
CEDAR HILLS REGIONAL LANDFILL

QUARTERLY ENVIRONMENTAL

MONITORING REPORT

Second Quarter 2012



Department of Natural Resources and Parks
Solid Waste Division

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

CONTENTS

SUMMARY OF QUARTERLY ENVIRONMENTAL MONITORING

RESULTS AND ANALYSIS	3
GROUNDWATER	3
SURFACE WATER	5
LANDFILL GAS	5
ANALYTICAL METHODS	7

FIGURES

Fig 1	MONITORING WELL LOCATIONS	9
Fig 2	TRILINEAR DIAGRAM SOUTHERN UPGRADENT REGIONAL WELLS	27
Fig 3	TRILINEAR DIAGRAM NW & NE UPGRADENT REGIONAL WELLS	28
Fig 4	TRILINEAR DIAGRAM REGIONAL INTERIOR & VERTICAL TO FACILITIES WELLS	29
Fig 5	TRILINEAR DIAGRAM DOWNGRADIENT REGIONAL WELLS	30
Fig 6	TRILINEAR DIAGRAM DOWNGRADIENT REGIONAL WELLS	31
Fig 7	TRILINEAR DIAGRAM NORTH AND WEST PERCHED ZONES WELLS	41
Fig 8	TRILINEAR DIAGRAM EAST PERCHED ZONE WELLS	42
Fig 9	TRILINEAR DIAGRAM SSW AREA PERCHED ZONES WELLS	43

TABLES

Tab 1	SUMMARY OF CEDAR HILLS REGIONAL LANDFILL SITE WELLS	11
Tab 2	GROUNDWATER MONITORING ACTIVITIES	13
Tab 3	REGIONAL AQUIFER GROUNDWATER QUALITY STANDARD EXCEEDANCES	17
Tab 4	REGIONAL AQUIFER ION BALANCE CALCULATIONS	19
Tab 5	REGIONAL AQUIFER PREDICTION LIMIT EVALUATION	33
Tab 6	REGIONAL AQUIFER VOLATILE ORGANIC COMPOUND DETECTIONS	35
Tab 7	PERCHED ZONES GROUNDWATER QUALITY STANDARD EXCEEDANCES	37
Tab 8	PERCHED ZONES ION BALANCE CALCULATIONS	39
Tab 9	PERCHED ZONES PREDICTION LIMIT EVALUATION	45
Tab 10	PERCHED ZONES VOLATILE ORGANIC COMPOUND DETECTIONS	47
Tab 11	SURFACE WATER MONITORING ACTIVITIES	49
Tab 12	SURFACE WATER QUALITY CRITERIA EXCEEDANCES	51
Tab 13	VOLATILE ORGANIC COMPOUND DETECTIONS IN BLANKS	53
Tab 14	GROUNDWATER QUALITY STANDARDS	55
Tab 15	STORMWATER PERMIT BENCHMARKS and EFFLUENT LIMITS	57
Tab 16	UNUSABLE DATA	59

APPENDICES

POTENCIOMETRIC SURFACE MAPS & AQUIFER FLOW CALCULATIONS	App A
FIELD DATA AND ANALYTICAL TEST RESULTS	App B
GROUNDWATER	
SURFACE WATER	
LEACHATE	
LANDFILL GAS MONITORING	
ANALYTICAL DATA QUALIFIERS	
METEROLOGICAL DATA AND OBSERVATIONS	App C
AREA 5 TOP DECK MONITORING REPORT	App D

Cedar Hills Regional Landfill Summary of Quarterly Environmental Monitoring Second Quarter of 2012

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. Results obtained from environmental monitoring during the second quarter of 2012 were consistent with historical conditions.

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 second 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. Primary Ground Water Quality Criteria were exceeded in upgradient wells for arsenic (wells MW-64, MW-93 and MW-99), trichloroethylene (wells MW-76 and MW-82) and vinyl chloride (MW-65). In downgradient wells, arsenic exceeded the criteria in five wells (MW-69, MW-80, MW-88, MW-89 and MW-91). These results are consistent with past analyses.

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 small analytical error in regional aquifer samples from MW-93 (11.5%) , MW-64 (13.3%) , MW-69 (13.5%) and MW-86 (10.3%) greater than 10% ion imbalance.

Intra-well prediction limits are calculated annually using data collected through the end of the previous calendar year (2011). Comparison to calculated prediction limits provides an indication of whether a change in concentration represents normal variability or a change in water quality. No values exceeding these updated limits were found this quarter in the regional aquifer (Table 5).

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 several regional wells and QC blanks, all probable laboratory artifacts; chloroform was detected in MW-74 and in multiple Field Blanks, a possible preservation artifact. Quality Assurance /Quality Control (QA/QC) samples (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 second quarter of 2012 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 no potential analytical error (greater than 10% ion imbalance) in any perched zone samples.

As with the regional data, perched zone prediction limits are derived from cumulative data through the end of 2011 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. Additionally four stations located on the surface of Area 5 are monitored quarterly as a part of the Top Deck Monitoring Report in Appendix D. Samples were collected at 17 surface water stations having adequate flow during the quarter. 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. Surface water quality is highly correlated with precipitation events that can mobilize sediments. These fluctuations are often limited to the duration of the events.

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 on a monthly schedule to monitor system performance and quarterly for compliance.

Methane detections at concentrations above the criterion in landfill gas probe GP-33C triggered actions, including: monitoring frequency increases, operational adjustments to increase LFG recovery rates, off-site structure monitoring and preparation of a response plan.

Daily monitoring of LFG migration probes located along the western property line began on October 20th 2011 and continued through the end of the year. Methane detections were limited to two probes, GP-30B and GP-33C, and daily monitoring of these two locations continues.

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

We are continuing to follow our response plan, *Cedar Hills Regional Landfill Mitigation Plan for Landfill Gas*, which was submitted to and approved by Public Health of Seattle - King County in November 2011. The plan targeted the potential zone of LFG migration in the native sediments with seven LFG extraction wells.

The extraction wells have been effective in controlling LFG migration to the

perimeter probes. There have been no methane detections this quarter. Extraction wells are monitored weekly for methane, carbon dioxide, oxygen, pressure and flow.

Compliance and supplemental LFG 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 State and Federal Surface Water Criteria. 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

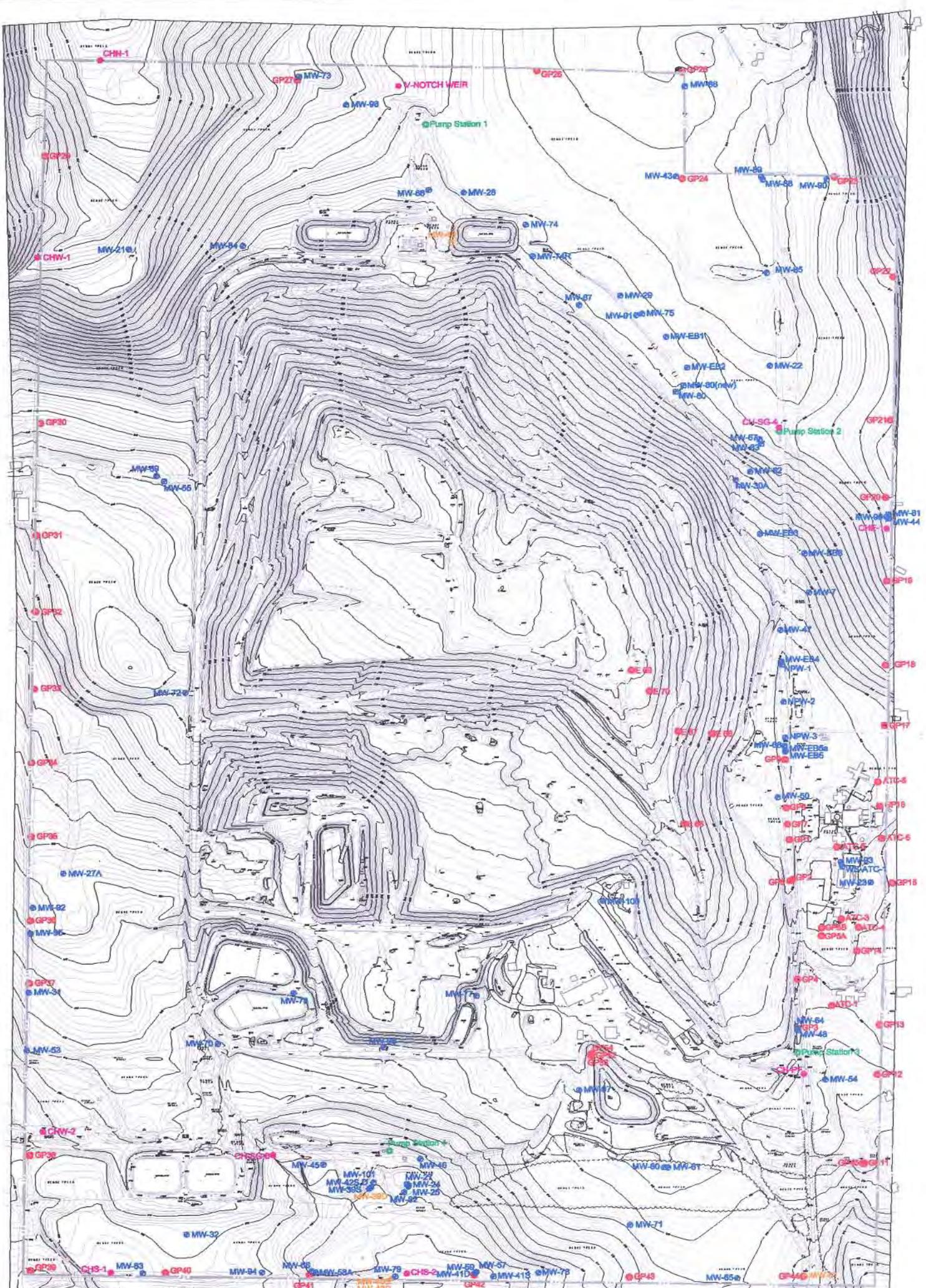
The Prediction Limit is an intra-well statistical test that compares an analytical result to a computed limit value. The limit value is derived from past analytical results from the same well, considered representative historical well data. A value outside of this limiting value is considered evidence 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 also on selected analytes that are common groundwater constituents and have high detection frequencies. It 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 15.


LEGEND

MW-9 Monitoring Well

MW-9 Surface Water Stations

GP-19 Gas Probe

MW-8 Decommissioned Monitoring Well

GP-13 Decommissioned Gas Probe

○ Pump Station NO.



 King County Solid Waste Division

DATE: Oct. 2007
DESIGNED/DRAWN:

SITE MAP
Cedar Hills Landfill
Maple Valley, Washington

Aero-Metric
Aerial Photo taken
August 24, 2007

PROJECT NO.
FIGURE NO.
1

TABLE 1
SUMMARY OF CEDAR HILLS REGIONAL LANDFILL GROUNDWATER WELLS

Well Number	Date Constructed	Aquifer	Zone ¹	Purpose ²	Ground Surface Elevation	Top of Well Casing Elevation	Total Well Depth	Screened Interval Depth	Screened Interval Elevation	Coordinates Northing	Coordinates Easting
MW-24	6/1/1983	Regional	US	WL/WQ	473.8	475.99	193.0	187	192	286.8	281.8
MW-54	9/26/1986	Regional	US	WL	579.3	580.43	360.0	329	351	250.3	228.3
MW-56	10/12/1988	Regional	US	WL/WQ	479.2	480.33	170.5	156	166	323.2	313.2
MW-57	8/22/1988	Regional	US	WL/WQ	455.7	456.64	145.5	129	144	326.7	311.7
MW-58A	9/26/1988	Regional	US	WL/WQ	478.6	479.27	220.5	208.5	218.5	270.1	260.1
MW-59	8/16/1988	Regional	US	WL/WQ	455.6	457.13	185.5	170.5	180.5	285.1	275.1
MW-60	9/13/1991	Regional	US	WL/WQ	564.8	567.15	266.4	230	239	334.8	325.8
MW-65	3/29/1993	Regional	US	WL/WQ	543.2	545.83	236.9	225.5	234.3	317.7	308.9
MW-76	10/25/1999	Regional	US	WL/WQ	489.8	491.71	155.9	138.7	148.2	351.1	341.6
MW-82	11/2/2000	Regional	US	WL/WQ	472.8	474.85	139.5	123.9	133.4	348.9	339.4
MW-83	10/27/2000	Regional	US	WL/WQ	494.5	496.81	160.0	144.3	153.8	350.2	340.7
MW-94	7/2/2002	Regional	US	WL/WQ	493.2	495.51	168.0	136	144.7	357.2	348.5
MW-21	5/17/1983	Regional	UNW	WL/WQ	418.2	420.66	180.0	155	163	263.2	255.2
MW-73	7/3/1999	Regional	UNW	WL/WQ	484.3	485.70	218.0	196.2	205.5	288.1	278.8
MW-84	10/20/2000	Regional	UNW	WL/WQ	528.7	530.80	250.5	236.2	245.7	292.5	283.0
MW-81	10/3/2002	Regional	UNE	WL/WQ	492.2	493.66	199.0	183	192	309.2	300.2
MW-99	8/30/2002	Regional	UNE	WL/WQ	491.8	493.64	287.0	270	279	221.8	212.8
MW-93	6/24/2002	Regional	CG	WL/WQ	630.2	632.15	350.0	310.3	320.1	319.9	310.1
MW-95	7/22/2002	Regional	CG	WL/WQ	568.6	571.54	311.0	254	262.7	314.6	305.9
MW-106	2/19/2009	Regional	CG	WL	473.0	475.47	270.0	193	203	280.0	270.0
MW-70	5/11/1993	Regional	I	WL/WQ	527.9	530.57	221.5	205.1	218.8	322.8	309.1
MW-77	10/12/1999	Regional	I	WL/WQ	550.5	552.67	251.5	230	239.5	320.5	311.0
MW-78	10/8/1999	Regional	I	WL/WQ	535.3	537.35	229.5	213	225.5	322.3	309.8
MW-100	8/26/2002	Regional	I	WL/WQ	618.4	620.32	124.7	299.3	309.3	319.1	309.1
MW-22	5/25/1983	Regional	V	WL	515.0	517.09	284.0	279	283.8	236.0	231.2
MW-64	3/22/1993	Regional	V	WL/WQ	594.3	596.55	276.3	260.3	274.1	334.0	320.2
MW-66	4/5/1993	Regional	V	WL/WQ	528.6	531.28	250.7	234.2	248	294.4	280.6
MW-67	4/28/1993	Regional	V	WL/WQ	514.1	516.43	232.4	216.3	230.1	297.8	284.0
MW-68	4/15/1993	Regional	V	WL/WQ	644.8	647.07	354.6	333.5	352.5	311.3	292.3
MW-69	4/23/1993	Regional	DW	WL/WQ	651.0	653.69	368.8	357.4	371	293.6	280.0
MW-72	8/7/1998	Regional	DW	WL/WQ	669.8	671.87	389.0	366.2	375.8	303.6	294.0
MW-74	11/1/2000	Regional	DG	WL/WQ	529.2	531.26	270.0	239.3	248.8	289.9	280.4
MW-75	9/24/1999	Regional	DG	WL/WQ	529.8	532.40	287.0	258.7	268.8	271.1	261.0
MW-80	2/27/2001	Regional	DG	WL/WQ	528.5	530.41	270.0	249.3	258.8	279.2	269.7
MW-85	12/1/2000	Regional	DG	WL/WQ	529.8	531.76	270.0	247.2	256.7	282.6	273.1
MW-86	12/12/2000	Regional	DG	WL/WQ	533.9	536.04	282.0	250.5	259.3	283.4	274.6
MW-87	11/21/2000	Regional	DG	WL/WQ	535.2	537.31	272.5	251.5	260.8	283.7	274.4
MW-88	9/13/2001	Regional	DG	WL/WQ	511.2	513.68	248.5	229.7	239	281.5	272.2
MW-89	11/12/2001	Regional	DG	WL/WQ	510.7	512.82	328.0	281.5	290.8	229.2	219.9
MW-90	8/14/2002	Regional	DG	WL/WQ	500.2	502.22	300.0	265	274	235.2	226.2
MW-91	10/26/2001	Regional	DG	WL/WQ	529.7	532.02	331.0	268.9	289	260.8	240.7
MW-43	4/30/1985	Regional	DNF	WL/WQ	544.6	547.06	325.0	299	309	245.6	235.6
WS-ATC-1	2/7/1972	Regional	--	WL	624.9	625.51	535.0	325	340	299.9	284.9
WS-NPW-1	8/22/1990	Regional	--	WL	644.6	646.33	382.0	365.7	375.7	278.9	268.9
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 Surface Elevation	Top of Well Casing Elevation	Total Well Depth	Screened Interval Depth	Screened Interval Elevation	Coordinates	
										Northing	Easting
MW-30A	9/6/1989	Perched	EPZ	WL/WQ	567.7	568.43	40.0	25	35	542.7	532.7
MW-47	6/31/1985	Perched	EPZ	WL/WQ	633.6	634.60	50.0	23.5	43.5	610.1	590.1
MW-48	5/24/1985	Perched	EPZ	WL	593.6	594.49	63.0	37	47	556.6	546.6
MW-50	6/3/1985	Perched	EPZ	WL	636.2	637.02	39.5	27.5	37.5	608.7	598.7
MW-62	2/1/1990	Perched	EPZ	WL/WQ	555.3	556.21	65.5	44	54	511.3	501.3
MW-63	2/12/1990	Perched	EPZ	WL	513.8	515.88	22.0	12	17	501.8	496.8
MW-102	1/27/2009	Perched	EPZ	WL	549.7	552.48	50	35	50	515.2	500.2
MW-103	1/28/2009	Perched	EPZ	WL	636.8	639.08	40.00	25	35	611.8	601.8
MW-104	1/29/2009	Perched	EPZ	WL	626.9	629.68	35.00	22	32	604.9	594.9
MW-EB6	11/28/1990	Perched	EPZ	WL/WQ	587.9	589.61	50.0	20	30	567.9	557.9
MW-27A	10/3/1985	Perched	NW	WL/WQ	583.2	584.23	80.0	59	69	524.2	514.2
MW-28	6/21/1983	Perched	NW	WL/WQ	526.2	527.75	39.0	27	37	499.2	489.2
MW-29	6/23/1983	Perched	NW	WL/WQ	531.7	532.92	60.0	17	27	514.7	504.7
MW-55	10/2/1986	Perched	NW	WL/WQ	651.1	652.29	67.0	37.5	47.5	613.6	603.6
MW-98	3/9/2001	Perched	NW	WL	501.6	503.73	22.5	10.7	20	490.9	481.6
MW-25	6/3/1983	Perched	SSWA	WL	473.2	474.41	43.0	18	38	455.2	435.2
MW-41S	7/12/1983	Perched	SSWA	WL	460.7	462.44	51.0	8	18	452.7	442.7
MW-41D	7/12/1983	Perched	SSWA	WL	460.7	462.32	51.0	30	50	430.7	410.7
MW-45	5/17/1985	Perched	SSWA	WL	487.7	488.40	64.0	31	41	447.6	457.6
MW-79	11/5/1999	Perched	SSWA	WL	456.9	459.17	56.0	40.5	50	416.4	406.9
MW-96	12/18/2001	Perched	SSWA	WL	545.4	547.74	102.9	88.8	97.5	456.6	447.9
MW-97	9/5/2001	Perched	SSWA	WL	562.5	564.54	124.7	101	110	461.5	452.5
MW-101	6/2/2006	Perched	SSWA	WL/WQ	472.1	474.72	57.50	44	54	428.1	418.1
MW-105	1/30/2009	Perched	SSWA	WL	518.7	521.23	30.00	18	28	500.7	490.7

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 2nd QUARTER 2012

Well ID	Zone	Date	Planned Activity	Sample ID	Comment
MW-21	Regional	4/2/12	Groundwater Elevation Measurement	NA	
MW-21	Regional	4/5/12	Groundwater Sampling	W21-120405-	
MW-22	Regional	4/2/12	Groundwater Elevation Measurement	NA	
MW-24	Regional	4/2/12	Groundwater Elevation Measurement	NA	
MW-24	Regional	4/3/12	Groundwater Sampling	W24-120403-	
MW-25	Perched	4/2/12	Groundwater Elevation Measurement	NA	
MW-27A	Perched	4/2/12	Groundwater Elevation Measurement	NA	
MW-27A	Perched	4/3/12	Groundwater Sampling	W27A120403-	
MW-28	Perched	4/2/12	Groundwater Elevation Measurement	NA	
MW-28	Perched	4/9/12	Groundwater Sampling	W28-120409-	
MW-29	Perched	4/2/12	Groundwater Elevation Measurement	NA	
MW-29	Perched	4/4/12	Groundwater Sampling	W29-120404-	
MW-30A	Perched	4/2/12	Groundwater Elevation Measurement	NA	
MW-30A	Perched	4/3/12	Groundwater Sampling	W30A120403-	
MW-41D	Perched	4/2/12	Groundwater Elevation Measurement	NA	
MW-41S	Perched	4/2/12	Groundwater Elevation Measurement	NA	
MW-43	Regional	4/2/12	Groundwater Elevation Measurement	NA	
MW-43	Regional	4/6/12	Groundwater Sampling	W43-120406-	
MW-45	Perched	4/2/12	Groundwater Elevation Measurement	NA	
MW-47	Perched	4/2/12	Groundwater Elevation Measurement	NA	
MW-47	Perched	4/5/12	Groundwater Sampling	W47-120405-	
MW-48	Perched	4/2/12	Groundwater Elevation Measurement	NA	
MW-50	Perched	4/2/12	Groundwater Elevation Measurement	NA	
MW-54	Regional	4/2/12	Groundwater Elevation Measurement	NA	
MW-55	Perched	4/2/12	Groundwater Elevation Measurement	NA	
MW-55	Perched	4/6/12	Groundwater Sampling	W55-120406-	
MW-56	Regional	4/2/12	Groundwater Elevation Measurement	NA	
MW-56	Regional	4/10/12	Groundwater Sampling	W56-120410-	
MW-57	Regional	4/2/12	Groundwater Elevation Measurement	NA	
MW-57	Regional	4/30/12	Groundwater Sampling	W57-120430-	
MW-58A	Regional	4/2/12	Groundwater Elevation Measurement	NA	
MW-58A	Regional	4/19/12	Groundwater Sampling	W58A120419-	
MW-59	Regional	4/2/12	Groundwater Elevation Measurement	NA	
MW-59	Regional	4/24/12	Groundwater Sampling	W59-120424-	
MW-60	Regional	4/2/12	Groundwater Elevation Measurement	NA	
MW-60	Regional	4/12/12	Groundwater Sampling	W60-120412-	
MW-62	Perched	4/2/12	Groundwater Elevation Measurement	NA	
MW-62	Perched	4/3/12	Groundwater Sampling	W62-120403-	
MW-63	Perched	4/2/12	Groundwater Elevation Measurement	NA	
MW-64	Regional	4/2/12	Groundwater Elevation Measurement	NA	
MW-64	Regional	4/27/12	Groundwater Sampling	W64-120427-	
MW-65	Regional	4/2/12	Groundwater Elevation Measurement	NA	
MW-65	Regional	4/16/12	Groundwater Sampling	W65-120416-	
MW-65	Regional	4/16/12	QA/QC Sample	W65-120416D	Field Duplicate
MW-66	Regional	4/2/12	Groundwater Elevation Measurement	NA	
MW-66	Regional	4/23/12	Groundwater Sampling	W66-120423-	
MW-67	Regional	4/2/12	Groundwater Elevation Measurement	NA	
MW-67	Regional	4/6/12	Groundwater Sampling	W67-120406-	
MW-68	Regional	4/2/12	Groundwater Elevation Measurement	NA	
MW-68	Regional	4/26/12	Groundwater Sampling	W68-120426-	
MW-69	Regional	4/2/12	Groundwater Elevation Measurement	NA	
MW-69	Regional	4/25/12	Groundwater Sampling	W69-120425-	
MW-70	Regional	4/2/12	Groundwater Elevation Measurement	NA	
MW-70	Regional	4/6/12	Groundwater Sampling	W70-120406-	
MW-72	Regional	4/2/12	Groundwater Elevation Measurement	NA	

TABLE 2
GROUNDWATER MONITORING ACTIVITIES 2nd QUARTER 2012

Well ID	Zone	Date	Planned Activity	Sample ID	Comment
MW-72	Regional	4/17/12	Groundwater Sampling	W72-120417-	
MW-73	Regional	4/2/12	Groundwater Elevation Measurement	NA	
MW-73	Regional	4/18/12	Groundwater Sampling	W73-120418-	
MW-74	Regional	4/2/12	Groundwater Elevation Measurement	NA	
MW-74	Regional	4/20/12	Groundwater Sampling	W74R120420-	
MW-74	Regional	5/17/12	Groundwater Sampling	W74R120517-	
MW-74	Regional	6/22/12	Groundwater Sampling	W74R120622-	
MW-75	Regional	4/2/12	Groundwater Elevation Measurement	NA	
MW-75	Regional	4/20/12	Groundwater Sampling	W75-120420-	
MW-75	Regional	5/17/12	Groundwater Sampling	W75-120517-	
MW-75	Regional	6/22/12	Groundwater Sampling	W75-120622-	
MW-76	Regional	4/2/12	Groundwater Elevation Measurement	NA	
MW-76	Regional	4/16/12	Groundwater Sampling	W76-120416-	
MW-77	Regional	4/2/12	Groundwater Elevation Measurement	NA	
MW-77	Regional	4/23/12	Groundwater Sampling	W77-120423-	
MW-78	Regional	4/2/12	Groundwater Elevation Measurement	NA	
MW-78	Regional	4/6/12	Groundwater Sampling	W78-120406-	
MW-79	Perched	4/2/12	Groundwater Elevation Measurement	NA	
MW-80	Regional	4/2/12	Groundwater Elevation Measurement	NA	
MW-80	Regional	4/23/12	Groundwater Sampling	W80-120423-	
MW-81	Regional	4/2/12	Groundwater Elevation Measurement	NA	
MW-81	Regional	4/20/12	Groundwater Sampling	W81-120420-	
MW-82	Regional	4/2/12	Groundwater Elevation Measurement	NA	
MW-82	Regional	4/18/12	Groundwater Sampling	W82-120418-	
MW-83	Regional	4/2/12	Groundwater Elevation Measurement	NA	
MW-83	Regional	4/18/12	Groundwater Sampling	W83-120418-	
MW-84	Regional	4/2/12	Groundwater Elevation Measurement	NA	
MW-84	Regional	4/24/12	Groundwater Sampling	W84-120424-	
MW-85	Regional	4/2/12	Groundwater Elevation Measurement	NA	
MW-85	Regional	4/30/12	Groundwater Sampling	W85-120430-	
MW-86	Regional	4/2/12	Groundwater Elevation Measurement	NA	
MW-86	Regional	4/30/12	Groundwater Sampling	W86-120430-	
MW-87	Regional	4/2/12	Groundwater Elevation Measurement	NA	
MW-87	Regional	4/20/12	Groundwater Sampling	W87-120420-	
MW-87	Regional	4/20/12	QA/QC Sample	W87-120420D	Field Duplicate
MW-87	Regional	5/18/12	Groundwater Sampling	W87-120518-	
MW-87	Regional	6/22/12	Groundwater Sampling	W87-120622-	
MW-88	Regional	4/2/12	Groundwater Elevation Measurement	NA	
MW-88	Regional	4/17/12	Groundwater Sampling	W88-120417-	
MW-89	Regional	4/2/12	Groundwater Elevation Measurement	NA	
MW-89	Regional	4/10/12	Groundwater Sampling	W89-120410-	
MW-90	Regional	4/2/12	Groundwater Elevation Measurement	NA	
MW-90	Regional	4/9/12	Groundwater Sampling	W90-120409-	
MW-91	Regional	4/2/12	Groundwater Elevation Measurement	NA	
MW-91	Regional	4/10/12	Groundwater Sampling	W91-120410-	
MW-93	Regional	4/24/12	Groundwater Sampling	W93-120424-	
MW-94	Regional	4/2/12	Groundwater Elevation Measurement	NA	
MW-94	Regional	4/24/12	Groundwater Sampling	W94-120424-	
MW-95	Regional	4/2/12	Groundwater Elevation Measurement	NA	
MW-95	Regional	4/30/12	Groundwater Sampling	W95-120430-	
MW-96	Perched	4/2/12	Groundwater Elevation Measurement	NA	
MW-97	Perched	4/2/12	Groundwater Elevation Measurement	NA	
MW-98	Perched	4/2/12	Groundwater Elevation Measurement	NA	
MW-99	Regional	4/2/12	Groundwater Elevation Measurement	NA	
MW-99	Regional	4/20/12	Groundwater Sampling	W99-120420-	

TABLE 2
GROUNDWATER MONITORING ACTIVITIES 2nd QUARTER 2012

Well ID	Zone	Date	Planned Activity	Sample ID	Comment
MW-99	Regional	5/18/12	Groundwater Sampling	W99-120518-	
MW-99	Regional	6/22/12	Groundwater Sampling	W99-120622-	
MW-100	Regional	4/2/12	Groundwater Elevation Measurement	NA	
MW-100	Regional	4/17/12	Groundwater Sampling	W100120417-	
MW-101	Perched	4/2/12	Groundwater Elevation Measurement	NA	
MW-101	Perched	4/9/12	Groundwater Sampling	W101120409-	
MW-102	Perched	4/2/12	Groundwater Elevation Measurement	NA	
MW-103	Perched	4/2/12	Groundwater Elevation Measurement	NA	
MW-104	Perched	4/2/12	Groundwater Elevation Measurement	NA	
MW-105	Perched	4/2/12	Groundwater Elevation Measurement	NA	
MW-106	Regional	4/2/12	Groundwater Elevation Measurement	NA	
MW-EB6	Perched	4/2/12	Groundwater Elevation Measurement	NA	
MW-EB6	Perched	4/6/12	Groundwater Sampling	WB6-120406-	
WS-NPW-1	Regional	4/2/12	Groundwater Elevation Measurement	NA	
WS-NPW-3	Regional	4/2/12	Groundwater Elevation Measurement	NA	
Equipment Blank	NA	4/20/12	QA/QC Sample	WU1H120420E	
Equipment Blank	NA	4/20/12	QA/QC Sample	WU1M120420E	
Equipment Blank	NA	4/20/12	QA/QC Sample	WU1S120420E	
Field Blank	NA	4/9/12	QA/QC Sample	W101120409F	
Field Blank	NA	4/3/12	QA/QC Sample	W27A120403F	
Field Blank	NA	4/24/12	QA/QC Sample	W59-120424F	
Field Blank	NA	6/22/12	QA/QC Sample	W74R120622F	
WS-NPW	Regional	4/27/12	Water Supply Characterization	WNPW120427-	
WS-OS1	Regional	6/20/12	Water Supply Characterization	WOS1120620-	

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 April 1, 2012 to June 30, 2012)

Parameter	Units	Well ID	Sample Date	Sample ID	Sample Value
Upgradient Wells					
pH (field)	(pH units)	MW-76	4/16/2012	W76-120416-	6.39
Arsenic	(mg/L)	MW-64	4/27/2012	W64-120427-	0.00146
		MW-93	4/24/2012	W93-120424-	0.00132
		MW-99	4/20/2012	W99-120420-	0.0024
Iron	(mg/L)	MW-21	4/5/2012	W21-120405-	1.63
		MW-24	4/3/2012	W24-120503-	2.94
		MW-57	4/30/2012	W57-120430-	8.25
		MW-58A	4/19/2012	W58A120419-	1.05
		MW-59	4/24/2012	W59-120424-	3.82
		MW-64	4/27/2012	W64-120427-	0.347
		MW-65	4/16/2012	W65-120416-	4.24
		MW-100	4/17/2012	W100120417-	1.41
Manganese	(mg/L)	MW-21	4/5/2012	W21-120405-	0.066
		MW-24	4/3/2012	W24-120503-	0.106
		MW-56	4/10/2012	W56-120410-	0.0501
		MW-57	4/30/2012	W57-120430-	0.238
		MW-58A	4/19/2012	W58A120419-	0.362
		MW-59	4/24/2012	W59-120424-	0.0922
		MW-64	4/27/2012	W64-120427-	0.337
		MW-65	4/16/2012	W65-120416-	0.171
		MW-93	4/24/2012	W93-120424-	0.213
		MW-95	4/30/2012	W95-120430-	0.119
		MW-99	4/20/2012	W99-120420-	0.0673
		MW-100	4/17/2012	W100120417-	0.219
Trichloroethene	(µg/L)	MW-76	4/16/2012	W76-120416-	11.5
		MW-82	4/18/2012	W82-120418-	4.14
Vinyl Chloride	(µg/L)	MW-65	4/16/2012	W65-120416-	0.0365

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 April 1, 2012 to June 30, 2012)

Parameter	Units	Well ID	Sample Date	Sample ID	Sample Value
Downgradient Wells					
Arsenic	(mg/L)	MW-69	4/25/2012	W69-120425-	0.00191
		MW-80	4/23/2012	W80-120423-	0.00498
		MW-88	4/17/2012	W88-120417-	0.00113
		MW-89	4/10/2012	W89-120410-	0.00148
		MW-91	4/10/2012	W91-120410-	0.00231
Iron	(mg/L)	MW-43	4/6/2012	W43-120406-	0.873
		MW-68	4/26/2012	W68-120426-	0.992
		MW-69	4/25/2012	W69-120425-	0.703
		MW-72	4/17/2012	W72-120417-	1.73
		MW-75	4/20/2012	W75-120420-	1.35
		MW-80	4/23/2012	W80-120423-	1.68
		MW-87	4/20/2012	W87-120420-	3.25
		MW-89	4/10/2012	W89-120410-	0.809
		MW-90	4/9/2012	W90-120409-	1.1
		MW-91	4/10/2012	W91-120410-	2.7
Manganese	(mg/L)	MW-43	4/6/2012	W43-120406-	0.21
		MW-67	4/6/2012	W67-120406-	0.06
		MW-68	4/26/2012	W68-120426-	0.193
		MW-69	4/25/2012	W69-120425-	0.147
		MW-72	4/17/2012	W72-120417-	0.266
		MW-75	4/20/2012	W75-120420-	0.122
		MW-80	4/23/2012	W80-120423-	0.273
		MW-87	4/20/2012	W87-120420-	0.372
		MW-89	4/10/2012	W89-120410-	0.241
		MW-90	4/9/2012	W90-120409-	0.266
		MW-91	4/10/2012	W91-120410-	0.274

