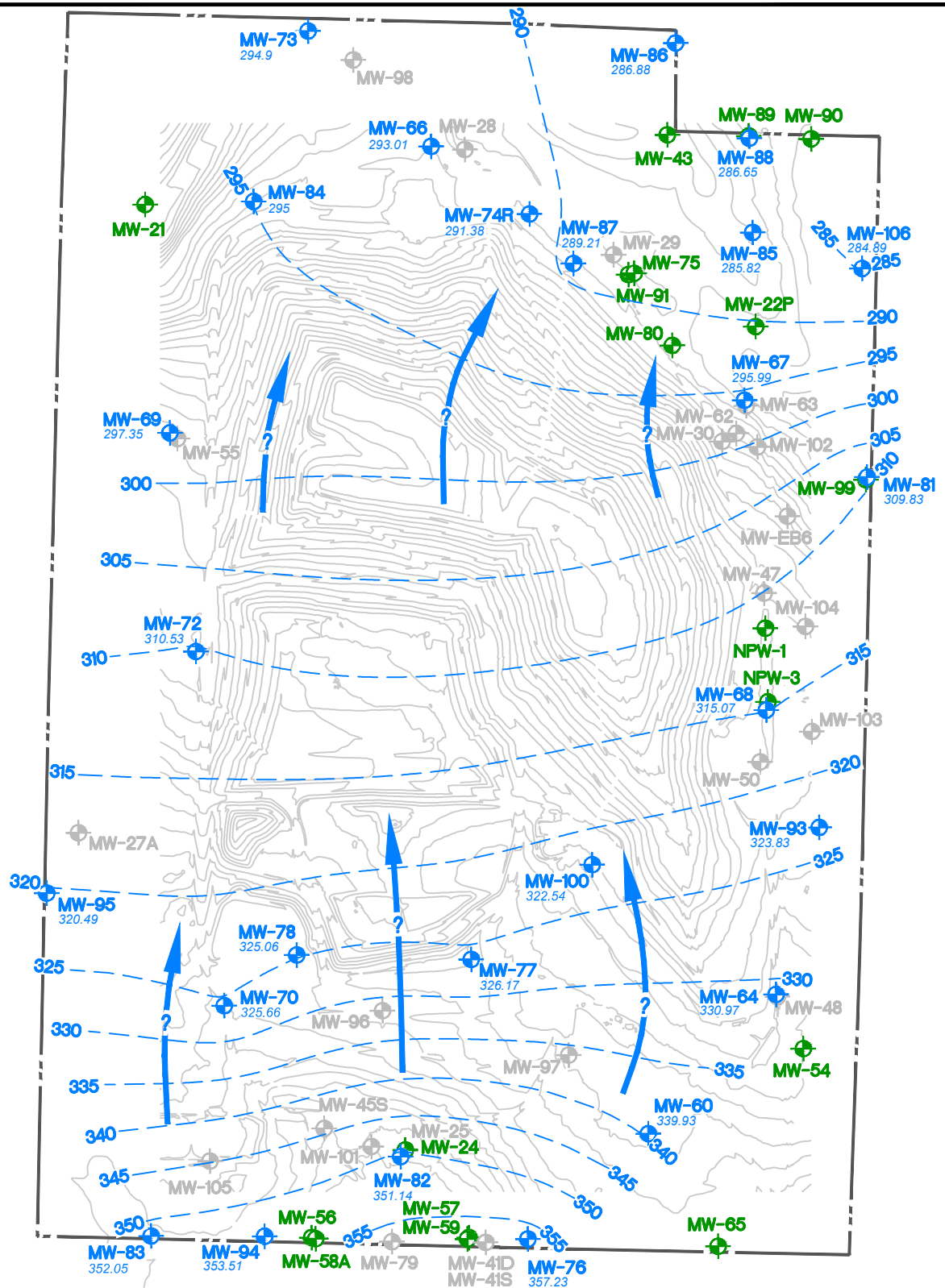
Table 2: Groundwater Parameters – First Quarter 2015

Cedar Hills Regional Landfill
King County, Washington

Regional Aquifer Zone Beneath the Landfill	Horizontal Hydraulic Conductivity (K)			Horizontal Hydraulic Gradient (DH/DL)	Effective Porosity (n _{eff})	Horizontal Groundwater Velocity (v)	General Groundwater Flow Direction
	Range	(cm/s)	(ft/d)	(ft/ft)		(ft/d)	
Northern	Minimum	2.10E-03	6	0.0055	24%	0.136	N, NNE
	Maximum	4.20E-02	120	0.0055	24%	2.73	
	Mean	2.10E-02	60	0.0055	24%	1.36	
Central	Minimum	2.10E-03	6	0.0084	24%	0.21	N, NNW
	Maximum	4.20E-02	120	0.0084	24%	4.2	
	Mean	2.10E-02	60	0.0084	24%	2.1	
Southern	Minimum	6.40E-06	0.018	0.0178	26%	0.0012	N, NNE, NNW
	Maximum	6.40E-04	1.8	0.0178	26%	0.12	
	Mean	6.40E-05	0.18	0.0178	26%	0.012	

Notes

1. Horizontal hydraulic conductivity values and effective porosity values from *Potentiometric Groundwater Surface Mapping and Groundwater Velocity Calculation – Cedar Hills Landfill (Aspect, 2010)*.
2. Hydraulic gradients measured from the potentiometric surface map shown on Figure 1.
3. Mean hydraulic conductivity values are the geometric mean of the high and low values.
4. NNE, north-northeast; NNW, north-northwest; NE, northeast; N, north



Groundwater Potentiometric Surface Map First Quarter 2015 - Regional Aquifer Cedar Hills Landfill King County, Washington

DATE:	March 2015	PROJECT NO.	
DESIGNED BY:	SB		1033379
DRAWN BY:	LT	FIGURE NO.	
REVISED BY:	SB		1

APPENDIX B

Field and Analytical Test Results

Groundwater Analytical Data

Environmental Monitoring Data

Data Collected from January 1, 2015 to March 31, 2015

Cedar Hills Landfill --- Groundwater Elevation Data

Contact Person: Sandy Jimenez (206) 477-5224

Site	Date	Reference Elevation (msl)	Depth to Water (feet)	Ground- Water Elevation (msl)	Comment
MW-21	1/5/2015	420.66	124.87	295.79	
MW-21	1/27/2015	420.66	124.72	295.94	
MW-22	1/5/2015	517.09	232.12	284.97	
MW-24	1/8/2015	475.99	144.88	331.11	
MW-24	1/9/2015	475.99	144.95	331.04	
MW-25	1/9/2015	474.41	5.08	469.33	
MW-27A	1/9/2015	584.23	54.34	529.89	
MW-27A	1/13/2015	584.23	54.68	529.55	
MW-28	1/5/2015	527.75	22.32	505.43	
MW-28	1/23/2015	527.75	20.91	506.84	
MW-29	1/5/2015	532.92	9.98	522.94	
MW-29	1/23/2015	532.92	9.11	523.81	
MW-30A	1/5/2015	568.43	29.45	538.98	
MW-30A	1/14/2015	568.43	29.34	539.09	
MW-41S	1/9/2015	462.44	4.11	458.33	
MW-41D	1/9/2015	462.32	24.88	437.44	
MW-43	1/5/2015	547.06	262.83	284.23	
MW-45	1/9/2015	488.4	13.61	474.79	
MW-47	1/5/2015	634.6	15.08	619.52	
MW-47	1/30/2015	634.6	15.07	619.53	
MW-48	1/9/2015	594.49	43.6	550.89	
MW-50	1/9/2015	637.02	29.47	607.55	
MW-54	1/9/2015	580.43	278.3	302.13	
MW-55	1/5/2015	652.29	28.19	624.10	
MW-55	1/7/2015	652.29	27.72	624.57	
MW-56	1/9/2015	480.33	126.66	353.67	
MW-56	1/15/2015	480.33	126.3	354.03	
MW-57	1/9/2015	456.64	101.15	355.49	
MW-57	1/15/2015	456.64	100.58	356.06	
MW-58A	1/9/2015	479.27	148.72	330.55	
MW-59	1/9/2015	457.13	123.36	333.77	
MW-59	1/13/2015	457.13	123.57	333.56	
MW-60	1/8/2015	567.15	227.22	339.93	
MW-60	1/9/2015	567.15	227.22	339.93	
MW-62	1/5/2015	556.21	49.65	506.56	
MW-62	1/30/2015	556.21	49.43	506.78	
MW-63	1/5/2015	515.88	10	505.88	
MW-64	1/9/2015	596.55	265.58	330.97	
MW-64	1/23/2015	596.55	265.65	330.90	
MW-65	1/9/2015	545.83	208.74	337.09	
MW-65	1/15/2015	545.83	208.54	337.29	
MW-66	1/5/2015	531.28	238.27	293.01	
MW-66	1/23/2015	531.28	238.41	292.87	
MW-67	1/5/2015	516.43	220.44	295.99	
MW-67	1/22/2015	576.43	220.43	356.00	

Environmental Monitoring Data

Data Collected from January 1, 2015 to March 31, 2015

Cedar Hills Landfill --- Groundwater Elevation Data

Contact Person: Sandy Jimenez (206) 477-5224

Site	Date	Reference Elevation (msl)	Depth to Water (feet)	Ground- Water Elevation (msl)	Comment
MW-68	1/9/2015	647.07	332	315.07	
MW-68	1/14/2015	647.07	331.99	315.08	
MW-69	1/5/2015	653.69	356.34	297.35	
MW-69	1/7/2015	653.69	356.36	297.33	
MW-70	1/9/2015	530.57	204.91	325.66	
MW-70	1/11/2015	530.57	204.97	325.6	
MW-72	1/5/2015	671.87	361.34	310.53	
MW-72	1/22/2015	671.87	361.11	310.76	
MW-73	1/5/2015	485.7	190.8	294.90	
MW-73	1/22/2015	485.7	190.75	294.95	
MW-74	1/5/2015	531.26	239.88	291.38	
MW-74	1/16/2015	531.26	239.68	291.58	
MW-74	2/20/2015	531.26	239.7	291.56	
MW-74	3/24/2015	531.26	239.61	291.65	
MW-75	1/5/2015	532.4	245.41	286.99	
MW-75	1/16/2015	533.4	245.6	287.80	
MW-75	2/20/2015	532.4	244.98	287.42	
MW-75	3/24/2015	532.4	244.88	287.52	
MW-76	1/9/2015	491.71	134.48	357.23	
MW-76	1/26/2015	491.71	133.17	358.54	
MW-77	1/9/2015	552.67	226.5	326.17	
MW-77	1/15/2015	552.67	226.39	326.28	
MW-78	1/9/2015	537.35	212.29	325.06	
MW-78	1/12/2015	537.35	212.4	324.95	
MW-79	1/9/2015	459.17	37.34	421.83	
MW-80	1/5/2015	530.41	238.96	291.45	
MW-80	1/23/2015	530.41	238.95	291.46	
MW-81	1/5/2015	493.66	183.83	309.83	
MW-81	1/26/2015	493.66	183.5	310.16	
MW-82	1/9/2015	474.85	123.71	351.14	
MW-82	1/26/2015	474.85	122.75	352.10	
MW-83	1/9/2015	496.81	144.76	352.05	
MW-83	1/13/2015	496.81	144.95	351.86	
MW-84	1/5/2015	530.8	235.8	295.00	
MW-84	1/26/2015	530.8	235.43	295.37	
MW-85	1/5/2015	531.76	245.94	285.82	
MW-85	1/28/2015	531.76	245.89	285.87	
MW-86	1/5/2015	536.04	249.16	286.88	
MW-86	1/27/2015	536.04	248.93	287.11	
MW-87	1/5/2015	537.31	248.1	289.21	
MW-87	1/16/2015	537.31	248.05	289.26	
MW-87	2/20/2015	537.31	248.02	289.29	
MW-87	3/20/2015	537.31	247.71	289.60	
MW-88	1/5/2015	513.68	227.03	286.65	
MW-88	1/16/2015	513.68	227.06	286.62	

Environmental Monitoring Data

Data Collected from January 1, 2015 to March 31, 2015

Cedar Hills Landfill --- Groundwater Elevation Data

Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Reference Elevation (msl)	Depth to Water (feet)	Ground- Water Elevation (msl)	Comment
MW-89	1/5/2015	512.82	231.7	281.12	
MW-89	1/22/2015	512.82	231.62	281.20	
MW-90	1/5/2015	502.22	221.31	280.91	
MW-90	1/21/2015	502.22	221.02	281.20	
MW-91	1/5/2015	532.02	246.67	285.35	
MW-91	1/26/2015	502.22	246.22	256.00	
MW-93	1/12/2015	632.15	308.32	323.83	
MW-94	1/9/2015	495.51	142	353.51	
MW-94	1/26/2015	495.51	140.93	354.58	
MW-95	1/9/2015	571.54	251.05	320.49	
MW-95	1/28/2015	571.54	251.3	320.24	
MW-96	1/9/2015	547.74	99.25	448.49	
MW-97	1/9/2015	564.54	112.91	451.63	
MW-98	1/5/2015	503.73	15.16	488.57	
MW-99	1/5/2015	493.64	200.21	293.43	
MW-99	1/16/2015	493.64	200.17	293.47	
MW-99	2/20/2015	493.64	200.18	293.46	
MW-99	3/20/2015	493.64	199.88	293.76	
MW-100	1/6/2015	620.32	297.78	322.54	
MW-100	1/9/2015	620.32	297.78	322.54	
MW-101	1/9/2015	474.72	32.51	442.21	
MW-101	1/23/2015	474.72	32.68	442.04	
MW-102	1/5/2015	552.48	45.04	507.44	
MW-103	1/9/2015	639.08	10.52	628.56	
MW-104	1/5/2015	629.68	23.35	606.33	
MW-105	1/9/2015	521.23	19.05	502.18	
MW-106	1/5/2015	475.47	190.58	284.89	
MW-EB6	1/5/2015	589.61	25.47	564.14	
MW-EB6	1/30/2015	589.61	25.32	564.29	
WS-NPW-1	1/5/2015	646.33	332.66	313.39	
WS-NPW-3	1/5/2015	645.81	330.95	314.66	

Environmental Monitoring Data

Data Collected from January 1, 2015 to March 31, 2015

Cedar Hills Landfill --- Groundwater Field Parameters

Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	pH (Field)	Conductance (Field)	Temperature	Purge Volume
			(std. Units)	(umho/cm)	(°C)	(gal)
MW-21	1/27/2015	W21-150127-	7.29	110	9.3	8.5
MW-24	1/8/2015	W24-150108-	7.09	110	9.3	10
MW-27A	1/13/2015	W27A150113-	7.47	100	9.5	8.8
MW-28	1/23/2015	W28-150123-	5.9	90	11.4	18
MW-29	1/23/2015	W29-150123-	6.32	73	12.4	20
MW-30A	1/14/2015	W30A150114-	6.6	240	11.7	4.5
MW-47	1/30/2015	W47-150130-	6.83	680	11.2	18.5
MW-55	1/7/2015	W55-150107-	7.61	100	10	13.4
MW-56	1/15/2015	W56-150115-	7.05	150	9.6	23
MW-57	1/15/2015	W57-150115-	6.88	190	10	22.7
MW-59	1/13/2015	W59-150113-	7.11	185	10	28
MW-60	1/8/2015	W60-150108-	7.06	100	9.2	11
MW-62	1/30/2015	W62-150130-	6.99	170	9.6	28
MW-64	1/23/2015	W64-150123-	7.02	160	11.2	11
MW-65	1/15/2015	W65-150115-	6.98	100	9.1	22
MW-66	1/23/2015	W66-150123-	7.14	235	9.7	9.5
MW-67	1/22/2015	W67-150122-	7.08	260	9.5	12.5
MW-68	1/14/2015	W68-150114-	7.16	255	10.6	17.4
MW-69	1/7/2015	W69-150107-	7.37	160	9.2	13
MW-70	1/12/2015	W70-150112-	7.49	150	9.6	17
MW-73	1/22/2015	W73-150122-	7.21	135	9.4	10.5
MW-74	1/16/2015	W74R150116-	7.11	275	9.8	7
MW-74	2/20/2015	W74R150220-	7.22	385	9.9	5.6
MW-74	3/24/2015	W74R150324-	6.98	380	9.8	7
MW-75	1/16/2015	W75-150116-	7.08	170	9.4	11.2
MW-75	2/20/2015	W75-150220-	7.26	240	9.7	11.2
MW-75	3/24/2015	W75-150324-	7.11	230	9.3	11.2
MW-76	1/26/2015	W76-150126-	6.72	255	9.9	8
MW-77	1/15/2015	W77-150115-	7.04	130	10.1	10
MW-78	1/12/2015	W78-150112-	7.07	110	10.7	11.5
MW-80	1/23/2015	W80-150123-	7.14	230	9.7	5.5
MW-81	1/26/2015	W81-150126-	7.19	110	9.7	6.6
MW-82	1/26/2015	W82-150126-	6.93	200	9.4	4.4
MW-83	1/13/2015	W83-150113-	6.88	375	10.3	3.8
MW-84	1/26/2015	W84-150126-	7.03	130	9.4	7
MW-85	1/28/2015	W85-150128-	7.19	270	10.3	8
MW-86	1/27/2015	W86-150127-	7.08	140	9.2	7.5
MW-87	1/16/2015	W87-150116-	6.92	400	10.2	9
MW-87	2/20/2015	W87-150220-	6.96	380	10.8	6.3
MW-87	3/20/2015	W87-150320-	6.96	380	10.5	6
MW-88	1/16/2015	W88-150116-	7.3	115	9.4	7
MW-89	1/22/2015	W89-150122-	7.36	175	8	10
MW-90	1/21/2015	W90-150121-	7.36	190	8.7	13.5
MW-91	1/26/2015	W91-150126-	7.16	265	10	9
MW-93	1/12/2015	W93-150112-	7.24	340	11.4	9

Environmental Monitoring Data

Data Collected from January 1, 2015 to March 31, 2015

Cedar Hills Landfill --- Groundwater Field Parameters

Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	pH (Field)	Conductance (Field)	Temperature	Purge Volume
			(std. Units)	(umho/cm)	(°C)	(gal)
MW-94	1/26/2015	W94-150126-	6.93	225	9.5	6
MW-95	1/28/2015	W95-150128-	7.58	205	9.9	8
MW-99	1/16/2015	W99-150116-	8.01	130	9.9	9.2
MW-99	2/20/2015	W99-150220-	7.9	130	10.3	9.6
MW-99	3/20/2015	W99-150320-	7.97	130	10.5	9.2
MW-100	1/6/2015	W100150106-	7.06	170	10.5	10.5
MW-101	1/23/2015	W101150123-	6.96	445	10.6	0.6
MW-EB6	1/30/2015	WB6-150130-	6.24	140	9.1	1
WS-NPW	1/22/2015	WNPW150122-	7.22	240	6.4	
EQUIPMENT BLANK	1/27/2015	WU1S150127E	6.97	4.7	17.4	
EQUIPMENT BLANK	1/27/2015	WU1H150127E	6	2	16.9	
EQUIPMENT BLANK	1/27/2015	WU1M150127E	5.67	3.5	16.9	
FIELD BLANK	1/27/2015	W86-150127F	18	13.2		
FIELD BLANK	1/12/2015	W93-150112F	7.36	3.4	13.4	
FIELD BLANK	1/28/2015	W95-150128F	6.6	1.7	13.1	

Environmental Monitoring Data

Data Collected from January 1, 2015 to March 31, 2015

Cedar Hills Landfill --- Groundwater Conventional Analytical Data

Contact Person: Sandy Jimenez (206) 477-5224

Site	Date	Sample ID	Alkalinity, Total (CaCO ₃)	Ammonia, (NH ₃)	Chloride	Nitrate- Nitrogen, (NO ₃ as N)	Specific Conductanc	Sulfate (SO ₄)	Total Dissolved Solids	Total Organic Carbon	Total Solids	Suspended Solids
			(mg/L)	(mg/L)	(mg/L)	(mg/L)	(umho/cm)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
MW-21	1/27/2015	W21-150127-	54.4	< 0.01 U	2.97	< 0.01 U	127	5.94	90.7	< 1 U	90.3	< 1 U
MW-24	1/8/2015	W24-150108-	65	0.0426	5.03	< 0.01 U	173	16.9	119	< 1 U	124	1.8
MW-27A	1/13/2015	W27A150113-	79.5	0.133	6.5	0.152	181	7.98	132	< 1 U	130	< 1 U
MW-28	1/23/2015	W28-150123-	23.4	< 0.01 U	3	0.476	96.3	13	79.3	< 1 U	82.2	< 1 U
MW-29	1/23/2015	W29-150123-	25	< 0.01 U	2.66	1.5	77.2	1.97	75	< 1 U	75.2	1.14
MW-30A	1/14/2015	W30A150114-	119	< 0.01 U	0.971	5.32	286	8.34	193	< 1 U	203	< 1 U
MW-47	1/30/2015	W47-150130-	680	0.072	6.87	< 0.01 U	1110	6.04	685	3.35	717	6.97
MW-55	1/7/2015	W55-150107-	65.8	0.0695	3.55	< 0.01 U	155	10.9	123	< 1 U	122	< 1 U
MW-56	1/15/2015	W56-150115-	56.3	< 0.01 U	3.99	0.267	160	17.1	96.9	< 1 U	109	1.23
MW-57	1/15/2015	W57-150115-	66.6	0.0181	5.96	0.022 T	189	20.4	137	< 1 U	148	2.3
MW-59	1/13/2015	W59-150113-	65.4	< 0.01 U	4.43	< 0.01 U	180	19	127	< 1 U	128	2.53
MW-60	1/8/2015	W60-150108-	74.4	0.0194	4.31	1.11	172	6.27	122	< 1 U	125	1.44
MW-62	1/30/2015	W62-150130-	73.8	< 0.01 U	4.38	3.06	199	16.4	133	< 1 U	138	< 1 U
MW-64	1/23/2015	W64-150123-	85	0.0482	3.33	< 0.01 U	194	11	128	< 1 U	128	1.52
MW-65	1/15/2015	W65-150115-	55.4	0.0106	3.85	0.013 T	151	15.4	97.5	< 1 U	112	2.72
MW-66	1/23/2015	W66-150123-	114	< 0.01 U	6.8	0.701	270	14.9	170	< 1 U	169	< 1 U
MW-67	1/22/2015	W67-150122-	138	< 0.01 U	4.8	0.262	347	38.2	216	< 1 U	223	< 1 U
MW-68	1/14/2015	W68-150114-	131	0.014	2.9	< 0.01 U	285	16.2	169	< 1 U	181	4.81
MW-69	1/7/2015	W69-150107-	129	0.0173	4.47	< 0.01 U	280	15.3	175	< 1 U	184	< 1 U
MW-70	1/12/2015	W70-150112-	99.1	< 0.01 U	13	0.033 T	249	11.4	161	< 1 U	164	< 1 U
MW-73	1/22/2015	W73-150122-	54.1	< 0.01 U	2.54	1.12	140	9	108	< 1 U	100	2.61
MW-76	1/26/2015	W76-150126-	72	< 0.01 U	18.5	6	284	17.3	194	2.27	183	< 1 U
MW-77	1/15/2015	W77-150115-	94.2	< 0.01 U	9.58	0.775	221	8.67	137	< 1 U	144	1 T
MW-78	1/12/2015	W78-150112-	71.8	< 0.01 U	8.77	0.912	180	7.81	128	< 1 U	132	< 1 U
MW-80	1/23/2015	W80-150123-	102	< 0.01 U	6.63	0.024 T	294	42.2	196	< 1 U	206	6.52
MW-81	1/26/2015	W81-150126-	49.1	< 0.01 U	4.79	1.56	137	7.6	99.8	< 1 U	100	< 1 U
MW-82	1/26/2015	W82-150126-	107	< 0.01 U	8.25	0.682	265	16.5	179	< 1 U	183	6.36
MW-83	1/13/2015	W83-150113-	149	< 0.01 U	37.7	1.3	426	9.2	274	2.33	273	< 1 U
MW-84	1/26/2015	W84-150126-	60.9	0.0126	4.99	0.502	159	12.9	109	< 1 U	109	< 1 R
MW-85	1/28/2015	W85-150128-	105	< 0.01 U	9.08	0.108	308	40.5	197	< 1 U	203	< 1 U
MW-86	1/27/2015	W86-150127-	66.4	< 0.01 U	5.25	0.414	178	15.8	121	< 1 U	120	3.15
MW-88	1/16/2015	W88-150116-	53.5	< 0.01 U	2.21	0.546	129	7.24	86.3	< 1 U	90.6	< 1 U
MW-89	1/22/2015	W89-150122-	72.9	0.0171	4.69	< 0.01 U	189	16.9	125	< 1 U	144	11
MW-90	1/21/2015	W90-150121-	70.9	0.0158	4.01	< 0.01 U	207	28.5	139	< 1 U	141	1.84
MW-90	1/21/2015	W90-150121D	70.8	0.0157	4.01	< 0.01 U	207	28.5	137	< 1 U	142	2.48
MW-91	1/26/2015	W91-150126-	92.6	0.0139	9.13	0.0413	288	42.7	194	< 1 U	275	80.7
MW-93	1/12/2015	W93-150112-	121	0.0509	2.99	0.015 T	376	71.3	255	< 1 U	260	< 1 U
MW-94	1/26/2015	W94-150126-	95.6	< 0.01 U	15.4	1.4	254	5.91	168	1.54	170	< 1 U
MW-95	1/28/2015	W95-150128-	87.5	0.0287	5.1	< 0.01 U	216	16.9	140	< 1 U	142	< 1 U
MW-100	1/6/2015	W100150106-	135	0.0113	2.82	< 0.01 U	288	16.6	168	< 1 U	184	6.81
MW-101	1/23/2015	W101150123-	271	< 0.01 U	2.73	0.0593	495	3.35	308	4.1	311	3.17
MW-EB6	1/30/2015	WB6-150130-	66.3	0.559	0.741	0.313	146	6.41	103	1.77	109	8.05
WS-NPW	1/22/2015	WNPW150122-	143	< 0.01 U	3.34	0.018 T	308	17.8	194	< 1 U	195	4.83
EQUIPMENT BLANK	1/27/2015	WU1M150127E		< 0.01 U								
FIELD BLANK	1/12/2015	W93-150112F	1.6 T	< 0.01 U	< 0.1 U	0.023 T	3 T	< 0.1 U	< 5 U	< 1 U	< 5 U	< 1 U

Environmental Monitoring Data

Data Collected from January 1, 2015 to March 31, 2015

Cedar Hills Landfill --- Groundwater Conventional Analytical Data

Contact Person: Sandy Jimenez (206) 477-5224

Site	Date	Sample ID	Alkalinity, Total (CaCO ₃) (mg/L)	Ammonia, (NH ₃) (mg/L)	Chloride (mg/L)	Nitrate- Nitrogen, (NO ₃ as N) (mg/L)	Specific Conductanc (umho/cm)	Sulfate (SO ₄) (mg/L)	Total Dissolved Solids (mg/L)	Total Organic Carbon (mg/L)	Total Solids (mg/L)	Suspended Solids (mg/L)
FIELD BLANK	1/27/2015	W86-150127F	3.8 T	< 0.01 U	< 0.1 U	0.038 T	4.8 T	< 0.1 U	< 5 U	< 1 U	< 5 U	< 1 U
FIELD BLANK	1/28/2015	W95-150128F	4.7 T	< 0.01 U	< 0.1 U	< 0.01 U	2.6 T	< 0.1 U	10 T	< 1 U	< 5 U	< 1 U

Environmental Monitoring Data

Data Collected from January 1, 2015 to March 31, 2015
Cedar Hills Landfill ---Groundwater Metals Analytical Data

Contact Person: Sandy Jimenez (206) 477-5224

Site	Date	Sample ID	Antimony, dissolved	Antimony, total	Arsenic, dissolved	Arsenic, total	Barium, dissolved	Barium, total	Beryllium, dissolved	Beryllium, total	Cadmium, dissolved	Cadmium, total	Calcium, dissolved	Calcium, total
			(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
MW-21	1/27/2015	W21-150127-	< 0.001 U	< 0.001 U	< 0.001 U	0.00105	0.0039	0.00427	< 0.001 DU	< 0.001 DU	< 0.002 U	< 0.002 U	9.58	11.5
MW-24	1/8/2015	W24-150108-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00172	0.00179	< 0.001 DU	< 0.001 U	< 0.002 U	< 0.002 U	11.5	12.6
MW-27A	1/13/2015	W27A150113-	< 0.001 U	< 0.001 U	0.0151	0.0134	0.0057	0.0052	< 0.001 DU	< 0.001 U	< 0.002 U	< 0.002 U	18.7	16.9
MW-28	1/23/2015	W28-150123-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00525	0.00514	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	7.53	7.74
MW-29	1/23/2015	W29-150123-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00138	0.00181	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	6.19	6.54
MW-30A	1/14/2015	W30A150114-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00462	0.00441	< 0.001 DU	< 0.001 U	< 0.002 U	< 0.002 U	21.6	23.4
MW-47	1/30/2015	W47-150130-	< 0.001 U	< 0.001 U	0.00214	0.00163	0.0418	0.0451	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U	121 D	151
MW-55	1/7/2015	W55-150107-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00449	0.00445	< 0.001 DU	< 0.001 U	< 0.002 U	< 0.002 U	10.9	11.3
MW-56	1/15/2015	W56-150115-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00315	0.00324	< 0.001 DU	< 0.001 U	< 0.002 U	< 0.002 U	14.2	14.2
MW-57	1/15/2015	W57-150115-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.0015	0.00162	< 0.001 DU	< 0.001 U	< 0.002 U	< 0.002 U	14.7	15.7
MW-59	1/13/2015	W59-150113-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00371	0.00329	< 0.001 DU	< 0.001 U	< 0.002 U	< 0.002 U	14.7	13.3
MW-60	1/8/2015	W60-150108-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00253	0.00277	< 0.001 DU	< 0.001 U	< 0.002 U	< 0.002 U	13.4	14.6
MW-62	1/30/2015	W62-150130-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00175	0.00227	< 0.001 DU	< 0.001 DU	< 0.002 U	< 0.002 U	15.3	18.4
MW-64	1/23/2015	W64-150123-	< 0.001 U	< 0.001 U	0.00105	0.00171	0.00676	0.00711	< 0.001 DU	< 0.001 U	< 0.002 U	< 0.002 U	14.7	15.2
MW-65	1/15/2015	W65-150115-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00749	0.00669	< 0.001 DU	< 0.001 U	< 0.002 U	< 0.002 U	12.2	12.5
MW-66	1/23/2015	W66-150123-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00492	0.00494	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	18.9	19.4
MW-67	1/22/2015	W67-150122-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.0112	0.0107	< 0.001 DU	< 0.001 U	< 0.002 U	< 0.002 U	32.2	33.7
MW-68	1/14/2015	W68-150114-	< 0.001 U	< 0.001 U	0.0138	0.0402	0.0121	0.0117	< 0.001 DU	< 0.001 U	< 0.002 U	< 0.002 U	26.6	27.1
MW-69	1/7/2015	W69-150107-	< 0.001 U	< 0.001 U	0.00218	0.00187	0.0102	0.0105	< 0.001 DU	< 0.001 U	< 0.002 U	< 0.002 U	24	25.6
MW-70	1/12/2015	W70-150112-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00252	0.00245	< 0.001 DU	< 0.001 U	< 0.002 U	< 0.002 U	23	21
MW-73	1/22/2015	W73-150122-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00262	0.00272	< 0.001 DU	< 0.001 DU	< 0.002 U	< 0.002 U	11.8	11.7
MW-76	1/26/2015	W76-150126-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00415	0.00422	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	23.2	24.4
MW-77	1/15/2015	W77-150115-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00265	0.00409	< 0.001 DU	< 0.001 U	< 0.002 U	< 0.002 U	20.3	20.7
MW-78	1/12/2015	W78-150112-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00213	0.00194	< 0.001 DU	< 0.001 U	< 0.002 U	< 0.002 U	16.1	14.5
MW-80	1/23/2015	W80-150123-	< 0.001 U	< 0.001 U	0.00409	0.00585	0.0127	0.0133	< 0.001 DU	< 0.001 U	< 0.002 U	< 0.002 U	25.1	26.3
MW-81	1/26/2015	W81-150126-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00246	0.00259	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	9.86	10.3
MW-82	1/26/2015	W82-150126-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00214	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	20.4	21.4
MW-83	1/13/2015	W83-150113-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00748	0.0069	< 0.001 DU	< 0.001 U	< 0.002 U	< 0.002 U	45.6	42
MW-84	1/26/2015	W84-150126-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00332	0.00341	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	10.1	10.6
MW-85	1/28/2015	W85-150128-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00571	0.00612	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U	25.5	30.4
MW-86	1/27/2015	W86-150127-	< 0.001 U	< 0.001 U	< 0.001 U	0.0014	0.00352	0.00366	< 0.001 DU	< 0.001 U	< 0.002 U	< 0.002 U	12.5	12.9
MW-88	1/16/2015	W88-150116-	< 0.001 U	< 0.001 U	0.00104	< 0.001 U	0.0024	0.00211	< 0.001 DU	< 0.001 U	< 0.002 U	< 0.002 U	8.94	9.13
MW-89	1/22/2015	W89-150122-	< 0.001 U	< 0.001 U	< 0.001 U	0.0139	0.00653	0.0133	< 0.001 DU	< 0.001 U	< 0.002 U	< 0.002 U	13.4	14.1
MW-90	1/21/2015	W90-150121-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00607	0.00626	< 0.001 DU	< 0.001 DU	< 0.002 U	< 0.002 U	16.9	18.2
MW-90	1/21/2015	W90-150121D	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00621	0.00592	< 0.001 DU	< 0.001 DU	< 0.002 U	< 0.002 U	17.2	17.5
MW-91	1/26/2015	W91-150126-	< 0.001 U	< 0.001 U	0.00216	0.0367	0.00949	0.023	< 0.001 DU	< 0.001 U	< 0.002 U	< 0.002 U	20.9	21.5
MW-93	1/12/2015	W93-150112-	< 0.001 U	< 0.001 U	0.00125	0.00113	0.0091	0.00825	< 0.001 DU	< 0.001 U	< 0.002 U	< 0.002 U	36.2	33.8
MW-94	1/26/2015	W94-150126-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00187	0.00186	< 0.001 DU	< 0.001 U	< 0.002 U	< 0.002 U	21.8	22.9
MW-95	1/28/2015	W95-150128-	< 0.001 U	< 0.001 U	0.00104	< 0.001 U	0.00381	0.00416	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U	19.3	23
MW-100	1/6/2015	W100150106-	< 0.001 U	< 0.001 U	< 0.001 U	0.0026	0.00612	0.00686	< 0.001 DU	< 0.001 U	< 0.002 U	< 0.002 U	24.2	25.3
MW-101	1/23/2015	W101150123-	< 0.001 U	< 0.001 U	0.00332	0.00198	0.0156	0.0148	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	41.6	42.9
MW-EB6	1/30/2015	WB6-150130-	< 0.001 U	< 0.001 U	0.0045	0.00324	0.00975	0.0111	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U	6.32	8.2
WS-NPW	1/22/2015	WNPW150122-	< 0.001 U	< 0.001 U		< 0.001 U		0.0104	< 0.001 DU	< 0.001 DU	< 0.002 U	< 0.002 U		30.9
EQUIPMENT BLANK	1/27/2015	WU1S150127E	< 0.001 U		< 0.001 U		< 0.001 U		< 0.001 U		< 0.002 U		< 0.01 U	
EQUIPMENT BLANK	1/27/2015	WU1H150127E	< 0.001 U		< 0.001 U		< 0.001 U		< 0.001 U		< 0.002 U		< 0.01 U	

Environmental Monitoring Data

Data Collected from January 1, 2015 to March 31, 2015

Cedar Hills Landfill ---Groundwater Metals Analytical Data

Contact Person: ~~Sandy Jimenez (206) 477-5224~~

Site	Date	Sample ID	Antimony, dissolved	Antimony, total	Arsenic, dissolved	Arsenic, total	Barium, dissolved	Barium, total	Beryllium, dissolved	Beryllium, total	Cadmium, dissolved	Cadmium, total	Calcium, dissolved	Calcium, total
			(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
FIELD BLANK	1/12/2015	W93-150112F	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 DU	< 0.001 U	< 0.002 U	< 0.002 U	< 0.01 U	< 0.01 U
FIELD BLANK	1/27/2015	W86-150127F	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 DU	< 0.001 U	< 0.002 U	< 0.002 U	< 0.01 U	< 0.01 U
FIELD BLANK	1/28/2015	W95-150128F	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U	< 0.01 U	< 0.01 U

Environmental Monitoring Data

Data Collected from January 1, 2015 to March 31, 2015

Cedar Hills Landfill ---Groundwater Metals Analytical Data

Contact Person: ~~Sandy Jimenez (206) 477-5224~~

Site	Date	Sample ID	Chromium, dissolved (mg/L)	Chromium, total (mg/L)	Cobalt, dissolved (mg/L)	Cobalt, total (mg/L)	Copper, dissolved (mg/L)	Copper, total (mg/L)	Iron, dissolved (mg/L)	Iron, total (mg/L)	Lead, dissolved (mg/L)	Lead, total (mg/L)	Magnesium, dissolved (mg/L)	Magnesium, total (mg/L)
MW-21	1/27/2015	W21-150127-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	2.03	2.38	< 0.001 U	< 0.001 U	6.01	6.25
MW-24	1/8/2015	W24-150108-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	2.86	3.11	< 0.001 U	< 0.001 DU	8.25	8.17
MW-27A	1/13/2015	W27A150113-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	< 0.01 U	< 0.001 U	< 0.001 DU	5.82	4.73
MW-28	1/23/2015	W28-150123-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	0.011 T	< 0.001 U	< 0.001 U	2.16	1.92
MW-29	1/23/2015	W29-150123-	< 0.005 U	< 0.005 DU	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.016 T	0.0617	< 0.001 U	< 0.001 U	1.75	1.63
MW-30A	1/14/2015	W30A150114-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	0.059	< 0.001 U	< 0.001 U	14.4	12.5
MW-47	1/30/2015	W47-150130-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	2.42	3	< 0.001 U	< 0.001 U	56.9 D	77.2
MW-55	1/7/2015	W55-150107-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.299	0.335	< 0.001 U	< 0.001 DU	6.58	5.88
MW-56	1/15/2015	W56-150115-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.033 T	0.149	< 0.001 U	< 0.001 U	7.74	6.84
MW-57	1/15/2015	W57-150115-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	7.69	6.85	< 0.001 U	< 0.001 U	8.86	8.1
MW-59	1/13/2015	W59-150113-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	4.54	4.22	< 0.001 U	< 0.001 DU	9.43	8.08
MW-60	1/8/2015	W60-150108-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.03 T	0.135	< 0.001 U	< 0.001 DU	7.37	6.89
MW-62	1/30/2015	W62-150130-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	0.0533	< 0.001 U	< 0.001 U	4.58 D	6.22
MW-64	1/23/2015	W64-150123-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.113	0.491	< 0.001 U	< 0.001 U	11.2	9.73
MW-65	1/15/2015	W65-150115-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	4.55	4.15	< 0.001 U	< 0.001 U	7.63	6.98
MW-66	1/23/2015	W66-150123-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	< 0.01 U	< 0.001 U	< 0.001 U	16.5	14.9
MW-67	1/22/2015	W67-150122-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.173	0.238	< 0.001 U	< 0.001 U	20.7	19.1
MW-68	1/14/2015	W68-150114-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.856	1.9	< 0.001 U	< 0.001 U	15.9	14.1
MW-69	1/7/2015	W69-150107-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.814	0.949	< 0.001 U	< 0.001 DU	12.8	12.2
MW-70	1/12/2015	W70-150112-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	0.032 T	< 0.001 U	< 0.001 DU	13.8	11.4
MW-73	1/22/2015	W73-150122-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	0.028 T	< 0.001 U	< 0.001 U	6.38	6.35
MW-76	1/26/2015	W76-150126-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	< 0.01 U	< 0.001 U	< 0.001 U	11.1	11.1
MW-77	1/15/2015	W77-150115-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	0.192	< 0.001 U	< 0.001 U	11.8	10.5
MW-78	1/12/2015	W78-150112-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	< 0.01 U	< 0.001 U	< 0.001 DU	8.51	6.85
MW-80	1/23/2015	W80-150123-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	1.63	2.4	< 0.001 U	< 0.001 U	14.4	13.1
MW-81	1/26/2015	W81-150126-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	0.036 T	< 0.001 U	< 0.001 U	5.88	5.4
MW-82	1/26/2015	W82-150126-	< 0.005 DU	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.012 T	0.126	< 0.001 U	< 0.001 U	13.6	12.4
MW-83	1/13/2015	W83-150113-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	< 0.01 U	< 0.001 U	< 0.001 DU	19.8	16.6
MW-84	1/26/2015	W84-150126-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	0.012 T	< 0.001 U	< 0.001 U	8.28	8.03
MW-85	1/28/2015	W85-150128-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	< 0.01 U	< 0.001 U	< 0.001 U	15.5 D	17.8
MW-86	1/27/2015	W86-150127-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.207	0.938	< 0.001 U	< 0.001 U	9.5	8.54
MW-88	1/16/2015	W88-150116-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	< 0.01 U	< 0.001 U	< 0.001 U	7.42	6.64
MW-89	1/22/2015	W89-150122-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.857	10.8	< 0.001 U	< 0.001 U	10.5	9.2
MW-90	1/21/2015	W90-150121-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	1.32	1.51	< 0.001 U	< 0.001 U	10.5	10.9
MW-90	1/21/2015	W90-150121D	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	1.32	1.39	< 0.001 U	< 0.001 U	10.8	10.6
MW-91	1/26/2015	W91-150126-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	2.18	41.6	< 0.001 U	< 0.001 U	15.6	13.5
MW-93	1/12/2015	W93-150112-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	< 0.01 U	< 0.001 U	< 0.001 DU	20.3	17.4
MW-94	1/26/2015	W94-150126-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	0.014 T	< 0.001 U	< 0.001 U	11.4	9.93
MW-95	1/28/2015	W95-150128-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	< 0.01 U	< 0.001 U	< 0.001 U	9.74 D	12.2
MW-100	1/6/2015	W100150106-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.874	4.51	< 0.001 U	< 0.001 DU	15	14.2
MW-101	1/23/2015	W101150123-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.355	0.396	< 0.001 U	< 0.001 U	28.9	23.8
MW-EB6	1/30/2015	WB6-150130-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.00318	0.00421	0.701	1.09	< 0.001 U	< 0.001 U	3.3 D	4.4
WS-NPW	1/22/2015	WNPW150122-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U		1.66	< 0.001 U	< 0.001 U		17.7
EQUIPMENT BLANK	1/27/2015	WU1S150127E	< 0.005 U		< 0.003 U		< 0.002 U		< 0.01 U		< 0.001 U		< 0.015 DU	
EQUIPMENT BLANK	1/27/2015	WU1H150127E	< 0.005 U		< 0.003 U		< 0.002 U		< 0.01 U		< 0.001 U		< 0.015 DU	

Environmental Monitoring Data

Data Collected from January 1, 2015 to March 31, 2015

Cedar Hills Landfill ---Groundwater Metals Analytical Data

Contact Person: ~~Sandy Jimenez (206) 477-5224~~

Site	Date	Sample ID	Chromium, dissolved (mg/L)	Chromium, total (mg/L)	Cobalt, dissolved (mg/L)	Cobalt, total (mg/L)	Copper, dissolved (mg/L)	Copper, total (mg/L)	Iron, dissolved (mg/L)	Iron, total (mg/L)	Lead, dissolved (mg/L)	Lead, total (mg/L)	Magnesium, dissolved (mg/L)	Magnesium, total (mg/L)
FIELD BLANK	1/12/2015	W93-150112F	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	< 0.01 U	< 0.001 U	< 0.001 DU	< 0.015 U	< 0.015 U
FIELD BLANK	1/27/2015	W86-150127F	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	< 0.01 U	< 0.001 U	< 0.001 U	< 0.015 U	< 0.015 U
FIELD BLANK	1/28/2015	W95-150128F	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	< 0.01 U	< 0.001 U	< 0.001 U	< 0.015 DU	< 0.015 U

Environmental Monitoring Data

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Site	Date	Sample ID	Manganese, dissolved	Manganese, total	Mercury, dissolved	Mercury, total	Nickel, dissolved	Nickel, total	Potassium, dissolved	Potassium, total	Selenium, dissolved	Selenium, total
			(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
MW-21	1/27/2015	W21-150127-	0.0721	0.0847	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	0.905	1.04	< 0.001 U	< 0.001 U
MW-24	1/8/2015	W24-150108-	0.103	0.102	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	0.952 D	1.01 D	< 0.001 U	< 0.001 U
MW-27A	1/13/2015	W27A150113-	0.0519	0.056	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	3.41	3.61 D	< 0.001 U	< 0.001 U
MW-28	1/23/2015	W28-150123-	< 0.001 U	0.00153	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	0.858	0.826	< 0.001 U	< 0.001 U
MW-29	1/23/2015	W29-150123-	< 0.001 U	< 0.001 U	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	0.508	0.46 T	< 0.001 U	< 0.001 U
MW-30A	1/14/2015	W30A150114-	< 0.001 U	0.001	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.53	1.5	< 0.001 U	< 0.001 U
MW-47	1/30/2015	W47-150130-	2.12 D	2.72	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	4.67	4.98	< 0.001 U	< 0.001 U
MW-55	1/7/2015	W55-150107-	0.172	0.155	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.65 D	1.76 D	< 0.001 U	< 0.001 U
MW-56	1/15/2015	W56-150115-	0.162	0.156	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.03	1.08	< 0.001 U	< 0.001 U
MW-57	1/15/2015	W57-150115-	0.239	0.243	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	0.826	0.885	< 0.001 U	< 0.001 U
MW-59	1/13/2015	W59-150113-	0.114	0.102	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.06	1.14 D	< 0.001 U	< 0.001 U
MW-60	1/8/2015	W60-150108-	0.0012	0.00225	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.09 D	1.17 D	< 0.001 U	< 0.001 U
MW-62	1/30/2015	W62-150130-	< 0.001 U	0.00201	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	0.913	0.973	< 0.001 U	< 0.001 U
MW-64	1/23/2015	W64-150123-	0.0364	0.134	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.28	1.26	< 0.001 U	< 0.001 U
MW-65	1/15/2015	W65-150115-	0.216	0.211	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	0.918	0.963	< 0.001 U	< 0.001 U
MW-66	1/23/2015	W66-150123-	< 0.001 U	< 0.001 U	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.17	1.15	< 0.001 U	< 0.001 U
MW-67	1/22/2015	W67-150122-	0.148	0.15	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.61	1.62	< 0.001 U	< 0.001 U
MW-68	1/14/2015	W68-150114-	0.294	0.294	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.62	1.61	< 0.001 U	< 0.001 U
MW-69	1/7/2015	W69-150107-	0.231	0.217	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.67 D	1.78 D	< 0.001 U	< 0.001 U
MW-70	1/12/2015	W70-150112-	< 0.001 U	0.0159	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.75	1.81 D	< 0.001 U	< 0.001 U
MW-73	1/22/2015	W73-150122-	< 0.001 U	< 0.001 U	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	0.763	0.77	< 0.001 U	< 0.001 U
MW-76	1/26/2015	W76-150126-	< 0.001 U	< 0.001 U	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.37	1.41	< 0.001 U	< 0.001 U
MW-77	1/15/2015	W77-150115-	0.00137	0.115	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.29	1.3	< 0.001 U	< 0.001 U
MW-78	1/12/2015	W78-150112-	< 0.001 U	0.00211	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	2.18	2.23 D	< 0.001 U	< 0.001 U
MW-80	1/23/2015	W80-150123-	0.242	0.266	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.45	1.45	< 0.001 U	< 0.001 U
MW-81	1/26/2015	W81-150126-	< 0.001 U	0.0012	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	0.733	0.711	< 0.001 U	< 0.001 U
MW-82	1/26/2015	W82-150126-	< 0.001 DU	0.00108	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.57	1.59	< 0.001 U	< 0.001 U
MW-83	1/13/2015	W83-150113-	< 0.001 U	0.00229	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	2.85	3.03 D	< 0.001 U	< 0.001 U
MW-84	1/26/2015	W84-150126-	0.00222	0.00984	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	0.982	0.948	< 0.001 U	< 0.001 U
MW-85	1/28/2015	W85-150128-	< 0.001 U	< 0.001 U	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.54	1.6	0.00122	0.0012
MW-86	1/27/2015	W86-150127-	0.00451	0.00589	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	0.979	0.972	0.00147	0.00117
MW-88	1/16/2015	W88-150116-	< 0.001 U	< 0.001 U	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	0.877	0.822	< 0.001 U	< 0.001 U
MW-89	1/22/2015	W89-150122-	0.244	0.387	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.43	1.42	< 0.001 U	< 0.001 U
MW-90	1/21/2015	W90-150121-	0.287	0.296	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.31	1.35	< 0.001 U	< 0.001 U
MW-90	1/21/2015	W90-150121D	0.293	0.29	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.31	1.28	< 0.001 U	< 0.001 U
MW-91	1/26/2015	W91-150126-	0.281	0.387	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.56	1.51	< 0.001 U	< 0.001 U
MW-93	1/12/2015	W93-150112-	0.276	0.239	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.59	1.74 D	< 0.001 U	< 0.001 U
MW-94	1/26/2015	W94-150126-	< 0.001 U	< 0.001 U	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.77	1.85	< 0.001 U	< 0.001 U
MW-95	1/28/2015	W95-150128-	0.136	0.164	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.22	1.23	< 0.001 U	< 0.001 U
MW-100	1/6/2015	W100150106-	0.211	0.24	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.85 D	2 D	< 0.001 U	< 0.001 U
MW-101	1/23/2015	W101150123-	0.291	0.197	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	2.24	2.3	< 0.001 U	< 0.001 U
MW-EB6	1/30/2015	WB6-150130-	0.0556	0.0796	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.1	1.15	< 0.001 U	< 0.001 U
WS-NPW	1/22/2015	WNPW150122-		0.16		< 0.0001 U		< 0.01 U		1.62		< 0.001 U
EQUIPMENT BLANK	1/27/2015	WU1S150127E	< 0.001 U		< 0.0001 U		< 0.01 U		< 0.3 U		< 0.001 U	
EQUIPMENT BLANK	1/27/2015	WU1H150127E	< 0.001 U		< 0.0001 U		< 0.01 U		< 0.3 U		< 0.001 U	

Environmental Monitoring Data

Data Collected from January 1, 2015 to March 31, 2015

Cedar Hills Landfill ---Groundwater Metals Analytical Data

Contact Person: ~~Sandy Jimenez (206) 477-5224~~

Site	Date	Sample ID	Manganese, dissolved (mg/L)	Manganese, total (mg/L)	Mercury, dissolved (mg/L)	Mercury, total (mg/L)	Nickel, dissolved (mg/L)	Nickel, total (mg/L)	Potassium, dissolved (mg/L)	Potassium, total (mg/L)	Selenium, dissolved (mg/L)	Selenium, total (mg/L)
FIELD BLANK	1/12/2015	W93-150112F	< 0.001 U	< 0.001 U	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	< 0.3 U	< 0.3 DU	< 0.001 U	< 0.001 U
FIELD BLANK	1/27/2015	W86-150127F	< 0.001 U	< 0.001 U	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	< 0.3 U	< 0.3 U	< 0.001 U	< 0.001 U
FIELD BLANK	1/28/2015	W95-150128F	< 0.001 U	< 0.001 U	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	< 0.3 U	< 0.3 U	< 0.001 U	< 0.001 U

Environmental Monitoring Data

Data Collected from January 1, 2015 to March 31, 2015

Cedar Hills Landfill ---Groundwater Metals Analytical Data

Contact Person: ~~Sandy Jimenez (206) 477-5224~~

Site	Date	Sample ID	Silver, dissolved (mg/L)	Silver, total (mg/L)	Sodium, dissolved (mg/L)	Sodium, total (mg/L)	Thallium, dissolved (mg/L)	Thallium, total (mg/L)	Vanadium, dissolved (mg/L)	Vanadium, total (mg/L)	Zinc, dissolved (mg/L)	Zinc, total (mg/L)
MW-21	1/27/2015	W21-150127-	< 0.003 U	< 0.003 U	5.42	5.89	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-24	1/8/2015	W24-150108-	< 0.003 U	< 0.003 U	5.06	5.13	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-27A	1/13/2015	W27A150113-	< 0.003 U	< 0.003 U	6.88	6.02	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-28	1/23/2015	W28-150123-	< 0.003 U	< 0.003 U	5.19	5.11	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-29	1/23/2015	W29-150123-	< 0.003 U	< 0.003 U	4.12	4.41	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-30A	1/14/2015	W30A150114-	< 0.003 U	< 0.003 U	14.6	14.2	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-47	1/30/2015	W47-150130-	< 0.003 U	< 0.003 U	17.2	23.3	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-55	1/7/2015	W55-150107-	< 0.003 U	< 0.003 U	5.74	5.17	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-56	1/15/2015	W56-150115-	< 0.003 U	< 0.003 U	5.43	4.57	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-57	1/15/2015	W57-150115-	< 0.003 U	< 0.003 U	6.44	5.99	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-59	1/13/2015	W59-150113-	< 0.003 U	< 0.003 U	6.11	5.25	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-60	1/8/2015	W60-150108-	< 0.003 U	< 0.003 U	5.14	4.97	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-62	1/30/2015	W62-150130-	< 0.003 U	< 0.003 U	12.3	15	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-64	1/23/2015	W64-150123-	< 0.003 U	< 0.003 U	6.52	6.08	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-65	1/15/2015	W65-150115-	< 0.003 U	< 0.003 U	5.76	5.17	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-66	1/23/2015	W66-150123-	< 0.003 U	< 0.003 U	7.66	7.36	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-67	1/22/2015	W67-150122-	< 0.003 U	< 0.003 U	9.53	8.81	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-68	1/14/2015	W68-150114-	< 0.003 U	< 0.003 U	8.9	7.99	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-69	1/7/2015	W69-150107-	< 0.003 U	< 0.003 U	7.34	7.08	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-70	1/12/2015	W70-150112-	< 0.003 U	< 0.003 U	6.88	6.13	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-73	1/22/2015	W73-150122-	< 0.003 U	< 0.003 U	5.97	5.83	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-76	1/26/2015	W76-150126-	< 0.003 U	< 0.003 U	8.45	8.94	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-77	1/15/2015	W77-150115-	< 0.003 U	< 0.003 U	7.38	6.91	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-78	1/12/2015	W78-150112-	< 0.003 U	< 0.003 U	6.26	5.64	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-80	1/23/2015	W80-150123-	< 0.003 U	< 0.003 U	6.87	6.78	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-81	1/26/2015	W81-150126-	< 0.003 U	< 0.003 U	4.93	5.23	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-82	1/26/2015	W82-150126-	< 0.003 U	< 0.003 U	6.12	6.3	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-83	1/13/2015	W83-150113-	< 0.003 U	< 0.003 U	9.34	8.23	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-84	1/26/2015	W84-150126-	< 0.003 U	< 0.003 U	5.16	5.53	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-85	1/28/2015	W85-150128-	< 0.003 U	< 0.003 U	7.08	8.95	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-86	1/27/2015	W86-150127-	< 0.003 U	< 0.003 U	6.41	5.96	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-88	1/16/2015	W88-150116-	< 0.003 U	< 0.003 U	5.67	5.53	< 0.001 U	< 0.001 U	0.00279	0.0024	< 0.004 U	< 0.004 U
MW-89	1/22/2015	W89-150122-	< 0.003 U	< 0.003 U	8.33	7.36	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	0.0147
MW-90	1/21/2015	W90-150121-	< 0.003 U	< 0.003 U	6.59	6.86	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-90	1/21/2015	W90-150121D	< 0.003 U	< 0.003 U	6.71	6.71	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-91	1/26/2015	W91-150126-	< 0.003 U	< 0.003 U	7.32	6.72	< 0.001 U	< 0.001 U	< 0.002 U	0.00293	< 0.004 U	< 0.004 U
MW-93	1/12/2015	W93-150112-	< 0.003 U	< 0.003 U	10.1	8.89	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U	0.00497	0.00681
MW-94	1/26/2015	W94-150126-	< 0.003 U	< 0.003 U	6.54	6.15	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-95	1/28/2015	W95-150128-	< 0.003 U	< 0.003 U	5.26	6.8	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-100	1/6/2015	W100150106-	< 0.003 U	< 0.003 U	9.03	8.41	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-101	1/23/2015	W101150123-	< 0.003 U	< 0.003 U	14.8	15.4	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-EB6	1/30/2015	WB6-150130-	< 0.003 U	< 0.003 U	14.2	18.1	< 0.001 U	< 0.001 DU	0.00257	0.00256	< 0.004 U	< 0.004 U
WS-NPW	1/22/2015	WNPW150122-	< 0.003 U	< 0.003 U		9.23		< 0.001 U		< 0.002 U		0.00692
EQUIPMENT BLANK	1/27/2015	WU1S150127E	< 0.003 U		< 0.05 U		< 0.001 U		< 0.002 U		< 0.004 U	
EQUIPMENT BLANK	1/27/2015	WU1H150127E	< 0.003 U		< 0.05 U		< 0.001 U		< 0.002 U		< 0.004 U	

Environmental Monitoring Data

Data Collected from January 1, 2015 to March 31, 2015

Cedar Hills Landfill ---Groundwater Metals Analytical Data

Contact Person: ~~Sandy Jimenez (206) 477-5224~~

Site	Date	Sample ID	Silver, dissolved (mg/L)	Silver, total (mg/L)	Sodium, dissolved (mg/L)	Sodium, total (mg/L)	Thallium, dissolved (mg/L)	Thallium, total (mg/L)	Vanadium, dissolved (mg/L)	Vanadium, total (mg/L)	Zinc, dissolved (mg/L)	Zinc, total (mg/L)
FIELD BLANK	1/12/2015	W93-150112F	< 0.003 U	< 0.003 U	0.395	0.328	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
FIELD BLANK	1/27/2015	W86-150127F	< 0.003 U	< 0.003 U	0.483	0.318	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
FIELD BLANK	1/28/2015	W95-150128F	< 0.003 U	< 0.003 U	< 0.05 U	< 0.05 U	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U

Data Collected from January 1, 2015 to March 31, 2015
Cedar Hills Landfill --- Groundwater VOA Analytical Data
Contact Person: Sendy Jimenez (206) 477-5224

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Data Collected from January 1, 2015 to March 31, 2015
Cedar Hills Landfill --- Groundwater VOA Analytical Data
Contact Person: Sendy Jimenez (206) 477-5224

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Environmental Monitoring Data

Data Collected from January 1, 2015 to March 31, 2015
Cedar Hills Landfill --- Groundwater VOA Analytical Data

Contact Person: Sandy Jimenez (206) 477-5224

Site	Date	Sample ID	1,4-Dichloro- benzene	2-Butanone	2-Hexanone	4-Methyl-2- Pentanone	Acetone	Arylonitrile	Benzene	Bromochloro- methane	Bromodichloro- methane	Bromoform	Bromo- methane	Carbon Disulfide
			106-46-7 (ug/L)	78-93-3 (ug/L)	591-78-6 (ug/L)	108-10-1 (ug/L)	67-64-1 (ug/L)	107-13-1 (ug/L)	71-43-2 (ug/L)	74-97-5 (ug/L)	75-27-4 (ug/L)	75-25-2 (ug/L)	74-83-9 (ug/L)	75-15-0 (ug/L)
MW-21	1/27/2015	W21-150127-	< 0.2 U	< 4 U	< 4 U	< 4 U	14.6	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-24	1/8/2015	W24-150108-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-27A	1/13/2015	W27A150113-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-28	1/23/2015	W28-150123-	< 0.2 U	< 4 U	< 4 U	< 4 U	5.4 T	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-29	1/23/2015	W29-150123-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-30A	1/14/2015	W30A150114-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-47	1/30/2015	W47-150130-	< 0.2 U	< 4 U	< 4 U	< 4 U	17	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-55	1/7/2015	W55-150107-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-56	1/15/2015	W56-150115-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-57	1/15/2015	W57-150115-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-59	1/13/2015	W59-150113-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-60	1/8/2015	W60-150108-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-62	1/30/2015	W62-150130-	< 0.2 U	< 4 U	< 4 U	< 4 U	8.6 T	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-64	1/23/2015	W64-150123-	< 0.2 U	< 4 U	< 4 U	< 4 U	27.3	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-65	1/15/2015	W65-150115-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-66	1/23/2015	W66-150123-	< 0.2 U	< 4 U	< 4 U	< 4 U	7.9 T	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-67	1/22/2015	W67-150122-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-68	1/14/2015	W68-150114-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-69	1/7/2015	W69-150107-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-70	1/12/2015	W70-150112-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-73	1/22/2015	W73-150122-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-74	1/16/2015	W74R150116-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-74	1/16/2015	W74R150116D	< 0.2 U	< 4 U	< 4 U	< 4 U	4.6 T	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-74	2/20/2015	W74R150220-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-74	3/24/2015	W74R150324-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-75	1/16/2015	W75-150116-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-75	2/20/2015	W75-150220-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-75	3/24/2015	W75-150324-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-76	1/26/2015	W76-150126-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-77	1/15/2015	W77-150115-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-78	1/12/2015	W78-150112-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-80	1/23/2015	W80-150123-	< 0.2 U	< 4 U	< 4 U	< 4 U	9.5 T	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-81	1/26/2015	W81-150126-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-82	1/26/2015	W82-150126-	< 0.2 U	< 4 U	< 4 U	< 4 U	4.1 T	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-83	1/13/2015	W83-150113-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-84	1/26/2015	W84-150126-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-85	1/28/2015	W85-150128-	< 0.2 U	< 4 U	< 4 U	< 4 U	10.4 L	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-86	1/27/2015	W86-150127-	< 0.2 U	< 4 U	< 4 U	< 4 U	48.1	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-87	1/16/2015	W87-150116-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-87	2/20/2015	W87-150220-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-87	3/20/2015	W87-150320-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-88	1/16/2015	W88-150116-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-89	1/22/2015	W89-150122-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-90	1/21/2015	W90-150121-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-90	1/21/2015	W90-150121D	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U

Environmental Monitoring Data

Data Collected from January 1, 2015 to March 31, 2015
Cedar Hills Landfill --- Groundwater VOA Analytical Data

Contact Person: Sandy Jimenez (206) 477-5224

Site	Date	Sample ID	1,4-Dichloro- benzene	2-Butanone	2-Hexanone	4-Methyl-2- Pentanone	Acetone	Arylonitrile	Benzene	Bromochloro- methane	Bromodichloro- methane	Bromoform	Bromo- methane	Carbon Disulfide
			106-46-7 (ug/L)	78-93-3 (ug/L)	591-78-6 (ug/L)	108-10-1 (ug/L)	67-64-1 (ug/L)	107-13-1 (ug/L)	71-43-2 (ug/L)	74-97-5 (ug/L)	75-27-4 (ug/L)	75-25-2 (ug/L)	74-83-9 (ug/L)	75-15-0 (ug/L)
MW-91	1/26/2015	W91-150126-	< 0.2 U	< 4 U	< 4 U	< 4 U	13	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-93	1/12/2015	W93-150112-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-94	1/26/2015	W94-150126-	< 0.2 U	< 4 U	< 4 U	< 4 U	9.9 T	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-95	1/28/2015	W95-150128-	< 0.2 U	< 4 U	< 4 U	< 4 U	35.7	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-99	1/16/2015	W99-150116-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-99	2/20/2015	W99-150220-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-99	3/20/2015	W99-150320-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-100	1/6/2015	W100150106-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-101	1/23/2015	W101150123-	< 0.2 U	< 4 U	< 4 U	< 4 U	7.5 T	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-EB6	1/30/2015	WB6-150130-	< 0.2 U	< 4 U	< 4 U	< 4 U	19	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
WS-NPW	1/22/2015	WNPW150122-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
FIELD BLANK	1/12/2015	W93-150112F	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
FIELD BLANK	1/27/2015	W86-150127F	< 0.2 U	< 4 U	< 4 U	< 4 U	11	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
FIELD BLANK	1/28/2015	W95-150128F	< 0.2 U	< 4 U	< 4 U	< 4 U	12.9	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	1/5/2015	VTRP150106B	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	1/6/2015	VTRP150107B	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	1/7/2015	VTRP150108B	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	1/8/2015	VTRP150112B	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	1/8/2015	VTRP150112C	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	1/12/2015	VTRP150113B	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	1/12/2015	VTRP150113C	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	1/13/2015	VTRP150114C	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	1/14/2015	VTRP150115B	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	1/14/2015	VTRP150115C	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	1/15/2015	VTRP150116B	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	1/15/2015	VTRP150116C	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	1/20/2015	VTRP150122B	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	1/20/2015	VTRP150121C	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	1/21/2015	VTRP150122L	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	1/21/2015	VTRP150122C	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	1/22/2015	VTRP150123B	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	1/22/2015	VTRP150123C	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	1/23/2015	VTRP150126B	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	1/23/2015	VTRP150126C	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	1/26/2015	VTRP150127B	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	1/26/2015	VTRP150128C	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	1/28/2015	VTRP150130C	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	1/29/2015	VTRP150130B	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	2/19/2015	VTRP150220B	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	2/19/2015	VTRP150220C	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	3/19/2015	VTRP150320C	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	3/19/2015	VTRP150324B	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U

Environmental Monitoring Data

Data Collected from January 1, 2015 to March 31, 2015
Cedar Hills Landfill --- Groundwater VOA Analytical Data

Contact Person: Sandy Jimenez (206) 477-5224

Site	Date	Sample ID	Carbon Tetrachloride 56-23-5 (ug/L)	Chloro- benzene 108-90-7 (ug/L)	Chloro- dibromo- methane 124-48-1 (ug/L)	Chloro- ethane 75-00-3 (ug/L)	Chloroform 67-66-3 (ug/L)	Chloro- methane 74-87-3 (ug/L)	cis-1,2- Dichloro- ethene 156-59-2 (ug/L)	cis-1,3- Dichloro- propene 10061-01-5 (ug/L)	Dibromo- methane 74-95-3 (ug/L)	Dichloro- difluoro- methane 75-71-8 (ug/L)	Ethyl - benzene 100-41-4 (ug/L)	m, p-Xylene (ug/L)
MW-21	1/27/2015	W21-150127-	< 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
MW-24	1/8/2015	W24-150108-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	0.22 T	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-27A	1/13/2015	W27A150113-	< 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
MW-28	1/23/2015	W28-150123-	< 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
MW-29	1/23/2015	W29-150123-	< 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
MW-30A	1/14/2015	W30A150114-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	2.85	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-47	1/30/2015	W47-150130-	< 0.2 U	< 0.2 U	< 0.2 U	0.25 T	< 0.2 U	< 0.2 U	3.66	< 0.2 U	< 0.2 U	7.48	< 0.2 U	< 0.2 U
MW-55	1/7/2015	W55-150107-	< 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
MW-56	1/15/2015	W56-150115-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	1.19	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-57	1/15/2015	W57-150115-	< 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
MW-59	1/13/2015	W59-150113-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	0.941	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-60	1/8/2015	W60-150108-	< 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
MW-62	1/30/2015	W62-150130-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	2.89	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-64	1/23/2015	W64-150123-	< 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
MW-65	1/15/2015	W65-150115-	< 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
MW-66	1/23/2015	W66-150123-	< 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
MW-67	1/22/2015	W67-150122-	< 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
MW-68	1/14/2015	W68-150114-	< 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
MW-69	1/7/2015	W69-150107-	< 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
MW-70	1/12/2015	W70-150112-	< 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
MW-73	1/22/2015	W73-150122-	< 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
MW-74	1/16/2015	W74R150116-	< 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
MW-74	1/16/2015	W74R150116D	< 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
MW-74	2/20/2015	W74R150220-	< 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
MW-74	3/24/2015	W74R150324-	< 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
MW-75	1/16/2015	W75-150116-	< 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
MW-75	2/20/2015	W75-150220-	< 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
MW-75	3/24/2015	W75-150324-	< 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
MW-76	1/26/2015	W76-150126-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	0.674	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-77	1/15/2015	W77-150115-	< 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
MW-78	1/12/2015	W78-150112-	< 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
MW-80	1/23/2015	W80-150123-	< 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
MW-81	1/26/2015	W81-150126-	< 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
MW-82	1/26/2015	W82-150126-	< 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
MW-83	1/13/2015	W83-150113-	< 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
MW-84	1/26/2015	W84-150126-	< 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
MW-85	1/28/2015	W85-150128-	< 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
MW-86	1/27/2015	W86-150127-	< 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
MW-87	1/16/2015	W87-150116-	< 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
MW-87	2/20/2015	W87-150220-	< 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
MW-87	3/20/2015	W87-150320-	< 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
MW-88	1/16/2015	W88-150116-	< 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
MW-89	1/22/2015	W89-150122-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 GU	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-90	1/21/2015	W90-150121-	< 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
MW-90	1/21/2015	W90-150121D	< 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

Data Collected from January 1, 2015 to March 31, 2015
Cedar Hills Landfill --- Groundwater VOA Analytical Data
Contact Person: Sendy Jimenez (206) 477-5224

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Data Collected from January 1, 2015 to March 31, 2015
Cedar Hills Landfill --- Groundwater VOA Analytical Data
Contact Person: Sendy Jimenez (206) 477-5224

B -22

Data Collected from January 1, 2015 to March 31, 2015
Cedar Hills Landfill --- Groundwater VOA Analytical Data
Contact Person: Sendy Jimenez (206) 477-5224

B -23

Surface Water Analytical Data

Environmental Monitoring Data

Data Collected from January 1, 2015 to March 31, 2015

Cedar Hills Landfill ---Surface Water Elevation Data-Staff Gage Measurements

Contact Person: Sandy Jimenez (206) 477-5224

Staff Gage	Location	Date	Reference Elevation Staff Gage 0' (msl)	Reference Elevation Top of Peizo (msl)	Depth to Water (Peizometer) (feet)	Staff Gage Reading (feet)	Surface Water Elevation (msl)	Comment
SW-G1	SW-W1	1/20/2015	415.38	418.84		0.91	416.29	
SW-G1	SW-W1	2/23/2015	415.38	418.84		0.83	416.21	
SW-G1	SW-W1	3/17/2015	415.38	418.84		0.90	416.28	
SW-G2	SW-N1	1/20/2015	355.68	358.21		0.95	356.63	
SW-G2	SW-N1	2/23/2015	355.68	358.21		0.53	356.21	
SW-G2	SW-N1	3/17/2015	355.68	358.21		0.96	356.64	
SW-G3	SW -V	1/20/2015	466.46	469.88		0.19	466.65	Trees
SW-G3	SW -V	2/23/2015	466.46	469.88		0.01	466.47	
SW-G3	SW -V	3/17/2015	466.46	469.88		NR	NA	Trees
SW-G4	Upstream of SW-E1	1/20/2015	502.41	505.85		0.45	502.86	
SW-G4	Upstream of SW-E1	2/23/2015	502.41	505.85		0.27	502.68	
SW-G4	Upstream of SW-E1	3/17/2015	502.41	505.85		0.44	502.85	
SW-G5	SW-E1	1/20/2015	486.92	490.34		0.76	487.68	
SW-G5	SW-E1	2/23/2015	486.92	490.34		0.60	487.52	
SW-G5	SW-E1	3/17/2015	486.92	490.34		0.74	487.66	
SW-G6	Upstream of SW-GS1	1/20/2015	490.72	494.12		0.74	491.46	
SW-G6	Upstream of SW-GS1	2/23/2015	490.72	494.12		0.44	491.16	
SW-G6	Upstream of SW-GS1	3/16/2015	490.72	494.12		0.80	491.52	
SW-G7	SW-S2	1/20/2015	453.03	456.41		0.60	453.63	
SW-G7	SW-S2	2/23/2015	453.03	456.41		0.35	453.38	
SW-G7	SW-S2	3/16/2015	453.03	456.41		0.94	453.97	
SW-G8	Upstream of SW-S1	1/20/2015	510.61	515.56		0.89	511.50	
SW-G8	Upstream of SW-S1	2/23/2015	510.61	515.56		0.53	511.14	
SW-G8	Upstream of SW-S1	3/16/2015	510.61	515.56		1.28	511.89	
SW-G9	SW-S1	1/20/2015	490.93	494.35		1.41	492.34	
SW-G9	SW-S1	2/23/2015	490.93	494.35		0.85	491.78	
SW-G9	SW-S1	3/16/2015	490.93	494.35		1.62	492.55	

NR = No Reading Taken

Environmental Monitoring Data

Data Collected from January 1, 2015 to March 31, 2015

Cedar Hills Landfill --- Surface Water Field Parameters

Contact Person: Sandy Jimenez (206) 477-5224

Site	Date	Sample ID	pH (Field)	Conductance (Field)	Temperature	Turbidity	Oxygen, Dissolved
			(std. Units)	(umho/cm)	(°C)	(NTU)	(mg/L)
SW-E1	1/20/2015	SE1-150120Q	7.44	30	7.1	2.4	10.68
SW-E1	2/23/2015	SE1-150223M	7.38	270	5.8	2.72	10.47
SW-E1	3/17/2015	SE1-150317M	7.01	39	7.6	2.25	8.64
SW-GS1	1/20/2015	SGS1150120Q	6.85	72	6.4	136	11.9
SW-GS1	2/9/2015	SGS1150209P	7.58	67	8.8	58.8	10.1
SW-GS1	2/23/2015	SGS1150223M	7.32	94	9	59.5	10.9
SW-GS1	3/16/2015	SGS1150316M	7.26	58	9.3	69.8	10.25
SW-MC	1/21/2015	SMC-150121Q	7.38	64	6.2	4.73	12.15
SW-MC	2/24/2015	SMC-150224M	7.68	120	7.9	4.07	11.82
SW-MC	3/18/2015	SMC-150318M	7.69	79	9.7	8.27	10.67
SW-N1	1/20/2015	SN1-150120Q	7.24	55	8	5.72	12.03
SW-N1	2/23/2015	SN1-150223M	7.83	100	5.9	3.09	11.57
SW-N1	3/17/2015	SN1-150317M	7.81	160	8.8	5.64	10.26
SW-N4	1/21/2015	SN4-150121Q	7.58	57	8.1	9.5	12.24
SW-N4	2/9/2015	SN4-150209P	7.56	78	10.2	8.69	16.6
SW-N4	2/23/2015	SN4-150223M	7.85	160	8.7	13.6	11.16
SW-N4	3/10/2015	SN4-150313C	7.61	91	11.5	2.6	10.55
SW-N4	3/11/2015	SN4-150313C	7.54	115	11	2.53	11.85
SW-N4	3/12/2015	SN4-150313C	7.59	115	11.1	2.64	10.76
SW-N4	3/13/2015	SN4-150313C	6.92	115	10.9	2.2	10.29
SW-N4	3/13/2015	SN4-150313C	7.67	120	5.6	2.74	
SW-N4	3/13/2015	SN4-150313C	7.67	120	5.6	2.74	10.29
SW-N4	3/17/2015	SN4-150317M	7.88	69	9.9	7.68	11.59
SW-NSLI	3/13/2015	SNSLI150313C	7.72	84	5.4	2.05	9.53
SW-NSLO	3/13/2015	SNSLO150313C	8.39	89	4.9	4.34	13.56
SW-NSPI	3/13/2015	SNSPI150313C	7.78	105	5.2	6.41	10.51
SW-NSPO	3/13/2015	SNSPO150313C	7.97	130	5.1	2.73	9.98
SW-S1	1/20/2015	SS1-150120Q	7.32	55	6.7	1.07	10.98
SW-S1	2/23/2015	SS1-150223M	7.31	52	5.4	0.6	10.48
SW-S1	3/16/2015	SS1-150316M	7.13	49	8.8	2.14	10.33
SW-S2	1/20/2015	SS2-150120Q	7.79	80	7	57.4	11.34
SW-S2	2/23/2015	SS2-150223M	7.62	89	5.2	27.4	11.3
SW-S2	3/16/2015	SS2-150316M	7.76	63	9.3	44.3	9.5
SW-S3	1/20/2015	SS3-150120Q	7.44	100	8.2	10.5	11.9
SW-SL3	1/13/2015	SSL3150113P	7.28	70	6	5.23	10.02
SW-SL3	1/20/2015	SSL3150120Q	7.17	100	7.4	20.5	13.03
SW-SL3	2/9/2015	SSL3150209P	7.73	92	10	21.3	9.25
SW-SL3	2/18/2015	SSL3150218P	7.78	100	9.6	5.46	10.81
SW-SL3	2/23/2015	SSL3150223M	6.9	115	5.8	3.02	10.85
SW-SL3	3/16/2015	SSL3150316M	6.76	74	9	18.1	10.35
SW-SL3	3/18/2015	SSL3150318P	7.54	175	9.8	14.5	10.24
SW-SLP1	1/13/2015	SLP1150113P	7.2	190	7.9	15.3	11.21
SW-SLP1	2/18/2015	SLP1150218P	7.53	230	9.9	2.94	9.79
SW-SLP1	3/18/2015	SLP1150318P	7.29	215	10	31.5	8.94
SW-SLP2	1/13/2015	SLP2150113P	7.22	100	7.1	10.3	11.57

Environmental Monitoring Data

Data Collected from January 1, 2015 to March 31, 2015

Cedar Hills Landfill --- Surface Water Field Parameters

Contact Person: ~~Sandy Jimenez (206) 477-5224~~

Site	Date	Sample ID	pH (Field)	Conductance (Field)	Temperature	Turbidity	Oxygen, Dissolved
			(std. Units)	(umho/cm)	(°C)	(NTU)	(mg/L)
SW-SLP2	2/18/2015	SLP2150218P	7.66	110	9.1	11	11.31
SW-SLP2	3/18/2015	SLP2150318P	7.24	90	9.4	7.67	10.37
SW-TD1	2/4/2015	STD1150204-	8.29	310	6.6	3.45	10.36
SW-TD2	2/27/2015	STD2150227-	7.54	24	8	15.4	12.31
SW-TD4	2/27/2015	STD4150227-	8.29	36	8	4.19	10.77
SW-TD6	2/9/2015	STD6150209-	8.35	92	8.6	7.73	11.38
SW-V	1/20/2015	SV--150120Q	7.2	86	10.4	0.66	10.57
SW-V	2/23/2015	SV--150223M	7.59	200	9.6	1.06	10.23
SW-W	1/21/2015	SW--150121Q	7.05	68	6	6.36	11.12
SW-W	2/24/2015	SW--150224M	8.04	270	8.4	2.36	9.26
SW-W	3/18/2015	SW--150318M	6.93	75	9.2	6.07	9.53
SW-W1	1/20/2015	SW1-150120Q	7.18	74	7.5	3.26	12.5
SW-W1	2/23/2015	SW1-150223M	7.81	100	6.9	1.44	11.27
SW-W1	3/17/2015	SW1-150317M	7.88	87	8.8	2.89	10.85
SW-W2	1/20/2015	SW2-150120Q	7.04	57	6.4	2.25	15.03
SW-W2	2/23/2015	SW2-150223M	6.84	53	5.6	2.04	11.09
SW-W2	3/16/2015	SW2-150316M	6.65	50	8.4	3.2	9.62
EQUIPMENT BLANK	3/13/2015	SU1-150313C	7.74	4	13.1	0.29	
FIELD BLANK	1/20/2015	SE1-150120F	7.76	24	9	0.73	11.16
FIELD BLANK	2/23/2015	SGS1150223F	7.48	2	10.4	0.28	9.27
FIELD BLANK	2/24/2015	SW--150224F	6.01	150	11	0.39	10.39

Environmental Monitoring Data

Data Collected from January 1, 2015 to March 31, 2015

Cedar Hills Landfill --- Surface Water Conventional Analytical Data

Contact Person: Sindy Jimenez (206) 477-5224

Site	Date	Sample ID	Alkalinity, Total (CaCO3) (mg/L)	Ammonia, (NH3) (mg/L)	Biological Oxygen Demand (mg/L)	Chemical Oxygen Demand (mg/L)	Chloride (mg/L)	Coliforms, Fecal (CFU/100mL)	Coliforms, Total (CFU/100mL)	Cyanide (mg/L)	Fluoride (mg/L)	Hardness (mg/L)	Nitrate- Nitrogen, (NO3 as N) (mg/L)
SW-E1	1/20/2015	SE1-150120Q	11.6	< 0.01 U	< 2 U	10 T	1.61	8	4	< 0.02 U	< 0.1 U	14.2	1.12
SW-E1	2/23/2015	SE1-150223M	15.4	0.0124		14 T	1.58	4	5			15	0.417
SW-E1	3/17/2015	SE1-150317M	13.4	< 0.01 U		5.2 T	1.37	5	70			13.3	0.701
SW-GS1	1/20/2015	SGS1150120Q	26.1	< 0.01 U	< 2 U	9.2 T	1.51	50	230	< 0.02 U	< 0.1 U	32.7	0.898
SW-GS1	2/9/2015	SGS1150209P		< 0.01 U	< 2 HU								
SW-GS1	2/23/2015	SGS1150223M	38.5	< 0.01 U		< 5 U	1.1	5	70			40.9	0.566
SW-GS1	3/16/2015	SGS1150316M	22.5	< 0.01 U		8.5 T	0.633	15000 C	33000			25.7	0.504
SW-MC	1/21/2015	SMC-150121O	28.4	< 0.01 U	< 2 U	11 T	2.55	17	39	< 0.02 U	< 0.1 U	37.8	1.5
SW-MC	2/24/2015	SMC-150224M	35.8	< 0.01 U		< 5 U	2.74	23	32			37.8	1.26
SW-MC	3/18/2015	SMC-150318M	28.4	< 0.01 U		9.3 T	1.79	50	120			30.7	1.21
SW-N1	1/20/2015	SN1-150120Q	27.5	< 0.01 U	< 2 U	11 T	2.3	44	100	< 0.02 U	< 0.1 U	34.6	1.5
SW-N1	2/23/2015	SN1-150223M	35.5	< 0.01 U		6.9 T	2.67	40	63			37.4	1.24
SW-N1	3/17/2015	SN1-150317M	26.6	< 0.01 U		14 T	1.39	99	210			29.9	1.08
SW-N4	1/21/2015	SN4-150121O	31.6	0.0655	< 2 U	16 T	1.5	24	60	< 0.02 U	< 0.1 U	41.6	1.06
SW-N4	2/9/2015	SN4-150209P		0.0233	< 2 HU								
SW-N4	2/23/2015	SN4-150223M	36.3	0.0101		13 T	1.45	7	24			38.8	0.775
SW-N4	3/13/2015	SN4-150313C											
SW-N4	3/17/2015	SN4-150317M	27.2	0.0215		17 T	0.484	440	380			30.2	0.623
SW-NSLI	3/13/2015	SNSLI150313C	12948										
SW-NSLO	3/13/2015	SNSLO150313C	12948										
SW-NSPI	3/13/2015	SNSPI150313C	12948										
SW-NSPO	3/13/2015	SNSPO150313C	12948										
SW-S1	1/20/2015	SS1-150120Q	11.3	< 0.01 U	< 2 U	< 5 U	2.28	8	17	< 0.02 U	< 0.1 U	16.1	2.09
SW-S1	2/23/2015	SS1-150223M	13.4	< 0.01 U		6.1 T	2.32	21	22			16.2	1.36
SW-S1	3/16/2015	SS1-150316M	11.9	< 0.01 U		8.4 T	1.7	69	220			15.4	1.55
SW-S2	1/20/2015	SS2-150120Q	24.2	< 0.01 U	< 2 U	8 T	1.64	56	170	< 0.02 U	< 0.1 U	30	1.6
SW-S2	2/23/2015	SS2-150223M	33.9	< 0.01 U		7.1 T	1.44	5	23			37.5	1.03
SW-S2	3/16/2015	SS2-150316M	20	< 0.01 U		6.5 T	0.888	63000	80000 G			24.7	1.02
SW-S3	1/20/2015	SS3-150120Q	37	< 0.01 U	< 2 U	11 T	2.49	42	200	< 0.02 U	< 0.1 U	37.1	0.763
SW-SL3	1/13/2015	SSL3150113P		< 0.01 U	< 2 U			32	37				
SW-SL3 Duplicate	1/20/2015	SSL3150120D	41.6	< 0.01 U	< 2 U	13 T	2.35	110	430	< 0.02 U	< 0.1 U	41	0.49
SW-SL3	1/20/2015	SSL3150120Q	41.4	< 0.01 U	< 2 U	16 T	2.35	120	340	< 0.02 U	< 0.1 U	41	0.487
SW-SL3	2/9/2015	SSL3150209P		< 0.01 U	< 2 HU								
SW-SL3	2/18/2015	SSL3150218P		< 0.01 U	< 2 U			9	36				
SW-SL3	2/23/2015	SSL3150223M	49.9	< 0.01 U		11 T	2	58	70			49.7	0.225
SW-SL3	3/16/2015	SSL3150316M	33.6	< 0.01 U		13 T	0.667	620	1500			32.9	0.268
SW-SL3	3/18/2015	SSL3150318P		< 0.01 U	< 2 U			190	1000				
SW-SLP1	1/13/2015	SLP1150113P		0.022 T	< 2 U			140	410				
SW-SLP1	2/18/2015	SLP1150218P		0.014 T	< 2 U			2	26				
SW-SLP1	3/18/2015	SLP1150318P		< 0.01 U	3.56			1800	140000 CJ				
SW-SLP2	1/13/2015	SLP2150113P		< 0.01 U	< 2 U			2	14				
SW-SLP2	2/18/2015	SLP2150218P		< 0.01 U	< 2 U			7	500				
SW-SLP2 Duplicate	2/18/2015	SLP2150218D		< 0.01 U	< 2 U			4	290				
SW-SLP2	3/18/2015	SLP2150318P		< 0.01 U	< 2 U			15	690				

Environmental Monitoring Data

Data Collected from January 1, 2015 to March 31, 2015

Cedar Hills Landfill --- Surface Water Conventional Analytical Data

Contact Person: Sindy Jimenez (206) 477-5224

Site	Date	Sample ID	Alkalinity, Total (CaCO3) (mg/L)	Ammonia, (NH3) (mg/L)	Biological Oxygen Demand (mg/L)	Chemical Oxygen Demand (mg/L)	Chloride (mg/L)	Coliforms, Fecal (CFU/100mL)	Coliforms, Total (CFU/100mL)	Cyanide (mg/L)	Fluoride (mg/L)	Hardness (mg/L)	Nitrate- Nitrogen, (NO3 as N) (mg/L)
SW-TD1	2/4/2015	STD1150204-	184			28.9	1.56						
SW-TD2	2/27/2015	STD2150227-	10.7			25.8	0.118						
SW-TD4	2/27/2015	STD4150227-	16.9			22	0.303						
SW-TD6	2/9/2015	STD6150209-	44.8			19 T	0.978						
SW-V	1/20/2015	SV--150120Q	26	< 0.01 U	< 2 U	< 5 U	2.06	2	5	< 0.02 U	< 0.1 U	28.3	1.1
SW-V	2/23/2015	SV--150223M	24.2	< 0.01 U		< 5 U	2.57	< 1 U	1			27.7	1.35
SW-W	1/21/2015	SW--150121Q	28	0.0212	< 2 U	10 T	4.04	32	120	< 0.02 U	< 0.1 U	35.1	1.48
SW-W	2/24/2015	SW--150224M	32	0.0267		5.8 T	3.44	23	62			32.2	1.49
SW-W	3/18/2015	SW--150318M	26.9	0.0258		12 T	3.2	70	230			28	1.18
SW-W1	1/20/2015	SW1-150120Q	27.1	< 0.01 U	< 2 U	< 5 U	3.83	90	210	< 0.02 U	< 0.1 U	32.7	1.83
SW-W1	2/23/2015	SW1-150223M	40.4	< 0.01 U		< 5 U	3.75	170	170			41.2	1.41
SW-W1	3/17/2015	SW1-150317M	25.9	< 0.01 U		7.2 T	3.01	170	540			28.8	1.63
SW-W2	1/20/2015	SW2-150120Q	11.3	< 0.01 U	< 2 U	6.6 T	2.36	14	80 C	< 0.02 U	< 0.1 U	16.6	2.06
SW-W2	2/23/2015	SW2-150223M	14	< 0.01 U		< 5 U	2.38	7	5			16.7	1.31
SW-W2	3/16/2015	SW2-150316M	11.7	< 0.01 U		7.7 T	1.69	30	140			15.1	1.63
FIELD BLANK	2/23/2015	SGS1150223F	< 1 U	< 0.01 U		< 5 U	< 0.1 U	< 1 U	< 1 U			< 1 U	< 0.01 U
FIELD BLANK	2/24/2015	SW--150224F	1.6 T	< 0.01 U		< 5 U	< 0.1 U	< 1 U	< 1 U			< 1 U	0.039 T
EQUIPMENT BLANK	1/27/2015	WU1M150127E		< 0.01 U									

Environmental Monitoring Data

Data Collected from January 1, 2015 to March 31, 2015

Cedar Hills Landfill --- Surface Water Conventional Analytical Data

Contact Person: Sindy Jimenez (206) 477-5224

Site	Date	Sample ID	Nitrate+Nitrite (NO3+NO2 as N) (mg/L)	Soluble Reactive Phosphorus (mg/L)	Specific Conductance (umho/cm)	Sulfate (SO4) (mg/L)	Total Dissolved Solids (mg/L)	Total Kjeldahl Nitrogen (mg/L)	Total Organic Carbon (mg/L)	Total Solids (mg/L)	Suspended Solids (mg/L)	Turbidity (NTU)
SW-E1	1/20/2015	SE1-150120Q	1.12	< 0.01 U	44.1	1.58	43.9	0.295	3.12	49.4	2.44	2.72
SW-E1	2/23/2015	SE1-150223M	0.417	< 0.01 U	43.8	1.47	46.2	0.451	3.73	97.2	2.82	2.63
SW-E1	3/17/2015	SE1-150317M	0.701	< 0.01 U	43.5	1.42	48.9	0.16 T	2.31	48.3	< 1 U	2.35
SW-GS1	1/20/2015	SGS1150120Q	0.898	< 0.01 U	77.5	4.1	127	0.349	5.59	137	13.8	99.9
SW-GS1	2/9/2015	SGS1150209P									10	45.9
SW-GS1	2/23/2015	SGS1150223M	0.566	0.0174	93.6	4.95	106	0.309	3	122	7.46	56.4
SW-GS1	3/16/2015	SGS1150316M	0.504	< 0.01 U	62.2	3.46	81.9 J	0.361	4.36	97.7 J	44.5 J	61
SW-MC	1/21/2015	SMC-150121O	1.5	0.0138	93	5.5	73.9	0.384	4.99	77.8	2	4.37
SW-MC	2/24/2015	SMC-150224M	1.26	< 0.01 U	102	5.38	82	0.34	2.66	89.6	3.99	3.57
SW-MC	3/18/2015	SMC-150318M	1.21	< 0.01 U	87.5	4.55	74.2	0.498	4.35	85.3	11.5	9.32
SW-N1	1/20/2015	SN1-150120Q	1.5	0.0205	89.5	5.29	68.4	0.478	5.18	75.3	3.87	4.84
SW-N1	2/23/2015	SN1-150223M	1.24	0.013	100	5.43	80.5	0.317	3.26	87.2	1.88	2.57
SW-N1	3/17/2015	SN1-150317M	1.08	0.0114	81.1	4.25	65.1	0.489	4.94	73.1	4.67	5.85
SW-N4	1/21/2015	SN4-150121O	1.06	0.0311	92.4	6.39	77.7	0.56	6.95	81.5	2.14	8.33
SW-N4	2/9/2015	SN4-150209P									2.74	7.29
SW-N4	2/23/2015	SN4-150223M	0.775	< 0.01 U	97.1	6.55	82.7	0.426	4.6	94.8	7.08	9.72
SW-N4	3/13/2015	SN4-150313C									2.98	2.91
SW-N4	3/17/2015	SN4-150317M	0.623	0.0164	78.7	4.15	69.3	0.65	6.16	74.7	3.62	6.69
SW-NSLI	3/13/2015	SNSLI150313C										1.18
SW-NSLO	3/13/2015	SNSLO150313C										4.17
SW-NSPI	3/13/2015	SNSPI150313C										3.93
SW-NSPO	3/13/2015	SNSPO150313C										2.16
SW-S1	1/20/2015	SS1-150120Q	2.09	< 0.01 U	55.8	2.15	48.2	0.19 T	3.27	48.3	< 1 U	0.47 T
SW-S1	2/23/2015	SS1-150223M	1.36	< 0.01 U	52.9	2.24	48	0.27	2.2	54.1	< 1 U	0.44 T
SW-S1	3/16/2015	SS1-150316M	1.55	< 0.01 U	51	1.86	47.5	0.26	3	49	1.03	1.19
SW-S2	1/20/2015	SS2-150120Q	1.6	< 0.01 U	78.5	4.24	87.9	0.362	4.43	95.4	11.2	50.8
SW-S2	2/23/2015	SS2-150223M	1.03	< 0.01 U	88.9	4.46	83.5	0.269	3.01	89.8	1.9 T	23.4
SW-S2	3/16/2015	SS2-150316M	1.02	< 0.01 U	63.3	3.08	75.3	0.404	3.93	81.2	13.4	34.9
SW-S3	1/20/2015	SS3-150120Q	0.763	0.013	98.5	4.74	72.7	0.206	3.77	72.5	1.78	8.21
SW-SL3	1/13/2015	SSL3150113P									1.28	4.46
SW-SL3 Duplicate	1/20/2015	SSL3150120D	0.49	0.0253	103	4.48	78.6	0.411	6.46	85.7	4.88	17.1
SW-SL3	1/20/2015	SSL3150120Q	0.487	0.0254	104	4.5	81.1	0.476	6.34	87.3	3.96	18
SW-SL3	2/9/2015	SSL3150209P									6.88	20.4
SW-SL3	2/18/2015	SSL3150218P									1.4 T	4.55
SW-SL3	2/23/2015	SSL3150223M	0.225	< 0.01 U	117	5.49	81.2	0.36	4.15	88.1	2.43	3.16
SW-SL3	3/16/2015	SSL3150316M	0.268	0.0236	80.7	3.46	67.9	0.365	4.61	74	5.89	16.4
SW-SL3	3/18/2015	SSL3150318P									4.38	13.4
SW-SLP1	1/13/2015	SLP1150113P									4.33	12
SW-SLP1	2/18/2015	SLP1150218P									1.33	1.96
SW-SLP1	3/18/2015	SLP1150318P									8.61	23.5
SW-SLP2	1/13/2015	SLP2150113P									2.57	8.32
SW-SLP2	2/18/2015	SLP2150218P									8.06	8.45
SW-SLP2 Duplicate	2/18/2015	SLP2150218D									9	8.56
SW-SLP2	3/18/2015	SLP2150318P									1.14	6.15

Environmental Monitoring Data

Data Collected from January 1, 2015 to March 31, 2015

Cedar Hills Landfill --- Surface Water Conventional Analytical Data

Contact Person: Sindy Jimenez (206) 477-5224

Site	Date	Sample ID	Nitrate+Nitrite (NO3+NO2 as N) (mg/L)	Soluble Reactive Phosphorus (mg/L)	Specific Conductance (umho/cm)	Sulfate (SO4) (mg/L)	Total Dissolved Solids (mg/L)	Total Kjeldahl Nitrogen (mg/L)	Total Organic Carbon (mg/L)	Total Solids (mg/L)	Suspended Solids (mg/L)	Turbidity (NTU)
SW-TD1	2/4/2015	STD1150204-				4.88			8.43			
SW-TD2	2/27/2015	STD2150227-				0.459			5.05			
SW-TD4	2/27/2015	STD4150227-				0.316			4.87			
SW-TD6	2/9/2015	STD6150209-				2.08			4.52			
SW-V	1/20/2015	SV--150120Q	1.1	< 0.01 U	85.4	6.9	61.7	0.16 T	1.41	60.7	1.38	1.16
SW-V	2/23/2015	SV--150223M	1.35	< 0.01 U	87.4	7.7	74.5	0.2	1.25	87.1	4.14	2.78
SW-W	1/21/2015	SW--150121Q	1.48	< 0.01 U	96.1	4.5	76.3	0.337	5.23	84.2	5.75	5.61
SW-W	2/24/2015	SW--150224M	1.49	< 0.01 U	97.7	4.91	108	0.572	2.08	87.5	1.79	2.21
SW-W	3/18/2015	SW--150318M	1.18	< 0.01 U	89	4.08	72.6	0.889	4.34	81.9	7.03	5.94
SW-W1	1/20/2015	SW1-150120Q	1.83	< 0.01 U	101	5.19	69.3	0.348	4.02	72.2	2.93	2.68
SW-W1	2/23/2015	SW1-150223M	1.41	< 0.01 U	115	5.68	84.5	0.371	2.11	91.4	1.76	1.6
SW-W1	3/17/2015	SW1-150317M	1.63	< 0.01 U	91.2	4.96	68.5	0.235	3.28	74.2	3.74	2.88
SW-W2	1/20/2015	SW2-150120Q	2.06	< 0.01 U	56.1	2.3	46.5	0.346	3.48	51.3	< 1 U	0.35 T
SW-W2	2/23/2015	SW2-150223M	1.31	< 0.01 U	54.7	2.41	49.8	0.24	2.52	55.6	< 1 U	0.45 T
SW-W2	3/16/2015	SW2-150316M	1.63	< 0.01 U	52.1	2.06	65.9	0.15 T	2.94	52.4	< 1 U	0.995
FIELD BLANK	2/23/2015	SGS1150223F	< 0.01 U	< 0.01 U	1.4 T	< 0.1 U	< 5 U	< 0.1 U	< 1 U	12 T	< 1 U	< 0.2 U
FIELD BLANK	2/24/2015	SW--150224F	0.039 T	< 0.01 U	3.1 T	< 0.1 U	11 T	0.16 T	< 1 U	35.1	< 1 U	< 0.2 U
EQUIPMENT BLANK	1/27/2015	WU1M150127E	< 0.01 U	< 0.01 U								

Environmental Monitoring Data

Data Collected from January 1, 2015 to March 31, 2015
 Cedar Hills Landfill --- Surface Water Metal Analytical Data
 Contact Person: Sandv Jimenez (206) 477-5224

Site	Date	Sample ID	Aluminum, dissolved	Aluminum, total	Antimony, dissolved	Antimony, total	Arsenic, dissolved	Arsenic, total	Barium, dissolved	Barium, total	Beryllium, dissolved	Beryllium, total	Cadmium, dissolved	Cadmium, total
			(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
SW-E1	1/20/2015	SE1-150120Q	0.0525	0.247	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00248	0.0038	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-E1	2/23/2015	SE1-150223M	0.052	0.311	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00267	0.00478	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U
SW-E1	3/17/2015	SE1-150317M	0.0635	0.148	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00286	0.00304 D	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-GS1	1/20/2015	SGS1150120Q	0.0564 D	4.82 D	< 0.001 U	< 0.001 U	< 0.001 U	0.0017	0.00292	0.036	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-GS1	2/9/2015	SGS1150209P												
SW-GS1	2/23/2015	SGS1150223M	0.789	2.66	< 0.001 U	< 0.001 U	< 0.001 U	0.00118	0.00781	0.0174	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U
SW-GS1	3/16/2015	SGS1150316M	0.061	2.38	< 0.001 U	< 0.001 U	< 0.001 U	0.001	0.00277	0.0155 D	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-MC	1/21/2015	SMC-150121Q	0.0388 D	0.274	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.0042	0.00564	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U
SW-MC	2/24/2015	SMC-150224M	< 0.02 U	0.206	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00447	0.0057	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U
SW-MC	3/18/2015	SMC-150318M	0.0417	0.511	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00432	0.00665 D	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-N1	1/20/2015	SN1-150120Q	0.0473 D	0.291	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00421	0.0058	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-N1	2/23/2015	SN1-150223M	< 0.02 U	0.135	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00438	0.00519	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U
SW-N1	3/17/2015	SN1-150317M	0.0932	0.279	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00431	0.00497 D	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-N4	1/21/2015	SN4-150121Q	0.0758 D	0.492	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00465	0.00781	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U
SW-N4	2/9/2015	SN4-150209P												
SW-N4	2/23/2015	SN4-150223M	0.0357	0.407	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00461	0.00665	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U
SW-N4	3/13/2015	SN4-150313C												
SW-N4	3/17/2015	SN4-150317M	0.072	0.323	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00419	0.0053 D	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-NSLI	3/13/2015	SNSLI150313C												
SW-NSLO	3/13/2015	SNSLO150313C												
SW-NSPI	3/13/2015	SNSPI150313C												
SW-NSPO	3/13/2015	SNSPO150313C												
SW-S1	1/20/2015	SS1-150120Q	0.041 D	0.0495	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00639	0.00613	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-S1	2/23/2015	SS1-150223M	0.0315	0.0443	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.0062	0.00638	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U
SW-S1	3/16/2015	SS1-150316M	0.0604	0.0838	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00643	0.00647 D	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-S2	1/20/2015	SS2-150120Q	0.0436 D	2.28 D	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00444	0.022	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-S2	2/23/2015	SS2-150223M	0.0299	1.19	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00483	0.0123	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U
SW-S2	3/16/2015	SS2-150316M	0.0856	1.7	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00436	0.014 D	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-S3	1/20/2015	SS3-150120Q	0.0313	0.343	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00537	0.00733	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-SL3	1/13/2015	SSL3150113P												
SW-SL3 Duplicate	1/20/2015	SSL3150120D	0.0487 D	0.73 D	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00725	0.0121	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-SL3	1/20/2015	SSL3150120Q	0.0522 D	0.673 D	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.0073	0.0121	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-SL3	2/9/2015	SSL3150209P												
SW-SL3	2/18/2015	SSL3150218P												
SW-SL3	2/23/2015	SSL3150223M	< 0.02 U	0.174	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.0078	0.00875	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U
SW-SL3	3/16/2015	SSL3150316M	0.0733	0.709	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00614	0.00979 D	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-SL3	3/18/2015	SSL3150318P												
SW-SLP1	1/13/2015	SLP1150113P												
SW-SLP1	2/18/2015	SLP1150218P												
SW-SLP1	3/18/2015	SLP1150318P												
SW-SLP2	1/13/2015	SLP2150113P												
SW-SLP2	2/18/2015	SLP2150218P												
SW-SLP2 Duplicate	2/18/2015	SLP2150218D												
SW-SLP2	3/18/2015	SLP2150318P												
SW-TD1	2/4/2015	STD1150204-												

Environmental Monitoring Data

Data Collected from January 1, 2015 to March 31, 2015
 Cedar Hills Landfill --- Surface Water Metal Analytical Data
 Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Aluminum, dissolved (mg/L)	Aluminum, total (mg/L)	Antimony, dissolved (mg/L)	Antimony, total (mg/L)	Arsenic, dissolved (mg/L)	Arsenic, total (mg/L)	Barium, dissolved (mg/L)	Barium, total (mg/L)	Beryllium, dissolved (mg/L)	Beryllium, total (mg/L)	Cadmium, dissolved (mg/L)	Cadmium, total (mg/L)
SW-TD2	2/27/2015	STD2150227-												
SW-TD4	2/27/2015	STD4150227-												
SW-TD6	2/9/2015	STD6150209-												
SW-V	1/20/2015	SV--150120Q	< 0.02 U	0.0376	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00275	0.0029	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-V	2/23/2015	SV--150223M	< 0.02 U	0.152	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00285	0.00393	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U
SW-W	1/21/2015	SW--150121Q	0.085 D	0.435	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.0051	0.00654	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U
SW-W	2/24/2015	SW--150224M	0.0235	0.099	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00439	0.00449	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U
SW-W	3/18/2015	SW--150318M	0.0935	0.35	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00569	0.00648 D	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-W1	1/20/2015	SW1-150120Q	0.0369	0.153	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00563	0.00699	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-W1	2/23/2015	SW1-150223M	< 0.02 U	0.0604	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.0057	0.00609	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U
SW-W1	3/17/2015	SW1-150317M	0.0533	0.152	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00639	0.0064 D	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-W2	4/20/2015	SW2-150120Q	0.0465 D	0.0498	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00667	0.0065	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-W2	2/23/2015	SW2-150223M	0.034	0.0408	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00696	0.00671	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U
SW-W2	3/16/2015	SW2-150316M	0.0685	0.0891	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00686	0.00665 D	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
EQUIPMENT BLANK	3/13/2015	SU1-150313C												
FIELD BLANK	1/20/2015	SE1-150120F	< 0.02 U	< 0.02 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
FIELD BLANK	2/23/2015	SGS1150223F	< 0.02 U	< 0.02 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U
FIELD BLANK	2/24/2015	SW--150224F	< 0.02 U	< 0.02 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U

Environmental Monitoring Data

Data Collected from January 1, 2015 to March 31, 2015
 Cedar Hills Landfill --- Surface Water Metal Analytical Data
 Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Calcium, dissolved (mg/L)	Calcium, total (mg/L)	Chromium, dissolved (mg/L)	Chromium, total (mg/L)	Cobalt, dissolved (mg/L)	Cobalt, total (mg/L)	Copper, dissolved (mg/L)	Copper, total (mg/L)	Iron, dissolved (mg/L)	Iron, total (mg/L)	Lead, dissolved (mg/L)	Lead, total (mg/L)
SW-E1	1/20/2015	SE1-150120Q	3.73	4.11	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.026 T	0.145	< 0.001 U	< 0.001 U
SW-E1	2/23/2015	SE1-150223M	4.25	4.3	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.033 T	0.251	< 0.001 U	< 0.001 DU
SW-E1	3/17/2015	SE1-150317M	4.38	3.8	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.041 T	0.0951	< 0.001 U	< 0.001 U
SW-GS1	1/20/2015	SGS1150120Q	7.66	7.39	< 0.005 U	0.00766	< 0.003 U	< 0.003 U	0.00267	0.0118	0.0506	5.44	< 0.001 U	0.00255
SW-GS1	2/9/2015	SGS1150209P								0.0067				
SW-GS1	2/23/2015	SGS1150223M	10.1	9.9	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.00379	0.00799	0.774	3.3	< 0.001 U	0.00141 D
SW-GS1	3/16/2015	SGS1150316M	6.48	6.06	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.0028	0.00718	0.047 T	2.6	< 0.001 U	0.00119
SW-MC	1/21/2015	SMC-150121Q	8.78	9.95	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.00563	0.00582	0.0546	0.261	< 0.001 U	< 0.001 U
SW-MC	2/24/2015	SMC-150224M	9.92	9.63	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.00261	0.00289	0.039 T	0.269	< 0.001 U	< 0.001 DU
SW-MC	3/18/2015	SMC-150318M	9.1	7.89	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.00603	0.0066	0.0609	0.508	< 0.001 U	< 0.001 U
SW-N1	1/20/2015	SN1-150120Q	8.52	8.87	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.00728	0.00732	0.0668	0.292	< 0.001 U	< 0.001 U
SW-N1	2/23/2015	SN1-150223M	9.72	9.51	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.00318	0.00306	0.0505	0.195	< 0.001 U	< 0.001 DU
SW-N1	3/17/2015	SN1-150317M	8.85	7.74	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.00893	0.00927	0.103	0.306	< 0.001 U	< 0.001 U
SW-N4	1/21/2015	SN4-150121Q	9.42	10.9	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.0141	0.015	0.0906	0.491	< 0.001 U	< 0.001 U
SW-N4	2/9/2015	SN4-150209P								0.0167				
SW-N4	2/23/2015	SN4-150223M	10.4	9.81	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.00963	0.00975	0.0722	0.641	< 0.001 U	< 0.001 DU
SW-N4	3/13/2015	SN4-150313C								0.00775				
SW-N4	3/17/2015	SN4-150317M	8.43	7.86	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.0156	0.0161	0.0928	0.352	< 0.001 U	< 0.001 U
SW-NSLI	3/13/2015	SNSLI150313C								0.0159				
SW-NSLO	3/13/2015	SNSLO150313C								0.0157				
SW-NSPI	3/13/2015	SNSPI150313C								0.00436				
SW-NSPO	3/13/2015	SNSPO150313C								0.004				
SW-S1	1/20/2015	SS1-150120Q	4.73	4.58	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.012 T	0.02 T	< 0.001 U	< 0.001 U
SW-S1	2/23/2015	SS1-150223M	4.61	4.62	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	0.023 T	< 0.001 U	< 0.001 DU
SW-S1	3/16/2015	SS1-150316M	4.66	4.31	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.027 T	0.05 T	< 0.001 U	< 0.001 U
SW-S2	1/20/2015	SS2-150120Q	7.73	7.34	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.00205	0.00623	0.035 T	2.71	< 0.001 U	0.00125
SW-S2	2/23/2015	SS2-150223M	9.69	9.34	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	0.0038	0.032 T	1.3	< 0.001 U	< 0.001 DU
SW-S2	3/16/2015	SS2-150316M	6.55	6.09	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.00222	0.00518	0.0675	1.83	< 0.001 U	< 0.001 U
SW-S3	1/20/2015	SS3-150120Q	10.1	10.6	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.00321	0.00379	0.032 T	0.33	< 0.001 U	< 0.001 U
SW-SL3	1/13/2015	SSL3150113P								0.00347				
SW-SL3 Duplicate	1/20/2015	SSL3150120D	11.4	11.1	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.00651	0.00698	0.0661	0.87	< 0.001 U	0.001
SW-SL3	1/20/2015	SSL3150120Q	11.6	11.1	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.00641	0.007	0.068	0.868	< 0.001 U	0.001
SW-SL3	2/9/2015	SSL3150209P								0.00772				
SW-SL3	2/18/2015	SSL3150218P								0.00424				
SW-SL3	2/23/2015	SSL3150223M	13.3	13	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.00312	0.00386	0.102	0.329	< 0.001 U	< 0.001 DU
SW-SL3	3/16/2015	SSL3150316M	9.2	8.96	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.00409	0.00533	0.0836	0.765	< 0.001 U	< 0.001 U
SW-SL3	3/18/2015	SSL3150318P								0.00605				
SW-SLP1	1/13/2015	SLP1150113P								0.00351				
SW-SLP1	2/18/2015	SLP1150218P								0.00203				
SW-SLP1	3/18/2015	SLP1150318P								0.007				
SW-SLP2	1/13/2015	SLP2150113P								0.00748				
SW-SLP2	2/18/2015	SLP2150218P								0.00842				
SW-SLP2 Duplicate	2/18/2015	SLP2150218D								0.00833				
SW-SLP2	3/18/2015	SLP2150318P								0.0124				
SW-TD1	2/4/2015	STD1150204-									0.011 T	9.41		