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

Data Collected from April 1, 2012 to June 30, 2012

Site ID	Upgradient South																			
	MW	n	MW-56 4/10/12			MW-57 4/30/12			MW-76 4/16/12			MW-83 4/18/12			MW-60 4/12/12			MW-94 4/24/12		
			mg/L	meq/L	%(meq)															
Cations																				
Calcium	40.1	2	14.6	0.72854	53.5	16.2	0.80838	39.7	19.4	0.96806	46.8	25.2	1.25749	50.6	17.2	0.85828	47.7	24.8	1.23752	49.7
Magnesium	24.3	2	5.0	0.41473	30.5	7.8	0.64267	31.6	8.7	0.71426	34.6	10.9	0.89693	36.1	8.1	0.669	37.2	11.2	0.92162	37.0
Potassium	39.1	1	0.8	0.02023	1.5	0.9	0.0234	1.1	1.4	0.03453	1.7	1.8	0.04629	1.9	1.0	0.0266	1.5	2.0	0.05218	2.1
Sodium	23.0	1	4.5	0.194	14.3	5.9	0.25533	12.5	8.0	0.34972	16.9	6.6	0.28578	11.5	5.6	0.24359	13.5	6.4	0.27621	11.1
Iron	55.8	2	0.03	0.00107	0.1	8.25	0.29545	14.5	0.01	0.00018	0.0	0.01	0.00018	0.0	0.01	0.00018	0.0	0.01	0.00018	0.0
Manganese	54.9	2	0.05	0.00182	0.1	0.24	0.00866	0.4	0.00	1.8E-05	0.0	0.00	8.3E-05	0.0	0.00	5.9E-05	0.0	0.00	1.8E-05	0.0
Ammonia-N	14.0	1	0.01	0.00036	0.0	0.03	0.00221	0.1	0.01	0.00036	0.0	0.01	0.00036	0.0	0.01	0.00036	0.0	0.01	0.00036	0.0
Total Cations (meq/L)			1.4			2.0			2.1			2.5			1.8			2.5		
Anions																				
Alkalinity, Total			47			88			60			105			83			108		
Carbonate	60.0	2	0.023	0.00077	0.1	0.0235	0.00079	0.0	0.0089	0.0003	0.0	0.0513	0.00171	0.1	0.0508	0.00169	0.1	0.0504	0.00168	0.1
Bicarbonate	61.0	1	57.29	0.93909	63.0	106.95	1.75295	77.5	73.43	1.20352	57.2	128.00	2.09797	78.7	100.67	1.65006	83.3	131.66	2.158	73.5
Chloride	35.5	1	4.3	0.12213	8.2	5.2	0.14639	6.5	10.9	0.30745	14.6	11.6	0.32719	12.3	2.9	0.0818	4.1	19.9	0.56131	19.1
Nitrate-N	14.0	1	1.12	0.07996	5.4	0.01	0.00036	0.0	1.17	0.08353	4.0	0.20	0.01406	0.5	1.22	0.0871	4.4	1.26	0.08996	3.1
Sulfate	96.1	2	16.8	0.34979	23.4	17.4	0.36228	16.0	24.5	0.51011	24.2	10.8	0.22487	8.4	7.7	0.16011	8.1	6.0	0.12576	4.3
Total Anions (meq/L)			1.5			2.3			2.1			2.7			2.0			2.9		
Total Ions (meq/L)			2.9			4.3			4.2			5.2			3.8			5.4		
Cation/Anion Ratio			0.91			0.90			0.98			0.93			0.91			0.85		
Percent Difference			-4.6			-5.3			-0.9			-3.5			-4.8			-8.3		
Trilinear Diagram Data																				
sum (Ca, Mg, Na+K)			1.36			1.73			2.07			2.49			1.80			2.49		
Calcium			53.67			46.73			46.84			50.57			47.75			49.75		
Magnesium			30.55			37.15			34.56			36.07			37.22			37.05		
Sodium + Potassium			15.78			16.11			18.59			13.36			15.03			13.20		
sum (SO ₄ , Cl, HCO ₃ +CO ₃)			1.41			2.26			2.02			2.65			1.89			2.85		
Sulfate			24.776			16.013			25.236			8.480			8.455			4.418		
Chloride			8.651			6.471			15.210			12.339			4.320			19.718		
Bicarbonate + Carbonate			66.572			77.516			59.554			79.181			87.225			75.865		

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

Data Collected from April 1, 2012 to June 30, 2012

Site ID	Upgradient South																
	MW-82 4/18/12			MW-65 4/16/12			MW-58A 4/19/12			MW-59 4/24/12			MW-24 4/3/12				
	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)
Cations																	
Calcium	40.1	2	20.6	1.02794	43.8	11.7	0.58383	36.6	17.2	0.85828	46.2	12.4	0.61876	37.5	12.5	0.62375	37.7
Magnesium	24.3	2	12.0	0.98745	42.1	7.2	0.59247	37.1	8.3	0.68628	36.9	7.9	0.65089	39.4	8.1	0.669	40.5
Potassium	39.1	1	1.6	0.04169	1.8	0.9	0.02246	1.4	1.0	0.02558	1.4	1.0	0.02583	1.6	0.8	0.02138	1.3
Sodium	23.0	1	6.6	0.28752	12.3	5.5	0.2388	15.0	5.4	0.23358	12.6	4.9	0.21401	13.0	5.2	0.22619	13.7
Iron	55.8	2	0.01	0.00018	0.0	4.24	0.15184	9.5	1.05	0.0376	2.0	3.82	0.1368	8.3	2.94	0.10529	6.4
Manganese	54.9	2	0.00	1.8E-05	0.0	0.17	0.00623	0.4	0.36	0.01318	0.7	0.09	0.00336	0.2	0.11	0.00386	0.2
Ammonia-N	14.0	1	0.01	0.00036	0.0	0.01	0.00036	0.0	0.07	0.00521	0.3	0.01	0.00036	0.0	0.04	0.00286	0.2
Total Cations (meq/L)				2.3			1.6			1.9			1.7			1.7	
Anions																	
Alkalinity, Total			96		54		75		63		63		63		63		63
Carbonate	60.0	2	0.0456	0.00152	0.1	0.0148	0.00049	0.0	0.1428	0.00476	0.2	0.0293	0.00098	0.1	0.0521	0.00174	0.1
Bicarbonate	61.0	1	116.54	1.91019	78.9	65.48	1.07335	70.6	91.58	1.50102	78.4	76.68	1.25683	71.6	76.51	1.25408	74.4
Chloride	35.5	1	4.5	0.12608	5.2	3.9	0.11085	7.3	3.4	0.09703	5.1	4.4	0.12354	7.0	3.4	0.09562	5.7
Nitrate-N	14.0	1	0.84	0.05983	2.5	0.01	0.00036	0.0	0.01	0.00036	0.0	0.01	0.00036	0.0	0.01	0.00036	0.0
Sulfate	96.1	2	15.5	0.32272	13.3	16.1	0.33522	22.0	15.0	0.31231	16.3	17.9	0.37269	21.2	16.0	0.33313	19.8
Total Anions (meq/L)				2.4			1.5			1.9			1.8			1.7	
Total Ions (meq/L)				4.8			3.1			3.8			3.4			3.3	
Cation/Anion Ratio				0.97			1.05			0.97			0.94			0.98	
Percent Difference				-1.6			2.4			-1.5			-3.1			-1.0	
Trilinear Diagram Data																	
sum (Ca, Mg, Na+K)			2.34		1.44			1.80			1.51			1.54			
Calcium				43.84		40.61			47.58			40.99			40.49		
Magnesium				42.12		41.21			38.05			43.12			43.43		
Sodium + Potassium				14.04		18.17			14.37			15.89			16.07		
sum (SO ₄ , Cl, HCO ₃ +CO ₃)			2.36		1.52			1.92			1.75			1.68			
Sulfate				13.672		22.055			16.308			21.248			19.776		
Chloride				5.341		7.293			5.067			7.043			5.676		
Bicarbonate + Carbonate				80.987		70.652			78.626			71.709			74.548		

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

Data Collected from April 1, 2012 to June 30, 2012

Site ID	Upgradient Northwest										Upgradient Northeast									
	MW-84 4/24/12			MW-21 4/5/12			MW-73 4/18/12			MW-81 4/20/12			MW-99 4/20/12							
	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)
Cations																				
Calcium	40.1	2	8.9	0.44361	34.9	9.4	0.46856	38.0	13.0	0.6487	50.0	11.0	0.5489	42.9	9.1	0.45409	36.8			
Magnesium	24.3	2	7.3	0.59659	46.9	5.5	0.45094	36.6	4.9	0.4065	31.3	5.7	0.47151	36.9	4.2	0.34396	27.9			
Potassium	39.1	1	0.9	0.02297	1.8	0.9	0.02399	1.9	0.8	0.01982	1.5	0.7	0.019	1.5	0.8	0.02156	1.7			
Sodium	23.0	1	4.8	0.20835	16.4	5.2	0.22619	18.4	5.1	0.2214	17.1	5.5	0.23837	18.6	9.3	0.40496	32.8			
Iron	55.8	2	0.01	0.00018	0.0	1.63	0.05837	4.7	0.01	0.00018	0.0	0.01	0.00018	0.0	0.04	0.00133	0.1			
Manganese	54.9	2	0.00	1.8E-05	0.0	0.07	0.0024	0.2	0.00	1.8E-05	0.0	0.00	1.8E-05	0.0	0.07	0.00245	0.2			
Ammonia-N	14.0	1	0.01	0.00036	0.0	0.02	0.00136	0.1	0.01	0.00036	0.0	0.01	0.00036	0.0	0.06	0.0045	0.4			
Total Cations (meq/L)				1.3			1.2			1.3			1.3			1.3			1.2	
Anions																				
Alkalinity, Total			58			55		48		49				52						
Carbonate	60.0	2	0.0237	0.00079	0.1	0.0561	0.00187	0.1	0.0143	0.00048	0.0	0.039	0.0013	0.1	0.1913	0.00638	0.5			
Bicarbonate	61.0	1	71.08	1.16503	75.7	66.99	1.09797	81.4	57.92	0.94938	70.5	60.07	0.98455	73.7	62.93	1.03147	80.9			
Chloride	35.5	1	3.8	0.10747	7.0	5.0	0.14131	10.5	3.2	0.09082	6.7	2.7	0.07729	5.8	2.9	0.08264	6.5			
Nitrate-N	14.0	1	0.43	0.0307	2.0	0.01	0.00036	0.0	1.74	0.12422	9.2	1.50	0.10709	8.0	0.02	0.00136	0.1			
Sulfate	96.1	2	11.3	0.23528	15.3	5.1	0.10681	7.9	8.7	0.18093	13.4	8.0	0.16553	12.4	7.3	0.15282	12.0			
Total Anions (meq/L)				1.5			1.3			1.3			1.3			1.3			1.3	
Total Ions (meq/L)				2.8			2.6			2.6			2.6			2.6			2.5	
Cation/Anion Ratio				0.83			0.91			0.96			0.96			0.96			0.97	
Percent Difference				-9.5			-4.5			-1.8			-2.2			-1.7				
Trilinear Diagram Data																				
sum (Ca, Mg, Na+K)			1.27			1.17			1.30			1.28			1.22					
Calcium				34.89			40.06			50.04			42.96			37.08				
Magnesium				46.92			38.55			31.36			36.90			28.09				
Sodium + Potassium				18.19			21.39			18.61			20.14			34.83				
				100.0			100.0			100.0										
sum (SO ₄ , Cl, HCO ₃ +CO ₃)			1.51			1.35			1.22			1.23			1.27					
Sulfate				15.596			7.924			14.811			13.472			12.002				
Chloride				7.124			10.484			7.435			6.290			6.491				
Bicarbonate + Carbonate				77.280			81.593			77.754			80.238			81.507				

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

Data Collected from April 1, 2012 to June 30, 2012

Site ID	Cross Gradient								Interior												
	MW-93 4/24/12				MW-95 4/30/12				MW-70 4/6/12				MW-77 4/23/12				MW-78 4/6/12				
	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)	
Cations																					
Calcium	40.1	2	28.6	1.42715	46.4	17.4	0.86826	48.7	17.8	0.88822	44.8	23.7	1.18263	45.7	13.2	0.65868	45.2	25.8	1.28743	42.8	
Magnesium	24.3	2	15.4	1.26723	41.2	8.2	0.67229	37.7	9.7	0.79408	40.1	12.5	1.02859	39.7	6.2	0.50689	34.8	14.9	1.22609	40.8	
Potassium	39.1	1	1.4	0.03683	1.2	1.1	0.02737	1.5	1.3	0.03427	1.7	1.5	0.03785	1.5	1.8	0.04655	3.2	1.9	0.04936	1.6	
Sodium	23.0	1	7.7	0.3345	10.9	4.8	0.20879	11.7	6.1	0.26534	13.4	7.8	0.33798	13.1	5.6	0.24359	16.7	8.9	0.38539	12.8	
Iron	55.8	2	0.01	0.00018	0.0	0.01	0.00018	0.0	0.01	0.00018	0.0	0.01	0.00018	0.0	0.01	0.00018	0.0	1.41	0.0505	1.7	
Manganese	54.9	2	0.21	0.00775	0.3	0.12	0.00433	0.2	0.00	1.8E-05	0.0	0.02	0.00064	0.0	0.00	1.8E-05	0.0	0.22	0.00797	0.3	
Ammonia-N	14.0	1	0.05	0.00381	0.1	0.02	0.00163	0.1	0.01	0.00036	0.0	0.01	0.00036	0.0	0.01	0.00036	0.0	0.01	0.00036	0.0	
Total Cations (meq/L)				3.1		1.8		2.0		2.6		1.5		3.0							
Anions																					
Alkalinity, Total			113		86		84		116		65		129								
Carbonate	60.0	2	0.11	0.00367	0.1	0.1259	0.0042	0.2	0.1319	0.0044	0.2	0.0764	0.00255	0.1	0.0148	0.00049	0.0	0.0478	0.00159	0.1	
Bicarbonate	61.0	1	137.64	2.25599	58.2	104.05	1.70555	78.5	101.72	1.66735	78.1	141.36	2.3171	85.9	79.15	1.29731	79.8	157.28	2.57802	85.9	
Chloride	35.5	1	2.8	0.08011	2.1	4.8	0.13652	6.3	3.8	0.1069	5.0	5.0	0.14103	5.2	3.8	0.10718	6.6	2.6	0.07305	2.4	
Nitrate-N	14.0	1	0.01	0.00086	0.0	0.01	0.00036	0.0	0.04	0.00318	0.1	0.89	0.06361	2.4	0.77	0.0549	3.4	0.01	0.00036	0.0	
Sulfate	96.1	2	73.7	1.5345	39.6	15.6	0.32481	15.0	17.0	0.35395	16.6	8.3	0.1724	6.4	8.0	0.16615	10.2	16.8	0.34979	11.6	
Total Anions (meq/L)				3.9		2.2		2.1		2.7		1.6		3.0							
Total Ions (meq/L)				7.0		4.0		4.1		5.3		3.1		6.0							
Cation/Anion Ratio				0.79		0.82		0.93		0.96		0.90		1.00							
Percent Difference				-11.5		-9.8		-3.7		-2.1		-5.5		0.1							
Trilinear Diagram Data																					
sum (Ca, Mg, Na+K)			3.07		1.78		1.98		2.59		1.46		2.95								
Calcium				46.55		48.87		44.82		45.71		45.25		43.67							
Magnesium				41.34		37.84		40.07		39.76		34.82		41.59							
Sodium + Potassium				12.11		13.29		15.12		14.53		19.93		14.75							
sum (SO ₄ , Cl, HCO ₃ +CO ₃)			3.87		2.17		2.13		2.63		1.57		3.00								
Sulfate				39.607		14.961		16.597		6.547		10.575		11.650							
Chloride				2.068		6.288		5.013		5.356		6.822		2.433							
Bicarbonate + Carbonate				58.325		78.751		78.390		88.097		82.603		85.917							

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

Data Collected from April 1, 2012 to June 30, 2012

Site ID	Vertical to Facilities												Downgradient Northwest					
	MW-64 4/27/12			MW-66 4/23/12			MW-68 4/26/12			MW-67 4/6/2012			MW-72 4/17/2012			MW-69 4/25/2012		
	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)	
Cations																		
Calcium	40.1	2	12.5	0.62375	38.3	21.8	1.08782	38.4	24.0	1.1976	43.9	27.1	1.3523	44.2	25.8	1.28743	43.3	22.6
Magnesium	24.3	2	8.8	0.72331	44.5	16.6	1.36597	48.2	13.9	1.1438	41.9	15.8	1.30014	42.5	15.3	1.259	42.3	9.6
Potassium	39.1	1	1.2	0.0312	1.9	1.3	0.03351	1.2	1.6	0.03964	1.5	1.5	0.0376	1.2	1.8	0.04501	1.5	1.4
Sodium	23.0	1	5.1	0.22184	13.6	8.0	0.34711	12.2	7.1	0.30666	11.2	8.3	0.36277	11.9	7.1	0.30927	10.4	5.9
Iron	55.8	2	0.35	0.01243	0.8	0.01	0.00018	0.0	0.99	0.03553	1.3	0.08	0.00283	0.1	1.73	0.06195	2.1	0.70
Manganese	54.9	2	0.34	0.01227	0.8	0.00	1.8E-05	0.0	0.19	0.00703	0.3	0.06	0.00218	0.1	0.27	0.00968	0.3	0.15
Ammonia-N	14.0	1	0.03	0.00178	0.1	0.01	0.00036	0.0	0.01	0.00086	0.0	0.01	0.00036	0.0	0.02	0.00107	0.0	0.01
Total Cations (meq/L)				1.6			2.8			2.7			3.1			3.0		2.2
Anions																		
Alkalinity, Total			86			122			136			118			114			126
Carbonate	60.0	2	0.0662	0.00221	0.1	0.0785	0.00262	0.1	0.0875	0.00292	0.1	0.0795	0.00265	0.1	0.0768	0.00256	0.1	0.2335
Bicarbonate	61.0	1	104.30	1.70953	80.5	148.68	2.43701	81.5	165.74	2.71667	86.4	143.80	2.35699	70.7	138.92	2.2771	76.4	153.25
Chloride	35.5	1	3.5	0.09957	4.7	7.5	0.21183	7.1	3.1	0.088	2.8	5.1	0.14385	4.3	3.5	0.09957	3.3	4.7
Nitrate-N	14.0	1	0.01	0.00086	0.0	0.62	0.04426	1.5	0.01	0.00036	0.0	0.56	0.03969	1.2	0.01	0.00036	0.0	0.01
Sulfate	96.1	2	15.0	0.31231	14.7	14.2	0.29566	9.9	16.1	0.33522	10.7	38.0	0.79119	23.7	28.8	0.59964	20.1	13.5
Total Anions (meq/L)				2.1			3.0			3.1			3.3			3.0		2.9
Total Ions (meq/L)				3.8			5.8			5.9			6.4			6.0		5.2
Cation/Anion Ratio				0.77			0.95			0.87			0.92			1.00		0.76
Percent Difference				-13.3			-2.7			-7.0			-4.3			-0.1		-13.5
Trilinear Diagram Data																		
sum (Ca, Mg, Na+K)			1.60			2.83			2.69			3.05			2.90			2.21
Calcium				38.98			38.38			44.56			44.30			44.38		51.13
Magnesium				45.20			48.19			42.56			42.59			43.40		35.63
Sodium + Potassium				15.81			13.43			12.88			13.11			12.21		13.24
sum (SO ₄ , Cl, HCO ₃ +CO ₃)			2.12			2.95			3.14			3.29			2.98		2.93	
Sulfate				14.707			10.032			10.666			24.014			20.130		9.585
Chloride				4.689			7.188			2.800			4.366			3.342		4.492
Bicarbonate + Carbonate				80.605			82.780			86.534			71.620			76.528		85.923

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

Data Collected from April 1, 2012 to June 30, 2012

Site ID	Downgradient																				
	MW-75 4/20/2012			MW-80 4/23/2012			MW-87 4/20/2012			MW-85 4/30/2012			MW-91 4/10/2012			MW-74 4/20/2012					
	MW	n	mg/L	meq/L	%(meq)																
Cations																					
Calcium	40.1	2	22.8	1.13772	38.8	25.9	1.29242	46.6	36.5	1.82136	40.6	21.1	1.05289	42.1	20.6	1.02794	39.6	39.8	1.98603	39.2	
Magnesium	24.3	2	16.5	1.35775	46.3	13.0	1.06974	38.6	25.1	2.06542	46.1	13.4	1.10265	44.1	13.5	1.11088	42.8	30.4	2.50154	49.3	
Potassium	39.1	1	1.7	0.04425	1.5	1.6	0.04016	1.4	2.2	0.05525	1.2	1.5	0.03709	1.5	1.5	0.03913	1.5	2.0	0.05141	1.0	
Sodium	23.0	1	7.8	0.33841	11.5	6.9	0.30057	10.8	9.4	0.41018	9.1	7.1	0.3097	12.4	7.1	0.30883	11.9	12.2	0.53067	10.5	
Iron	55.8	2	1.35	0.04835	1.6	1.68	0.06016	2.2	3.25	0.11639	2.6	0.01	0.00018	0.0	2.70	0.09669	3.7	0.01	0.00018	0.0	
Manganese	54.9	2	0.12	0.00444	0.2	0.27	0.00994	0.4	0.37	0.01354	0.3	0.00	1.8E-05	0.0	0.27	0.00997	0.4	0.00	1.8E-05	0.0	
Ammonia-N	14.0	1	0.01	0.00036	0.0	0.01	0.00036	0.0	0.01	0.001	0.0	0.01	0.00036	0.0	0.05	0.00351	0.1	0.01	0.00036	0.0	
Total Cations (meq/L)				2.9			2.8			4.5			2.5			2.6			5.1		
Anions																					
Alkalinity, Total			98			89			87			92			88			213			
Carbonate	60.0	2	0.0644	0.00215	0.1	0.0824	0.00275	0.1	0.0324	0.00108	0.0	0.0637	0.00212	0.1	0.0374	0.00125	0.0	0.3947	0.01316	0.2	
Bicarbonate	61.0	1	119.06	1.95156	63.8	107.92	1.76899	63.5	106.44	1.74466	39.0	112.60	1.8456	68.3	107.16	1.75649	62.0	259.06	4.2462	80.0	
Chloride	35.5	1	7.7	0.21634	7.1	4.7	0.13313	4.8	4.5	0.12777	2.9	6.8	0.19152	7.1	8.4	0.23609	8.3	20.5	0.57823	10.9	
Nitrate-N	14.0	1	0.01	0.00036	0.0	0.01	0.00036	0.0	0.01	0.00036	0.0	0.12	0.00878	0.3	0.03	0.00243	0.1	0.48	0.03448	0.6	
Sulfate	96.1	2	42.6	0.88697	29.0	42.3	0.88072	31.6	125.0	2.60261	58.1	31.4	0.65377	24.2	40.2	0.837	29.5	20.9	0.43516	8.2	
Total Anions (meq/L)				3.1			2.8			4.5			2.7			2.8			5.3		
Total Ions (meq/L)				6.0			5.6			9.0			5.2			5.4			10.4		
Cation/Anion Ratio				0.96			1.00			1.00			0.93			0.92			0.96		
Percent Difference				-2.1			-0.2			0.1			-3.8			-4.4			-2.3		
Trilinear Diagram Data																					
sum (Ca, Mg, Na+K)			2.88			2.70			4.35			2.50			2.49			5.07			
Calcium				39.53			47.82			41.85			42.08			41.34			39.17		
Magnesium				47.17			39.58			47.46			44.06			44.67			49.34		
Sodium + Potassium				13.30			12.61			10.69			13.86			13.99			11.48		
sum (SO ₄ , Cl, HCO ₃ +CO ₃)			3.06			2.79			4.48			2.69			2.83			5.27			
Sulfate				29.014			31.617			58.144			24.277			29.567			8.253		
Chloride				7.077			4.779			2.855			7.112			8.340			10.966		
Bicarbonate + Carbonate				63.909			63.604			39.001			68.612			62.093			80.781		

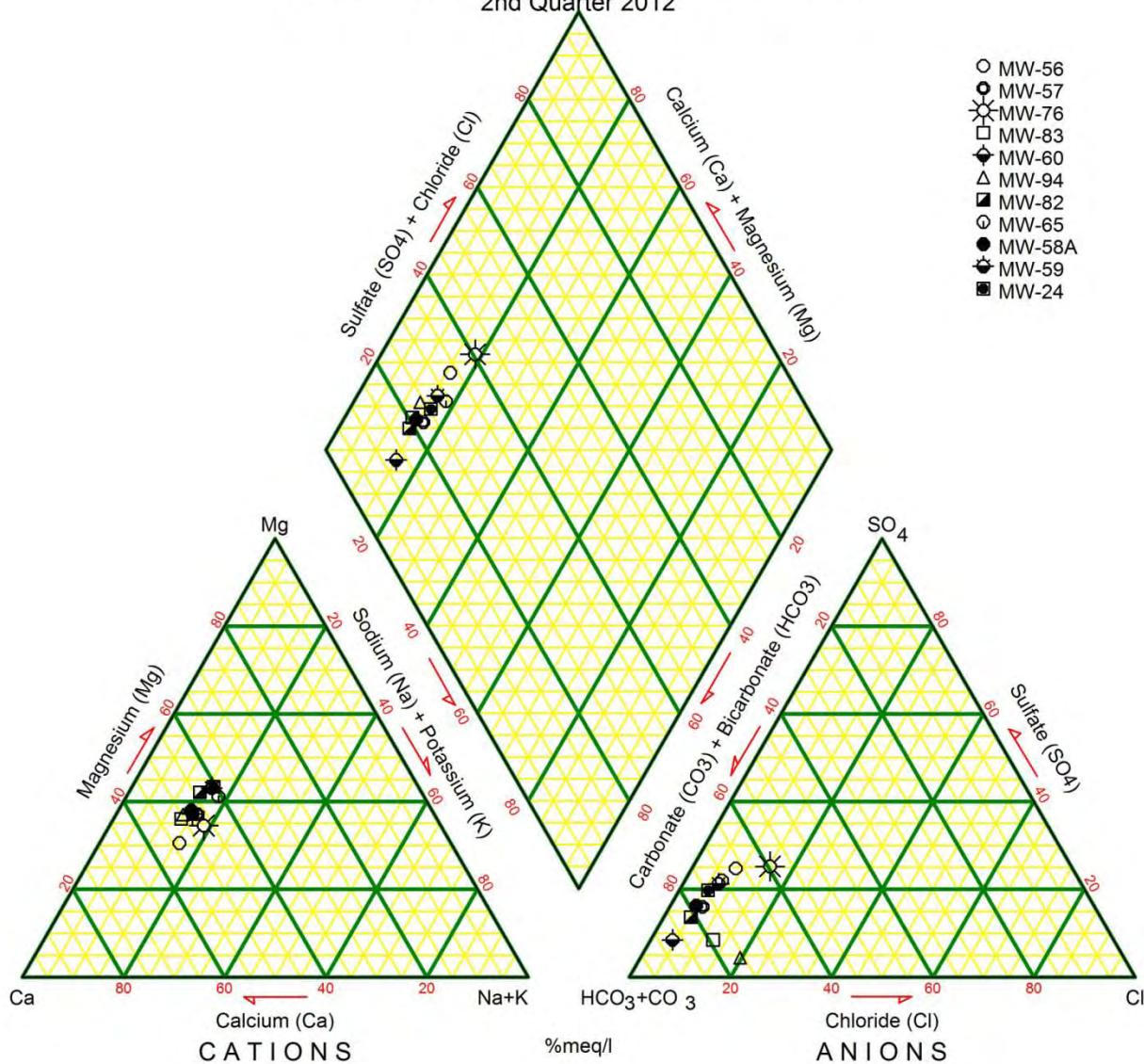
Table 4
Ion Balance Calculations
Cedar Hills Landfill Regional Aquifer Groundwater Monitoring Wells

Data Collected from April 1, 2012 to June 30, 2012

Site ID		MW	n	Downgradient											
				MW-86 4/30/2012			MW-88 4/17/2012			MW-89 4/10/2012			MW-90 4/9/2012		
				mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)
Cations															
Calcium	40.1	2	11.8	0.58882	40.8	9.0	0.44711	36.2	12.7	0.63373	34.5	15.6	0.77844	41.6	12.2
Magnesium	24.3	2	7.2	0.59165	41.0	6.5	0.53158	43.0	9.4	0.77186	42.0	9.2	0.75293	40.3	8.5
Potassium	39.1	1	1.1	0.02737	1.9	0.8	0.02108	1.7	1.3	0.03402	1.9	1.2	0.03069	1.6	1.2
Sodium	23.0	1	5.2	0.22532	15.6	5.4	0.23619	19.1	8.2	0.35842	19.5	5.9	0.25707	13.8	5.9
Iron	55.8	2	0.28	0.01003	0.7	0.01	0.00018	0.0	0.81	0.02897	1.6	1.10	0.03939	2.1	0.87
Manganese	54.9	2	0.01	0.00022	0.0	0.00	1.8E-05	0.0	0.24	0.00877	0.5	0.27	0.00968	0.5	0.21
Ammonia-N	14.0	1	0.01	0.00036	0.0	0.01	0.00036	0.0	0.02	0.00121	0.1	0.01	0.001	0.1	0.02
Total Cations (meq/L)				1.4			1.2			1.8			1.9		1.6
Anions															
Alkalinity, Total				65		53		76		69		71			
Carbonate	60.0	2	0.02645	0.00088	0.0	0.05947	0.00198	0.2	0.09713	0.00324	0.2	0.0544	0.00181	0.1	0.05998
Bicarbonate	61.0	1	79.37	1.30092	73.3	64.78	1.06186	81.5	92.16	1.51053	73.3	83.70	1.37198	67.2	86.13
Chloride	35.5	1	4.1	0.11508	6.5	2.4	0.06713	5.2	7.0	0.19716	9.6	3.7	0.10521	5.2	3.1
Nitrate-N	14.0	1	0.32	0.02299	1.3	0.48	0.03398	2.6	0.01	0.00036	0.0	0.01	0.00036	0.0	0.01
Sulfate	96.1	2	16.1	0.33522	18.9	6.6	0.13783	10.6	16.8	0.34979	17.0	27.0	0.56216	27.5	13.5
Total Anions (meq/L)				1.8		1.3		2.1			2.0			1.8	
Total Ions (meq/L)				3.2		2.5		3.9			3.9			3.4	
Cation/Anion Ratio				0.81		0.95		0.89			0.92			0.92	
Percent Difference				-10.3		-2.6		-5.7			-4.4			-4.2	
Trilinear Diagram Data															
sum (Ca, Mg, Na+K)				1.43		1.24		1.80			1.82			1.60	
Calcium					41.09		36.18		35.25			42.79			38.09
Magnesium					41.28		43.01		42.93			41.39			43.87
Sodium + Potassium					17.63		20.82		21.83			15.82			18.03
sum (SO ₄ , Cl, HCO ₃ +CO ₃)				1.75		1.27		2.06			2.04			1.78	
Sulfate					19.132		10.863		16.974			27.541			15.768
Chloride					6.568		5.291		9.568			5.154			4.921
Bicarbonate + Carbonate					74.300		83.846		73.458			67.304			79.311