Environmental Monitoring Data

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 Cedar Hills Landfill --- Surface Water Metal Analytical Data
 Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Calcium, dissolved (mg/L)	Calcium, total (mg/L)	Chromium, dissolved (mg/L)	Chromium, total (mg/L)	Cobalt, dissolved (mg/L)	Cobalt, total (mg/L)	Copper, dissolved (mg/L)	Copper, total (mg/L)	Iron, dissolved (mg/L)	Iron, total (mg/L)	Lead, dissolved (mg/L)	Lead, total (mg/L)
SW-TD2	2/27/2015	STD2150227-									0.208	0.685		
SW-TD4	2/27/2015	STD4150227-									0.049 T	0.14		
SW-TD6	2/9/2015	STD6150209-									0.135	0.296		
SW-V	1/20/2015	SV--150120Q	7.18	8.04	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	0.031 T	< 0.001 U	< 0.001 U
SW-V	2/23/2015	SV--150223M	7.97	7.83	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	0.176	< 0.001 U	< 0.001 DU
SW-W	1/21/2015	SW--150121Q	8.23	9.54	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.148	0.377	< 0.001 U	< 0.001 U
SW-W	2/24/2015	SW--150224M	8.97	8.61	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.144	0.249	< 0.001 U	< 0.001 DU
SW-W	3/18/2015	SW--150318M	8.84	7.5	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	0.00294	0.184	0.398	< 0.001 U	< 0.001 U
SW-W1	1/20/2015	SW1-150120Q	7.84	8.74	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.0506	0.176	< 0.001 U	< 0.001 U
SW-W1	2/23/2015	SW1-150223M	11.3	10.9	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.043 T	0.12	< 0.001 U	< 0.001 DU
SW-W1	3/17/2015	SW1-150317M	8.92	7.77	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.0641	0.175	< 0.001 U	< 0.001 U
SW-W2	4/20/24.375	SW2-150120Q	4.75	4.71	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.014 T	0.021 T	< 0.001 U	< 0.001 U
SW-W2	2/23/2015	SW2-150223M	4.88	4.75	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.011 T	0.019 T	< 0.001 U	< 0.001 DU
SW-W2	3/16/2015	SW2-150316M	4.73	4.26	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.029 T	0.046 T	< 0.001 U	< 0.001 U
EQUIPMENT BLANK	3/13/2015	SU1-150313C								< 0.002 U				
FIELD BLANK	1/20/2015	SE1-150120F	< 0.01 U	< 0.01 U	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	< 0.01 U	< 0.001 U	< 0.001 U
FIELD BLANK	2/23/2015	SGS1150223F	< 0.01 U	< 0.01 U	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	< 0.01 U	< 0.001 U	< 0.001 DU
FIELD BLANK	2/24/2015	SW--150224F	< 0.01 U	< 0.01 U	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	< 0.01 U	< 0.001 U	< 0.001 DU

Environmental Monitoring Data

Data Collected from January 1, 2015 to March 31, 2015
 Cedar Hills Landfill --- Surface Water Metal Analytical Data
 Contact Person: Sandv Jimenez (206) 477-5224

Site	Date	Sample ID	Magnesium, dissolved	Magnesium, total	Manganese, dissolved	Manganese, total	Mercury, total	Nickel, dissolved	Nickel, total	Potassium, dissolved	Potassium, total	Selenium, dissolved	Selenium, total	Silver, dissolved
			(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
SW-E1	1/20/2015	SE1-150120Q	0.938	0.948	0.00299	0.0305	< 0.0001 U	< 0.01 U	< 0.01 U	0.46 T	0.47 T	< 0.001 U	< 0.001 U	< 0.003 U
SW-E1	2/23/2015	SE1-150223M	0.929	1.05	0.00703	0.0847	< 0.0001 U	< 0.01 U	< 0.01 U	0.42 T	0.39 T	< 0.001 U	< 0.001 U	< 0.003 U
SW-E1	3/17/2015	SE1-150317M	1.01	0.925	0.00945	0.016	< 0.0001 U	< 0.01 U	< 0.01 U	0.43 T	0.41 T	< 0.001 U	< 0.001 U	< 0.003 U
SW-GS1	1/20/2015	SGS1150120Q	2.63	3.47	0.00922	0.0909	< 0.0001 U	< 0.01 U	< 0.01 U	1.06	1.4	< 0.001 U	< 0.001 U	< 0.003 U
SW-GS1	2/9/2015	SGS1150209P												
SW-GS1	2/23/2015	SGS1150223M	3.82	3.93	0.027	0.0587	< 0.0001 U	< 0.01 U	< 0.01 U	1.01	1.1	< 0.001 U	< 0.001 U	< 0.003 U
SW-GS1	3/16/2015	SGS1150316M	2.08	2.56	0.00957 D	0.0618	< 0.0001 U	< 0.01 U	< 0.01 U	0.987	1.02	< 0.001 U	< 0.001 U	< 0.003 U
SW-MC	1/21/2015	SMC-150121Q	2.76 D	3.15	0.0023	0.0117	< 0.0001 U	< 0.01 U	< 0.01 U	1.19	1.21	< 0.001 U	< 0.001 U	< 0.003 U
SW-MC	2/24/2015	SMC-150224M	3.14	3.33	0.00596	0.0183	< 0.0001 U	< 0.01 U	< 0.01 U	1.02	0.986	< 0.001 U	< 0.001 U	< 0.003 U
SW-MC	3/18/2015	SMC-150318M	2.99	2.67	0.00473	0.0246	< 0.0001 U	< 0.01 U	< 0.01 U	1.05	0.987	< 0.001 U	< 0.001 U	< 0.003 U
SW-N1	1/20/2015	SN1-150120Q	3.09	3.02	0.00475	0.018	< 0.0001 U	< 0.01 U	< 0.01 U	1.85	1.18	< 0.001 U	< 0.001 U	< 0.003 U
SW-N1	2/23/2015	SN1-150223M	3.1	3.33	0.00888	0.0149	< 0.0001 U	< 0.01 U	< 0.01 U	1.02	0.941	< 0.001 U	< 0.001 U	< 0.003 U
SW-N1	3/17/2015	SN1-150317M	2.89	2.56	0.00798	0.0222	< 0.0001 U	< 0.01 U	< 0.01 U	1.12	1.06	< 0.001 U	< 0.001 U	< 0.003 U
SW-N4	1/21/2015	SN4-150121Q	2.99 D	3.49	0.0232	0.0355	< 0.0001 U	< 0.01 U	< 0.01 U	1.55	1.61	< 0.001 U	< 0.001 U	< 0.003 U
SW-N4	2/9/2015	SN4-150209P												
SW-N4	2/23/2015	SN4-150223M	3.41	3.46	0.0262	0.0536	< 0.0001 U	< 0.01 U	< 0.01 U	1.57	1.48	< 0.001 U	< 0.001 U	< 0.003 U
SW-N4	3/13/2015	SN4-150313C												
SW-N4	3/17/2015	SN4-150317M	2.71	2.56	0.0195 D	0.0265	< 0.0001 U	< 0.01 U	< 0.01 U	10.9	1.22	< 0.001 U	< 0.001 U	0.00306
SW-NSLI	3/13/2015	SNSLI150313C												
SW-NSLO	3/13/2015	SNSLO150313C												
SW-NSPI	3/13/2015	SNSPI150313C												
SW-NSPO	3/13/2015	SNSPO150313C												
SW-S1	1/20/2015	SS1-150120Q	1.26	1.14	< 0.001 U	< 0.001 U	< 0.0001 U	< 0.01 U	< 0.01 U	0.755	0.568	< 0.001 U	< 0.001 U	< 0.003 U
SW-S1	2/23/2015	SS1-150223M	1.09	1.12	0.00107	0.0018	< 0.0001 U	< 0.01 U	< 0.01 U	0.737	0.524	< 0.001 U	< 0.001 U	< 0.003 U
SW-S1	3/16/2015	SS1-150316M	1.09	1.12	0.00126 D	0.00254	< 0.0001 U	< 0.01 U	< 0.01 U	0.777	0.639	< 0.001 U	< 0.001 U	< 0.003 U
SW-S2	1/20/2015	SS2-150120Q	2.6	2.83	0.00304	0.0416	< 0.0001 U	< 0.01 U	< 0.01 U	0.923	1.07	< 0.001 U	< 0.001 U	< 0.003 U
SW-S2	2/23/2015	SS2-150223M	2.92	3.45	0.00851	0.026	< 0.0001 U	< 0.01 U	< 0.01 U	0.993	0.914	< 0.001 U	< 0.001 U	< 0.003 U
SW-S2	3/16/2015	SS2-150316M	2.06	2.32	0.00561 D	0.0412	< 0.0001 U	< 0.01 U	< 0.01 U	1.01	0.97	< 0.001 U	< 0.001 U	< 0.003 U
SW-S3	1/20/2015	SS3-150120Q	2.62	2.57	0.00216	0.00848	< 0.0001 U	< 0.01 U	< 0.01 U	1.36	1.15	< 0.001 U	< 0.001 U	< 0.003 U
SW-SL3	1/13/2015	SSL3150113P												
SW-SL3 Duplicate	1/20/2015	SSL3150120D	3.47	3.24	0.00465	0.0196	< 0.0001 U	< 0.01 U	< 0.01 U	1.96	1.71	< 0.001 U	< 0.001 U	< 0.003 U
SW-SL3	1/20/2015	SSL3150120Q	3.52	3.24	0.00474	0.0203	< 0.0001 U	< 0.01 U	< 0.01 U	1.94	1.73	< 0.001 U	< 0.001 U	< 0.003 U
SW-SL3	2/9/2015	SSL3150209P												
SW-SL3	2/18/2015	SSL3150218P												
SW-SL3	2/23/2015	SSL3150223M	3.91	4.23	0.0165	0.0275	< 0.0001 U	< 0.01 U	< 0.01 U	1.52	1.36	< 0.001 U	< 0.001 U	< 0.003 U
SW-SL3	3/16/2015	SSL3150316M	2.52	2.56	0.00886 D	0.0287	< 0.0001 U	< 0.01 U	< 0.01 U	1.44	1.32	< 0.001 U	< 0.001 U	< 0.003 U
SW-SL3	3/18/2015	SSL3150318P												
SW-SLP1	1/13/2015	SLP1150113P												
SW-SLP1	2/18/2015	SLP1150218P												
SW-SLP1	3/18/2015	SLP1150318P												
SW-SLP2	1/13/2015	SLP2150113P												
SW-SLP2	2/18/2015	SLP2150218P												
SW-SLP2 Duplicate	2/18/2015	SLP2150218D												
SW-SLP2	3/18/2015	SLP2150318P												
SW-TD1	2/4/2015	STD1150204-												

Environmental Monitoring Data

Data Collected from January 1, 2015 to March 31, 2015
 Cedar Hills Landfill --- Surface Water Metal Analytical Data
 Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Magnesium, dissolved	Magnesium, total	Manganese, dissolved	Manganese, total	Mercury, total	Nickel, dissolved	Nickel, total	Potassium, dissolved	Potassium, total	Selenium, dissolved	Selenium, total	Silver, dissolved
			(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
SW-TD2	2/27/2015	STD2150227-												
SW-TD4	2/27/2015	STD4150227-												
SW-TD6	2/9/2015	STD6150209-												
SW-V	1/20/2015	SV--150120Q	1.97	1.99	< 0.001 U	0.00581	< 0.0001 U	< 0.01 U	< 0.01 U	2.29	0.921	< 0.001 U	< 0.001 U	< 0.003 U
SW-V	2/23/2015	SV--150223M	1.83	1.97	< 0.001 U	0.0284	< 0.0001 U	< 0.01 U	< 0.01 U	0.924	0.883	< 0.001 U	< 0.001 U	< 0.003 U
SW-W	1/21/2015	SW--150121Q	2.39 D	2.73	0.015	0.0215	< 0.0001 U	< 0.01 U	< 0.01 U	1.1	1.11	< 0.001 U	< 0.001 U	< 0.003 U
SW-W	2/24/2015	SW--150224M	2.48	2.59	0.0279	0.0288	< 0.0001 U	< 0.01 U	< 0.01 U	6.54	0.936	< 0.001 U	< 0.001 U	< 0.003 U
SW-W	3/18/2015	SW--150318M	2.64	2.24	0.0165	0.0211	< 0.0001 U	< 0.01 U	< 0.01 U	1.09	0.995	< 0.001 U	< 0.001 U	< 0.003 U
SW-W1	1/20/2015	SW1-150120Q	2.62	2.63	0.00371	0.0194	< 0.0001 U	< 0.01 U	< 0.01 U	1.56	1.02	< 0.001 U	< 0.001 U	< 0.003 U
SW-W1	2/23/2015	SW1-150223M	3.23	3.4	0.00382	0.0107	< 0.0001 U	< 0.01 U	< 0.01 U	0.902	0.799	< 0.001 U	< 0.001 U	< 0.003 U
SW-W1	3/17/2015	SW1-150317M	2.62	2.28	0.00609	0.0172	< 0.0001 U	< 0.01 U	< 0.01 U	1.11	0.991	< 0.001 U	< 0.001 U	< 0.003 U
SW-W2	4/20/2015	SW2-150120Q	1.09 D	1.17	< 0.001 U	< 0.001 U	< 0.0001 U	< 0.01 U	< 0.01 U	0.93	0.551	< 0.001 U	< 0.001 U	< 0.003 U
SW-W2	2/23/2015	SW2-150223M	1.13	1.16	< 0.001 U	0.00117	< 0.0001 U	< 0.01 U	< 0.01 U	0.581	0.522	< 0.001 U	< 0.001 U	< 0.003 U
SW-W2	3/16/2015	SW2-150316M	1.13	1.08	0.00104 D	0.00174	< 0.0001 U	< 0.01 U	< 0.01 U	0.739	0.607	< 0.001 U	< 0.001 U	< 0.003 U
EQUIPMENT BLANK	3/13/2015	SU1-150313C												
FIELD BLANK	1/20/2015	SE1-150120F	< 0.015 U	< 0.015 U	< 0.001 U	< 0.001 U		< 0.0001 U	< 0.01 U	< 0.01 U	< 0.3 U	< 0.3 U	< 0.001 U	< 0.001 U
FIELD BLANK	2/23/2015	SGS1150223F	< 0.015 U	< 0.015 U	< 0.001 U	< 0.001 U		< 0.0001 U	< 0.01 U	< 0.01 U	< 0.3 U	< 0.3 U	< 0.001 U	< 0.001 U
FIELD BLANK	2/24/2015	SW--150224F	< 0.015 U	< 0.015 U	< 0.001 U	< 0.001 U		< 0.0001 U	< 0.01 U	< 0.01 U	< 0.3 U	< 0.3 U	< 0.001 U	< 0.001 U

Environmental Monitoring Data

Data Collected from January 1, 2015 to March 31, 2015
 Cedar Hills Landfill --- Surface Water Metal Analytical Data
 Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Silver, total (mg/L)	Sodium, dissolved (mg/L)	Sodium, total (mg/L)	Thallium, dissolved (mg/L)	Thallium, total (mg/L)	Tin, dissolved (mg/L)	Tin, total (mg/L)	Vanadium, dissolved (mg/L)	Vanadium, total (mg/L)	Zinc, dissolved (mg/L)	Zinc, total (mg/L)
SW-E1	1/20/2015	SE1-150120Q	< 0.003 U	2.17	2.32	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
SW-E1	2/23/2015	SE1-150223M	< 0.003 U	2.43	2.63	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
SW-E1	3/17/2015	SE1-150317M	< 0.003 U	2.61	2.25	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
SW-GS1	1/20/2015	SGS1150120Q	< 0.003 U	2.2	2.25	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 DU	< 0.002 U	0.0118	< 0.004 U	0.0148
SW-GS1	2/9/2015	SGS1150209P											0.00814
SW-GS1	2/23/2015	SGS1150223M	< 0.003 U	2.79	2.57	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	0.0021	0.00636	0.00444	0.0107
SW-GS1	3/16/2015	SGS1150316M	< 0.003 U	1.83	1.75	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	0.00537	< 0.004 U	0.00923
SW-MC	1/21/2015	SMC-150121Q	< 0.003 U	3.25	3.87	< 0.001 U	< 0.001 DU	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	0.0085	0.01
SW-MC	2/24/2015	SMC-150224M	< 0.003 U	4.11	4.3	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	0.00477	0.00946
SW-MC	3/18/2015	SMC-150318M	< 0.003 U	3.67	3.17	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	0.00751	0.012
SW-N1	1/20/2015	SN1-150120Q	< 0.003 U	2.88	3.37	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	0.0136	0.0151
SW-N1	2/23/2015	SN1-150223M	< 0.003 U	3.92	4.21	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	0.00659	0.00736
SW-N1	3/17/2015	SN1-150317M	< 0.003 U	2.98	2.61	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	0.0163	0.0179
SW-N4	1/21/2015	SN4-150121Q	< 0.003 U	1.86	2.27	< 0.001 U	< 0.001 DU	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	0.0351	0.0364
SW-N4	2/9/2015	SN4-150209P											0.0511
SW-N4	2/23/2015	SN4-150223M	< 0.003 U	2.44	2.38	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	0.0164	0.0219
SW-N4	3/13/2015	SN4-150313C											0.0147
SW-N4	3/17/2015	SN4-150317M	< 0.003 U	1.82	1.53	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	0.0362	0.0417
SW-NSLI	3/13/2015	SNSLI150313C											0.0174
SW-NSLO	3/13/2015	SNSLO150313C											0.0212
SW-NSPI	3/13/2015	SNSPI150313C											0.00821
SW-NSPO	3/13/2015	SNSPO150313C											0.00862
SW-S1	1/20/2015	SS1-150120Q	< 0.003 U	2.79	2.89	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
SW-S1	2/23/2015	SS1-150223M	< 0.003 U	3.12	3.03	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
SW-S1	3/16/2015	SS1-150316M	< 0.003 U	2.72	2.56	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	< 0.004 U	0.00408
SW-S2	1/20/2015	SS2-150120Q	< 0.003 U	2.14	2.37	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	0.00609	< 0.004 U	0.00972
SW-S2	2/23/2015	SS2-150223M	< 0.003 U	2.86	2.93	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	0.00274	< 0.004 U	0.00578
SW-S2	3/16/2015	SS2-150316M	< 0.003 U	2.02	1.88	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	0.00385	< 0.004 U	0.00669
SW-S3	1/20/2015	SS3-150120Q	< 0.003 U	3.54	3.4	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	0.00479	0.00503
SW-SL3	1/13/2015	SSL3150113P											0.00546
SW-SL3 Duplicate	1/20/2015	SSL3150120D	< 0.003 U	2.72	2.83	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	0.00249	0.00704	0.0112
SW-SL3	1/20/2015	SSL3150120Q	< 0.003 U	2.78	2.83	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	0.00251	0.00722	0.0115
SW-SL3	2/9/2015	SSL3150209P											0.0119
SW-SL3	2/18/2015	SSL3150218P											0.00713
SW-SL3	2/23/2015	SSL3150223M	< 0.003 U	3.5	3.68	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	0.00523	0.00811
SW-SL3	3/16/2015	SSL3150316M	< 0.003 U	1.92	1.75	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	0.00212	0.00472	0.00812
SW-SL3	3/18/2015	SSL3150318P											0.00783
SW-SLP1	1/13/2015	SLP1150113P											0.0322
SW-SLP1	2/18/2015	SLP1150218P											0.00987
SW-SLP1	3/18/2015	SLP1150318P											0.0431
SW-SLP2	1/13/2015	SLP2150113P											0.0183
SW-SLP2	2/18/2015	SLP2150218P											0.0218
SW-SLP2 Duplicate	2/18/2015	SLP2150218D											0.0224
SW-SLP2	3/18/2015	SLP2150318P											0.0223
SW-TD1	2/4/2015	STD1150204-											

Environmental Monitoring Data

Data Collected from January 1, 2015 to March 31, 2015

Cedar Hills Landfill --- Surface Water Metal Analytical Data

Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Silver, total (mg/L)	Sodium, dissolved (mg/L)	Sodium, total (mg/L)	Thallium, dissolved (mg/L)	Thallium, total (mg/L)	Tin, dissolved (mg/L)	Tin, total (mg/L)	Vanadium, dissolved (mg/L)	Vanadium, total (mg/L)	Zinc, dissolved (mg/L)	Zinc, total (mg/L)
SW-TD2	2/27/2015	STD2150227-											
SW-TD4	2/27/2015	STD4150227-											
SW-TD6	2/9/2015	STD6150209-											
SW-V	1/20/2015	SV--150120Q	< 0.003 U	3.99	4.43	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
SW-V	2/23/2015	SV--150223M	< 0.003 U	4.49	4.77	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
SW-W	1/21/2015	SW--150121Q	< 0.003 U	4.51	5.51	< 0.001 U	< 0.001 DU	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
SW-W	2/24/2015	SW--150224M	< 0.003 U	5.16	5.35	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
SW-W	3/18/2015	SW--150318M	< 0.003 U	5.25	4.38	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
SW-W1	1/20/2015	SW1-150120Q	< 0.003 U	4.83	5.37	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
SW-W1	2/23/2015	SW1-150223M	< 0.003 U	5.41	5.74	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
SW-W1	3/17/2015	SW1-150317M	< 0.003 U	5.39	4.64	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
SW-W2	4/20/2015	SW2-150120Q	< 0.003 U	2.89	3.02	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
SW-W2	2/23/2015	SW2-150223M	< 0.003 U	3.21	3.31	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
SW-W2	3/16/2015	SW2-150316M	< 0.003 U	2.79	2.54	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
EQUIPMENT BLANK	3/13/2015	SU1-150313C											
FIELD BLANK	1/20/2015	SE1-150120F	< 0.003 U	< 0.003 U	0.356	0.369	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	< 0.004 U
FIELD BLANK	2/23/2015	SGS1150223F	< 0.003 U	< 0.003 U	< 0.05 U	< 0.05 U	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	< 0.004 U
FIELD BLANK	2/24/2015	SW--150224F	< 0.003 U	< 0.003 U	0.424	0.465	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	< 0.004 U

Environmental Monitoring Data

Data Collected from January 1, 2015 to March 31, 2015

Cedar Hills Landfill --- Surface Water Pesticide/Herbicide Analytical Data

Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	2,4,5-T 93-76-5 (ug/L)	2,4,5-TP 93-72-1 (ug/L)	2,4-D 94-75-7 (ug/L)	Dinoseb 88-85-7 (ug/L)	Endrin 72-20-8 (ug/L)	Lindane 58-89-9 (ug/L)	Methoxy- chlor 72-43-5 (ug/L)	Toxaphene 8001-35-2 (ug/L)	4-Methyl- phenol 106-44-5 (ug/L)	alpha Terpineol 98-55-5 (ug/L)	Benzoic Acid 65-85-0 (ug/L)	Phenol 108-95-2 (ug/L)
SW-E1	1/20/2015	SE1-150120Q	< 2 U	< 1 U	< 5 U	< 1 GU	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-E1	2/23/2015	SE1-150223M	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-E1	3/17/2015	SE1-150317M	< 2 U	< 1 U	< 5 GU	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-GS1	1/20/2015	SGS1150120Q	< 2 U	< 1 U	< 5 U	< 1 GU	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-GS1	2/9/2015	SGS1150209P									< 10 U	< 5 U	< 50 GU	< 4 U
SW-GS1	2/23/2015	SGS1150223M	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-GS1	3/16/2015	SGS1150316M	< 2 U	< 1 U	< 5 GU	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-SLP1	1/13/2015	SLP1150113P									< 10 U	< 5 U	< 50 U	< 4 U
SW-SLP1	2/18/2015	SLP1150218P									< 10 U	< 5 U	< 50 U	< 4 U
SW-SLP1	3/18/2015	SLP1150318P									< 10 U	< 5 U	< 50 U	< 4 U
SW-SLP2	1/13/2015	SLP2150113P									< 10 U	< 5 U	< 50 U	< 4 U
SW-SLP2 Duplicate	2/18/2015	SLP2150218D									< 10 U	< 5 U	< 50 U	< 4 U
SW-SLP2	2/18/2015	SLP2150218P									< 10 U	< 5 U	< 50 U	< 4 U
SW-SLP2	3/18/2015	SLP2150318P									< 10 U	< 5 U	< 50 U	< 4 U
SW-MC	1/21/2015	SMC-150121Q	< 2 GU	< 1 U	< 5 GU	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-MC	2/24/2015	SMC-150224M	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-MC	3/18/2015	SMC-150318M	< 2 U	< 1 U	< 5 GU	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-N1	1/20/2015	SN1-150120Q	< 2 U	< 1 U	< 5 U	< 1 GU	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-N1	2/23/2015	SN1-150223M	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-N1	3/17/2015	SN1-150317M	< 2 U	< 1 U	< 5 GU	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-N4	1/21/2015	SN4-150121Q	< 2 GU	< 1 U	< 5 GU	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-N4	2/9/2015	SN4-150209P									< 10 U	< 5 U	< 50 GU	< 4 U
SW-N4	2/23/2015	SN4-150223M	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-N4	3/17/2015	SN4-150317M	< 2 U	< 1 U	< 5 GU	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-S1	1/20/2015	SS1-150120Q	< 2 U	< 1 U	< 5 U	< 1 GU	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-S1	2/23/2015	SS1-150223M	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-S1	3/16/2015	SS1-150316M	< 2 U	< 1 U	< 5 GU	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-S2	1/20/2015	SS2-150120Q	< 2 U	< 1 U	< 5 U	< 1 GU	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-S2	2/23/2015	SS2-150223M	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-S2	3/16/2015	SS2-150316M	< 2 U	< 1 U	< 5 GU	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-S3	1/20/2015	SS3-150120Q	< 2 U	< 1 U	< 5 U	< 1 GU	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-SL3	1/13/2015	SSL3150113P									< 10 U	< 5 U	< 50 U	< 4 U
SW-SL3 Duplicate	1/20/2015	SSL3150120D	< 2 U	< 1 U	< 5 U	< 1 GU	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-SL3	1/20/2015	SSL3150120Q	< 2 U	< 1 U	< 5 U	< 1 GU	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-SL3	2/9/2015	SSL3150209P									< 10 U	< 5 U	< 50 GU	< 4 U
SW-SL3	2/18/2015	SSL3150218P									< 10 U	< 5 U	< 50 U	< 4 U
SW-SL3	2/23/2015	SSL3150223M	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-SL3	3/16/2015	SSL3150316M	< 2 U	< 1 U	< 5 GU	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-SL3	3/18/2015	SSL3150318P									< 10 U	< 5 U	< 50 U	< 4 U
SW-V	1/20/2015	SV--150120Q	< 2 U	< 1 U	< 5 U	< 1 GU	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-V	2/23/2015	SV--150223M	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-W1	1/20/2015	SW1-150120Q	< 2 U	< 1 U	< 5 U	< 1 GU	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-W1	2/23/2015	SW1-150223M	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-W1	3/17/2015	SW1-150317M	< 2 U	< 1 U	< 5 GU	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-W	1/21/2015	SW--150121Q	< 2 GU	< 1 U	< 5 GU	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				

Environmental Monitoring Data

Data Collected from January 1, 2015 to March 31, 2015

Cedar Hills Landfill --- Surface Water Pesticide/Herbicide Analytical Data

Contact Person: Sandy Jimenez (206) 477-5224

Site	Date	Sample ID	2,4,5-T 93-76-5 (ug/L)	2,4,5-TP 93-72-1 (ug/L)	2,4-D 94-75-7 (ug/L)	Dinoseb 88-85-7 (ug/L)	Endrin 72-20-8 (ug/L)	Lindane 58-89-9 (ug/L)	Methoxy- chlor 72-43-5 (ug/L)	Toxaphene 8001-35-2 (ug/L)	4-Methyl- phenol 106-44-5 (ug/L)	alpha Terpineol 98-55-5 (ug/L)	Benzoic Acid 65-85-0 (ug/L)	Phenol 108-95-2 (ug/L)
SW-W	2/24/2015	SW--150224M	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-W	3/18/2015	SW--150318M	< 2 U	< 1 U	< 5 GU	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-W2	1/20/2015	SW2-150120Q	< 2 U	< 1 U	< 5 U	< 1 GU	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-W2	2/23/2015	SW2-150223M	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-W2	3/16/2015	SW2-150316M	< 2 U	< 1 U	< 5 GU	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
FIELD BLANK	1/20/2015	SE1-150120F	< 2 U	< 1 U	< 5 U	< 1 GU								
FIELD BLANK	2/23/2015	SGS1150223F	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
FIELD BLANK	2/24/2015	SW--150224F	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				

Leachate Analytical Data

Leachate Monitoring Activities 1st Quarter 2015

Station ID	Date	Activity	Sample ID	Comment
API	1/21/15	Monthly Characterization Sample	LAPI150121M	
API	2/11/15	Monthly Characterization Sample	LAPI150211M	
API	3/11/15	Monthly Characterization Sample	LAPI150311M	
LEPS	1/21/15	Permit Sample	LEPS150120M	
LEPS	1/21/15	Monthly Characterization Sample	LEPS150120P	
LEPS	2/10/15	Monthly Characterization Sample	LEPS150210M	
LEPS	2/11/15	Permit Sample	LEPS150210P	
LEPS	3/11/15	Monthly Characterization Sample	LEPS150310M	
LEPS	3/10/15	Permit Sample	LEPS150310P	
MH46N	1/14/15	Monthly Characterization Sample	L46N150114M	
MH46N	2/11/15	Monthly Characterization Sample	L46N150211M	
MH46N	3/11/15	Monthly Characterization Sample	L46N150311M	
MH46N	3/11/15	QA/QC Sample	L46N150311D	
PS2A	1/14/15	Monthly Characterization Sample	LP2A150114M	
PS2A	2/11/15	Monthly Characterization Sample	LP2A150211M	
PS2A	3/11/15	Monthly Characterization Sample	LP2A150311M	

Environmental Monitoring Data

Data Collected from January 1, 2015 to March 31, 2015

Cedar Hills Landfill --- Leachate Field Parameters

Contact Person --- Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	pH (Field)	Conductance (Field)	Temperature
			(std. Units)	(umho/cm)	(o C)
LS-API	1/21/2015	LAPI150121M	7.84	880	5.2
LS-API	2/11/2015	LAPI150211M	8.11	3700	10.7
LS-API	3/11/2015	LAPI150311M	8.12	14000	18.1
LS-LEPS	1/20/2015	LEPS150120P	8.32	2550	9.6
LS-LEPS	1/21/2015	LEPS150120M	8.32	2550	9.6
LS-LEPS	2/11/2015	LEPS150210M	8.23	2250	12.2
LS-LEPS	2/11/2015	LEPS150210P	8.23	2250	12.2
LS-LEPS	3/10/2015	LEPS150310M	8.5	4700	
LS-LEPS	3/11/2015	LEPS150310P	8.5	4700	11.7
LS-MH46N	1/14/2015	L46N150114M	7.18	6000	24.5
LS-MH46N	2/11/2015	L46N150211M	7.25	5800	25.2
LS-MH46N	3/11/2015	L46N150311M	7.15	675	23.3
LS-PS2A	1/14/2015	LP2A150114M	7.3	150	9.9
LS-PS2A	2/11/2015	LP2A150211M	6.99	225	9.5
LS-PS2A	3/11/2015	LP2A150311M	7	510	10.1

Environmental Monitoring Data

Data Collected from January 1, 2015 to March 31, 2015
 Cedar Hills Landfill --- Leachate Conventional Analytical Data
 Contact Person --- Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Alkalinity, Total (CaCO3)	Ammonia, (NH3 as N)	Biological Oxygen Demand	Chemical Oxygen Demand	Chloride	Coliforms, Fecal	Coliforms, Total	Cyanide	Fluoride	Nitrate+Nitrite (NO3+NO2 as N)	Phosphorus, Total (as P)
			(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(CFU/100mL)	(CFU/100mL)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
LS-API	1/21/2015	LAPI150121M	758	109	294	741	167	18000	59000	< 0.02 U	< 0.1 U	< 0.01 U	0.29
LS-API	2/11/2015	LAPI150211M	1210	230 T	491	1080	264	8200	280000	< 0.02 U	< 0.1 U	0.235	0.701
LS-API	3/11/2015	LAPI150311M	5320	1240	1260	3570 S	1280	38000	460000	< 0.02 SU	< 0.1 U	0.246	5.34
LS-LEPS	1/20/2015	LEPS150120M	1240	179	95.4	594	298	23000	77000	< 0.02 SU	0.229	0.012 T	0.0418
LS-LEPS	2/10/2015	LEPS150210M	930	167	165	612	202	8300	150000	< 0.02 U	< 0.1 U	0.016 T	0.016
LS-LEPS	3/10/2015	LEPS150310M	2240	380	100	917	552	4700 H	44000 H	< 0.02 SU	< 0.1 U	0.039 T	0.0796
LS-MH46N	1/14/2015	L46N150114M	2380	397	115	1170	1160	< 1 U	< 1 CU	< 0.02 SU	< 0.1 U	0.688	2.37
LS-MH46N	2/11/2015	L46N150211M	2440	466	93.2	1240	1210	< 1 U	< 1 U	< 0.02 SU	< 0.1 U	0.481	2.22
LS-MH46N Duplicate	3/11/2015	L46N150311D	2660	542	78.2	1300	1290	< 1 U	8	< 0.02 SU	< 0.1 U	0.412	2.62
LS-MH46N	3/11/2015	L46N150311M	2540	493	64.6	1320	1320	< 1 U	3	< 0.02 SU	< 0.1 U	0.406	2.5
LS-PS2A	1/14/2015	LP2A150114M	76.6	9.41	24.3	54.5	14.6	< 1 U	560	< 0.02 U	< 0.1 U	2.04	< 0.01 U
LS-PS2A	2/11/2015	LP2A150211M	55.4	6.05	4.09	31.2	5.34	< 1 U	3400	< 0.02 U	< 0.1 U	2.17	< 0.01 U
LS-PS2A	3/11/2015	LP2A150311M	128	20.4	3.4 L	44.2	33	< 1 U	41	< 0.02 U	< 0.1 U	2.01	0.0181

Environmental Monitoring Data

Data Collected from January 1, 2015 to March 31, 2015
 Cedar Hills Landfill --- Leachate Conventional Analytical Data
 Contact Person --- Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Specific Conductance (umho/cm)	Sulfate (SO4) (mg/L)	Sulfide Total (mg/L)	Total Fats, Oils and Grease (mg/L)	Total Kjeldahl Nitrogen (TKN as N) (mg/L)	Total Organic Carbon (mg/L)	Total Suspended Solids (mg/L)	Total Volatile Solids (mg/L)	Volatile Suspended Solids (mg/L)
LS-API	1/21/2015	LAPI150121M	2040	27.9	0.072 T	< 2 U	124	150 T	59.3	433	19.8
LS-API	2/11/2015	LAPI150211M	3250	31.6	0.23 T	2.3 T	247	315	51	799	19
LS-API	3/11/2015	LAPI150311M	12700	23.2	1 T	6.9	1130 S	1050 S	22	2310	16.8
LS-LEPS	1/20/2015	LEPS150120M	3150	25.1	0.15 T	4 BT	241	124	199	611	128
LS-LEPS	2/10/2015	LEPS150210M	2470	29.8	0.14 T	2.5 T	183	105	209	706	152
LS-LEPS	3/10/2015	LEPS150310M	5550	29	0.22 T	4.4 T	369	178	258	834	193
LS-MH46N	1/14/2015	L46N150114M	7540	3.54	0.477	5.6	473	381	5.02	1400	4.2
LS-MH46N	2/11/2015	L46N150211M	8030	11.6	0.457	3.5 T	558	303	46.5	1120	36.6
LS-MH46N Duplicate	3/11/2015	L46N150311D	8500	4.76	0.59 T	5.3	532	333	10.5	932	7.83
LS-MH46N	3/11/2015	L46N150311M	8490	3.6 T	0.57 T	5.6	431	364	9.79	996	7.61
LS-PS2A	1/14/2015	LP2A150114M	255	10.3	0.029 T	2.8 T	11.6	18.5	4.08	95.4	3.28
LS-PS2A	2/11/2015	LP2A150211M	179	9.29	0.01 T	< 2 U	5.68	9.4 T	1.79	65	1.47
LS-PS2A	3/11/2015	LP2A150311M	460	20.5	0.01 T	2.1 T	16.6	15.3	< 1 U	128	< 1 U

Environmental Monitoring Data

Data Collected from January 1, 2015 to March 31, 2015
 Cedar Hills Landfill --- Leachate Metal Analytical Data
 Contact Person --- Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Aluminum, total (mg/L)	Antimony, total (mg/L)	Arsenic, total (mg/L)	Barium, total (mg/L)	Beryllium, total (mg/L)	Cadmium, total (mg/L)	Calcium, total (mg/L)	Chromium, total (mg/L)	Cobalt, total (mg/L)	Copper, total (mg/L)	Iron, total (mg/L)	Lead, total (mg/L)
LS-API	1/21/2015	LAPI150121M	3.54	< 0.001 U	< 0.001 U	0.0696	< 0.001 U	< 0.002 U	59.2	0.0223	0.0078 T	0.013 T	5.22	< 0.001 U
LS-API	2/11/2015	LAPI150211M	2.27	< 0.001 U	0.034 T	0.0806	< 0.001 U	< 0.002 U	71	0.0349	0.011 T	0.012 T	4.99	< 0.001 U
LS-API	3/11/2015	LAPI150311M	0.671	0.019 T	0.17	0.196	< 0.001 U	< 0.002 U	86	0.154	0.0341	0.007 T	7.22	< 0.001 U
LS-LEPS	1/20/2015	LEPS150120M	3	< 0.001 U	0.037 T	0.0804	< 0.001 U	< 0.002 U	50.9	0.0337	0.0098 T	0.012 T	5.35	< 0.001 U
LS-LEPS	1/20/2015	LEPS150120P						< 0.002 U		0.0405		0.019 T		< 0.001 U
LS-LEPS	2/10/2015	LEPS150210M	2.82	< 0.001 U	0.03 T	0.0734	< 0.001 U	< 0.002 U	61.7	0.0275	0.0085 T	0.018 T	5.36	< 0.001 U
LS-LEPS	2/10/2015	LEPS150210P						< 0.002 U		0.0266		0.017 T		< 0.001 U
LS-LEPS	3/10/2015	LEPS150310M	2.07	< 0.001 U	0.082 T	0.114	< 0.001 U	< 0.002 U	62.9	0.0625	0.0166	0.013 T	6.19	< 0.001 U
LS-LEPS	3/10/2015	LEPS150310P						< 0.002 U		0.0632		0.013 T		< 0.001 U
LS-MH46N	1/14/2015	L46N150114M	< 0.02 U	< 0.001 U	0.065 T	0.251	< 0.001 U	< 0.002 U	64.7	0.0656	0.0248	< 0.002 U	1.92	< 0.001 U
LS-MH46N	2/11/2015	L46N150211M	0.19 T	< 0.001 U	0.068 T	0.267	< 0.001 U	< 0.002 U	71.7	0.0696	0.0236	0.0058 T	2.38	< 0.001 U
LS-MH46N	3/11/2015	L46N150311M	0.2 T	< 0.001 U	0.072 T	0.303	< 0.001 U	< 0.002 U	79.2	0.0757	0.0266	< 0.002 U	2.52	< 0.001 U
LS-MH46N Duplicate	3/11/2015	L46N150311D	0.13 T	< 0.001 U	0.078 T	0.295	< 0.001 U	< 0.002 U	78.3	0.0746	0.0263	< 0.002 U	2.39	< 0.001 U
LS-PS2A	1/14/2015	LP2A150114M	< 0.02 U	< 0.001 U	< 0.001 U	0.0127	< 0.001 U	< 0.002 U	14.5	< 0.005 U	< 0.003 U	0.014 T	1.38	< 0.001 U
LS-PS2A	2/11/2015	LP2A150211M	0.11 T	< 0.001 U	< 0.001 U	0.00966	< 0.001 U	< 0.002 U	14.4	< 0.005 U	< 0.003 U	0.0242	0.741	< 0.001 U
LS-PS2A	3/11/2015	LP2A150311M	< 0.02 U	< 0.001 U	< 0.001 U	0.0204	< 0.001 U	< 0.002 U	19	< 0.005 U	< 0.003 U	0.013 T	1.14	< 0.001 U

Environmental Monitoring Data

Data Collected from January 1, 2015 to March 31, 2015
 Cedar Hills Landfill --- Leachate Metal Analytical Data
 Contact Person --- Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Magnesium, total (mg/L)	Manganese, total (mg/L)	Mercury, total (mg/L)	Nickel, total (mg/L)	Potassium, total (mg/L)	Selenium, total (mg/L)	Silver, total (mg/L)	Sodium, total (mg/L)	Thallium, total (mg/L)	Tin, total (mg/L)	Vanadium, total (mg/L)	Zinc, total (mg/L)
LS-API	1/21/2015	LAPI150121M	20	0.698	< 0.0001 U	0.0332	64.2	< 0.001 U	< 0.003 U	165	< 0.001 U	< 0.01 U	0.018 T	0.0895
LS-API	2/11/2015	LAPI150211M	26	1	< 0.0001 U	0.0487	99	< 0.001 U	< 0.003 U	260	< 0.001 U	< 0.01 U	0.013 T	0.126
LS-API	3/11/2015	LAPI150311M	81.3	0.968	< 0.0001 U	0.192	442 D	< 0.001 U	< 0.003 U	1260	< 0.001 U	< 0.01 U	0.05 T	0.276
LS-LEPS	1/20/2015	LEPS150120M	24.9	0.626	< 0.0001 U	0.0479	103	< 0.001 U	< 0.003 U	276	< 0.001 U	< 0.01 U	0.022 T	0.0986
LS-LEPS	1/20/2015	LEPS150120P				0.0549								0.113
LS-LEPS	2/10/2015	LEPS150210M	21.7	0.855	< 0.0001 U	0.039	76.7	< 0.001 U	< 0.003 U	199	< 0.001 U	< 0.01 U	0.014 T	0.118
LS-LEPS	2/10/2015	LEPS150210P				0.0385								0.111
LS-LEPS	3/10/2015	LEPS150310M	37.5	0.768	< 0.0001 U	0.0832	183	< 0.001 U	< 0.003 U	517	< 0.001 U	< 0.01 U	0.026 T	0.142
LS-LEPS	3/10/2015	LEPS150310P				0.081								0.137
LS-MH46N	1/14/2015	L46N150114M	38	0.421	< 0.0001 U	0.0964	258	< 0.001 U	< 0.003 U	832	< 0.001 U	< 0.01 U	0.0814	0.0095 T
LS-MH46N	2/11/2015	L46N150211M	40.1	0.5	< 0.0001 U	0.103	254	< 0.001 U	< 0.003 U	827	< 0.001 U	< 0.01 U	0.0839	0.0268
LS-MH46N	3/11/2015	L46N150311M	44.3	0.54	< 0.0001 U	0.117	273	< 0.001 U	< 0.003 U	912	< 0.001 U	< 0.01 U	0.0911	0.024 T
LS-MH46N Duplicate	3/11/2015	L46N150311D	43.6	0.531	< 0.0001 U	0.115	269	< 0.001 U	< 0.003 U	892	< 0.001 U	< 0.01 U	0.0904	0.021 T
LS-PS2A	1/14/2015	LP2A150114M	5.23	0.13	< 0.0001 U	< 0.01 U	4.59	< 0.001 U	< 0.003 U	13.1	< 0.001 U	< 0.01 U	< 0.002 U	0.0063 T
LS-PS2A	2/11/2015	LP2A150211M	4.72	0.105	< 0.0001 U	< 0.01 U	3.23	< 0.001 U	< 0.003 U	5.83	< 0.001 U	< 0.01 U	< 0.002 U	0.0068 T
LS-PS2A	3/11/2015	LP2A150311M	6.46	0.124	< 0.0001 U	< 0.01 U	9.03	< 0.001 U	< 0.003 U	26.7	< 0.001 U	< 0.01 U	< 0.002 U	0.0087 T

Environmental Monitoring Data

Data Collected from January 1, 2015 to March 31, 2015

Cedar Hills Landfill --- Leachate VOA Analytical Data

Contact Person --- Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	1,1,1,2-Tetrachloro-ethane 630-20-6 (ug/L)	1,1,1-Trichloro-ethane 71-55-6 (ug/L)	1,1,2,2-Tetrachloro-ethane 79-34-5 (ug/L)	1,1,2-Trichloro-ethane 79-00-5 (ug/L)	1,1-Dichloro-ethane 75-34-3 (ug/L)	1,1-Dichloro-ethene 75-35-4 (ug/L)	1,1-Dichloro-propene 563-58-6 (ug/L)	1,2,3-Trichloro-propane 96-18-4 (ug/L)	1,2-Dibromo-3-Chloropropan 96-12-8 (ug/L)	1,2-Dibromo-ethane 106-93-4 (ug/L)	1,2-Dichloro-benzene 95-50-1 (ug/L)	1,2-Dichloro-ethane 107-06-2 (ug/L)
LS-API	1/21/2015	LAPI150121M	< 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 U	< 0.2 U	< 0.2 U	< 0.2 U
LS-API	2/11/2015	LAPI150211M	< 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 U	< 0.2 U	< 0.2 U	< 0.2 U
LS-API	3/11/2015	LAPI150311M	< 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 U	< 0.2 U	< 0.2 U	< 0.2 U
LS-LEPS	1/20/2015	LEPS150120M	< 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 U	< 0.2 U	< 0.2 U	< 0.2 U
LS-LEPS	2/10/2015	LEPS150210M	< 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 U	< 0.2 U	< 0.2 U	< 0.2 U
LS-LEPS	3/10/2015	LEPS150310M	< 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 U	< 0.2 U	< 0.2 U	< 0.2 U
LS-MH46N	1/14/2015	L46N150114M	< 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 U	< 0.2 U	3.2 T	< 0.2 U
LS-MH46N	2/11/2015	L46N150211M	< 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 U	< 0.2 U	3.1 T	< 0.2 U
LS-MH46N	3/11/2015	L46N150311M	< 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 U	< 0.2 U	3.1 T	< 0.2 U
LS-MH46N Duplicate	3/11/2015	L46N150311D	< 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 U	< 0.2 U	3.2 T	< 0.2 U
LS-PS2A	1/14/2015	LP2A150114M	< 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 U	< 0.2 U	< 0.2 U	< 0.2 U
LS-PS2A	2/11/2015	LP2A150211M	< 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 U	< 0.2 U	< 0.2 U	< 0.2 U
LS-PS2A	3/11/2015	LP2A150311M	< 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 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	1/13/2015	VTRP150114B	< 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 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	1/20/2015	VTRP150121B	< 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 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	2/10/2015	VTRP150211B	< 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 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	1/20/2015	VTRP150120C	< 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 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	2/10/2015	VTRP150210C	< 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 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	3/10/2015	VTRP150310C	< 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 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	3/10/2015	VTRP150311B	< 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 U	< 0.2 U	< 0.2 U	< 0.2 U

Environmental Monitoring Data

Data Collected from January 1, 2015 to March 31, 2015

Cedar Hills Landfill --- Leachate VOA Analytical Data

Contact Person --- Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	1,2-Dichloro- propane	1,3 Dichloro- benzene	1,3-Dichloro- propane	1,4-Dichloro- benzene	2,2-Dichloro- propane	2-Butanone	2-Hexanone	2-Methyl-1- propanol	3-Chloro- propene	4-Methyl-2- Pentanone	Acetone	Acetonitrile
			78-87-5 (ug/L)	541-73-1 (ug/L)	142-28-9 (ug/L)	106-46-7 (ug/L)	594-20-7 (ug/L)	78-93-3 (ug/L)	591-78-6 (ug/L)	78-83-1 (ug/L)	107-05-1 (ug/L)	108-10-1 (ug/L)	67-64-1 (ug/L)	75-05-8 (ug/L)
LS-API	1/21/2015	LAPI150121M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	693	< 4 U	< 100 U	< 10 U	< 4 U	517	< 100 U
LS-API	2/11/2015	LAPI150211M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	922	< 4 U	< 100 U	< 10 U	< 4 U	625	< 100 U
LS-API	3/11/2015	LAPI150311M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	414	< 4 U	< 100 U	< 10 U	< 4 U	403	< 100 U
LS-LEPS	1/20/2015	LEPS150120M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	108	< 4 U	< 100 U	< 10 U	< 4 U	202	< 100 U
LS-LEPS	2/10/2015	LEPS150210M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	252	< 4 U	< 100 U	< 10 U	< 4 U	326	< 100 U
LS-LEPS	3/10/2015	LEPS150310M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 4 U	< 4 U	< 100 U	< 10 U	< 4 U	< 4 U	< 100 U
LS-MH46N	1/14/2015	L46N150114M	< 0.2 U	< 0.2 U	< 0.2 U	11.9	< 0.2 U	< 4 U	< 4 U	< 100 U	< 10 U	< 4 U	< 4 U	< 100 U
LS-MH46N	2/11/2015	L46N150211M	< 0.2 U	< 0.2 U	< 0.2 U	12.1	< 0.2 U	< 4 U	< 4 U	< 100 U	< 10 U	< 4 U	< 4 U	< 100 U
LS-MH46N	3/11/2015	L46N150311M	< 0.2 U	< 0.2 U	< 0.2 U	12.3	< 0.2 U	< 4 U	< 4 U	< 100 U	< 10 U	< 4 U	< 4 U	< 100 U
LS-MH46N Duplicate	3/11/2015	L46N150311D	< 0.2 U	< 0.2 U	< 0.2 U	13.4	< 0.2 U	< 4 U	< 4 U	< 100 U	< 10 U	< 4 U	< 4 U	< 100 U
LS-PS2A	1/14/2015	LP2A150114M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	333	< 4 U	< 100 U	< 10 U	< 4 U	299	< 100 U
LS-PS2A	2/11/2015	LP2A150211M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	157	< 4 U	< 100 U	< 10 U	< 4 U	160	< 100 U
LS-PS2A	3/11/2015	LP2A150311M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 4 U	< 4 U	< 100 U	< 10 U	< 4 U	45 T	< 100 U
VOA TRIP BLANK	1/13/2015	VTRP150114B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 4 U	< 4 U	< 100 U	< 10 U	< 4 U	< 4 U	< 100 U
VOA TRIP BLANK	1/20/2015	VTRP150121B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 4 U	< 4 U	< 100 U	< 10 U	< 4 U	< 4 U	< 100 U
VOA TRIP BLANK	2/10/2015	VTRP150211B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 4 U	< 4 U	< 100 U	< 10 U	< 4 U	< 4 U	< 100 U
VOA TRIP BLANK	1/20/2015	VTRP150120C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 4 U	< 4 U	< 100 U	< 10 U	< 4 U	< 4 U	< 100 U
VOA TRIP BLANK	2/10/2015	VTRP150210C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 4 U	< 4 U	< 100 U	< 10 U	< 4 U	< 4 U	< 100 U
VOA TRIP BLANK	3/10/2015	VTRP150310C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 4 U	< 4 U	< 100 U	< 10 U	< 4 U	< 4 U	< 100 U
VOA TRIP BLANK	3/10/2015	VTRP150311B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 4 U	< 4 U	< 100 U	< 10 U	< 4 U	< 4 U	< 100 U

Environmental Monitoring Data

Data Collected from January 1, 2015 to March 31, 2015

Cedar Hills Landfill --- Leachate VOA Analytical Data

Contact Person --- Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Acrolein	Acrylonitrile	Benzene	Bromochloro- methane	Bromodichlor o-methane	Bromoform	Bromo- methane	Carbon Disulfide	Carbon Tetrachloride	Chloro- benzene	Chloro- dibromo- methane
			107-02-8 (ug/L)	107-13-1 (ug/L)	71-43-2 (ug/L)	74-97-5 (ug/L)	75-27-4 (ug/L)	75-25-2 (ug/L)	74-83-9 (ug/L)	75-15-0 (ug/L)	56-23-5 (ug/L)	108-90-7 (ug/L)	124-48-1 (ug/L)
LS-API	1/21/2015	LAPI150121M	< 10 U	< 0.07 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
LS-API	2/11/2015	LAPI150211M	< 10 U	< 0.07 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
LS-API	3/11/2015	LAPI150311M	< 10 U	< 0.07 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
LS-LEPS	1/20/2015	LEPS150120M	< 10 U	< 0.07 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
LS-LEPS	2/10/2015	LEPS150210M	< 10 U	< 0.07 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
LS-LEPS	3/10/2015	LEPS150310M	< 10 U	< 0.07 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
LS-MH46N	1/14/2015	L46N150114M	< 10 U	< 0.07 U	3.7 T	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	2.6 T	< 0.2 U
LS-MH46N	2/11/2015	L46N150211M	< 10 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	2.6 T	< 0.2 U
LS-MH46N	3/11/2015	L46N150311M	< 10 U	< 0.07 U	3.6 T	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	2.6 T	< 0.2 U
LS-MH46N Duplicate	3/11/2015	L46N150311D	< 10 U	< 0.07 U	3.9 T	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	2.8 T	< 0.2 U
LS-PS2A	1/14/2015	LP2A150114M	< 10 U	< 0.07 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
LS-PS2A	2/11/2015	LP2A150211M	< 10 U	< 0.07 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
LS-PS2A	3/11/2015	LP2A150311M	< 10 U	< 0.07 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
VOA TRIP BLANK	1/13/2015	VTRP150114B	< 10 U	< 0.07 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
VOA TRIP BLANK	1/20/2015	VTRP150121B	< 10 U	< 0.07 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
VOA TRIP BLANK	2/10/2015	VTRP150211B	< 10 U	< 0.07 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
VOA TRIP BLANK	1/20/2015	VTRP150120C	< 10 U	< 0.07 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
VOA TRIP BLANK	2/10/2015	VTRP150210C	< 10 U	< 0.07 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
VOA TRIP BLANK	3/10/2015	VTRP150310C	< 10 U	< 0.07 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
VOA TRIP BLANK	3/10/2015	VTRP150311B	< 10 U	< 0.07 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

Environmental Monitoring Data

Data Collected from January 1, 2015 to March 31, 2015

Cedar Hills Landfill --- Leachate VOA Analytical Data

Contact Person --- Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Chloroethane 75-00-3 (ug/L)	Chloroform 67-66-3 (ug/L)	Chloro- methane 74-87-3 (ug/L)	Chloroprene 126-99-8 (ug/L)	cis-1,2- Dichloro- ethene 156-59-2 (ug/L)	cis-1,3- Dichloro- propene 10061-01-5 (ug/L)	Dibromo- methane 74-95-3 (ug/L)	Dichloro- difluoro- methane 75-71-8 (ug/L)	Ethylbenzene 100-41-4 (ug/L)	m & p Xylenes mpx (ug/L)	Methyl Iodide 74-88-4 (ug/L)
LS-API	1/21/2015	LAPI150121M	< 0.2 U	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
LS-API	2/11/2015	LAPI150211M	< 0.2 U	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	3.1 T	< 0.2 U
LS-API	3/11/2015	LAPI150311M	< 0.2 U	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
LS-LEPS	1/20/2015	LEPS150120M	< 0.2 U	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
LS-LEPS	2/10/2015	LEPS150210M	< 0.2 U	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
LS-LEPS	3/10/2015	LEPS150310M	< 0.2 U	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
LS-MH46N	1/14/2015	L46N150114M	< 0.2 U	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	54.5	71.4	< 0.2 U
LS-MH46N	2/11/2015	L46N150211M	< 0.2 U	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	56.9	70	< 0.2 U
LS-MH46N	3/11/2015	L46N150311M	< 0.2 U	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	54.4	64.4	< 0.2 U
LS-MH46N Duplicate	3/11/2015	L46N150311D	< 0.2 U	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	59.3	69.8	< 0.2 U
LS-PS2A	1/14/2015	LP2A150114M	< 0.2 U	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	2.2 T	< 0.2 U
LS-PS2A	2/11/2015	LP2A150211M	< 0.2 U	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	2.2 T	< 0.2 U
LS-PS2A	3/11/2015	LP2A150311M	< 0.2 U	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	1/13/2015	VTRP150114B	< 0.2 U	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	1/20/2015	VTRP150121B	< 0.2 U	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	2/10/2015	VTRP150211B	< 0.2 U	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	1/20/2015	VTRP150120C	< 0.2 U	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	2/10/2015	VTRP150210C	< 0.2 U	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	3/10/2015	VTRP150310C	< 0.2 U	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	3/10/2015	VTRP150311B	< 0.2 U	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U

Environmental Monitoring Data

Data Collected from January 1, 2015 to March 31, 2015

Cedar Hills Landfill --- Leachate VOA Analytical Data

Contact Person --- Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Methyl Methacrylate	Methylacrylo- nitrile	Methylene Chloride	o-Xylene	Propionitrile	Styrene	Tetrachloro- ethene	Toluene	trans-1,2- Dichloro- ethene	trans-1,3- Dichloro- propene	trans-1,4- Dichloro-2- butene	Trichloro- ethene
			80-62-6 (ug/L)	126-98-7 (ug/L)	75-09-2 (ug/L)	95-47-6 (ug/L)	107-12-0 (ug/L)	100-42-5 (ug/L)	127-18-4 (ug/L)	108-88-3 (ug/L)	156-60-5 (ug/L)	10061-02-6 (ug/L)	110-57-6 (ug/L)	79-01-6 (ug/L)
LS-API	1/21/2015	LAPI150121M	< 2 U	< 5 U	< 0.2 U	< 0.2 U	< 60 U	< 0.2 U	< 0.2 U	4.55	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U
LS-API	2/11/2015	LAPI150211M	< 2 U	< 5 U	< 0.2 U	< 0.2 U	< 60 U	< 0.2 U	< 0.2 U	5.7	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U
LS-API	3/11/2015	LAPI150311M	< 2 U	< 5 U	< 0.2 U	< 0.2 U	< 60 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U
LS-LEPS	1/20/2015	LEPS150120M	< 2 U	< 5 U	< 0.2 U	< 0.2 U	< 60 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U
LS-LEPS	2/10/2015	LEPS150210M	< 2 U	< 5 U	3.8 T	< 0.2 U	< 60 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U
LS-LEPS	3/10/2015	LEPS150310M	< 2 U	< 5 U	< 0.2 U	< 0.2 U	< 60 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U
LS-MH46N	1/14/2015	L46N150114M	< 2 U	< 5 U	< 0.2 U	5.54	< 60 U	< 0.2 U	< 0.2 U	4.58	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U
LS-MH46N	2/11/2015	L46N150211M	< 2 U	< 5 U	< 0.2 U	4.51	< 60 U	< 0.2 U	< 0.2 U	4 T	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U
LS-MH46N	3/11/2015	L46N150311M	< 2 U	< 5 U	< 0.2 U	4.41	< 60 U	< 0.2 U	< 0.2 U	4.01	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U
LS-MH46N Duplicate	3/11/2015	L46N150311D	< 2 U	< 5 U	< 0.2 U	4.7	< 60 U	< 0.2 U	< 0.2 U	4.22	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U
LS-PS2A	1/14/2015	LP2A150114M	< 2 U	< 5 U	< 0.2 U	< 0.2 U	< 60 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U
LS-PS2A	2/11/2015	LP2A150211M	< 2 U	< 5 U	3.5 T	< 0.2 U	< 60 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U
LS-PS2A	3/11/2015	LP2A150311M	< 2 U	< 5 U	< 0.2 U	< 0.2 U	< 60 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U
VOA TRIP BLANK	1/13/2015	VTRP150114B	< 2 U	< 5 U	< 0.2 U	< 0.2 U	< 60 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U
VOA TRIP BLANK	1/20/2015	VTRP150121B	< 2 U	< 5 U	< 0.2 U	< 0.2 U	< 60 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U
VOA TRIP BLANK	2/10/2015	VTRP150211B	< 2 U	< 5 U	< 0.2 U	< 0.2 U	< 60 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U
VOA TRIP BLANK	1/20/2015	VTRP150120C	< 2 U	< 5 U	< 0.2 U	< 0.2 U	< 60 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U
VOA TRIP BLANK	2/10/2015	VTRP150210C	< 2 U	< 5 U	< 0.2 U	< 0.2 U	< 60 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U
VOA TRIP BLANK	3/10/2015	VTRP150310C	< 2 U	< 5 U	< 0.2 U	< 0.2 U	< 60 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U
VOA TRIP BLANK	3/10/2015	VTRP150311B	< 2 U	< 5 U	< 0.2 U	< 0.2 U	< 60 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U

Environmental Monitoring Data

Data Collected from January 1, 2015 to March 31, 2015

Cedar Hills Landfill --- Leachate VOA Analytical Data

Contact Person --- Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Trichloro- fluoro- methane 75-69-4 (ug/L)	Vinyl Acetate 108-05-4 (ug/L)	Vinyl Chloride 75-01-4 (ug/L)
LS-API	1/21/2015	LAPI150121M	< 0.2 U	< 0.2 U	9.36 D
LS-API	2/11/2015	LAPI150211M	< 0.2 U	< 0.2 U	< 0.02 U
LS-API	3/11/2015	LAPI150311M	< 0.2 U	< 0.2 U	< 0.02 U
LS-LEPS	1/20/2015	LEPS150120M	< 0.2 U	< 0.2 U	< 0.02 U
LS-LEPS	2/10/2015	LEPS150210M	< 0.2 U	< 0.2 U	< 0.02 U
LS-LEPS	3/10/2015	LEPS150310M	< 0.2 U	< 0.2 U	< 0.02 U
LS-MH46N	1/14/2015	L46N150114M	< 0.2 U	< 0.2 U	5.99
LS-MH46N	2/11/2015	L46N150211M	< 0.2 U	< 0.2 U	< 0.02 U
LS-MH46N	3/11/2015	L46N150311M	< 0.2 U	< 0.2 U	5.62
LS-MH46N Duplicate	3/11/2015	L46N150311D	< 0.2 U	< 0.2 U	6.22
LS-PS2A	1/14/2015	LP2A150114M	< 0.2 U	< 0.2 U	< 0.02 U
LS-PS2A	2/11/2015	LP2A150211M	< 0.2 U	< 0.2 U	< 0.02 U
LS-PS2A	3/11/2015	LP2A150311M	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	1/13/2015	VTRP150114B	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	1/20/2015	VTRP150121B	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	2/10/2015	VTRP150211B	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	1/20/2015	VTRP150120C	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	2/10/2015	VTRP150210C	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	3/10/2015	VTRP150310C	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	3/10/2015	VTRP150311B	< 0.2 U	< 0.2 U	< 0.02 U

Environmental Monitoring Data

Data Collected from January 1, 2015 to March 31, 2015

Cedar Hills Landfill --- Leachate Pesticide/Herbicide Analytical Data

Contact Person --- Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	2,4,5-T	2,4,5-TP	2,4-D	4,4'-DDD	4,4'-DDE	4,4'-DDT	Aldrin	Alpha BHC	Alpha Chlordane	Aroclor 1016	Aroclor 1221	Aroclor 1232
			93-76-5 (ug/L)	93-72-1 (ug/L)	94-75-7 (ug/L)	72-54-8 (ug/L)	72-55-9 (ug/L)	50-29-3 (ug/L)	309-00-2 (ug/L)	319-84-6 (ug/L)	57-74-9 (ug/L)	12674-11-2 (ug/L)	11104-28-2 (ug/L)	11141-16-5 (ug/L)
LS-API	1/21/2015	LAPI150121M	< 2 U	< 1 U	< 5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.025 U	< 0.025 U	< 0.025 U	< 0.01 U	< 0.01 U	< 0.01 U
LS-API	2/11/2015	LAPI150211M	< 2 U	< 1 U	< 5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.025 U	< 0.025 U	< 0.025 U	< 0.01 U	< 0.01 U	< 0.01 U
LS-API	3/11/2015	LAPI150311M	< 2 U	< 1 U	< 5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.025 U	< 0.025 U	< 0.025 U	< 0.01 U	< 0.01 U	< 0.01 U
LS-LEPS	1/20/2015	LEPS150120M	< 2 U	< 1 U	< 5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.025 U	< 0.025 U	< 0.025 U	< 0.01 U	< 0.01 U	< 0.01 U
LS-LEPS	2/10/2015	LEPS150210M	< 2 U	< 1 U	< 5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.025 U	< 0.025 U	< 0.025 U	< 0.01 U	< 0.01 U	< 0.01 U
LS-LEPS	3/10/2015	LEPS150310M	< 2 U	< 1 U	< 5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.025 U	< 0.025 U	< 0.025 U	< 0.01 U	< 0.01 U	< 0.01 U
LS-MH46N	1/14/2015	L46N150114M	< 2 U	< 1 U	< 5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.025 U	< 0.025 U	< 0.025 U	< 0.01 U	< 0.01 U	< 0.01 U
LS-MH46N	2/11/2015	L46N150211M	< 2 U	< 1 U	< 5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.025 U	< 0.025 U	< 0.025 U	< 0.01 U	< 0.01 U	< 0.01 U
LS-MH46N	3/11/2015	L46N150311M	< 2 U	< 1 U	< 5 JU	< 0.1 U	< 0.1 U	< 0.1 U	< 0.025 U	< 0.025 U	< 0.025 U	< 0.01 U	< 0.01 U	< 0.01 U
LS-MH46N Duplicate	3/11/2015	L46N150311D	< 2 U	< 1 U	< 5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.025 U	< 0.025 U	< 0.025 U	< 0.01 U	< 0.01 U	< 0.01 U
LS-PS2A	1/14/2015	LP2A150114M	< 2 U	< 1 U	< 5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.025 U	< 0.025 U	< 0.025 U	< 0.01 U	< 0.01 U	< 0.01 U
LS-PS2A	2/11/2015	LP2A150211M	< 2 U	< 1 U	< 5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.025 U	< 0.025 U	< 0.025 U	< 0.01 U	< 0.01 U	< 0.01 U
LS-PS2A	3/11/2015	LP2A150311M	< 2 U	< 1 U	< 5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.025 U	< 0.025 U	< 0.025 U	< 0.01 U	< 0.01 U	< 0.01 U

Environmental Monitoring Data

Data Collected from January 1, 2015 to March 31, 2015

Cedar Hills Landfill --- Leachate Pesticide/Herbicide Analytical Data

Contact Person --- Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Beta BHC	Delta BHC	Dieldrin	Dinoseb	Endo- sulfan I	Endo- sulfan II	Endo- sulfan Sulfate	Endrin
			53469-21-9 (ug/L)	12672-29-6 (ug/L)	11097-69-1 (ug/L)	11096-82-5 (ug/L)	319-85-7 (ug/L)	319-86-8 (ug/L)	60-57-1 (ug/L)	88-85-7 (ug/L)	959-98-8 (ug/L)	33213-65-9 (ug/L)	1031-07-8 (ug/L)	72-20-8 (ug/L)
LS-API	1/21/2015	LAPI150121M	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.025 U	< 0.1 U	< 0.1 U	< 1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 0.1 U
LS-API	2/11/2015	LAPI150211M	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.025 U	< 0.1 U	< 0.1 U	< 1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 0.1 U
LS-API	3/11/2015	LAPI150311M	0.44 T	< 0.01 U	< 0.01 U	< 0.01 U	< 0.025 U	< 0.1 U	< 0.1 U	< 1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 0.1 U
LS-LEPS	1/20/2015	LEPS150120M	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.025 U	< 0.1 U	< 0.1 U	< 1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 0.1 U
LS-LEPS	2/10/2015	LEPS150210M	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.025 U	< 0.1 U	< 0.1 U	< 1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 0.1 U
LS-LEPS	3/10/2015	LEPS150310M	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.025 U	< 0.1 U	< 0.1 U	< 1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 0.1 U
LS-MH46N	1/14/2015	L46N150114M	0.48 JT	< 0.01 U	< 0.01 U	< 0.01 U	< 0.025 U	< 0.1 U	< 0.1 U	< 1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 0.1 U
LS-MH46N	2/11/2015	L46N150211M	0.233	< 0.01 U	< 0.01 U	< 0.01 U	< 0.025 U	0.109	< 0.1 U	< 1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 0.1 U
LS-MH46N	3/11/2015	L46N150311M	0.2 J	< 0.01 U	< 0.01 U	< 0.01 U	< 0.025 U	< 0.1 U	< 0.1 U	< 1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 0.1 U
LS-MH46N Duplicate	3/11/2015	L46N150311D	0.191 J	< 0.01 U	< 0.01 U	< 0.01 U	< 0.025 U	< 0.1 U	< 0.1 U	< 1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 0.1 U
LS-PS2A	1/14/2015	LP2A150114M	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.025 U	< 0.1 U	< 0.1 U	< 1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 0.1 U
LS-PS2A	2/11/2015	LP2A150211M	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.025 U	< 0.1 U	< 0.1 U	< 1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 0.1 U
LS-PS2A	3/11/2015	LP2A150311M	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.025 U	< 0.1 U	< 0.1 U	< 1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 0.1 U

Environmental Monitoring Data

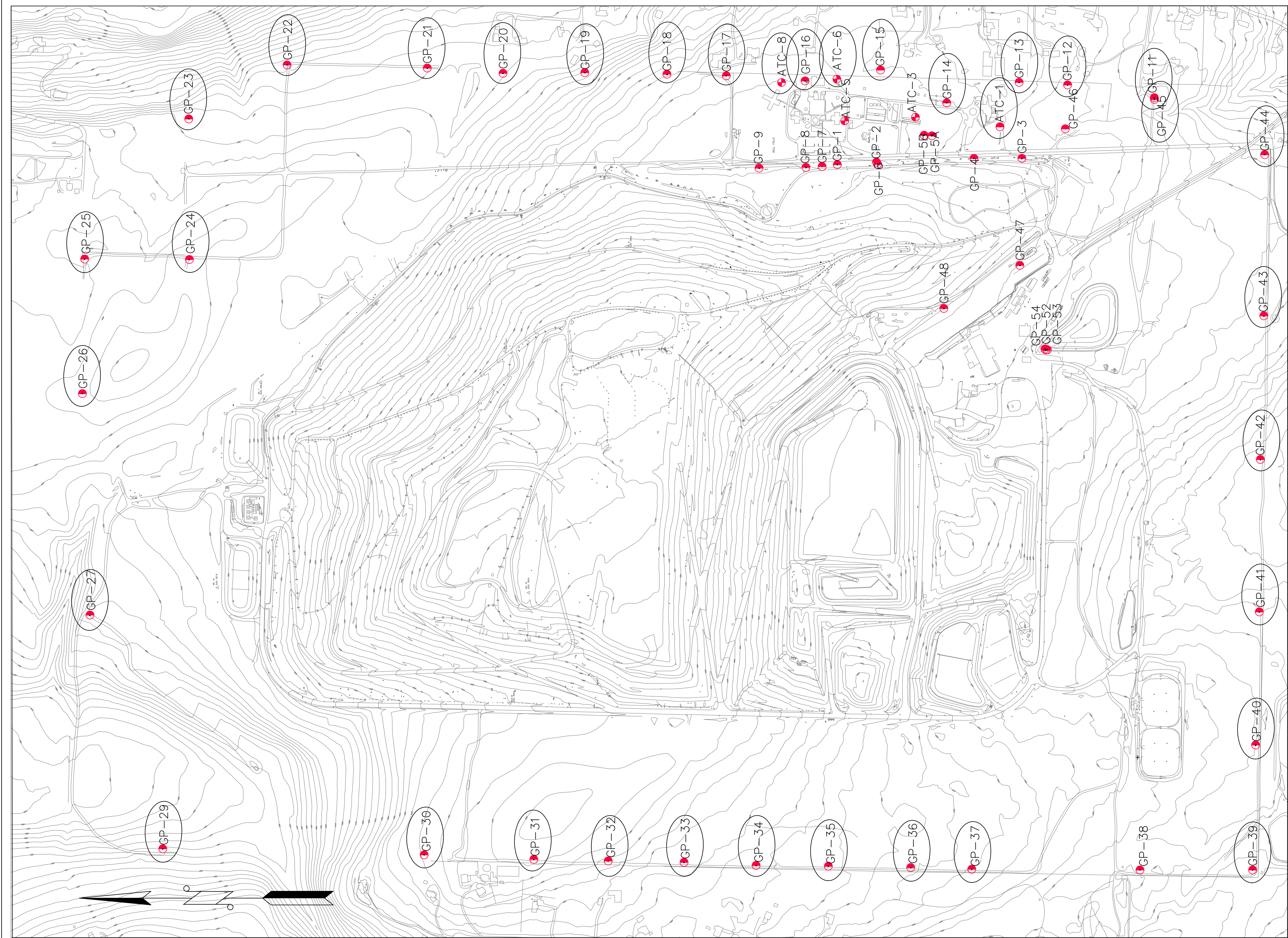
Data Collected from January 1, 2015 to March 31, 2015

Cedar Hills Landfill --- Leachate Pesticide/Herbicide Analytical Data

Contact Person --- Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Endrin Aldehyde 7421-93-4 (ug/L)	Heptachlor 76-44-8 (ug/L)	Heptachlor Epoxide 1024-57-3 (ug/L)	Isodrin 465-73-6 (ug/L)	Lindane 58-89-9 (ug/L)	Methoxy- chlor 72-43-5 (ug/L)	Toxaphene 8001-35-2 (ug/L)
LS-API	1/21/2015	LAPI150121M	< 0.2 U	< 0.025 U	< 0.025 U	< 10 U	< 0.025 U	< 2 U	< 2.5 U
LS-API	2/11/2015	LAPI150211M	< 0.2 U	< 0.025 U	< 0.025 U	< 10 U	< 0.025 U	< 2 U	< 2.5 U
LS-API	3/11/2015	LAPI150311M	< 0.2 U	< 0.025 U	< 0.025 U	< 10 U	< 0.025 U	< 2 U	< 2.5 U
LS-LEPS	1/20/2015	LEPS150120M	< 0.2 U	< 0.025 U	< 0.025 U	< 10 U	< 0.025 U	< 2 U	< 2.5 U
LS-LEPS	2/10/2015	LEPS150210M	< 0.2 U	< 0.025 U	< 0.025 U	< 10 U	< 0.025 U	< 2 U	< 2.5 U
LS-LEPS	3/10/2015	LEPS150310M	< 0.2 U	< 0.025 U	< 0.025 U	< 10 U	< 0.025 U	< 2 U	< 2.5 U
LS-MH46N	1/14/2015	L46N150114M	< 0.2 U	< 0.025 U	< 0.025 U	< 10 U	< 0.025 U	< 2 U	< 2.5 U
LS-MH46N	2/11/2015	L46N150211M	< 0.2 U	< 0.025 U	< 0.025 U	< 10 U	< 0.025 U	< 2 U	< 2.5 U
LS-MH46N	3/11/2015	L46N150311M	< 0.2 U	< 0.025 U	< 0.025 U	< 10 U	< 0.025 U	< 2 U	< 2.5 U
LS-MH46N Duplicate	3/11/2015	L46N150311D	< 0.2 U	< 0.025 U	< 0.025 U	< 10 U	< 0.025 U	< 2 U	< 2.5 U
LS-PS2A	1/14/2015	LP2A150114M	< 0.2 U	< 0.025 U	< 0.025 U	< 10 U	< 0.025 U	< 2 U	< 2.5 U
LS-PS2A	2/11/2015	LP2A150211M	< 0.2 U	< 0.025 U	< 0.025 U	< 10 U	< 0.025 U	< 2 U	< 2.5 U
LS-PS2A	3/11/2015	LP2A150311M	< 0.2 U	< 0.025 U	< 0.025 U	< 10 U	< 0.025 U	< 2 U	< 2.5 U

Landfill Gas Monitoring Data



Northing	Easting	Elev	Description	Inst. Date
170,000.33	1,701,942.93	640.02	GP-1 CASE EL	1985/86
169,740.00	1,701,960.00	622.00	GP-2 CASE EL	1985/86
168,758.11	1,701,985.28	594.21	GP-3 CASE EL	1985/86
169,058.18	1,701,972.94	606.19	GP-4 CASE EL	1985/86
169,370.19	1,702,134.95	616.23	GP-5A GRND EL	1988
169,422.02	1,702,138.87	619.63	GP-5B CASE EL	1988
169,731.73	1,701,946.48	635.59	GP-6 CASE EL	1988
170,101.22	1,701,930.58	640.66	GP-7 CASE EL	1988
170,208.37	1,701,925.10	642.67	GP8 CASE EL	1988
170,519.95	1,701,919.34	645.27	GP-9 CASE EL	1988
			GP-10 NOT INSTALLED	1988
167,890.09	1,702,389.27	567.15	GP-11 CASE EL	1988
168,466.64	1,702,473.27	568.08	GP-12 CASE EL	1988
168,790.03	1,702,490.84	588.15	GP-13 CASE EL	1988
169,271.56	1,702,354.75	613.32	GP-14 CASE EL	1988
169,724.93	1,702,446.19	618.75	GP-15 CASE EL	1988
170,214.28	1,702,500.56	630.19	GP-16 CASE EL	1988
170,738.83	1,702,535.09	625.18	GP-17 CASE EL	1988
171,132.85	1,702,543.29	600.83	GP-18 CASE EL	1988
171,634.52	1,702,554.91	544.15	GP-19 CASE EL	1988
172,224.83	1,702,550.70	496.61	GP-20 CASE EL	1988
172,729.15	1,702,584.65	489.79	GP-21 CASE EL	1988
173,662.40	1,702,607.81	374.84	GP-22 CASE EL	1988
174,317.16	1,702,248.74	501.77	GP-23 CASE EL	1988
174,313.44	1,701,311.74	544.72	GP-24 CASE EL	1988
175,011.63	1,701,324.89	533.86	GP-25 CASE EL	1988
175,043.82	1,700,364.55	541.69	GP-26 CASE EL	1988
174,983.78	1,698,935.68	484.75	GP-27 CASE EL	1988
			GP-28 NOT INSTALLED	1988
174,455.39	1,697,385.67	431.05	GP-29 CASE EL	1988
172,787.40	1,697,339.61	644.62	GP-30 CASE EL	1988
172,013.96	1,697,321.72	673.37	GP-31 CASE EL	1988
171,524.28	1,697,308.08	647.57	GP-32 CASE EL	1988
171,017.18	1,697,293.36	625.03	GP-33 CASE EL	1988
170,537.12	1,697,287.04	604.93	GP-34 CASE EL	1988
170,083.32	1,697,286.32	596.28	GP-35 CASE EL	1988
169,510.89	1,697,265.94	574.92	GP-36 CASE EL	1988
169,049.03	1,697,252.08	557.38	GP-37 CASE EL	1988
167,909.72	1,697,243.54	523.57	GP-38 CASE EL	1988
167,239.45	1,697,232.41	541.03	GP-39 CASE EL	1988
167,205.68	1,698,100.32	502.77	GP-40 CASE EL	1988
167,191.96	1,698,965.50	482.97	GP-41 CASE EL	1988
167,183.37	1,699,979.90	457.95	GP-42 CASE EL	1988
167,160.00	1,700,961.11	536.86	GP-43 CASE EL	1988
167,135.28	1,702,007.20	529.11	GP-44 CASE EL	1994
167,888.74	1,702,378.77	567.47	GP-45 CASE EL	1994
168,482.15	1,702,182.52	589.79	GP-46 CASE EL	1994
168,783.75	1,701,272.71	600.07	GP-47 CASE EL	1994
169,289.65	1,700,985.98	616.56	GP-48 CASE EL	1994
168,612.91	1,700,710.62	561.13	GP-52 GRND EL	2001
168,601.99	1,700,711.34	561.02	GP-53 GRND EL	2001
168,617.89	1,700,717.53	561.20	GP-54 GRND EL	2001
168,916.92	1,702,195.87	591.29	GP-ATC-1 GRND EL	1985/86
169,479.79	1,702,259.97	616.25	GP-ATC-3 GRND EL	1985/86
			GP-ATC-4 ABANDONED/REMOVED	
169,950.42	1,702,235.30	625.65	GP-ATC-5 GRND EL	1985/86
170,002.70	1,702,512.99	620.16	GP-ATC-6 GRND EL	1985/86
170,371.26	1,702,490.56	629.94	GP-ATC-8 GRND EL	1985/86



KING COUNTY DEPARTMENT OF
NATURAL RESOURCES AND PARKS
SOLID WASTE DIVISION

CEDAR HILLS REGIONAL LANDFILL
LANDFILL GAS MIGRATION MONITORING PLAN

APPROVED VICTOR O. OKEREKE DATE 03-19-07
RECOMMENDED TOM THENO DATE 09-28-07
DESIGNED N/A DRAWN PHAM / McEWEN
PROJECT NO. SURVEY NO. SHEET 1 OF 1
\\c:\data\cewpm\lgas-prob-loc\alt-llg-loc\006-geom\probonly.dwg

LEGEND

INTERIOR LFG MONITORING PROBES

LFG MIGRATION MONITORING PROBES

DATE	REVISION	BY

CEDAR HILLS REGIONAL LANDFILL
Landfill Gas Compliance Probes
January 2015 Monitoring

Probe ID	Date/Time	CH4 %vol	CO2 %vol	O2 %vol	Lower Explosive Limit %LEL	Static Pressure in INWC	Comments
ATC-01D	1/15/2015 9:03	0.0	0.1	21.0	0	-0.01	
ATC-01S	1/15/2015 9:02	--	--	--	--	-7.86	No Reading -Water
ATC-06D	1/15/2015 9:39	--	--	--	--	3.58	No Reading -Water
ATC-06S	1/15/2015 9:38	0.0	1.9	11.8	0	0.02	
ATC-08D	1/15/2015 10:10	0.0	0.3	19.2	0	0.09	
ATC-08S	1/15/2015 10:09	0.0	1.5	16.9	0	0	
GP-11A	1/15/2015 8:43	0.0	0.2	21.0	0	0.18	
GP-11B	1/15/2015 8:44	0.0	0.1	21.0	0	1.04	
GP-11C	1/15/2015 8:46	0.0	0.1	18.1	0	0.81	
GP-11D	1/15/2015 8:47	0.0	0.1	20.9	0	0.17	
GP-12A	1/15/2015 9:10	0.0	0.1	21.0	0	-0.67	
GP-12B	1/15/2015 9:11	0.0	0.1	21.0	0	0.07	
GP-12C	1/15/2015 9:12	0.0	0.2	18.1	0	-9.07	
GP-12D	1/15/2015 9:14	0.0	0.7	6.5	0	1.14	
GP-13A	1/15/2015 9:18	0.0	0.1	21.0	0	-0.03	
GP-13B	1/15/2015 9:20	0.0	0.1	21.0	0	0	
GP-13C	1/15/2015 9:21	0.0	0.2	19.1	0	-0.03	
GP-13D	1/15/2015 9:23	0.0	0.2	19.7	0	0.94	
GP-14A	1/15/2015 9:28	0.0	0.1	21.0	0	0.71	
GP-14B	1/15/2015 9:29	0.0	1.1	16.0	0	0.36	
GP-15A	1/15/2015 9:43	0.0	0.5	21.0	0	-11.14	
GP-15C	1/15/2015 9:45	0.0	2.0	9.3	0	-0.35	
GP-15D	1/15/2015 9:46	0.0	0.2	21.0	0	-4.42	
GP-16A	1/15/2015 10:03	0.0	0.5	20.8	0	-2.59	
GP-16B	1/15/2015 10:04	0.0	0.1	21.0	0	0	
GP-16C	1/15/2015 10:06	0.0	0.1	21.0	0	1.2	
GP-17A	1/15/2015 12:54	--	--	--	--	-5.14	No Reading -Water
GP-17B	1/15/2015 12:55	0.0	0.9	16.8	0	0.01	
GP-17C	1/15/2015 12:57	0.0	0.1	20.7	0	2.27	
GP-18A	1/15/2015 13:00	0.0	0.1	20.8	0	0.18	
GP-18B	1/15/2015 13:02	0.0	0.4	12.5	0	0.02	
GP-18C	1/15/2015 13:03	0.0	0.3	17.3	0	1.72	
GP-19A	1/15/2015 13:06	0.0	0.1	20.9	0	0.03	
GP-19B	1/15/2015 13:08	0.0	0.7	16.0	0	0.22	
GP-19C	1/15/2015 13:09	0.0	0.1	21.0	0	0.26	
GP-20A	1/15/2015 13:13	0.0	0.1	21.0	0	-3.02	
GP-20B	1/15/2015 13:16	0.0	0.3	18.1	0	0.05	
GP-20C	1/15/2015 13:18	0.0	0.2	7.7	0	0.02	
GP-21A	1/15/2015 13:26	0.0	0.1	21.0	0	-2.57	
GP-21B	1/15/2015 13:28	0.0	0.1	8.8	0	0.14	
GP-21C	1/15/2015 13:29	--	--	--	--	-0.04	No Reading -Water
GP-22A	1/15/2015 13:36	0.0	0.7	19.9	0	-10.21	
GP-22C	1/15/2015 13:37	0.0	2.5	5.5	0	1.23	
GP-23A	1/15/2015 13:44	0.0	0.1	21.0	0	0.03	
GP-23B	1/15/2015 13:45	0.0	0.1	21.0	0	0.15	
GP-23C	1/15/2015 13:47	0.0	0.1	21.0	0	-0.56	
GP-24A	1/15/2015 13:51	0.0	4.2	10.5	0	0.09	
GP-24B	1/15/2015 13:52	0.0	2.2	14.8	0	-0.01	
GP-25	1/15/2015 13:56	0.0	3.5	12.6	0	0	
GP-26	1/15/2015 13:59	0.0	1.2	19.3	0	0.14	
GP-27	1/15/2015 14:03	0.0	8.8	7.6	0	0.11	
GP-29A	1/15/2015 14:09	0.0	0.6	20.6	0	0.07	
GP-29B	1/15/2015 14:10	0.0	0.7	21.0	0	0	
GP-30A	1/15/2015 14:30	0.0	2.1	18.8	0	1.11	
GP-30B	1/15/2015 14:31	0.0	1.3	19.3	0	0.67	
GP-31A	1/15/2015 14:33	--	--	--	--	0.31	No Reading -Water
GP-31B	1/15/2015 14:35	0.0	0.3	14.9	0	1.26	
GP-31C	1/15/2015 14:36	0.0	1.5	14.1	0	1.06	
GP-32A	1/15/2015 14:39	0.0	1.8	18.4	0	0.09	
GP-32B	1/15/2015 14:41	0.0	0.5	20.5	0	0.04	
GP-32C	1/15/2015 14:43	0.0	0.5	20.4	0	0.21	
GP-33A	1/15/2015 14:46	0.0	0.1	21.0	0	0.06	
GP-33B	1/15/2015 14:47	0.0	0.1	21.0	0	0.75	
GP-33C	1/15/2015 14:49	0.0	0.2	19.5	0	0.36	
GP-34A	1/15/2015 14:53	--	--	--	--	7.57	No Reading -Water

CEDAR HILLS REGIONAL LANDFILL
Landfill Gas Compliance Probes
January 2015 Monitoring

Probe ID	Date/Time	CH4 %vol	CO2 %vol	O2 %vol	Lower Explosive Limit %LEL	Static Pressure in INWC	Comments
GP-34B	1/15/2015 14:55	0.0	0.2	20.1	0	0.2	
GP-34C	1/15/2015 14:56	0.0	0.1	14.5	0	1.21	
GP-35A	1/15/2015 15:01	0.0	0.1	21.0	0	-1.3	
GP-35B	1/15/2015 15:02	0.0	0.1	21.0	0	0.08	
GP-35C	1/15/2015 15:04	0.0	0.1	21.0	0	0.04	
GP-36A	1/15/2015 15:07	0.0	0.3	1.0	0	0.61	
GP-36B	1/15/2015 15:07	--	--	--	--	0.38	No Reading -Water
GP-36C	1/15/2015 15:09	0.0	0.4	7.8	0	2.65	
GP-37A	1/15/2015 15:11	--	--	--	--	-11.29	No Reading -Water
GP-37B	1/15/2015 15:12	0.0	0.3	15.2	0	0.43	
GP-37C	1/15/2015 15:13	0.0	0.6	1.0	0	3.09	
GP-39	1/15/2015 15:18	0.0	1.1	18.5	0	0.27	
GP-40	1/15/2015 15:21	0.0	0.1	20.3	0	0.1	
GP-41A	1/15/2015 15:25	0.0	0.1	21.0	0	0.08	
GP-41B	1/15/2015 15:26	0.0	0.1	21.0	0	0.21	
GP-41C	1/15/2015 15:28	0.0	0.1	21.0	0	-0.14	
GP-42A	1/15/2015 15:31	--	--	--	--	-8.77	No Reading -Water
GP-42B	1/15/2015 15:32	0.0	0.5	18.3	0	1.29	
GP-43A	1/15/2015 15:35	0.0	0.1	21.0	0	0.12	
GP-43B	1/15/2015 15:37	0.0	0.1	21.0	0	-0.01	
GP-43C	1/15/2015 15:39	0.0	0.1	20.6	0	0.08	
GP-44A	1/15/2015 15:42	0.0	0.1	21.0	0	0.1	
GP-44B	1/15/2015 15:43	0.0	1.2	13.2	0	0.21	
GP-44C	1/15/2015 15:44	0.0	0.1	20.3	0	0.09	
GP-45D	1/15/2015 8:53	0.0	0.1	20.8	0	0.58	
GP-45I	1/15/2015 8:52	0.0	0.1	19.5	0	-0.02	
GP-45S	1/15/2015 8:50	0.0	0.1	21.0	0	-0.01	

CEDAR HILLS REGIONAL LANDFILL

Landfill Gas Compliance Probes

February 2015 Monitoring

Probe ID	Date/Time	CH4 %vol	CO2 %vol	O2 %vol	Lower Explosive Limit %LEL	Static Pressure in INWC	Comments
ATC-01D	2/18/2015 15:12	0.0	0.0	20.8	0	0.01	
ATC-01S	2/18/2015 15:10	--	--	--	--	0.05	No Reading -Water
ATC-06D	2/18/2015 14:50	0.0	0.6	7.7	0	-0.03	
ATC-06S	2/18/2015 14:48	0.0	0.0	20.8	0	-0.01	
ATC-08D	2/18/2015 14:39	0.0	0.3	17.4	0	-6.82	
ATC-08S	2/18/2015 14:37	0.0	1.7	15.4	0	0	
GP-11A	2/18/2015 14:04	0.0	0.4	20.0	0	0.29	
GP-11B	2/18/2015 14:06	0.0	0.1	20.4	0	-0.46	
GP-11C	2/18/2015 14:08	0.0	0.0	20.2	0	-0.35	
GP-11D	2/18/2015 14:10	0.0	0.1	20.4	0	0.12	
GP-12A	2/18/2015 15:18	0.0	0.0	21.0	0	-0.31	
GP-12B	2/18/2015 15:21	0.0	0.0	20.9	0	-0.63	
GP-12C	2/18/2015 15:23	0.0	0.2	18.1	0	-17.56	
GP-12D	2/18/2015 15:25	0.0	0.6	7.0	0	-1.55	
GP-13A	2/18/2015 15:29	0.0	0.1	20.8	0	0.01	
GP-13B	2/18/2015 15:31	0.0	0.1	20.8	0	0.04	
GP-13C	2/18/2015 15:33	0.0	0.0	20.8	0	0	
GP-13D	2/18/2015 15:36	0.0	0.0	21.0	0	-1.58	
GP-14A	2/18/2015 15:41	0.0	0.0	21.0	0	-1.49	
GP-14B	2/18/2015 15:43	0.0	0.0	21.0	0	-1.55	
GP-15A	2/18/2015 14:28	--	--	--	--	-12.02	No Reading -Water
GP-15C	2/18/2015 14:24	0.0	1.6	11.2	0	-0.01	
GP-15D	2/18/2015 14:27	0.0	0.1	20.4	0	-3.12	
GP-16A	2/18/2015 14:45	--	--	--	--	-18.17	No Reading -Water
GP-16B	2/18/2015 14:42	0.0	0.1	20.7	0	-1.01	
GP-16C	2/18/2015 14:44	0.0	0.0	20.8	0	-1.4	
GP-17A	2/18/2015 11:18	--	--	--	--	-3.6	No Reading -Water
GP-17B	2/18/2015 11:15	0.0	0.7	17.5	0	0	
GP-17C	2/18/2015 11:17	0.0	0.0	20.9	0	-1.22	
GP-18A	2/18/2015 11:21	0.0	0.0	21.0	0	-0.04	
GP-18B	2/18/2015 11:22	0.0	0.3	12.6	0	0	
GP-18C	2/18/2015 11:24	0.0	0.2	19.4	0	-1.24	
GP-19A	2/18/2015 11:27	0.0	0.0	21.0	0	0	
GP-19B	2/18/2015 11:29	0.0	0.6	15.8	0	-0.01	
GP-19C	2/18/2015 11:31	0.0	0.0	21.0	0	-0.07	
GP-20A	2/18/2015 11:35	0.0	0.0	21.0	0	-0.61	
GP-20B	2/18/2015 11:37	0.0	0.2	20.1	0	0	
GP-20C	2/18/2015 11:39	0.0	0.1	6.1	0	0.28	
GP-21A	2/18/2015 11:42	0.0	0.1	20.8	0	-3.92	
GP-21B	2/18/2015 11:44	0.0	0.1	9.0	0	0	
GP-21C	2/18/2015 11:46	--	--	--	--	0.41	No Reading -Water
GP-22A	2/18/2015 11:50	0.0	0.1	20.9	0	-10.72	
GP-22C	2/18/2015 11:52	0.0	2.4	5.2	0	-2.1	
GP-23A	2/18/2015 11:56	0.0	0.0	20.8	0	0.01	
GP-23B	2/18/2015 11:58	0.0	0.0	21.0	0	-0.47	
GP-23C	2/18/2015 11:59	0.0	0.0	19.1	0	-1.28	
GP-24A	2/18/2015 12:03	0.0	3.8	12.8	0	0	
GP-24B	2/18/2015 12:05	0.0	1.1	18.1	0	0	
GP-25	2/18/2015 12:10	0.0	3.0	13.7	0	0	
GP-26	2/18/2015 12:13	0.0	1.2	18.0	0	-0.04	
GP-27	2/18/2015 8:31	0.0	8.7	6.5	0	-0.01	
GP-29A	2/18/2015 16:02	0.0	0.4	20.7	0	0	
GP-29B	2/18/2015 16:04	0.0	0.8	20.3	0	-1.75	
GP-30A	2/18/2015 8:42	0.0	2.1	17.5	0	0.59	
GP-30B	2/18/2015 8:43	0.0	1.2	18.3	0	-1.11	
GP-31A	2/18/2015 8:46	--	--	--	--	-3.8	No Reading -Water
GP-31B	2/18/2015 8:48	0.0	0.3	14.4	0	-0.31	
GP-31C	2/18/2015 8:50	0.0	1.7	12.0	0	1.68	
GP-32A	2/18/2015 8:53	0.0	0.6	19.3	0	-0.01	
GP-32B	2/18/2015 8:55	0.0	0.4	20.3	0	0.05	
GP-32C	2/18/2015 8:56	0.0	0.2	20.6	0	0.01	
GP-33A	2/18/2015 8:59	0.0	0.2	20.7	0	-15.24	
GP-33B	2/18/2015 9:01	0.0	0.0	20.9	0	-0.88	
GP-33C	2/18/2015 9:03	0.0	0.0	21.0	0	-1.81	

CEDAR HILLS REGIONAL LANDFILL

Landfill Gas Compliance Probes

February 2015 Monitoring

Probe ID	Date/Time	CH4 %vol	CO2 %vol	O2 %vol	Lower Explosive Limit %LEL	Static Pressure in INWC	Comments
GP-34A	2/18/2015 9:09	--	--	--	--	-0.17	No Reading -Water
GP-34B	2/18/2015 9:06	0.0	0.1	21.0	0	-0.03	
GP-34C	2/18/2015 9:08	0.0	0.0	20.9	0	-0.79	
GP-35A	2/18/2015 9:13	0.0	0.1	21.0	0	0	
GP-35B	2/18/2015 9:14	0.0	0.0	21.0	0	0	
GP-35C	2/18/2015 9:16	0.0	0.0	21.0	0	-0.01	
GP-36A	2/18/2015 9:19	0.0	0.2	17.3	0	-0.11	
GP-36B	2/18/2015 9:22	--	--	--	--	0.16	
GP-36C	2/18/2015 9:21	0.0	0.3	9.6	0	-0.11	
GP-37A	2/18/2015 9:29	--	--	--	--	0.28	No Reading -Water
GP-37B	2/18/2015 9:26	0.0	0.2	20.5	0	-0.11	
GP-37C	2/18/2015 9:28	0.0	0.5	2.0	0	-0.08	
GP-39	2/18/2015 9:35	0.0	1.1	18.2	0	-0.34	
GP-40	2/18/2015 9:39	0.0	0.0	19.3	0	-0.13	
GP-41A	2/18/2015 9:43	0.0	0.0	21.0	0	0.01	
GP-41B	2/18/2015 9:45	0.0	0.0	21.0	0	-0.02	
GP-41C	2/18/2015 9:47	0.0	0.0	20.9	0	0	
GP-42A	2/18/2015 9:51	--	--	--	--	-2.12	
GP-42B	2/18/2015 9:50	0.0	0.4	19.7	0	-0.47	No Reading -Water
GP-43A	2/18/2015 9:56	0.0	0.0	20.8	0	-0.08	
GP-43B	2/18/2015 9:58	0.0	0.0	20.8	0	-0.02	
GP-43C	2/18/2015 10:00	0.0	0.0	20.8	0	-0.01	
GP-44A	2/18/2015 10:07	0.0	0.0	20.9	0	0	
GP-44B	2/18/2015 10:03	0.0	1.5	10.4	0	-5.21	
GP-44C	2/18/2015 10:05	0.0	0.0	20.8	0	0	
GP-45D	2/18/2015 14:15	0.0	0.0	20.6	0	-0.42	
GP-45I	2/18/2015 14:14	0.0	0.0	20.6	0	-0.02	
GP-45S	2/18/2015 14:12	0.0	0.0	20.4	0	0	

CEDAR HILLS REGIONAL LANDFILL

Landfill Gas Compliance Probes

March 2015 Monitoring

Probe ID	Date/Time	CH4 %vol	CO2 %vol	O2 %vol	Lower Explosive Limit %LEL	Static Pressure in INWC	Comments
ATC-01D	3/19/2015 12:48	0.0	0.0	19.5	0	-0.01	
ATC-01S	3/19/2015 12:46	--	--	--	--	--	No Reading -Water
ATC-06D	3/19/2015 13:46	0.0	0.7	5.0	0	0.77	
ATC-06S	3/19/2015 13:44	0.0	0.0	19.8	0	0.01	
ATC-08D	3/19/2015 13:41	0.0	0.3	17.4	0	1.02	
ATC-08S	3/19/2015 13:39	0.0	0.3	19.0	0	0	
GP-11A	3/19/2015 14:03	0.0	0.1	19.7	0	0.06	
GP-11B	3/19/2015 14:04	0.0	0.0	19.8	0	0.6	
GP-11C	3/19/2015 14:06	0.0	0.0	19.7	0	0.57	
GP-11D	3/19/2015 14:07	0.0	0.0	19.8	0	0.12	
GP-12A	3/19/2015 13:02	0.0	0.0	19.7	0	0	
GP-12B	3/19/2015 13:03	0.0	0.0	19.7	0	0	
GP-12C	3/19/2015 13:05	0.0	0.1	17.5	0	-13.15	
GP-12D	3/19/2015 13:07	0.0	0.1	18.9	0	-0.01	
GP-13A	3/19/2015 12:53	0.0	0.0	19.5	0	0	
GP-13B	3/19/2015 12:55	0.0	0.0	19.5	0	0.02	
GP-13C	3/19/2015 12:56	0.0	0.0	19.1	0	0	
GP-13D	3/19/2015 12:58	0.0	0.0	19.6	0	-0.17	
GP-14A	3/19/2015 13:13	0.0	0.0	19.8	0	-0.39	
GP-14B	3/19/2015 13:14	0.0	0.0	19.8	0	-0.47	
GP-15A	3/19/2015 13:24	--	--	--	--	--	No Reading -Water
GP-15C	3/19/2015 13:26	0.0	2.2	6.5	0	0.1	
GP-15D	3/19/2015 13:27	0.0	0.1	19.6	0	-2.73	
GP-16A	3/19/2015 13:33	0.0	0.1	19.7	0	0.01	
GP-16B	3/19/2015 13:35	0.0	0.0	19.6	0	0.24	
GP-16C	3/19/2015 13:36	0.0	0.0	19.8	0	-0.04	
GP-17A	3/19/2015 14:44	--	--	--	--	--	No Reading -Water
GP-17B	3/19/2015 14:45	0.0	0.8	15.9	0	0	
GP-17C	3/19/2015 14:47	0.0	0.0	19.4	0	0.09	
GP-18A	3/19/2015 14:49	--	--	--	--	--	No Reading -Water
GP-18B	3/19/2015 14:51	0.0	0.2	12.0	0	-0.01	
GP-18C	3/19/2015 14:53	0.0	0.0	19.2	0	0.13	
GP-19A	3/19/2015 14:56	0.0	0.0	19.5	0	0	
GP-19B	3/19/2015 14:58	0.0	0.5	14.9	0	-0.01	
GP-19C	3/19/2015 15:00	0.0	0.0	19.5	0	0	
GP-20A	3/19/2015 15:03	0.0	0.0	19.6	0	0	
GP-20B	3/19/2015 15:05	0.0	0.2	14.8	0	0	
GP-20C	3/19/2015 15:06	0.0	0.1	18.4	0	0	
GP-21A	3/19/2015 15:10	0.0	0.0	19.6	0	-0.98	
GP-21B	3/19/2015 15:11	0.0	0.0	8.4	0	0	
GP-21C	3/19/2015 15:12	0.0	0.2	14.5	0	0	
GP-22A	3/19/2015 15:16	0.0	0.4	19.2	0	-5.7	
GP-22C	3/19/2015 15:18	0.0	0.8	6.2	0	0.44	
GP-23A	3/20/2015 15:29	0.0	0.0	19.3	0	0	
GP-23B	3/20/2015 15:30	0.0	0.0	19.3	0	0	
GP-23C	3/20/2015 15:32	0.0	0.0	19.3	0	-0.96	
GP-24A	3/20/2015 15:35	0.0	3.9	10.7	0	0	
GP-24B	3/20/2015 15:37	0.0	2.3	13.1	0	-0.01	
GP-25	3/20/2015 15:39	0.0	3.6	12.4	0	0	
GP-26	3/20/2015 15:42	0.0	1.2	15.6	0	0.11	
GP-27	3/20/2015 15:45	0.0	8.4	7.0	0	-0.02	
GP-29A	3/20/2015 15:49	0.0	1.1	18.3	0	0	
GP-29B	3/20/2015 15:51	0.0	0.9	18.8	0	0.01	
GP-30A	3/20/2015 15:58	0.0	2.4	17.0	0	3.02	
GP-30B	3/20/2015 16:00	0.0	1.4	17.3	0	0.45	
GP-31A	3/20/2015 16:02	--	--	--	--	--	No Reading -Water
GP-31B	3/20/2015 16:04	0.0	0.2	14.5	0	2.32	
GP-31C	3/20/2015 16:05	0.0	0.7	16.5	0	0.01	
GP-32A	3/20/2015 16:08	0.0	0.7	18.0	0	0	
GP-32B	3/20/2015 16:09	0.0	0.2	19.3	0	0	

CEDAR HILLS REGIONAL LANDFILL

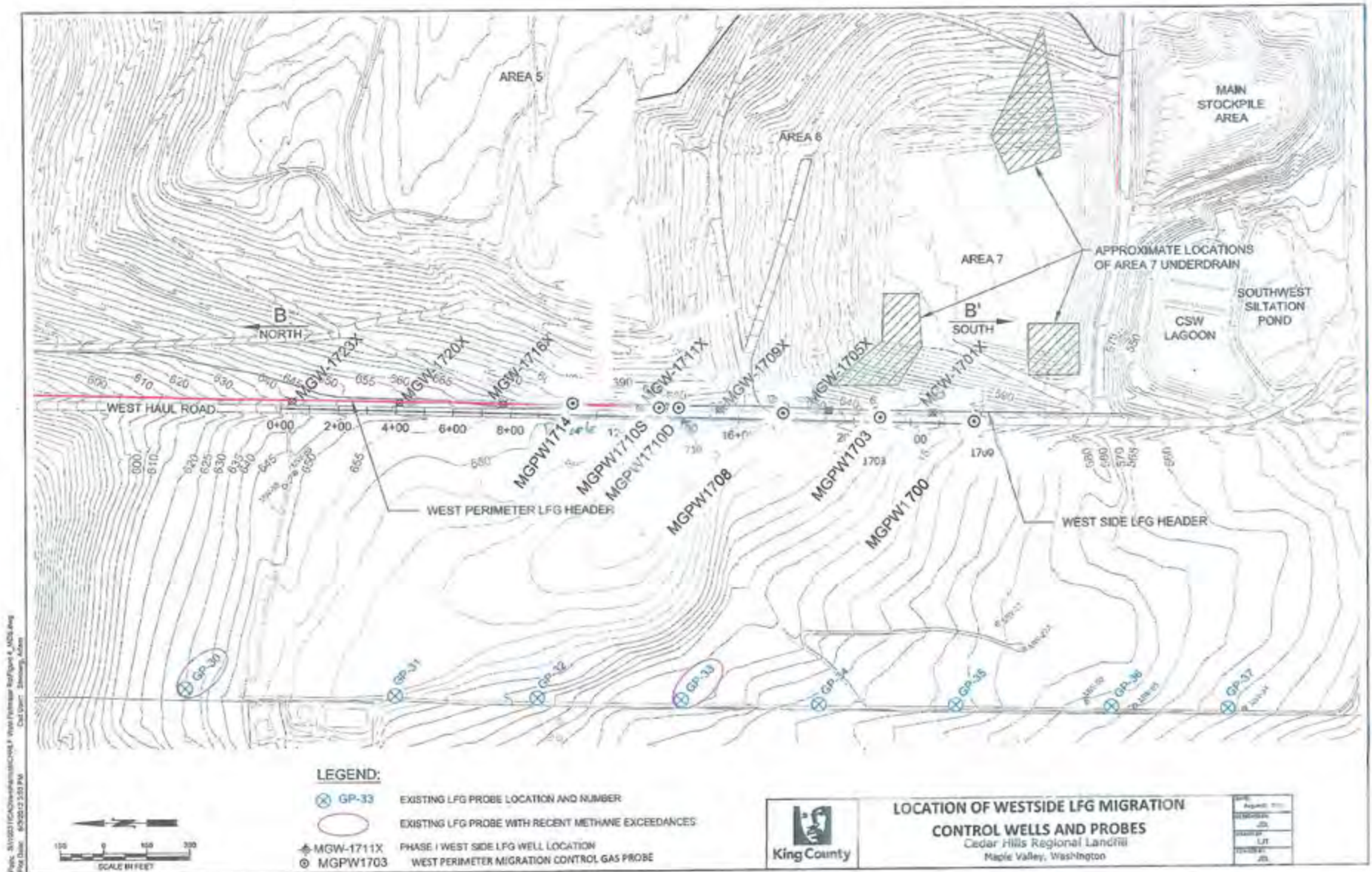
Landfill Gas Compliance Probes

March 2015 Monitoring

Probe ID	Date/Time	CH4 %vol	CO2 %vol	O2 %vol	Lower Explosive Limit %LEL	Static Pressure in INWC	Comments
GP-32C	3/20/2015 16:11	0.0	0.3	19.2	0	0	
GP-33A	3/20/2015 16:14	0.0	0.1	19.4	0	0	
GP-33B	3/20/2015 16:15	0.0	0.0	19.5	0	0	
GP-33C	3/20/2015 16:17	0.0	0.0	19.4	0	-0.01	
GP-34A	3/20/2015 16:19	--	--	--	--	--	No Reading -Water
GP-34B	3/20/2015 16:20	0.0	0.2	17.1	0	0	
GP-34C	3/20/2015 16:22	0.0	0.0	13.5	0	1.75	
GP-35A	3/20/2015 16:25	0.0	0.0	19.4	0	0	
GP-35B	3/20/2015 16:26	0.0	0.0	19.5	0	0	
GP-35C	3/20/2015 16:27	0.0	0.0	19.4	0	0.06	
GP-36A	3/20/2015 16:30	0.0	0.2	5.6	0	0.5	
GP-36B	3/20/2015 16:31	--	--	--	--	--	No Reading -Water
GP-36C	3/20/2015 16:33	0.0	0.3	7.9	0	2.99	
GP-37A	3/20/2015 16:35	--	--	--	--	--	No Reading -Water
GP-37B	3/20/2015 16:36	0.0	0.1	18.2	0	-0.08	
GP-37C	3/20/2015 16:38	0.0	0.6	1.3	0	2.89	
GP-39	3/20/2015 10:55	0.0	1.4	16.8	0	0.35	
GP-40	3/20/2015 10:58	0.0	0.0	16.9	0	-0.02	
GP-41A	3/20/2015 11:01	0.0	0.1	19.4	0	0	
GP-41B	3/20/2015 11:03	0.0	0.1	19.4	0	0	
GP-41C	3/20/2015 11:04	0.0	0.0	19.4	0	0	
GP-42A	3/20/2015 11:07	--	--	--	--	--	No Reading -Water
GP-42B	3/20/2015 11:09	0.0	0.3	17.0	0	1.34	
GP-43A	3/20/2015 11:13	0.0	0.1	19.3	0	-0.06	
GP-43B	3/20/2015 11:14	0.0	0.0	19.4	0	-0.02	
GP-43C	3/20/2015 11:16	0.0	0.0	18.8	0	0.06	
GP-44A	3/20/2015 11:19	0.0	0.0	19.4	0	0	
GP-44B	3/20/2015 11:21	0.0	0.5	13.5	0	0.83	
GP-44C	3/20/2015 11:23	0.0	0.0	19.1	0	0	
GP-45D	3/20/2015 11:42	0.0	0.0	19.0	0	0.96	
GP-45I	3/20/2015 11:40	0.0	0.0	15.7	0	0.02	
GP-45S	3/20/2015 11:38	0.0	0.0	19.4	0	0	