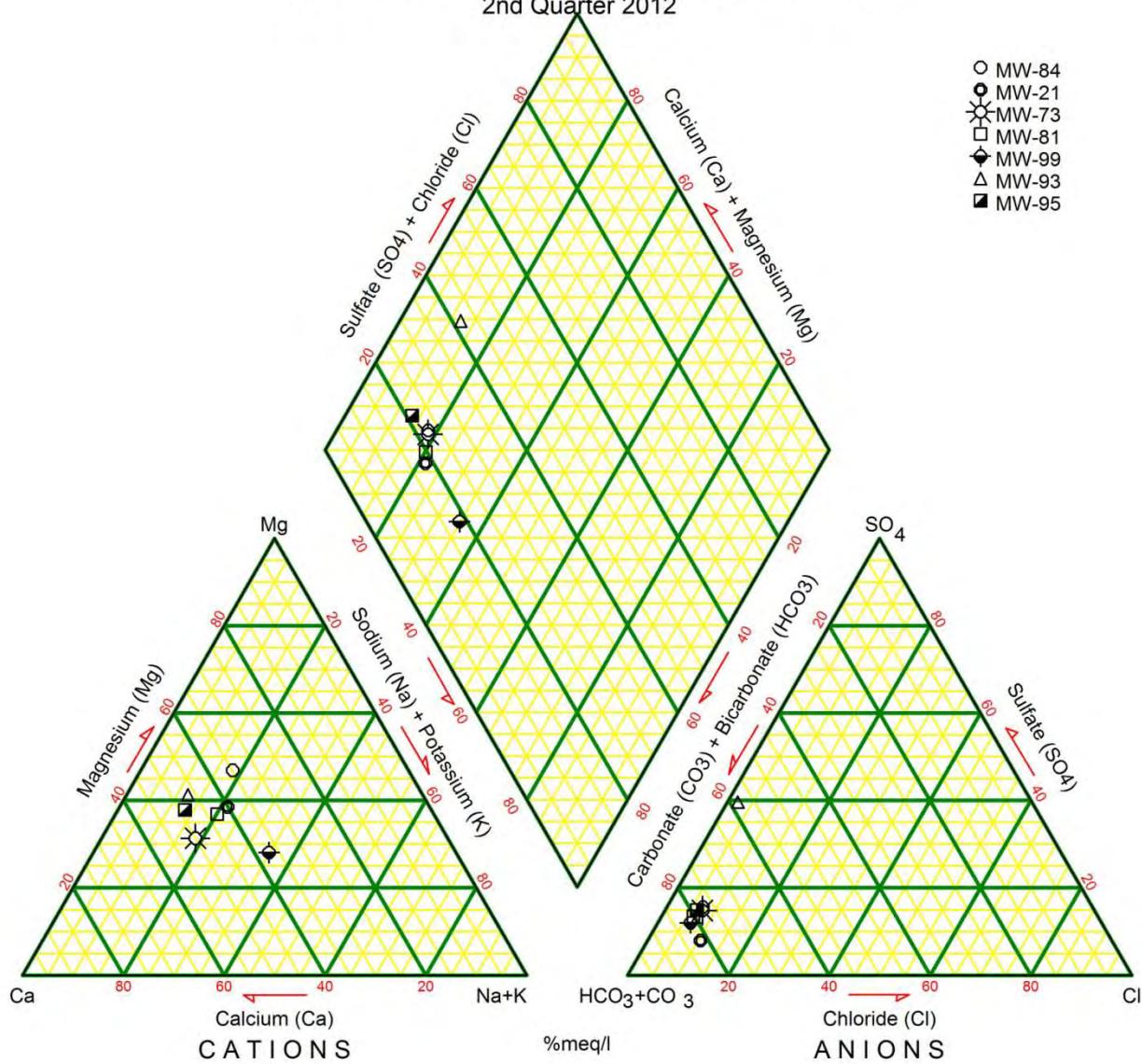
Cedar Hills Regional Landfill

Figure 2. Regional Aquifer Southern Upgradient Wells
2nd Quarter 2012



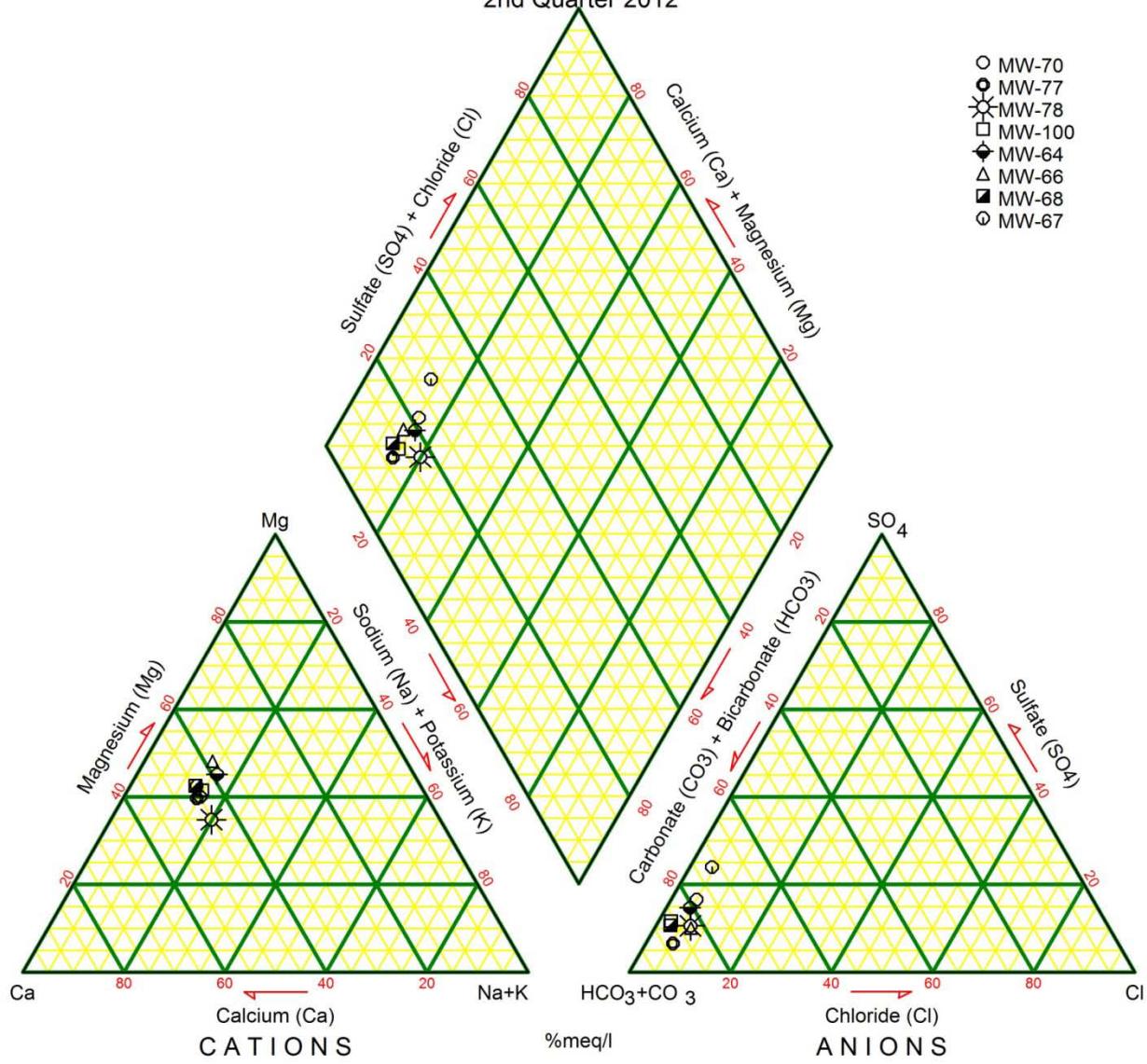
Cedar Hills Regional Landfill

Figure 3. Regional Aquifer NE and NW Upgradient Wells
2nd Quarter 2012



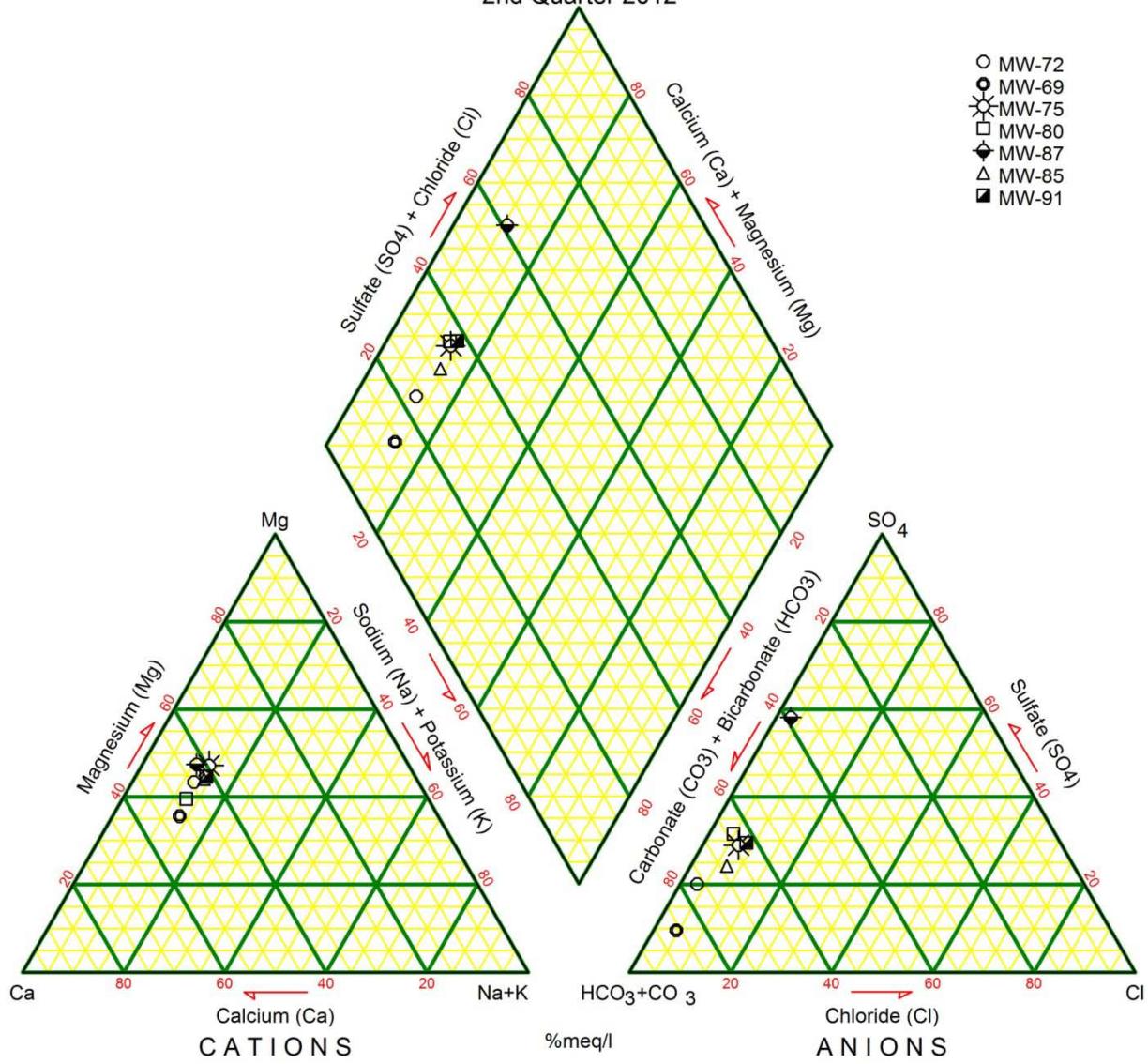
Cedar Hills Regional Landfill

Figure 4. Regional Aquifer Interior and Vertical to Facilities
2nd Quarter 2012



Cedar Hills Regional Landfill

Figure 5. Regional Aquifer Downgradient Wells
2nd Quarter 2012



Cedar Hills Regional Landfill

Figure 6. Regional Aquifer Downgradient Wells
2nd Quarter 2012

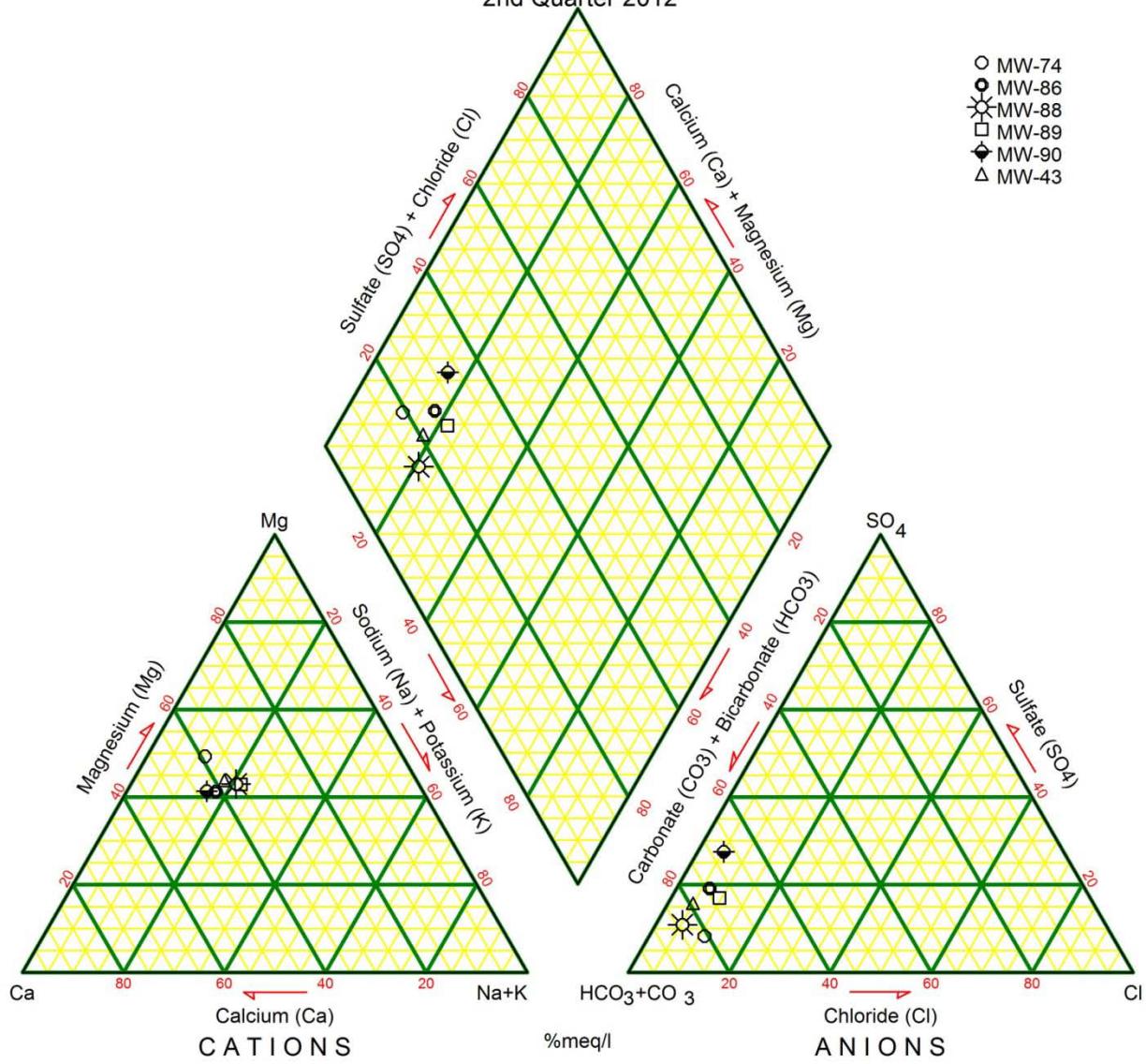


TABLE 5
CEDAR HILLS REGIONAL LANDFILL REGIONAL AQUIFER
SUMMARY OF WAC 173-351 APPENDIX I INTRAWELL PREDICTION LIMIT EXCEEDANCES
 (Data Collected from April 1, 2012 to June 30, 2012)

Parameter	Units	Well ID	Sample Date	Sample Value	Intrawell Limit Value
Upgradient Wells					
NO PREDICTION LIMIT EXCEEDANCES THIS QUARTER					
Downgradient Wells					
NO PREDICTION LIMIT EXCEEDANCES THIS QUARTER					

TABLE 6
CEDAR HILLS REGIONAL LANDFILL
VOLATILE ORGANIC COMPOUND DETECTIONS IN REGIONAL AQUIFER WELLS
(Data Collected from April 1, 2012 to June 30, 2012)

Analyte	Site ID	Date	Sample ID	µg/L
Upgradient Wells				
Acetone	MW-59	4/24/2012	W59-120424-	4.59 BL
	MW-77	4/23/2012	W77-120423-	4 BLT
	MW-81	4/20/2012	W81-120420-	4.06 BL
	MW-99	4/20/2012	W99-120420-	4.32 BL
cis-1,2-Dichloroethene	MW-24	4/3/2012	W24-120403-	0.26 T
	MW-56	4/10/2012	W56-120410-	0.692
	MW-59	4/24/2012	W59-120424-	0.656
	MW-76	4/16/2012	W76-120416-	1.01
Tetrachloroethene	MW-76	4/16/2012	W76-120416-	0.457
Trichloroethene	MW-76	4/16/2012	W76-120416-	11.5
	MW-78	4/6/2012	W78-120406-	0.591
	MW-82	4/18/2012	W82-120418-	4.14
	MW-83	4/18/2012	W83-120418-	1.68
	MW-94	4/24/2012	W94-120424-	2.31
Vinyl Chloride	MW-65	4/16/2012	W65-120416-	0.0365
Downgradient Wells				
Acetone	MW-74	6/22/2012	W74R120622-	8.09
	MW-75	4/20/2012	W75-120420-	4.32 BL
	MW-75	5/17/2012	W75-120517-	13.1
	MW-87	5/18/2012	W87-120518-	4.82 L
Choloform	MW-74	6/22/2012	W74R120622-	0.22 T

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 April 1, 2012 to June 30, 2012)

Parameter	Units	Well ID	Sample Date	Sample ID	Sample Value
Perched Wells					
pH (field)	(pH units)	MW-28	4/9/12	W28-120409-	5.6
		MW-29	4/4/12	W29-120404-	6.28
		MW-30A	4/3/12	W30A120403-	6.38
		MW-62	4/3/12	W62-120403-	6.34
		MW-EB6	4/6/12	WB6-120406-	6.16
1,1-Dichloroethane	(µg/L)	MW-30A	4/3/12	W30A120403-	2.26
		MW-62	4/3/12	W62-120403-	1.35
Arsenic	(mg/L)	MW-27A	4/3/2012	W27A120403-	0.0157
		MW-101	4/9/2012	W101120409-	0.00568
		MW-EB6	4/6/2012	WB6-120406-	0.00106
Iron	(mg/L)	MW-47	4/5/12	W47-120405-	0.555
		MW-EB6	4/6/12	WB6-120406-	1.97
Manganese	(mg/L)	MW-27A	4/3/2012	W27A120403	0.0522
		MW-47	4/5/2012	W47-120405-	1.4
		MW-55	4/6/2012	W55-120406-	0.142
		MW-101	4/9/2012	W101120409-	1.32
		MW-EB6	4/6/2012	WB6-230406-	0.783
Total Dissolved Solids	(mg/L)	MW-47	4/5/12	W47-120405-	657
Vinyl Chloride	(mg/L)	MW-47	4/5/2012	W47-120405-	6.15
		MW-101	4/9/2012	W101120409-	0.432

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

Data Collected from April 1, 2012 to June 30, 2012

Site ID Date	MW	n	North and West Perched Wells												
			MW-27A			MW-28			MW-29			MW-55			
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	19.8	0.98802	54.4	9.0	0.44711	49.2	6.1	0.30339	47.7	26.8	1.33733	40.6	
Magnesium	24.3	2	5.4	0.44518	24.5	2.2	0.1835	20.2	1.5	0.12261	19.3	15.0	1.23431	37.5	
Potassium	39.1	1	3.5	0.08977	4.9	0.9	0.02202	2.4	0.5	0.01228	1.9	1.7	0.04348	1.3	
Sodium	23.0	1	6.5	0.28056	15.4	5.9	0.25577	28.1	4.5	0.19704	31.0	15.5	0.67421	20.5	
Iron	55.8	2	0.0	0.00036	0.0	0.0	0.00036	0.0	0.0	0.00036	0.1	0.0	0.00036	0.0	
Manganese	54.9	2	0.1	0.0019	0.1	0.0	3.6E-05	0.0	0.0	3.6E-05	0.0	0.0	3.6E-05	0.0	
Ammonia-N	14.0	1	0.2	0.01157	0.6	0.0	0.00071	0.1	0.0	0.00071	0.1	0.0	0.00071	0.0	
Total Cations (meq/L)			1.8		0.9			0.6				3.3			
Anions															
Alkalinity, Total			81		30.7		26.4		175						
Carbonate	60.0	2	0.23655	0.00789	0.4	0.00074	2.5E-05	0.0	0.00302	0.0001	0.0	0.02524	0.00084	0.0	
Bicarbonate	61.0	1	97.97	1.60587	79.7	37.45	0.61388	57.8	32.20	0.52782	69.9	213.45	3.49863	93.0	
Chloride	35.5	1	5.7	0.16021	8.0	3.6	0.10098	9.5	3.2	0.09139	12.1	1.7	0.04654	1.2	
Nitrate-N	14.0	1	0.2	0.01521	0.8	0.5	0.03655	3.4	1.3	0.09281	12.3	0.5	0.03256	0.9	
Sulfate	96.1	2	10.8	0.22487	11.2	14.9	0.31023	29.2	2.0	0.04247	5.6	8.8	0.18406	4.9	
Total Anions (meq/L)			2.0		1.1			0.8				3.8			
Total Ions (meq/L)			3.8		2.0			1.4				7.1			
Cation/Anion Ratio			0.90		0.86			0.84				0.87			
Percent Difference			-5.1		-7.7			-8.5				-6.7			
TRILINEAR DIAGRAM DATA															
sum (Ca, Mg, Na+K)			1.80		0.91		0.64		3.29						
Calcium			54.8		49.2		47.8		40.7						
Magnesium			24.7		20.2		19.3		37.5						
Sodium + Potassium			20.5		30.6		32.9		21.8						
sum (SO ₄ , Cl, HCO ₃ +CO ₃)			2.00		1.03		0.66		3.73						
Sulfate			11.2		30.3		6.4		4.9						
Chloride			8.0		9.9		13.8		1.2						
Bicarbonate + Carbonate			80.7		59.9		79.8		93.8						

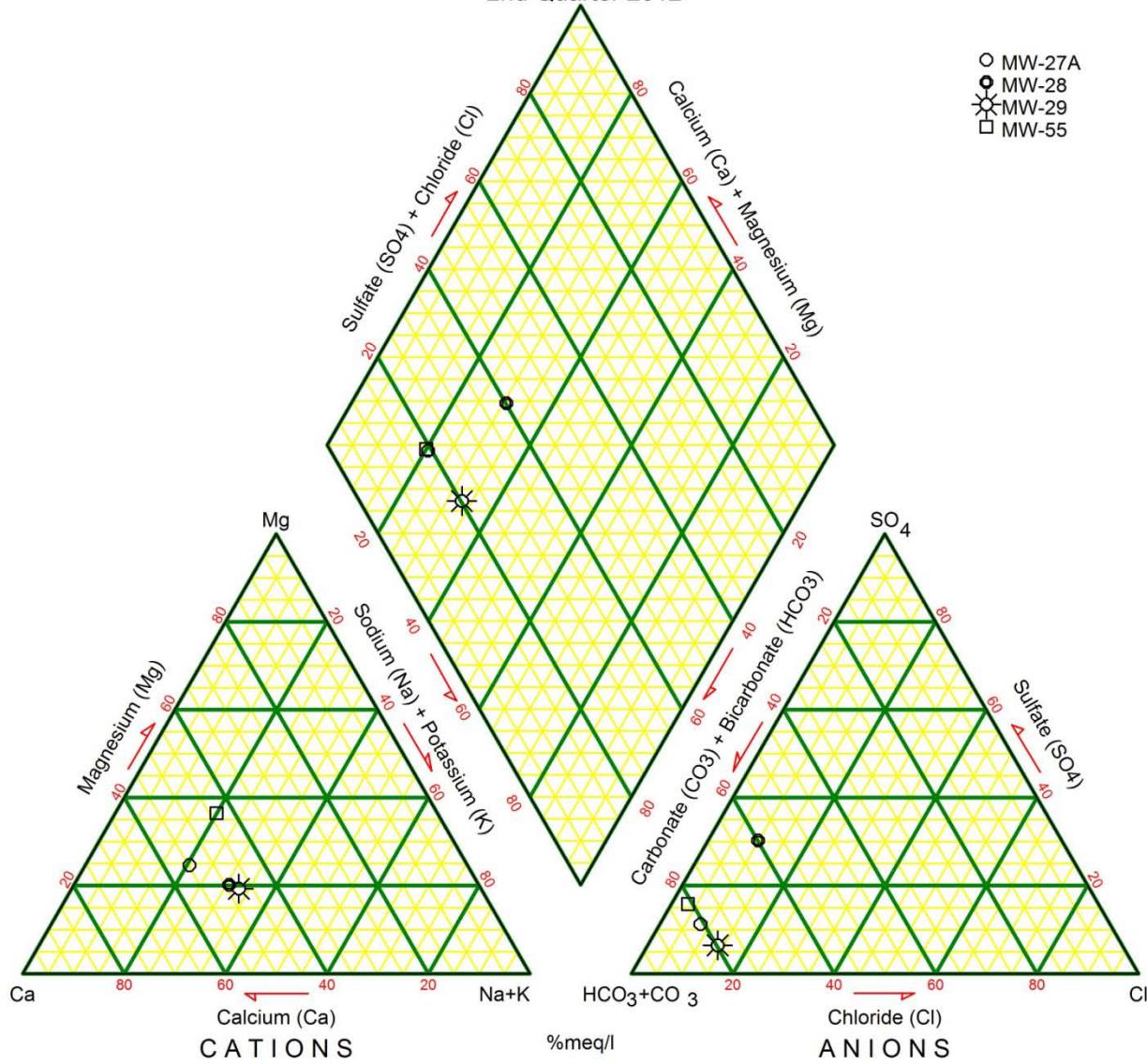
Table 8**Ion Balance Calculations****Cedar Hills Landfill Perched Zones GW Monitoring Wells**

Data Collected from April 1, 2012 to June 30, 2012

Site ID Date	MW	n	East Perched Zone												SSWA			
			MW-30A			MW-47			MW-62			MW-EB6			MW-101			
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)	mg/L	meq/L	%(meq)
Calcium	40.1	2	127.0	6.33733	52.8	11.6	0.57884	43.0	18.5	0.92315	47.0	11.4	0.56886	31.0	64.1	3.1986	45.0	
Magnesium	24.3	2	57.9	4.76445	39.7	5.9	0.48467	36.0	5.3	0.43448	22.1	5.9	0.48632	26.5	37.8	3.11047	43.8	
Potassium	39.1	1	4.6	0.11765	1.0	1.6	0.04016	3.0	1.0	0.02466	1.3	1.6	0.04195	2.3	2.9	0.07315	1.0	
Sodium	23.0	1	16.5	0.71771	6.0	5.2	0.22532	16.7	13.3	0.57852	29.5	11.1	0.48282	26.3	15.2	0.66116	9.3	
Iron	55.8	2	0.6	0.01988	0.2	0.2	0.00745	0.6	0.0	0.00064	0.0	2.0	0.07055	3.8	0.3	0.00992	0.1	
Manganese	54.9	2	1.4	0.05097	0.4	0.1	0.00517	0.4	0.0	3.6E-05	0.0	0.8	0.0285	1.6	1.3	0.04805	0.7	
Ammonia-N	14.0	1	0.1	0.00367	0.0	0.1	0.00389	0.3	0.0	0.00071	0.0	2.2	0.15492	8.4	0.0	0.00156	0.0	
Total Cations (meq/L)			12.0			1.3			2.0			1.8			7.1			
Anions																		
Alkalinity, Total			666		62.4		74.3		86.5			389						
Carbonate	60.0	2	0.38216	0.01274	0.1	0.26381	0.00879	0.6	0.00977	0.00033	0.0	0.00752	0.00025	0.0	0.28747	0.00958	0.1	
Bicarbonate	61.0	1	811.74	13.3053	97.4	75.59	1.23902	80.3	90.63	1.48545	68.7	105.51	1.72949	97.1	474.00	7.76925	96.7	
Chloride	35.5	1	6.8	0.19237	1.4	1.8	0.05049	3.3	5.4	0.1509	7.0	1.5	0.04344	2.4	5.1	0.14498	1.8	
Nitrate-N	14.0	1	0.0	0.00071	0.0	0.0	0.00071	0.0	3.0	0.21632	10.0	0.0	0.00257	0.1	0.0	0.00071	0.0	
Sulfate	96.1	2	7.2	0.14949	1.1	11.7	0.2436	15.8	14.8	0.30815	14.3	0.3	0.00631	0.4	5.5	0.11347	1.4	
Total Anions (meq/L)			13.7			1.5			2.2			1.8			8.0			
Total Ions (meq/L)			25.7			2.9			4.1			3.6			15.1			
Cation/Anion Ratio			0.88			0.87			0.91			1.03			0.88			
Percent Difference			-6.4			-6.8			-4.8			1.4			-6			
TRILINEAR DIAGRAM DATA																		
sum (Ca, Mg, Na+K)			11.94			1.33			1.96			1.58			7.04			
Calcium				53.1			43.6			47.08			36.01			45.41		
Magnesium				39.9			36.5			22.16			30.78			44.16		
Sodium + Potassium				7.0			20.0			30.76			33.21			10.43		
sum (SO ₄ , Cl, HCO ₃ +CO ₃)			13.66			1.54			1.94			1.78			8.04			
Sulfate				1.1			15.8			15.8			0.4			1.4		
Chloride				1.4			3.3			7.8			2.4			1.8		
Bicarbonate + Carbonate				97.5			80.9			76.4			97.2			96.8		

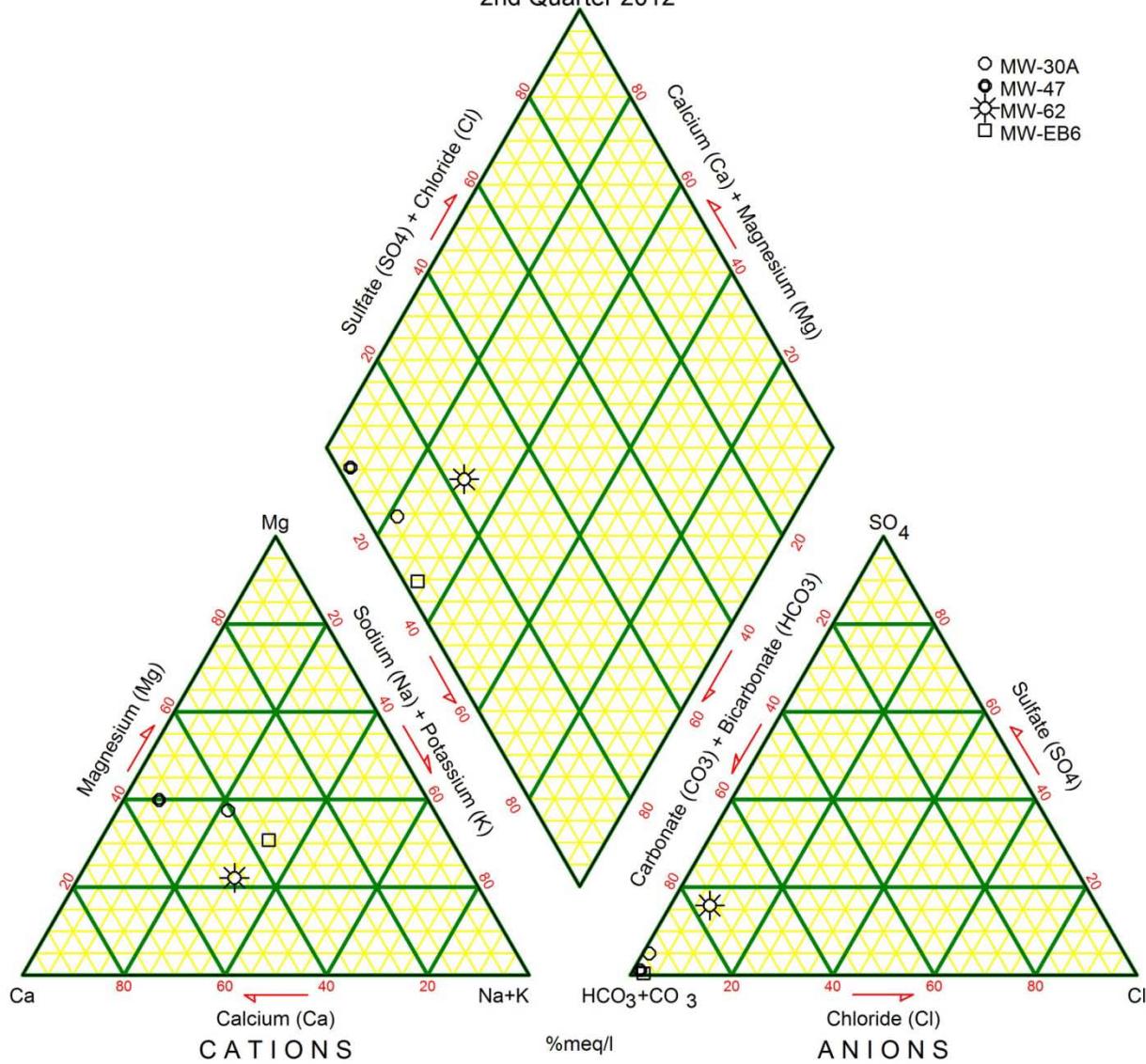
Cedar Hills Regional Landfill

Figure 7. North and West Perched Zone Wells
2nd Quarter 2012



Cedar Hills Regional Landfill

Figure 8. East Perched Zone Wells
2nd Quarter 2012



Cedar Hills Regional Landfill

Figure 9. SSWA Perched Zone Wells
2nd Quarter 2012

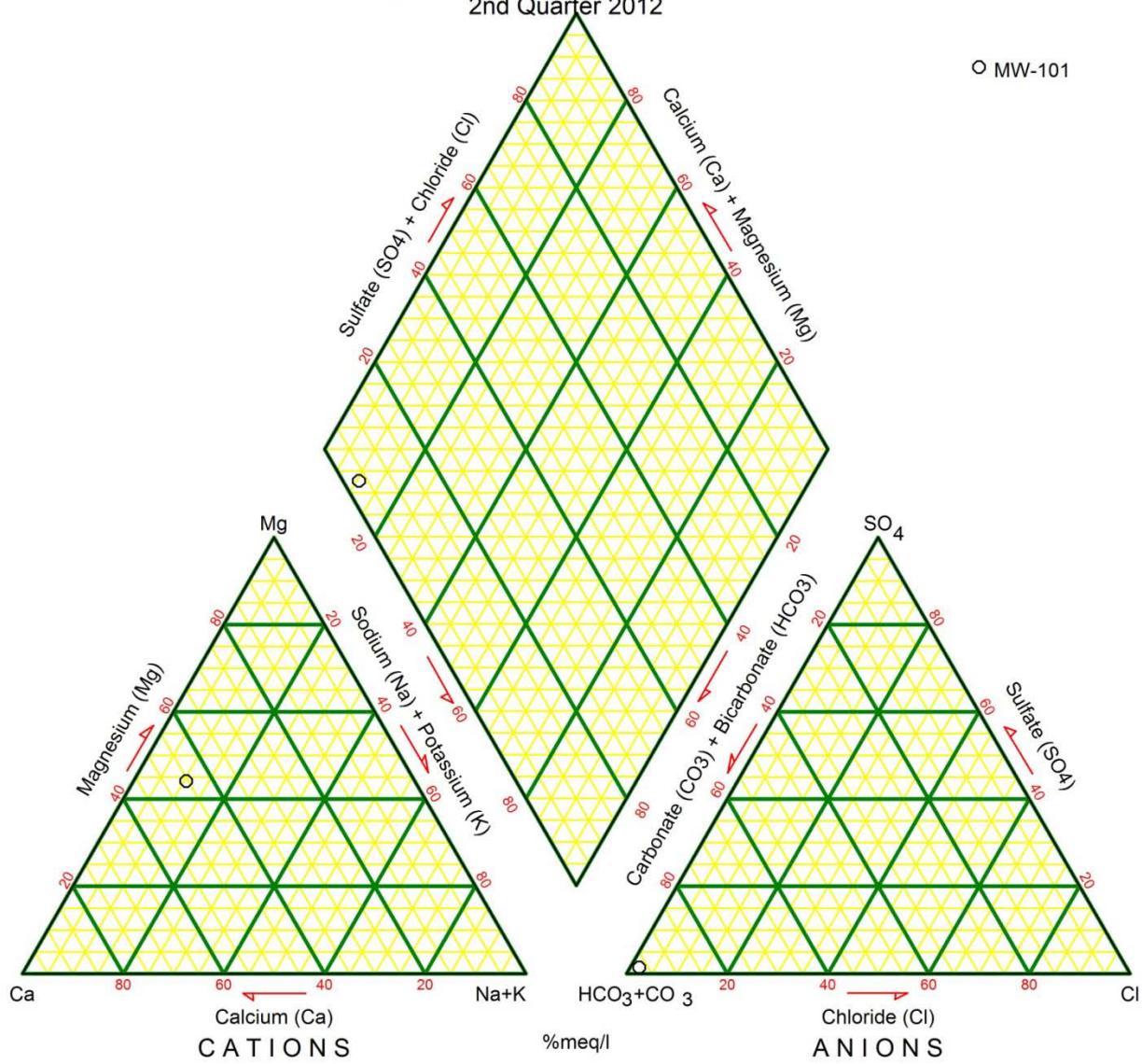


TABLE 9
CEDAR HILLS REGIONAL LANDFILL PERCHED ZONES
SUMMARY OF WAC 173-351 APPENDIX I INTRAWELL PREDICTION LIMIT EXCEEDANCES
(Data Collected from April 1, 2012 to June 30, 2012)

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 April 1, 2012 to June 30, 2012)

Analyte	Site ID	Date	Sample ID	ug/L
Perched Wells				
Acetone	MW-101	4/9/2012	W101120409-	8.29
Chloroethane	MW-47	4/5/2012	W47-120405-	0.25 T
	MW-101	4/9/2012	W101120409-	0.21 T
1,1-Dichloroethane	MW-30A	4/3/2012	W30A120403-	2.26
	MW-47	4/5/2012	W47-120405-	0.473
	MW-62	4/3/2012	W62-120403-	1.35
cis-1,2-Dichloroethene	MW-30A	4/3/2012	W30A120403-	3.04
	MW-47	4/5/2012	W47-120405-	1.28
	MW-62	4/3/2012	W62-120403-	2.66
Dichlorodifluoromethane	MW-47	4/5/2012	W47-120405-	6.96
Methylene Chloride	MW-101	4/9/2012	W101120409-	0.21 T
Toluene	MW-62	4/3/2012	W62-120403-	0.518
	MW-EB6	4/6/2012	WB6-120406-	1.01
Trichloroethene	MW-30A	4/3/2012	W30A120403-	1.31
Vinyl Chloride	MW-47	4/5/2012	W47-120405-	6.15
	MW-101	4/9/2012	W101120409-	0.432

See Data Qualifier List for Qualifier Information.

Table 11
Surface Water Monitoring Activities 2nd Quarter 2012

Station ID	Date	Planned Activity	Sample ID	Comment
E1	4/18/12	Quarterly Characterization Sample	SE1-120418Q	
E1	5/23/12	Monthly Characterization Sample	SE1-120523M	
E1	6/18/12	Monthly Characterization Sample	SE1-120618M	
GS1	4/16/12	NPDES Permit Sample	SGS1120416P	
GS1	4/16/12	Quarterly Characterization Sample	SGS1120416Q	
GS1	5/22/12	Monthly Characterization Sample	SGS1120522M	
GS1	6/18/12	Monthly Characterization Sample	SGS1120618M	
LP1	4/19/12	QA/QC Sample	SLP1120419D	Field Duplicate
LP1	4/19/12	South Lagoon Inlet Characterization	SLP1120419P	
LP1	5/24/12	South Lagoon Inlet Characterization	SLP1120524P	
LP1	6/19/12	South Lagoon Inlet Characterization	SLP1120619P	
LP2	4/19/12	South Lagoon Inlet Characterization	SLP2120419P	
LP2	5/24/12	South Lagoon Inlet Characterization	SLP2120524P	
LP2	6/19/12	South Lagoon Inlet Characterization	SLP2120619P	
LP3	4/19/12	South Lagoon Outlet Characterization	NA	No Flow; No Sample
LP3	5/24/12	South Lagoon Outlet Characterization	SLP3120524P	
LP3	6/19/12	South Lagoon Outlet Characterization	SLP3120619P	
MC	4/19/12	Quarterly Characterization Sample	SMC-120419Q	
MC	5/24/12	Monthly Characterization Sample	SMC-120524M	
MC	6/19/12	Monthly Characterization Sample	SMC-120619M	
N1	4/18/12	Quarterly Characterization Sample	SN1-120418Q	
N1	5/23/12	Monthly Characterization Sample	SN1-120523M	
N1	6/18/12	Monthly Characterization Sample	SN1-120618M	
N4	4/16/12	NPDES Permit Sample	SN4-120416P	
N4	4/18/12	Quarterly Characterization Sample	SN4-120418Q	
N4	5/23/12	Monthly Characterization Sample	SN4-120523M	
N4	6/18/12	Monthly Characterization Sample	SN4-120618M	
S1	4/17/12	Quarterly Characterization Sample	SS1-120417Q	
S1	4/26/12	Monthly Characterization Sample	SS1-120426M	
S1	5/22/12	Monthly Characterization Sample	SS1-120522M	
S1	6/18/12	Monthly Characterization Sample	SS1-120618M	
S2	4/17/12	Quarterly Characterization Sample	SS2-120417Q	
S2	5/22/12	Monthly Characterization Sample	SS2-120512M	
S2	6/18/12	QA/QC Sample	SS2-120618D	Field Duplicate
S2	6/18/12	Monthly Characterization Sample	SS2-120618M	
S3	5/25/12	Quarterly Characterization Sample	SS3-120525Q	
S3	6/18/12	Quarterly Characterization Sample	SS3-120618Q	
SL3	4/16/12	NPDES Permit Sample	SSL3120416P	
SL3	4/16/12	Quarterly Characterization Sample	SSL3120416Q	
SL3	4/19/12	NPDES Permit Sample	SSL3120419P	
SL3	5/22/12	Monthly Characterization Sample	SSL3120522M	
SL3	5/24/12	NPDES Permit Sample	SSL3120524P	
SL3	6/18/12	Monthly Characterization Sample	SSL3120618M	
SL3	6/19/12	QA/QC Sample	SSL3120619D	Field Duplicate
SL3	6/19/12	NPDES Permit Sample	SSL3120619P	
TD1	4/16/12	Area 5 Top Deck Monitoring	STD1120416-	
TD2	4/26/12	Area 5 Top Deck Monitoring	STD2120426-	
TD4	4/16/12	Area 5 Top Deck Monitoring	STD4120416-	
TD6	4/18/12	Area 5 Top Deck Monitoring	STD6120418-	
V	4/18/12	Quarterly Characterization Sample	SV--120418Q	

Table 11
Surface Water Monitoring Activities 2nd Quarter 2012

Station ID	Date	Planned Activity	Sample ID	Comment
V	6/18/12	Quarterly Characterization Sample	NA	No Flow; No Sample
W	4/19/12	Quarterly Characterization Sample	SW-120419Q	
W	5/24/12	Monthly Characterization Sample	SW-120524M	
W	6/19/12	Quarterly Characterization Sample	NA	No Flow; No Sample
W1	4/18/12	Quarterly Characterization Sample	SW1-120418Q	
W1	5/23/12	Monthly Characterization Sample	SW1-120523M	
W1	6/18/12	Monthly Characterization Sample	SW1-120618M	
W2	4/17/12	Quarterly Characterization Sample	SW2-120417Q	
W2	5/22/12	Monthly Characterization Sample	SW2-120522M	
W2	6/18/12	Monthly Characterization Sample	SW2-120618M	
Field Blank	4/17/12	QA/QC Sample	SGS1120417F	
Field Blank	5/23/12	QA/QC Sample	SW1-120523F	

TABLE 12
CEDAR HILLS LANDFILL
SUMMARY OF STORMWATER PERMIT EXCEEDANCES
(April 1, 2012 to June 30, 2012)

Parameter	Sampling Location	Day/Month	Value	Regulatory Limit	Regulation
TSS (mg/L)	SW-GS1	April	38.25	27	ISGP

ISGP - Industrial General Stormwater Permit

TABLE 13
CEDAR HILLS REGIONAL LANDFILL
VOLATILE ORGANIC COMPOUND DETECTIONS IN BLANKS
(Data Collected from April 1, 2012 to June 30, 2012)

Analyte	Site ID	Date	Sample ID	µg/L
Acetone	VOA Trip Blank	4/3/2012	VTRP120404B	8.38
	VOA Trip Blank	4/3/2012	VTRP120404C	9.59
	VOA Trip Blank	4/4/2012	VTRP120405B	4.3
	VOA Trip Blank	4/9/2012	VTRP120410C	5.06
	VOA Trip Blank	4/17/2012	VTRP120420C	4.22 BL
	VOA Trip Blank	4/19/2012	VTRP120423C	4.81 BL
	VOA Trip Blank	5/2/2012	VTRP120502C	5.59
	VOA Trip Blank	5/16/2012	VTRP120517B	4.92
	VOA Trip Blank	6/12/2012	VTRP120613B	4.28 B
	Method Blank	4/23/2012	WG120771-1	4.11
	Field Blank	4/3/2012	W27A120403F	5.72
	Field Blank	6/22/2012	W74R120622F	4 T
Chloroform	Field Blank	4/3/2012	W27A120403F	0.48
	Field Blank	04/09/12	W101120409F	0.555
	Field Blank	04/24/12	W59-120424F	0.449

See Data Qualifier List for Qualifier Information.

Table 14
Groundwater Quality Criteria

Analyte	CAS No.	Ground Water Quality Criteria 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	0.0000006 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 analine	95-69-2	0.1 ug/L
4-Chloro-2-methyl analine 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
Benzotrichloride	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
Chlorthalanol	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	0.000001	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
u g/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 April 1, 2012 to June 30, 2012)

Parameter	Units	Well ID	Sample Date	Sample ID	Sample Value	Cause of Unuseability
Acetone	ug/L	MW-59	04/24/12	W59-120424-	4.59 BL	Blank Contamination
	ug/L	MW-77	04/23/12	W77-120423-	4 BLT	Blank Contamination
	ug/L	MW-81	04/20/12	W81-120420-	4.06 BL	Blank Contamination
	ug/L	MW-99	04/20/12	W99-120420-	4.32 BL	Blank Contamination
Methylene Chloride	ug/L	MW-101	04/09/12	W101120409-	0.21 T	Blank Contamination

See Data Qualifier List for Qualifier Information.

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
206.296.6519 Fax 206.296.0192

Memorandum

To: Tom Theno
King County Solid Waste Division

From: Sevin Bilir
King County Water & Land Resources Division

Re: **Potentiometric Groundwater Surface Mapping & Groundwater Velocity Calculations**
Second Quarter 2012 Results
Cedar Hills Landfill, King County, Washington
Project No. 1033379 – Task 02.14.137.20

Date: July 31, 2012

King County Water & Land Resources Division (KCWLRD) submits this letter report on groundwater conditions during the second quarter of 2012 for the Cedar Hills Landfill (landfill), in accordance with the *Proposal for Potentiometric Groundwater Surface Maps & Groundwater Velocity Calculations* (KCWLRD, 2011). King County Solid Waste Division (KCSWD) personnel measured groundwater elevations at the landfill on April 2, 2012. These measurements were received by KCWLRD on June 18, 2012 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 first quarter of the 2011 monitoring event.

Groundwater Elevation Data

KCSWD attempted groundwater level measurements at 44 monitoring wells during the second quarter of 2012. 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. Well MW-68 was not measured due to a broken meter at the time of measurement. 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 April 4, 2012 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 April 2, 2012 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-northeast and northeast.

Groundwater Parameters

Horizontal groundwater velocity was calculated using the following formula:

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

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

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 second quarter 2012 data. The hydraulic gradient was greatest under the southern portion of the landfill and smallest under the northern portion. On April 2, 2012, average horizontal groundwater velocity within the regional aquifer ranged from 0.011 feet per day (ft/d) under the southern portion of the landfill to 2 ft/d under the central portion of the landfill.

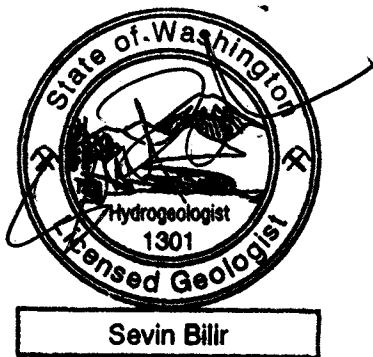
References

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 (KCWLRD). 2012. *Proposal for Potentiometric Groundwater Surface Maps & Groundwater Velocity Calculations*. Unpublished.

Thank you for the opportunity to provide hydrogeologic services to the KCSWD. Please contact me if you have any questions.

Sincerely,



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

Attachments

- Table 1: Groundwater Elevations - Second Quarter 2012
- Table 2: Groundwater Parameters - Second Quarter 2012
- Figure 1: Groundwater Potentiometric Surface Map - Second Quarter 2012 – Regional Aquifer

Table 1: Groundwater Elevations – Second Quarter 2012

Cedar Hills 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)	April 2, 2012	
							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	224.17	342.98
	MW-64	1701980.27	168772.19	596.55	334.03	320.23	266.37	330.18
	MW-66	1699750.19	174250.32	531.28	294.39	280.59	239.17	292.11
	MW-67	1701776.69	172610.65	516.43	297.80	284.00	222.17	294.26
	MW-69	1698061.86	172400.20	653.69	293.57	279.97	358.37	295.32
	MW-70	1698412.97	168699.89	530.57	322.75	309.05	206.12	324.45
	MW-72	1698229.92	170987.71	671.87	303.63	294.03	363.48	308.39
	MW-73	1698954.95	174995.59	485.70	288.11	278.81	191.38	294.32
	MW-74R	1700386.85	173813.79	531.26	289.90	280.40	241.20	290.06
	MW-76	1700376.23	167193.13	491.71	351.06	341.56	131.74	359.97
	MW-77	1700007.63	168999.71	552.67	320.47	310.97	227.71	324.96
	MW-78	1698881.94	169027.58	537.35	322.34	309.84	213.52	323.83
	MW-80	1701309.78	172964.99	530.41	279.17	269.67	240.49	289.92
	MW-81	1702568.87	172113.99	493.66	309.19	300.19	185.37	308.29
	MW-82	1699553.72	167725.31	474.85	348.88	339.38	120.79	354.06
	MW-83	1697939.89	167212.27	496.81	350.19	340.69	143.43	353.38
	MW-84	1698602.89	173894.54	530.80	292.46	282.96	237.23	293.57
	MW-85	1701828.95	173694.52	531.76	282.56	273.06	246.63	285.13
	MW-86	1701331.25	174917.90	536.04	283.43	274.63	249.44	286.60
	MW-87	1700670.27	173493.76	537.31	283.68	274.38	249.30	288.01
	MW-88	1701807.87	174303.06	513.68	281.52	272.22	227.53	286.15
	MW-93	1702259.35	169851.24	632.15	319.87	310.07	309.68	322.47
	MW-94	1698674.21	167210.22	495.51	357.22	348.52	138.37	357.14
	MW-95	1697265.32	169426.92	571.54	314.60	305.90	252.58	318.96
	MW-100	1700791.72	169610.46	620.32	319.06	309.06	298.78	321.54
	MW-106	1702536.99	173461.69	475.47	280.04	270.04	191.23	284.24
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	126.43	294.23
	MW-22P	1701844.34	173088.17	517.09	236.02	231.22	232.98	284.11
	MW-24	1699582.39	167767.76	475.99	286.76	281.76	145.08	330.91
	MW-43	1701274.23	174327.14	547.06	245.63	235.63	263.54	283.52
	MW-54	1702154.28	168435.53	580.43	250.25	228.25	278.88	301.55
	MW-56	1698980.77	167214.82	480.33	323.15	313.15	123.46	356.87
	MW-57	1699993.32	167201.99	456.64	326.65	311.65	97.38	359.26
	MW-58A	1699006.59	167207.16	479.27	270.05	260.05	148.96	330.31
	MW-59	1699983.91	167193.44	457.13	285.08	275.08	123.04	334.09
	MW-65	1701602.10	167146.55	545.83	317.71	308.91	208.63	337.20
	MW-75	1701059.70	173432.42	532.40	271.10	261.00	246.30	286.10
	MW-89	1701799.57	174319.44	512.82	229.20	219.90	231.93	280.89
	MW-90	1702203.13	174300.67	502.22	235.16	226.16	221.15	281.07
	MW-91	1701023.09	173423.94	532.02	260.81	240.71	247.58	284.44
	MW-99	1702556.06	172098.73	493.64	221.77	212.77	201.37	292.27
	NPW-1	1701906.96	171138.99	646.33	299.87	284.87	334.31	312.02
	NPW-3	1701922.88	170663.28	645.81	284.87	276.87	332.63	313.18
Not used	MW-68	1701917.32	170609.35	647.07	311.29	292.29	NM	NM

Notes

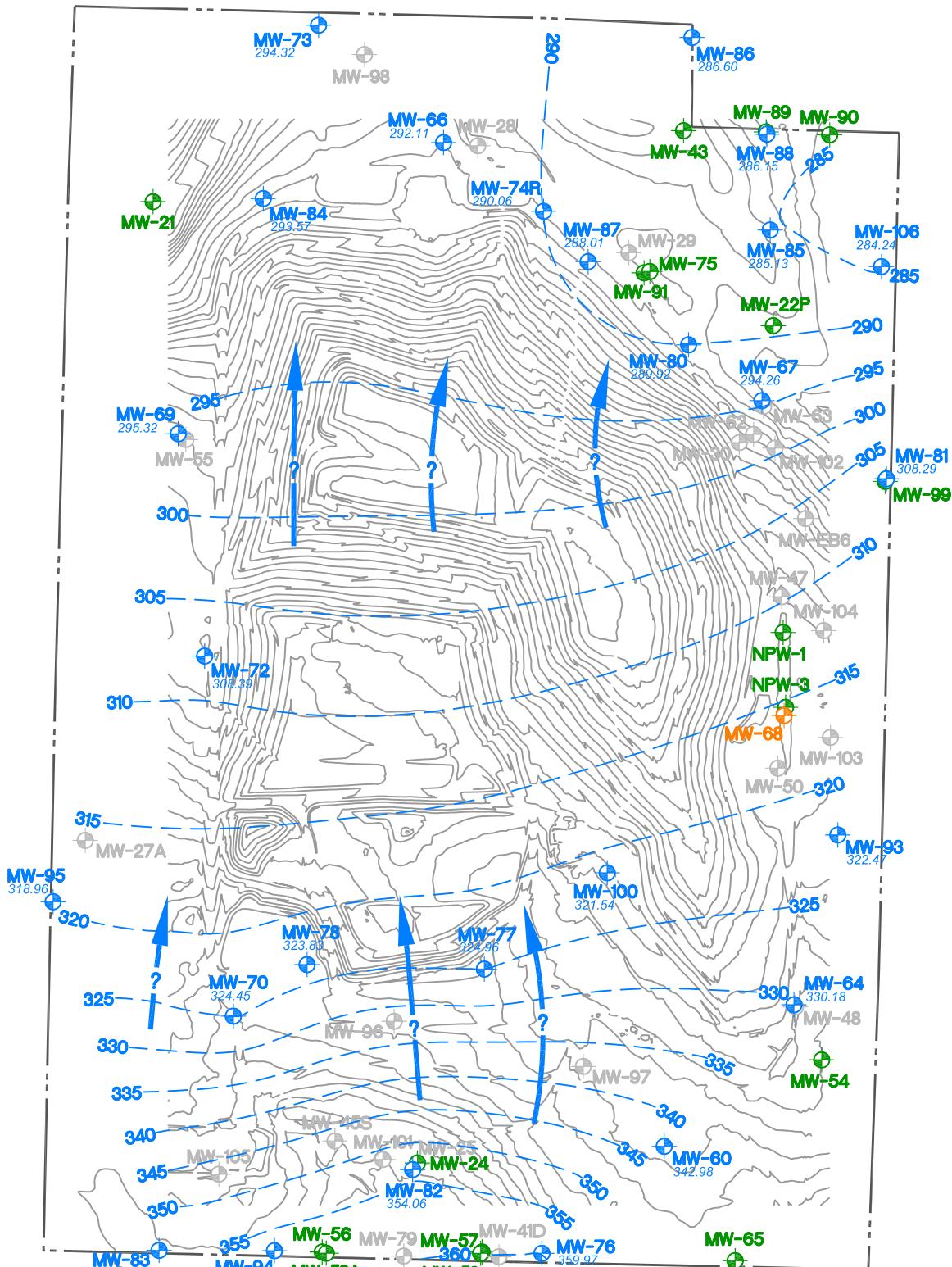
1. Water level measurements made by KCSWD personnel.
2. Reference datum for XY coordinates is the North American Datum of 1927 (NAD27)
3. Elevations reported in feet above Mean Sea Level based on the National Geodetic Vertical Datum, 1929.
4. NM, not measured due to broken meter
5. NI, no information

Table 2: Groundwater Parameters – Second Quarter 2012
 Cedar Hills Landfill
 King County, Washington

Regional Aquifer Zone Beneath the Landfill	Horizontal Hydraulic Conductivity (<i>K</i>)			Horizontal Hydraulic Gradient	Effective Porosity (n_{eff})	Horizontal Groundwater Velocity (<i>v</i>)	General Groundwater Flow Direction
	Range	(cm/s)	(ft/d)				
Northern	Minimum	2.10E-03	6	0.0070	24%	0.175	N, NNE, NE
	Maximum	4.20E-02	120	0.0070	24%	3.5	
	Mean	2.10E-02	60	0.0070	24%	1.75	
Central	Minimum	2.10E-03	6	0.0080	24%	0.2	NNW, N
	Maximum	4.20E-02	120	0.0080	24%	4	
	Mean	2.10E-02	60	0.0080	24%	2	
Southern	Minimum	6.40E-06	0.018	0.016	26%	0.001	NNE, NE
	Maximum	6.40E-04	1.8	0.016	26%	0.111	
	Mean	6.40E-05	0.18	0.016	26%	0.011	

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



Legend

- MW-X** Well completed in Regional Aquifer within 10 feet of the water table
- MW-X** Wells completed in Regional Aquifer more than 10 ft below water table
- MW-X** Wells not accessible
- MW-X** Wells screened in discontinuous Perched Zones

300 ————— Regional Aquifer Groundwater Elevation Contour (feet MSL).

← ? ————— Inferred Horizontal Groundwater Flow Path

0 1000 2000
Feet

Notes:

1. Groundwater April 2, 2012
2. Only wells completed in the Regional Aquifer within 10 feet of the water table were used for contouring.



King County

Groundwater Potentiometric Surface Map Second Quarter 2012 - Regional Aquifer

Cedar Hills Landfill
King County, Washington

DATE:	June 2012
DESIGNED BY:	SB
DRAWN BY:	LMT
REVISED BY:	SB

PROJECT NO.	1033379
FIGURE NO.	1
CH_2Q2012.dwg	

APPENDIX B

Field and Analytical Test Results

Groundwater Analytical Data

Environmental Monitoring Data

Data Collected from April 1, 2012 to June 30, 2012

Cedar Hills Landfill --- Groundwater Elevation Data

Contact Person: Sendy Jimenez (206) 296-4411

Site	Date	Reference Elevation (msl)	Depth to Water (feet)	Ground-Water Elevation (msl)	Comment
MW-21	4/2/2012	420.66	294.23	294.23	
MW-21	4/5/2012	420.66	294.59	294.59	
MW-22	4/2/2012	517.09	284.11	284.11	
MW-24	4/2/2012	475.99	330.91	330.91	
MW-24	4/3/2012	475.99	331.46	331.46	
MW-25	4/2/2012	474.41	469.29	469.29	
MW-27A	4/2/2012	584.23			Not accessible
MW-27A	4/3/2012	584.23	530.28	530.28	
MW-28	4/2/2012	527.75	506.53	506.53	
MW-28	4/9/2012	527.75	505.94	505.94	
MW-29	4/2/2012	532.92	523.52	523.52	
MW-29	4/4/2012	532.92	523.48	523.48	
MW-30A	4/2/2012	568.43	540.26	540.26	
MW-30A	4/3/2012	568.43	540.46	540.46	
MW-41D	4/2/2012	462.32	436.85	436.85	
MW-41S	4/2/2012	462.44	458.34	458.34	
MW-43	4/2/2012	547.06	283.52	283.52	
MW-43	4/6/2012	544.67	281.26	281.26	
MW-45	4/2/2012	488.4	474.16	474.16	
MW-47	4/2/2012	634.6	618.82	618.82	
MW-47	4/5/2012	634.6	618.95	618.95	
MW-48	4/2/2012	594.49	552.08	552.08	
MW-50	4/2/2012	637.02	607.37	607.37	
MW-54	4/3/2012	580.43	301.55	301.55	
MW-55	4/2/2012	652.29	624.56	624.56	
MW-55	4/6/2012	652.29	624.47	624.47	
MW-56	4/2/2012	480.33	356.87	356.87	
MW-56	4/10/2012	480.33	357.78	357.78	
MW-57	4/2/2012	456.64	359.26	359.26	
MW-57	4/30/2012	456.64	357.82	357.82	
MW-58A	4/2/2012	479.27	330.31	330.31	
MW-58A	4/19/2012	479.27	330.8	330.8	
MW-59	4/2/2012	457.13	334.09	334.09	
MW-59	4/24/2012	457.13	334.38	334.38	
MW-60	4/2/2012	567.15	342.98	342.98	
MW-60	4/12/2012	567.15	344.51	344.51	
MW-62	4/2/2012	556.21	506.9	506.9	
MW-62	4/3/2012	556.21	507.19	507.19	
MW-63	4/2/2012	515.88	506.23	506.23	
MW-64	4/2/2012	596.55	330.18	330.18	
MW-64	4/27/2012	596.55	330.67	330.67	
MW-65	4/2/2012	545.83	337.2	337.2	
MW-65	4/16/2012	545.83	337.88	337.88	
MW-66	4/2/2012	531.28	292.11	292.11	
MW-66	4/6/2012	531.28	292.05	292.05	

Environmental Monitoring Data

Data Collected from April 1, 2012 to June 30, 2012

Cedar Hills Landfill --- Groundwater Elevation Data

Contact Person: Sendy Jimenez (206) 296-4411

Site	Date	Reference Elevation (msl)	Depth to Water (feet)	Ground-Water Elevation (msl)	Comment
MW-66	4/23/2012	531.28	292.76	292.76	
MW-67	4/2/2012	516.43	294.26	294.26	
MW-67	4/6/2012	516.43	294.45	294.45	
MW-68	4/2/2012	647.07			Not measured, equipment failure
MW-68	4/26/2012	647.07	314.41	314.41	
MW-69	4/2/2012	653.69	395.32	395.32	
MW-69	4/25/2012	653.69	296.16	296.16	
MW-70	4/2/2012	530.57	324.45	324.45	
MW-70	4/3/2012	530.57	324.45	324.45	
MW-70	4/6/2012	530.57	324.74	324.74	
MW-72	4/17/2012	671.87	308.65	308.65	
MW-73	4/2/2012	485.7	294.32	294.32	
MW-73	4/18/2012	485.7	294.77	294.77	
MW-74	4/2/2012	531.26	290.06	290.06	
MW-74	4/20/2012	531.26	290.42	290.42	
MW-74	5/17/2012	531.26	290.74	290.74	
MW-74	6/22/2012	531.26	290.92	290.92	
MW-75	4/2/2012	532.4	286.1	286.1	
MW-75	4/20/2012	532.4	286.39	286.39	
MW-75	5/17/2012	532.4	286.62	286.62	
MW-75	6/22/2012	532.4	286.64	286.64	
MW-76	4/2/2012	491.71	359.97	359.97	
MW-76	4/16/2012	491.71	359.84	359.84	
MW-77	4/2/2012	552.67	324.96	324.96	
MW-77	4/23/2012	552.67	325.94	325.94	
MW-78	4/2/2012	537.35	323.83	323.83	
MW-78	4/6/2012	537.35	324.13	324.13	
MW-79	4/2/2012	459.17	421.57	421.57	
MW-80	4/2/2012	530.41	289.92	289.92	
MW-80	4/23/2012	530.41	290.66	290.66	
MW-81	4/2/2012	493.66	308.29	308.29	
MW-81	4/20/2012	493.66	308.72	308.72	
MW-82	4/2/2012	474.85	354.06	354.06	
MW-82	4/18/2012	474.85	355.14	355.14	
MW-83	4/2/2012	496.81	353.38	353.38	
MW-83	4/18/2012	496.81	354.36	354.36	
MW-84	4/2/2012	530.8	293.57	293.57	
MW-84	4/24/2012	530.8	294.28	294.28	
MW-85	4/2/2012	531.76	285.13	285.13	
MW-85	4/30/2012	531.76	280.08	280.08	
MW-86	4/2/2012	536.04	286.6	286.6	
MW-86	4/30/2012	536.04	287.21	287.21	
MW-87	4/2/2012	537.31	288.01	288.01	
MW-87	4/20/2012	537.31	288.29	288.29	
MW-87	5/18/2012	537.31	288.49	288.49	

Environmental Monitoring Data

Data Collected from April 1, 2012 to June 30, 2012

Cedar Hills Landfill --- Groundwater Elevation Data

Contact Person: Sendy Jimenez (206) 296-4411

Site	Date	Reference Elevation (msl)	Depth to Water (feet)	Ground-Water Elevation (msl)	Comment
MW-87	6/22/2012	537.31	288.77	288.77	
MW-88	4/2/2012	513.68	286.15	286.15	
MW-88	4/17/2012	513.68	286.5	286.5	
MW-89	4/2/2012	512.82	280.89	280.89	
MW-89	4/10/2012	512.82	281.35	281.35	
MW-90	4/2/2012	502.22	281.07	281.07	
MW-90	4/9/2012	502.22	281.45	281.45	
MW-91	4/2/2012	532.02	284.44	284.44	
MW-91	4/10/2012	532.02	285.07	285.07	
MW-93	4/2/2012	632.15	322.47	322.47	Broken equipment
MW-93	4/6/2012	632.15	322.63	322.63	
MW-93	4/24/2012	632.15	331.95	331.95	
MW-94	4/2/2012	495.51	357.14	357.14	
MW-94	4/24/2012	495.51	357.65	357.65	
MW-95	4/2/2012	571.54	318.96	318.96	
MW-95	4/30/2012	571.54	319.79	319.79	
MW-96	4/2/2012	547.74	448.4	448.4	
MW-97	4/2/2012	564.54	451.66	451.66	
MW-98	4/2/2012	503.73	489.26	489.26	
MW-99	4/2/2012	493.64	292.27	292.27	
MW-99	4/20/2012	493.64	292.67	292.67	
MW-99	5/18/2012	493.64	292.75	292.75	
MW-99	6/22/2012	493.54	292.88	292.88	
MW-100	4/2/2012	620.32	321.54	321.54	
MW-100	4/17/2012	620.32	321.56	321.56	
MW-101	4/2/2012	474.72	440.74	440.74	
MW-101	4/9/2012	474.72	442.06	442.06	
MW-102	4/2/2012	552.48	508.24	508.24	
MW-103	4/2/2012	639.08	627.93	627.93	
MW-104	4/2/2012	629.68	607.1	607.1	
MW-105	4/2/2012	521.23	502.45	502.45	
MW-105	4/3/2012	521.23	502.45	502.45	
MW-106	4/2/2012	475.47	284.24	284.24	
MW-EB6	4/2/2012	589.61	563.03	563.03	
MW-EB6	4/6/2012	589.61	563.03	563.03	
WS-NPW-1	4/2/2012	646.33	312.02	312.02	
WS-NPW-3	4/2/2012	645.81	313.18	313.18	

Environmental Monitoring Data

Data Collected from April 1, 2012 to June 30, 2012

Cedar Hills Landfill --- Groundwater Field Parameters

Contact Person: Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	pH (Field)	Conductance (Field)	Temperature ($^{\circ}\text{C}$)	Purge Volume
			(std. Units)	(umho/cm)	(gal)	
MW-21	4/5/2012	W21-120405-	110	7.23	8.9	10.5
MW-24	4/3/2012	W24-120403-	180	7.14	9.5	8.5
MW-27A	4/3/2012	W27A120403-	160	7.69	9.4	6.9
MW-28	4/9/2012	W28-120409-	90	5.6	10.4	23
MW-29	4/4/2012	W29-120404-	74	6.28	10.4	19.6
MW-30A	4/3/2012	W30A120403-	325	6.38	12.5	4
MW-43	4/6/2012	W43-120406-	150	7.15	8.9	12.8
MW-47	4/5/2012	W47-120405-	740	6.98	10.3	23
MW-55	4/6/2012	W55-120406-	165	7.85	9.7	11.8
MW-56	4/10/2012	W56-120410-	165	6.91	10	25
MW-57	4/30/2012	W57-120430-	200	6.65	9.5	22.5
MW-58A	4/19/2012	W58A120419-	190	7.5	9.4	35
MW-59	4/24/2012	W59-120424-	160	6.89	9.6	38
MW-60	4/12/2012	W60-120412-	210	7.01	10.2	15
MW-62	4/3/2012	W62-120403-	200	6.34	10.1	5
MW-64	4/27/2012	W64-120427-	170	7.11	11.5	8.3
MW-65	4/16/2012	W65-120416-	140	6.66	9.3	30
MW-66	4/23/2012	W66-120423-	280	7.03	10.3	9.8
MW-67	4/6/2012	W67-120406-	240	7.05	8.8	8.2
MW-68	4/26/2012	W68-120426-	240	7.03	9.8	20
MW-69	4/25/2012	W69-120425-	220	7.49	9.7	
MW-70	4/6/2012	W70-120406-	205	7.42	10	14.3
MW-72	4/17/2012	W72-120417-	230	7.05	9.5	11.5
MW-73	4/18/2012	W73-120418-	145	6.7	9.4	8.5
MW-74	4/20/2012	W74R120420-	370	7.49	9.8	5.8
MW-74	5/17/2012	W74R120517-	360	7.38	9.6	7
MW-74	6/22/2012	W74R120622-	360	7.15	9.9	5.8
MW-75	4/20/2012	W75-120420-	240	7.04	9.2	11.5
MW-75	5/17/2012	W75-120517-	240	7.13	9.1	11.5
MW-75	6/22/2012	W75-120622-	240	6.99	9.3	11.5
MW-76	4/16/2012	W76-120416-	190	6.39	9.5	10.5
MW-77	4/23/2012	W77-120423-	255	7.04	10.5	10.5
MW-78	4/6/2012	W78-120406-	165	6.58	10.5	9.6
MW-80	4/23/2012	W80-120423-	285	7.19	10	7.5
MW-81	4/20/2012	W81-120420-	140	7.12	9.9	5
MW-82	4/18/2012	W82-120418-	230	6.9	9.7	5.8
MW-83	4/18/2012	W83-120418-	265	6.91	10.1	3.8
MW-84	4/24/2012	W84-120424-	130	6.83	9.3	5.8
MW-85	4/30/2012	W85-120430-	220	7.06	9.2	9
MW-86	4/30/2012	W86-120430-	150	6.83	8.9	7.5
MW-87	4/20/2012	W87-120420-	430	6.79	10.4	6.2
MW-87	5/18/2012	W87-120518-	425	6.76	10.5	6.3
MW-87	6/22/2012	W87-120622-	425	6.85	10.9	6.4
MW-88	4/17/2012	W88-120417-	110	7.27	8.8	7
MW-89	4/10/2012	W89-120410-	200	7.33	9.7	9

Environmental Monitoring Data

Data Collected from April 1, 2012 to June 30, 2012

Cedar Hills Landfill --- Groundwater Field Parameters

Contact Person: Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	pH (Field)	Conductance (Field)	Temperature (°C)	Purge Volume
			(std. Units)	(umho/cm)	(gal)	
MW-90	4/9/2012	W90-120409-	170	7.12	9.7	7.6
MW-91	4/10/2012	W91-120410-	230	6.85	9.7	8
MW-93	4/24/2012	W93-120424-	365	7.21	11.7	9
MW-94	4/24/2012	W94-120424-	285	6.89	9.5	6.3
MW-95	4/30/2012	W95-120430-	215	7.39	9.7	9.3
MW-99	4/20/2012	W99-120420-	135	7.79	10	9.5
MW-99	5/18/2012	W99-120518-	135	7.74	10.2	9.5
MW-99	6/22/2012	W99-120622-	130	7.8	10.5	11.8
MW-100	4/17/2012	W100120417-	240	6.79	10.1	8.5
MW-101	4/9/2012	W101120409-	655	7.09	11.4	9.6
MW-EB6	4/6/2012	WB6-120406-	140	6.16	7.3	1.8
EQUIPMENT BLANK	4/20/2012	WU1H120420E	3.7	6.76	11.5	
EQUIPMENT BLANK	4/20/2012	WU1M120420E	3.7	6.76	11.5	
EQUIPMENT BLANK	4/20/2012	WU1S120420E	3.7	6.76	11.5	
FIELD BLANK	4/3/2012	W27A120403F	7.9	6.9	13.8	
FIELD BLANK	4/9/2012	W101120409F	5.4	5.81	16.4	
FIELD BLANK	4/24/2012	W59-120424F	4.4	6.02	17	
FIELD BLANK	6/22/2012	W74R120622F	5.5	5.52	17	
WS-NPW	4/27/2012	WNPW120427-	270	7.41	9.7	
WS-OS1	6/20/2012	WOS1120620-	175	7.13	10.3	45