FIRST QUARTER BUILDING MONITORING

	INSTRUMENT: Place check by instrument used :				WEATHER:		DATE: 01/29/14 TECH: Dye
	HEATH DetectoPak III (sn:8746-4)					Partly Cloudy	
	Foxboro TVA 1000 FID/PID (sn: 7785301)				X		
LOC ID	BLDG #	DESCRIPTION	CH ₄ (ppm)	BAR PRESS (in. Hg)	TIME	REMARKS	
GOC- 01/29/14	1	FRONT OFFICE	0	30.25	2:06pm		
GCR- 01/29/14	2	CONF ROOM	0		2:08pm		
GAO- 01/29/14	3	PAYROLL OFFICE	0		2:10pm		
GEO- 01/29/14	4	ENGR. OFFICE	0		2:11pm		
GLRC- 01/29/14	5	LUNCHROOM	0		2:42pm		
GSPC 01/29/14		SPOC	0		2:20pm		
GELO- 01/29/14 A	6A	DRY STORAGE	0		2:17pm		
GELO- 01/29/14 B	6B	ELECTRICIAN OFFICE	0		2:15pm		
GAP- 01/29/14		ACCOUNT PAYABLE	0		2:14pm		
GSO- 01/29/14 A	7A	SHOP OFFICE	0		2:24pm		
GPR- 01/29/14 B	7B	PARTS ROOM	0		2:23pm		
GMS- 01/29/14 C	7C	SHOP PIT AREA/BAY	0		2:22pm		
GTB- 01/29/14 D	7D	SHOP TIRE BAY	0		2:25pm		
GEW- 01/29/14 E	7E	EAST WELD SHOP	0		2:26pm		
GWW- 01/29/14 F	7F	WEST WELD SHOP	0		2:27pm		
GCS- 01/29/14	8	CARPENTER'S	0		2:31pm		
GSS- 01/29/14	9	WASTEWATER	0		2:30pm		
GSS- 01/29/14 B	9B	CARPENTER/STORAGE	0		2:33pm		
GSH- 01/29/14	10	SCALEHOUSE	0		2:04pm		
GB13- 01/29/14	13	WW COMPRESSOR	0		2:53pm		
GB16- 01/29/14	16	GENERATOR	0		1:57pm		
GB19- 01/29/14	19	LEPS (P.S.# 5)	0		1:52pm		
GB19- 01/29/14 B	19B	LEPS/H ₂ O ₂ ROOM	0		1:53pm		
GB20- 01/29/14	20	LEPS ELEC PANALS	0		1:54pm		
GB21- 01/29/14	21	STORAGE(OLD PS 1)	0		1:39pm		
GB22- 01/29/14	22	STORAGE/N FLARE	0		1:30pm		
GB23- 01/29/14	23	LFGAS	0		1:33pm		
GB24- 01/29/14	24	NE GENERATOR BLDG	0		1:48pm		
GBWW- 01/29/14	30	WOMEN BRK RM	0		2:18pm		
GPWT- 01/29/14	PW	PRESSURE WASH RM	0		2:45pm		
GBRR- 01/29/14	RR	TRUCKWASH RR W	0		2:46pm		
GBSS- 01/29/14	SS	TRUCKWASH RR E	0		2:47pm		
GBZZ- 01/29/14	29	MANAGERS TRAILER	0		2:39pm		
GBPT- 01/29/14		CCG FASTER	0		2:38pm		
GCLS- 01/29/14		CHLORINE SHED	0	30.24	2:00pm		



CEDAR HILLS REGIONAL LANDFILL
West Perimeter Landfill Gas Migration Control Probes
First Quarter 2015 Monitoring

Probe ID	Date	Time	Barometric				Static Pressure in INWC
			Pressure in Hg	CH4 %vol	CO2 %vol	O2 %vol	
MGPW 1700	1/9/2015	12:17pm	30.07	0.0	0.0	20.2	1.26
MGPW 1700	1/15/2015	2:00pm	30.18	0.0	0.0	21.0	-0.14
MGPW 1700	2/6/2015	1:30pm	29.46	0.0	0.2	18.0	1.89
MGPW 1700	2/20/2015	2:00pm	30.22	0.0	0.0	20.8	-0.01
MGPW 1700	3/2/2015	12:28pm	30	0.0	0.2	21.0	0.5
MGPW 1700	3/30/2015	1:30pm	30.08	0.0	0.2	20.8	0
MGPW 1708	1/9/2015	12:16pm	30.07	0.0	0.0	20.9	-0.93
MGPW 1708	1/14/2015	1:56pm	30.18	0.0	0.0	21.0	-1.32
MGPW 1708	2/6/2015	1:34pm	29.46	0.0	0.1	20.9	-0.5
MGPW 1708	2/20/2015	2:05pm	30.22	0.0	0.0	20.7	-1.89
MGPW 1708	3/2/2015	12:31pm	30	0.0	0.1	21.0	-1.8
MGPW 1708	3/30/2015	1:46pm	30.08	0.0	0.0	21.0	-0.2
MGPW 1710S	1/9/2015	12:13pm	30.07	0.0	0.0	20.8	-0.8
MGPW 1710S	1/14/2015	1:52pm	30.18	0.0	0.0	20.9	-1.16
MGPW 1710S	2/6/2015	1:37pm	29.46	0.0	0.1	20.9	-0.58
MGPW 1710S	2/20/2015	2:09pm	30.22	0.0	0.0	20.9	-1.61
MGPW 1710S	3/2/2015	12:33pm	30	0.0	0.1	21.0	-1.6
MGPW 1710S	3/30/2015	1:49pm	30.08	0.0	0.0	21.0	-0.20
MGPW 1710D	1/9/2015	12:15pm	30.07	0.0	0.0	20.9	-0.87
MGPW 1710D	1/14/2015	1:50pm	30.18	0.0	0.0	20.9	-1.22
MGPW 1710D	2/6/2015	1:39pm	29.46	0.0	0.1	21.0	-0.63
MGPW 1710D	2/20/2015	2:11pm	30.22	0.0	0.0	21.0	-1.70
MGPW 1710D	3/2/2015	12:35pm	30.00	0.0	0.1	21.0	-1.7
MGPW 1710D	3/30/2015	1:51pm	30.08	0.0	0.0	21.0	-0.1
MGPW 1714	1/9/2015	12:10pm	30.07	0.0	0.2	21.0	-0.65
MGPW 1714	1/14/2015	1:45pm	30.18	0.0	0.5	20.5	-1.1
MGPW 1714	2/6/2015	1:42pm	29.46	0.0	0.1	21.0	-0.54
MGPW 1714	2/20/2015	2:15pm	30.22	0.0	0.0	21.0	-1.48
MGPW 1714	3/2/2015	12:37pm	30.00	0.0	0.1	21.0	-1.4
MGPW 1714	3/30/2015	1:54pm	30.08	0.0	0.0	21.0	0.0

KING COUNTY SOLID WASTE DIVISION
QUALIFIER INFORMATION
(Effective 4/1/2009)

QUAL	QUALIFIER DESCRIPTION
U	Undetected Analyte concentration <MDL – Less than Method detection limit
T	Estimated, Less than Reporting Detection Limit but greater than Method detection limit
J	Reported value is an estimate
B	Contamination present in Blank
C	Confluent Growth
E	Estimated, outside expected accuracy
H	Exceeds holding time
R	Data Rejected
S	Sample handling errors
X	Too numerous to count
D	Dilution
P	PASS – Qualitative result acceptable
F	FAIL – Qualitative result is not acceptable
G	Greater than
L	Less than

APPENDIX C

Meteorological Data

WIND SPEED FOR CEDAR HILLS LANDFILL
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF JANUARY , 2015

IN MILES PER HOUR

DAY	HOUR ENDING																								AVG.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0
2	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0
3	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0
4	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0
5	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0
6	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.3	1.5	1.5	2.0	2.0	3.1	2.5	*****	*****	*****	*****	*****	*****	*****	*****	1.8
7	*****	*****	*****	*****	*****	*****	*****	*****	*****	1.7	2.4	3.1	1.5	1.7	1.5	2.0	*****	*****	*****	*****	*****	*****	*****	*****	2.0
8	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	1.7	1.8	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	1.8
9	*****	*****	*****	*****	*****	*****	*****	*****	*****	3.3	4.4	5.1	3.4	3.6	3.5	3.9	1.6	2.9	2.5	*****	*****	*****	*****	*****	3.4
10	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0
11	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.5	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.5
12	*****	*****	*****	*****	*****	*****	*****	*****	*****	1.6	1.5	1.9	2.1	4.9	4.5	2.2	4.8	3.2	5.6	3.7	2.7	2.4	2.3	1.2	3.0
13	2.3	2.1	1.0	0.4	2.6	1.0	2.3	1.6	0.9	1.7	2.3	2.7	3.3	4.9	7.3	*****	6.7	4.4	2.9	3.9	5.1	4.0	4.1	3.4	24.4
14	3.8	3.9	3.7	4.8	4.4	4.3	3.0	1.9	2.9	3.3	7.1	9.6	11.4	7.5	4.9	7.0	11.6	9.1	6.9	5.1	6.6	10.9	11.5	6.0	6.3
15	3.6	8.6	9.7	9.3	9.1	8.4	9.5	17.0	8.1	7.3	8.4	11.8	10.0	7.6	10.9	14.1	17.8	*****	20.5	23.4	24.0	20.6	18.1	13.3	11.3
16	8.6	8.9	7.4	11.5	15.4	9.9	11.4	9.4	10.2	10.9	11.4	9.1	10.5	10.5	8.4	7.1	3.6	2.4	3.6	6.6	6.6	4.8	4.0	2.9	8.1
17	2.3	3.2	2.2	3.5	7.0	6.2	12.9	7.4	9.5	7.1	5.7	4.8	8.3	5.7	5.2	7.2	15.1	14.7	14.6	13.6	13.7	13.8	14.1	13.5	8.8
18	16.4	26.1	20.1	16.3	18.5	20.6	20.4	20.6	16.1	15.3	14.9	14.1	10.8	8.3	3.7	6.5	7.2	8.1	8.2	7.9	7.3	4.5	9.2	5.2	12.8
19	6.2	6.5	*****	6.6	5.1	6.7	6.6	6.7	5.2	6.0	3.1	4.3	6.0	7.2	5.7	4.9	0.8	1.4	2.1	3.0	1.5	2.7	3.5	3.2	4.6
20	3.1	3.3	4.4	3.3	2.0	2.9	2.1	3.5	2.6	0.8	2.2	2.7	2.5	2.2	5.1	8.0	9.9	8.8	8.2	7.2	7.1	4.6	2.8	3.4	4.3
21	4.1	3.3	3.6	3.9	3.8	4.4	3.3	4.0	2.2	2.5	1.5	1.5	3.1	1.0	1.1	1.0	2.0	1.0	2.9	2.2	4.8	3.7	6.1	6.0	3.0
22	6.4	3.8	4.7	4.4	1.8	1.6	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	3.8
23	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0
24	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0
25	*****	*****	*****	*****	*****	*****	*****	*****	*****	1.6	2.4	1.6	1.6	3.3	2.2	2.6	3.8	3.3	*****	*****	*****	*****	*****	*****	2.5
26	*****	*****	*****	*****	*****	*****	*****	*****	*****	4.3	6.2	4.4	2.5	1.3	4.0	2.8	7.2	1.8	4.4	5.5	5.6	4.5	*****	*****	4.2
27	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0
28	*****	*****	*****	*****	*****	*****	*****	*****	*****	4.4	1.7	0.9	3.1	4.2	2.7	2.2	3.0	3.2	*****	*****	*****	*****	*****	*****	2.8
29	*****	*****	*****	*****	*****	*****	*****	*****	*****	3.5	2.8	1.0	1.3	2.2	3.9	3.0	2.0	2.5	5.3	4.0	7.3	*****	*****	*****	3.2
30	*****	*****	*****	*****	*****	*****	*****	*****	*****	3.3	2.9	1.6	0.9	2.7	5.2	3.4	4.8	3.6	2.3	4.6	1.4	1.9	1.8	*****	2.9
31	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.9	2.5	2.3	1.8	1.7	1.5	1.9	*****	*****	*****	*****	*****	*****	*****	*****	1.8

MONTHLY AVERAGE = 7.73

WIND DIRECTION FOR CEDAR HILLS LANDFILL
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF JANUARY , 2015

IN DEGREES

(MEASURED CLOCKWISE FROM NORTH)
HOUR ENDING

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	AVG.
1	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.
2	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.
3	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.
4	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.
5	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.
6	*****	*****	*****	*****	*****	*****	*****	*****	*****	77.	293.	24.	350.	320.	20.	27.	*****	*****	*****	*****	*****	*****	*****	*****	159.
7	*****	*****	*****	*****	*****	*****	*****	*****	*****	246.	297.	354.	255.	2.	147.	163.	*****	*****	*****	*****	*****	*****	*****	*****	209.
8	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	20.	172.	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	96.
9	*****	*****	*****	*****	*****	*****	*****	*****	*****	78.	212.	301.	314.	320.	11.	22.	287.	172.	154.	*****	*****	*****	*****	*****	187.
10	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.
11	*****	*****	*****	*****	*****	*****	*****	*****	*****	231.	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	231.
12	*****	*****	*****	*****	*****	*****	*****	*****	*****	130.	334.	50.	47.	303.	351.	39.	25.	28.	33.	62.	118.	146.	116.	16.	120.
13	119.	116.	91.	12.	160.	324.	22.	72.	182.	278.	358.	18.	31.	21.	24.	24.	29.	36.	37.	27.	27.	33.	30.	45.	88.
14	57.	14.	78.	36.	38.	352.	37.	321.	94.	75.	152.	213.	203.	211.	195.	138.	140.	140.	130.	128.	124.	134.	128.	120.	136.
15	104.	131.	139.	128.	126.	146.	128.	128.	137.	131.	146.	130.	137.	144.	138.	131.	134.	*****	128.	127.	126.	129.	128.	140.	131.
16	160.	141.	145.	172.	203.	195.	176.	160.	176.	191.	195.	202.	209.	206.	207.	205.	208.	160.	142.	145.	161.	126.	105.	96.	170.
17	77.	109.	83.	106.	114.	126.	129.	147.	138.	124.	74.	109.	147.	134.	147.	118.	128.	128.	128.	131.	134.	135.	130.	143.	122.
18	190.	217.	203.	187.	187.	196.	196.	195.	204.	185.	197.	225.	237.	223.	190.	214.	190.	198.	187.	174.	152.	136.	176.	157.	192.
19	161.	154.	*****	169.	147.	166.	176.	184.	193.	206.	190.	235.	270.	264.	288.	272.	330.	39.	131.	91.	123.	92.	100.	119.	177.
20	98.	38.	22.	332.	26.	34.	35.	1.	25.	73.	357.	2.	15.	22.	26.	18.	33.	34.	34.	28.	37.	32.	6.	356.	70.
21	38.	93.	1.	20.	71.	132.	59.	83.	3.	16.	260.	182.	202.	222.	77.	239.	96.	184.	189.	182.	206.	203.	172.	133.	128.
22	157.	168.	138.	130.	24.	120.	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	123.
23	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.
24	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.
25	*****	*****	*****	*****	*****	*****	*****	*****	*****	19.	338.	23.	17.	20.	34.	45.	8.	13.	*****	*****	*****	*****	*****	*****	57.
26	*****	*****	*****	*****	*****	*****	*****	*****	*****	76.	138.	179.	219.	339.	291.	322.	304.	275.	242.	248.	205.	151.	*****	*****	230.
27	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.
28	*****	*****	*****	*****	*****	*****	*****	*****	*****	165.	39.	34.	339.	341.	41.	31.	34.	28.	*****	*****	*****	*****	*****	*****	117.
29	*****	*****	*****	*****	*****	*****	*****	*****	*****	23.	49.	90.	152.	65.	40.	48.	352.	29.	23.	38.	29.	*****	*****	*****	78.
30	*****	*****	*****	*****	*****	*****	*****	*****	*****	95.	352.	39.	203.	356.	286.	292.	269.	261.	271.	308.	45.	161.	208.	*****	225.
31	*****	*****	*****	*****	*****	*****	*****	*****	*****	68.	7.	240.	49.	188.	201.	218.	*****	*****	*****	*****	*****	*****	*****	*****	139.

MONTHLY AVERAGE = 138.55

SIGMA THETA FOR CEDAR HILLS LANDFILL
METEOROLGICAL MONITORING SYSTEM FOR
THE MONTH OF JANUARY , 2015

IN DEGREES

DAY	HOUR ENDING																								AVG.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0
2	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0
3	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0
4	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0
5	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0
6	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	21.2
7	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	28.7
8	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	32.9
9	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	21.8
10	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0
11	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	12.6
12	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	14.3
13	6.2	14.1	8.6	10.7	15.9	5.8	13.0	17.7	13.6	38.7	17.3	14.4	22.5	11.2	8.1	8.4	8.6	11.9	12.2	13.1	9.1	12.7	9.8	17.7	13.4
14	20.5	16.9	33.8	21.8	19.3	16.2	15.0	28.2	34.9	22.4	20.5	9.5	8.5	10.0	21.4	15.8	10.3	12.9	21.2	22.7	19.9	13.6	10.0	13.5	18.3
15	11.8	12.2	15.4	16.1	18.6	17.5	18.3	10.6	24.9	30.7	17.0	11.8	12.8	15.7	14.6	10.4	10.5	*****	10.1	10.1	10.4	10.5	9.9	11.8	15.6
16	16.5	10.1	32.7	13.3	8.9	11.9	8.7	7.7	9.4	9.6	10.6	13.8	9.4	14.0	12.6	9.3	8.4	13.8	11.4	15.4	18.4	15.3	18.0	16.6	13.2
17	43.0	15.9	13.1	13.4	12.3	17.2	12.1	18.5	14.0	13.6	17.0	16.7	12.6	17.4	12.2	15.7	10.2	9.7	9.9	9.6	10.9	9.0	9.0	10.3	14.3
18	8.8	9.2	9.1	9.4	8.5	8.6	10.3	11.2	11.1	10.3	10.6	12.4	25.9	16.5	32.5	38.8	29.1	9.6	26.4	8.6	7.6	13.7	10.4	12.3	14.4
19	9.3	9.0	*****	10.8	14.1	13.1	9.4	8.3	7.3	8.9	11.9	18.8	21.0	14.9	17.6	8.5	15.9	13.7	23.7	13.7	22.0	20.7	8.9	7.0	13.4
20	10.1	7.4	11.0	59.0	18.3	8.2	20.9	9.9	12.9	13.4	16.6	15.7	15.9	13.7	9.1	8.1	10.0	8.6	9.0	7.9	9.0	12.8	38.9	28.8	15.6
21	12.5	20.9	29.1	14.1	18.1	11.2	13.8	17.4	22.9	26.8	38.3	31.1	14.9	21.1	27.1	62.1	42.0	25.7	27.3	51.7	16.0	16.8	8.8	11.6	24.2
22	10.6	10.2	13.8	9.5	31.6	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	348.5
23	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0
24	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0
25	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	14.4
26	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	18.9
27	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0
28	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	20.5
29	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	17.7
30	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	24.3
31	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	29.3

MONTHLY AVERAGE = 21.85

MAX. 10 SEC GUST FOR CEDAR HILLS LANDFILL
 METEOROLOGICAL MONITORING SYSTEM FOR
 THE MONTH OF JANUARY , 2015

IN MILES PER HOUR

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MAX
1	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0
2	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0
3	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0
4	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0
5	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0
6	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	*****	*****	*****	*****	0.0
7	*****	*****	*****	*****	*****	*****	*****	*****	*****	3.7	6.3	5.8	4.4	5.3	4.7	4.1	*****	*****	*****	*****	*****	*****	*****	*****	6.3
8	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0	0.0	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0
9	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	*****	*****	*****	0.0
10	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0
11	*****	*****	*****	*****	*****	*****	*****	*****	*****	2.4	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	2.4
12	*****	*****	*****	*****	*****	*****	*****	*****	*****	3.3	2.8	3.3	3.9	8.9	8.8	5.6	7.8	4.9	7.8	7.8	5.3	4.0	4.1	3.2	8.9
13	3.2	3.5	2.5	2.6	4.2	2.6	4.0	3.7	2.5	5.1	4.1	4.6	5.3	12.0	11.6	13.0	10.9	8.5	6.1	6.6	9.5	6.8	6.7	6.2	13.0
14	8.2	7.0	10.2	9.7	9.3	6.5	6.3	3.3	8.3	7.9	13.9	13.9	16.4	10.8	10.9	13.1	17.1	16.8	12.6	12.7	14.0	18.4	17.0	13.1	18.4
15	5.8	15.5	17.7	17.2	17.1	16.7	19.0	24.4	15.7	16.6	17.5	19.3	19.5	12.4	20.0	21.1	26.3	*****	30.3	33.8	35.0	34.2	26.3	21.2	35.0
16	13.6	14.1	14.9	18.6	25.0	17.9	16.5	14.6	18.6	17.6	17.9	15.1	15.2	16.5	13.9	11.6	5.8	4.2	7.4	11.0	10.7	7.7	8.1	6.4	25.0
17	4.9	6.2	5.9	7.6	13.4	14.9	19.5	13.5	18.9	13.8	12.4	8.9	15.2	11.4	8.8	20.4	22.9	22.1	21.6	20.0	20.3	21.3	20.4	21.1	22.9
18	28.8	51.7	39.3	24.4	28.4	30.4	32.9	40.0	27.2	24.5	27.7	25.8	37.3	20.3	9.6	15.1	18.4	18.2	15.6	12.3	11.3	8.3	14.8	9.4	51.7
19	9.6	10.3	*****	9.8	9.7	10.2	10.5	10.6	8.8	10.9	5.1	12.1	10.9	11.2	11.3	7.9	3.6	2.9	5.2	4.8	4.2	5.5	5.7	6.6	12.1
20	7.4	4.6	7.4	8.9	3.7	4.9	3.8	5.5	4.5	2.3	3.6	4.7	5.0	3.9	9.6	13.7	14.6	13.2	13.0	11.8	10.7	8.5	7.0	5.9	14.6
21	6.3	7.2	9.9	7.4	9.1	8.1	5.8	7.8	4.9	5.3	4.7	4.2	5.0	4.0	3.0	4.1	5.7	3.1	7.6	6.4	7.4	6.0	8.9	9.1	9.9
22	11.5	5.7	8.1	7.8	3.3	25.0	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	25.0
23	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0
24	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0
25	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	*****	*****	0.0
26	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*****	0.0
27	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0
28	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*****	0.0
29	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*****	0.0
30	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*****	0.0
31	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	*****	*****	*****	*****	*****	0.0

MONTHLY MAXIMUM = 51.73

2 M TEMPERATURE FOR CEDAR HILLS LANDFILL
METEOROLGICAL MONITORING SYSTEM FOR
THE MONTH OF JANUARY , 2015

IN DEGREES C

DAY	HOUR ENDING																								AVG											
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24												
1	*****																								0.0											
2	*****																								0.0											
3	*****																								0.0											
4	*****																								0.0											
5	*****																								0.0											
6	*****										9.6	10.3	10.3	10.9	10.8	9.6	8.9	*****								10.1										
7	*****										4.7	5.2	5.6	5.6	5.5	5.4	*****																		*****	
8	*****										2.0		2.5	*****																				2.2		
9	*****										3.5	7.8	8.2	8.4	8.4	7.6	7.7	7.7	8.2	8.0	*****								7.6							
10	*****										*****		*****																		0.0					
11	*****										8.0	*****																				8.0				
12	*****										6.6	7.1	8.0	8.8	9.8	8.9	8.7	7.6	6.7	5.4	4.9	5.2	5.2	4.9	4.5	6.8										
13	4.2	4.6	4.9	4.8	4.3	3.9	2.2	2.6	3.6	5.3	6.0	6.1	6.7	7.5	7.6	7.5	6.6	5.5	4.6	4.1	2.6	1.9	1.3	1.5	4.6											
14	2.0	0.9	2.6	1.1	1.2	2.5	2.2	2.9	4.8	4.6	7.0	6.1	5.6	4.4	6.3	8.3	7.5	6.7	6.3	6.2	5.6	5.8	4.9	4.5	4.6											
15	3.9	4.5	6.1	6.4	6.0	5.0	4.7	6.8	6.4	6.2	7.1	8.1	9.2	9.0	7.1	7.3	7.6	*****	6.1	5.8	5.8	5.9	5.9	5.7	6.2											
16	5.3	6.0	7.0	8.2	8.1	7.8	7.3	7.0	7.3	7.6	8.1	8.7	9.5	9.9	10.3	9.8	9.1	8.0	7.1	6.5	6.4	6.3	5.8	5.2	7.6											
17	5.2	5.3	6.0	6.5	7.1	8.2	9.7	9.1	8.8	7.6	6.8	6.3	7.9	8.4	8.0	7.7	8.4	8.8	9.3	10.3	10.3	10.6	10.2	10.1	8.2											
18	11.7	11.8	10.6	10.1	10.1	9.1	9.2	9.3	9.1	9.5	8.9	7.8	6.8	7.4	7.8	7.5	8.0	8.6	7.7	7.3	7.2	7.1	6.7	5.9	8.6											
19	6.2	6.1	*****	6.0	6.0	6.3	6.3	6.4	6.4	6.5	6.8	7.6	8.2	8.6	8.9	8.2	7.8	7.3	6.6	6.4	6.9	5.9	5.6	5.7	6.8											
20	5.0	4.6	3.9	3.4	3.1	3.1	2.8	3.2	2.4	4.5	5.0	5.4	5.6	6.3	7.0	7.4	6.6	5.5	4.8	4.4	3.6	3.0	3.4	3.3	4.5											
21	2.8	5.0	3.9	2.7	4.0	4.4	3.1	4.0	3.1	4.9	6.1	5.9	6.0	7.1	7.3	6.8	6.8	6.6	6.0	5.6	5.8	5.4	6.2	7.3	5.3											
22	7.6	7.7	7.4	7.2	6.5	*****																				172.7										
23	*****																								0.0											
24	*****																								0.0											
25	*****										10.3	11.5	14.4	15.8	15.6	15.1	14.7	13.7	12.9	*****								13.8								
26	*****										11.2	13.9	16.4	17.3	18.5	17.2	17.6	16.1	15.8	14.8	13.2	11.4	10.6	*****					14.9							
27	*****																								0.0											
28	*****										9.7	7.4	7.9	8.0	8.3	8.6	8.6	8.2	7.7	*****								8.3								
29	*****										3.7	4.3	5.1	6.1	7.4	8.6	9.9	10.7	9.9	8.7	7.0	6.3	*****						7.3							
30	*****										4.9	4.1	5.7	9.0	9.7	8.9	9.4	8.8	8.3	7.2	6.2	5.6	5.0	4.5	*****				7.0							
31	*****										2.0	2.1	3.1	3.7	3.9	4.0	4.2	*****																		3.3

MONTHLY AVERAGE = 41.36

BAROMETRIC PRESSURE FOR CEDAR HILLS LANDFILL
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF JANUARY , 2015

IN INCHES HG

DAY	HOUR ENDING																								AVG								
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24									
1	*****																								0.0								
2	*****																								0.0								
3	*****																								0.0								
4	*****																								0.0								
5	*****																								0.0								
6	*****										17.2	17.3	17.4	17.3	17.9	18.1	18.0	*****								17.6							
7	*****										0.0	17.1	17.1	17.4	17.4	17.6	17.6	*****								14.9							
8	*****												0.0	16.9	*****																		8.4
9	*****										17.0	16.5	16.6	17.2	17.4	17.5	17.6	17.8	17.9	17.8	*****								17.3				
10	*****																								0.0								
11	*****										0.0	*****														0.0							
12	*****										0.0	16.4	16.5	16.6	17.1	17.6	17.7	17.9	17.9	17.9	17.8	17.7	17.5	17.6	17.6	16.3							
13	17.4	17.4	17.3	17.4	17.4	17.6	17.6	17.6	17.4	17.2	17.5	17.8	18.0	18.4	18.6	18.6	18.8	18.7	18.6	18.5	18.4	18.3	18.2	18.1	18.0	18.0	18.0						
14	17.9	17.9	17.8	17.8	17.7	17.7	17.6	17.7	17.6	17.4	17.6	17.8	18.1	18.7	18.5	18.3	18.3	18.2	18.2	18.1	18.1	18.1	18.0	17.9	17.7	17.7	17.4						
15	18.1	18.0	17.8	17.6	17.7	17.7	17.8	18.3	17.5	17.7	17.6	17.6	0.0	18.2	18.4	18.5	18.1	*****	18.2	18.1	18.0	17.9	17.7	17.8	17.9	17.7	17.4						
16	17.7	17.7	17.5	17.4	17.4	17.5	17.6	17.6	17.6	17.5	17.5	17.5	17.3	17.6	17.7	17.8	18.2	18.2	18.2	17.9	17.7	17.8	17.9	17.8	17.9	17.8	17.7						
17	17.9	17.7	17.6	17.5	17.4	17.4	17.4	17.3	17.5	17.7	17.8	17.8	17.6	17.4	17.5	17.6	17.5	17.4	17.3	17.3	17.3	17.3	17.3	17.4	17.4	17.4	17.5						
18	17.5	17.2	17.5	17.6	17.6	17.6	17.6	17.5	17.5	17.5	17.5	17.6	17.6	17.8	17.5	17.6	17.6	17.6	17.6	17.7	17.8	17.6	17.6	17.5	17.6	17.6	17.6						
19	17.6	17.5	*****	17.5	17.5	17.4	17.4	17.4	17.4	17.4	17.4	17.3	17.3	17.1	17.5	17.6	17.9	18.1	17.9	17.8	17.7	17.6	17.8	17.7	17.6	17.7	17.6						
20	17.7	17.8	17.7	17.7	17.6	17.6	17.6	17.7	17.6	17.7	17.4	17.9	18.3	18.3	18.5	18.7	18.8	18.6	18.6	18.5	18.4	18.3	18.3	18.3	18.3	18.3	18.1						
21	18.2	18.2	18.0	18.1	18.1	18.0	18.1	18.0	18.0	18.0	17.8	17.6	17.9	19.5	19.4	0.1	19.1	19.0	19.0	19.0	19.0	18.8	18.8	18.7	18.5	18.5	17.7						
22	18.5	18.4	18.4	18.4	18.7	1.4	*****																		15.6								
23	*****																								0.0								
24	*****																								0.0								
25	*****										17.6	17.5	17.9	18.4	18.9	19.4	19.6	19.7	19.4	*****								18.7					
26	*****										19.2	18.3	18.2	18.6	19.0	20.0	20.2	20.1	20.4	20.4	20.1	20.0	19.9	*****				19.6					
27	*****																								0.0								
28	*****										19.5	17.7	17.7	17.9	18.1	18.4	18.5	19.1	19.1	*****								18.5					
29	*****										0.0	17.8	18.4	18.4	18.7	18.9	19.3	19.4	19.7	19.9	19.7	19.5	*****						17.5				
30	*****										19.2	18.1	18.8	18.7	18.8	19.5	19.9	19.9	20.1	20.1	20.0	19.8	19.6	19.2	*****				19.4				
31	*****										19.1	18.0	18.0	18.0	18.2	18.4	18.4	*****										18.3					

MONTHLY AVERAGE = 17.48

PRECIPITATION FOR CEDAR HILLS LANDFILL
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF JANUARY , 2015

IN INCHES

DAY	HOUR ENDING																								TOT
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.00
2	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.00
3	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.00
4	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.00
5	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.00
6	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	*****	*****	*****	*****	*****	0.00
7	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	*****	*****	*****	*****	*****	*****	*****	0.00
8	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.00	0.00	0.00	0.00	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.00
9	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	*****	*****	*****	*****	*****	0.00
10	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.00
11	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.00	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.00
12	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	*****	0.06	0.03	0.04	0.06	0.06	0.03	0.32
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.02	0.08	0.10	0.12	0.12	0.15	0.13	0.15	0.16	0.15	0.05	1.26
18	0.00	0.02	0.00	0.00	0.01	0.06	0.01	0.00	0.01	0.00	0.07	0.16	0.14	0.02	0.01	0.14	0.00	0.01	0.11	0.00	0.00	0.01	0.09	0.00	0.91
19	0.04	0.01	*****	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.10
20	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.00
23	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.00
24	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.00
25	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	*****	*****	*****	*****	*****	0.00
26	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	*****	*****	0.00
27	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.00
28	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	*****	*****	*****	*****	*****	0.00
29	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.00	0.00	0.00	0.00	0.00	0.00	0.00	*****	*****	*****	*****	*****	*****	*****	*****	0.00

MONTHLY TOTAL = 2.62

WIND SPEED/DIRECTION CEDAR HILLS LANDFILL
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF JANUARY , 2015

IN MPH/DIR

DAY	HOUR ENDING																									
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	*****																									
2	*****																									
3	*****																									
4	*****																									
5	*****																									
6	*****										0E	1NW	1NE	2N	2NW	3N	2NE	*****								
7	*****										2SW	2NW	3N	2W	2N	1SE	2S	*****								
8	*****										*****		2N	2S	*****											
9	*****										3E	4SW	5NW	3NW	4NW	3N	4N	2W	3S	2SE	*****					
10	*****																									
11	*****										*****		1SW	*****												
12	*****										2SE	2NW	2NE	2NE	5NW	5N	2NE	5NE	3NE	6NE	4NE	3SE	2SE	2SE	1N	
13	2SE	2SE	1E	0N	3S	1NW	2N	2E	1S	2W	2N	3N	3NE	5N	7NE	**NE	7NE	4NE	3NE	4NE	5NE	4NE	4NE	3NE		
14	4NE	4N	4E	5NE	4NE	4N	3NE	2NW	3E	3E	7SE	10SW	11SW	8SW	5S	7SE	12SE	9SE	7SE	5SE	7SE	11SE	12SE	6SE		
15	4E	9SE	10SE	9SE	9SE	8SE	9SE	17SE	8SE	7SE	8SE	12SE	10SE	8SE	11SE	14SE	18SE	*****		20SE	23SE	24SE	21SE	18SE	13SE	
16	9S	9SE	7SE	12S	15SW	10S	11S	9S	10S	11S	11S	9S	11SW	11SW	8SW	7SW	4SW	2S	4SE	7SE	7S	5SE	4E	3E		
17	2E	3E	2E	3E	7SE	6SE	13SE	7SE	9SE	7SE	6E	5E	8SE	6SE	5SE	7SE	15SE	15SE	15SE	14SE	14SE	14SE	14SE	13SE		
18	16S	26SW	20SW	16S	19S	21S	20S	21S	16SW	15S	15S	14SW	11SW	8SW	4S	7SW	7S	8S	8S	8S	7SE	4SE	9S	5SE		
19	6S	6SE	*****	7S	5SE	7S	7S	7S	5S	6SW	3S	4SW	6W	7W	6W	5W	1NW	1NE	2SE	3E	1SE	3E	3E	3SE		
20	3E	3NE	4N	3NW	2NE	3NE	2NE	3N	3NE	1E	2N	3N	2N	2N	5NE	8N	10NE	9NE	8NE	7NE	7NE	5NE	3N	3N		
21	4NE	3E	4N	4N	4E	4SE	3NE	4E	2N	3N	1W	2S	3SW	1SW	1E	1SW	2E	1S	3S	2S	5SW	4SW	6S	6SE		
22	6SE	4S	5SE	4SE	2NE	2SE	*****																			
23	*****																									
24	*****																									
25	*****										2N	2N	2NE	2N	3N	2NE	3NE	4N	3N	*****						
26	*****										4E	6SE	4S	2SW	1N	4W	3NW	7NW	2W	4SW	5W	6SW	4SE	*****		
27	*****																									
28	*****										4S	2NE	1NE	3N	4N	3NE	2NE	3NE	3NE	*****						
29	*****										3NE	3NE	1E	1SE	2NE	4NE	3NE	2N	2NE	5NE	4NE	7NE	*****			
30	*****										3E	3N	2NE	1SW	3N	5W	3W	5W	4W	2W	5NW	1NE	2S	2SW	*****	
31	*****										1E	2N	2SW	2NE	2S	2S	2SW	*****								

WIND SPEED FOR CEDAR HILLS LANDFILL
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF FEBRUARY , 2015

IN MILES PER HOUR

DAY	HOUR ENDING																								AVG.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0
2	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	15.6	*****	*****	*****	*****	*****	*****	*****	*****	15.6
3	*****	*****	*****	*****	*****	*****	*****	*****	*****	3.6	3.8	4.4	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	3.9
4	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0
5	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0
6	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0
7	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0
8	*****	*****	*****	*****	*****	*****	*****	*****	6.0	8.6	9.6	6.5	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	7.6
9	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0
10	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	8.8	5.7	*****	2.4	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	5.6
11	*****	*****	*****	*****	*****	*****	*****	*****	*****	2.1	2.7	*****	3.9	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	2.9
12	*****	*****	*****	*****	*****	*****	*****	*****	3.4	3.9	2.6	2.4	2.8	3.1	3.4	*****	*****	*****	*****	*****	*****	*****	*****	*****	3.1
13	*****	*****	*****	*****	*****	*****	*****	*****	*****	2.6	3.7	2.6	2.2	4.0	3.9	*****	*****	*****	*****	*****	*****	*****	*****	*****	3.2
14	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	5.3	6.3	7.4	*****	6.9	*****	*****	*****	*****	*****	*****	*****	*****	6.5
15	*****	*****	*****	*****	*****	*****	*****	*****	*****	3.6	3.1	3.5	10.3	13.4	12.5	13.6	13.6	*****	*****	*****	*****	*****	*****	*****	9.2
16	*****	*****	*****	*****	*****	*****	*****	*****	*****	6.0	4.3	3.3	4.7	8.5	9.1	12.5	12.7	12.0	*****	*****	*****	*****	*****	*****	8.1
17	*****	*****	*****	*****	*****	*****	*****	7.6	6.8	4.3	3.3	4.5	5.3	9.4	10.0	8.7	6.7	6.0	*****	*****	*****	*****	*****	*****	6.6
18	*****	*****	*****	*****	*****	*****	*****	3.8	6.1	5.5	6.4	*****	6.7	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	5.4
19	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0
20	*****	*****	*****	*****	*****	*****	*****	*****	*****	7.4	6.6	3.5	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	5.8
21	*****	*****	*****	*****	*****	*****	*****	*****	*****	8.7	9.7	10.8	10.6	8.1	6.9	7.2	*****	*****	*****	*****	*****	*****	*****	*****	8.9
22	*****	*****	*****	*****	*****	*****	*****	4.4	3.5	3.9	3.1	3.6	6.6	10.5	12.0	11.4	12.7	10.9	*****	*****	*****	*****	*****	*****	7.5
23	*****	*****	*****	*****	*****	*****	*****	1.6	3.3	3.4	2.6	2.6	4.1	3.6	5.7	6.9	4.6	5.1	4.1	2.8	1.6	2.0	3.0	2.1	3.5
24	1.4	1.0	1.7	2.0	1.7	3.2	5.4	2.7	1.9	3.2	5.2	5.2	6.6	6.4	6.7	8.4	5.8	2.6	2.9	2.4	2.0	2.3	3.5	4.8	3.7
25	3.2	0.6	1.0	3.0	3.7	4.5	4.8	3.4	2.5	4.3	4.3	4.3	3.1	2.8	2.5	1.6	1.9	0.5	1.5	1.1	0.8	2.0	3.3	1.4	2.6
26	0.4	2.3	0.8	1.9	2.8	2.6	3.1	3.2	2.7	1.6	1.9	2.2	2.5	1.7	*****	1.0	1.5	*****	*****	*****	*****	*****	*****	*****	2.0
27	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	2.0	6.5	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	4.3
28	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0

MONTHLY AVERAGE = 4.82

WIND DIRECTION FOR CEDAR HILLS LANDFILL
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF FEBRUARY , 2015

IN DEGREES

(MEASURED CLOCKWISE FROM NORTH)
HOUR ENDING

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	AVG.			
1	*****																								0.			
2	*****																184.	*****								184.		
3	*****											188.	147.	311.	*****												215.	
4	*****																								0.			
5	*****																								0.			
6	*****																								0.			
7	*****																								0.			
8	*****									122.	115.	119.	111.	*****										117.				
9	*****																								0.			
10	*****													190.	187.	*****	343.	*****							240.			
11	*****											19.	179.	*****	328.	*****												175.
12	*****									135.	178.	184.	170.	136.	130.	183.	*****									159.		
13	*****										221.	210.	168.	242.	288.	279.	*****									235.		
14	*****																								24.			
15	*****									26.	51.	39.	24.	14.	13.	6.	14.	*****							24.			
16	*****									39.	34.	350.	31.	41.	32.	25.	25.	19.	*****							66.		
17	*****								27.	25.	25.	19.	36.	33.	29.	23.	21.	19.	40.	*****						27.		
18	*****								128.	153.	203.	176.	*****		211.	*****										194.		
19	*****																								0.			
20	*****											32.	34.	38.	*****												35.	
21	*****										358.	355.	347.	358.	25.	13.	8.	*****									209.	
22	*****							112.	102.	102.	44.	15.	5.	356.	21.	9.	15.	15.	*****							72.		
23	*****							297.	308.	336.	304.	256.	271.	265.	279.	250.	271.	280.	357.	75.	112.	114.	136.	103.	236.			
24	91.	131.	171.	188.	30.	160.	142.	203.	295.	213.	186.	186.	204.	285.	266.	242.	255.	290.	10.	71.	41.	162.	126.	125.	170.			
25	128.	176.	176.	200.	131.	131.	124.	168.	151.	147.	138.	221.	211.	181.	111.	124.	93.	76.	66.	86.	76.	94.	85.	104.	133.			
26	97.	152.	126.	124.	99.	98.	107.	118.	146.	146.	112.	216.	205.	209.	*****	222.	41.	*****							139.			
27	*****																								41.			
28	*****																								0.			

MONTHLY AVERAGE = 138.21

SIGMA THETA FOR CEDAR HILLS LANDFILL
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF FEBRUARY , 2015

IN DEGREES

DAY	HOUR ENDING																								AVG.		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	*****																								0.0		
2	*****															20.3	*****									20.3	
3	*****										19.0	15.3	99.7	*****											44.7		
4	*****																								0.0		
5	*****																								0.0		
6	*****																								0.0		
7	*****																								0.0		
8	*****									35.4	11.8	11.9	13.8	*****										18.2			
9	*****																								0.0		
10	*****											27.0	18.6	*****		10.2	*****										18.6
11	*****											29.6	40.9	*****		43.6	*****										38.0
12	*****									8.4	15.2	18.3	27.5	23.3	18.5	24.2	*****								19.4		
13	*****									19.7	16.1	35.5	19.1	21.6	17.5	*****									21.6		
14	*****									*****	*****	*****	*****	11.1	13.2	13.9	*****		16.7	*****							13.7
15	*****									11.2	14.2	13.7	10.3	11.4	11.6	9.8	8.4	*****							11.3		
16	*****									8.9	12.7	20.8	14.8	13.9	16.1	15.9	10.4	8.8	*****							13.6	
17	*****									20.4	9.0	10.9	28.4	11.3	7.9	9.0	8.1	9.9	8.9	9.7	*****					12.1	
18	*****									0.0	17.8	17.1	14.4	*****		39.4	*****								14.8		
19	*****																								0.0		
20	*****											28.9	11.8	14.4	*****										18.4		
21	*****											12.4	16.0	13.4	15.6	16.6	18.7	20.7	*****								16.2
22	*****									19.5	15.9	18.6	21.2	21.4	23.8	15.6	10.3	10.2	8.4	9.4	*****					15.8	
23	*****									8.8	12.3	14.4	23.2	30.1	26.2	31.2	18.1	13.6	14.7	3.9	10.7	10.9	17.8	13.4	11.8	7.7	15.8
24	11.1	9.1	14.9	23.6	23.1	9.2	7.8	26.3	15.5	17.9	20.0	21.0	15.1	21.9	21.1	19.6	14.5	21.7	9.1	51.4	41.2	40.0	11.8	8.0	19.8		
25	30.9	19.2	9.9	13.4	9.5	6.3	7.2	12.9	13.7	11.0	13.8	13.9	15.4	17.0	14.9	42.1	14.5	13.4	15.0	15.9	6.6	10.4	17.8	9.2	14.8		
26	8.5	16.5	6.7	15.3	8.2	10.1	6.6	7.5	14.9	16.3	20.8	21.3	24.9	23.1	*****		30.8	8.6	*****						15.0		
27	*****											12.4	12.4	*****										12.4			
28	*****																								0.0		

MONTHLY AVERAGE = 16.91

MAX. 10 SEC GUST FOR CEDAR HILLS LANDFILL
 METEOROLOGICAL MONITORING SYSTEM FOR
 THE MONTH OF FEBRUARY , 2015

IN MILES PER HOUR

DAY	HOUR ENDING																								MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0
2	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	*****	*****	*****	*****	*****	*****	*****	*****	0.0
3	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	5.6	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	5.6
4	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0
5	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0
6	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0
7	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0
8	*****	*****	*****	*****	*****	*****	*****	*****	7.5	13.9	16.0	14.8	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	16.0
9	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0
10	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	*****	0.0	*****	0.0	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0
11	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	*****	0.0	*****	0.0	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0
12	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	*****	*****	*****	*****	*****	*****	0.0
13	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	*****	*****	*****	*****	*****	*****	0.0
14	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	8.3	10.8	13.4	*****	12.5	*****	*****	*****	*****	*****	*****	*****	13.4
15	*****	*****	*****	*****	*****	*****	*****	*****	*****	5.3	5.1	5.1	5.1	5.1	5.1	5.1	5.1	*****	*****	*****	*****	*****	*****	*****	5.3
16	*****	*****	*****	*****	*****	*****	*****	*****	*****	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	*****	*****	*****	*****	*****	*****	*****	4.3
17	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	*****	*****	*****	*****	*****	0.0
18	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0	0.0	*****	0.0	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0
19	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0
20	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0
21	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	*****	*****	*****	*****	*****	0.0
22	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	*****	*****	*****	*****	*****	0.0
23	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0	0.0	*****	10.3	10.9	8.1	*****	5.8	4.2	2.9	3.8	6.2	3.6	*****	*****
24	2.5	3.0	3.5	2.8	3.5	4.9	7.9	6.1	4.6	6.2	9.1	10.5	10.5	11.8	13.8	14.7	11.5	5.0	4.2	4.9	5.3	3.9	8.3	6.9	14.7
25	5.4	2.7	3.2	5.5	5.5	6.6	6.7	5.4	4.6	6.5	7.1	7.4	5.5	4.8	5.3	3.9	4.0	2.0	2.3	2.5	2.3	3.3	5.6	4.9	7.4
26	2.3	4.2	2.9	3.9	4.8	4.9	4.4	4.7	4.7	3.4	3.8	4.7	6.0	3.2	*****	2.6	2.6	*****	*****	*****	*****	*****	*****	*****	6.0
27	*****	*****	*****	*****	*****	*****	*****	*****	*****	2.6	2.6	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	2.6
28	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0

MONTHLY MAXIMUM = 1023.00

2 M TEMPERATURE FOR CEDAR HILLS LANDFILL
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF FEBRUARY , 2015

IN DEGREES C

DAY	HOUR ENDING																								AVG		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	*****																								0.0		
2	*****															10.1	*****									10.1	
3	*****										8.0	8.4	8.6	*****											8.3		
4	*****																								0.0		
5	*****																								0.0		
6	*****																								0.0		
7	*****																								0.0		
8	*****									10.0	11.0	13.0	12.9	*****										11.7			
9	*****																								0.0		
10	*****											10.4	11.2	*****	11.0	*****									10.9		
11	*****										9.3	11.1	*****	11.1	*****										10.5		
12	*****									10.6	11.0	11.7	12.8	14.2	15.6	17.1	*****									13.3	
13	*****									10.5	10.1	12.1	14.9	16.6	16.9	*****									13.5		
14	*****										*****	*****	*****	10.7	11.3	11.4	*****	11.6	*****								11.3
15	*****								4.1	5.0	6.7	8.6	9.8	10.5	10.8	10.9	*****									8.3	
16	*****								3.1	4.5	8.1	10.3	12.0	12.6	12.5	12.7	11.9	*****								9.7	
17	*****							4.1	4.9	7.4	9.3	10.1	12.3	13.5	14.4	14.9	14.7	13.2	*****							10.8	
18	*****							8.9	9.1	8.3	11.0	*****		11.4	*****										9.6		
19	*****																								0.0		
20	*****										8.2	8.6	8.9	*****											8.6		
21	*****										5.9	6.6	7.2	8.1	8.7	9.4	9.4	*****									7.9
22	*****							5.7	6.2	7.4	8.8	9.4	10.3	10.1	9.4	9.5	9.3	8.6	*****							8.6	
23	*****							4.6	5.0	6.2	8.0	9.3	10.7	12.1	12.2	12.1	11.9	10.6	9.7	8.4	7.8	7.6	7.5	7.4	7.0	54.0	
24	6.2	5.8	5.1	5.2	4.7	3.9	4.4	5.1	6.0	6.9	8.5	9.8	10.9	11.0	11.0	10.5	9.6	8.8	8.1	7.3	6.8	7.2	6.6	6.9	7.3		
25	7.0	7.2	7.3	6.7	6.5	6.5	6.6	6.9	7.1	7.0	7.6	8.1	7.5	7.6	7.7	7.8	7.7	7.7	7.5	7.3	7.2	7.1	7.0	6.6	7.2		
26	6.5	6.4	6.4	6.3	6.2	6.3	6.4	6.6	6.9	7.2	7.9	11.7	10.2	9.9	*****	10.0	9.5	*****							7.8		
27	*****											9.1	8.6	*****												8.8	
28	*****																								0.0		

MONTHLY AVERAGE = 13.50

BAROMETRIC PRESSURE FOR CEDAR HILLS LANDFILL
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF FEBRUARY , 2015

IN INCHES HG

DAY	HOUR ENDING																								AVG			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
1	*****																								0.0			
2	*****															0.1	*****									0.1		
3	*****										0.0	17.5	0.0	*****													5.8	
4	*****																								0.0			
5	*****																								0.0			
6	*****																								0.0			
7	*****																								0.0			
8	*****									0.1	15.9	16.1	16.6	*****											12.2			
9	*****																								0.0			
10	*****												0.1	16.4	*****		0.5	*****										5.7
11	*****										0.0	16.2	*****		16.4	*****										10.9		
12	*****									0.0	16.1	16.1	16.7	16.8	16.9	17.1	*****									14.3		
13	*****									0.0	16.6	16.9	17.0	17.0	17.5	*****										14.2		
14	*****									*****					0.0	16.8	17.1	*****		17.4	*****							12.8
15	*****								0.0	16.6	16.9	17.2	17.6	17.8	17.9	18.0	*****										15.2	
16	*****								0.0	16.8	17.1	17.2	17.6	17.9	18.1	18.3	18.4	*****										15.7
17	*****							0.1	16.5	17.0	17.4	17.8	18.2	18.3	18.5	18.7	18.8	18.9	*****							16.4		
18	*****							16.8	0.2	17.3	17.7	*****		17.8	*****											11.6		
19	*****																								0.0			
20	*****										0.0	16.7	16.7	*****											11.2			
21	*****										0.0	16.5	17.0	17.5	17.7	17.9	18.1	*****									15.0	
22	*****							0.1	16.6	17.1	17.5	17.9	18.1	18.2	18.3	18.4	18.5	18.6	*****							16.3		
23	*****							0.1	16.7	17.2	17.7	18.0	18.2	0.0	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	22.5		
24	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5			
25	29.5	29.5	29.5	29.5	29.5	29.5	29.5	0.0	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.4	29.4	29.4	29.4	29.4	28.3			
26	29.4	29.4	29.4	29.4	29.4	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.2	0.0	*****									27.5			
27	*****												29.1	28.9	*****											29.0		
28	*****																								0.0			

MONTHLY AVERAGE = 20.41

PRECIPITATION FOR CEDAR HILLS LANDFILL
 METEOROLGICAL MONITORING SYSTEM FOR
 THE MONTH OF FEBRUARY , 2015

IN INCHES

DAY	HOUR ENDING																								TOT
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.00
2	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.00	*****	*****	*****	*****	*****	*****	*****	*****	0.00
3	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.00	0.00	0.00	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.00
4	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.00
5	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.00
6	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.00
7	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.00
8	*****	*****	*****	*****	*****	*****	*****	*****	0.00	0.00	0.00	0.00	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.00
9	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.00
10	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.00	0.00	*****	0.00	*****	0.00	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.00
11	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.00	0.00	*****	0.00	*****	0.00	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.00
12	*****	*****	*****	*****	*****	*****	*****	*****	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	*****	*****	*****	*****	*****	*****	*****	*****	0.00
13	*****	*****	*****	*****	*****	*****	*****	*****	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	*****	*****	*****	*****	*****	*****	*****	*****	0.00
14	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.00	0.00	0.00	*****	0.00	*****	0.00	*****	*****	*****	*****	*****	*****	*****	*****	0.00
15	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	*****	*****	*****	*****	*****	*****	*****	0.00
16	*****	*****	*****	*****	*****	*****	*****	*****	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	*****	*****	*****	*****	*****	*****	*****	0.00
17	*****	*****	*****	*****	*****	*****	*****	*****	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	*****	*****	*****	*****	*****	*****	0.00
18	*****	*****	*****	*****	*****	*****	*****	*****	0.00	0.00	0.00	0.00	*****	0.00	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.00
19	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.00
20	*****	*****	*****	*****	*****	*****	*****	*****	0.00	0.00	0.00	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.00
21	*****	*****	*****	*****	*****	*****	*****	*****	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	*****	*****	*****	*****	*****	*****	*****	0.00
22	*****	*****	*****	*****	*****	*****	*****	*****	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	*****	*****	*****	*****	*****	*****	0.00
23	*****	*****	*****	*****	*****	*****	*****	*****	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.02	0.01	0.00	0.01	0.00	0.01	0.01	0.06	0.02	0.15
26	0.04	0.01	0.00	0.01	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	*****	0.00	0.00	*****	*****	*****	*****	*****	*****	*****	0.23
27	*****	*****	*****	*****	*****	*****	*****	*****	0.00	0.00	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.00
28	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.00

MONTHLY TOTAL = 0.38

WIND SPEED/DIRECTION CEDAR HILLS LANDFILL
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF FEBRUARY , 2015

IN MPH/DIR

DAY	HOUR ENDING																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
2	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
3	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
4	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
5	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
6	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
7	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
8	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
9	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
10	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
11	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
12	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
13	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
14	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
15	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
16	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
17	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
18	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
19	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
20	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
21	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
22	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
23	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
24	1E	1SE	2S	2S	2NE	3S	5SE	3SW	2NW	3SW	5S	5S	7SW	6W	7W	8SW	6W	3W	3N	2E	2NE	2S	3SE	5SE
25	3SE	1S	1S	3S	4SE	5SE	5SE	3S	3SE	4SE	4SE	4SW	3SW	3S	2E	2SE	2E	1E	2NE	1E	1E	2E	3E	1E
26	0E	2SE	1SE	2SE	3E	3E	3E	3SE	3SE	2SE	2E	2SW	3SW	2SW	*****	1SW	2NE	*****	*****	*****	*****	*****	*****	*****
27	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
28	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****

WIND SPEED FOR CEDAR HILLS LANDFILL
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF MARCH , 2015

IN MILES PER HOUR

DAY	HOUR ENDING																								AVG.	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	*****																								0.0	
2	*****																								0.0	
3	*****									7.5	2.1	4.2	3.9	5.2	6.9	4.0	6.6	5.9	3.7	3.1	2.7	2.2	2.4	2.4	4.2	
4	1.6	2.3	2.9	1.4	2.0	1.6	2.2	1.4	0.4	1.7	1.8	2.2	5.2	5.6	5.1	7.2	7.1	6.5	5.2	6.9	5.6	0.8	1.0	2.2	3.3	
5	0.7	2.2	1.5	0.3	3.0	1.1	2.0	1.5	2.6	1.3	1.7	1.7	2.7	3.6	3.6	3.8	5.7	4.3	3.4	3.9	5.5	2.3	1.8	2.7	2.6	
6	2.5	1.3	0.6	0.3	1.3	3.1	1.1	2.5	3.0	2.0	1.0	1.3	2.7	2.7	3.6	5.3	5.1	3.4	2.2	2.8	4.0	3.1	4.1	2.5	2.6	
7	1.5	2.0	2.0	0.9	1.2	1.4	0.9	2.2	1.4	1.4	2.7	5.3	9.3	11.5	11.1	8.3	8.6	7.8	6.1	6.5	6.3	5.7	5.8	4.9	4.8	
8	4.3	1.8	2.9	3.5	1.9	2.7	2.6	1.9	1.3	1.1	1.7	3.8	5.6	5.8	6.0	5.3	4.1	2.5	3.2	4.6	3.7	2.4	1.5	2.3	3.2	
9	2.8	1.3	2.6	4.9	4.7	4.7	3.5	2.7	1.7	3.1	4.5	6.0	6.8	7.6	6.0	7.7	6.8	3.7	2.3	2.7	3.3	2.8	3.4	5.1	4.2	
10	5.1	4.1	5.3	4.1	2.0	4.0	0.7	3.7	1.2	1.2	2.8	3.4	3.7	3.5	3.5	3.1	4.8	5.4	6.3	8.5	9.9	7.1	3.4	4.9	4.2	
11	6.3	5.0	4.0	4.4	9.2	5.9	4.8	3.8	4.4	2.3	5.3	6.8	6.7	6.9	6.8	4.6	4.5	4.8	4.4	5.5	6.6	5.0	6.1	3.7	5.3	
12	5.7	5.3	4.5	3.7	4.8	6.8	7.6	6.0	7.2	7.9	11.2	10.8	8.2	8.9	8.6	6.5	4.9	3.6	3.7	3.3	3.2	3.0	2.9	3.1	5.9	
13	3.1	2.5	4.4	4.8	4.6	7.4	5.6	4.8	4.4	1.4	4.0	11.5	11.8	12.2	9.4	7.6	7.1	3.0	4.6	6.3	4.0	8.4	5.3	2.1	5.8	
14	4.9	8.0	7.2	5.7	8.7	10.9	8.3	8.7	9.6	10.5	14.4	16.4	14.9	14.2	8.6	5.9	5.6	5.2	4.5	3.3	3.5	6.2	9.7	4.4	8.3	
15	5.0	2.5	2.7	5.5	8.0	7.3	6.3	4.7	5.0	3.9	7.1	13.9	9.0	6.1	5.7	2.8	8.4	18.3	26.1	26.2	19.6	7.7	6.5	2.3	8.8	
16	2.4	4.2	4.5	6.8	4.1	3.3	5.1	3.5	3.8	3.3	5.2	5.7	8.0	8.6	10.1	10.8	9.1	7.2	9.6	7.6	5.5	3.9	6.8	5.4	6.0	
17	2.6	2.2	3.2	1.8	2.0	3.4	3.1	4.3	5.2	1.1	3.6	6.6	10.4	8.3	11.4	6.4	9.2	6.2	5.7	6.4	6.5	6.9	4.9	2.4	5.2	
18	3.9	4.1	3.7	3.6	2.2	3.7	4.0	3.8	5.5	5.1	4.2	3.9	3.3	2.3	2.2	2.5	1.4	2.4	2.6	4.1	2.9	3.8	5.6	4.7	3.6	
19	4.8	5.5	5.9	5.0	5.2	5.2	5.0	5.4	4.4	4.4	3.4	3.0	5.6	6.5	6.1	2.9	2.8	2.7	3.1	2.3	4.8	4.1	5.2	3.6	4.4	
20	2.0	4.8	5.9	5.7	4.5	3.6	4.2	4.0	2.2	2.0	1.0	6.4	3.2	4.7	4.0	4.5	5.0	11.2	7.1	4.0	3.9	4.1	6.8	5.9	4.6	
21	5.8	5.2	5.9	9.1	8.9	9.5	12.5	12.3	15.1	13.8	11.3	12.8	11.3	12.7	9.4	10.5	8.5	7.3	5.2	3.0	5.6	3.3	3.7	2.3	8.5	
22	2.7	2.7	2.6	4.0	4.9	*****			5.6	3.8	6.9	5.0	4.9	3.3	3.3	2.4	4.3	8.9	6.0	4.5	3.8	4.8	2.6	1.7	4.2	
23	2.5	2.7	3.6	3.6	3.4	2.1	1.8	1.6	2.8	6.5	3.2	6.5	7.0	10.0	11.3	7.8	14.6	8.7	7.3	6.0	5.6	2.7	2.9	4.0	5.3	
24	5.8	5.9	7.3	7.9	*****				8.4	7.0	5.9	6.5	4.6	8.1	8.9	11.4	9.0	7.4	5.7	6.3	7.1	7.8	6.6	7.0	6.5	7.2
25	8.2	9.2	9.8	10.9	10.0	11.8	11.2	10.0	8.9	8.8	9.8	8.7	7.9	7.1	8.1	8.6	7.8	*****						9.2		
26	*****								4.9	1.4	2.3	3.1	2.9	2.8	4.5	4.8	3.9	4.6	4.5	6.1	3.4	6.5	9.0	7.0	6.1	4.6
27	4.9	3.8	3.3	2.3	3.6	3.3	3.9	4.5	5.7	2.8	7.2	9.0	8.1	7.9	10.6	11.6	11.9	12.4	8.1	4.9	15.1	14.0	12.4	15.9	7.8	
28	16.0	15.7	17.0	17.0	14.1	15.1	15.6	15.2	14.1	11.8	12.4	10.2	13.3	10.9	11.7	12.4	11.2	8.8	6.0	5.9	5.4	3.4	2.0	3.2	11.2	
29	1.3	4.6	6.5	6.7	5.2	4.8	5.9	5.5	6.4	6.5	8.4	9.7	8.6	8.1	9.0	8.4	6.5	4.1	4.3	5.1	6.7	4.9	5.6	5.2	6.2	
30	6.2	5.3	3.0	3.4	5.2	5.6	3.2	4.4	4.9	4.1	3.7	4.7	6.4	3.8	4.0	4.1	6.9	7.8	9.7	4.3	4.8	6.4	6.2	5.6	5.1	
31	5.1	12.7	13.5	8.3	8.6	7.2	8.3	10.0	5.9	2.9	4.9	9.2	10.4	9.3	5.3	4.7	7.6	6.8	4.3	4.4	10.3	5.0	5.0	3.5	7.2	

MONTHLY AVERAGE = 5.63

WIND DIRECTION FOR CEDAR HILLS LANDFILL
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF MARCH , 2015

IN DEGREES

(MEASURED CLOCKWISE FROM NORTH)

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	AVG.
1	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.
2	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.
3	*****	*****	*****	*****	*****	*****	*****	*****	*****	23.	238.	252.	289.	299.	258.	340.	308.	302.	346.	38.	70.	100.	139.	139.	209.
4	126.	130.	113.	138.	152.	112.	82.	148.	61.	261.	255.	339.	287.	306.	326.	13.	12.	4.	32.	29.	56.	102.	346.	90.	147.
5	283.	302.	238.	56.	166.	110.	141.	172.	140.	273.	246.	249.	255.	282.	316.	337.	301.	339.	11.	41.	42.	73.	49.	45.	186.
6	109.	99.	121.	24.	3.	314.	276.	270.	174.	168.	4.	282.	276.	303.	287.	278.	284.	294.	344.	25.	69.	63.	53.	53.	174.
7	170.	55.	4.	357.	244.	321.	158.	353.	2.	33.	340.	312.	11.	1.	13.	6.	3.	350.	317.	2.	29.	23.	39.	29.	132.
8	60.	108.	348.	27.	137.	149.	93.	282.	260.	23.	323.	291.	280.	281.	266.	275.	277.	278.	322.	51.	120.	142.	100.	178.	195.
9	200.	126.	158.	172.	163.	154.	181.	158.	219.	342.	252.	249.	277.	256.	245.	251.	228.	260.	269.	26.	29.	27.	38.	26.	179.
10	33.	10.	30.	349.	5.	31.	338.	36.	62.	353.	268.	297.	306.	283.	305.	278.	235.	194.	152.	181.	188.	187.	146.	100.	182.
11	62.	41.	40.	137.	199.	201.	144.	118.	124.	103.	110.	144.	153.	155.	217.	186.	124.	116.	147.	129.	141.	138.	153.	149.	135.
12	160.	159.	172.	156.	145.	178.	184.	179.	182.	196.	213.	238.	235.	230.	226.	236.	238.	284.	355.	30.	62.	126.	118.	96.	183.
13	83.	14.	2.	321.	42.	0.	28.	338.	34.	15.	151.	128.	131.	122.	134.	165.	269.	142.	160.	227.	215.	203.	235.	47.	134.
14	120.	148.	139.	126.	126.	130.	136.	149.	170.	178.	193.	205.	216.	233.	187.	159.	169.	155.	143.	163.	122.	154.	158.	112.	158.
15	136.	149.	28.	13.	29.	24.	2.	34.	33.	335.	340.	27.	17.	26.	41.	22.	186.	215.	210.	214.	223.	264.	292.	343.	133.
16	48.	47.	35.	34.	50.	92.	118.	108.	162.	268.	315.	336.	13.	13.	8.	6.	19.	34.	28.	30.	28.	46.	103.	96.	85.
17	115.	107.	101.	137.	356.	13.	304.	204.	194.	151.	186.	211.	230.	254.	255.	231.	183.	138.	131.	128.	146.	167.	159.	130.	176.
18	155.	148.	185.	172.	151.	173.	158.	146.	132.	138.	159.	206.	223.	228.	239.	206.	150.	58.	83.	87.	102.	135.	148.	148.	155.
19	135.	154.	150.	156.	169.	153.	152.	147.	177.	197.	174.	198.	203.	209.	215.	260.	357.	317.	14.	40.	289.	9.	50.	34.	165.
20	97.	222.	118.	192.	142.	143.	161.	136.	166.	108.	33.	286.	207.	60.	341.	339.	167.	194.	200.	151.	108.	160.	161.	167.	169.
21	142.	162.	135.	152.	160.	166.	177.	183.	180.	190.	178.	192.	189.	208.	243.	243.	226.	232.	242.	113.	120.	160.	108.	100.	175.
22	101.	88.	81.	139.	90.	*****	*****	127.	119.	242.	155.	119.	313.	62.	95.	87.	172.	205.	201.	166.	112.	249.	45.	102.	140.
23	141.	131.	152.	144.	103.	71.	70.	133.	167.	197.	190.	192.	170.	169.	204.	205.	192.	166.	140.	116.	117.	75.	45.	21.	138.
24	336.	294.	299.	298.	*****	*****	*****	292.	133.	127.	115.	145.	168.	199.	190.	155.	140.	131.	130.	133.	134.	142.	138.	165.	184.
25	128.	119.	116.	125.	131.	124.	136.	140.	146.	148.	147.	146.	141.	147.	157.	153.	154.	*****	*****	*****	*****	*****	*****	*****	139.
26	*****	*****	*****	*****	*****	*****	*****	121.	262.	308.	293.	284.	230.	250.	263.	268.	274.	287.	317.	4.	37.	32.	34.	40.	194.
27	29.	42.	12.	3.	204.	205.	141.	140.	200.	191.	190.	221.	262.	284.	272.	249.	245.	247.	224.	186.	215.	203.	176.	192.	181.
28	207.	204.	204.	208.	193.	200.	212.	208.	205.	196.	210.	221.	226.	234.	227.	207.	192.	180.	151.	132.	141.	187.	201.	170.	197.
29	141.	123.	144.	183.	162.	209.	203.	170.	169.	160.	164.	198.	203.	201.	213.	236.	198.	112.	132.	123.	145.	193.	180.	153.	171.
30	146.	149.	191.	190.	142.	201.	164.	163.	174.	176.	189.	199.	242.	285.	224.	232.	265.	263.	259.	236.	193.	149.	155.	182.	199.
31	174.	207.	192.	174.	192.	196.	196.	202.	188.	180.	335.	259.	338.	18.	40.	103.	256.	36.	68.	54.	26.	34.	78.	144.	154.

MONTHLY AVERAGE = 163.76

SIGMA THETA FOR CEDAR HILLS LANDFILL
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF MARCH , 2015

IN DEGREES

DAY	HOUR ENDING																								AVG.		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	*****																								0.0		
2	*****																								0.0		
3	*****									46.5	35.7	31.3	49.4	37.7	26.2	51.0	19.4	4.6	13.9	10.1	6.8	14.8	11.4	10.8	24.6		
4	20.5	10.2	6.9	11.6	13.2	17.2	8.1	11.5	37.6	21.6	27.3	25.9	35.3	16.8	37.4	10.8	13.9	23.5	12.3	10.6	12.9	23.0	30.5	10.3	27.5		
5	14.4	14.9	31.5	11.4	19.2	13.6	20.6	17.8	42.3	46.2	50.8	45.9	49.5	30.6	45.7	37.3	7.9	10.4	7.9	8.9	6.8	20.7	6.3	6.0	23.6		
6	16.0	17.4	10.3	2.3	11.2	12.2	17.9	10.0	22.8	36.3	47.2	45.9	32.5	36.8	22.2	15.1	7.1	7.2	13.7	11.3	10.4	14.5	11.2	41.3	19.7		
7	13.9	16.1	14.9	25.5	6.0	5.3	28.5	7.3	39.1	28.1	26.0	17.7	10.9	13.6	12.3	17.9	12.0	12.3	10.5	9.0	22.6	7.9	6.4	7.4	15.5		
8	10.6	9.3	11.1	9.1	40.6	10.1	9.7	14.3	37.6	44.2	33.2	29.9	16.1	17.4	14.7	14.9	10.9	33.7	19.5	8.9	15.4	13.1	20.6	10.3	19.0		
9	8.4	28.2	17.4	7.2	7.0	13.9	11.2	24.1	33.0	20.4	21.8	27.7	18.7	18.7	25.2	17.6	17.1	12.6	21.0	6.3	5.6	6.5	5.4	8.7	16.0		
10	10.0	19.8	6.3	22.3	24.3	8.8	30.5	8.7	24.0	29.7	24.2	20.1	32.6	21.7	23.7	14.4	11.6	12.4	19.9	15.7	9.4	14.1	22.0	23.1	18.7		
11	9.6	7.5	13.3	16.3	9.7	28.8	22.7	17.9	12.3	28.6	12.6	10.2	9.2	7.0	15.6	16.4	12.1	16.4	15.3	7.1	8.0	10.7	12.9	13.0	13.9		
12	13.5	12.1	15.6	16.0	12.2	7.8	7.2	5.8	8.5	15.9	12.1	11.6	23.0	20.1	14.3	23.1	26.0	35.6	19.3	7.1	9.6	16.2	12.3	14.5	15.0		
13	33.8	15.8	18.6	31.4	17.2	23.3	11.4	24.2	16.8	42.7	40.7	12.4	12.2	13.2	13.9	21.1	8.5	23.1	27.6	15.9	13.2	14.2	12.2	45.8	21.2		
14	11.7	10.6	11.0	10.0	13.8	8.2	9.3	9.0	9.4	8.8	8.2	8.8	11.5	10.7	16.6	24.8	15.9	13.8	10.8	18.6	7.6	10.2	11.2	18.3	12.0		
15	9.9	19.3	19.4	12.0	12.9	19.8	37.9	34.6	14.7	31.2	26.4	11.1	37.4	14.8	10.1	38.5	53.0	14.4	9.1	9.3	9.2	11.5	9.9	22.4	20.4		
16	11.1	7.6	7.4	7.0	7.7	9.6	10.6	11.9	22.4	19.8	16.2	16.9	20.4	17.2	12.1	11.5	11.6	13.6	12.8	9.4	10.6	17.8	12.6	19.7	13.2		
17	24.0	24.4	20.0	40.0	24.9	9.2	27.0	18.4	36.8	17.8	21.6	28.0	12.9	16.2	10.8	13.8	12.0	10.2	10.9	8.5	8.5	8.4	10.3	10.7	17.7		
18	11.8	11.9	16.1	10.2	17.9	20.4	9.8	8.3	10.9	15.1	37.2	32.3	25.6	43.8	46.0	35.5	23.6	8.4	7.6	7.1	10.0	19.7	7.6	8.8	18.6		
19	6.7	9.5	9.6	8.6	10.9	19.6	17.2	8.1	14.8	16.1	16.5	29.6	23.6	15.2	17.2	17.1	16.1	26.7	11.6	13.8	45.6	17.2	9.1	17.7	16.6		
20	38.6	9.7	23.2	12.6	10.5	9.9	22.8	16.0	27.2	22.2	31.7	25.0	55.3	19.5	39.8	44.8	40.3	11.9	19.1	28.7	40.0	28.0	15.7	20.8	25.6		
21	12.8	20.3	7.8	9.0	13.8	12.8	9.7	13.2	9.4	8.6	10.0	10.8	11.8	22.0	16.0	11.9	12.4	12.1	7.2	19.7	12.1	18.1	21.6	5.7	12.9		
22	11.3	5.9	20.4	12.7	12.2	*****				20.6	20.5	25.7	18.8	13.8	28.9	37.3	18.8	20.4	21.8	14.5	10.5	9.9	39.6	51.0	11.3	14.6	20.0
23	12.9	13.5	13.6	12.3	11.9	10.4	18.7	13.9	19.1	8.2	22.9	10.5	12.9	10.8	16.3	21.3	10.1	11.8	15.3	13.3	22.1	44.9	14.3	8.3	15.4		
24	9.1	12.8	7.3	7.0	*****				14.7	9.5	10.2	12.8	27.5	28.2	14.1	11.4	13.7	12.9	10.2	8.6	8.2	9.5	9.9	11.4	15.6	12.6	
25	8.0	10.5	12.1	10.7	11.3	9.6	11.4	9.1	9.1	8.8	8.3	8.4	8.5	9.1	7.7	6.6	9.8	*****						9.4			
26	*****								16.3	26.9	36.6	33.7	34.4	43.5	25.3	29.9	35.8	24.9	14.9	4.6	10.9	8.5	8.2	7.5	8.4	21.8	
27	8.9	7.2	11.1	12.6	45.1	17.8	9.0	13.1	9.1	22.7	16.2	16.6	19.9	14.7	9.4	10.3	12.0	9.9	11.2	17.3	13.1	10.1	10.4	9.2	14.1		
28	10.0	8.2	8.4	9.5	11.7	11.1	9.6	9.9	11.6	11.6	12.4	13.4	10.5	12.7	13.6	10.9	9.7	17.5	8.1	9.4	11.0	15.1	19.7	13.3	11.6		
29	44.8	6.8	9.6	11.2	18.6	18.1	7.2	8.3	10.0	8.9	13.5	11.6	11.7	16.5	12.4	11.6	17.3	8.4	11.1	7.7	12.0	11.6	10.0	8.8	12.8		
30	7.9	8.0	21.0	10.4	6.5	15.0	14.6	10.3	13.6	26.3	24.5	26.4	22.3	53.2	25.7	33.7	16.4	6.7	8.5	16.7	17.4	6.3	11.5	21.2	17.7		
31	13.4	13.5	13.2	17.2	10.7	13.2	9.7	9.0	15.6	52.4	53.7	42.5	32.1	11.2	24.3	41.5	36.7	12.8	13.8	17.8	12.2	10.9	14.2	20.4	21.3		

MONTHLY AVERAGE = 17.49

MAX. 10 SEC GUST FOR CEDAR HILLS LANDFILL
 METEOROLOGICAL MONITORING SYSTEM FOR
 THE MONTH OF MARCH , 2015

IN MILES PER HOUR

DAY	HOUR ENDING																								MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1	*****																								0.0
2	*****																								0.0
3	*****									2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
4	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
5	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
7	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
8	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
9	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
10	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
11	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
12	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
13	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
14	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
15	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
16	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
17	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
18	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
19	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
20	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
21	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
22	2.6	2.6	2.6	2.6	2.6	2.6	*****			2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
23	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
24	2.6	2.6	2.6	2.6	*****				2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
25	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	*****						2.6	2.6
26	*****								2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
27	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
28	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
29	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
30	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
31	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6

MONTHLY MAXIMUM = 2.63

2 M TEMPERATURE FOR CEDAR HILLS LANDFILL
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF MARCH , 2015

IN DEGREES C

DAY	HOUR ENDING																								AVG	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	*****																								0.0	
2	*****																								0.0	
3	*****									8.5	5.9	7.3	8.2	8.8	9.0	9.4	8.2	7.2	6.2	4.6	4.1	3.8	3.3	2.4	6.5	
4	2.0	1.9	1.4	1.1	0.6	1.2	0.6	2.0	4.1	4.6	6.7	8.4	9.4	10.2	11.1	11.0	10.6	9.9	7.8	7.6	6.2	6.4	5.1	5.3	5.6	
5	5.2	4.6	3.3	3.8	3.4	3.7	3.6	3.8	5.1	7.1	8.9	10.9	12.3	13.1	13.6	12.9	12.0	11.2	10.6	9.2	8.3	7.9	7.7	7.1	7.9	
6	7.4	7.0	6.9	6.3	5.7	5.2	6.0	6.2	5.7	7.3	9.8	12.1	13.3	14.4	14.9	14.9	14.0	12.9	11.8	10.0	9.1	8.9	8.1	7.8	9.4	
7	7.4	6.9	6.1	5.7	6.4	5.8	5.3	6.0	6.9	9.1	10.7	12.6	14.1	15.1	15.2	15.6	15.3	14.3	12.9	11.6	10.3	8.8	8.0	7.4	9.9	
8	7.0	7.9	6.9	5.7	5.6	5.6	5.2	5.5	7.4	9.4	11.7	13.3	14.2	15.5	16.0	16.6	16.6	15.3	13.5	12.2	12.0	10.7	10.0	9.6	10.6	
9	8.9	8.8	8.4	7.6	7.6	6.9	8.2	7.1	10.2	11.2	12.4	13.7	13.9	14.4	14.8	14.7	14.4	13.5	12.4	10.3	9.2	8.3	7.6	6.4	10.5	
10	5.6	5.1	3.4	2.3	2.4	1.3	1.2	1.4	2.6	4.8	7.0	9.8	11.9	12.7	13.6	13.3	13.6	12.7	12.1	12.4	12.1	11.7	10.7	10.2	8.1	
11	10.8	10.3	10.5	12.0	11.9	10.6	10.1	10.1	10.1	10.2	10.8	12.0	12.8	13.1	13.1	12.9	12.5	11.8	11.1	11.1	11.2	11.1	11.1	10.9	11.3	
12	10.9	10.9	11.0	10.8	10.9	11.3	11.0	11.2	12.0	13.4	14.2	14.7	15.1	15.8	16.2	16.7	16.7	15.9	14.4	12.8	12.2	11.2	10.9	10.1	12.9	
13	9.5	9.7	9.0	8.5	7.5	7.9	8.0	8.0	9.5	12.4	15.8	19.3	20.1	20.2	20.3	19.5	16.4	15.9	15.8	15.7	15.5	14.5	12.4	11.3	13.4	
14	10.9	11.1	10.8	10.5	10.9	11.4	11.5	11.7	12.1	12.5	12.9	13.1	13.1	12.5	12.0	11.5	11.5	11.2	10.8	10.8	10.6	10.2	9.6	9.0	11.3	
15	8.8	8.4	7.7	7.6	7.7	7.8	7.7	7.5	7.4	7.7	7.5	7.1	7.6	7.8	8.1	8.9	10.1	9.9	10.2	8.9	7.0	5.7	5.3	5.0	7.8	
16	4.9	4.8	4.7	4.7	4.7	5.1	5.5	6.3	7.9	8.2	9.0	9.4	10.5	11.4	11.4	11.9	12.3	11.6	10.4	10.3	9.6	9.5	10.8	9.4	8.5	
17	9.3	8.8	7.6	8.2	6.4	6.2	6.5	5.1	6.1	8.4	11.1	12.8	12.9	12.7	11.3	10.9	9.5	8.4	8.3	8.4	8.4	8.4	8.2	8.2	8.8	
18	8.1	8.2	8.9	8.6	8.0	6.9	6.7	7.5	8.3	9.2	11.0	11.6	12.4	12.6	12.9	13.0	13.1	12.7	11.8	10.6	10.3	9.6	9.4	9.2	10.0	
19	9.0	9.2	9.1	9.2	8.7	8.9	9.4	9.8	10.2	10.7	12.6	14.2	14.6	15.1	15.3	15.0	14.4	13.9	13.1	12.9	12.4	11.4	11.2	11.1	11.7	
20	11.2	11.1	10.4	10.4	9.7	10.5	10.0	10.5	11.2	12.8	14.7	14.1	13.1	12.1	13.0	13.6	14.2	13.5	12.0	11.4	11.9	11.7	12.3	11.7	12.0	
21	10.6	10.2	10.1	10.3	10.1	10.1	9.6	8.5	8.1	7.9	8.8	9.9	10.3	10.8	10.8	11.3	11.6	11.6	10.5	9.7	8.8	8.9	8.1	7.5	9.8	
22	7.0	6.9	6.8	6.6	6.4	*****			7.6	9.1	9.3	8.1	7.9	8.6	8.4	9.5	10.2	10.8	10.5	8.6	8.2	8.0	7.9	7.1	7.2	8.2
23	6.9	6.4	6.2	5.7	6.4	5.9	5.5	6.1	6.5	6.8	6.7	6.9	7.1	8.0	8.5	8.6	9.1	7.8	7.0	6.1	6.2	5.9	5.6	5.1	6.7	
24	5.3	5.6	5.5	5.6	*****			5.3	4.5	4.8	6.5	7.8	9.5	10.2	10.3	9.6	9.5	9.0	8.4	8.1	8.1	8.0	8.1	7.3	7.5	
25	7.1	7.3	7.1	6.8	6.9	7.4	7.6	8.3	9.5	10.9	11.4	11.6	11.9	12.2	12.1	12.1	12.0	*****							9.5	
26	*****							11.6	13.0	14.5	16.0	17.2	18.5	19.2	19.6	20.2	20.2	19.4	17.6	16.6	14.4	12.7	11.6	11.2	16.1	
27	10.9	10.7	11.0	10.1	10.0	10.0	9.6	11.4	12.3	14.6	17.2	18.1	18.4	18.1	17.5	17.0	15.8	14.4	13.1	12.7	11.8	10.6	9.8	9.5	13.1	
28	9.1	8.9	8.8	8.8	8.7	8.8	8.7	8.9	9.5	10.4	11.2	11.9	12.6	13.2	13.3	12.7	12.1	10.6	9.6	9.4	9.4	9.5	9.3	8.9	10.2	
29	8.8	8.7	8.9	8.6	8.7	8.8	8.6	8.8	9.8	11.1	12.4	13.5	13.9	14.6	14.8	14.6	13.4	12.6	12.6	12.8	12.7	12.4	12.0	11.9	11.5	
30	12.0	11.7	11.3	11.0	10.8	10.1	10.2	10.5	10.8	11.9	13.4	14.9	15.8	16.5	17.0	17.3	17.0	15.8	14.1	13.4	13.1	12.4	12.1	11.6	13.1	
31	10.9	10.4	7.9	7.4	7.2	7.1	7.0	7.1	7.5	8.1	8.8	10.2	9.0	7.0	7.7	8.1	8.4	5.1	4.6	4.7	3.9	3.4	3.4	4.1	7.0	

MONTHLY AVERAGE = 9.97

BAROMETRIC PRESSURE FOR CEDAR HILLS LANDFILL
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF MARCH , 2015

IN INCHES HG

DAY	HOUR ENDING																								AVG	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	*****																								0.0	
2	*****																								0.0	
3	*****									14.8	29.4	29.4	29.4	29.4	29.4	29.3	29.3	29.3	29.3	29.3	29.4	29.4	29.4	29.4	29.4	28.4
4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4
5	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5
6	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5
7	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4
8	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.3	29.3	29.3	29.3	29.3	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.3
9	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.3	29.3	29.3	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2
10	29.2	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.0	29.0	29.0	29.0	29.0	28.9	28.9	28.9	28.9	29.0	29.0	29.0	29.0	29.1	29.1	29.0
11	29.1	29.0	29.0	29.0	29.0	29.0	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.2	29.2	29.2	29.2	29.3	29.3	29.1
12	29.3	29.4	29.4	29.4	29.4	29.4	29.5	29.5	29.5	29.5	29.5	29.5	29.6	29.6	29.6	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5
13	29.4	29.4	29.4	29.4	29.4	29.4	29.3	29.3	29.3	29.3	29.3	29.2	29.2	29.2	29.2	29.2	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.2
14	29.1	29.1	29.0	29.0	29.0	28.9	28.9	28.9	29.0	29.0	29.0	29.0	29.0	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.0
15	29.1	29.1	29.0	29.0	29.0	29.0	29.0	29.0	28.9	28.9	28.9	28.9	28.8	28.8	28.8	28.8	28.8	28.8	28.9	29.0	29.0	29.1	29.2	29.2	29.2	28.9
16	29.3	29.3	29.3	29.3	29.3	29.3	29.4	29.4	29.4	29.4	29.4	29.4	29.3	29.3	29.3	29.3	29.3	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.3
17	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.4	29.2
18	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.3	29.4
19	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.2	29.2	29.3	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.1	29.2	
20	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	
21	29.0	29.0	29.0	29.0	29.1	29.1	29.1	29.1	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	
22	29.2	29.2	29.2	29.2	29.2	*****				29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	
23	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.0	29.0	29.0	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.0	29.0	29.1	
24	29.0	29.0	29.0	29.1	*****				29.1	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.4	29.3	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.3
25	29.4	29.4	29.4	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.4	29.4	29.4	29.4	29.4	29.4	*****						29.4	
26	*****								29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	
27	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.2	29.2	
28	29.2	29.2	29.2	29.2	29.2	29.3	29.3	29.4	29.4	29.4	29.4	29.5	29.5	29.4	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	
29	29.5	29.5	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	
30	29.3	29.3	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.1	29.1	29.1	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	
31	29.0	29.0	29.0	29.1	29.1	29.1	29.1	29.1	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.3	29.3	29.3	29.3	29.3	29.4	29.2	

MONTHLY AVERAGE = 29.23

PRECIPITATION FOR CEDAR HILLS LANDFILL
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF MARCH , 2015

IN INCHES

DAY	HOUR ENDING																								TOT
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.00
2	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.00
3	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.01
11	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.03	0.01	0.01	0.03	0.00	0.00	0.17
12	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.07
14	0.07	0.08	0.08	0.09	0.10	0.06	0.06	0.04	0.05	0.00	0.01	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
15	0.01	0.02	0.04	0.08	0.08	0.10	0.14	0.10	0.09	0.08	0.16	0.13	0.10	0.09	0.02	0.00	0.02	0.01	0.00	0.03	0.21	0.16	0.11	0.07	1.85
16	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.02
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.01	0.00	0.06
21	0.01	0.04	0.00	0.00	0.00	0.00	0.01	0.07	0.03	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19
22	0.00	0.00	0.00	0.00	0.00	*****	*****	0.00	0.00	0.00	0.01	0.03	0.03	0.04	0.00	0.00	0.00	0.01	0.02	0.00	0.00	0.03	0.01	0.00	0.18
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.03	0.03	0.02	0.01	0.05	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.03	0.20
24	0.04	0.02	0.01	0.02	*****	*****	*****	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.17
25	0.00	0.01	0.03	0.06	0.04	0.04	0.03	0.00	0.00	0.01	0.00	0.02	0.01	0.02	0.04	0.04	0.02	*****	*****	*****	*****	*****	*****	*****	0.37
26	*****	*****	*****	*****	*****	*****	*****	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.01	0.04	0.16
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.04
29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02
31	0.01	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.01	0.02	0.01	0.07	0.20	0.00	0.00	0.16	0.20	0.06	0.00	0.85

MONTHLY TOTAL = 5.21

WIND SPEED/DIRECTION CEDAR HILLS LANDFILL
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF MARCH , 2015

IN MPH/DIR

DAY	HOUR ENDING																								
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1	*****																								
2	*****																								
3	*****									7NE	2SW	4W	4W	5NW	7W	4N	7NW	6NW	4N	3NE	3E	2E	2SE	2SE	
4	2SE	2SE	3SE	1SE	2SE	2E	2E	1SE	0NE	2W	2W	2N	5W	6NW	5NW	7N	7N	6N	5NE	7NE	6NE	1E	1N	2E	
5	1W	2NW	1SW	0NE	3S	1E	2SE	1S	3SE	1W	2SW	2W	3W	4W	4NW	4NW	6NW	4N	3N	4NE	5NE	2E	2NE	3NE	
6	3E	1E	1SE	0NE	1N	3NW	1W	3W	3S	2S	1N	1W	3W	3NW	4W	5W	5W	3NW	2N	3NE	4E	3NE	4NE	2NE	
7	1S	2NE	2N	1N	1SW	1NW	1S	2N	1N	1NE	3N	5NW	9N	12N	11N	8N	9N	8N	6NW	7N	6NE	6NE	6NE	5NE	
8	4NE	2E	3N	4NE	2SE	3SE	3E	2W	1W	1NE	2NW	4W	6W	6W	6W	5W	4W	3W	3NW	5NE	4SE	2SE	2E	2S	
9	3S	1SE	3S	5S	5S	5SE	4S	3S	2SW	3N	5W	6W	7W	8W	6SW	8W	7SW	4W	2W	3NE	3NE	3NE	3NE	5NE	
10	5NE	4N	5NE	4N	2N	4NE	1N	4NE	1NE	1N	3W	3NW	4NW	3W	4NW	3W	5SW	5S	6SE	9S	10S	7S	3SE	5E	
11	6NE	5NE	4NE	4SE	9S	6S	5SE	4SE	4SE	2E	5E	7SE	7SE	7SE	7SW	5S	4SE	5SE	4SE	6SE	7SE	5SE	6SE	4SE	
12	6S	5S	5S	4SE	5SE	7S	8S	6S	7S	8S	11SW	11SW	8SW	9SW	9SW	7SW	5SW	4W	4N	3NE	3NE	3SE	3SE	3E	
13	3E	2N	4N	5NW	5NE	7N	6NE	5N	4NE	1N	4SE	12SE	12SE	12SE	9SE	8S	7W	3SE	5S	6SW	4SW	8SW	5SW	2NE	
14	5SE	8SE	7SE	6SE	9SE	11SE	8SE	9SE	10S	11S	14S	16SW	15SW	14SW	9S	6S	6S	5SE	5SE	3S	3SE	6SE	10S	4E	
15	5SE	2SE	3NE	5N	8NE	7NE	6N	5NE	5NE	4NW	7N	14NE	9N	6NE	6NE	3N	8S	18SW	26SW	26SW	20SW	8W	6W	2N	
16	2NE	4NE	5NE	7NE	4NE	3E	5SE	4E	4S	3W	5NW	6NW	8N	9N	10N	11N	9N	7NE	10NE	8NE	5NE	4NE	7E	5E	
17	3SE	2E	3E	2SE	2N	3N	3NW	4SW	5S	1SE	4S	7SW	10SW	8W	11W	6SW	9S	6SE	6SE	6SE	7SE	7S	5S	2SE	
18	4SE	4SE	4S	4S	2SE	4S	4S	4SE	5SE	5SE	4S	4SW	3SW	2SW	2SW	3SW	1SE	2NE	3E	4E	3E	4SE	6SE	5SE	
19	5SE	5SE	6SE	5SE	5S	5SE	5SE	5SE	4S	4S	3S	3S	6SW	7SW	6SW	3W	3N	3NW	3N	2NE	5W	4N	5NE	4NE	
20	2E	5SW	6SE	6S	5SE	4SE	4S	4SE	2S	2E	1NE	6W	3SW	5NE	4N	5N	5S	11S	7S	4SE	4E	4S	7S	6S	
21	6SE	5S	6SE	9SE	9S	10S	12S	12S	15S	14S	11S	13S	11S	13SW	9SW	11SW	9SW	7SW	5SW	3SE	6SE	3S	4E	2E	
22	3E	3E	3E	4SE	5E	*****			6SE	4SE	7SW	5SE	5SE	3NW	3NE	3E	2E	4S	9SW	6S	4S	4E	5W	3NE	2E
23	3SE	3SE	4SE	4SE	3E	2E	2E	2SE	3S	7S	3S	6S	7S	10S	11SW	8SW	15S	9S	7SE	6SE	6SE	3E	3NE	4N	
24	6NW	6NW	7NW	8NW	*****			8W	7SE	6SE	6SE	5SE	8S	9S	11S	9SE	7SE	6SE	6SE	7SE	8SE	7SE	7SE	6S	
25	8SE	9SE	10SE	11SE	10SE	12SE	11SE	10SE	9SE	9SE	10SE	9SE	8SE	7SE	8SE	9SE	8SE	*****							
26	*****								5SE	1W	2NW	3NW	3W	3SW	4W	5W	4W	5W	4W	6NW	3N	6NE	9NE	7NE	6NE
27	5NE	4NE	3N	2N	4SW	3SW	4SE	4SE	6S	3S	7S	9SW	8W	8W	11W	12W	12SW	12SW	8SW	5S	15SW	14SW	12S	16S	
28	16SW	16SW	17SW	17SW	14S	15S	16SW	15SW	14SW	12S	12SW	10SW	13SW	11SW	12SW	12SW	11S	9S	6SE	6SE	5SE	3S	2S	3S	
29	1SE	5SE	6SE	7S	5S	5SW	6SW	5S	6S	6S	8S	10S	9SW	8S	9SW	8SW	7S	4E	4SE	5SE	7SE	5S	6S	5SE	
30	6SE	5SE	3S	3S	5SE	6S	3S	4S	5S	4S	4S	5S	6SW	4W	4SW	4SW	7W	8W	10W	4SW	5S	6SE	6SE	6S	
31	5S	13SW	14S	8S	9S	7S	8S	10S	6S	3S	5NW	9W	10N	9N	5NE	5E	8W	7NE	4E	4NE	10NE	5NE	5E	4SE	

APPENDIX D

Area 5 Top Deck Report

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CEDAR HILLS REGIONAL LANDFILL AREA 5 TOP DECK MONITORING REPORT

First Quarter 2015



Department of Natural Resources and Parks
Solid Waste Division

May 2015
Printed on recycled paper

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AREA 5 TOP DECK MONITORING QUARTERLY REPORT

FIRST QUARTER 2015

This report provides the quarterly performance analysis of the interim soil cover system over Area 5 in the Cedar Hills Regional Landfill. The intent of the report is to provide the necessary information to determine whether the top deck cover system is functioning as designed. Monitoring of leachate, stormwater and the top deck surface is conducted and reported to identify any problems so that they may be corrected in a timely manner and the environment protected from potential harmful impacts.

I. LEACHATE MONITORING

Overview of the Top Deck Monitoring Program

King County Solid Waste Division (KCSWD) is continuing to experience technical issues with its leachate volume monitoring system for Area 5. We are working to resolve these issues and plan to report the logged data in the earliest Top Deck Monitoring Report.

KCSWD staff will continue to evaluate leachate volumes collected throughout the landfill that are pumped to the wastewater treatment plant. We will also continue to compare the historical volumes generated through typical landfill construction and closure with the phased closure and interim top deck cover utilized in Area 5. These comparisons provide an initial assessment of the interim cover performance. The evaluation accounts for variations in rainfall by normalizing the leachate flows in terms of gallons discharged per inch of rainfall. The flow is also normalized relative to pounds of waste in-place. These normalized flows for the entire site are presented in Table 1.

TABLE 1
SITEWIDE LEACHATE PRODUCTION

Year	Leachate	Surface Area of Refuse Areas	Refuse In Place	Precipitation	Flow	Flow	Flow	Flow
	(MG/yr)	(acres)	(lb)	(in/yr)	(gal/Acre/yr)	(gal/Acre/in)	(gal/lb/yr)	(gal/lb/in)
1986	163.03	138.5	11,328,841,100	54.79	1,177,112	21,484	0.0144	0.00026
1987	139.53	138.5	12,927,926,300	39.6	1,007,422	25,440	0.0108	0.00027
1988	169.67	161.9	14,525,504,000	48.63	1,048,009	21,551	0.0117	0.00024
1989	176	161.9	16,203,204,000	44.12	1,087,110	24,640	0.0109	0.00025
1990	294.75	161.9	17,965,254,000	71.6	1,820,594	25,427	0.0164	0.00023
1991	224.27	221.4	19,778,412,000	45.85	1,012,967	22,093	0.0113	0.00025
1992	156.46	221.4	21,454,600,000	38.64	706,694	18,289	0.0073	0.00019
1993	150.83	221.4	23,051,348,000	35.01	681,264	19,459	0.0065	0.00019
1994	159.8	221.4	24,657,528,000	38.55	721,764	18,723	0.0065	0.00017
1995	201.11	221.4	26,294,654,000	48.4	908,376	18,768	0.0076	0.00016
1996	243.03	221.4	27,946,704,000	57.08	1,097,714	19,231	0.0087	0.00015
1997	239.23	221.4	29,665,380,000	57.24	1,080,511	18,877	0.0081	0.00014
1998	202.8	221.4	31,432,828,000	42.82	916,006	21,392	0.0065	0.00015
1999	219.15	283.42	33,273,828,000	45.9	773,229	16,848	0.0066	0.00014
2000	148.82	283.42	35,167,828,000	33.15	525,102	15,840	0.0042	0.00013
2001	174.08	283.42	37,041,828,000	47.28	614,194	12,991	0.0047	0.0001
2002	133.4	283.42	38,919,828,000	35.13	470,690	13,399	0.0034	0.0001
2003	181.6	283.42	40,877,828,000	46.39	640,761	13,812	0.0044	0.0001
2004	185.72	328.72	42,889,828,000	34.08	564,983	16,578	0.0043	0.00013
2005	175.31	328.72	44,867,538,000	40.75	533,313	13,087	0.0039	0.0001
2006	264.95	328.72	46,820,938,000	52.94	806,009	15,225	0.0057	0.00011
2007	161.48	328.72	47,129,756,000	38.68	491,239	16,143	0.0034	0.000112
2008	126.02	328.72	48,990,990,000	42.32	383,366	9,059	0.0026	0.00006
2009	172.16	328.72	49,414,219,997	42.42	523,741	12,347	0.0035	0.00008
2010	199.4	335.72	51,076,043,997	49.25	593,959	12,060	0.0039	0.00008
2011	180.2	353.12*	52,701,411,694	51.05	510,308	9,996	0.0034	0.00007
2012	202.3	353.12*	54,315,239,773	58.16	572,972	9,852	0.0037	0.00006
2013	156.4	353.12*	55,933,569,773	47.77	442,923	9,272	0.0028	0.00006
2014	189.14	353.12*	57,638,062,970	64.07	535,631	8,360	0.0034	0.00005
2015	55.58	353.12*	57,638,135,037	8.21	157,391	19,171	0.0010	0.00012

2015: Precipitation, leachate and refuse in place through 3/31/2015

* The 353.12 acre value was a plan view area calculated by ACAD, using the area inquiry feature of a closed polyline.

II. SURFACE MONITORING

KCSWD's plan for monitoring the surface of the Area 5 Top Deck is comprised of three components:

1. Landfill gas inspections, including a serpentine walk;
2. Leachate seep inspections; and,
3. Settlement monitoring.

The purpose of this monitoring is to detect any conditions affecting the cover system that may permit landfill gas emissions, leachate seeps, or excessive or differential settlement.

Landfill Gas Inspections

Each quarter, monthly inspections of the gas system, stormwater system, and cover system of Area 5 are performed by the Solid Waste Operations (SWO) staff. All internal inspection reports showed satisfactory conditions this quarter. These inspection reports are included in Appendix A: *Inspection Reports*.

Also throughout the 1st Quarter, Engineering Services Section (ESS) staff performed monthly Landfill Facility Site Inspections. These inspections are included in Appendix A.

In addition to KCSWD inspections, two inspections were performed by Public Health – Seattle & King County (PHSKC) during the 1st Quarter. These dates included: February 9th and March 5th. All inspections resulted in a satisfactory review of the landfill.

The PHSKC Inspection Reports, along with any follow-up internal inspections are provided in Appendix A.

Also to note, additional landfill gas extraction wells were added in the eastern portion of Area 5 in September of 2014. Another extraction well is scheduled to be installed along the northern edge in the future. These wells will improve extraction of landfill gas.

Serpentine Walk

Each quarter, serpentine walks are conducted across the Area 5 Top Deck and its side slopes to verify that methane gas levels in the air column do not exceed air quality standards. The results from the 1st Quarter Serpentine Surface Monitoring Data walk that was conducted from March 17th to 26th can be found in Appendix B: *Gas Monitoring Reports*, along with a plot of GPS generated track lines.

For the 1st Quarter of 2015, no exceedances were detected during the serpentine walk for air quality standards.

Leachate Seep Inspections

Visual inspections for leachate seeps are conducted each quarter by KCSWD personnel in conjunction with the surface emissions monitoring and monthly inspections. No indications of leachate seeps were recorded during the 1st Quarter by KCSWD staff, or by PHSKC personnel.

Settlement Monitoring

Settlement of Area 5 is evaluated both through visual inspections and through topographic surveys at control points on the top deck. A site map showing the settlement monitoring points is included as Figure 1. Visual inspections are completed by both operations and engineering staff. The most recent settlement levels were measured on Area 5 on February 9th, 2015. The survey data is given in Table 2, and the settlement at each point is given in Table 3.

As noted in Table 3, the refuse settlement rate (measured in feet/month) for Area 5 continues to decline. For the approximate one year interval of February 19th, 2014 to February 9th, 2015, the average rate was calculated to be 0.04 feet/month, versus 0.11 feet/month from the previous time period. This is approximately a 64% reduction in the settlement rate.

Also, no settlement due to erosion was observed in Area 5 during the 1st Quarter of 2015.

Future plans for Area 5 are for continued filling to the approved 788 foot elevation. This filling will occur following the filling of Area 8, which was approved by King County Council on Dec. 6, 2010.

TABLE 2 AREA 5 SURFACE SURVEY DATA					
Station	Date	Elevation	Station	Date	Elevation
A5SM-1 (Destroyed by filling Area 7 Lift 4)	10/4/2005	699.18	A5SM-2 (cont.)	5/22/2013	762.77
	2/1/2006	697.7		8/8/2013	762.53
	6/27/2006	696.51		2/19/2014	762.06
	2/14/2007	694.53		2/9/2015	761.09
	7/24/2007	693.34	A5SM-3 (NEW - 2/14/2007)	2/14/2007	786.4
	2/29/2008	691.77		4/20/2007	786.25
	7/29/2008	691.26		7/24/2007	785.68
	11/24/2008	690.61		2/29/2008	784.87
	4/6/2009	690.16		7/29/2008	784.31
	7/9/2009	689.77		11/24/2008	783.76
	12/22/2009	689.13		4/6/2009	783.35
	3/1/2010	688.77		7/9/2009	783.05
	8/2/2010	688.6		12/22/2009	782.44
	12/21/2010	688.1		3/1/2010	782.08
	4/6/2011	687.83		8/2/2010	781.78
	8/8/2011	687.46		12/21/2010	781.25
	1/23/2012	687.19		4/6/2011	780.94
	5/18/2012	686.78		8/8/2011	780.66
	7/12/2012	686.69		1/23/2012	780.26
	11/2/2012	686.55		5/18/2012	779.9
	5/22/2013	686.09		7/12/2012	779.69
				11/2/2012	779.56
A5SM-2	10/4/2005	785.17		5/22/2013	779.09
	2/1/2006	782.52		9/5/2013	779.66
	6/27/2006	780.48		2/19/2014	777.68
	4/20/2007	776.95		2/9/2015	777.63
	7/24/2007	775.63	PMX20074 (Destroyed during Phase 3 of Area 6)	8/16/2007	781.56
	2/29/2008	773.44		2/29/2008	780.1
	7/29/2008	772.2		7/29/2008	779.13
	11/24/2008	771.29		11/24/2008	778.21
	4/6/2009	770.35		4/6/2009	777.41
	7/9/2009	769.79		7/9/2009	776.99
	12/22/2009	768.6		12/22/2009	776.1
	3/1/2010	768.05		3/1/2010	775.81
	8/2/2010	767.28		8/2/2010	775.29
	12/21/2010	766.53		12/21/2010	774.79
	4/6/2011	765.86		4/6/2011	774.42
	8/8/2011	765.34		8/8/2011	774.19
	1/23/2012	764.53		1/23/2012	773.79
	5/18/2012	763.99		5/18/2012	773.41
	7/12/2012	763.83		7/12/2012	773.26
	11/6/2012	763.35			

TABLE 3

AREA 5 SETTLEMENT (FEET)	
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Settlement Point	SETTLEMENT DATE RANGE								
	6/06 - 7/07	7/07 - 7/08	7/08 - 7/09	7/09 - 8/10	8/10 - 8/11	8/11 - 7/12	7/12-5/13	5/13-2/14	2/14-2/15
A5SM-1	3.17	2.08	1.49	1.17	1.14	0.77	0.60	N/A	N/A
A5SM-2	4.85	3.43	2.41	2.51	1.94	1.51	1.06	0.71	0.97
A5SM-3	N/A	1.37	1.26	1.27	1.12	0.97	0.60	1.41	0.05
PMX2007-4	N/A	2.43	2.14	1.7	1.1	0.93	N/A	N/A	N/A
Average Settlement	4.01	2.33	1.83	1.66	1.33	1.05	0.75	1.06	0.51
Average Settlement	0.31	0.19	0.15	0.13	0.11	0.1	0.19	0.11	0.04
(Feet/Month)									

III. STORMWATER & LEACHATE MONITORING

Collection of Stormwater & Leachate Samples

Samples were collected at stormwater sample location SW-S1, and leachate sample location LS-API during the quarter. Area 5 top deck stormwater samples at monitoring stations SW-A5TD1, SW-A5TD2, SW-A5TD4, and SW-A5TD6 were attempted on January 30th where flow was not adequate for sample collection. Sampling was again attempted throughout February with flow adequate for sample collection. Comparison samples were collected stormwater sample location SW-S1, and leachate sample location LAPI during the quarter. All samples were collected and analyzed in accordance with the Area 5 Top Deck Stormwater Runoff Monitoring Plan. Figure 2 shows the locations of the Area 5 sampling stations.

Stormwater Sample Evaluation

Stormwater runoff monitoring locations, field measurements, and laboratory analyses evaluated in this report are intended to assess whether the stormwater runoff from the top deck has been contaminated by the underlying waste. Stormwater was collected either during or following significant storm events from four locations on or near the top deck of Area 5. These data will be compared to stormwater sample data collected from a location known to be unaffected by the landfill waste--sampling point SW-S1--and will also be compared to the leachate sample data collected from the inflow into the aeration ponds, LAPI. Elevated concentrations of selected parameters in the top deck stormwater samples will serve as indicators that the underlying waste may be impacting the runoff.

The analytes for the top deck stormwater runoff samples were selected based on parameters that would typically have elevated concentrations in leachate in comparison to stormwater (i.e., iron, sulfate, chemical oxygen demand, total organic carbon, alkalinity, and chloride); and are less likely to be impacted by surface factors, such as wildlife contact or contact with constituents of fertilizers used during hydroseeding. The stormwater quality results are also screened against existing surface water quality criteria (WAC 173-201A) and Benchmarks for the Washington State Industrial Stormwater General Permit. Applicable criteria/benchmarks are listed in Table 4.

TABLE 4		
Water Quality Criteria/Benchmarks For Applicable Parameters		
Parameter	Numerical Criterion	Source
pH	6.5 to 8.5	WAC 173-201A-200
	5 to 9	Industrial Stormwater General Permit
Turbidity	Less than 10 NTU above background if background turbidity is 50 NTU or less, or a 10% increase in turbidity when the background is > 50 NTU.	WAC 173-201A-200
	25 NTU	Industrial Stormwater General Permit
Temperature	20°C	WAC 173-201A-200
Iron	1.0 mg/L	EPA 440/5-86-001 Quality Criteria for Water 1986

RESULTS

Field measurements and analytical results from the stormwater sampling and analyses performed as part of this monitoring plan are summarized in Table 5. Leachate results for similar parameters are given in Table 6. All test results are provided in Appendix C: Analytic Test Results.

The following is a parameter by parameter discussion of the top deck monitoring results. For each parameter, its importance in evaluating surface water, comparison to other onsite surface water, and comparison to representative leachate is discussed.

pH - pH levels in surface water can be affected by many factors, especially photosynthetic activity and the respiration of waterborne flora. This process can potentially decrease the night-time pH level to 4.5 and during peak daytime activity can drive the pH levels above 10.

The top deck pH ranged from 7.54 to 8.35 standard pH units, which is within the benchmark range of 6.5 to 8.5. The pH at surface water station S-1 ranged from a low of 7.13 in March to a high of 7.32 in January. The pH of the three leachate aeration pond inflow (LAPI) samples averaged 8.02 standard pH units.

Specific Conductance - Specific Conductance is the ability of water to conduct electrical current. This property is related to dissolved ion concentration, charge, ion mobility, and water temperature. Specific conductance measurements can provide indications of water contamination by a non-specific measure of increased ionic solute load.

Top deck samples ranged from 24 to 310 $\mu\text{mhos/cm}$. The average conductance at station SW-S1 was 52 $\mu\text{mhos/cm}$, and the leachate pond inflow averaged 6,193 $\mu\text{mhos/cm}$. There are no benchmarks or criteria for specific conductance.

Temperature - Water temperature criteria are established for the protection of aquatic life, and vary between bodies of water based on use categories designated. The criterion of 20°C is measured by the 7-day average of the daily maximum temperatures.

Top deck sample temperatures ranged from 6.6 to 8.6 °C, all readings being below the WAC-173 criterion. Station SW-S1 averaged 7.0 °C for the quarter. The leachate temperature is not comparable due to the fact that the sample is a composite, and therefore kept on ice until it is collected.

Turbidity - Turbidity is one of the indicators used to assess the environmental health of water bodies. Turbidity is caused by the presence of suspended and dissolved matter, such as clay, silt, finely divided organic matter, plankton and other microscopic organisms. Turbidity criteria are established for the protection of aquatic life, and vary between bodies of water based on use categories designated.

The top deck turbidity ranged from 3.45 to 15.4 NTU during the 1st quarter. The turbidity at Station SW-S1 ranged between 0.6 NTU in February to 2.14 NTU in March. Leachate turbidity is not measured.

The Industrial Stormwater General Permit benchmark of 25 NTU was not exceeded by any of the top deck samples during the first quarter.

Chemical Oxygen Demand - Chemical Oxygen Demand (COD) is used to indirectly measure the amount of organic compounds in water.

Top deck samples ranged from 19 mg/L to 28.9 mg/L. At station SW-S1 COD ranged between less than the method detection limit of 5 mg/L in January and 8.4 mg/L in March. The average COD level for the leachate aeration pond inflow was 1,797 mg/L. There are no benchmarks or criteria for COD.

Total Organic Carbon - Total organic carbon (TOC) is the amount of carbon bound in an organic compound and is often used as a non-specific indicator of water quality. While COD is the measurement of all substances in the water that can be oxidized, TOC is the measurement of organically bound carbon.

Top deck samples ranged from 4.52 to 8.43 mg/L. Station SW-S1 TOC results averaged 2.82 mg/L and the TOC levels for the leachate aeration pond inflow averaged 505 mg/L. There are no benchmarks or criteria for TOC.

Alkalinity - Alkalinity is the measure of the capacity of water to neutralize acids, or its buffer capacity. The alkalinity of natural waters is controlled primarily by the equilibria of the carbonate system. It is produced by dissolved CO₂ acting upon alkaline materials in the soil to produce bicarbonate (HCO₃⁻) and carbonate (CO₃²⁻). Source CO₂ can be atmospheric, from respiration of water borne organisms or decay of organic matter, including a potential contribution from landfill gas (LFG).

Top deck samples ranged from 10.7 to 184 mg/L as CaCO_3 . Station SW-S1 values averaged 12.2 mg/L as CaCO_3 , and the average alkalinity level for the leachate aeration pond inflow was 2,429 mg/L as CaCO_3 for the quarter. There are no benchmarks or criteria for alkalinity.

Chloride - Chloride is a conservative anion; that is, processes of adsorption, ion exchange, or biological uptake do generally not retard transport of chloride. Chloride is the best indicator for determining impacts from leachate. Chloride is one of the major anions to be found in water and sewage. Potable water should not exceed 250 mg/L of chloride.

Top deck samples ranged from 0.118 mg/L to 1.56 mg/L. Station SW-S1 had an average chloride concentration of 2.1 mg/L. The average chloride level for LAPI was 570 mg/L.