Environmental Monitoring Data

Data Collected from April 1, 2012 to June 30, 2012

Cedar Hills Landfill --- Groundwater Conventional Analytical Data

Contact Person: Sandy Jimenez (206) 296-4411

Site	Date	Sample ID	Alkalinity,	Ammonia,	Chloride	Coliforms,	Coliforms,	Nitrate-	Specific	Sulfate	Total	Total	Total	Suspended
			Total (CaCO ₃)	(NH ₃)	Fecal	Total	Nitrogen, (NO ₃ as N)	Conductance	(SO ₄)	Dissolved Solids	Organic Carbon	Solids	Solids	
			(mg/L)	(mg/L)	(mg/L)	(CFU/100m)	(CFU/100m)	(mg/L)	(μmho/cm)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	
MW-21	4/5/2012	W21-120405-	55	0.019 T	5.01 B		< 0.01 U	122	5.13	75	< 1 U	84	2.7	
MW-24	4/3/2012	W24-120403-	62.8	0.0401	3.39 B		< 0.01 U	166	16	93	< 1 U	116	5.4	
MW-27A	4/3/2012	W27A120403-	80.7	0.162	5.68		0.213	199	10.8	133	< 1 U	137	< 1 U	
MW-28	4/9/2012	W28-120409-	30.7	< 0.01 U	3.58		0.512	109	14.9	85	1.29	81	< 1 U	
MW-29	4/4/2012	W29-120404-	26.4	< 0.01 U	3.24 B		1.3	75.5	2.04	72	< 1 U	89	17	
MW-30A	4/3/2012	W30A120403-	175	< 0.01 U	1.65 B		0.456	345	8.84	221	< 1 U	224	2.1	
MW-43	4/6/2012	W43-120406-	70.7	0.0232	3.11		< 0.01 U	175	13.5	117	1.37	120	< 1 U	
MW-47	4/5/2012	W47-120405-	666	0.0514	6.82 B		< 0.01 U	1100	7.18	657	5.23	683	1.7	
MW-55	4/6/2012	W55-120406-	62.4	0.0545	1.79		< 0.01 U	150	11.7	115	1 T	119	< 1 U	
MW-56	4/10/2012	W56-120410-	47	< 0.01 U	4.33		1.12	150	16.8	92	< 1 U	101	1.1	
MW-57	4/30/2012	W57-120430-	87.7	0.0309	5.19		< 0.01 U	232	17.4	146	1.02	159	8	
MW-58A	4/19/2012	W58A120419-	75.3	0.073	3.44		< 0.01 U	190	15	111	< 1 U	119	< 1 U	
MW-59	4/24/2012	W59-120424-	62.9	< 0.01 U	4.38		< 0.01 U	172	17.9	115	1.01	124	5.6	
MW-60	4/12/2012	W60-120412-	82.6	< 0.01 U	2.9		1.22	192	7.69	117	1.03	132	< 1 U	
MW-62	4/3/2012	W62-120403-	74.3	< 0.01 U	5.35 B		3.03	218	14.8	138	1.96	147	< 1 U	
MW-64	4/27/2012	W64-120427-	85.6	0.025	3.53		0.012 T	207	15	112	1.56	122	7.5	
MW-65	4/16/2012	W65-120416-	53.7	< 0.01 U	3.93		< 0.01 U	153	16.1	101	< 1 U	115	1.1	
MW-65 Duplicate	4/16/2012	W65-120416D	53.5	< 0.01 U	3.68		0.01 T	153	15.9	93	< 1 U	106	1.1	
MW-66	4/23/2012	W66-120423-	122	< 0.01 U	7.51		0.62	289	14.2	165	1.27	185	< 1 U	
MW-67	4/6/2012	W67-120406-	118	< 0.01 U	5.1		0.556	320	38	195	1.97	207	2.7	
MW-68	4/26/2012	W68-120426-	136	0.012 T	3.12		< 0.01 U	300	16.1	159	1.5	198	24.7	
MW-69	4/25/2012	W69-120425-	126	0.014 T	4.67		< 0.01 U	278	13.5	160	2.59	176	18.2	
MW-70	4/6/2012	W70-120406-	83.6	< 0.01 U	3.79		0.0446	208	17	128	1.22	134	1.5	
MW-72	4/17/2012	W72-120417-	114	0.015 T	3.53		< 0.01 U	292	28.8	161	< 1 U	169	2.1	
MW-73	4/18/2012	W73-120418-	47.5	< 0.01 U	3.22		1.74	139	8.69	91	< 1 U	88	< 1 U	
MW-74	4/20/2012	W74R120420-	213	< 0.01 U	20.5		0.483	494	20.9	267	1.88	273	< 1 U	
MW-75	4/20/2012	W75-120420-	97.7	< 0.01 U	7.67		< 0.01 U	306	42.6	176	1.07	194	4.6	
MW-76	4/16/2012	W76-120416-	60.2	< 0.01 U	10.9		1.17	226	24.5	132	1.73	141	< 1 U	
MW-77	4/23/2012	W77-120423-	116	< 0.01 U	5		0.891	263	8.28	164	< 1 U	143	1.7	
MW-78	4/6/2012	W78-120406-	64.9	< 0.01 U	3.8		0.769	161	7.98	115	1.43	113	< 1 U	
MW-80	4/23/2012	W80-120423-	88.6	< 0.01 U	4.72		< 0.01 U	280	42.3	176	< 1 U	189	< 1 U	
MW-81	4/20/2012	W81-120420-	49.3	< 0.01 U	2.74		1.5	136	7.95	78	< 1 U	82	< 1 U	
MW-82	4/18/2012	W82-120418-	95.6	< 0.01 U	4.47		0.838	240	15.5	143	< 1 U	143	< 1 U	
MW-83	4/18/2012	W83-120418-	105	< 0.01 U	11.6		0.197	268	10.8	143	1.97	141	< 1 U	
MW-84	4/24/2012	W84-120424-	58.3	< 0.01 U	3.81		0.43	153	11.3	77	< 1 U	106	< 1 U	
MW-85	4/30/2012	W85-120430-	92.4	< 0.01 U	6.79		0.123	269	31.4	150	< 1 U	159	< 1 U	
MW-86	4/30/2012	W86-120430-	65.1	< 0.01 U	4.08		0.322	174	16.1	107	< 1 U	107	1.4	
MW-87	4/20/2012	W87-120420-	87.3	0.014 T	4.53		< 0.01 U	440	125	293	1.13	294	8.8	
MW-87 Duplicate	4/20/2012	W87-120420D	87.6	0.013 T	4.57		< 0.01 U	440	124	294	< 1 U	316	11.6	
MW-88	4/17/2012	W88-120417-	53.2	< 0.01 U	2.38		0.476	129	6.62	72	< 1 U	74	< 1 U	
MW-89	4/10/2012	W89-120410-	75.7	0.017 T	6.99		< 0.01 U	192	16.8	129	1.32	164	44	
MW-90	4/9/2012	W90-120409-	68.7	0.014 T	3.73		< 0.01 U	202	27	142	< 1 U	150	5.05	
MW-91	4/10/2012	W91-120410-	87.9	0.0492	8.37		0.034 T	266	40.2	171	2.91	403	308	
MW-93	4/24/2012	W93-120424-	113	0.0534	2.84		0.012 T	381	73.7	232	1.24	246	1.73	
MW-94	4/24/2012	W94-120424-	108	< 0.01 U	19.9		1.26	297	6.04	181	3.05	178	< 1 U	

Environmental Monitoring Data

Data Collected from April 1, 2012 to June 30, 2012

Cedar Hills Landfill --- Groundwater Conventional Analytical Data

Contact Person: Sandy Jimenez (206) 296-4411

Site	Date	Sample ID	Alkalinity,	Ammonia,	Chloride	Coliforms,	Coliforms,	Nitrate-	Specific	Sulfate	Total	Total	Total	Suspended
			Total (CaCO ₃)	(NH ₃)	Fecal	Total	Nitrogen, (NO ₃ as N)	Conductance	(SO ₄)	Dissolved Solids	Organic Carbon	Solids	Solids	
			(mg/L)	(mg/L)	(mg/L)	(CFU/100mL)	(CFU/100mL)	(mg/L)	(μmho/cm)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	
MW-95	4/30/2012	W95-120430-	85.5	0.0229	4.84		< 0.01 U	217	15.6	124	< 1 U	128	< 1 U	
MW-99	4/20/2012	W99-120420-	51.9	0.063	2.93		0.019 T	127	7.34	87	< 1 U	76	< 1 U	
MW-100	4/17/2012	W100120417-	129	< 0.01 U	2.59		< 0.01 U	287	16.8	147	< 1 U	155	6.4	
MW-101	4/9/2012	W101120409-	389	0.0219	5.14		< 0.01 U	695	5.45	420	5.9	426	< 1 U	
MW-EB6	4/6/2012	WB6-120406-	86.5	2.17	1.54		0.036 T	174	0.303	156J	194	400J	830J	
EQUIPMENT BLANK	4/20/2012	WU1M120420E			< 0.01 U									
EQUIPMENT BLANK	4/20/2012	WU1S120420E			< 0.01 U									
EQUIPMENT BLANK	4/20/2012	WU1H120420E			0.018									
FIELD BLANK	4/3/2012	W27A120403F	1.3 T	< 0.01 U	< 0.1 U		0.102	3.7 T	< 0.1 U	< 5 U	< 1 U	< 5 U	< 1 U	
FIELD BLANK	4/9/2012	W101120409F	1.3 T	< 0.01 U	< 0.1 U		0.1	4.4 T	< 0.1 U	< 5 U	< 1 U	< 5 U	< 1 U	
FIELD BLANK	4/24/2012	W59-120424F	1.5 T	< 0.01 U	< 0.1 U		0.1	3.8 T	< 0.1 U	< 5 U	< 1 U	< 5 U	< 1 U	
WS-NPW	41026.41806	WNPW120427-	156	< 0.01 U	3.4		0.012 T	334	18.4	179	2.74	195	< 1 U	
WS-OS1	6/20/2012	WOS1120620-	70.6	< 0.01 U	2.72	< 1 U	< 1 U	1.68	173	8.29	119	< 1 U	116	< 1 U

Environmental Monitoring Data

Data Collected from April 1, 2012 to June 30, 2012

Cedar Hills Landfill ---Groundwater Metals Analytical Data

Contact Person: Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	Antimony, dissolved	Arsenic, dissolved	Barium, dissolved	Beryllium, dissolved	Cadmium, dissolved	Calcium, dissolved	Chromium, dissolved	Cobalt, dissolved	Copper, dissolved	Iron, dissolved	Lead, dissolved	Magnesium, 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)
MW-21	4/5/2012	W21-120405-	< 0.001 U	< 0.001 U	0.00268	< 0.001 U	< 0.002 U	9.39	< 0.005 U	< 0.003 U	< 0.002 U	1.63	< 0.001 U	5.48
MW-24	4/3/2012	W24-120403-	< 0.001 U	< 0.001 U	0.00171	< 0.001 U	< 0.002 U	12.5	< 0.005 U	< 0.003 U	< 0.002 U	2.94	< 0.001 U	8.13
MW-27A	4/3/2012	W27A120403-	< 0.001 U	0.0157	0.00518	< 0.001 U	< 0.002 U	19.8	< 0.005 U	< 0.003 U	< 0.002 U	< 0.01 U	< 0.001 U	5.41
MW-28	4/9/2012	W28-120409-	< 0.001 U	< 0.001 U	0.00598	< 0.001 U	< 0.002 U	8.96	< 0.005 U	< 0.003 U	< 0.002 U	< 0.01 U	< 0.001 U	2.23
MW-29	4/4/2012	W29-120404-	< 0.001 U	< 0.001 U	0.00137	< 0.001 U	< 0.002 U	6.08	< 0.005 U	< 0.003 U	< 0.002 U	< 0.01 U	< 0.001 U	1.49
MW-30A	4/3/2012	W30A120403-	< 0.001 U	< 0.001 U	0.00547	< 0.001 U	< 0.002 U	26.8	< 0.005 U	< 0.003 U	< 0.002 U	< 0.01 U	< 0.001 U	15
MW-43	4/6/2012	W43-120406-	< 0.001 U	< 0.001 U	0.00634	< 0.001 U	< 0.002 U	12.2	< 0.005 U	< 0.003 U	< 0.002 U	0.873	< 0.001 U	8.52
MW-47	4/5/2012	W47-120405-	< 0.001 U	< 0.001 U	0.0363	< 0.001 U	< 0.002 U	127 D	< 0.005 U	< 0.003 U	< 0.002 U	0.555	< 0.001 U	57.9
MW-55	4/6/2012	W55-120406-	< 0.001 U	< 0.001 U	0.00417	< 0.001 U	< 0.002 U	11.6	< 0.005 U	< 0.003 U	< 0.002 U	0.208	< 0.001 U	5.89
MW-56	4/10/2012	W56-120410-	< 0.001 U	< 0.001 U	0.00384	< 0.001 U	< 0.002 U	14.6	< 0.005 U	< 0.003 U	< 0.002 U	0.03 T	< 0.001 U	5.04
MW-57	4/30/2012	W57-120430-	< 0.001 U	< 0.001 U	0.00164	< 0.001 U	< 0.002 U	16.2	< 0.005 U	< 0.003 U	< 0.002 U	8.25	< 0.001 U	7.81
MW-58A	4/19/2012	W58A120419-	< 0.001 U	< 0.001 U	0.00437	< 0.001 U	< 0.002 U	17.2	< 0.005 U	< 0.003 U	< 0.002 U	1.05	< 0.001 U	8.34
MW-59	4/24/2012	W59-120424-	< 0.001 U	< 0.001 U	0.00296	< 0.001 U	< 0.002 U	12.4	< 0.005 U	< 0.003 U	< 0.002 U	3.82	< 0.001 U	7.91
MW-60	4/12/2012	W60-120412-	< 0.001 U	< 0.001 U	0.00299	< 0.001 U	< 0.002 U	17.2	< 0.005 U	< 0.003 U	< 0.002 U	< 0.01 U	< 0.001 U	8.13
MW-62	4/3/2012	W62-120403-	< 0.001 U	< 0.001 U	0.00255	< 0.001 U	< 0.002 U	18.5	< 0.005 U	< 0.003 U	< 0.002 U	0.018 T	< 0.001 U	5.28
MW-64	4/27/2012	W64-120427-	< 0.001 U	0.00146	0.0074	< 0.001 U	< 0.002 U	12.5	< 0.005 U	< 0.003 U	< 0.002 U	0.347	< 0.001 U	8.79
MW-65	4/16/2012	W65-120416-	< 0.001 U	< 0.001 U	0.00706	< 0.001 U	< 0.002 U	11.7	< 0.005 U	< 0.003 U	< 0.002 U	4.24	< 0.001 U	7.2
MW-65 Duplicate	4/16/2012	W65-120416D	< 0.001 U	< 0.001 U	0.00708	< 0.001 U	< 0.002 U	12.2	< 0.005 U	< 0.003 U	< 0.002 U	4.54	< 0.001 U	7.14
MW-66	4/23/2012	W66-120423-	< 0.001 U	< 0.001 U	0.00577	< 0.001 U	< 0.002 U	21.8	< 0.005 U	< 0.003 U	< 0.002 U	< 0.01 U	< 0.001 U	16.6
MW-67	4/6/2012	W67-120406-	< 0.001 U	< 0.001 U	0.00847	< 0.001 U	< 0.002 U	27.1	< 0.005 U	< 0.003 U	< 0.002 U	0.0789	< 0.001 U	15.8
MW-68	4/26/2012	W68-120426-	< 0.001 U	< 0.001 U	0.0107	< 0.001 U	< 0.002 U	24	< 0.005 U	< 0.003 U	< 0.002 U	0.992	< 0.001 U	13.9
MW-69	4/25/2012	W69-120425-	< 0.001 U	0.00191	0.00889	< 0.001 U	< 0.002 U	22.6	< 0.005 U	< 0.003 U	< 0.002 U	0.703	< 0.001 U	9.55
MW-70	4/6/2012	W70-120406-	< 0.001 U	< 0.001 U	0.00189	< 0.001 U	< 0.002 U	17.8	< 0.005 U	< 0.003 U	< 0.002 U	< 0.01 U	< 0.001 U	9.65
MW-72	4/17/2012	W72-120417-	< 0.001 U	< 0.001 U	0.00955	< 0.001 U	< 0.002 U	25.8	< 0.005 U	< 0.003 U	< 0.002 U	1.73	< 0.001 U	15.3
MW-73	4/18/2012	W73-120418-	< 0.001 U	< 0.001 U	0.00259	< 0.001 U	< 0.002 U	13	< 0.005 U	< 0.003 U	< 0.002 U	< 0.01 U	< 0.001 U	4.94
MW-74	4/20/2012	W74R120420-	< 0.001 U	< 0.001 U	0.0123	< 0.001 U	< 0.002 U	39.8	< 0.005 U	< 0.003 U	< 0.002 U	< 0.01 U	< 0.001 U	30.4
MW-75	4/20/2012	W75-120420-	< 0.001 U	< 0.001 U	0.00895	< 0.001 U	< 0.002 U	22.8	< 0.005 U	< 0.003 U	< 0.002 U	1.35	< 0.001 U	16.5
MW-76	4/16/2012	W76-120416-	< 0.001 U	< 0.001 U	0.00348	< 0.001 U	< 0.002 U	19.4	< 0.005 U	< 0.003 U	< 0.002 U	< 0.01 U	< 0.001 U	8.68
MW-77	4/23/2012	W77-120423-	< 0.001 U	< 0.001 U	0.00315	< 0.001 U	< 0.002 U	23.7	< 0.005 U	< 0.003 U	< 0.002 U	< 0.01 U	< 0.001 U	12.5
MW-78	4/6/2012	W78-120406-	< 0.001 U	< 0.001 U	0.00184	< 0.001 U	< 0.002 U	13.2	< 0.005 U	< 0.003 U	< 0.002 U	< 0.01 U	< 0.001 U	6.16
MW-80	4/23/2012	W80-120423-	< 0.001 U	0.00498	0.0125	< 0.001 U	< 0.002 U	25.9	< 0.005 U	< 0.003 U	< 0.002 U	1.68	< 0.001 U	13
MW-81	4/20/2012	W81-120420-	< 0.001 U	< 0.001 U	0.00256	< 0.001 U	< 0.002 U	11	< 0.005 U	< 0.003 U	< 0.002 U	< 0.01 U	< 0.001 U	5.73
MW-82	4/18/2012	W82-120418-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.002 U	20.6	< 0.005 U	< 0.003 U	< 0.002 U	< 0.01 U	< 0.001 U	12
MW-83	4/18/2012	W83-120418-	< 0.001 U	< 0.001 U	0.00363	< 0.001 U	< 0.002 U	25.2	< 0.005 U	< 0.003 U	< 0.002 U	< 0.01 U	< 0.001 U	10.9
MW-84	4/24/2012	W84-120424-	< 0.001 U	< 0.001 U	0.00278	< 0.001 U	< 0.002 U	8.89	< 0.005 U	< 0.003 U	< 0.002 U	< 0.01 U	< 0.001 U	7.25
MW-85	4/30/2012	W85-120430-	< 0.001 U	< 0.001 U	0.00465	< 0.001 U	< 0.002 U	21.1	< 0.005 U	< 0.003 U	< 0.002 U	< 0.01 U	< 0.001 U	13.4
MW-86	4/30/2012	W86-120430-	< 0.001 U	< 0.001 U	0.00372	< 0.001 U	< 0.002 U	11.8	< 0.005 U	< 0.003 U	< 0.002 U	0.28	< 0.001 U	7.19
MW-87	4/20/2012	W87-120420-	< 0.001 U	< 0.001 U	0.02	< 0.001 U	< 0.002 U	36.5	< 0.005 U	< 0.003 U	< 0.002 U	3.25	< 0.001 U	25.1
MW-87 Duplicate	4/20/2012	W87-120420D	< 0.001 U	< 0.001 U	0.02	< 0.001 U	< 0.002 U	36.7	< 0.005 U	< 0.003 U	< 0.002 U	3.31	< 0.001 U	24.5
MW-88	4/17/2012	W88-120417-	< 0.001 U	0.00113	0.00214	< 0.001 U	< 0.002 U	8.96	< 0.005 U	< 0.003 U	< 0.002 U	< 0.01 U	< 0.001 U	6.46
MW-89	4/10/2012	W89-120410-	< 0.001 U	0.00148	0.00612	< 0.001 U	< 0.002 U	12.7	< 0.005 U	< 0.003 U	< 0.002 U	0.809	< 0.001 U	9.38
MW-90	4/9/2012	W90-120409-	< 0.001 U	< 0.001 U	0.00537	< 0.001 U	< 0.002 U	15.6	< 0.005 U	< 0.003 U	< 0.002 U	1.1	< 0.001 U	9.15
MW-91	4/10/2012	W91-120410-	< 0.001 U	0.00231	0.00944	< 0.001 U	< 0.002 U	20.6	< 0.005 U	< 0.003 U	< 0.002 U	2.7	< 0.001 U	13.5
MW-93	4/24/2012	W93-120424-	< 0.001 U	0.00132	0.00699	< 0.001 U	< 0.002 U	28.6	< 0.005 U	< 0.003 U	< 0.002 U	< 0.01 U	< 0.001 U	15.4
MW-94	4/24/2012	W94-120424-	< 0.001 U	< 0.001 U	0.00245	< 0.001 U	< 0.002 U	24.8	< 0.005 U	< 0.003 U	< 0.002 U	< 0.01 U	< 0.001 U	11.2

* Total Metals

Environmental Monitoring Data

Data Collected from April 1, 2012 to June 30, 2012

Cedar Hills Landfill ---Groundwater Metals Analytical Data

Contact Person: Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	Antimony, dissolved	Arsenic, dissolved	Barium, dissolved	Beryllium, dissolved	Cadmium, dissolved	Calcium, dissolved	Chromium, dissolved	Cobalt, dissolved	Copper, dissolved	Iron, dissolved	Lead, dissolved	Magnesium, 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)
MW-95	4/30/2012	W95-120430-	< 0.001 U	< 0.001 U	0.00319	< 0.001 U	< 0.002 U	17.4	< 0.005 U	< 0.003 U	< 0.002 U	< 0.01 U	< 0.001 U	8.17
MW-99	4/20/2012	W99-120420-	< 0.001 U	0.0024	0.00254	< 0.001 U	< 0.002 U	9.1	< 0.005 U	< 0.003 U	< 0.002 U	0.037 T	< 0.001 U	4.18
MW-100	4/17/2012	W100120417-	< 0.001 U	< 0.001 U	0.00694	< 0.001 U	< 0.002 U	25.8	< 0.005 U	< 0.003 U	< 0.002 U	1.41	< 0.001 U	14.9
MW-101	4/9/2012	W101120409-	< 0.001 U	0.00568	0.0315	< 0.001 U	< 0.002 U	64.1	< 0.005 U	< 0.003 U	< 0.002 U	0.277	< 0.001 U	37.8
MW-EB6	4/6/2012	WB6-120406-	< 0.001 U	0.00106	0.012	< 0.001 U	< 0.002 U	11.4	< 0.005 U	< 0.003 U	< 0.002 U	1.97	< 0.001 U	5.91
EQUIPMENT BLANK	4/20/2012	WU1S120420E	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.002 U	< 0.01 U	< 0.005 U	< 0.003 U	< 0.002 U	< 0.01 U	< 0.001 U	< 0.015 U
EQUIPMENT BLANK	4/20/2012	WU1H120420E	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.002 U	< 0.01 U	< 0.005 U	< 0.003 U	< 0.002 U	< 0.01 U	< 0.001 U	< 0.015 U
FIELD BLANK	4/3/2012	W27A120403F	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.002 U	< 0.01 U	< 0.005 U	< 0.003 U	< 0.002 U	< 0.01 U	< 0.001 U	< 0.015 U
FIELD BLANK	4/9/2012	W101120409F	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.002 U	< 0.01 U	< 0.005 U	< 0.003 U	< 0.002 U	< 0.01 U	< 0.001 U	< 0.015 U
FIELD BLANK	4/24/2012	W59-120424F	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.002 U	< 0.01 U	< 0.005 U	< 0.003 U	< 0.002 U	< 0.01 U	< 0.001 U	< 0.015 U
WS-NPW*	4/27/2012	WNPW120427-	< 0.001 U	< 0.001 U	0.00902	< 0.001 U	< 0.002 U	31.3	< 0.005 U	< 0.003 U	< 0.002 U	0.624	< 0.001 U	16.7
WS-OS1*	6/20/2012	WOS1120620-	< 0.001 U	< 0.001 U	0.00207	< 0.001 U	< 0.002 U	14.8	< 0.005 U	< 0.003 U	0.0156	0.01 T	< 0.001 U	7.86

* Total Metals

Environmental Monitoring Data

Data Collected from April 1, 2012 to June 30, 2012

Cedar Hills Landfill ---Groundwater Metals Analytical Data

Contact Person: Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	Manganese, dissolved	Mercury, dissolved	Nickel, dissolved	Potassium, dissolved	Selenium, dissolved	Silver, dissolved	Sodium, dissolved	Thallium, dissolved	Vanadium, dissolved	Zinc, dissolved
			(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
MW-21	4/5/2012	W21-120405-	0.066	< 0.0001 U	< 0.01 U	0.938 D	< 0.001 U	< 0.003 U	5.2	< 0.001 U	< 0.002 U	< 0.004 U
MW-24	4/3/2012	W24-120403-	0.106	< 0.0001 U	< 0.01 U	0.836	< 0.001 U	< 0.003 U	5.2	< 0.001 U	< 0.002 U	< 0.004 U
MW-27A	4/3/2012	W27A120403-	0.0522	< 0.0001 U	< 0.01 U	3.51	< 0.001 U	< 0.003 U	6.45	< 0.001 U	< 0.002 U	< 0.004 U
MW-28	4/9/2012	W28-120409-	< 0.001 U	< 0.0001 U	< 0.01 U	0.861 D	< 0.001 U	< 0.003 U	5.88	< 0.001 U	< 0.002 U	< 0.004 U
MW-29	4/4/2012	W29-120404-	< 0.001 U	< 0.0001 U	< 0.01 U	0.48 T	< 0.001 U	< 0.003 U	4.53	< 0.001 U	< 0.002 U	< 0.004 U
MW-30A	4/3/2012	W30A120403-	< 0.001 U	< 0.0001 U	< 0.01 U	1.7	< 0.001 U	< 0.003 U	15.5	< 0.001 U	< 0.002 U	< 0.004 U
MW-43	4/6/2012	W43-120406-	0.21	< 0.0001 U	< 0.01 U	1.2 D	< 0.001 U	< 0.003 U	5.92	< 0.001 U	< 0.002 U	< 0.004 U
MW-47	4/5/2012	W47-120405-	1.4	< 0.0001 U	< 0.01 U	4.6 D	< 0.001 U	< 0.003 U	16.5	< 0.001 U	< 0.002 U	< 0.004 U
MW-55	4/6/2012	W55-120406-	0.142	< 0.0001 U	< 0.01 U	1.57 D	< 0.001 U	< 0.003 U	5.18	< 0.001 U	< 0.002 U	< 0.004 U
MW-56	4/10/2012	W56-120410-	0.0501	< 0.0001 U	< 0.01 U	0.791 D	< 0.001 U	< 0.003 U	4.46	< 0.001 U	< 0.002 U	< 0.004 U
MW-57	4/30/2012	W57-120430-	0.238	< 0.0001 U	< 0.01 U	0.915 D	< 0.001 U	< 0.003 U	5.87	< 0.001 U	< 0.002 U	< 0.004 U
MW-58A	4/19/2012	W58A120419-	0.362	< 0.0001 U	< 0.01 U	1	< 0.001 U	< 0.003 U	5.37	< 0.001 U	< 0.002 U	< 0.004 U
MW-59	4/24/2012	W59-120424-	0.0922	< 0.0001 U	< 0.01 U	1.01 D	< 0.001 U	< 0.003 U	4.92	< 0.001 U	< 0.002 U	< 0.004 U
MW-60	4/12/2012	W60-120412-	0.00161	< 0.0001 U	< 0.01 U	1.04 D	< 0.001 U	< 0.003 U	5.6	< 0.001 U	< 0.002 U	< 0.004 U
MW-62	4/3/2012	W62-120403-	< 0.001 U	< 0.0001 U	< 0.01 U	0.964	< 0.001 U	< 0.003 U	13.3	< 0.001 U	< 0.002 U	< 0.004 U
MW-64	4/27/2012	W64-120427-	0.337	< 0.0001 U	< 0.01 U	1.22 D	< 0.001 U	< 0.003 U	5.1	< 0.001 U	< 0.002 U	< 0.004 U
MW-65	4/16/2012	W65-120416-	0.171	< 0.0001 U	< 0.01 U	0.878 D	< 0.001 U	< 0.003 U	5.49	< 0.001 U	< 0.002 U	< 0.004 U
MW-65 Duplicate	4/16/2012	W65-120416D	0.191	< 0.0001 U	< 0.01 U	0.942	< 0.001 U	< 0.003 U	5.38	< 0.001 U	< 0.002 U	< 0.004 U
MW-66	4/23/2012	W66-120423-	< 0.001 U	< 0.0001 U	< 0.01 U	1.31	0.00107	< 0.003 U	7.98	< 0.001 U	< 0.002 U	< 0.004 U
MW-67	4/6/2012	W67-120406-	0.06	< 0.0001 U	< 0.01 U	1.47 D	< 0.001 U	< 0.003 U	8.34	< 0.001 U	< 0.002 U	< 0.004 U
MW-68	4/26/2012	W68-120426-	0.193	< 0.0001 U	< 0.01 U	1.55 D	< 0.001 U	< 0.003 U	7.05	< 0.001 U	< 0.002 U	< 0.004 U
MW-69	4/25/2012	W69-120425-	0.147	< 0.0001 U	< 0.01 U	1.42 D	< 0.001 U	< 0.003 U	5.88	< 0.001 U	< 0.002 U	< 0.004 U
MW-70	4/6/2012	W70-120406-	< 0.001 U	< 0.0001 U	< 0.01 U	1.34 D	< 0.001 U	< 0.003 U	6.1	< 0.001 U	< 0.002 U	< 0.004 U
MW-72	4/17/2012	W72-120417-	0.266	< 0.0001 U	< 0.01 U	1.76	< 0.001 U	< 0.003 U	7.11	< 0.001 U	< 0.002 U	< 0.004 U
MW-73	4/18/2012	W73-120418-	< 0.001 U	< 0.0001 U	< 0.01 U	0.775	< 0.001 U	< 0.003 U	5.09	< 0.001 U	< 0.002 U	< 0.004 U
MW-74	4/20/2012	W74R120420-	< 0.001 U	< 0.0001 U	< 0.01 U	2.01	< 0.001 U	< 0.003 U	12.2	< 0.001 U	< 0.002 U	< 0.004 U
MW-75	4/20/2012	W75-120420-	0.122	< 0.0001 U	< 0.01 U	1.73	< 0.001 U	< 0.003 U	7.78	< 0.001 U	< 0.002 U	< 0.004 U
MW-76	4/16/2012	W76-120416-	< 0.001 U	< 0.0001 U	< 0.01 U	1.35	< 0.001 U	< 0.003 U	8.04	< 0.001 U	< 0.002 U	< 0.004 U
MW-77	4/23/2012	W77-120423-	0.0177	< 0.0001 U	< 0.01 U	1.48	< 0.001 U	< 0.003 U	7.77	< 0.001 U	< 0.002 U	< 0.004 U
MW-78	4/6/2012	W78-120406-	< 0.001 U	< 0.0001 U	< 0.01 U	1.82 D	< 0.001 U	< 0.003 U	5.6	< 0.001 U	< 0.002 U	< 0.004 U
MW-80	4/23/2012	W80-120423-	0.273	< 0.0001 U	< 0.01 U	1.57	< 0.001 U	< 0.003 U	6.91	< 0.001 U	< 0.002 U	< 0.004 U
MW-81	4/20/2012	W81-120420-	< 0.001 U	< 0.0001 U	< 0.01 U	0.743	0.00129	< 0.003 U	5.48	< 0.001 U	< 0.002 U	< 0.004 U
MW-82	4/18/2012	W82-120418-	< 0.001 U	< 0.0001 U	< 0.01 U	1.63	< 0.001 U	< 0.003 U	6.61	< 0.001 U	< 0.002 U	< 0.004 U
MW-83	4/18/2012	W83-120418-	0.00227	< 0.0001 U	< 0.01 U	1.81 D	< 0.001 U	< 0.003 U	6.57	< 0.001 U	< 0.002 U	< 0.004 U
MW-84	4/24/2012	W84-120424-	< 0.001 U	< 0.0001 U	< 0.01 U	0.898 D	0.00103	< 0.003 U	4.79	< 0.001 U	< 0.002 U	< 0.004 U
MW-85	4/30/2012	W85-120430-	< 0.001 U	< 0.0001 U	< 0.01 U	1.45 D	0.00148	< 0.003 U	7.12	< 0.001 U	< 0.002 U	< 0.004 U
MW-86	4/30/2012	W86-120430-	0.00609	< 0.0001 U	< 0.01 U	1.07 D	0.00149	< 0.003 U	5.18	< 0.001 U	< 0.002 U	< 0.004 U
MW-87	4/20/2012	W87-120420-	0.372	< 0.0001 U	< 0.01 U	2.16	< 0.001 U	< 0.003 U	9.43	< 0.001 U	< 0.002 U	< 0.004 U
MW-87 Duplicate	4/20/2012	W87-120420D	0.375	< 0.0001 U	< 0.01 U	2.19	< 0.001 U	< 0.003 U	9.3	< 0.001 U	< 0.002 U	< 0.004 U
MW-88	4/17/2012	W88-120417-	< 0.001 U	< 0.0001 U	< 0.01 U	0.824	< 0.001 U	< 0.003 U	5.43	< 0.001 U	0.00278	< 0.004 U
MW-89	4/10/2012	W89-120410-	0.241	< 0.0001 U	< 0.01 U	1.33 D	< 0.001 U	< 0.003 U	8.24	< 0.001 U	< 0.002 U	< 0.004 U
MW-90	4/9/2012	W90-120409-	0.266	< 0.0001 U	< 0.01 U	1.2 D	< 0.001 U	< 0.003 U	5.91	< 0.001 U	< 0.002 U	< 0.004 U
MW-91	4/10/2012	W91-120410-	0.274	< 0.0001 U	< 0.01 U	1.53 D	< 0.001 U	< 0.003 U	7.1	< 0.001 U	< 0.002 U	< 0.004 U
MW-93	4/24/2012	W93-120424-	0.213	< 0.0001 U	< 0.01 U	1.44 D	< 0.001 U	< 0.003 U	7.69	< 0.001 U	< 0.002 U	0.0142
MW-94	4/24/2012	W94-120424-	< 0.001 U	< 0.0001 U	< 0.01 U	2.04 D	< 0.001 U	< 0.003 U	6.35	< 0.001 U	< 0.002 U	< 0.004 U

* Total Metals

Environmental Monitoring Data

Data Collected from April 1, 2012 to June 30, 2012

Cedar Hills Landfill ---Groundwater Metals Analytical Data

Contact Person: Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	Manganese, dissolved	Mercury, dissolved	Nickel, dissolved	Potassium, dissolved	Selenium, dissolved	Silver, dissolved	Sodium, dissolved	Thallium, dissolved	Vanadium, dissolved	Zinc, dissolved
			(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
MW-95	4/30/2012	W95-120430-	0.119	< 0.0001 U	< 0.01 U	1.07 D	< 0.001 U	< 0.003 U	4.8	< 0.001 U	< 0.002 U	< 0.004 U
MW-99	4/20/2012	W99-120420-	0.0673	< 0.0001 U	< 0.01 U	0.843	< 0.001 U	< 0.003 U	9.31	< 0.001 U	< 0.002 U	< 0.004 U
MW-100	4/17/2012	W100120417-	0.219	< 0.0001 U	< 0.01 U	1.93	< 0.001 U	< 0.003 U	8.86	< 0.001 U	< 0.002 U	< 0.004 U
MW-101	4/9/2012	W101120409-	1.32	< 0.0001 U	< 0.01 U	2.86 D	< 0.001 U	< 0.003 U	15.2	< 0.001 U	< 0.002 U	< 0.004 U
MW-EB6	4/6/2012	WB6-120406-	0.783	< 0.0001 U	< 0.01 U	1.64 D	< 0.001 U	< 0.003 U	11.1	< 0.001 U	< 0.002 U	< 0.004 U
EQUIPMENT BLANK	4/20/2012	WU1S120420E	< 0.001 U	< 0.0001 U	< 0.01 U	< 0.3 DU	< 0.001 U	< 0.003 U	0.501	< 0.001 U	< 0.002 U	< 0.004 U
EQUIPMENT BLANK	4/20/2012	WU1H120420E	< 0.001 U	< 0.0001 U	< 0.01 U	< 0.3 DU	< 0.001 U	< 0.003 U	0.486	< 0.001 U	< 0.002 U	< 0.004 U
FIELD BLANK	4/3/2012	W27A120403F	< 0.001 U	< 0.0001 U	< 0.01 U	< 0.3 U	< 0.001 U	< 0.003 U	0.458	< 0.001 U	< 0.002 U	< 0.004 U
FIELD BLANK	4/9/2012	W101120409F	< 0.001 U	< 0.0001 U	< 0.01 U	< 0.3 DU	< 0.001 U	< 0.003 U	0.496	< 0.001 U	< 0.002 U	< 0.004 U
FIELD BLANK	4/24/2012	W59-120424F	< 0.001 U	< 0.0001 U	< 0.01 U	< 0.3 DU	< 0.001 U	< 0.003 U	0.45	< 0.001 U	< 0.002 U	< 0.004 U
WS-NPW*	4/27/2012	WNPW120427-	0.0559	< 0.0001 U	< 0.01 U	1.73	< 0.001 U	< 0.003 U	8.18	< 0.001 U	< 0.002 U	0.00705
WS-OS1*	6/20/2012	WOS1120620-	< 0.001 U	< 0.0001 U	< 0.01 U	0.797	< 0.001 U	< 0.003 U	6.61	< 0.001 U	< 0.002 U	0.0361