Sulfate - Sulfate (SO_4^{2-}) can be found in almost all natural water and is one of the major dissolved components of rain. It is formed by the oxidation of sulfite ores and is a component in industrial and domestic waste waters. There are few elements that will form insoluble salts with sulfate, thus; once in solution, it remains so unless it is anaerobically reduced to sulfide.

Top deck samples ranged in concentrations of 0.316 to 4.88 mg/L. Station SW-S1 had a sulfate concentration average of 2.08 mg/L. Sulfate concentrations at LAPI averaged 27.6 mg/L. There are no benchmarks or criteria for sulfate.

Iron - Iron is the fourth most abundant element in the earth's crust and the most abundant heavy metal. It is present in the environment mainly as Fe(II) or Fe(III). Iron is more soluble in the reduced state than it is in the oxidized state, where it often occurs as an iron oxide mineral (Fe_2O_3). At a pH above 7, iron exists mostly as insoluble salts which settle out or are adsorbed onto surfaces. The concentration of iron in well-aerated waters is seldom high. Under reducing conditions, which are most commonly caused by oxidation reactions involving organic matter, water will have higher concentrations of dissolved iron.

Top deck samples were analyzed for dissolved and total iron. Results for dissolved iron ranged from 0.011 to 0.208 mg/L. Total iron ranged from 0.296 to 9.41 mg/L.

Dissolved iron measurements at SW-S1 ranged from below the method detection limit of 0.01 mg/L to 0.027 mg/L. The average concentration of total iron at station SW-S1 was 0.031 mg/L. The total iron concentration at the leachate aeration pond inflow averaged 5.81 mg/L.

TABLE 5													
Area 5 Top Deck Stormwater Monitoring Results													
Location	Date	Sample ID	pH	Specific Conductance	Temp	Turbidity	Chemical Oxygen Demand	Total Organic Carbon	Alkalinity	Chloride	Sulfate	Dissolved Iron	Total Iron
			Units	µmhos/cm	C	NTU	mg/L	mg/L	mg/L as CaCO3	mg/L	mg/L	mg/L	mg/L
SW-A5TD1	2/4/2015	STD1150204-	8.29	310	6.6	3.45	28.9	8.43	184	1.56	4.88	0.011 T	9.41
SW-A5TD2	2/27/2015	STD2150227-	7.54	24	8	15.4	25.8	5.05	10.7	0.118	0.459	0.208	0.685
SW-A5TD4	2/27/2015	STD4150227-	8.29	36	8	4.19	22	4.87	16.9	0.303	0.316	0.049 T	0.14
SW-A5TD6	2/9/2015	STD6150209-	8.35	92	8.6	7.73	19 T	4.52	44.8	0.978	2.08	0.135	0.296
SW-S1	1/20/2015	SS1-150120Q	7.32	55	6.7	1.07	<5 U	3.27	11.3	2.28	2.15	0.012 T	0.02 T
SW-S1	2/23/2015	SS1-150223M	7.31	52	5.4	0.6	6.1 T	2.2	13.4	2.32	2.24	<0.01 U	0.023 T
SW-S1	3/16/2015	SS1-150316M	7.13	49	8.8	2.14	8.4 T	3	11.9	1.7	1.86	0.027 T	0.05 T
U = UNDETECTED\ANALYTE CONCENTRATION < MDL. T = ESTIMATED. LESS THAN RDL BUT GREATER THAN MDL.													

TABLE 6											
Leachate Pond Inflow Monitoring Results											
Location	Date	Sample ID	pH	Specific Conductance	Temp	Chemical Oxygen Demand	Total Organic Carbon	Alkalinity	Chloride	Sulfate	Total Iron
			Units	µmhos/cm	C	mg/L	mg/L	mg/L as CaCO3	mg/L	mg/L	mg/L
LS-API	1/21/2015	LAPI150121M	7.84	880	5.2	741	150 T	758	167	27.9	5.22
LS-API	2/11/2015	LAPI150211M	8.11	3700	10.7	1080	315	1210	264	31.6	4.99
LS-API	3/11/2015	LAPI150311M	8.12	14000	18.1	3570 S	1050 S	5320	1280	23.2	7.22
S = SAMPLING HANDLING ERRORS											
NOTE: LEACHATE IS NOT ANALYZED FOR DISSOLVED IRON.											

IV. CONCLUSION

The first quarter inspection reports showed no issues with the interim cover system for Area 5. Additionally, Area 5 continues to settle at a declining rate, without any indication of major differential settling, nor signs of surficial erosion.

None of the Area 5 top deck sample collected during the first quarter exceeded water quality criteria or benchmarks with the exception of total iron.

The recent compliant historical performance trend for Area 5, coupled with ongoing inspection results verifying the integrity of the cover, provides evidence that the Area 5 Top Deck Interim Cover System continues to function to prevent interaction between refuse and surface water runoff.

Figures



LEGEND:

○ ACTIVE MONITORING STATION

AERIAL FLOWN SEPTEMBER 2014

DATE	REVISION	BY



KING COUNTY DEPARTMENT OF
NATURAL RESOURCES AND PARKS
SOLID WASTE DIVISION

CEDAR HILLS REGIONAL LANDFILL
SETTLEMENT MONITORING LOCATIONS

APPROVED: YOO DATE: Feb. 2014
 RECOMMENDED: _____ DATE: _____
 DESIGNED: _____ DRAWN: _____
 PROJECT NO.: _____ SURVEY NO.: _____ SHEET 1 OF 1
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P:\ACAD\PROJECT\King County Expansion Proposal\CARLA WORK\Figure 1.dwg Aug 01, 2007 - 3:18pm

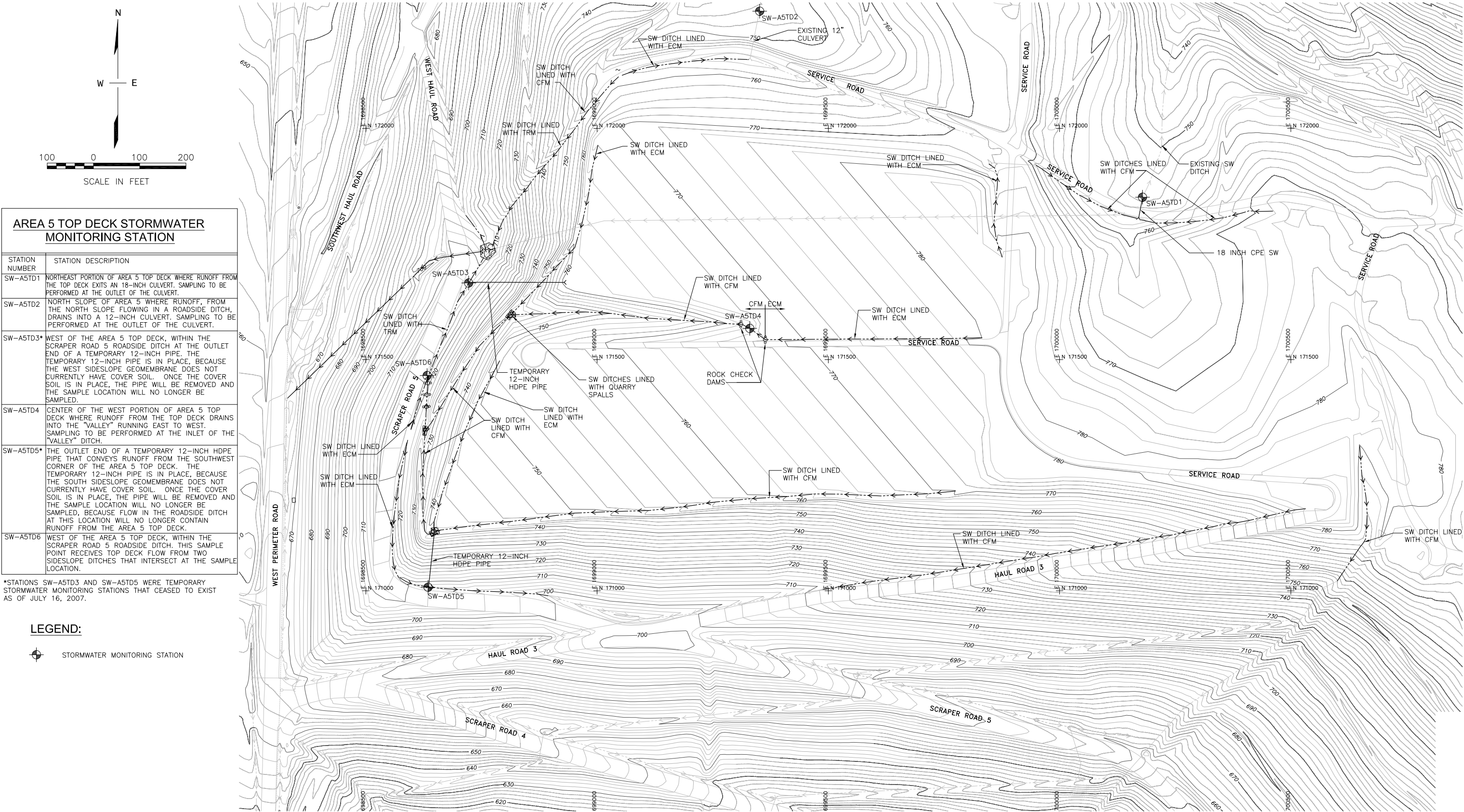


Figure 2
Area 5 Top Deck
Stormwater Monitoring Stations

Appendix A:

Inspection Reports

ENGINEERING SERVICES SECTION

Landfill Facility Site Inspections

Type – Permit Compliance

Inspected By: Stevn Larry

Telephone: (206) 477-5226

Location: Cedar Hills

Ambient Temperature (°F) 40

Weather Condition: Foggy

I certify that this report is true, accurate and complete, to the best of my knowledge and beliefs.

Inspector's Signature: _____

Date: Jan. 8, 2015

ACTION CODES

A. Gas System	OK	Not OK	B. Leachate System	OK	Not OK	C. Landfill Operations	OK	Not OK
1. Pipe Penetrations	X		1. Pump Stations	X		1. Fueling Stations	X	
2. Collection Piping	X		2. Aeration Lagoons / Basins	X		2. Vehicle Wash Stations	X	
3. Gas Extraction Wells	X		3. Aerators	X		3. Equipment	X	
4. Valve Stations	X		4. Weeps (strip drains)	X		4. Perimeter Fences	X	
5. Odor	X		5. Collection System	X		5. Vegetation	X	
6. Flare Stations	X		a. Collection Pipes	X		6. Landfill Cover	X	
7. Air Compressors	X		b. Forcemains	X		7. Drain Rock	X	
8. Noise Control	X		c. Manholes	X		9. Air Quality	X	
			d. Cleanouts	X		10. Stockpiles	X	
D. Stormwater System			6. Generators	X		11. Vectors	X	
1. Ponds		X	7. Extraction Wells	X		12. Litter	X	
2. CB / Control Structures		X	8. Valve / Cleanout	X		13. Dust control	X	
3. Pipes / Culverts		X	9. Groundwater Extraction Wells	X		14. Other	X	
4. Trash Racks	X							
5. Ditches		X	E. Roadway System			Cover System / ESC		
6. Runoff Control Berms		X	1. Road Sweeping		X	F. Vegetation	X	
7. General	X		2. Access Roads		X	1. Refuse	X	
			3. Road Erosion		X	2. Cover Erosion	X	
G. Operations			4. Road Pavement		X	3. Silt Fences, Filter Fabric, etc.	X	
1. Records Obtain / Review	X		5. Lane Striping	X				

Item No.	Action Code(s)	Area Code(s) (See below or over for map) Area Map		Status			State Reason if "Fair or Poor"	Date Corrective Action Implemented
				G	F	P		
1							Currently we are experiencing problems with sediment on the paved surfaces that lead to impaired water quality.	
2	D1,2,3 & D5,6	2 C-H			X	X	Sediment track out onto road surfaces are overloading the surface water collection system.	
3								
4	E 1-4	2 C-H			X	X	Sediment track out onto road surfaces are overloading the surface water collection system.	
5								
6								

Item No.	Action Code(s)	Area Code(s) (See below or over for map)		Status			State Reason if "Fair or Poor"	Date Corrective Action Implemented
		Area	Map	G	F	P		
7								
8								
9								
10								
11								

AREA CODES (for Cedar Hills)

East Main Hill = EMH	G = Good	F = Fair	P = Poor
Southwest Main Hill = SWMH	Area 2/3 = A2/3	Aeration Ponds = AP	Area 5 = A5
Southeast Pit Area = SEPA	Area 4 = A4	So. Solid Waste Area = SSWA	Area 6 = A6
	Stockpile = SP	North Flare Station = NFS	Central Pit = CP

State the needs of the repairs in the suggested remedy box.

1. *Regulatory Priority* - permit, regulations & code & compliance driven.
2. *Safety Priority* – potential to adversely affect the safety of workers or the related environment.
3. *Maintenance Priority* – Ensures continuation of existing level of facility operations to ensure proper efficiency without interruption. This priority has the following four potential levels
 - a. *Emergency* - stops the continuing operation of the facility
 - b. *Urgent* – While not completely prohibiting continuing use of the facility, may threaten use of entire facility or continuing use may results in significant & extensive repair of facility.
 - c. *Routine* – need to be completed & not necessarily. May be completed under existing operations preventative programs.
 - d. *Deferred* – desirable but not required to maintain status quo operations (e.g., planting or wild life enhancement projects etc.)

Overall site description day of site inspection: Over all the site is free of odors, blowing debris, free of uncontrolled weeps and seeps, the cover system appears in tack, the leachate and gas collection system appears to be functioning as designed. There is track out onto paved surfaces in spite of the sweeper trucks continuous use. The CH Technical teams has called for systematic review of all BMPs and that additional more BMPs to be installed immediately. See photos attached to this inspection at:

P:\SWPublic\CHL_Public\CH Monthly Site Inspections\SW inspections\SW Inspection 15\Jan 2015

Category number:	Action to be Completed. Suggested Remedy:
Category number:	Action to be Completed. Suggested Remedy:

<i>Category number:</i>	Action to be Completed. Suggested Remedy:
<i>Category number:</i>	Action to be Completed. Suggested Remedy:

1 | 2 | 3 | 4 | 5 | 6 | 7

A

B

C

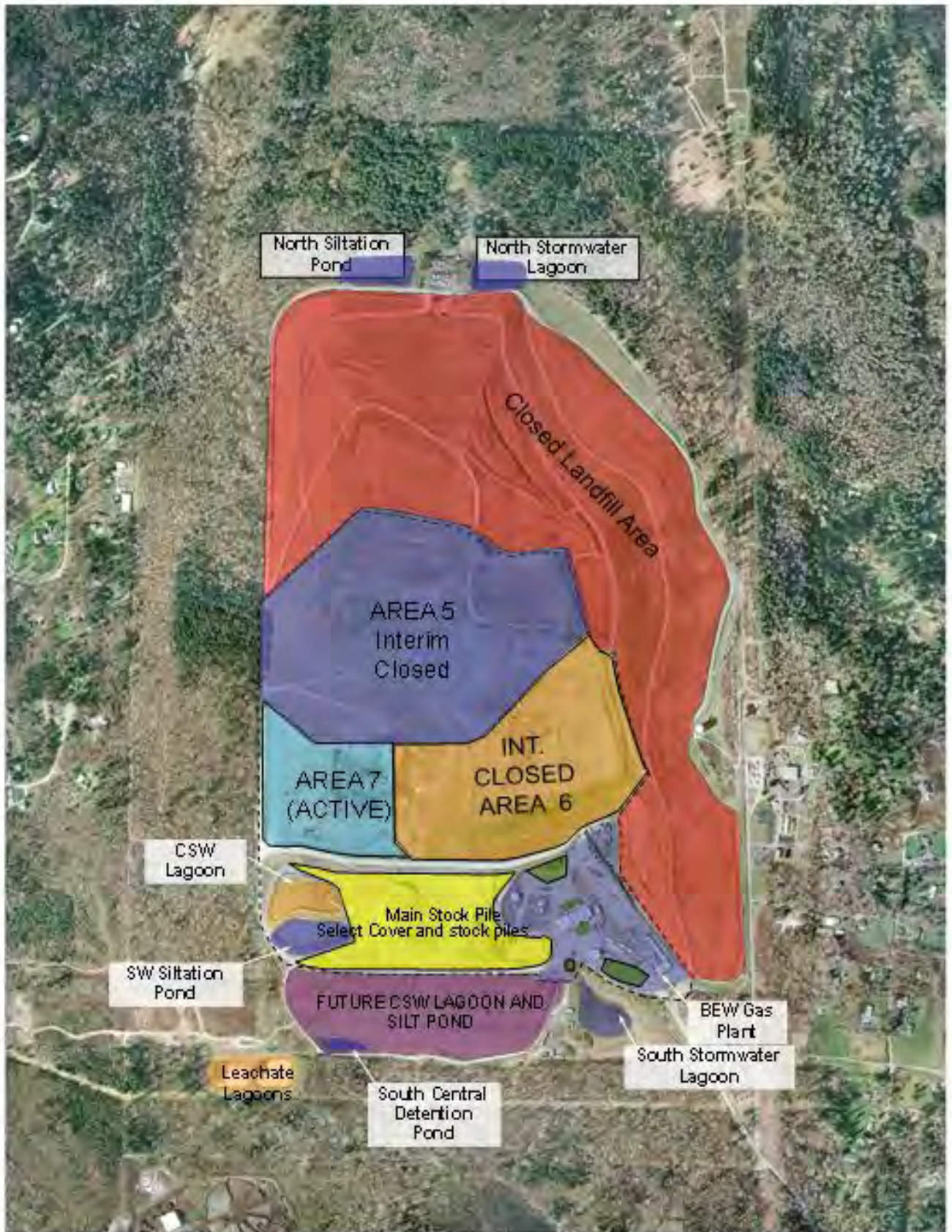
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H



SOLID WASTE DIVISION

Landfill Facility Site Inspections

Type - Permit Compliance

Inspected By: STEVEN LARRY Telephone: 206 477-5226
 Location: C-HILLS Ambient Temperature (°F) 40 Weather Condition: CLCST MORNING LIGHT RAIN

ACTION CODES

A. Gas System	OK	Not OK	B. Leachate System	OK	Not OK	C. Landfill Operations	OK	Not OK
1. Pipe Penetrations	✓		1. Pump Stations	✓		1. Fueling Stations	✓	
2. Collection Piping	✓		2. Aeration Lagoons / Basins	✓		2. Vehicle Wash Stations	✓	
3. Gas Extraction Wells	✓		3. Aerators	✓		3. Equipment	✓	
4. Valve Stations	✓		4. Weeps (strip drains)	✓		4. Perimeter Fences	✓	
5. Odor	✓		5. Collection System	✓		5. Vegetation	✓	
6. Flare Stations	✓		a. Collection Pipes	✓		6. Landfill Cover	✓	
7. Air Compressors	✓		b. Forcemains	✓		7. Drain Rock	✓	
8. Noise Control	✓		c. Manholes	✓		9. Air Quality	✓	
			d. Cleanouts	✓		10. Stockpiles	✓	
D. Stormwater System			6. Generators	✓		11. Vectors	✓	
1. Ponds	✓		7. Extraction Wells	✓		12. Litter	✓	✓
2. CB / Control Structures	✓		8. Valve / Cleanout	✓		13. Dust control	✓	
3. Pipes / Culverts	✓		9. Groundwater Extraction Wells	✓		14. Other	✓	
4. Trash Racks	✓							
5. Ditches	✓		E. Roadway System			Cover System / ESC		
6. Runoff Control Berms	✓		1. Road Sweeping		✓	F. Vegetation	✓	
7. Discharge Points		✓	2. Access Roads		✓	1. Refuse	✓	
8. General	✓		3. Road Erosion		✓	2. Cover Erosion		✓
			4. Road Pavement		✓	3. Silt Fences/Filter Fabric	✓	
G. Operations			5. Lane Striping	✓				
1. Records Obtain / Review	✓							

Item No.	Action Code(s)	Area Code(s) (See below or over for map) Area Map	Status G F P	State Reason if "Fair or Poor"	Date Corrective Action Implemented
1	D6	B34 146		SURFACE H ₂ O COMPLIANCE POINTS FLOWING	
2				MURKY / SLIGHTLY TURBID	
3	E1,2,3,4			ROAD SURFACES NEEDS SWEEPING IN	
4				SEVERAL LOCATIONS	
5					
6				ACCESS ROADS NEEDS ROCK FILLING OF PIT 146/145	
7				WEST SIDE HAUL ROAD HAS ROAD SHOULDER	
8				RILLING THAT IS BEGINNING TO UNDERMINE	
9				THE HAUL ROAD RILLS NEED WASHED	
10				ROCK FILLING	
11					

AREA CODES (for Cedar Hills)

East Main Hill = EMH
 Southwest Main Hill = SWMH
 Southeast Pit Area = SEPA

G = Good
 Area 2/3 = A2/3
 Area 4 = A4
 Stockpile = SP

F = Fair
 Aeration Ponds = AP
 So. Solid Waste Area = SSWA
 North Flare Station = NFS

P = Poor
 Area 5 = A5
 Area 6 = A6
 Central Pit = CP

State the needs of the repairs in the suggested remedy box.

1. *Regulatory Priority* - permit, regulations & code & compliance driven.
2. *Safety Priority* - potential to adversely affect the safety of workers or the related environment.
3. *Maintenance Priority* - Ensures continuation of existing level of facility operations to ensure proper efficiency without interruption. This priority has the following four potential levels
 - a. *Emergency* - stops the continuing operation of the facility
 - b. *Urgent* - While not completely prohibiting continuing use of the facility, may threaten use of entire facility or continuing use may results in significant & extensive repair of facility.
 - c. *Routine* - need to be completed & not necessarily. May be completed under existing operations preventative programs.
 - d. *Deferred* - desirable but not required to maintain status quo operations (e.g., planting or wild life enhancement projects etc.)

Overall site description day of site inspection: OVERALL, THE SITE LOOKS GREEN AND CLEAN, BUT THERE ARE SEVERAL LOCATIONS THAT NEED ATTENTION. (1) THE TRAILER REPAIR AREA NEEDS LITTER REMOVED FROM AROUND THE TRAILER CLEAN OUT AREA, THAT ALSO INCLUDES THE CSW DRAIN & COVERS. (2) MORE ROAD SWEEPING WITH MUD & ROCK REMOVAL NEEDED ALONG THE HAUL ROAD. (3) BUFFER ROADS NEEDS ROCKING TO FILL POTHOLES IN MANY LOCATIONS. (4) DIRT & MUD TRACKING FROM TRUCKS & SCRAPERS ON ROADWAYS NEEDS ATTENTION! REMEDY

Category number:

D6

Action to be Completed. Suggested Remedy:

ADDITIONAL BMPs ARE NEEDED TO PREVENT TRACKOUT THAT IS INCREASING OUR PROBLEMS WITH SURFACE WATER QUALITY. A MEETING IS SCHEDULED TO IMPLEMENT INCREASED BMPs THAT WILL ADDRESS ITEMS D6 THRU E4

Category number:

C12

Action to be Completed. Suggested Remedy:

I WILL ASK SEPT TO HAVE LITTER REMOVED FROM AROUND THE TRAILER REPAIR AREA.

Category number:

Action to be Completed. Suggested Remedy:

Category number:

Action to be Completed. Suggested Remedy:

SWPPP Modifications Necessary? (circle Y or N)

If Y, log changes in Appendix I of SWPPP.

Potential Pollutant Sources Y / N

Site Map Y / N

INSPECTION REPORT SIGNATURE PAGE

INSPECTOR / QUALIFIED PERSONNEL

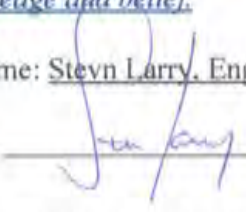
Based on professional judgment, which of the following statements is true: (select one)

- ☒ The site is in compliance with the terms and conditions of the SWPPP and the ISGP.
☐ The site is NOT in compliance with the terms and conditions of the SWPPP and the ISGP*.

* Immediately notify Environmental Compliance Coordinator

I certify that this report is true, accurate and complete, to the best of my knowledge and belief.

Printed name: Stevn Larry, Engineer II

Signature:  Date: 2/12/2015

DULY AUTHORIZED REPRESENTATIVE

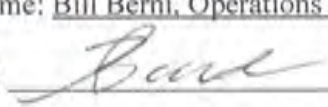
Based on professional judgment, which of the following statements is true: (select one)

- ☐ The site is in compliance with the terms and conditions of the SWPPP and the ISGP.
☐ The site is NOT in compliance with the terms and conditions of the SWPPP and the ISGP*.

* Immediately notify Environmental Compliance Coordinator

I certify under penalty of law that this SWPPP and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate information to determine compliance with the Industrial Stormwater General Permit. Based on my inquiry of the person or persons who are responsible for stormwater management at my facility, this SWPPP is, to the best of my knowledge and belief, true, accurate, and complete, and in full compliance with Permit Conditions S3 and S8, including the correct Best Management Practices from the applicable Stormwater Management Manual. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Printed name: Bill Berni, Operations Manager

Signature:  Date: 2/16/15

1 | 2 | 3 | 4 | 5 | 6 | 7

A

B

C

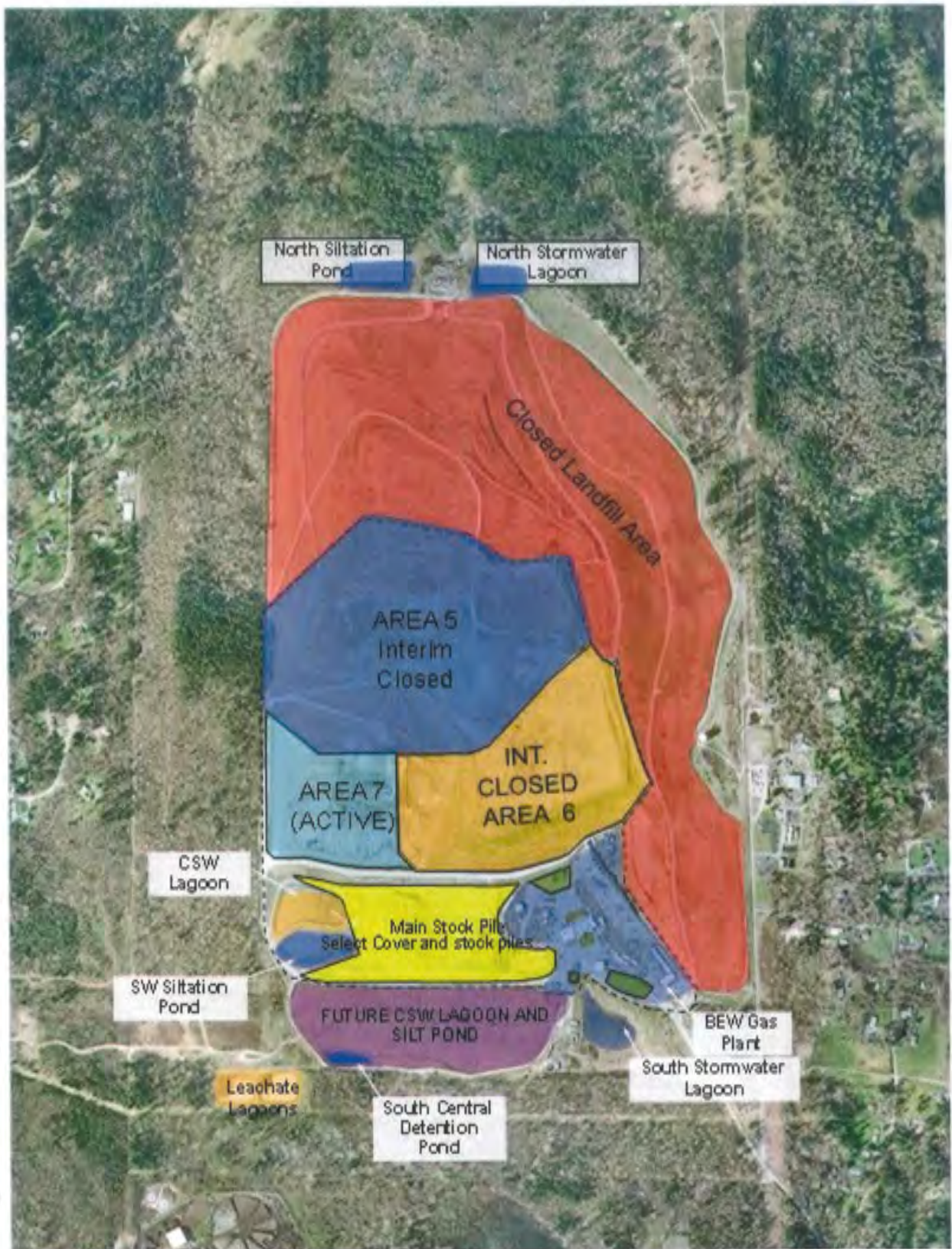
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SOLID WASTE DIVISION

Landfill Facility Site Inspections

Type – Permit Compliance

Inspected By: Stevn Larry

Telephone: (206) 477-5226

Location: Cedar Hills

Ambient Temperature (°F) 40

Weather Condition: partly cloudy

ACTION CODES

A. Gas System	OK	Not OK	B. Leachate System	OK	Not OK	C. Landfill Operations	OK	Not OK
1. Pipe Penetrations	X		1. Pump Stations	X		1. Fueling Stations	X	
2. Collection Piping	X		2. Aeration Lagoons / Basins	X		2. Vehicle Wash Stations	X	
3. Gas Extraction Wells	X		3. Aerators	X		3. Equipment	X	
4. Valve Stations	X		4. Weeps (strip drains)	X		4. Perimeter Fences	X	
5. Odor	X		5. Collection System	X		5. Vegetation	X	
6. Flare Stations	X		a. Collection Pipes	X		6. Landfill Cover	X	
7. Air Compressors	X		b. Forcemains	X		7. Drain Rock	X	
8. Noise Control	X		c. Manholes	X		9. Air Quality	X	
			d. Cleanouts	X		10. Stockpiles	X	
D. Stormwater System			6. Generators	X		11. Vectors	X	
1. Ponds	X		7. Extraction Wells	X		12. Litter	X	
2. CB / Control Structures	X		8. Valve / Cleanout	X		13. Dust control	X	
3. Pipes / Culverts	X		9. Groundwater Extraction Wells	X		14. Other	X	
4. Trash Racks	X							
5. Ditches	X		E. Roadway System			Cover System / ESC		
6. Runoff Control Berms	X		1. Road Sweeping	X		F. Vegetation	X	
7. Discharge Points	X		2. Access Roads	X		1. Refuse	X	
8. General	X		3. Road Erosion	X		2. Cover Erosion	X	
			4. Road Pavement	X		3. Silt Fences/Filter Fabric	X	
G. Operations			5. Lane Striping	X				
1. Records Obtain / Review	X							

Item No.	Action Code(s)	Area Code(s) (See below or over for map) Area Map	Status G F P	State Reason if "Fair or Poor"	Date Corrective Action Implemented
1	E-1(Roadways)	(E&F)-2		Track out along the west haul road.	3/13/2015
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					

AREA CODES (for Cedar Hills)

East Main Hill = EMH
Southwest Main Hill = SWMH
Southeast Pit Area = SEPA

G = Good
Area 2/3 = A2/3
Area 4 = A4
Stockpile = SP

F = Fair
Aeration Ponds = AP
So. Solid Waste Area = SSWA
North Flare Station = NFS

P = Poor
Area 5 = A5
Area 6 = A6
Central Pit = CP

State the needs of the repairs in the suggested remedy box.

1. *Regulatory Priority* - permit, regulations & code & compliance driven.
2. *Safety Priority* – potential to adversely affect the safety of workers or the related environment.
3. *Maintenance Priority* – Ensures continuation of existing level of facility operations to ensure proper efficiency without interruption. This priority has the following four potential levels
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 - b. *Urgent* – While not completely prohibiting continuing use of the facility, may threaten use of entire facility or continuing use may results in significant & extensive repair of facility.
 - c. *Routine* – need to be completed & not necessarily. May be completed under existing operations preventative programs.
 - d. *Deferred* – desirable but not required to maintain status quo operations (e.g., planting or wild life enhancement projects etc.)

Overall site description day of site inspection: Overall the general site conditions is good, but there is heavy tracking of sediment onto the east haul road starting from the construction entrance and down to the siltation pond. Operations is sweeping and a new BMP is being developed to reduce track out. New site wide BMP improvements are being installed and the effects are noticeable. The North stormwater ponds appear to be less turbid as well as the NPDES compliance points. Photos for this site inspection can be found at:
P:\SWPublic\CHL_Public\CH Monthly Site Inspections\SW inspections\SW Inspection 15\March 2015

Category number: E-1(Roadways)	Action to be Completed. Suggested Remedy: Continue with BMP installation improvements through the joint cooperation with C-Hills Operations, Road Construction Northwest and Engineering.
Category number:	Action to be Completed. Suggested Remedy:
Category number:	Action to be Completed. Suggested Remedy:
Category number:	Action to be Completed. Suggested Remedy:

SWPPP Modifications Necessary? (circle Y or N) Potential Pollutant Sources Y / N Site Map Y / N
If Y, log changes in Appendix I of SWPPP. Modification of the SWPP is not needed at this time. *E*

INSPECTION REPORT SIGNATURE PAGE

INSPECTOR / QUALIFIED PERSONNEL

Based on professional judgment, which of the following statements is true: (select one)

- ☒ *The site is in compliance with the terms and conditions of the SWPPP and the ISGP.*
☐ *The site is NOT in compliance with the terms and conditions of the SWPPP and the ISGP*.*

* Immediately notify Environmental Compliance Coordinator

I certify that this report is true, accurate and complete, to the best of my knowledge and belief.

Printed name: Steyn-Larry, Engineer II

Signature:  Date: 3/13/2015

DULY AUTHORIZED REPRESENTATIVE

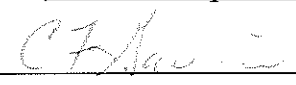
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☐ *The site is NOT in compliance with the terms and conditions of the SWPPP and the ISGP*.*

* Immediately notify Environmental Compliance Coordinator

I certify under penalty of law that this SWPPP and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate information to determine compliance with the Industrial Stormwater General Permit. Based on my inquiry of the person or persons who are responsible for stormwater management at my facility, this SWPPP is, to the best of my knowledge and belief, true, accurate, and complete, and in full compliance with Permit Conditions S3 and S8, including the correct Best Management Practices from the applicable Stormwater Management Manual. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Printed name: Bill Berni, Operations Manager

Signature:  Date: 3-16-15

1 | 2 | 3 | 4 | 5 | 6 | 7

A

B

C

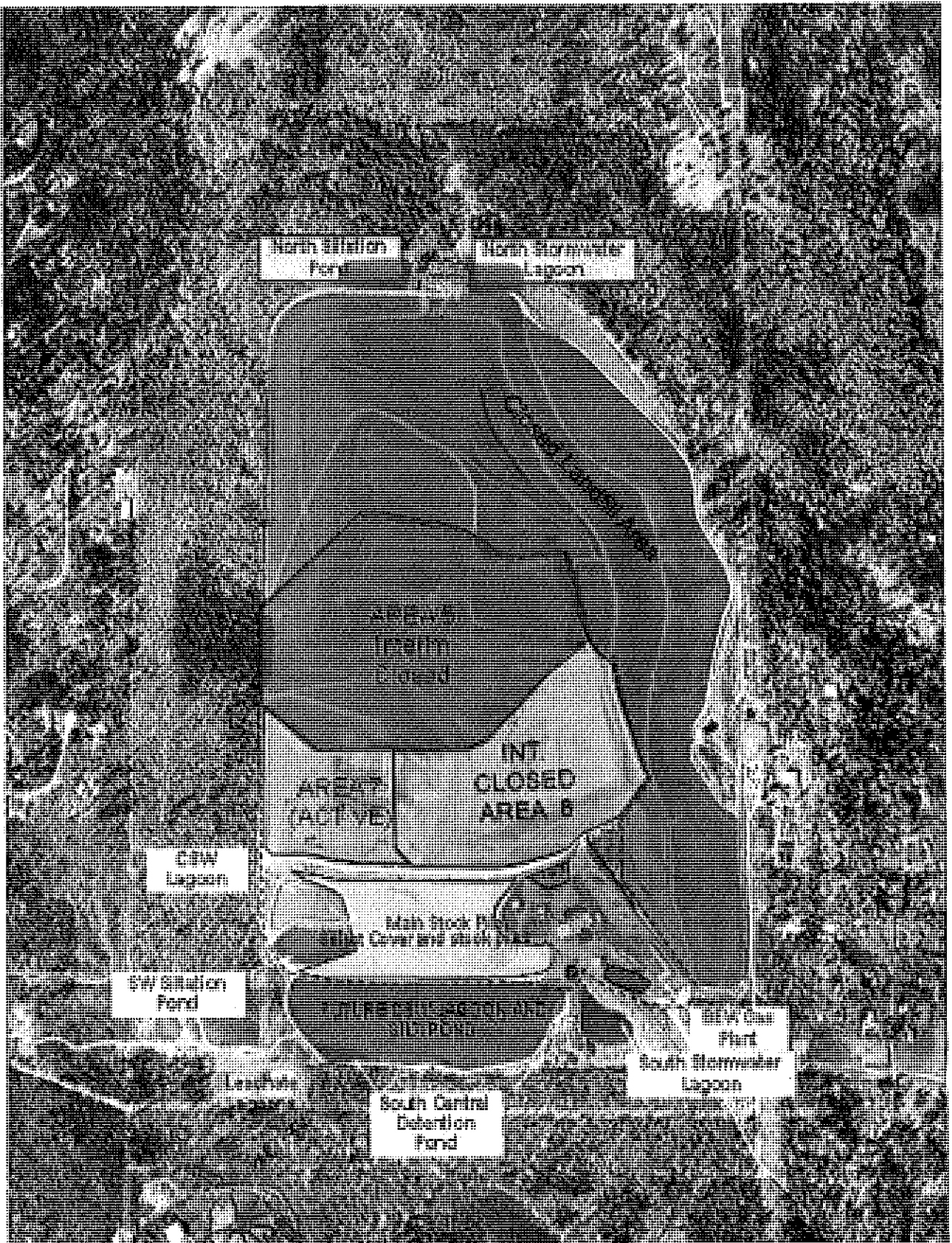
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SOLID WASTE INSPECTION REPORT

PUBLIC HEALTH - SEATTLE & KING COUNTY Downtown Office 401 - 5th Ave., Ste 1100 Seattle, WA 98104 206-263-9566	PURPOSE OF VISIT: Routine Inspection/Field Review of a Municipal Landfill establishment (PE=1006)
ESTABLISHMENT INFORMATION: CEDAR HILLS SANITARY LAND CEDAR HILLS SANITARY LAND 16645 228TH AV SE MAPLE VALLEY, WA 98038 206-296-4385 Program Record: PR0015736	INSPECTION INFORMATION: Date of Inspection: Monday, February 9, 2015 Time In: 11:45 am Time Out: 1:55 pm Inspector: Darshan Dhillon Result: SATISFACTORY

VIOLATIONS OBSERVED (if any)

OVERALL INSPECTION COMMENTS:

Special waste employees are on duty to exclude any prohibited waste from tipping into the landfills. Random inspections of the incoming loads are conducted and record maintained. Employees who conduct random inspections have MOLO training.

Tarp is used to cover the active phase at the end of the day for 3 to 4 days than it is covered with 6 inch of soil cover. Need to be checked if it is an approved practice.

One of the solid waste employees (Dean) was measuring landfill gas concentrations at the time of inspection. Some of the wells were producing between 21 to 50 SCFM gas.

Weekly inspections of the facility were not available at the front office. According to Scott Barden the records are kept at the North Flare Station. He will make sure all of the records are available during next inspection.

Workers at the landfill site are wearing required PPE.

Leachate ponds has more than 18 inches of free board.

According to Scott the liner is checked on a regular basis.

Solid waste division is planning to install a pipeline into the native soil to capture any leaking landfill gas which may be contaminating the ground or surface bodies of water.

Access to the facility is controlled by a lockable gate.

No birds were found around the active phase of the landfill.

NOTE: During the inspection it was noted that landfill gas was bubbling out through a small pot hole filled with water. Operator was advised to measure the concentration and take required steps to stop the gas leak and report the results to Solid waste section of the Public Health Seattle & King County. A check list of inspections is provided to Scott Barden Operations manager for his reference and collection of records to be presented at the time of next inspection. Structures located on the landfill site also be tested for landfill gas concentration to ensure that it is not above the 25 ppm as required by the Regulations.



Darshan Dhillon
Health & Environmental Investigator



Mark Knauss
Supervisor of Transfer stations

PIC Phone #: 206-639-0108

Email: scott.barden@kingcounty.gov

INSPECTION CHECKLIST

The following items are evaluated during inspections.
Violations cited as out of compliance during this inspection are highlighted below.
Out=out of compliance

OUT**Additional Operating Criteria WAC 173-351-220(1)**

- ☐ 0837-Road dust must be controlled
- ☐ 0838-Litter must be controlled
- ☐ 0839-Scavenging must be prohibited
- ☐ 0840-Staffing must be a minimum 2 personnel on site with one at the active portion when open
- ☐ 0841-Certification of operators of solid waste landfills must be current
- ☐ 0842-Reserve operational equipment must be available and adequate
- ☐ 0843-Active area boundaries must be clearly marked
- ☐ 0844-Must compact solid waste before succeeding layers are added per WAC
- ☐ 0845-Maintain monitoring systems for groundwater, explosive gas and other monitoring per permit
- ☐ 0846-Provide orderly and sanitary recycling methods to general public unless alternatives provided
- ☐ 0847-Prohibit disposal of dangerous waste unless DWR are met
- ☐ 0848-Must allow inspections by public health

Annual Report

- ☐ 0828-Annual report due April 1st

Closure and post-closure care WAC 173-351-500

- ☐ 0856-Final cover installed to minimize, infiltration and erosion per design
- ☐ 0857-Closure plan followed for areas of the MSWLF unit within 30 days of final receipt of wa-stes
- ☐ 0858-For closed areas, closure activities must be completed within 180 days
- ☐ 0859-For closed areas post closure care must be conducted per post- closure plan and WAC
- ☐ 0860-Final cover for closed areas must be maintained (vegetation, settlement, erosion,# run on/off)
- ☐ 0861-Leachate collection systems maintained and operated per post-closure plan and WAC 173-351-300
- ☐ 0862-Gas monitoring systems maintained and operated per post-closure plan and WAC 173-351-200

Design Criteria New MSWLF expansion 173-351-300

- ☐ 0849-New MSWLF units and expansions have approved liner & leachate collection system construction

Groundwater sampling and analysis requirements WAC 173-351-4

- ☐ 0853-Roundwater monitoring must be accordance with an approved sampling / analysis document

Liquids Restrictions

- ☐ 0825-Bulk or non-containerized liquid waste may not be placed in MSWLF unit unless exceptions allow
- ☐ 0826-Containers holding liquid waste may not be placed in a MSWLF unit unless meet 200 (9)(b)(i-iii)

MSLF Groundwater reporting WAC 173-351-415

- ☐ 0854-Annual groundwater report due by April 1st
- ☐ 0855-Quarterly groundwater monitoring reports submitted

MSLF Leachate Managementfor Surface Impoundments WAC 173-**OUT****Design Standards - Surface Impoundments**

- ☐ 0740-Embankments and slopes must be maintained and be in good condition
- ☐ 0741-Freeboard for the surface impoundment is > 18 inches or as specified per the permit

Ground Water monitoring requirements for surface impoundments and tanks

- ☐ 0766-Surface impoundments not equipped with a leak detection layer must meet WAC 173-350-500
- ☐ 0767-Surface impoundments w/a leak detection layer are subject to WAC 173-350-040 (5),173-350-330(b)

Operating standards - Surface Impoundments and tanks

- ☐ 0750-Must prevent overfilling and maintain required freeboard = 18 inches from wave action/precip
- ☐ 0751-Must control access to the site
- ☐ 0752-Must control nuisance odors for wastes or liquids
- ☐ 0753-Must control birds at impoundments storing wastes capable of attracting birds
- ☐ 0754-Records kept of weekly inspections and liner inspections at least every 5 years
- ☐ 0755-Daily records kept on-site of the quantity and type of wastes removed for at least 5 years

Operating Criteria WAC 173-351-200**Access Restriction**

- ☐ 0818-Access must be controlled (public /animal/vehicle). Barriers must be maintained.
- ☐ 0819-Lockable gate at each entry must be maintained and in good condition

Air Criteria

- ☐ 0816-MSWLF units must meet all applicable air standards
- ☐ 0817-Open burning of garbage is prohibited. Other types of burning only under appropriate permit

Cover Material Requirements

- ☐ 0806-Approved cover material must be applied at a depth of 6 in# at the end of the day or as needed
- ☐ 0807-Only approved alternative cover materials are in use and are applied at an approved depth

Disease Vectors Controlled

- ☐ 0808-Procedures must be in place to control disease vectors e g. (rodents, flies, mosquitoes, other)

Explosive Gases Control

- ☐ 0809-Methane gas must not exceed 25% of lower explosive limit for facility structures
- ☐ 0810-Methane gas concentration must not exceed lower explosive limit at the property boundary-beyond
- ☐ 0811-Methane gas concentration must not exceed 100ppm/volume of methane in offsite structures
- ☐ 0812-Explosive gases must be controlled and a routine methane monitoring program in place
- ☐ 0813-Monitoring for explosive gas occurs quarterly at a minimum
- ☐ 0814-Required measures must be taken if methane gas levels exceed limits (notify, monitor, evacuate)
- ☐ 0815-Must have procedures for methane gas level exceedance (gas levels, interim steps, remediation)

Incoming Waste Management

- ☐ 0800-Procedures must be in place for excluding the receipt of prohibited waste
- ☐ 0801-Random inspections must be conducted for incoming loads to prevent receipts of prohibited waste
- ☐ 0802-Record must be kept of random inspections of incoming loads to prevent prohibited waste
- ☐ 0803-Facility personnel must be trained to recognize prohibited wastes and training logs kept
- ☐ 0804-Immediate notification to Public Health and Ecology for any prohibited waste discovered

Performance Standards

- ☐ 0290-Must not pose a threat to human health or environment
- ☐ 0291-Protects from ground water contamination
- ☐ 0292-The facility must conform to the approved local comprehensive solid waste management plan
- ☐ 0293-Complies with RCW 70.94 Emission or ambient air quality standards
- ☐ 0294-Complies with all other local/state/federal laws and regulations

Performance Standards for groundwater monitoring System Design

- ☐ 0850-All groundwater monitoring system must be designed and maintained per WAC 173-351-405
- ☐ 0851-All wells must be clearly labeled, capped and locked
- ☐ 0852-Equipment used for groundwater monitoring is maintained

Permit Requirements

- ☐ 0863-Permit Required

Plan of Operation

- ☐ 0829-Plan of operation is current, complete and a hard copy present at the permit approved location
- ☐ 0830-Operators handle solid waste as described in plan of operations
- ☐ 0831-Operators conducting inspections per plan of operation
- ☐ 0832-Plan of operation procedures followed for fire or explosion
- ☐ 0833-Plan of operation procedures followed for actions to take for sudden releases of gas, leachate
- ☐ 0834-Maintain and operate leachate and gas collection equipment per plan of operation
- ☐ 0835-Safety equipment listed in plan of operation must be on-site and working (shower, eyewash)
- ☐ 0836-Any additional requirements by Public Health are followed as outlined on the plan of operation

Record Keeping

- ☐ 0827-Operating record is available at the approved location and is complete for all required records

Run-on/runoff Control Systems

- ☐ 0820-Prevent run-on to the active portion of the landfill during the peak discharge from 25yr storm
- ☐ 0821-Must provide runoff control for active portions to collect & control water vol. 24hr/25yr storm
- ☐ 0822-Runoff from active portion of the landfill must be handled in accordance w. WAC 173-351-200(8)

Surface Water Requirements

- ☐ 0823-MSWLF units must not discharge pollutants into waters of the state
- ☐ 0824-Must not cause the discharge of a nonpoint source pollution to waters of the state

SOLID WASTE INSPECTION REPORT

PUBLIC HEALTH - SEATTLE & KING COUNTY Downtown Office 401 - 5th Ave., Ste 1100 Seattle, WA 98104 206-263-9566	PURPOSE OF VISIT: Routine Inspection/Field Review of a Municipal Landfill establishment (PE=1006)
ESTABLISHMENT INFORMATION: CEDAR HILLS SANITARY LAND CEDAR HILLS SANITARY LAND 16645 228TH AV SE MAPLE VALLEY, WA 98038 206-296-4385 Program Record: PR0015736	INSPECTION INFORMATION: Date of Inspection: Thursday, March 5, 2015 Time In: 1:00 pm Time Out: 2:17 pm Inspector: Darshan Dhillon Result: SATISFACTORY

VIOLATIONS OBSERVED (if any)

OVERALL INSPECTION COMMENTS:

Aeration pump work alternatively in the leachate ponds.
Free board in each leachate pond is greater than 24 inch.
Approved alternative tarp is used for daily cover.
Water tank truck is spreading water on the roadways and other areas to keep the dust under control.
Gas concentrations are monitored on a regular basis.
weekly inspections are kept up-to-date.
Odors are kept under control by spreading soil cover on the waste.