* Total Metals

Environmental Monitoring Data

Data Collected from April 1, 2012 to June 30, 2012

Cedar Hills Landfill --- Groundwater VOA Analytical Data

Contact Person: Sendy Jimenez (206) 296-4411

Environmental Monitoring Data

Data Collected from April 1, 2012 to June 30, 2012

Cedar Hills Landfill --- Groundwater VOA Analytical Data

Contact Person: Sendy Jimenez (206) 296-4411

Environmental Monitoring Data

Data Collected from April 1, 2012 to June 30, 2012

Cedar Hills Landfill --- Groundwater VOA Analytical Data

Contact Person: Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	1,1,1,2-Tetrachloroethane ($\mu\text{g/L}$)	1,1,1-Trichloroethane ($\mu\text{g/L}$)	1,1,2,2-Tetrachloroethane ($\mu\text{g/L}$)	1,1,2-Trichloroethane ($\mu\text{g/L}$)	1,1-Dichloroethane ($\mu\text{g/L}$)	1,1-Dichloroethene ($\mu\text{g/L}$)	1,2,3-Trichloropropane ($\mu\text{g/L}$)	1,2-Dibromo-3-Chloropropane ($\mu\text{g/L}$)	1,2-Dibromoethane ($\mu\text{g/L}$)	1,2-Dichlorobenzene ($\mu\text{g/L}$)	1,2-Dichloroethane ($\mu\text{g/L}$)	1,2-Dichloropropane ($\mu\text{g/L}$)
VOA TRIP BLANK	6/11/2012	VTRP120613C	< 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	< 0.2 U
VOA TRIP BLANK	6/18/2012	VTRP120620C	< 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	< 0.2 U
VOA TRIP BLANK	6/21/2012	VTRP120622B	< 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	< 0.2 U
VOA TRIP BLANK	6/21/2012	VTRP120622C	< 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	< 0.2 U
WS-NPW	4/27/2012	WNPW120427-	< 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	< 0.2 U
WS-OS1	6/20/2012	WOS1120620-	< 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	< 0.2 U

Environmental Monitoring Data

Data Collected from April 1, 2012 to June 30, 2012

Cedar Hills Landfill --- Groundwater VOA Analytical Data

Contact Person: Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	1,4-Dichloro-benzene ($\mu\text{g/L}$)	2-Butanone ($\mu\text{g/L}$)	2-Hexanone ($\mu\text{g/L}$)	4-Methyl-2-Pentanone ($\mu\text{g/L}$)	Acetone ($\mu\text{g/L}$)	Arylonitrile ($\mu\text{g/L}$)	Benzene ($\mu\text{g/L}$)	Bromochloromethane ($\mu\text{g/L}$)	Bromodichloromethane ($\mu\text{g/L}$)	Bromoform ($\mu\text{g/L}$)	Bromomethane ($\mu\text{g/L}$)	Carbon Disulfide ($\mu\text{g/L}$)
MW-21	4/5/2012	W21-120405-	< 0.2 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	< 0.2 U
MW-24	4/3/2012	W24-120403-	< 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	4/3/2012	W27A120403-	< 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	4/9/2012	W28-120409-	< 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-29	4/4/2012	W29-120404-	< 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	4/3/2012	W30A120403-	< 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-43	4/6/2012	W43-120406-	< 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	4/5/2012	W47-120405-	< 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-55	4/6/2012	W55-120406-	< 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	4/10/2012	W56-120410-	< 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	4/30/2012	W57-120430-	< 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-58A	4/19/2012	W58A120419-	< 0.2 U	< 4 U	< 4 U	< 4 U	4.59 BL	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-59	4/24/2012	W59-120424-	< 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	4/12/2012	W60-120412-	< 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	4/3/2012	W62-120403-	< 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-64	4/27/2012	W64-120427-	< 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-65	4/16/2012	W65-120416-	< 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-65 Duplicate	4/16/2012	W65-120416D	< 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	4/23/2012	W66-120423-	< 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-67	4/6/2012	W67-120406-	< 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	4/26/2012	W68-120426-	< 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	4/25/2012	W69-120425-	< 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	4/6/2012	W70-120406-	< 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-72	4/17/2012	W72-120417-	< 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	4/18/2012	W73-120418-	< 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	4/20/2012	W74R120420-	< 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	5/17/2012	W74R120517-	< 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	6/22/2012	W74R120622-	< 0.2 U	< 4 U	< 4 U	< 4 U	8.09	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-75	4/20/2012	W75-120420-	< 0.2 U	< 4 U	< 4 U	< 4 U	4.32 BL	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-75	5/17/2012	W75-120517-	< 0.2 U	< 4 U	< 4 U	< 4 U	13.1	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-75	6/22/2012	W75-120622-	< 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	4/16/2012	W76-120416-	< 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	4/23/2012	W77-120423-	< 0.2 U	< 4 U	< 4 U	< 4 U	4 BLT	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-78	4/6/2012	W78-120406-	< 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	4/23/2012	W80-120423-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 LU	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-81	4/20/2012	W81-120420-	< 0.2 U	< 4 U	< 4 U	< 4 U	4.06 BL	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-82	4/18/2012	W82-120418-	< 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-83	4/18/2012	W83-120418-	< 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	4/24/2012	W84-120424-	< 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	4/30/2012	W85-120430-	< 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-86	4/30/2012	W86-120430-	< 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	4/20/2012	W87-120420-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 LU	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-87 Duplicate	4/20/2012	W87-120420D	< 0.2 U	< 4 U	< 4 U	< 4 U	4.36 BL	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-87	5/18/2012	W87-120518-	< 0.2 U	< 4 U	< 4 U	< 4 U	4.82 L	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-87	6/22/2012	W87-120622-	< 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 April 1, 2012 to June 30, 2012

Cedar Hills Landfill --- Groundwater VOA Analytical Data

Contact Person: Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	1,4-Dichloro-benzene ($\mu\text{g/L}$)	2-Butanone ($\mu\text{g/L}$)	2-Hexanone ($\mu\text{g/L}$)	4-Methyl-2-Pentanone ($\mu\text{g/L}$)	Acetone ($\mu\text{g/L}$)	Arylonitrile ($\mu\text{g/L}$)	Benzene ($\mu\text{g/L}$)	Bromochloromethane ($\mu\text{g/L}$)	Bromodichloromethane ($\mu\text{g/L}$)	Bromoform ($\mu\text{g/L}$)	Bromo-methane ($\mu\text{g/L}$)	Carbon Disulfide ($\mu\text{g/L}$)
MW-88	4/17/2012	W88-120417-	< 0.2 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	< 0.2 U
MW-89	4/10/2012	W89-120410-	< 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	4/9/2012	W90-120409-	< 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-91	4/10/2012	W91-120410-	< 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-93	4/24/2012	W93-120424-	< 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	4/24/2012	W94-120424-	< 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-95	4/30/2012	W95-120430-	< 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	4/20/2012	W99-120420-	< 0.2 U	< 4 U	< 4 U	< 4 U	4.32 BL	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-99	5/18/2012	W99-120518-	< 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	6/22/2012	W99-120622-	< 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	4/17/2012	W100-120417-	< 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	4/9/2012	W101-120409-	< 0.2 U	< 4 U	< 4 U	< 4 U	8.29	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-EB6	4/6/2012	WB6-120406-	< 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	4/3/2012	W27A120403F	< 0.2 U	< 4 U	< 4 U	< 4 U	5.72	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
FIELD BLANK	4/9/2012	W101120409F	< 0.2 U	< 4 U	< 4 U	< 4 U	5.09	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
FIELD BLANK	4/24/2012	W59-120424F	< 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	6/22/2012	W74R120622F	< 0.2 U	< 4 U	< 4 U	< 4 U	4 T	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	4/2/2012	VTRP120404T	< 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	4/3/2012	VTRP120404B	< 0.2 U	< 4 U	< 4 U	< 4 U	8.38	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	4/3/2012	VTRP120404C	< 0.2 U	< 4 U	< 4 U	< 4 U	9.59	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	4/4/2012	VTRP120405B	< 0.2 U	< 4 U	< 4 U	< 4 U	4.3	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	4/4/2012	VTRP120406C	< 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	4/5/2012	VTRP120406B	< 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	4/6/2012	VTRP120409B	< 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	4/6/2012	VTRP120409C	< 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	4/9/2012	VTRP120410B	< 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	4/9/2012	VTRP120410C	< 0.2 U	< 4 U	< 4 U	< 4 U	5.06	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	4/10/2012	VTRP120412C	< 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	4/10/2012	VTRP120416B	< 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	4/12/2012	VTRP120418C	< 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	4/16/2012	VTRP120417B	< 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	4/17/2012	VTRP120420C	< 0.2 U	< 4 U	< 4 U	< 4 U	4.22 BL	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	4/18/2012	VTRP120419C	< 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	4/19/2012	VTRP120420B	< 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	4/19/2012	VTRP120423C	< 0.2 U	< 4 U	< 4 U	< 4 U	4.81 BL	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	4/20/2012	VTRP120424B	< 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	4/23/2012	VTRP120424C	< 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	4/24/2012	VTRP120425B	< 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	4/25/2012	VTRP120426B	< 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	4/26/2012	VTRP120427B	< 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	4/26/2012	VTRP120430C	< 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	4/27/2012	VTRP120430B	< 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	5/2/2012	VTRP120502C	< 0.2 U	< 4 U	< 4 U	< 4 U	5.59	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	5/16/2012	VTRP120517B	< 0.2 U	< 4 U	< 4 U	< 4 U	4.92	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	5/17/2012	VTRP120518C	< 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 April 1, 2012 to June 30, 2012

Cedar Hills Landfill --- Groundwater VOA Analytical Data

Contact Person: Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	1,4-Dichloro-benzene ($\mu\text{g/L}$)	2-Butanone ($\mu\text{g/L}$)	2-Hexanone ($\mu\text{g/L}$)	4-Methyl-2-Pentanone ($\mu\text{g/L}$)	Acetone ($\mu\text{g/L}$)	Arylonitrile ($\mu\text{g/L}$)	Benzene ($\mu\text{g/L}$)	Bromochloromethane ($\mu\text{g/L}$)	Bromodichloromethane ($\mu\text{g/L}$)	Bromoform ($\mu\text{g/L}$)	Bromomethane ($\mu\text{g/L}$)	Carbon Disulfide ($\mu\text{g/L}$)
			106-46-7 ($\mu\text{g/L}$)	78-93-3 ($\mu\text{g/L}$)	591-78-6 ($\mu\text{g/L}$)	108-10-1 ($\mu\text{g/L}$)	67-64-1 ($\mu\text{g/L}$)	107-13-1 ($\mu\text{g/L}$)	71-43-2 ($\mu\text{g/L}$)	74-97-5 ($\mu\text{g/L}$)	75-27-4 ($\mu\text{g/L}$)	75-25-2 ($\mu\text{g/L}$)	74-83-9 ($\mu\text{g/L}$)	75-15-0 ($\mu\text{g/L}$)
VOA TRIP BLANK	6/11/2012	VTRP120613C	< 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	6/18/2012	VTRP120620C	< 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	6/21/2012	VTRP120622B	< 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	6/21/2012	VTRP120622C	< 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
WS-NPW	4/27/2012	WNPW120427-	< 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
WS-OS1	6/20/2012	WOS1120620-	< 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 April 1, 2012 to June 30, 2012

Cedar Hills Landfill --- Groundwater VOA Analytical Data

Contact Person: Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	Carbon Tetrachloride ($\mu\text{g/L}$)	Chloro-benzene ($\mu\text{g/L}$)	Chloro-dibromo-methane ($\mu\text{g/L}$)	Chloro-ethane ($\mu\text{g/L}$)	Chloroform ($\mu\text{g/L}$)	Chloro-methane ($\mu\text{g/L}$)	cis-1,2-Dichloro-ethene ($\mu\text{g/L}$)	cis-1,3-Dichloro-propene ($\mu\text{g/L}$)	Dibromo-methane ($\mu\text{g/L}$)	Dichloro-difluoro-methane ($\mu\text{g/L}$)	Ethyl-benzene ($\mu\text{g/L}$)	m, p-Xylene ($\mu\text{g/L}$)
			56-23-5	108-90-7	124-48-1	75-00-3	67-66-3	74-87-3	156-59-2	10061-01-5	74-95-3	75-71-8	100-41-4	
MW-21	4/5/2012	W21-120405-	< 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	4/3/2012	W24-120403-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	0.26 T	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-27A	4/3/2012	W27A120403-	< 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	4/9/2012	W28-120409-	< 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	4/4/2012	W29-120404-	< 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	4/3/2012	W30A120403-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	3.04	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-43	4/6/2012	W43-120406-	< 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-47	4/5/2012	W47-120405-	< 0.2 U	< 0.2 U	< 0.2 U	0.25 T	< 0.2 U	< 0.2 U	1.28	< 0.2 U	< 0.2 U	6.96	< 0.2 U	< 0.2 U
MW-55	4/6/2012	W55-120406-	< 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	4/10/2012	W56-120410-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	0.692	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-57	4/30/2012	W57-120430-	< 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-58A	4/19/2012	W58A120419-	< 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	4/24/2012	W59-120424-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	0.656	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-60	4/12/2012	W60-120412-	< 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	4/3/2012	W62-120403-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	2.66	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-64	4/27/2012	W64-120427-	< 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	4/16/2012	W65-120416-	< 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 Duplicate	4/16/2012	W65-120416D	< 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	4/23/2012	W66-120423-	< 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	4/6/2012	W67-120406-	< 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	4/26/2012	W68-120426-	< 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	4/25/2012	W69-120425-	< 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	4/6/2012	W70-120406-	< 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-72	4/17/2012	W72-120417-	< 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	4/18/2012	W73-120418-	< 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	4/20/2012	W74R120420-	< 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	5/17/2012	W74R120517-	< 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	6/22/2012	W74R120622-	< 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	< 0.2 U	< 0.2 U
MW-75	4/20/2012	W75-120420-	< 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	5/17/2012	W75-120517-	< 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	6/22/2012	W75-120622-	< 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	4/16/2012	W76-120416-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	1.01	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-77	4/23/2012	W77-120423-	< 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	4/6/2012	W78-120406-	< 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	4/23/2012	W80-120423-	< 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	4/20/2012	W81-120420-	< 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	4/18/2012	W82-120418-	< 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	4/18/2012	W83-120418-	< 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	4/24/2012	W84-120424-	< 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	4/30/2012	W85-120430-	< 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	4/30/2012	W86-120430-	< 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	4/20/2012	W87-120420-	< 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 Duplicate	4/20/2012	W87-120420D	< 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	5/18/2012	W87-120518-	< 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	6/22/2012	W87-120622-	< 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

Environmental Monitoring Data

Data Collected from April 1, 2012 to June 30, 2012

Cedar Hills Landfill --- Groundwater VOA Analytical Data

Contact Person: Sendy Jimenez (206) 296-4411

Environmental Monitoring Data

Data Collected from April 1, 2012 to June 30, 2012

Cedar Hills Landfill --- Groundwater VOA Analytical Data

Contact Person: Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	Carbon Tetrachloride ($\mu\text{g/L}$)	Chloro-benzene ($\mu\text{g/L}$)	Chloro-dibromo-methane ($\mu\text{g/L}$)	Chloro-ethane ($\mu\text{g/L}$)	Chloroform ($\mu\text{g/L}$)	Chloro-methane ($\mu\text{g/L}$)	cis-1,2-Dichloro-ethene ($\mu\text{g/L}$)	cis-1,3-Dichloro-propene ($\mu\text{g/L}$)	Dibromo-methane ($\mu\text{g/L}$)	Dichloro-difluoro-methane ($\mu\text{g/L}$)	Ethyl-benzene ($\mu\text{g/L}$)	m, p-Xylene ($\mu\text{g/L}$)
			56-23-5	108-90-7	124-48-1	75-00-3	67-66-3	74-87-3	156-59-2	10061-01-5	74-95-3	75-71-8	100-41-4	
VOA TRIP BLANK	6/11/2012	VTRP120613C	< 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
VOA TRIP BLANK	6/18/2012	VTRP120620C	< 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
VOA TRIP BLANK	6/21/2012	VTRP120622B	< 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
VOA TRIP BLANK	6/21/2012	VTRP120622C	< 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
WS-NPW	4/27/2012	WNPW120427-	< 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
WS-OS1	6/20/2012	WOS1120620-	< 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

Environmental Monitoring Data

Data Collected from April 1, 2012 to June 30, 2012

Cedar Hills Landfill --- Groundwater VOA Analytical Data

Contact Person: Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	Methyl Iodide ($\mu\text{g/L}$)	Methylene Chloride ($\mu\text{g/L}$)	o-Xylene ($\mu\text{g/L}$)	Styrene ($\mu\text{g/L}$)	Tetrachloroethene ($\mu\text{g/L}$)	Toluene ($\mu\text{g/L}$)	trans-1,2-Dichloroethene ($\mu\text{g/L}$)	trans-1,3-Dichloropropene ($\mu\text{g/L}$)	trans-1,4-Dichlorobutene ($\mu\text{g/L}$)	Trichloroethene ($\mu\text{g/L}$)	Trichlorofluoromethane ($\mu\text{g/L}$)	Vinyl Acetate ($\mu\text{g/L}$)	Vinyl Chloride ($\mu\text{g/L}$)
			74-88-4	75-09-2	95-47-6	100-42-5	127-18-4	108-88-3	156-60-5	10061-02-6	110-57-6	79-01-6	75-69-4	108-05-4	75-01-4
MW-21	4/5/2012	W21-120405-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-24	4/3/2012	W24-120403-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-27A	4/3/2012	W27A120403-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-28	4/9/2012	W28-120409-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-29	4/4/2012	W29-120404-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-30A	4/3/2012	W30A120403-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	1.31	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-43	4/6/2012	W43-120406-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-47	4/5/2012	W47-120405-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	6.15
MW-55	4/6/2012	W55-120406-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-56	4/10/2012	W56-120410-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-57	4/30/2012	W57-120430-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-58A	4/19/2012	W58A120419-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-59	4/24/2012	W59-120424-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-60	4/12/2012	W60-120412-	< 0.2 GU	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-62	4/3/2012	W62-120403-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	0.518	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-64	4/27/2012	W64-120427-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-65	4/16/2012	W65-120416-	< 0.2 GU	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	0.0365
MW-65 Duplicate	4/16/2012	W65-120416D	< 0.2 GU	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	0.045
MW-66	4/23/2012	W66-120423-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-67	4/6/2012	W67-120406-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-68	4/26/2012	W68-120426-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-69	4/25/2012	W69-120425-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-70	4/6/2012	W70-120406-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-72	4/17/2012	W72-120417-	< 0.2 GU	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-73	4/18/2012	W73-120418-	< 0.2 GU	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-74	4/20/2012	W74R120420-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-74	5/17/2012	W74R120517-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-74	6/22/2012	W74R120622-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-75	4/20/2012	W75-120420-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-75	5/17/2012	W75-120517-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-75	6/22/2012	W75-120622-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-76	4/16/2012	W76-120416-	< 0.2 GU	< 0.2 U	< 0.2 U	< 0.2 U	0.457	< 0.2 U	< 0.2 U	< 100 U	11.5	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-77	4/23/2012	W77-120423-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-78	4/6/2012	W78-120406-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	0.591	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-80	4/23/2012	W80-120423-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-81	4/20/2012	W81-120420-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-82	4/18/2012	W82-120418-	< 0.2 GU	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	4.14	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-83	4/18/2012	W83-120418-	< 0.2 GU	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	1.68	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-84	4/24/2012	W84-120424-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-85	4/30/2012	W85-120430-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-86	4/30/2012	W86-120430-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-87	4/20/2012	W87-120420-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-87 Duplicate	4/20/2012	W87-120420D	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-87	5/18/2012	W87-120518-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 GU	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-87	6/22/2012	W87-120622-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U

Environmental Monitoring Data

Data Collected from April 1, 2012 to June 30, 2012

Cedar Hills Landfill --- Groundwater VOA Analytical Data

Contact Person: Sandy Jimenez (206) 296-4411.

Environmental Monitoring Data

Data Collected from April 1, 2012 to June 30, 2012

Cedar Hills Landfill --- Groundwater VOA Analytical Data

Contact Person: Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	Methyl Iodide ($\mu\text{g/L}$)	Methylene Chloride ($\mu\text{g/L}$)	o-Xylene ($\mu\text{g/L}$)	Styrene ($\mu\text{g/L}$)	Tetrachloroethene ($\mu\text{g/L}$)	Toluene ($\mu\text{g/L}$)	trans-1,2-Dichloroethene ($\mu\text{g/L}$)	trans-1,3-Dichloro-propene ($\mu\text{g/L}$)	trans-1,4-Dichloro-2-butene ($\mu\text{g/L}$)	Trichloroethene ($\mu\text{g/L}$)	Trichlorofluoromethane ($\mu\text{g/L}$)	Vinyl Acetate ($\mu\text{g/L}$)	Vinyl Chloride ($\mu\text{g/L}$)
		74-88-4	75-09-2	95-47-6	100-42-5	127-18-4	108-88-3	156-60-5	10061-02-6	110-57-6	79-01-6	75-69-4	108-05-4	75-01-4	
VOA TRIP BLANK	6/11/2012	VTRP120613C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U	
VOA TRIP BLANK	6/18/2012	VTRP120620C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U	
VOA TRIP BLANK	6/21/2012	VTRP120622B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U	
VOA TRIP BLANK	6/21/2012	VTRP120622C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U	
WS-NPW	4/27/2012	WNPW120427-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U	
WS-OS1	6/20/2012	WOS1120620-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U	

Surface Water Analytical Data

Environmental Monitoring Data

Data Collected from April 1, 2012 to June 30, 2012

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

Contact Person: Sendy Jimenez (206) 296-4411

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
SG-1	SW-W1	4/18/2012	415.38	418.84		0.84	416.22	
SG-1	SW-W1	5/23/2012	415.38	418.84		0.83	416.21	
SG-1	SW-W1	6/18/2012	415.38	418.84		0.84	416.22	
SG-2	SW-N1	4/18/2012	355.68	358.21		0.61	356.29	
SG-2	SW-N1	5/23/2012	355.68	358.21		0.59	356.27	
SG-2	SW-N1	6/18/2012	355.68	358.21		0.59	356.27	
SG-3	SW -V	4/18/2012	466.46	469.88		0.02	466.48	
SG-3	SW -V	5/23/2012	466.46	469.88	3.52		466.36	
SG-3	SW -V	6/18/2012	466.46	469.88	5.39		464.49	
SG-4	Upstream of SW-E1	4/18/2012	502.41	505.85		0.26	502.67	
SG-4	Upstream of SW-E1	5/23/2012	502.41	505.85		0.27	502.68	
SG-4	Upstream of SW-E1	6/18/2012	502.41	505.85	4.27		501.58	
SG-5	SW-E1	4/18/2012	486.92	490.34		0.63	487.55	
SG-5	SW-E1	5/23/2012	486.92	490.34		0.61	487.53	
SG-5	SW-E1	6/18/2012	486.92	490.34		0.56	487.48	
SG-6	Upstream of SW-GS1	4/16/2012	490.72	494.12		0.56	491.28	
SG-6	Upstream of SW-GS1	5/22/2012	490.72	494.12		0.45	491.17	
SG-6	Upstream of SW-GS1	6/18/2012	490.72	494.12		0.45	491.17	
SG-7	SW-S2	4/16/2012	453.03	456.41		0.53	453.56	
SG-7	SW-S2	5/22/2012	453.03	456.41		0.49	453.52	
SG-7	SW-S2	6/18/2012	453.03	456.41		0.45	453.48	
SG-8	Upstream of SW-S1	4/16/2012	510.61	515.56		0.50	511.11	
SG-8	Upstream of SW-S1	5/22/2012	510.61	515.56		0.53	511.14	
SG-8	Upstream of SW-S1	6/18/2012	510.61	515.56		0.45	511.06	
SG-9	SW-S1	4/16/2012	490.93	494.35		0.95	491.88	
SG-9	SW-S1	5/22/2012	490.93	494.35		0.91	491.84	
SG-9	SW-S1	6/18/2012	490.93	494.35		0.67	491.60	

Environmental Monitoring Data

Data Collected from April 1, 2012 to June 30, 2012
 Cedar Hills Landfill --- Surface Water Field Parameters
 Contact Person: Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	pH (Field)	Conductance (Field)	Temperature (°C)	Turbidity (NTU)	Oxygen, Dissolved (mg/L)
			(std. Units)	(umho/cm)			
SW-E1	4/18/2012	SE1-120418O	7.65	45	8.4	1.23	11.68
SW-E1	5/23/2012	SE1-120523M	6.11	47	10	2.6	9.53
SW-E1	6/18/2012	SE1-120618M	5.91	72	11	3.68	7.22
SW-GS1	4/16/2012	SGS1120416P	6.97	90	10.6	10.7	9.71
SW-GS1	4/16/2012	SGS1120416Q	6.97	90	10.6	10.7	9.71
SW-GS1	5/22/2012	SGS1120522M	7.27	140	13	8.65	9.32
SW-GS1	6/18/2012	SGS1120618M	7.28	130	14	8.83	8.65
SW-MC	4/19/2012	SMC-120419O	7.05	85	8.5	2.74	11.74
SW-MC	5/24/2012	SMC-120524M	6.99	125	11.4	2.06	8.14
SW-MC	6/19/2012	SMC-120619M	6.84	95	12.3	5.12	9.88
SW-N1	4/18/2012	SN1-120418O	7.16	93	9.2	1.66	10.89
SW-N1	5/23/2012	SN1-120523M	6.88	110	11.5	2.54	10.27
SW-N1	6/18/2012	SN1-120618M	6.64	90	12.5	6.47	9.01
SW-N4	4/16/2012	SN4-120416P	7.45	105	13.2	1.47	9.75
SW-N4	4/18/2012	SN4-120418O	7.23	91	11.6	2.7	10.84
SW-N4	5/23/2012	SN4-120523M	7.16	107	14.5	2.26	8.83
SW-N4	6/18/2012	SN4-120618M	6.9	105	15.9	2.02	9.7
SW-S1	4/17/2012	SS1-120417O	6.28	51	8.2	0.51	7.23
SW-S1	4/26/2012	SS1-120426M	6.52	47	10.9	0.99	10.37
SW-S1	5/22/2012	SS1-120522M	6.61	50	11.8	1.85	8.3
SW-S1	6/18/2012	SS1-120618M	6.55	62	12.3	0.96	6.59
SW-S2	4/17/2012	SS2-120417O	6.63	105	8.8	3.92	6.36
SW-S2	5/22/2012	SS2-120522M	6.91	125	12.3	4.54	8.15
SW-S2	6/18/2012	SS2-120618M	6.94	165	13	3.52	6.55
SW-SL3	4/16/2012	SSL3120416P	7.12	165	10.3	5.69	9.11
SW-SL3	4/16/2012	SSL3120416O	7.12	165	10.3	5.69	9.11
SW-SL3	4/19/2012	SSL3120419P	6.84	100	9.1	1.6	9.94
SW-SL3	5/22/2012	SSL3120522M	6.9	74	13.1	17.2	8.94
SW-SL3	5/24/2012	SSL3120524P	6.73	100	11.5	3.21	8.09
SW-SL3	6/18/2012	SSL3120618M	7.16	130	12.8	1.5	7.75
SW-SL3	6/19/2012	SSL3120619P	6.6	85	12.5	1.71	8.44
SW-SLP1	4/19/2012	SLP1120419P	5.51	115	8.3	90.1	10.18
SW-SLP1	5/24/2012	SLP1120524P	6.73	100	11.3	78.8	7.96
SW-SLP1	6/19/2012	SLP1120619P	6.48	82	11.8	49.8	8.86
SW-SLP2	4/19/2012	SLP2120419P	6.8	150	8.3		10.83
SW-SLP2	5/24/2012	SLP2120524P	6.8	150	11.1	9.75	8.61
SW-SLP2	6/19/2012	SLP2120619P	6.73	160	12.1	4.27	9.46
SW-SLP3	5/24/2012	SLP3120524P	6.62	240	11	20.8	4.08
SW-TD1	4/16/2012	STD1120416-	7.68	240	10.2	20.4	10.5
SW-TD2	4/26/2012	STD2120426-	6.68	29	12.1	7.71	9.18

Environmental Monitoring Data

Data Collected from April 1, 2012 to June 30, 2012
 Cedar Hills Landfill --- Surface Water Field Parameters
 Contact Person: Sandy Jimenez (206) 296-4411

Site	Date	Sample ID	pH (Field)	Conductance (Field)	Temperature (°C)	Turbidity (NTU)	Oxygen, Dissolved (mg/L)
			(std. Units)	(umho/cm)			
SW-TD4	4/16/2012	STD4120416-	6.69	51	10.7	41.3	10.29
SW-TD6	4/18/2012	STD6120418-	7.38	140	10.6	53.2	7.4
SW-V	4/18/2012	SV-120418O	7.22	94	9.5	5.01	10.72
SW-W	4/19/2012	SW--120419O	6.64	80	9.8	2.19	8.69
SW-W	5/24/2012	SW-120524M	6.29	85	11.3	3.59	7.89
SW-W1	4/18/2012	SW1-120418Q	7.15	106	10	2.94	11.88
SW-W1	5/23/2012	SW1-120523M	7.17	108	11.6	2.28	11.2
SW-W1	6/18/2012	SW1-120618M	6.84	100	12.9	7.26	10.04
SW-W2	4/17/2012	SW2-120417O	6.36	53	7.1	0.59	8.78
SW-W2	5/22/2012	SW2-120522M	6.65	54	11	1.12	8.89
SW-W2	6/18/2012	SW2-120618M	6.66	56	11.8	0.95	7.11
FIELD BLANK	4/17/2012	SGS1120417F	4.96	3.9	12.6	0.26	9.77
FIELD BLANK	5/23/2012	SW1-120523F	4.54	8.7	14.2	0.61	3.49

Environmental Monitoring Data

Data Collected from April 1, 2012 to June 30, 2012

Cedar Hills Landfill --- Surface Water Conventional Analytical Data

Contact Person: Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	Alkalinity,	Ammonia,	Biological	Chemical	Chloride	Coliforms,	Coliforms,	Cyanide	Fluoride	Hardness	Nitrate-	Nitrate+Nitrite
			Total (CaCO3)	(NH3)	Oxygen Demand	Oxygen Demand	(mg/L)	(CFU/100m)	Total	(mg/L)	(mg/L)	(mg/L)	Nitrogen, (NO3 as N)	(NO3+NO2 as N)
SW-E1	4/18/2012	SE1-120418Q	17.6	0.012 T	< 2 U	9 T	1.77	58	70	< 0.02 U	< 0.1 U	17.1	0.137	0.137
SW-E1	5/23/2012	SE1-120523M	21.1	0.016 T		6.9 T	1.7	350	900			18.9	0.128	0.128
SW-E1	6/18/2012	SE1-120618M	23.8	0.0202		10.2	1.55	1400	1500			20.5	0.144	0.144
SW-GS1	4/16/2012	SGS1120416P		0.01 T	< 2 U									
SW-GS1	4/16/2012	SGS1120416Q	35.7	< 0.01 U	< 2 U	11	1.47	1000	500	< 0.02 U	< 0.1 U	36.9	0.206	0.206
SW-GS1	5/22/2012	SGS1120522M	56.7	< 0.01 U		6.2 T	1.1	56	510			58.8	0.0412	0.0412
SW-GS1	6/18/2012	SGS1120618M	47.7	0.0272		12.9	2.06	1300	4000 C			50.9	0.0757	0.0757
SW-MC	4/19/2012	SMC-120419Q	39	< 0.01 U	< 2 U	6.5 T	2.97	1	15	< 0.02 U	< 0.1 U	38.1	0.621	0.621
SW-MC	5/24/2012	SMC-120524M	44.2	< 0.01 U		< 5 U	3.03	15	70			43.6	0.47	0.47
SW-MC	6/19/2012	SMC-120619M	47	< 0.01 U		9.9 T	2.87	50	400			43.4	0.459	0.459
SW-N1	4/18/2012	SN1-120418Q	38.2	< 0.01 U	< 2 U	5.8 T	3.05	5	22	< 0.02 U	< 0.1 U	38.6	0.618	0.618
SW-N1	5/23/2012	SN1-120523M	44.4	< 0.01 U		< 5 U	3.13	23	70			43.3	0.444	0.444
SW-N1	6/18/2012	SN1-120618M	44	< 0.01 U		18.1	3.09	2500	19000			43.2	0.487	0.487
SW-N4	4/16/2012	SN4-120416P		0.0249	< 2 U									
SW-N4	4/18/2012	SN4-120418Q	40.9	0.014 T	< 2 U	13.6	1.53	5	11	< 0.02 U	< 0.1 U	40.7	0.17	0.17
SW-N4	5/23/2012	SN4-120523M	49.5	0.0597		13 T	2.52	42	120			49.5	0.147	0.147
SW-N4	6/18/2012	SN4-120618M	48.8	0.0368		16.4	1.95	22	40			51	0.371	0.388
SW-S1	4/17/2012	SS1-120417Q	16.7	< 0.01 U	< 2 U	5.6 T	2.14	< 1 U	140	< 0.02 U	< 0.1 U	17.4	0.385	0.385
SW-S1	4/26/2012	SS1-120426M	18.2	< 0.01 U		16.2	2.13	47	340			15.7	0.422	0.422
SW-S1	5/22/2012	SS1-120522M	20.4	0.012 T		5.3 T	2.6	48	99			16.6	0.133	0.133
SW-S1	6/18/2012	SS1-120618M	20.7	< 0.01 U		10.8	2.21	30	56			16.8	0.058	0.058
SW-S2	4/17/2012	SS2-120417Q	43.5	< 0.01 U	< 2 U	7.2 T	1.21	14	190	< 0.02 U	< 0.1 U	43.4	0.136	0.136
SW-S2	5/22/2012	SS2-120522M	50.8	< 0.01 U		7 T	1.1	16	240			50.3	0.032 T	0.032 T
SW-S2	6/18/2012	SS2-120618D	60.8	< 0.01 U		9.5 T	1.8	13	65			62.7	0.034 T	0.034 T
SW-S2	6/18/2012	SS2-120618M	61	< 0.01 U		12.1	1.85	9	420			62.3	0.034 T	0.034 T
SW-SL3	4/16/2012	SSL3120416P		0.013 T	< 2 U									
SW-SL3	4/16/2012	SSL3120416Q	65.7	0.012 T	< 2 U	31.4	4.26	26	400	< 0.02 U	< 0.1 U	66.5	0.116	0.116
SW-SL3	4/19/2012	SSL3120419P		0.01 T	< 2 U									
SW-SL3	5/22/2012	SSL3120522M	28.2	< 0.01 U		10 T	2.42	570	6000			29.3	0.029 T	0.029 T
SW-SL3	5/24/2012	SSL3120524P		< 0.01 U	< 2 U									
SW-SL3	6/18/2012	SSL3120618M	52.2	< 0.01 U		15.9	3.41	140	2500			47.9	0.033 T	0.033 T
SW-SL3 Duplicate	6/19/2012	SSL3120619D		< 0.01 U	< 2 U									
SW-SL3	6/19/2012	SSL3120619P		< 0.01 U	< 2 U									
SW-SLP1	4/19/2012	SLP1120419P		0.0601	2.47									
SW-SLP1 Duplicate	4/19/2012	SLP1120419D		0.0594	2.83									
SW-SLP1	5/24/2012	SLP1120524P		0.1	2.66									
SW-SLP1	6/19/2012	SLP1120619P		0.134	< 2 U									
SW-SLP2	4/19/2012	SLP2120419P		< 0.01 U	< 2 U									
SW-SLP2	5/24/2012	SLP2120524P		0.011 T	< 2 U									
SW-SLP2	6/19/2012	SLP2120619P		0.011 T	< 2 U									
SW-SLP3	5/24/2012	SLP3120524P		0.0722	< 2 U									
SW-TD1	4/16/2012	STD1120416-	83.4			23	2.6							
SW-TD2	4/26/2012	STD2120426-	11.8			40.6	< 0.1 U							
SW-TD4	4/16/2012	STD4120416-	14.9			20.5	1.55							
SW-TD6	4/18/2012	STD6120418-	54.4			57.3	3.84							

Environmental Monitoring Data

Data Collected from April 1, 2012 to June 30, 2012

Cedar Hills Landfill --- Surface Water Conventional Analytical Data

Contact Person: Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	Alkalinity,	Ammonia,	Biological	Chemical	Chloride	Coliforms,	Coliforms,	Cyanide	Fluoride	Hardness	Nitrate-	Nitrate+Nitrite
			Total (CaCO ₃)	(NH ₃)	Oxygen Demand	Oxygen Demand	(mg/L)	(CFU/100m)	Total	(mg/L)	(mg/L)	(mg/L)	Nitrogen, (NO ₃ as N)	(NO ₃ +NO ₂ as N)
SW-V	4/18/2012	SV-120418Q	31.9	< 0.01 U	< 2 U	8.4 T	3.88	< 1 U	240	< 0.02 U	< 0.1 U	33.5	1.32	1.32
SW-W	4/19/2012	SW--120419Q	33.9	0.0208	< 2 U	9.5 T	3.5	18	40	< 0.02 U	< 0.1 U	33.3	0.9	0.9
SW-W	5/24/2012	SW-120524M	37.6	0.0302		5.3 T	3.42	25	60			36.3	0.877	0.877
SW-W1	4/18/2012	SW1-120418Q	42.5	< 0.01 U	< 2 U	7.3 T	3.95	3	21	< 0.02 U	< 0.1 U	45.3	0.869	0.869
SW-W1	5/23/2012	SW1-120523M	44.9	< 0.01 U		< 5 U	3.76	63	250			43.2	0.711	0.711
SW-W1	6/18/2012	SW1-120618M	46.2	< 0.01 U		14.3	3.95	650	1500			44.8	0.719	0.719
SW-W2	4/17/2012	SW2-120417O	19.5	< 0.01 U	< 2 U	6.2 T	2.45	2	99	< 0.02 U	< 0.1 U	17.8	0.475	0.475
SW-W2	5/22/2012	SW2-120522M	19.5	< 0.01 U		5.3 T	2.63	36	90			18.5	0.155	0.155
SW-W2	6/18/2012	SW2-120618M	22.8	< 0.01 U		7.5 T	2.47	12	42			18.8	0.0418	0.0418
FIELD BLANK	5/23/2012	SW1-120523F	1.4 T	< 0.01 U		< 5 U	< 0.1 U	< 1 U	< 1 U			< 1 U	0.104	0.104

Environmental Monitoring Data

Data Collected from April 1, 2012 to June 30, 2012

Cedar Hills Landfill --- Surface Water Conventional Analytical Data

Contact Person: Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	Soluble Reactive Phosphorus	Phosphorus, Total (as P)	Specific Conductance	Sulfate (SO ₄)	Total Dissolved Solids	Total Kjeldahl Nitrogen ^{TUW N}	Total Organic Carbon	Total Solids	Suspended Solids	Turbidity
			(mg/L)	(mg/L)	(umho/cm)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(NTU)
SW-E1	4/18/2012	SE1-120418Q	0.018 T		48.8	1.38	39	0.375	4.27	49	4.4	1.31
SW-E1	5/23/2012	SE1-120523M	0.011 T		52.1	0.872	47.1	0.345	4.16	55.9	1.6	2.49
SW-E1	6/18/2012	SE1-120618M	0.016 T		59	1.71	56	0.645	4.39	64	7.78	5.8
SW-GS1	4/16/2012	SGS1120416P									66.6	9.01
SW-GS1	4/16/2012	SGS1120416Q	0.012 T		86.4	4.06	66	0.21	4.69	73	9.9	15.3
SW-GS1	5/22/2012	SGS1120522M	0.013 T		134	8.83	91.1	0.313	5.13	104	6.9	8.86
SW-GS1	6/18/2012	SGS1120618M	0.011 T		121	9.61	88	0.43	6.42	92	7.8	8.97
SW-MC	4/19/2012	SMC-120419Q	0.017 T		103	5.12	70	0.18 T	3.58	68	1.8	1.15
SW-MC	5/24/2012	SMC-120524M	0.011 T		111	4.49	81.1	0.226	4.11	85.7	2.4	2.05
SW-MC	6/19/2012	SMC-120619M	0.0465		115	4.69	91	0.282	4.85	99	7.1	5.66
SW-N1	4/18/2012	SN1-120418Q	0.014 T		102	4.69	67	0.2 T	3.83	67	2.1	1.42
SW-N1	5/23/2012	SN1-120523M	0.012 T		111	4.57	75.1	0.328	5.1	85.3	3.8	3.03
SW-N1	6/18/2012	SN1-120618M	0.019 T		110	4.22	85	0.505	7.73	103	15.5	7.62
SW-N4	4/16/2012	SN4-120416P									2	1.59
SW-N4	4/18/2012	SN4-120418Q	0.011 T		99.1	5.06	65	0.447	5.41	76	2	1.91
SW-N4	5/23/2012	SN4-120523M	0.012 T		118	4.71	79.8	0.654	6.45	87.4	1.6 T	2.49
SW-N4	6/18/2012	SN4-120618M	0.013 T		118	5.88	83	0.554	6.57	97	1.9	1.56
SW-S1	4/17/2012	SS1-120417Q	< 0.01 U		52.2	2.15	36 J	0.18 T	4.41	38 J	42.5 J	2.65
SW-S1	4/26/2012	SS1-120426M	0.019 T		49.2	1.98	32.5	0.589	5.31	39	2.4	3.22
SW-S1	5/22/2012	SS1-120522M	0.01 T		50.8	1.3	42.6	0.235	4.83	57.7	3	2.21
SW-S1	6/18/2012	SS1-120618M	< 0.01 U		51.9	0.814	51	0.515	4.66	53	11.3	2.14
SW-S2	4/17/2012	SS2-120417Q	0.01 T		101	4.72	64	0.19 T	4.07	59	< 1 U	4.53
SW-S2	5/22/2012	SS2-120522M	0.023 T		116	6.01	80.1	0.324	5.08	79.2	1.4	5.21
SW-S2	6/18/2012	SS2-120618D	0.012 T		142	8.58	92	0.304	5.46	84	< 1 U	1.21
SW-S2	6/18/2012	SS2-120618M	< 0.01 U		142	8.31	97	0.282	5.67	103	2.9	5.23
SW-SL3	4/16/2012	SSL3120416P									15.4	7.85
SW-SL3	4/16/2012	SSL3120416Q	0.017 T		159	7.46	105	0.914	14.6	176	28	33
SW-SL3	4/19/2012	SSL3120419P									1.1	1.41
SW-SL3	5/22/2012	SSL3120522M	0.0305		75	3.87	53.5	0.346	6.2	63.4	6.6	11.8
SW-SL3	5/24/2012	SSL3120524P									2.1	2.72
SW-SL3	6/18/2012	SSL3120618M	< 0.01 U		123	4.88	84	0.432	5.82	87	1.4 T	1.44
SW-SL3 Duplicate	6/19/2012	SSL3120619D									< 1 U	1.17
SW-SL3	6/19/2012	SSL3120619P									1.82	1.01
SW-SLP1	4/19/2012	SLP1120419P									27.8	76.6
SW-SLP1 Duplicate	4/19/2012	SLP1120419D									45.2	76.3
SW-SLP1	5/24/2012	SLP1120524P									40.6	66.8
SW-SLP1	6/19/2012	SLP1120619P									28.8	42.5
SW-SLP2	4/19/2012	SLP2120419P									1.7	1.96
SW-SLP2	5/24/2012	SLP2120524P									6	9.9
SW-SLP2	6/19/2012	SLP2120619P									3.8	4.12
SW-SLP3	5/24/2012	SLP3120524P									110	42.5
SW-TD1	4/16/2012	STD1120416-									9.98	
SW-TD2	4/26/2012	STD2120426-									14.4	
SW-TD4	4/16/2012	STD4120416-									8.48	
SW-TD6	4/18/2012	STD6120418-									23.3	

Environmental Monitoring Data

Data Collected from April 1, 2012 to June 30, 2012
 Cedar Hills Landfill --- Surface Water Conventional Analytical Data
 Contact Person: Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	Soluble Reactive Phosphorus	Phosphorus, Total (as P)	Specific Conductance	Sulfate (SO ₄)	Total Dissolved Solids	Total Kjeldahl Nitrogen ^{TURM, N^N}	Total Organic Carbon	Total Solids	Suspended Solids	Turbidity
			(mg/L)	(mg/L)	(umho/cm)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(NTU)
SW-V	4/18/2012	SV-120418Q	0.012 T	103	6.23	69	0.29	3.51	90	25.3	10.3	
SW-W	4/19/2012	SW--120419Q	0.013 T	97	4.4	65	0.311	4.63	67	1.8	1.56	
SW-W	5/24/2012	SW-120524M	0.014 T	102	4.46	81.9	0.393	4.41	84.6	4.3	3.26	
SW-W1	4/18/2012	SW1-120418Q	0.01 T	118	5.73	74	0.255	3.22	75	6.9	2.36	
SW-W1	5/23/2012	SW1-120523M	< 0.01 U	118	5.18	80.3	0.234	4.2	82.8	4.2	2.88	
SW-W1	6/18/2012	SW1-120618M	0.0358	119	5.08	86	0.422	7.5	104	15.7	8.54	
SW-W2	4/17/2012	SW2-120417O	< 0.01 U	56	2.26	34	0.13 T	3.43	34	< 1 U	0.31 T	
SW-W2	5/22/2012	SW2-120522M	< 0.01 U	55.4	1.64	49.2	0.313	5.36	51.9	1.1	0.884	
SW-W2	6/18/2012	SW2-120618M	< 0.01 U	57.4	1.08	56	0.251	4.64	61	2.2	1.47	
FIELD BLANK	5/23/2012	SW1-120523F	< 0.01 U	3.8 T	< 0.1 U	< 5 U	< 0.1 U	2.55	< 5 U	< 1 U	< 0.2 U	

Environmental Monitoring Data

Data Collected from April 1, 2012 to June 30, 2012

Cedar Hills Landfill --- Surface Water Metal Analytical Data

Contact Person: Sendy Jimenez (206) 296-4411

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	4/18/2012	SE1-120418Q	0.0432	0.246 D	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00284	0.00605	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-E1	5/23/2012	SE1-120523M	0.081	0.173	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00359	0.00414	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-E1	6/18/2012	SE1-120618M	0.0445 D	0.21	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00366 D	0.00469	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 DU
SW-GS1	4/16/2012	SGS1120416P												
SW-GS1	4/16/2012	SGS1120416Q	0.0219	0.613 D	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00353	0.00755	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-GS1	5/22/2012	SGS1120522M	< 0.02 U	0.417	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.0046	0.00732	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-GS1	6/18/2012	SGS1120618M	0.0345 D	0.45	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00448 D	0.00676	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-MC	4/19/2012	SMC-120419Q	< 0.02 U	0.0738 D	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00357	0.0046	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-MC	5/24/2012	SMC-120524M	0.0212	0.119	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00459	0.00508	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-MC	6/19/2012	SMC-120619M	0.0203	0.334	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00477	0.00619	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-N1	4/18/2012	SN1-120418Q	< 0.02 U	0.0844 D	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00371	0.00513	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-N1	5/23/2012	SN1-120523M	0.0253 D	0.139	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00468	0.00537	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-N1	6/18/2012	SN1-120618M	0.0272 D	0.427	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00468 D	0.00733	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 DU
SW-N4	4/16/2012	SN4-120416P												
SW-N4	4/18/2012	SN4-120418Q	< 0.02 U	0.0629 D	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00274	0.00379	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-N4	5/23/2012	SN4-120523M	< 0.02 DU	0.0415	< 0.001 U	< 0.001 U	0.00103	0.0011	0.00373	0.00446	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-N4	6/18/2012	SN4-120618M	< 0.02 DU	0.0435	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00391 D	0.00467	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 DU
SW-S1	4/17/2012	SS1-120417Q	0.0361	0.128 D	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00635	0.00736	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-S1	4/26/2012	SS1-120426M	0.043	0.189	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00608	0.00738	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-S1	5/22/2012	SS1-120522M	0.052	0.102	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00675	0.00731	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-S1	6/18/2012	SS1-120618M	0.0437 D	0.105	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00674 D	0.00738	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-S2	4/17/2012	SS2-120417Q	0.027	0.233 D	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00565	0.00728	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-S2	5/22/2012	SS2-120522M	0.0271	0.22	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00664	0.00837	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-S2	6/18/2012	SS2-120618D	< 0.02 DU	0.0565	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00677 D	0.00774	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 DU
SW-S2	6/18/2012	SS2-120618M	< 0.02 DU	0.217	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00716 D	0.00875	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-SL3	4/16/2012	SSL3120416P												
SW-SL3	4/16/2012	SSL3120416Q	< 0.02 U	1.89 D	< 0.001 U	< 0.001 U	< 0.001 U	0.00111	0.0098	0.0236	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-SL3	4/19/2012	SSL3120419P												
SW-SL3	5/22/2012	SSL3120522M	0.0368	0.406	0.00233	0.00227	< 0.001 U	< 0.001 U	0.0058	0.00876	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-SL3	5/24/2012	SSL3120524P												
SW-SL3 Duplicate	6/19/2012	SSL3120619D	< 0.02 DU	0.0599	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00611 D	0.00654	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-SL3	6/19/2012	SSL3120619P												
SW-SLP1	4/19/2012	SLP1120419P												
SW-SLP1 Duplicate	4/19/2012	SLP1120419D												
SW-SLP1	5/24/2012	SLP1120524P												
SW-SLP1	6/19/2012	SLP1120619P												
SW-SLP2	4/19/2012	SLP2120419P												
SW-SLP2	5/24/2012	SLP2120524P												
SW-SLP2	6/19/2012	SLP2120619P												
SW-SLP3	5/24/2012	SLP3120524P												
SW-TD1	4/16/2012	STD1120416-												
SW-TD2	4/26/2012	STD2120426-												
SW-TD4	4/16/2012	STD4120416-												
SW-TD6	4/18/2012	STD6120418-												

Environmental Monitoring Data

Data Collected from April 1, 2012 to June 30, 2012

Cedar Hills Landfill --- Surface Water Metal Analytical Data

Contact Person: Sendy Jimenez (206) 296-4411

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-V	4/18/2012	SV--120418Q	< 0.02 U	0.289 D	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00278	0.00626	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-W	4/19/2012	SW--120419O	0.029	0.086 D	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00385	0.0049	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-W	5/24/2012	SW--120524M	0.0557	0.167	< 0.001 U	< 0.001 U	0.00108	0.00323	0.00462	0.00505	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-W1	4/18/2012	SW1-120418O	< 0.02 U	0.157 D	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00482	0.00756	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-W1	5/23/2012	SW1-120523M	< 0.02 DU	0.11	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00532	0.0061	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-W1	6/18/2012	SW1-120618M	0.0202 D	0.408	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00499 D	0.00895	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 DU
SW-W2	4/17/2012	SW2-120417O	0.0348	0.0521 D	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00644	0.00722	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-W2	5/22/2012	SW2-120522M	0.0535	0.0789	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.0075	0.00818	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-W2	6/18/2012	SW2-120618M	0.0439 D	0.0793	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00783 D	0.00812	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
FIELD BLANK	5/23/2012	SW1-120523F	< 0.02 DU	< 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

Environmental Monitoring Data

Data Collected from April 1, 2012 to June 30, 2012

Cedar Hills Landfill --- Surface Water Metal Analytical Data

Contact Person: Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	Calcium, dissolved	Calcium, total	Chromium, dissolved	Chromium, total	Cobalt, dissolved	Cobalt, total	Copper, dissolved	Copper, total	Iron, dissolved	Iron, total	Lead, dissolved	Lead, 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	4/18/2012	SE1-120418Q	4.54	5.09	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.034 T	0.195	< 0.001 U	< 0.001 U
SW-E1	5/23/2012	SE1-120523M	5.31	5.51	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.0817	0.179	< 0.001 U	< 0.001 U
SW-E1	6/18/2012	SE1-120618M	5.81 D	5.9	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 DU	< 0.002 DU	< 0.002 U	0.168	0.309	< 0.001 U	< 0.001 U
SW-GS1	4/16/2012	SGS1120416P									0.00508			
SW-GS1	4/16/2012	SGS1120416O	8.24	9.49	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	0.0033	0.033 T	0.724	< 0.001 U	< 0.001 DU
SW-GS1	5/22/2012	SGS1120522M	14.2	14.9	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.0022	0.00328	0.044 T	0.502	< 0.001 U	< 0.001 U
SW-GS1	6/18/2012	SGS1120618M	12 D	13.2	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.00223 D	0.00336	0.0579	0.548	< 0.001 U	< 0.001 U
SW-MC	4/19/2012	SMC-120419O	8.76	10.2	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.032 T	0.0885	< 0.001 U	< 0.001 U
SW-MC	5/24/2012	SMC-120524M	11.1	11.2	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.00204	< 0.002 U	0.0785	0.19	< 0.001 U	< 0.001 U
SW-MC	6/19/2012	SMC-120619M	12.1	11.2	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.00212	0.0026	0.0616	0.343	< 0.001 U	< 0.001 U
SW-N1	4/18/2012	SN1-120418O	8.8	10.3	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	0.0023	0.042 T	0.115	< 0.001 U	< 0.001 U
SW-N1	5/23/2012	SN1-120523M	11	11.1	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	0.002 T	0.1	0.243	< 0.001 U	< 0.001 U
SW-N1	6/18/2012	SN1-120618M	10.4 D	11.1	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 DU	0.00222 D	0.00317	0.11	0.502	< 0.001 U	< 0.001 U
SW-N4	4/16/2012	SN4-120416P								0.00888				
SW-N4	4/18/2012	SN4-120418O	10.1	10.8	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.00697	0.008	0.0654	0.192	< 0.001 U	< 0.001 U
SW-N4	5/23/2012	SN4-120523M	11.9	12.6	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.00511	0.00531	0.175	0.391	< 0.001 U	< 0.001 U
SW-N4	6/18/2012	SN4-120618M	11.9 D	13.2	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 DU	0.00589 D	0.00662	0.0948	0.181	< 0.001 U	< 0.001 U
SW-S1	4/17/2012	SS1-120417O	4.45	4.98	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.01 T	0.0792	< 0.001 U	< 0.001 DU
SW-S1	4/26/2012	SS1-120426M	4.07	4.57	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.013 T	0.12	< 0.001 U	< 0.001 U
SW-S1	5/22/2012	SS1-120522M	4.69	4.81	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.03 T	0.049 T	< 0.001 U	< 0.001 U
SW-S1	6/18/2012	SS1-120618M	4.67 D	4.76	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 DU	< 0.002 U	0.037 T	0.082	< 0.001 U	< 0.001 U
SW-S2	4/17/2012	SS2-120417Q	10.4	11.2	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.00377	0.038 T	0.247	< 0.001 U	< 0.001 DU
SW-S2	5/22/2012	SS2-120522M	12.8	13.1	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	0.00225	0.105	0.342	< 0.001 U	< 0.001 U
SW-S2	6/18/2012	SS2-120618D	14.1 D	16.3	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 DU	< 0.002 DU	< 0.002 U	0.074	0.152	< 0.001 U	< 0.001 U
SW-S2	6/18/2012	SS2-120618M	14.6 D	16.2	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 DU	< 0.002 U	0.0852	0.37	< 0.001 U	< 0.001 U
SW-SL3	4/16/2012	SSL3120416P							0.00456					
SW-SL3	4/16/2012	SSL3120416O	16	16.4	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.00334	0.0105	0.103	2.59	< 0.001 U	0.00486 D
SW-SL3	4/19/2012	SSL3120419P							0.00306					
SW-SL3	5/22/2012	SSL3120522M	7.44	7.73	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.00361	0.00473	0.0972	0.562	< 0.001 U	< 0.001 U
SW-SL3	5/24/2012	SSL3120524P							0.00293					
SW-SL3	6/18/2012	SSL3120618M	11.7 D	12.4	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.00219 D	0.00256	0.046 T	0.125	< 0.001 U	< 0.001 U
SW-SL3 Duplicate	6/19/2012	SSL3120619D							0.00213					
SW-SL3	6/19/2012	SSL3120619P							0.00207					
SW-SLP1	4/19/2012	SLP1120419P							0.0108					
SW-SLP1 Duplicate	4/19/2012	SLP1120419D							0.0104					
SW-SLP1	5/24/2012	SLP1120524P							0.00851					
SW-SLP1	6/19/2012	SLP1120619P							0.00576					
SW-SLP2	4/19/2012	SLP2120419P							0.00467					
SW-SLP2	5/24/2012	SLP2120524P							0.00422					
SW-SLP2	6/19/2012	SLP2120619P							0.00364					
SW-SLP3	5/24/2012	SLP3120524P							0.00719					
SW-TD1	4/16/2012	STD1120416-								0.0734	0.955			
SW-TD2	4/26/2012	STD2120426-							0.0938	0.353				
SW-TD4	4/16/2012	STD4120416-							0.044 T	1.76				
SW-TD6	4/18/2012	STD6120418-							0.651	3.52				

Environmental Monitoring Data

Data Collected from April 1, 2012 to June 30, 2012

Cedar Hills Landfill --- Surface Water Metal Analytical Data

Contact Person: Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	Calcium, dissolved	Calcium, total	Chromium, dissolved	Chromium, total	Cobalt, dissolved	Cobalt, total	Copper, dissolved	Copper, total	Iron, dissolved	Iron, total	Lead, dissolved	Lead, 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-V	4/18/2012	SV--120418Q	8.38	9.83	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	0.375	< 0.001 U	< 0.001 U
SW-W	4/19/2012	SW--120419Q	7.84	9.28	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.00387	0.00643	0.191	0.324	< 0.001 U	< 0.001 U
SW-W	5/24/2012	SW--120524M	9.61	9.73	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.0131	0.0182	0.322	0.502	< 0.001 U	< 0.001 U
SW-W1	4/18/2012	SW1-120418Q	10.6	12.4	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.033 T	0.228	< 0.001 U	< 0.001 U
SW-W1	5/23/2012	SW1-120523M	11.5	11.5	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.122	0.253	< 0.001 U	< 0.001 U
SW-W1	6/18/2012	SW1-120618M	11 D	11.6	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 DU	< 0.002 DU	< 0.002 U	0.137	0.679	< 0.001 U	< 0.001 U
SW-W2	4/17/2012	SW2-120417Q	4.46	5.07	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.011 T	0.023 T	< 0.001 U	< 0.001 DU
SW-W2	5/22/2012	SW2-120522M	5.01	5.35	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.036 T	0.046 T	< 0.001 U	< 0.001 U
SW-W2	6/18/2012	SW2-120618M	5.33 D	5.34	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 DU	< 0.002 U	0.026 T	0.05 T	< 0.001 U	< 0.001 U
FIELD BLANK	5/23/2012	SW1-120523F	< 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

Environmental Monitoring Data

Data Collected from April 1, 2012 to June 30, 2012

Cedar Hills Landfill --- Surface Water Metal Analytical Data

Contact Person: Sendy Jimenez (206) 296-4411

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	4/18/2012	SE1-120418Q	1.11	1.07	0.0305	0.17	< 0.0001 U	< 0.01 U	< 0.01 U	0.4 DT	0.508 D	< 0.001 U	< 0.001 U	< 0.003 U
SW-E1	5/23/2012	SE1-120523M	1.32	1.26	0.0626	0.16	< 0.0001 U	< 0.01 U	< 0.01 U	0.999 D	0.49 T	< 0.001 U	< 0.001 U	< 0.003 U
SW-E1	6/18/2012	SE1-120618M	1.34	1.39	0.226 D	0.239	< 0.0001 U	< 0.01 U	< 0.01 U	1.76 D	0.52	< 0.001 U	< 0.001 U	< 0.003 U
SW-GS1	4/16/2012	SGS1120416P												
SW-GS1	4/16/2012	SGS1120416O	2.7	3.21	0.0121	0.033	< 0.0001 U	< 0.01 U	< 0.01 U	0.626 D	0.787	< 0.001 U	< 0.001 U	< 0.003 U
SW-GS1	5/22/2012	SGS1120522M	5.15	5.24	0.0392	0.0749	< 0.0001 U	< 0.01 U	< 0.01 U	0.963	1.19	< 0.001 U	< 0.001 U	< 0.003 U
SW-GS1	6/18/2012	SGS1120618M	4.09	4.34	0.0615 D	0.0884	< 0.0001 U	< 0.01 U	< 0.01 U	1.15 D	1.31	< 0.001 U	< 0.001 U	< 0.003 U
SW-MC	4/19/2012	SMC-120419O	2.99	3.05	0.00344	0.0068	< 0.0001 U	< 0.01 U	< 0.01 U	0.694 D	0.863 D	< 0.001 U	< 0.001 U	< 0.003 U
SW-MC	5/24/2012	SMC-120524M	4.1	3.81	0.00465	0.0144	< 0.0001 U	< 0.01 U	< 0.01 U	0.987 D	0.958	< 0.001 U	< 0.001 U	< 0.003 U
SW-MC	6/19/2012	SMC-120619M	4.01	3.74	0.00531	0.0228	< 0.0001 U	< 0.01 U	< 0.01 U	1.81	1.11	< 0.001 U	< 0.001 U	< 0.003 U
SW-N1	4/18/2012	SN1-120418O	3.05	3.12	0.00594	0.0127	< 0.0001 U	< 0.01 U	< 0.01 U	0.767 D	0.952 D	< 0.001 U	< 0.001 U	< 0.003 U
SW-N1	5/23/2012	SN1-120523M	4.01	3.76	0.0105	0.0258	< 0.0001 U	< 0.01 U	< 0.01 U	1.33	1.05	< 0.001 U	< 0.001 U	< 0.003 U
SW-N1	6/18/2012	SN1-120618M	3.6	3.78	0.0167 D	0.0579	< 0.0001 U	< 0.01 U	< 0.01 U	1.55 D	1.69	< 0.001 U	< 0.001 U	< 0.003 U
SW-N4	4/16/2012	SN4-120416P												
SW-N4	4/18/2012	SN4-120418O	3.56	3.36	0.00589	0.0684	< 0.0001 U	< 0.01 U	< 0.01 U	1.37 D	1.56 D	< 0.001 U	< 0.001 U	< 0.003 U
SW-N4	5/23/2012	SN4-120523M	4.54	4.41	0.0805	0.152	< 0.0001 U	< 0.01 U	< 0.01 U	2.05	1.81	< 0.001 U	< 0.001 U	< 0.003 U
SW-N4	6/18/2012	SN4-120618M	4.11	4.39	0.0412 D	0.0841	< 0.0001 U	< 0.01 U	< 0.01 U	1.67 D	1.76	< 0.001 U	< 0.001 U	< 0.003 U
SW-S1	4/17/2012	SS1-120417Q	1.16	1.21	0.00355	0.0173	< 0.0001 U	< 0.01 U	< 0.01 U	0.44 DT	0.519	< 0.001 U	< 0.001 U	< 0.003 U
SW-S1	4/26/2012	SS1-120426M	0.997	1.05	0.00254	0.0237	< 0.0001 U	< 0.01 U	< 0.01 U	0.5 DT	0.581	< 0.001 U	< 0.001 U	< 0.003 U
SW-S1	5/22/2012	SS1-120522M	1.14	1.12	0.00695	0.0158	< 0.0001 U	< 0.01 U	< 0.01 U	0.43 T	0.43 T	< 0.001 U	< 0.001 U	< 0.003 U
SW-S1	6/18/2012	SS1-120618M	1.16	1.19	0.0133 D	0.0289	< 0.0001 U	< 0.01 U	< 0.01 U	< 0.3 DU	0.36 T	< 0.001 U	< 0.001 U	< 0.003 U
SW-S2	4/17/2012	SS2-120417Q	3.51	3.74	0.00868	0.015	< 0.0001 U	< 0.01 U	< 0.01 U	0.695 D	0.763	< 0.001 U	< 0.001 U	< 0.003 U
SW-S2	5/22/2012	SS2-120522M	4.48	4.27	0.0293	0.0427	< 0.0001 U	< 0.01 U	< 0.01 U	0.875	0.971	< 0.001 U	< 0.001 U	< 0.003 U
SW-S2	6/18/2012	SS2-120618D	4.72	5.34	0.0216 D	0.0249	< 0.0001 U	< 0.01 U	< 0.01 U	0.984 D	1.22	< 0.001 U	< 0.001 U	< 0.003 U
SW-S2	6/18/2012	SS2-120618M	4.96	5.31	0.0239 D	0.0675	< 0.0001 U	< 0.01 U	< 0.01 U	1.09 D	1.23	< 0.001 U	< 0.001 U	< 0.003 U
SW-SL3	4/16/2012	SSL3120416P												
SW-SL3	4/16/2012	SSL3120416O	6	6.17	0.0486	0.365	< 0.0001 U	< 0.01 U	< 0.01 U	1.09 D	1.29	< 0.001 U	< 0.001 U	< 0.003 U
SW-SL3	4/19/2012	SSL3120419P												
SW-SL3	5/22/2012	SSL3120522M	2.38	2.42	0.0383	0.0626	< 0.0001 U	< 0.01 U	< 0.01 U	0.841	0.964	< 0.001 U	< 0.001 U	< 0.003 U
SW-SL3	5/24/2012	SSL3120524P												
SW-SL3	6/18/2012	SSL3120618M	4.13	4.12	0.0334 D	0.044	< 0.0001 U	< 0.01 U	< 0.01 U	0.797 D	0.94	< 0.001 U	< 0.001 U	< 0.003 U
SW-SL3 Duplicate	6/19/2012	SSL3120619D												
SW-SL3	6/19/2012	SSL3120619P												
SW-SLP1	4/19/2012	SLP1120419P												
SW-SLP1 Duplicate	4/19/2012	SLP1120419D												
SW-SLP1	5/24/2012	SLP1120524P												
SW-SLP1	6/19/2012	SLP1120619P												
SW-SLP2	4/19/2012	SLP2120419P												
SW-SLP2	5/24/2012	SLP2120524P												
SW-SLP2	6/19/2012	SLP2120619P												
SW-SLP3	5/24/2012	SLP3120524P												
SW-TD1	4/16/2012	STD1120416-												
SW-TD2	4/26/2012	STD2120426-												
SW-TD4	4/16/2012	STD4120416-												
SW-TD6	4/18/2012	STD6120418-												

Environmental Monitoring Data

Data Collected from April 1, 2012 to June 30, 2012

Cedar Hills Landfill --- Surface Water Metal Analytical Data

Contact Person: Sendy Jimenez (206) 296-4411

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-V	4/18/2012	SV--120418Q	2.03	2.18	< 0.001 U	0.102	< 0.0001 U	< 0.01 U	< 0.01 U	0.889 D	1.1 D	< 0.001 U	< 0.001 U	< 0.003 U
SW-W	4/19/2012	SW--120419Q	2.35	2.46	0.0245	0.0314	< 0.0001 U	< 0.01 U	< 0.01 U	0.877 D	1.13 D	< 0.001 U	< 0.001 U	< 0.003 U
SW-W	5/24/2012	SW--120524M	3.16	2.92	0.0324	0.04	< 0.0001 U	< 0.01 U	< 0.01 U	0.919 D	0.957	< 0.001 U	< 0.001 U	< 0.003 U
SW-W1	4/18/2012	SW1-120418Q	3.33	3.47	0.00109	0.0272	< 0.0001 U	< 0.01 U	< 0.01 U	0.774 D	0.919 D	< 0.001 U	< 0.001 U	< 0.003 U
SW-W1	5/23/2012	SW1-120523M	3.88	3.52	0.00761	0.0318	< 0.0001 U	< 0.01 U	< 0.01 U	0.967	0.959	< 0.001 U	< 0.001 U	< 0.003 U
SW-W1	6/18/2012	SW1-120618M	3.55	3.81	0.00173 D	0.115	< 0.0001 U	< 0.01 U	< 0.01 U	1.92 D	1.03	< 0.001 U	< 0.001 U	< 0.003 U
SW-W2	4/17/2012	SW2-120417Q	1.15	1.24	0.00114	0.00207	< 0.0001 U	< 0.01 U	< 0.01 U	0.48 DT	0.553	< 0.001 U	< 0.001 U	< 0.003 U
SW-W2	5/22/2012	SW2-120522M	1.21	1.24	0.00362	0.00587	< 0.0001 U	< 0.01 U	< 0.01 U	0.48 T	0.526	< 0.001 U	< 0.001 U	< 0.003 U
SW-W2	6/18/2012	SW2-120618M	1.27	1.32	0.0053 D	0.0115	< 0.0001 U	< 0.01 U	< 0.01 U	0.36 DT	0.36 T	< 0.001 U	< 0.001 U	< 0.003 U
FIELD BLANK	5/23/2012	SW1-120523F	< 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	< 0.003 U