Dan Dhillon
Health & Environmental investigator

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Email: scott.barden@kingcounty.gov

INSPECTION CHECKLIST

The following items are evaluated during inspections.
Violations cited as out of compliance during this inspection are highlighted below.
Out=out of compliance

OUT**Additional Operating Criteria WAC 173-351-220(1)**

- ☐ 0837-Road dust must be controlled
- ☐ 0838-Litter must be controlled
- ☐ 0839-Scavenging must be prohibited
- ☐ 0840-Staffing must be a minimum 2 personnel on site with one at the active portion when open
- ☐ 0841-Certification of operators of solid waste landfills must be current
- ☐ 0842-Reserve operational equipment must be available and adequate
- ☐ 0843-Active area boundaries must be clearly marked
- ☐ 0844-Must compact solid waste before succeeding layers are added per WAC
- ☐ 0845-Maintain monitoring systems for groundwater, explosive gas and other monitoring per permit
- ☐ 0846-Provide orderly and sanitary recycling methods to general public unless alternatives provided
- ☐ 0847-Prohibit disposal of dangerous waste unless DWR are met
- ☐ 0848-Must allow inspections by public health

Annual Report

- ☐ 0828-Annual report due April 1st

Closure and post-closure care WAC 173-351-500

- ☐ 0856-Final cover installed to minimize, infiltration and erosion per design
- ☐ 0857-Closure plan followed for areas of the MSWLF unit within 30 days of final receipt of wa-stes
- ☐ 0858-For closed areas, closure activities must be completed within 180 days
- ☐ 0859-For closed areas post closure care must be conducted per post- closure plan and WAC
- ☐ 0860-Final cover for closed areas must be maintained (vegetation, settlement, erosion,# run on/off)
- ☐ 0861-Leachate collection systems maintained and operated per post-closure plan and WAC 173-351-300
- ☐ 0862-Gas monitoring systems maintained and operated per post-closure plan and WAC 173-351-200

Design Criteria New MSWLF expansion 173-351-300

- ☐ 0849-New MSWLF units and expansions have approved liner & leachate collection system construction

Groundwater sampling and analysis requirements WAC 173-351-4

- ☐ 0853-Roundwater monitoring must be accordance with an approved sampling / analysis document

Liquids Restrictions

- ☐ 0825-Bulk or non-containerized liquid waste may not be placed in MSWLF unit unless exceptions allow
- ☐ 0826-Containers holding liquid waste may not be placed in a MSWLF unit unless meet 200 (9)(b)(i-iii)

MSLF Groundwater reporting WAC 173-351-415

- ☐ 0854-Annual groundwater report due by April 1st
- ☐ 0855-Quarterly groundwater monitoring reports submitted

MSLF Leachate Managementfor Surface Impoundments WAC 173-**OUT****Design Standards - Surface Impoundments**

- ☐ 0740-Embankments and slopes must be maintained and be in good condition
- ☐ 0741-Freeboard for the surface impoundment is > 18 inches or as specified per the permit

Ground Water monitoring requirements for surface impoundments and tanks

- ☐ 0766-Surface impoundments not equipped with a leak detection layer must meet WAC 173-350-500
- ☐ 0767-Surface impoundments w/a leak detection layer are subject to WAC 173-350-040 (5),173-350-330(b)

Operating standards - Surface Impoundments and tanks

- ☐ 0750-Must prevent overfilling and maintain required freeboard = 18 inches from wave action/precip
- ☐ 0751-Must control access to the site
- ☐ 0752-Must control nuisance odors for wastes or liquids
- ☐ 0753-Must control birds at impoundments storing wastes capable of attracting birds
- ☐ 0754-Records kept of weekly inspections and liner inspections at least every 5 years
- ☐ 0755-Daily records kept on-site of the quantity and type of wastes removed for at least 5 years

Operating Criteria WAC 173-351-200**Access Restriction**

- ☐ 0818-Access must be controlled (public /animal/vehicle). Barriers must be maintained.
- ☐ 0819-Lockable gate at each entry must be maintained and in good condition

Air Criteria

- ☐ 0816-MSWLF units must meet all applicable air standards
- ☐ 0817-Open burning of garbage is prohibited. Other types of burning only under appropriate permit

Cover Material Requirements

- ☐ 0806-Approved cover material must be applied at a depth of 6 in# at the end of the day or as needed
- ☐ 0807-Only approved alternative cover materials are in use and are applied at an approved depth

Disease Vectors Controlled

- ☐ 0808-Procedures must be in place to control disease vectors e g. (rodents, flies, mosquitoes, other)

Explosive Gases Control

- ☐ 0809-Methane gas must not exceed 25% of lower explosive limit for facility structures
- ☐ 0810-Methane gas concentration must not exceed lower explosive limit at the property boundary-beyond
- ☐ 0811-Methane gas concentration must not exceed 100ppm/volume of methane in offsite structures
- ☐ 0812-Explosive gases must be controlled and a routine methane monitoring program in place
- ☐ 0813-Monitoring for explosive gas occurs quarterly at a minimum
- ☐ 0814-Required measures must be taken if methane gas levels exceed limits (notify, monitor, evacuate)
- ☐ 0815-Must have procedures for methane gas level exceedance (gas levels, interim steps, remediation)

Incoming Waste Management

- ☐ 0800-Procedures must be in place for excluding the receipt of prohibited waste
- ☐ 0801-Random inspections must be conducted for incoming loads to prevent receipts of prohibited waste
- ☐ 0802-Record must be kept of random inspections of incoming loads to prevent prohibited waste
- ☐ 0803-Facility personnel must be trained to recognize prohibited wastes and training logs kept
- ☐ 0804-Immediate notification to Public Health and Ecology for any prohibited waste discovered

Performance Standards

- ☐ 0290-Must not pose a threat to human health or environment
- ☐ 0291-Protects from ground water contamination
- ☐ 0292-The facility must conform to the approved local comprehensive solid waste management plan
- ☐ 0293-Complies with RCW 70.94 Emission or ambient air quality standards
- ☐ 0294-Complies with all other local/state/federal laws and regulations

Performance Standards for groundwater monitoring System Design

- ☐ 0850-All groundwater monitoring system must be designed and maintained per WAC 173-351-405
- ☐ 0851-All wells must be clearly labeled, capped and locked
- ☐ 0852-Equipment used for groundwater monitoring is maintained

Permit Requirements

- ☐ 0863-Permit Required

Plan of Operation

- ☐ 0829-Plan of operation is current, complete and a hard copy present at the permit approved location
- ☐ 0830-Operators handle solid waste as described in plan of operations
- ☐ 0831-Operators conducting inspections per plan of operation
- ☐ 0832-Plan of operation procedures followed for fire or explosion
- ☐ 0833-Plan of operation procedures followed for actions to take for sudden releases of gas, leachate
- ☐ 0834-Maintain and operate leachate and gas collection equipment per plan of operation
- ☐ 0835-Safety equipment listed in plan of operation must be on-site and working (shower, eyewash)
- ☐ 0836-Any additional requirements by Public Health are followed as outlined on the plan of operation

Record Keeping

- ☐ 0827-Operating record is available at the approved location and is complete for all required records

Run-on/runoff Control Systems

- ☐ 0820-Prevent run-on to the active portion of the landfill during the peak discharge from 25yr storm
- ☐ 0821-Must provide runoff control for active portions to collect & control water vol. 24hr/25yr storm
- ☐ 0822-Runoff from active portion of the landfill must be handled in accordance w. WAC 173-351-200(8)

Surface Water Requirements

- ☐ 0823-MSWLF units must not discharge pollutants into waters of the state
- ☐ 0824-Must not cause the discharge of a nonpoint source pollution to waters of the state

Title 5 Monthly Facility Inspection Report

for the period 01/01/2015 to 04/30/2015

*Click the blue 'Y' to
see notes*

Item	Location	Work Order Number	Work Order Status	Completion Date	Work Order Has Notes
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Cover System

CHAPONDS

0000014033	CLOSED	01/08/2015	N
0000014170	CLOSED	02/11/2015	N
0000014315	CLOSED	03/11/2015	N
0000014450	CLOSED	04/01/2015	N

CHAREA4

0000014034	CLOSED	01/08/2015	N
0000014171	CLOSED	02/11/2015	N
0000014316	CLOSED	03/11/2015	N
0000014451	CLOSED	04/01/2015	N

CHAREA5

0000014035	CLOSED	01/08/2015	N
0000014172	CLOSED	02/11/2015	N
0000014317	CLOSED	03/11/2015	N
0000014452	CLOSED	04/03/2015	N

CHAREA5TD

0000013983	CLOSED	01/28/2015	N
0000014121	CLOSED	02/26/2015	N
0000014266	CLOSED	03/23/2015	N
0000014398	CLOSED	04/21/2015	N

CHAREA6

0000014036	CLOSED	01/08/2015	N
0000014173	CLOSED	02/11/2015	N
0000014318	CLOSED	03/11/2015	N
0000014453	CLOSED	04/01/2015	N

CHAREA6TD

0000014012	CLOSED	01/28/2015	Y
0000014149	CLOSED	02/13/2015	N
0000014295	CLOSED	03/16/2015	N

	0000014430	CLOSED	04/29/2015	N
CHAREA7				
	0000014037	CLOSED	01/08/2015	N
	0000014174	CLOSED	02/11/2015	N
	0000014319	CLOSED	03/11/2015	N
	0000014454	CLOSED	04/01/2015	N
CHAREAS23				
	0000014038	CLOSED	01/08/2015	N
	0000014175	CLOSED	02/11/2015	N
	0000014320	CLOSED	03/11/2015	N
	0000014455	CLOSED	04/01/2015	N
CHCENTRALPIT				
	0000014039	CLOSED	01/08/2015	N
	0000014176	CLOSED	02/11/2015	N
	0000014321	CLOSED	03/11/2015	N
	0000014456	CLOSED	04/01/2015	N
CHEMH				
	0000014040	CLOSED	01/08/2015	N
	0000014177	CLOSED	02/11/2015	N
	0000014322	CLOSED	03/11/2015	N
	0000014457	CLOSED	04/01/2015	N
CHNFLARESTN				
	0000014044	CLOSED	01/08/2015	N
	0000014181	CLOSED	02/11/2015	N
	0000014326	CLOSED	03/11/2015	N
	0000014461	CLOSED	04/01/2015	N
CHSEPA				
	0000014041	CLOSED	01/08/2015	N
	0000014178	CLOSED	02/11/2015	N
	0000014323	CLOSED	03/11/2015	N
	0000014458	CLOSED	04/01/2015	N
CHSSWA				
	0000014042	CLOSED	01/08/2015	N
	0000014179	CLOSED	02/11/2015	N
	0000014324	CLOSED	03/11/2015	N
	0000014459	CLOSED	04/01/2015	N

Fuel Island	CHSTOCKPILE	0000014032	CLOSED	01/08/2015	N
		0000014169	CLOSED	02/11/2015	N
		0000014314	CLOSED	03/11/2015	N
		0000014449	CLOSED	04/01/2015	N
	CHSWMH	0000014043	CLOSED	01/08/2015	N
		0000014180	CLOSED	02/11/2015	N
		0000014325	CLOSED	03/11/2015	N
		0000014460	CLOSED	04/01/2015	N
	CHFUELISLAND	0000014026	CLOSED	01/08/2015	N
		0000014163	CLOSED	02/11/2015	N
		0000014308	CLOSED	03/11/2015	N
		0000014443	CLOSED	04/01/2015	N
	Gas System				
	CHAREA4	0000014034	CLOSED	01/08/2015	N
		0000014171	CLOSED	02/11/2015	N
		0000014316	CLOSED	03/11/2015	N
		0000014451	CLOSED	04/01/2015	N
	CHAREA5	0000014035	CLOSED	01/08/2015	N
		0000014172	CLOSED	02/11/2015	N
		0000014317	CLOSED	03/11/2015	N
		0000014452	CLOSED	04/01/2015	N
	CHAREA6	0000014036	CLOSED	01/08/2015	N
		0000014173	CLOSED	02/11/2015	N
		0000014318	CLOSED	03/11/2015	N
		0000014453	CLOSED	04/01/2015	N
	CHAREA7	0000014037	CLOSED	01/08/2015	N
		0000014174	CLOSED	02/11/2015	N
		0000014319	CLOSED	03/11/2015	N

	0000014454	CLOSED	04/01/2015	N
CHAREAS23				
	0000014038	CLOSED	01/08/2015	N
	0000014175	CLOSED	02/11/2015	N
	0000014320	CLOSED	03/11/2015	N
	0000014455	CLOSED	04/01/2015	N
CHCENTRALPIT				
	0000014039	CLOSED	01/08/2015	N
	0000014176	CLOSED	02/11/2015	N
	0000014321	CLOSED	03/11/2015	N
	0000014456	CLOSED	04/01/2015	N
CHEMH				
	0000014040	CLOSED	01/08/2015	N
	0000014177	CLOSED	02/11/2015	N
	0000014322	CLOSED	03/11/2015	N
	0000014457	CLOSED	04/01/2015	N
CHNFLARESTN				
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	0000014181	CLOSED	02/11/2015	N
	0000014326	CLOSED	03/11/2015	N
	0000014461	CLOSED	04/01/2015	N
CHSEPA				
	0000014041	CLOSED	01/08/2015	N
	0000014178	CLOSED	02/11/2015	N
	0000014323	CLOSED	03/11/2015	N
	0000014458	CLOSED	04/01/2015	N
CHSSWA				
	0000014042	CLOSED	01/08/2015	N
	0000014179	CLOSED	02/11/2015	N
	0000014324	CLOSED	03/11/2015	N
	0000014459	CLOSED	04/01/2015	N
CHSWMH				
	0000014043	CLOSED	01/08/2015	N
	0000014180	CLOSED	02/11/2015	N
	0000014325	CLOSED	03/11/2015	N
	0000014460	CLOSED	04/01/2015	N

Leachate

CHAPONDS

0000014033	CLOSED	01/08/2015	N
0000014170	CLOSED	02/11/2015	N
0000014315	CLOSED	03/11/2015	N
0000014450	CLOSED	04/01/2015	N

CHPS1

0000014027	CLOSED	01/08/2015	N
0000014164	CLOSED	02/11/2015	N
0000014309	CLOSED	03/11/2015	N
0000014444	CLOSED	04/01/2015	N

CHPS2

0000014028	CLOSED	01/08/2015	N
0000014165	CLOSED	02/11/2015	N
0000014310	CLOSED	03/11/2015	N
0000014445	CLOSED	04/01/2015	N

CHPS3

0000014029	CLOSED	01/08/2015	N
0000014166	CLOSED	02/11/2015	N
0000014311	CLOSED	03/11/2015	N
0000014446	CLOSED	04/01/2015	N

CHPS4

0000014030	CLOSED	01/08/2015	N
0000014167	CLOSED	02/11/2015	N
0000014312	CLOSED	03/11/2015	N
0000014447	CLOSED	04/01/2015	N

Opacity

CHMAINSHOP

0000014031	CLOSED	01/08/2015	N
0000014168	CLOSED	02/11/2015	N
0000014313	CLOSED	03/11/2015	N
0000014448	CLOSED	04/01/2015	N

CHNFLARESTN

0000014044	CLOSED	01/08/2015	N
0000014181	CLOSED	02/11/2015	N
0000014326	CLOSED	03/11/2015	N

Prohibited Activities		0000014461	CLOSED	04/01/2015	N
	Cedar Hills				
		0000014022	CLOSED	01/08/2015	N
		0000014159	CLOSED	02/11/2015	N
		0000014304	CLOSED	03/11/2015	N
Roadway		0000014439	CLOSED	04/01/2015	N
	CHACTIVEAREA				
		0000014023	CLOSED	01/08/2015	N
		0000014160	CLOSED	02/11/2015	N
		0000014305	CLOSED	03/11/2015	N
		0000014440	CLOSED	04/01/2015	N
	CHMAINGATE				
		0000014024	CLOSED	01/08/2015	N
		0000014161	CLOSED	02/11/2015	N
		0000014306	CLOSED	03/11/2015	N
		0000014441	CLOSED	04/01/2015	N
	CHPSR				
		0000014025	CLOSED	01/08/2015	N
		0000014162	CLOSED	02/11/2015	N
		0000014307	CLOSED	03/11/2015	N
		0000014442	CLOSED	04/01/2015	N
	CHSTOCKPILE				
		0000014032	CLOSED	01/08/2015	N
		0000014169	CLOSED	02/11/2015	N
		0000014314	CLOSED	03/11/2015	N
		0000014449	CLOSED	04/01/2015	N
Stormwater	CHAPONDS				
		0000014033	CLOSED	01/08/2015	N
		0000014170	CLOSED	02/11/2015	N
		0000014315	CLOSED	03/11/2015	N
		0000014450	CLOSED	04/01/2015	N
	CHAREA4				

	0000014034	CLOSED	01/08/2015	N
	0000014171	CLOSED	02/11/2015	N
	0000014316	CLOSED	03/11/2015	N
	0000014451	CLOSED	04/01/2015	N
CHAREA5				
	0000014035	CLOSED	01/08/2015	N
	0000014172	CLOSED	02/11/2015	N
	0000014317	CLOSED	03/11/2015	N
	0000014452	CLOSED	04/01/2015	N
CHAREA6				
	0000014036	CLOSED	01/08/2015	N
	0000014173	CLOSED	02/11/2015	N
	0000014318	CLOSED	03/11/2015	N
	0000014453	CLOSED	04/01/2015	N
CHAREA7				
	0000014037	CLOSED	01/08/2015	N
	0000014174	CLOSED	02/11/2015	N
	0000014319	CLOSED	03/11/2015	N
	0000014454	CLOSED	04/01/2015	N
CHAREAS23				
	0000014038	CLOSED	01/08/2015	N
	0000014175	CLOSED	02/11/2015	N
	0000014320	CLOSED	03/11/2015	N
	0000014455	CLOSED	04/01/2015	N
CHCENTRALPIT				
	0000014039	CLOSED	01/08/2015	N
	0000014176	CLOSED	02/11/2015	N
	0000014321	CLOSED	03/11/2015	N
	0000014456	CLOSED	04/01/2015	N
CHEMH				
	0000014040	CLOSED	01/08/2015	N
	0000014177	CLOSED	02/11/2015	N
	0000014322	CLOSED	03/11/2015	N
	0000014457	CLOSED	04/01/2015	N
CHMAINSHOP				
	0000014031	CLOSED	01/08/2015	N

	0000014168	CLOSED	02/11/2015	N
	0000014313	CLOSED	03/11/2015	N
	0000014448	CLOSED	04/01/2015	N
CHNFLARESTN				
	0000014044	CLOSED	01/08/2015	N
	0000014181	CLOSED	02/11/2015	N
	0000014326	CLOSED	03/11/2015	N
	0000014461	CLOSED	04/01/2015	N
CHSEPA				
	0000014041	CLOSED	01/08/2015	N
	0000014178	CLOSED	02/11/2015	N
	0000014323	CLOSED	03/11/2015	N
	0000014458	CLOSED	04/01/2015	N
CHSSWA				
	0000014042	CLOSED	01/08/2015	N
	0000014179	CLOSED	02/11/2015	N
	0000014324	CLOSED	03/11/2015	N
	0000014459	CLOSED	04/01/2015	N
CHSTOCKPILE				
	0000014032	CLOSED	01/08/2015	N
	0000014169	CLOSED	02/11/2015	N
	0000014314	CLOSED	03/11/2015	N
	0000014449	CLOSED	04/01/2015	N
CHSWMH				
	0000014043	CLOSED	01/08/2015	N
	0000014180	CLOSED	02/11/2015	N
	0000014325	CLOSED	03/11/2015	N
	0000014460	CLOSED	04/01/2015	N

Cedar Hills Area 5 Maintenance

for the period 01/01/2015 to 04/30/2015

Click the blue 'Y' to see notes

Item	Location	Work Order Number	Work Order Status	PM/Repair Type	Completion Date	Work Order Has Notes
Area 5						
	CHAREA5	0000014035	CLOSED	Monthly Gas System PM	01/08/2015	N
	CHAREA5	0000014035	CLOSED	Monthly Stormwater PM	01/08/2015	N
	CHAREA5	0000014035	CLOSED	Monthly Cover System PM	01/08/2015	N
	CHAREA5	0000014172	CLOSED	Monthly Gas System PM	02/11/2015	N
	CHAREA5	0000014172	CLOSED	Monthly Stormwater PM	02/11/2015	N
	CHAREA5	0000014172	CLOSED	Monthly Cover System PM	02/11/2015	N
	CHAREA5	0000014317	CLOSED	Monthly Gas System PM	03/11/2015	N
	CHAREA5	0000014317	CLOSED	Monthly Stormwater PM	03/11/2015	N
	CHAREA5	0000014317	CLOSED	Monthly Cover System PM	03/11/2015	N
	CHAREA5	0000014452	CLOSED	Monthly Gas System PM	04/01/2015	N
	CHAREA5	0000014452	CLOSED	Monthly Stormwater PM	04/01/2015	N
	CHAREA5	0000014452	CLOSED	Monthly Cover System PM	04/03/2015	N
	CHAREA5E	0000014011	CLOSED	Monthly Header PM	01/14/2015	N
	CHAREA5E	0000014147	CLOSED	Monthly Header PM	02/13/2015	N
	CHAREA5E	0000014293	CLOSED	Monthly Header PM	03/10/2015	N
	CHAREA5E	0000014428	CLOSED	Monthly Header PM	04/20/2015	N
	CHAREA5W	0000014010	CLOSED	Monthly Header PM	01/30/2015	N
	CHAREA5W	0000014148	CLOSED	Monthly Header PM	02/13/2015	N
	CHAREA5W	0000014294	CLOSED	Monthly Header PM	03/10/2015	N
	CHAREA5W	0000014429	CLOSED	Monthly Header	04/15/2015	N

PM

Cedar Hills Landfill Storm Water Pollution Prevention Plan Maintenance

for the period 01/01/2015 to 04/30/2015

Click the blue 'Y' to see notes

Item	Location	Work Order Number	Work Order Status	PM/Repair Type	Completion Date	Work Order Has Notes
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Landfill Cover

CHAREA5	0000014172	CLOSED	PMV	02/11/2015	N
CHAREA5	0000014317	CLOSED	PMV	03/11/2015	N
CHAREA5	0000014452	CLOSED	PMV	04/03/2015	N
CHAREA5	0000014035	CLOSED	PMV	01/08/2015	N

Landfill Gas

CHAREA5E	0000014004	CLOSED	PMW	01/16/2015	N
CHAREA5W	0000014080	CLOSED	PMW	01/14/2015	N
CHAREA5E	0000014141	CLOSED	PMW	02/06/2015	N
CHAREA5E	0000014217	CLOSED	PMW	02/20/2015	N
CHAREA5W	0000014218	CLOSED	PMW	02/20/2015	N
CHAREA5W	0000014288	CLOSED	PMW	03/02/2015	N
CHAREA5W	0000014361	CLOSED	PMW	03/30/2015	N
CHAREA5E	0000014422	CLOSED	PMW	04/06/2015	N
CHAREA5E	0000014495	CLOSED	PMW	04/20/2015	N
CHAREA5E	0000014079	CLOSED	PMW	01/14/2015	N
CHAREA5E	0000014287	CLOSED	PMW	03/02/2015	N
CHAREA5E	0000014360	CLOSED	PMW	03/30/2015	N
CHAREA5W	0000014142	CLOSED	PMW	02/06/2015	N
CHAREA5W	0000014423	CLOSED	PMW	04/06/2015	N
CHAREA5W	0000014005	CLOSED	PMW	01/16/2015	N
CHAREA5W	0000014496	CLOSED	PMW	04/20/2015	N

Appendix B:

Gas Monitoring Reports

WO Company: Gas King County Landfill Gas
 WO Department: 7572 Waste Water, LF Gas
 WO Shop: Gas Landfill Gas

Equipment: CHAREAS License: na

Location: 20 Color:
 Year: 2006 Serial: na
 Make: UD Engine:
 Model: UD
 Class: ZZZZZZZG5: Landfill Gas - not classified

TECHNICIAN COPY



WO#: 0000014035

Date In: 12/09/2014 12:46

Date Promised: 12/10/2014 12:46

Date Out: 00:00

WO Status: A Last WO#: 0000013894

WO Priority: Last WO Date: 11/24/2014

Track DownTime: Y Operator: WG

Tire Size 1: GVW: 0
 Tire Size 2: EAC: 24
 Transmission: Department: 7572:Waste Water, LF Gas
 Fuel Type1: Company: Gas King County Landfill Gas
 Fuel Type2: Site: 20:20- Cedar Hills
 Fuel Type3: Monitor Group:
 Oil Capacity: 0.000 Comments:
 Fuel Cap1: 0.000 CH Area 5
 Fuel Cap2: 0.000

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD
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PM SERVICE

Type	Cycle	Next Due	Description
G	0 - MONTHS	01/10/2015	Gas System
T	0 - MONTHS	01/10/2015	Stormwater
V	0 - MONTHS	01/10/2015	Cover System

WARRANTY INFORMATION

Type	Cycle	Date Expires	Description
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REPAIRS

RTY	Description	Status	MID	Est. Labor	Shop
PMG BS	PM Service PM Gas System Billable Scheduled, Target	0	762 JD	0.00000	Gas
PMT BS	PM Service PM Stormwater Billable Scheduled, Target	0	762 JD	0.00000	Gas
PMV BS	PM Service PM Cover System Billable Scheduled, Target	0	762 JD	0.00000	Gas

NOTES

For CHAREA4, CHAREA5, CHAREA6, CHAREA7, CHAREAS23,
CHCENTRALPIT, CHEMH, CHSEPA, CHSSWA, CHSWMH (10)

PMG BS

Task	OK	Adjust	Repair	Replace	Comments
Gas Visually inspect collection system	✓				
Gas Visually inspect disposal system	✓				
Gas Verify daily odor log is current	✓				
Gas Note any deficiencies	✓				

PMT BS

Task	OK	Adjust	Repair	Replace	Comments
Gas Visually inspect ponds	✓				
Gas Visually inspect lagoons	✓				
Gas Visually inspect catch basins	✓				
Gas Visually inspect control structures	✓				
Gas Visually inspect conveyance pipes	✓				
Gas Note any deficiencies	✓				

PMV BS

Task	OK	Adjust	Repair	Replace	Comments
Gas Visually inspect vegetation	✓				
Gas Visually inspect refuse	✓				
Gas Visually inspect cover	✓				
Gas Visually inspect erosion	✓				
Gas Note any deficiencies	✓				

DATE: 1-8-15

WO Company: Gas King County Landfill Gas

WO Department: 7572 Waste Water, LF Gas

WO Shop: Gas Landfill Gas

Equipment: CHAREA5 License: na

Location: 20

Year: 2006

Make: UD

Model: UD

Class: ZZZZZZZGS: Landfill Gas - not classified

Color:

Serial: na

Engine:

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WO#: 0000014172

Date In: 01/30/2015 13:36

Date Promised: 01/31/2015 13:36

Date Out: 00:00

WO Status: A Last WO#: 0000014035

WO Priority: Last WO Date: 12/09/2014

Track DownTime: Y Operator: WG

Tire Size 1:

Tire Size 2:

Transmission:

Fuel Type1:

Fuel Type2:

Fuel Type3:

Oil Capacity: 0.000

Fuel Cap1: 0.000

Fuel Cap2: 0.000

GVW: 0

EAC: 24

Department: 7572:Waste Water, LF Gas

Company: Gas King County Landfill Gas

Site: 20:20- Cedar Hills

Monitor Group:

Comments:

CH Area 5

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD
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PM SERVICE

Type	Cycle	Next Due	Description
G	0 - MONTHS	02/10/2015	Gas System
T	0 - MONTHS	02/10/2015	Stormwater
V	0 - MONTHS	02/10/2015	Cover System

WARRANTY INFORMATION

Type	Cycle	Date Expires	Description
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REPAIRS

RTY	Description	Status	MID	Est. Labor	Shop
PMG BS	PM Service PM Gas System Billable Scheduled, Target	0	763	0.00000	Gas
PMT BS	PM Service PM Stormwater Billable Scheduled, Target	0	763	0.00000	Gas
PMV BS	PM Service PM Cover System Billable Scheduled, Target	0	763	0.00000	Gas

NOTES

For CHAREA4, CHAREA5, CHAREA6, CHAREA7, CHAREAS23,
CHCENTRALPIT, CHEMH, CHSEPA, CHSSWA, CHSWMH (10)

PMG BS

Task	OK	Adjust	Repair	Replace	Comments
Gas Visually inspect collection system	/				
Gas Visually inspect disposal system	/				
Gas Verify daily odor log is current	/				
Gas Note any deficiencies					

PMT BS

Task	OK	Adjust	Repair	Replace	Comments
Gas Visually inspect ponds	/				
Gas Visually inspect lagoons	/				
Gas Visually inspect catch basins	/				
Gas Visually inspect control structures	/				
Gas Visually inspect conveyance pipes	/				
Gas Note any deficiencies					

PMV BS

Task	OK	Adjust	Repair	Replace	Comments
Gas Visually inspect vegetation	/				
Gas Visually inspect refuse	/				
Gas Visually inspect cover	/				
Gas Visually inspect erosion	/				
Gas Note any deficiencies					

DATE: 2/11/15

WO Company: Gas King County Landfill Gas
 WO Department: 7572 Waste Water, LF Gas
 WO Shop: Gas Landfill Gas

TECHNICIAN COPY

**WO#: 0000014317**

Date In: 03/02/2015 12:55

Date Promised: 03/03/2015 12:55

Date Out: 00:00

WO Status: A Last WO#: 0000014172

WO Priority: Last WO Date: 01/30/2015

Track DownTime: Y Operator: WG

Equipment: CHAREA5 License: na

Location: 20 Color:
 Year: 2006 Serial: na
 Make: UD Engine:
 Model: UD
 Class: ZZZZZZZGS: Landfill Gas - not classified

Tire Size 1:	GVW:	0
Tire Size 2:	EAC:	24
Transmission:	Department:	7572:Waste Water, LF Gas
Fuel Type1:	Company:	Gas King County Landfill Gas
Fuel Type2:	Site:	20:20- Cedar Hills
Fuel Type3:	Monitor Group:	
Oil Capacity: 0.000	Comments:	
Fuel Cap1: 0.000	CH Area 5	
Fuel Cap2: 0.000		

METERS

WO Meter:	Reading	Override?	Eq Meter	Actual	LTD
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PM SERVICE

Type	Cycle	Next Due	Description
G	0 - MONTHS	03/10/2015	Gas System
T	0 - MONTHS	03/10/2015	Stormwater
V	0 - MONTHS	03/10/2015	Cover System

WARRANTY INFORMATION

Type	Cycle	Date Expires	Description
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REPAIRS

RTY	Description	Status	MID	Est. Labor	Shop
PMG BS	PM Service PM Gas System Billable Scheduled, Target	0	750 RB	0.00000	Gas
PMT BS	PM Service PM Stormwater Billable Scheduled, Target	0	750 RB	0.00000	Gas
PMV BS	PM Service PM Cover System Billable Scheduled, Target	0	750 RB	0.00000	Gas

NOTES

For CHAREA4, CHAREA5, CHAREA6, CHAREA7, CHAREAS23,
CHCENTRALPIT, CHEMH, CHSEPA, CHSSWA, CHSWMH (10)

PMG BS

Task	OK	Adjust	Repair	Replace	Comments
Gas Visually inspect collection system	☒				
Gas Visually inspect disposal system	☒				
Gas Verify daily odor log is current	☒				
Gas Note any deficiencies	☒				

PMT BS

Task	OK	Adjust	Repair	Replace	Comments
Gas Visually inspect ponds	☒				
Gas Visually inspect lagoons	☒				
Gas Visually inspect catch basins	☒				
Gas Visually inspect control structures	☒				
Gas Visually inspect conveyance pipes	☒				
Gas Note any deficiencies	☒				

PMV BS

Task	OK	Adjust	Repair	Replace	Comments
Gas Visually inspect vegetation	☒				
Gas Visually inspect refuse	☒				
Gas Visually inspect cover	☒				
Gas Visually inspect erosion	☒				
Gas Note any deficiencies	☒				

DATE: 3-11-15

WO Company: Gas King County Landfill Gas

WO Department: 7572 Waste Water, LF Gas

WO Shop: Gas Landfill Gas

Equipment: CHAREA6 License: na

Location: 20

Color:

Year: 2006

Serial: na

Make: UD

Engine:

Model: UD

Class: ZZZZZZZG5: Landfill Gas - not classified

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WO#: 0000014036

Date In: 12/09/2014 12:47

Date Promised: 12/10/2014 12:47

Date Out: 00:00

WO Status: A Last WO#: 0000014009

WO Priority: Last WO Date: 12/09/2014

Track DownTime: Y Operator: WG

Tire Size 1:

GVW: 0

Tire Size 2:

EAC: 24

Transmission:

Department: 7572:Waste Water, LF Gas

Fuel Type1:

Company: Gas King County Landfill Gas

Fuel Type2:

Site: 20:20- Cedar Hills

Fuel Type3:

Monitor Group:

Oil Capacity: 0.000

Comments:

Fuel Cap1: 0.000

CH Area 6

Fuel Cap2: 0.000

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD
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PM SERVICE

Type	Cycle	Next Due	Description
G	0 - MONTHS	01/10/2015	Gas System
S	0 - MONTHS	12/28/2014	Scheduled Inspection
T	0 - MONTHS	01/10/2015	Stormwater
V	0 - MONTHS	01/10/2015	Cover System
W	W - WEEKS	12/21/2014	Weekly Inspection

WARRANTY INFORMATION

Type	Cycle	Date Expires	Description
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REPAIRS

RTY	Description	Status	MID	Est. Labor	Shop
PMG BS	PM Service PM Gas System Billable Scheduled, Target	0	762 JD	0.00000	Gas
PMT BS	PM Service PM Stormwater Billable Scheduled, Target	0	762 JD	0.00000	Gas
PMV BS	PM Service PM Cover System Billable Scheduled, Target	0	762 JD	0.00000	Gas

NOTES

For CHAREA4, CHAREA5, CHAREA6, CHAREA7, CHAREAS23,
CHCENTRALPIT, CHEMH, CHSEPA, CHSSWA, CHSWMH (10)

PMG BS

Task	OK	Adjust	Repair	Replace	Comments
Gas Visually inspect collection system	✓				
Gas Visually inspect disposal system	✓				
Gas Verify daily odor log is current	✓				
Gas Note any deficiencies	✓				

PMT BS

Task	OK	Adjust	Repair	Replace	Comments
Gas Visually inspect ponds	✓				
Gas Visually inspect lagoons	✓				
Gas Visually inspect catch basins	✓				
Gas Visually inspect control structures	✓				
Gas Visually inspect conveyance pipes	✓				
Gas Note any deficiencies	✓				

PMV BS

Task	OK	Adjust	Repair	Replace	Comments
Gas Visually inspect vegetation	✓				
Gas Visually inspect refuse	✓				
Gas Visually inspect cover	✓				
Gas Visually inspect erosion	✓				
Gas Note any deficiencies	✓				

DATE: 1-8-15

WO Company: Gas King County Landfill Gas
 WO Department: 7572 Waste Water, LF Gas
 WO Shop: Gas Landfill Gas

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**WO#: 0000014173**

Date In: 01/30/2015 13:37

Date Promised: 01/31/2015 13:37

Date Out: 00:00

WO Status: A Last WO#: 0000014145

WO Priority: Last WO Date: 01/30/2015

Track DownTime: Y Operator: WG

Equipment: CHAREA6 License: na

Location: 20 Color:
 Year: 2006 Serial: na
 Make: UD Engine:
 Model: UD
 Class: ZZZZZZZGS: Landfill Gas - not classified

Tire Size 1:	GVW:	0
Tire Size 2:	EAC:	24
Transmission:	Department:	7572:Waste Water, LF Gas
Fuel Type1:	Company:	Gas King County Landfill Gas
Fuel Type2:	Site:	20:20- Cedar Hills
Fuel Type3:	Monitor Group:	
Oil Capacity: 0.000	Comments:	
Fuel Cap1: 0.000	CH Area 6	
Fuel Cap2: 0.000		

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD
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PM SERVICE

Type	Cycle	Next Due	Description
G	0 - MONTHS	02/10/2015	Gas System
S	0 - MONTHS	01/28/2015	Scheduled Inspection
T	0 - MONTHS	02/10/2015	Stormwater
V	0 - MONTHS	02/10/2015	Cover System
W	W - WEEKS	01/04/2015	Weekly Inspection

WARRANTY INFORMATION

Type	Cycle	Date Expires	Description
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REPAIRS

RTY	Description	Status	MID	Est. Labor	Shop
PMG BS	PM Service PM Gas System Billable Scheduled, Target	0	763	0.00000	Gas
PMT BS	PM Service PM Stormwater Billable Scheduled, Target	0	763	0.00000	Gas
PMV BS	PM Service PM Cover System Billable Scheduled, Target	0	763	0.00000	Gas

NOTES

For CHAREA4, CHAREA5, CHAREA6, CHAREA7, CHAREAS23,
CHCENTRALPIT, CHEMH, CHSEPA, CHSSWA, CHSWMH (10)

PMG BS

Task	OK	Adjust	Repair	Replace	Comments
Gas Visually inspect collection system	/				
Gas Visually inspect disposal system	/				
Gas Verify daily odor log is current	/				
Gas Note any deficiencies					

PMT BS

Task	OK	Adjust	Repair	Replace	Comments
Gas Visually inspect ponds	/				
Gas Visually inspect lagoons	/				
Gas Visually inspect catch basins	/				
Gas Visually inspect control structures	/				
Gas Visually inspect conveyance pipes	/				
Gas Note any deficiencies					

PMV BS

Task	OK	Adjust	Repair	Replace	Comments
Gas Visually inspect vegetation	/				
Gas Visually inspect refuse	/				
Gas Visually inspect cover	/				
Gas Visually inspect erosion	/				
Gas Note any deficiencies					

DATE: 2/11/15

WO Company: Gas King County Landfill Gas
 WO Department: 7572 Waste Water, LF Gas
 WO Shop: Gas Landfill Gas

Equipment: CHAREA6 License: na

Location: 20 Color:
 Year: 2006 Serial: na
 Make: UD Engine:
 Model: UD
 Class: ZZZZZZGS: Landfill Gas - not classified

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WO#: 0000014318

Date In: 03/02/2015 12:55

Date Promised: 03/03/2015 12:55

Date Out: 00:00

WO Status: A Last WO#: 0000014292

WO Priority: Last WO Date: 03/02/2015

Track DownTime: Y Operator: WG

Tire Size 1: GVH: 0
 Tire Size 2: EAC: 24
 Transmission: Department: 7572:Waste Water, LF Gas
 Fuel Type1: Company: Gas King County Landfill Gas
 Fuel Type2: Site: 20:20- Cedar Hills
 Fuel Type3: Monitor Group:
 Oil Capacity: 0.000 Comments:
 Fuel Cap1: 0.000 CH Area 6
 Fuel Cap2: 0.000

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD
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PM SERVICE

Type	Cycle	Next Due	Description
G	0 - MONTHS	03/10/2015	Gas System
S	0 - MONTHS	02/28/2015	Scheduled Inspection
T	0 - MONTHS	03/10/2015	Stormwater
V	0 - MONTHS	03/10/2015	Cover System
W	W - WEEKS	03/15/2015	Weekly Inspection

WARRANTY INFORMATION

Type	Cycle	Date Expires	Description
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REPAIRS

RTY	Description	Status	MID	Est. Labor	Shop
PMG BS	PM Service PM Gas System Billable Scheduled, Target	0	750 RB	0.00000	Gas
PMT BS	PM Service PM Stormwater Billable Scheduled, Target	0	750 RB	0.00000	Gas
PMV BS	PM Service PM Cover System Billable Scheduled, Target	0	750 RB	0.00000	Gas

NOTES

For CHAREA4, CHAREA5, CHAREA6, CHAREA7, CHAREAS23,
CHCENTRALPIT, CHEMH, CHSEPA, CHSSWA, CHSWMH (10)

PMG BS

Task	OK	Adjust	Repair	Replace	Comments
Gas Visually inspect collection system	/				
Gas Visually inspect disposal system	/				
Gas Verify daily odor log is current	/				
Gas Note any deficiencies	/				

PMT BS

Task	OK	Adjust	Repair	Replace	Comments
Gas Visually inspect ponds					
Gas Visually inspect lagoons					
Gas Visually inspect catch basins	/				
Gas Visually inspect control structures	/				
Gas Visually inspect conveyance pipes	/				
Gas Note any deficiencies	/				

PMV BS

Task	OK	Adjust	Repair	Replace	Comments
Gas Visually inspect vegetation	/				
Gas Visually inspect refuse					
Gas Visually inspect cover	/				
Gas Visually inspect erosion	/				
Gas Note any deficiencies	/				

DATE: 3-11-15

WO Company: Gas King County Landfill Gas
WO Department: 7572 Waste Water, LF Gas
WO Shop: Gas Landfill Gas

Equipment: CHAREA6TD License: na

Location: 20 Color:
Year: 2010 Serial: na
Make: UD Engine:
Model: UD
Class: ZZZZZZZGS: Landfill Gas - not classified

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**WO#: 0000014012**

Date In: 12/09/2014 11:39

Date Promised: 12/10/2014 11:39

Date Out: 00:00

WO Status: A Last WO#: 0000013871

WO Priority: Last WO Date: 11/24/2014

Track DownTime: Y Operator: WG

Tire Size 1: GVW: 0
Tire Size 2: EAC: 24
Transmission: Department: 7572:Waste Water, LF Gas
Fuel Type1: Company: Gas King County Landfill Gas
Fuel Type2: Site: 20:20- Cedar Hills
Fuel Type3: Monitor Group:
Oil Capacity: 0.000 Comments:
Fuel Cap1: 0.000 CH Area 6
Fuel Cap2: 0.000

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD
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PM SERVICE

Type	Cycle	Next Due	Description
V	0 - MONTHS	12/10/2014	Cover System

WARRANTY INFORMATION

Type	Cycle	Date Expires	Description
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REPAIRS

RTY	Description	Status	MID	Est. Labor	Shop
PMV BS	PM Service PM Cover System Billable Scheduled, Target	0	763	0.00000	Gas

NOTES

Work Order Task List

Repair Code: PMV BS

Equipment: CHAREA6TD

Work Order: 0000014012

Complete?	Step	Tasks	OK	Adjust	Repair	Replace	Comments
1/28	1	Gas- Visually inspect Header	/				
	2	Gas- Ck for damage @ flare station inlet	/				
	3	Gas- Ck collection field pipe integrity	/				
	4	Gas- Ck collection field pipe alignment	/				
	5	Gas- Ck for damage @ possible stress pts	/				
	6	Gas- Ck for damage at vertical pipes	/				
	7	Gas- Ck for damage at well heads	/				
	8	Gas- Ck for gas leaks with TVA 1000	/				
	9	Gas- Ck for settlement/ponding	/				
	10	Gas- Ck surface water conveyance system	/				
	11	Gas- Ck and open vault covers	/				
	12	Gas- Exercise field and header valves	/				
	13	Gas- Ck flex hoses and connections	/				
	14	Gas- Ck for erosion	/				
	15	Gas- Ck for vegetation	/				
	16	Gas- Ck cover system	/				
	17	Gas- Ck for refuse/litter	/				
	18	Gas- Note any deficiencies	/				

40m.

ponding on + the west
side by the ditch

WO Company: Gas King County Landfill Gas

WO Department: 7572 Waste Water, LF Gas

WO Shop: Gas Landfill Gas

Equipment: CHAREA6TD License: na

Location: 20

Color:

Year: 2010

Serial: na

Make: UD

Engine:

Model: UD

Class: ZZZZZZZGS: Landfill Gas - not classified

TECHNICIAN COPY



WO#: 0000014149

Date In: 01/30/2015 09:48

Date Promised: 01/31/2015 09:48

Date Out: 00:00

WO Status: A Last WO#: 0000014012

WO Priority: Last WO Date: 12/09/2014

Track DownTime: Y Operator: WG

Tire Size 1:

GVW: 0

Tire Size 2:

EAC: 24

Transmission:

Department: 7572:Waste Water, LF Gas

Fuel Type1:

Company: Gas King County Landfill Gas

Fuel Type2:

Site: 20:20- Cedar Hills

Fuel Type3:

Monitor Group:

Oil Capacity: 0.000

Comments:

Fuel Cap1: 0.000

CH Area 6

Fuel Cap2: 0.000

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD
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PM SERVICE

Type	Cycle	Next Due	Description
V	0 - MONTHS	01/10/2015	Cover System

WARRANTY INFORMATION

Type	Cycle	Date Expires	Description
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REPAIRS

RTY	Description	Status	MID	Est. Labor	Shop
PMV BS	PM Service PM Cover System Billable Scheduled, Target	0	750 AB	0.00000	Gas

NOTES

2/13/15

1 hr

Work Order Task List

Repair Code: PMV BS

Equipment: CHAREA6TD

Work Order: 0000014149

Complete?	Step	Tasks	OK	Adjust	Repair	Replace	Comments
	1	Gas- Visually inspect Header	☒				
	2	Gas- Ck for damage @ flare station inlet	☒				
	3	Gas- Ck collection field pipe integrity	☒				
	4	Gas- Ck collection field pipe alignment	☒				
	5	Gas- Ck for damage @ possible stress pts	☒				
	6	Gas- Ck for damage at vertical pipes	☒				
	7	Gas- Ck for damage at well heads	☒				
	8	Gas- Ck for gas leaks with TVA 1000	☒				
	9	Gas- Ck for settlement/ponding	☒				
	10	Gas- Ck surface water conveyance system	☒				
	11	Gas- Ck and open vault covers	☒				
	12	Gas- Exercise field and header valves	☒				
	13	Gas- Ck flex hoses and connections	☒				
	14	Gas- Ck for erosion	☒				
	15	Gas- Ck for vegetation	☒				
	16	Gas- Ck cover system	☒				
	17	Gas- Ck for refuse/litter	☒				
	18	Gas- Note any deficiencies	☒				

2/13/15

1 hr

WO Company: Gas King County Landfill Gas

WO Department: 7572 Waste Water, LF Gas

WO Shop: Gas Landfill Gas

Equipment: CHAREA6TD License: na

Location: 20

Color:

Year: 2010

Serial: na

Make: UD

Engine:

Model: UD

Class: ZZZZZZZGS: Landfill Gas - not classified

TECHNICIAN COPY



WO#: 0000014295

Date In: 03/02/2015 12:37

Date Promised: 03/03/2015 12:37

Date Out: 00:00

WO Status: A Last WO#:0000014149

WO Priority: Last WO Date: 01/30/2015

Track DownTime: Y Operator: WG

Tire Size 1:

GVW: 0

Tire Size 2:

EAC: 24

Transmission:

Department: 7572:Waste Water, LF Gas

Fuel Type1:

Company: Gas King County Landfill Gas

Fuel Type2:

Site: 2D:20- Cedar Hills

Fuel Type3:

Monitor Group:

Oil Capacity: 0.000

Comments:

Fuel Cap1: 0.000

CH Area 6

Fuel Cap2: 0.000

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD

PM SERVICE

Type	Cycle	Next Due	Description
V	0 - MONTHS	03/10/2015	Cover System

WARRANTY INFORMATION

Type	Cycle	Date Expires	Description

REPAIRS

RTY	Description	Status	MID	Est. Labor	Shop
PMV BS	PM Service PM Cover System Billable Scheduled, Target	0	761 <i>Wing</i>	0.00000	Gas

NOTES

Work Order Task List

Repair Code: PHV BS

Equipment: CHAREA6TD

Work Order: 0000014295

Complete?	Step	Tasks	OK	Adjust	Repair	Replace	Comments
	1	Gas- Visually inspect Header	/				
	2	Gas- Ck for damage @ flare station inlet	/				
	3	Gas- Ck collection field pipe integrity	/				
	4	Gas- Ck collection field pipe alignment	/				
	5	Gas- Ck for damage @ possible stress pts	/				
	6	Gas- Ck for damage at vertical pipes	/				
	7	Gas- Ck for damage at well heads	/				
	8	Gas- Ck for gas leaks with TVA 1000	/				
	9	Gas- Ck for settlement/ponding	/				
	10	Gas- Ck surface water conveyance system	/				
	11	Gas- Ck and open vault covers	/				
	12	Gas- Exercise field and header valves	/				
	13	Gas- Ck flex hoses and connections	/				
	14	Gas- Ck for erosion	/				
	15	Gas- Ck for vegetation	/				
	16	Gas- Ck cover system	/				
	17	Gas- Ck for refuse/litter	/				
	18	Gas- Note any deficiencies	/				

3-16-15

/HR

WO Company: Gas King County Landfill Gas

WO Department: 7572 Waste Water, LF Gas

WO Shop: Gas Landfill Gas

Equipment: CHAREA5TD License: na

Location: 20

Color:

Year: 2010

Serial: na

Make: UD

Engine:

Model: UD

Class: ZZZZZZZG5: Landfill Gas - not classified

TECHNICIAN COPY



WO#: 0000013983

Date In: 12/09/2014 10:10

Date Promised: 12/10/2014 10:10

Date Out: 00:00

WO Status: A Last WO#: 0000013842

WO Priority: Last WO Date: 11/24/2014

Track DownTime: Y Operator: WG

Tire Size 1:

GVW: 0

Tire Size 2:

EAC: 24

Transmission:

Department: 7572:Waste Water, LF Gas

Fuel Type1:

Company: Gas King County Landfill Gas

Fuel Type2:

Site: 20:20- Cedar Hills

Fuel Type3:

Monitor Group:

Oil Capacity: 0.000

Comments:

Fuel Cap1: 0.000

CM Area 5

Fuel Cap2: 0.000

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD
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PM SERVICE

Type	Cycle	Next Due	Description
V	0 - MONTHS	12/10/2014	Cover System

WARRANTY INFORMATION

Type	Cycle	Date Expires	Description
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REPAIRS

RTY	Description	Status	MID	Est. Labor	Shop
PMV BS	PM Service PM Cover System Billable Scheduled, Target	0	750	RB	0.00000 Gas

NOTES

Work Order Task List

Repair Code: PHV BS

Equipment: CHAREA5TD

Work Order: 0000013983

Complete?	Step	Tasks	OK	Adjust	Repair	Replace	Comments
	1	Gas- Visually inspect Header	/				
	2	Gas- Ck for damage @ flare station inlet	/				
	3	Gas- Ck collection field pipe integrity	/				
	4	Gas- Ck collection field pipe alignment	/				
	5	Gas- Ck for damage @ possible stress pts	/				
	6	Gas- Ck for damage at vertical pipes	/				
	7	Gas- Ck for damage at well heads	/				
	8	Gas- Ck for gas leaks with TVA 1000	/				
	9	Gas- Ck for settlement/ponding	/				
	10	Gas- Ck surface water conveyance system	/				
	11	Gas- Ck and open vault covers	/				
	12	Gas- Exercise field and header valves	/				
	13	Gas- Ck flex hoses and connections	/				
	14	Gas- Ck for erosion	/				
	15	Gas- Ck for vegetation	/				
	16	Gas- Ck cover system	/				
	17	Gas- Ck for refuse/litter	/				
	18	Gas- Note any deficiencies	/				

1 hr

1-28-15

WO Company: Gas King County Landfill Gas
 WO Department: 7572 Waste Water, LF Gas
 WO Shop: Gas Landfill Gas

Equipment: CHAREA5TD License: na

Location: 20 Color:
 Year: 2010 Serial: na
 Make: UD Engine:
 Model: UD
 Class: ZZZZZZZZ6S: Landfill Gas - not classified

TECHNICIAN COPY



WO#: 0000014121

Date In: 01/30/2015 09:23

Date Promised: 01/31/2015 09:23

Date Out: 00:00

WO Status: A Last WO#: 0000013983

WO Priority: Last WO Date: 12/09/2014

Track DownTime: Y Operator: WG

Tire Size 1:	GVW:	0
Tire Size 2:	EAC:	24
Transmission:	Department:	7572:Waste Water, LF Gas
Fuel Type1:	Company:	Gas King County Landfill Gas
Fuel Type2:	Site:	20:20- Cedar Hills
Fuel Type3:	Monitor Group:	
Oil Capacity: 0.000	Comments:	
Fuel Cap1: 0.000	CH Area 5	
Fuel Cap2: 0.000		

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD
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PM SERVICE

Type	Cycle	Next Due	Description
V	0 - MONTHS	01/10/2015	Cover System

WARRANTY INFORMATION

Type	Cycle	Date Expires	Description
------	-------	--------------	-------------

REPAIRS

RTY	Description	Status	MID	Est. Labor	Shop
PMV BS	PM Service PM Cover System Billable Scheduled, Target	0	761	0.00000	Gas

NOTES

Work Order Task List

Repair Code: PMV BS

Equipment: CHAREA5TD

Work Order: 0000014121

Complete?	Step	Tasks	OK	Adjust	Repair	Replace	Comments
	1	Gas- Visually inspect Header	/				
	2	Gas- Ck for damage @ flare station inlet	/				
	3	Gas- Ck collection field pipe integrity	/				
	4	Gas- Ck collection field pipe alignment	/				
	5	Gas- Ck for damage @ possible stress pts	/				
	6	Gas- Ck for damage at vertical pipes	/				
	7	Gas- Ck for damage at well heads	/				
	8	Gas- Ck for gas leaks with TVA 1000	/				
	9	Gas- Ck for settlement/ponding	/				
	10	Gas- Ck surface water conveyance system	/				
	11	Gas- Ck and open vault covers	/				
	12	Gas- Exercise field and header valves	/				
	13	Gas- Ck flex hoses and connections	/				
	14	Gas- Ck for erosion	/				
	15	Gas- Ck for vegetation	/				
	16	Gas- Ck cover system	/				
	17	Gas- Ck for refuse/litter	/				
	18	Gas- Note any deficiencies	/				

2.26 -15-

1.5 HR

WO Company: Gas King County Landfill Gas
 WO Department: 7572 Waste Water, LF Gas
 WO Shop: Gas Landfill Gas

Equipment: CHAREA5TD License: na

Location: 20 Color:
 Year: 2010 Serial: na
 Make: UD Engine:
 Model: UD
 Class: ZZZZZZZZGS: Landfill Gas - not classified

TECHNICIAN COPY



WO#: 0000014266

Date In: 03/02/2015 11:15

Date Promised: 03/03/2015 11:15

Date Out: 00:00

WO Status: A Last WO#: 0000014121

WO Priority: Last WO Date: 01/30/2015

Track DownTime: Y Operator: WG

Tire Size 1: GVW: 0
 Tire Size 2: EAC: 24
 Transmission: Department: 7572:Waste Water, LF Gas
 Fuel Type1: Company: Gas King County Landfill Gas
 Fuel Type2: Site: 20:20- Cedar Hills
 Fuel Type3: Monitor Group:
 Oil Capacity: 0.000 Comments:
 Fuel Cap1: 0.000 CH Area 5
 Fuel Cap2: 0.000

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD

PM SERVICE

Type	Cycle	Next Due	Description
V	0 - MONTHS	03/10/2015	Cover System

WARRANTY INFORMATION

Type	Cycle	Date Expires	Description

REPAIRS

RTY	Description	Status	MID	Est. Labor	Shop
PMV BS	PM Service PM Cover System Billable Scheduled, Target	0	762 JD	0.00000	Gas

NOTES

Work Order Task List

Repair Code: PMV BS

Equipment: CHAREA5TD

Work Order: 0000014266

Complete?	Step	Tasks	OK	Adjust	Repair	Replace	Comments
323	1	Gas- Visually inspect Header	✓				
	2	Gas- Ck for damage @ flare station inlet	✓				
	3	Gas- Ck collection field pipe integrity	✓				
	4	Gas- Ck collection field pipe alignment	✓				
	5	Gas- Ck for damage @ possible stress pts	✓				
	6	Gas- Ck for damage at vertical pipes	✓				
	7	Gas- Ck for damage at well heads	✓				
	8	Gas- Ck for gas leaks with TVA 1000	✓				
	9	Gas- Ck for settlement/ponding	✓				
	10	Gas- Ck surface water conveyance system	✓				
	11	Gas- Ck and open vault covers	✓				
	12	Gas- Exercise field and header valves	✓				
	13	Gas- Ck flex hoses and connections	✓				
	14	Gas- Ck for erosion	✓				
	15	Gas- Ck for vegetation	✓				
	16	Gas- Ck cover system	✓				
	17	Gas- Ck for refuse/litter	✓				
	18	Gas- Note any deficiencies	✓				

1 W

WO Company: Gas King County Landfill Gas

WO Department: 7572 Waste Water, LF Gas

WO Shop: Gas Landfill Gas

Equipment: CEDAR HILLS License: na

Location: 20

Year: 2006

Hake: UD

Model: UD

Class: ZZZZZZZG5: Landfill Gas - not classified

Color:

Serial: na

Engine:

TECHNICIAN COPY



WO#: 0000014227

Date In: 03/02/2015 10:31

Date Promised: 03/03/2015 10:31

Date Out: 00:00

WO Status: A

Last WO#: 0000014159

WO Priority:

Last WO Date: 01/30/2015

Track DownTime: Y

Operator: WG

Tire Size 1:

Tire Size 2:

Transmission:

Fuel Type1:

Fuel Type2:

Fuel Type3:

Oil Capacity: 0.000

Fuel Cap1: 0.000

Fuel Cap2: 0.000

GVW: 0

EAC: 24

Department: 7572:Waste Water, LF Gas

Company: Gas King County Landfill Gas

Site: 20:20- Cedar Hills

Monitor Group:

Comments:

Cedar Hills

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD

PM SERVICE

Type	Cycle	Next Due	Description
I	A - SET AN ANNUAL DATE	07/07/2015	Annual Inspection
Q	0 - MONTHS	03/06/2015	Quarterly Inspection
S	0 - MONTHS	07/01/2015	Scheduled Inspection
X	0 - MONTHS	03/10/2015	Prohibited Activities

WARRANTY INFORMATION

Type	Cycle	Date Expires	Description

REPAIRS

RTY	Description	Status	MID	Est. Labor	Shop
PMQ BS	PM Service PMQ per list Billable Scheduled, Target	0	750	0.00000	
PMQ BS	PM Service PMQ per list Billable Scheduled, Target	0	763	0.00000	

NOTES

Work Order Task List

Repair Code: PMQ BS

Equipment: CEDAR HILLS

Work Order: 0000014227

Complete?	Step	Tasks	OK	Adjust	Repair	Replace	Comments
	1	Gas- Ck liner integrity- Serpentine walk	☒				
	1	Gas- Ck liner integrity- Serpentine walk	☒				

3/17/15 - 10 hrs

3/19/15 - 10 hrs

3/20/15 - 9 hrs

3/24/15 - 10 HRS

3/26/15 - 10 HRS

Cedar Hills Regional Landfill
Quarterly Surface Emission Monitoring
Plot of GPS Generated Track Lines

MARCH 2015

Scale 1"=700'



KING COUNTY DEPARTMENT OF NATURAL RESOURCES

AND PARKS

Christie True, Director

SOLID WASTE DIVISION

CEDAR HILLS QUARTERLY

GAS EMISSIONS MONITORING

APPROVED _____ DATE XX-XX-XX
RECOMMENDED _____
DESIGNED PJM _____ DRAWN PJM _____ DATE 3-27-2015
PROJECT NO. _____ SURVEY NO. _____ SHEET 1 OF 1

DATE	REVISION	BY

KING COUNTY SOLID WASTE
201 S JACKSON ST. SUITE 701
SEATTLE, WA 98104-3555

KING COUNTY SOLID WASTE
201 S JACKSON ST. SUITE 701
SEATTLE, WA 98104-3555

CEDAR HILLS REGIONAL LANDFILL
SCALE 1" = 700'
DATE OF MONITORING: 03-17-15

DATE OF MONITORING: 03-17-15

DATE OF MONITORING: 03-17-15

1/0 Exceedances Detected

No exceedance Detected

DNRP / King County Solid Waste Serpentine Surface Monitoring Data

Landfill Site: Cedar Hills

Date: 3-19-15

Cal. Time: 7:30am

Calibration :

Test Instrument used: TVA 1000

Technician: RB

Surveyor PJ

Cal. Gas Lot No: 20328

Cal Gas Used:

CH₄ 496 ppm

O₂ Zero Gas

Barometric Pressure	Time
Start 30.10	7:27am
Stop 30.08	12:55pm

90% response time in seconds:

1 6 seconds

2 6 seconds

3 5 seconds

avg. 6 seconds

Weather Conditions: Mostly Cloudy

Wind Speed &

Direction (out of): 4 mph / SW

Northings (UTM #)

Easting (10 T #)

Time

Comments

No Exceedances Detected

No Exceedances Detected

No Excessives Detected

No Exceedances Detected

DNRP / King County Solid Waste Serpentine Surface Monitoring Data

Landfill Site: Cedar Hills

Date: 3/24/15

Cal. Time: 7:00 Am

Technician: J. Parker

Surveyor P. J.

Calibration :

Test Instrument used: TUA 1000

Cal. Gas Lot No: 20328

Cal Gas Used:

CH₄ 496 ppm

O₂ Zero gas

10+~~1~~ 44203-71

90% response time in seconds:

1 3 seconds

2  seconds

3 3 seconds

avg. 3 seconds

Weather Conditions: overcast, rainy

Wind Speed &

Direction (out of): 5 mph SE

Barometric Pressure	Time
Start 30.04	7:00am
Stop 30.12	12:30pm

Northing (UTM #)

Easting (10 T #)

Time

Comments

A graph on a grid with 10 horizontal and 10 vertical lines. A smooth curve is plotted, starting at the top-left corner (0, 10) and ending at the bottom-right corner (10, 0). The curve is concave up, passing through the point (5, 5).

A graph on a grid showing a decreasing curve. The curve starts at approximately (0, 1.5) and ends at approximately (1.5, 0). It is concave up, passing through the point (0.5, 1) and (1, 0.5).