Environmental Monitoring Data

Data Collected from April 1, 2012 to June 30, 2012

Cedar Hills Landfill --- Surface Water Metal Analytical Data

Contact Person: Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	Silver, total	Sodium, dissolved	Sodium, total	Thallium, dissolved	Thallium, total	Tin, dissolved	Tin, total	Vanadium, dissolved	Vanadium, total	Zinc, dissolved	Zinc, total
			(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
SW-E1	4/18/2012	SE1-120418Q	< 0.003 U	2.68	2.65	< 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	5/23/2012	SE1-120523M	< 0.003 DU	2.78	2.83	< 0.001 U	< 0.001 DU	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 DU	< 0.004 U	< 0.004 U
SW-E1	6/18/2012	SE1-120618M	< 0.003 U	2.88	2.96	< 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-GS1	4/16/2012	SGS1120416P											0.00623
SW-GS1	4/16/2012	SGS1120416O	< 0.003 U	2.68	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-GS1	5/22/2012	SGS1120522M	< 0.003 DU	2.97	3.53	< 0.001 U	< 0.001 DU	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 DU	< 0.004 U	< 0.004 U
SW-GS1	6/18/2012	SGS1120618M	< 0.003 U	3.22	3.34	< 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-MC	4/19/2012	SMC-120419O	< 0.003 U	4.38	4.48	< 0.001 U	< 0.001 DU	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	< 0.004 U	0.00428
SW-MC	5/24/2012	SMC-120524M	< 0.003 DU	4.8	5.16	< 0.001 U	< 0.001 DU	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 DU	0.00465	0.00541
SW-MC	6/19/2012	SMC-120619M	< 0.003 U	4.94	4.62	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	< 0.004 U	0.00571
SW-N1	4/18/2012	SN1-120418O	< 0.003 U	4.34	4.48	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	0.00463	0.00565
SW-N1	5/23/2012	SN1-120523M	< 0.003 DU	4.8	5.02	< 0.001 U	< 0.001 DU	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 DU	0.00591	0.00732
SW-N1	6/18/2012	SN1-120618M	< 0.003 U	4.19	4.33	< 0.001 U	< 0.001 DU	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	0.00601	0.00991
SW-N4	4/16/2012	SN4-120416P											0.0255
SW-N4	4/18/2012	SN4-120418O	< 0.003 U	2.81	2.54	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	0.0105	0.0155
SW-N4	5/23/2012	SN4-120523M	< 0.003 DU	3.44	3.76	< 0.001 U	< 0.001 DU	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 DU	0.0107	0.0152
SW-N4	6/18/2012	SN4-120618M	< 0.003 U	3.14	3.33	< 0.001 U	< 0.001 DU	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	0.0153	0.02
SW-S1	4/17/2012	SS1-120417O	< 0.003 U	2.97	2.99	< 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-S1	4/26/2012	SS1-120426M	< 0.003 U	2.41	2.86	< 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-S1	5/22/2012	SS1-120522M	< 0.003 DU	2.78	3.07	< 0.001 U	< 0.001 DU	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 DU	< 0.004 U	< 0.004 U
SW-S1	6/18/2012	SS1-120618M	< 0.003 U	3.12	3.18	< 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-S2	4/17/2012	SS2-120417O	< 0.003 U	3.05	2.9	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	< 0.004 U	0.00432
SW-S2	5/22/2012	SS2-120522M	< 0.003 DU	2.78	3.15	< 0.001 U	< 0.001 DU	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 DU	< 0.004 U	< 0.004 U
SW-S2	6/18/2012	SS2-120618D	< 0.003 U	3.33	3.66	< 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-S2	6/18/2012	SS2-120618M	< 0.003 U	3.45	3.67	< 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-SL3	4/16/2012	SSL3120416P											0.0139
SW-SL3	4/16/2012	SSL3120416O	< 0.003 U	5.68	5.3	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	0.00501	0.00781	0.0419
SW-SL3	4/19/2012	SSL3120419P											0.00837
SW-SL3	5/22/2012	SSL3120522M	< 0.003 DU	2.71	3.06	< 0.001 U	< 0.001 DU	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 DU	0.0114	0.0146
SW-SL3	5/24/2012	SSL3120524P											0.00792
SW-SL3	6/18/2012	SSL3120618M	< 0.003 U	4.41	4.45	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	0.00452	0.00588
SW-SL3 Duplicate	6/19/2012	SSL3120619D											< 0.004 U
SW-SL3	6/19/2012	SSL3120619P											< 0.004 U
SW-SLP1	4/19/2012	SLP1120419P											0.0541
SW-SLP1 Duplicate	4/19/2012	SLP1120419D											0.0529
SW-SLP1	5/24/2012	SLP1120524P											0.0462
SW-SLP1	6/19/2012	SLP1120619P											0.0324
SW-SLP2	4/19/2012	SLP2120419P											0.0401
SW-SLP2	5/24/2012	SLP2120524P											0.0378
SW-SLP2	6/19/2012	SLP2120619P											0.0263
SW-SLP3	5/24/2012	SLP3120524P											0.105
SW-TD1	4/16/2012	STD1120416-											
SW-TD2	4/26/2012	STD2120426-											
SW-TD4	4/16/2012	STD4120416-											
SW-TD6	4/18/2012	STD6120418-											

Environmental Monitoring Data

Data Collected from April 1, 2012 to June 30, 2012

Cedar Hills Landfill --- Surface Water Metal Analytical Data

Contact Person: Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	Silver, total	Sodium, dissolved	Sodium, total	Thallium, dissolved	Thallium, total	Tin, dissolved	Tin, total	Vanadium, dissolved	Vanadium, total	Zinc, dissolved	Zinc, total
			(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
SW-V	4/18/2012	SV--120418Q	< 0.003 U	5.99	6.22	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	< 0.004 U	0.00421
SW-W	4/19/2012	SW--120419O	< 0.003 U	4.98	5.17	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	< 0.004 U	0.0046
SW-W	5/24/2012	SW--120524M	< 0.003 DU	5.16	5.62	< 0.001 U	< 0.001 DU	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 DU	0.00474	0.00434
SW-W1	4/18/2012	SW1-120418O	< 0.003 U	5.73	5.92	< 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	5/23/2012	SW1-120523M	< 0.003 DU	5.62	5.85	< 0.001 U	< 0.001 DU	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 DU	0.0101	0.0136
SW-W1	6/18/2012	SW1-120618M	< 0.003 U	6.07	6.51	< 0.001 U	< 0.001 DU	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	< 0.004 U	0.0146
SW-W2	4/17/2012	SW2-120417O	< 0.003 U	3.15	3.22	< 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	5/22/2012	SW2-120522M	< 0.003 DU	2.97	3.4	< 0.001 U	< 0.001 DU	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 DU	< 0.004 U	< 0.004 U
SW-W2	6/18/2012	SW2-120618M	< 0.003 U	3.38	3.53	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
FIELD BLANK	5/23/2012	SW1-120523F	< 0.003 DU	0.494	0.483	< 0.001 U	< 0.001 DU	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 DU	< 0.004 U	< 0.004 U

Environmental Monitoring Data

Data Collected from April 1, 2012 to June 30, 2012

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

Contact Person: Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	2,4,5-T	2,4,5-TP	2,4-D	Dinoseb	Endrin	Lindane	Methoxy-chlor	Toxaphene	4-Methyl-phenol	alpha Terpineol	Benzoic Acid	Phenol
			(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
			93-76-5	93-72-1	94-75-7	88-85-7	72-20-8	58-89-9	72-43-5	8001-35-2	106-44-5	98-55-5	65-85-0	108-95-2
SW-E1	4/18/2012	SE1-120418O	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-E1	5/23/2012	SE1-120523M	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-E1	6/18/2012	SE1-120618M	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-GS1	4/16/2012	SGS1120416P									< 10 U	< 5 U	< 50 U	< 4 U
SW-GS1	4/16/2012	SGS1120416Q	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-GS1	5/22/2012	SGS1120522M	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-GS1	6/18/2012	SGS1120618M	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-MC	4/19/2012	SMC-120419O	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-MC	5/24/2012	SMC-120524M	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-MC	6/19/2012	SMC-120619M	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-N1	4/18/2012	SN1-120418Q	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-N1	5/23/2012	SN1-120523M	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-N1	6/18/2012	SN1-120618M	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-N4	4/16/2012	SN4-120416P									< 10 U	< 5 U	< 50 U	< 4 U
SW-N4	4/18/2012	SN4-120418O	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-N4	5/23/2012	SN4-120523M	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-N4	6/18/2012	SN4-120618M	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-S1	4/17/2012	SS1-120417Q	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-S1	4/26/2012	SS1-120426M	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-S1	5/22/2012	SS1-120522M	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-S1	6/18/2012	SS1-120618M	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-S2	4/17/2012	SS2-120417O	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-S2	5/22/2012	SS2-120522M	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-S2 Duplicate	6/18/2012	SS2-120618D	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-S2	6/18/2012	SS2-120618M	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-SL3	4/16/2012	SSL3120416P									< 10 U	< 5 U	< 50 U	< 4 U
SW-SL3	4/16/2012	SSL3120416Q	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-SL3	4/19/2012	SSL3120419P									< 10 U	< 5 U	< 50 U	< 4 U
SW-SL3	5/22/2012	SSL3120522M	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-SL3	5/24/2012	SSL3120524P									< 10 U	< 5 U	< 50 U	< 4 U
SW-SL3	6/18/2012	SSL3120618M	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-SL3 Duplicate	6/19/2012	SSL3120619D									< 10 U	< 5 U	< 50 U	< 4 U
SW-SL3	6/19/2012	SSL3120619P									< 5 U	< 5 U	< 50 U	< 4 U
SW-SLP1	4/19/2012	SLP1120419P									< 5 U	< 5 U	< 50 U	< 4 U
SW-SLP1 Duplicate	4/19/2012	SLP1120419D									< 5 U	< 5 U	< 50 U	< 4 U
SW-SLP1	5/24/2012	SLP1120524P									< 5 U	< 50 U	< 4 U	
SW-SLP1	6/19/2012	SLP1120619P									< 5 U	< 50 U	< 4 U	
SW-SLP2	4/19/2012	SLP2120419P									< 5 U	< 50 U	< 4 U	
SW-SLP2	5/24/2012	SLP2120524P									< 5 U	< 50 U	< 4 U	
SW-SLP2	6/19/2012	SLP2120619P									< 5 U	< 50 U	< 4 U	

Environmental Monitoring Data

Data Collected from April 1, 2012 to June 30, 2012

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

Contact Person: Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	2,4,5-T	2,4,5-TP	2,4-D	Dinoseb	Endrin	Lindane	Methoxy-chlor	Toxaphene	4-Methyl-phenol	alpha Terpineol	Benzoic Acid	Phenol
			93-76-5 (ug/L)	93-72-1 (ug/L)	94-75-7 (ug/L)	88-85-7 (ug/L)	72-20-8 (ug/L)	58-89-9 (ug/L)	72-43-5 (ug/L)	8001-35-2 (ug/L)	106-44-5 (ug/L)	98-55-5 (ug/L)	65-85-0 (ug/L)	108-95-2 (ug/L)
SW-SLP3	5/24/2012	SLP3120524P	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U	< 5 U	< 50 U	< 4 U	
SW-V	4/18/2012	SV-120418O	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-W	4/19/2012	SW-120419O	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-W	5/24/2012	SW-120524M	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-W1	4/18/2012	SW1-120418Q	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-W1	5/23/2012	SW1-120523M	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-W1	6/18/2012	SW1-120618M	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-W2	4/17/2012	SW2-120417O	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-W2	5/22/2012	SW2-120522M	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-W2	6/18/2012	SW2-120618M	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
FIELD BLANK	5/23/2012	SW1-120523F	< 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 2nd Quarter 2012

Station ID	Date	Activity	Sample ID	Comment
API	4/4/12	Monthly Characterization Sample	LAPI120404M	
API	5/3/12	Monthly Characterization Sample	LAPI120503M	
API	6/13/12	Monthly Characterization Sample	LAPI120613M	
LEPS	4/4/12	Permit Sample	LEPS120404P	
LEPS	4/4/12	Monthly Characterization Sample	LEPS120404M	
LEPS	4/18/12	Permit Sample	LEPS120418P	
LEPS	5/2/12	Permit Sample	LEPS120502P	
LEPS	5/2/12	Monthly Characterization Sample	LEPS120502M	
LEPS	5/16/12	Permit Sample	LEPS120516P	
LEPS	5/30/12	Monthly Characterization Sample	LEPS120530P	
LEPS	5/30/12	QA/QC Sample	LEPS120530D	Field Duplicate
LEPS	6/13/12	Monthly Characterization Sample	LEPS120613M	
LEPS	6/13/12	Permit Sample	LEPS120613P	
46N	4/4/12	Monthly Characterization Sample	L46N120404M	
46N	5/3/12	Monthly Characterization Sample	L46N120503M	
46N	6/13/12	Monthly Characterization Sample	L46N120613M	
PS2A	4/4/12	Monthly Characterization Sample	LP2A120404M	
PS2A	5/3/12	Monthly Characterization Sample	LP2A120503M	
PS2A	6/13/12	Monthly Characterization Sample	LP2A120613M	

Environmental Monitoring Data

Data Collected from April 1, 2012 to June 30, 2012

Cedar Hills Landfill --- Leachate Field Parameters

Contact Person --- Senty Jimenez (206) 296-4411

Site	Date	Sample ID	pH (Field)	Conductance (Field)	Temperature
			(std. Units)	(umho/cm)	(o C)
LS-API	4/4/2012	LAPI120404M	7.65	2500	4.2
LS-API	5/3/2012	LAPI120503M	7.93	4900	7.3
LS-API	6/13/2012	LAPI120613M	7.81	4700	10.4
LS-LEPS	4/4/2012	LEPS120404M	8.17	2050	6.5
LS-LEPS	4/4/2012	LEPS120404P	8.17	2050	6.5
LS-LEPS	4/18/2012	LEPS120418P	8.44	3500	7.6
LS-LEPS	5/2/2012	LEPS120502M	8.34	3050	7.7
LS-LEPS	5/2/2012	LEPS120502P	8.34	3050	7.7
LS-LEPS	5/16/2012	LEPS120516P	8.35	3550	16
LS-LEPS	5/30/2012	LEPS120530P	8.49	4250	12.5
LS-LEPS	6/13/2012	LEPS120613P	8.27	3800	12
LS-LEPS	6/27/2012	LEPS120627P	8.32	3900	10.8
LS-MH46N	4/4/2012	L46N120404M	7.22	8050	23.4
LS-MH46N	5/3/2012	L46N120503M	7.44	7200	25.3
LS-MH46N	6/13/2012	L46N120613M	7.31	9200	18.2
LS-PS2A	4/4/2012	LP2A120404M	6.31	265	9
LS-PS2A	5/3/2012	LP2A120503M	7.52	1750	9.9
LS-PS2A	6/13/2012	LP2A120613M	6.77	620	11.9

Environmental Monitoring Data

Data Collected from April 1, 2012 to June 30, 2012

Cedar Hills Landfill --- Leachate Conventional Analytical Data

Contact Person --- Senny Jimenez (206) 296-4411

Site	Date	Sample ID	Alkalinity, Total (CaCO ₃)	Ammonia, (NH ₃ as N)	Biological Oxygen Demand	Chemical Oxygen Demand	Chloride	Coliforms, Fecal	Coliforms, Total	Cyanide	Fluoride	Nitrate+Nitrite (NO ₃ +NO ₂ as N)	Soluble Reactive Phosphorus	Phosphorus. Total (as P)
			(mg/L)	(mg/L)	(mg/L)	(mg/L)	(CFU/100mL)	(CFU/100mL)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
LS-API	4/4/2012	LAPII20404M	1250	189	644	1340	269	5600	68000	< 0.02 SU	< 0.1 U	0.016 T		0.115
LS-API	5/3/2012	LAPII20503M	3110	484	2030	3680	690	32000	390000	< 0.02 SU	< 0.1 U	0.0972		0.292
LS-API	6/13/2012	LAPII20613M	3370	654	2000	4190	761	59000	670000	< 0.02 SU	< 0.1 U	0.232		0.301
LS-LEPS	4/4/2012	LEPS120404M	778	102	149	556	162	1600	23000	< 0.02 U	< 0.1 U	0.017 T		0.0392
LS-LEPS	5/2/2012	LEPS120502M	1180	157	112	555	274	1100	8200	< 0.02 U	< 0.1 U	0.01 T		0.0475
LS-LEPS	6/13/2012	LEPS120613M	1550	244	127	797	372	9	2000	< 0.02 U	< 0.1 U	0.018 T		0.0296
LS-MH46N	4/4/2012	L46N120404M	2820	510	71.8	1410	1350	< 1 U	< 1 U	< 0.02 SU	< 0.1 U	0.64		2.69
LS-MH46N	5/3/2012	L46N120503M	2910	518	78.5	1440	1420	< 1 U	< 1 U	< 0.02 SU	< 0.1 U	0.645		2.9
LS-MH46N	6/13/2012	L46N120613M	3180	643	98.3	1710	1530	11000	130000 C	< 0.02 U	< 0.1 U	0.621		2.96
LS-PS2A	4/4/2012	LP2A120404M	78	12.2	103	216	13.5	1	5	< 0.02 U	< 0.1 U	1.01		< 0.01 U
LS-PS2A	5/3/2012	LP2A120503M	528	99.5	179	539	215	2	53	< 0.02 SU	< 0.1 U	0.826		0.072
LS-PS2A	6/13/2012	LP2A120613M	217	52.1	231	381	23.3	< 1 U	9	< 0.02 U	< 0.1 U	0.195		< 0.01 HU

Environmental Monitoring Data

Data Collected from April 1, 2012 to June 30, 2012

Cedar Hills Landfill --- Leachate Conventional Analytical Data

Contact Person --- Senny Jimenez (206) 296-4411

Site	Date	Sample ID	Specific	Sulfate	Sulfide	Total	Total	Total	Suspended	Total	Volatile
			Conductance	(SO ₄)	Total	Fats, Oils	Kjeldahl	Organic	Solids	Volatile	Suspended
			(umho/cm)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
LS-API	4/4/2012	LAPII120404M	3190	23	0.2 T	< 2 U	198	336	33	698	17
LS-API	5/3/2012	LAPII120503M	6840	45.3	0.553	5.9	556	1220	46	2180	28
LS-API	6/13/2012	LAPII120613M	7870	43.9	0.451	< 2 U	564	1350 S	49	2100	33
LS-LEPS	4/4/2012	LEPS120404M	1960	19	0.082 T	< 2 U	118	114	132	442	92
LS-LEPS	5/2/2012	LEPS120502M	2910	24.7	0.029 T	< 2 U	180	152	146	667	126
LS-LEPS	6/13/2012	LEPS120613M	3730	33.3	0.11 T	< 2 U	257	142 S	224	1440	152
LS-MH46N	4/4/2012	L46N120404M	8540	10.2	0.14 T	< 2 U	514	439	109	1270	49
LS-MH46N	5/3/2012	L46N120503M	8440	3.44	0.441	< 2 U	712	454 S	17.2	1460	12.8
LS-MH46N	6/13/2012	L46N120613M	9570	25.1	0.254	< 2 U	596	482 S	4.2	1370	2.3
LS-PS2A	4/4/2012	LP2A120404M	263	6.15	0.014 T	< 2 U	12.6	50.7	13.2	217	7.6
LS-PS2A	5/3/2012	LP2A120503M	1760	6.91	0.0435	< 2 U	109	177 S	5.4	498	5
LS-PS2A	6/13/2012	LP2A120613M	627	9.5	0.142	< 2 U	52.3	121 S	4	176	3.6

Environmental Monitoring Data

Data Collected from April 1, 2012 to June 30, 2012
 Cedar Hills Landfill --- Leachate Metal Analytical Data
 Contact Person --- Senny Jimenez (206) 296-4411

Site	Date	Sample ID	Aluminum,	Antimony,	Arsenic,	Barium,	Beryllium,	Cadmium,	Calcium,	Chromium,	Cobalt,	Copper,	Iron,	Lead,
			total	total	total	total	total	total	total	total	total	total	total	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)
LS-API	4/4/2012	LAPI120404M	1.96	< 0.001 U	< 0.001 U	0.0792	< 0.001 U	< 0.002 U	101	0.03	0.012 T	0.0085 T	9.38	< 0.001 U
LS-API	5/3/2012	LAPI120503M	1.02	< 0.001 U	0.064 T	0.159	< 0.001 U	< 0.002 U	199	0.0683	0.0299	0.0086 T	21.6	< 0.001 U
LS-API	6/13/2012	LAPI120613M	0.528	< 0.001 U	0.076 T	0.155	< 0.001 U	< 0.002 U	197	0.0772	0.0275	0.0098 T	20.4	< 0.001 U
LS-LEPS	4/4/2012	LEPS120404M	2.51	< 0.001 U	< 0.001 U	0.0645	< 0.001 U	< 0.002 U	73.6	0.0199	0.01 T	0.011 T	8.25	< 0.001 U
LS-LEPS	4/4/2012	LEPS120404P			< 0.001 U			< 0.002 U		0.0181		0.0094 T		< 0.001 U
LS-LEPS	4/18/2012	LEPS120418P			0.029 T			< 0.002 U		0.0246		0.0061 T		< 0.001 U
LS-LEPS	5/2/2012	LEPS120502M	0.998	< 0.001 U	0.028 T	0.067	< 0.001 U	< 0.002 U	82	0.0228	0.013 T	0.0057 T	6.76	< 0.001 U
LS-LEPS	5/2/2012	LEPS120502P			< 0.001 U			< 0.002 U		0.0202		< 0.002 U		< 0.001 U
LS-LEPS	5/16/2012	LEPS120516P			0.031 T			< 0.002 U		0.0251		0.0044 T		< 0.001 U
LS-LEPS Duplicate	5/30/2012	LEPS120530D			0.048 T			< 0.002 U		0.0347		0.0087 T		< 0.001 U
LS-LEPS	5/30/2012	LEPS120530P			0.051 T			< 0.002 U		0.0336		0.0087 T		< 0.001 U
LS-LEPS	6/13/2012	LEPS120613M	2.56	< 0.001 U	0.039 T	0.0879	< 0.001 U	< 0.002 U	89.9	0.0359	0.015 T	0.015 T	11.6	< 0.001 U
LS-LEPS	6/13/2012	LEPS120613P			0.031 T			< 0.002 U		0.0282		0.0064 T		< 0.001 U
LS-LEPS	6/27/2012	LEPS120627P			0.033 T			< 0.002 U		0.0307		0.007 T		< 0.001 U
LS-MH46N	4/4/2012	L46N120404M	< 0.02 U	< 0.001 U	0.071 T	0.308	< 0.001 U	< 0.002 U	78	0.0774	0.0293	< 0.002 U	2.26	< 0.001 U
LS-MH46N	5/3/2012	L46N120503M	0.23 T	< 0.001 U	0.078 T	0.325	< 0.001 U	< 0.002 U	81.9	0.0813	0.0288	< 0.002 U	2.61	< 0.001 U
LS-MH46N	6/13/2012	L46N120613M	< 0.02 U	< 0.001 U	0.08 T	0.392	< 0.001 U	< 0.002 U	93.2	0.0896	0.0305	0.004 T	2.42	< 0.001 U
LS-PS2A	4/4/2012	LP2A120404M	0.11 T	< 0.001 U	< 0.001 U	0.0141	< 0.001 U	< 0.002 U	12.6	< 0.005 U	< 0.003 U	0.02	3.59	< 0.001 U
LS-PS2A	5/3/2012	LP2A120503M	< 0.02 U	< 0.001 U	< 0.001 U	0.0327	< 0.001 U	< 0.002 U	14.4	0.01 T	0.0068 T	0.018 T	2.89	< 0.001 U
LS-PS2A	6/13/2012	LP2A120613M	< 0.02 U	< 0.001 U	< 0.001 U	0.0182	< 0.001 U	< 0.002 U	16.4	< 0.005 U	< 0.003 U	0.012 T	2.13	< 0.001 U

Environmental Monitoring Data

Data Collected from April 1, 2012 to June 30, 2012
 Cedar Hills Landfill --- Leachate Metal Analytical Data
 Contact Person --- Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	Magnesium,	Manganese,	Mercury,	Nickel,	Potassium,	Selenium,	Silver,	Sodium,	Thallium,	Tin,	Vanadium,	Zinc,
			total	total	total	total	total	total	total	total	total	total	total	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)
LS-API	4/4/2012	LAPI120404M	31.6	1.62	< 0.0001 U	0.0599	102	< 0.001 U	< 0.003 U	276	< 0.001 U	< 0.01 U	0.016 T	0.312
LS-API	5/3/2012	LAPI120503M	70.4	3.28	< 0.0001 U	0.145	243	< 0.001 U	< 0.003 U	685	< 0.001 U	< 0.01 U	0.03 T	0.643
LS-API	6/13/2012	LAPI120613M	76.8	3.03	< 0.0001 U	0.156	308	< 0.001 U	< 0.003 U	826	< 0.001 U	0.035 T	0.032 T	0.685
LS-LEPS	4/4/2012	LEPS120404M	22.1	1.16	< 0.0001 U	0.0385	64.8	< 0.001 U	< 0.003 U	164	< 0.001 U	< 0.01 U	0.015 T	0.181
LS-LEPS	4/4/2012	LEPS120404P				0.0384			< 0.003 U					0.144
LS-LEPS	4/18/2012	LEPS120418P				0.059			< 0.003 U					0.15
LS-LEPS	5/2/2012	LEPS120502M	29.5	1.14	< 0.0001 U	0.0579	101	< 0.001 U	< 0.003 U	261	< 0.001 U	< 0.01 U	0.013 T	0.156
LS-LEPS	5/2/2012	LEPS120502P				0.0518			< 0.003 U					0.104
LS-LEPS	5/16/2012	LEPS120516P				0.0661			< 0.003 U					0.117
LS-LEPS Duplicate	5/30/2012	LEPS120530D				0.084			< 0.003 U					0.172
LS-LEPS	5/30/2012	LEPS120530P				0.0831			< 0.003 U					0.16
LS-LEPS	6/13/2012	LEPS120613M	40	1.22	< 0.0001 U	0.0783	144	< 0.001 U	< 0.003 U	376	< 0.001 U	< 0.01 U	0.023 T	0.326
LS-LEPS	6/13/2012	LEPS120613P				0.0728			< 0.003 U					0.121
LS-LEPS	6/27/2012	LEPS120627P				0.0788			< 0.003 U					0.159
LS-MH46N	4/4/2012	L46N120404M	47.1	0.48	< 0.0001 U	0.131	269	< 0.001 U	< 0.003 U	951	< 0.001 U	< 0.01 U	0.0973	0.021 T
LS-MH46N	5/3/2012	L46N120503M	53.3	0.503	< 0.0001 U	0.134	314	< 0.001 U	< 0.003 U	1000	< 0.001 U	< 0.01 U	0.102	0.0356
LS-MH46N	6/13/2012	L46N120613M	56.3	0.504	< 0.0001 U	0.144	385 D	< 0.001 U	< 0.003 U	1170	< 0.001 U	0.022 T	0.12	0.27
LS-PS2A	4/4/2012	LP2A120404M	4.92	0.196	< 0.0001 U	0.011 T	5.64	< 0.001 U	< 0.003 U	12.4	< 0.001 U	< 0.01 U	< 0.002 U	0.013 T
LS-PS2A	5/3/2012	LP2A120503M	6.93	0.208	< 0.0001 U	0.0282	61.1	< 0.001 U	< 0.003 U	171	< 0.001 U	0.02 T	< 0.002 U	0.014 T
LS-PS2A	6/13/2012	LP2A120613M	6.91	0.166	< 0.0001 U	< 0.01 U	5.85	< 0.001 U	< 0.003 U	19.4	< 0.001 U	< 0.01 U	< 0.002 U	0.0056 T

Environmental Monitoring Data

Data Collected from April 1, 2012 to June 30, 2012
 Cedar Hills Landfill --- Leachate VOA Analytical Data
 Contact Person --- Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichloropropane	1,2-Dibromo-3-Chloropropan	1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane
			(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
			630-20-6	71-55-6	79-34-5	79-00-5	75-34-3	75-35-4	563-58-6	96-18-4	96-12-8	106-93-4	95-50-1	107-06-2
LS-API	4/4/2012	LAPII120404M	<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	2.9 T
LS-API	5/3/2012	LAPII120503M	<0.2 U	<0.2 U	<0.2 U	<0.2 U	2.7 T	<0.2 U	<0.2 U	<0.2 U	<1 U	<0.2 U	<0.2 U	5.8
LS-API	6/13/2012	LAPII120613M	<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	5
LS-LEPS	4/4/2012	LEPS120404M	<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	5/2/2012	LEPS120502M	<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	6/13/2012	LEPS120613M	<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	4/4/2012	L46N120404M	<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	2.4 T	<0.2 U
LS-MH46N	5/3/2012	L46N120503M	<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	2.1 T	<0.2 U
LS-MH46N	6/13/2012	L46N120613M	<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	4/4/2012	LP2A120404M	<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	5/3/2012	LP2A120503M	<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	6/13/2012	LP2A120613M	<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	6/12/2012	VTRP120613B	<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	4/3/2012	VTRP120404C	<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	4/3/2012	VTRP120404B	<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	5/2/2012	VTRP120502C	<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	5/2/2012	VTRP120503B	<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	6/11/2012	VTRP120613C	<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 April 1, 2012 to June 30, 2012
 Cedar Hills Landfill --- Leachate VOA Analytical Data
 Contact Person --- Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	1,2-Dichloro-propane ($\mu\text{g/L}$)	1,3 Dichloro-benzene ($\mu\text{g/L}$)	1,3-Dichloro-propane ($\mu\text{g/L}$)	1,4-Dichloro-benzene ($\mu\text{g/L}$)	2,2-Dichloro-propane	2-Butanone ($\mu\text{g/L}$)	2-Hexanone ($\mu\text{g/L}$)	2-Methyl-1-propanol ($\mu\text{g/L}$)	3-Chloro-propene ($\mu\text{g/L}$)	4-Methyl-2-Pentanone ($\mu\text{g/L}$)	Acetone ($\mu\text{g/L}$)	Acetonitrile ($\mu\text{g/L}$)
			78-87-5 ($\mu\text{g/L}$)	541-73-1 ($\mu\text{g/L}$)	142-28-9 ($\mu\text{g/L}$)	106-46-7 ($\mu\text{g/L}$)	594-20-7 ($\mu\text{g/L}$)	78-93-3 ($\mu\text{g/L}$)	591-78-6 ($\mu\text{g/L}$)	78-83-1 ($\mu\text{g/L}$)	107-05-1 ($\mu\text{g/L}$)	108-10-1 ($\mu\text{g/L}$)	67-64-1 ($\mu\text{g/L}$)	75-05-8 ($\mu\text{g/L}$)
LS-API	4/4/2012	LAPI120404M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	6060 D	< 4 U	265	< 10 U	< 4 U	9760 D	< 100 U
LS-API	5/3/2012	LAPI120503M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	12600 D	30 T	533	< 10 U	42.5	19700 D	114
LS-API	6/13/2012	LAPI120613M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	9420 D	< 4 U	< 100 U	< 10 U	25 T	15500 D	< 100 U
LS-LEPS	4/4/2012	LEPS120404M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	2190 D	< 4 U	< 100 U	< 10 U	< 4 U	4530 D	< 100 U
LS-LEPS	5/2/2012	LEPS120502M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	50.5	< 4 U	< 100 U	< 10 U	< 4 U	505	< 100 U
LS-LEPS	6/13/2012	LEPS120613M	< 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	221	< 100 U
LS-MH46N	4/4/2012	L46N120404M	< 0.2 U	< 0.2 U	< 0.2 U	8.69	< 0.2 U	< 4 U	< 4 U	< 100 U	< 10 U	< 4 U	93.1	< 100 U
LS-MH46N	5/3/2012	L46N120503M	< 0.2 U	< 0.2 U	< 0.2 U	8.74	< 0.2 U	< 4 U	< 4 U	< 100 U	< 10 U	< 4 U	82.7	< 100 U
LS-MH46N	6/13/2012	L46N120613M	< 0.2 U	< 0.2 U	< 0.2 U	5.65	< 0.2 U	< 4 U	< 4 U	< 100 U	< 10 U	< 4 U	< 4 U	< 100 U
LS-PS2A	4/4/2012	LP2A120404M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	3090 D	< 4 U	543	< 10 U	< 4 U	5040 D	< 100 U
LS-PS2A	5/3/2012	LP2A120503M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	2430 D	< 4 U	< 100 U	< 10 U	< 4 U	4910 D	< 100 U
LS-PS2A	6/13/2012	LP2A120613M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	3070 D	< 4 U	< 100 U	< 10 U	< 4 U	6200 D	< 100 U
VOA TRIP BLANK	6/12/2012	VTRP120613B	< 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	4.28 B	< 100 U
VOA TRIP BLANK	4/3/2012	VTRP120404C	< 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	9.59	< 100 U
VOA TRIP BLANK	4/3/2012	VTRP120404B	< 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	8.38	< 100 U
VOA TRIP BLANK	5/2/2012	VTRP120502C	< 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	5.59	< 100 U
VOA TRIP BLANK	5/2/2012	VTRP120503B	< 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	6.78	< 100 U
VOA TRIP BLANK	6/11/2012	VTRP120613C	< 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 April 1, 2012 to June 30, 2012
 Cedar Hills Landfill --- Leachate VOA Analytical Data
 Contact Person --- Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	Acrolein (ug/L)	Acrylonitrile (ug/L)	Benzene (ug/L)	Bromo-chloro-methane (ug/L)	Bromo-dichloro-methane (ug/L)	Bromoform (ug/L)	Bromo-methane (ug/L)	Carbon Disulfide (ug/L)	Carbon Tetrachloride (ug/L)	Chloro-benzene (ug/L)	Chloro-dibromo-methane (ug/L)	Chloroethane (ug/L)
			107-02-8	107-13-1	71-43-2	74-97-5	75-27-4	75-25-2	74-83-9	75-15-0	56-23-5	108-90-7	124-48-1	75-00-3
LS-API	4/4/2012	LAPII120404M	< 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	< 0.2 U
LS-API	5/3/2012	LAPII120503M	< 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	< 0.2 U
LS-API	6/13/2012	LAPII120613M	< 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	< 0.2 U
LS-LEPS	4/4/2012	LEPS120404M	< 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	< 0.2 U
LS-LEPS	5/2/2012	LEPS120502M	< 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	< 0.2 U
LS-LEPS	6/13/2012	LEPS120613M	< 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	< 0.2 U
LS-MH46N	4/4/2012	L46N120404M	< 10 U	< 0.07 U	2.5 T	< 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	5/3/2012	L46N120503M	< 10 U	< 0.07 U	2.4 T	< 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	6/13/2012	L46N120613M	< 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	< 0.2 U
LS-PS2A	4/4/2012	LP2A120404M	< 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	< 0.2 U
LS-PS2A	5/3/2012	LP2A120503M	< 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	< 0.2 U
LS-PS2A	6/13/2012	LP2A120613M	< 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	< 0.2 U
VOA TRIP BLANK	6/12/2012	VTRP120613B	< 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	< 0.2 U
VOA TRIP BLANK	4/3/2012	VTRP120404C	< 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	< 0.2 U
VOA TRIP BLANK	4/3/2012	VTRP120404B	< 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	< 0.2 U
VOA TRIP BLANK	5/2/2012	VTRP120502C	< 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	< 0.2 U
VOA TRIP BLANK	5/2/2012	VTRP120503B	< 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	< 0.2 U
VOA TRIP BLANK	6/11/2012	VTRP120613C	< 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	< 0.2 U

Environmental Monitoring Data

Data Collected from April 1, 2012 to June 30, 2012
 Cedar Hills Landfill --- Leachate VOA Analytical Data
 Contact Person --- Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	Chloroform (ug/L)	Chloro- methane (ug/L)	Chloroprene (ug/L)	cis-1,2- Dichloro- ethene (ug/L)	cis-1,3- Dichloro- propene (ug/L)	Dibromo- methane (ug/L)	Dichloro- difluoro- methane (ug/L)	Ethylbenzene (ug/L)	m & p Xylenes (ug/L)	Methyl Iodide (ug/L)	Methyl Methacrylate (ug/L)	Methylacrylo- nitrile (ug/L)
			67-66-3	74-87-3	126-99-8	156-59-2	10061-01-5	74-95-3	75-71-8	100-41-4	mpx	74-88-4	80-62-6	126-98-7
LS-API	4/4/2012	LAPI120404M	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	5.34	< 0.2 U	< 2 U	< 5 U
LS-API	5/3/2012	LAPI120503M	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	3.1 T	8.65	< 0.2 U	< 2 U	< 5 U
LS-API	6/13/2012	LAPI120613M	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	5.39	< 0.2 U	< 2 U	< 5 U
LS-LEPS	4/4/2012	LEPS120404M	< 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	< 2 U	< 5 U
LS-LEPS	5/2/2012	LEPS120502M	< 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	< 2 U	< 5 U
LS-LEPS	6/13/2012	LEPS120613M	< 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	< 2 U	< 5 U
LS-MH46N	4/4/2012	L46N120404M	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	37.7	54.8	< 0.2 U	< 2 U	< 5 U
LS-MH46N	5/3/2012	L46N120503M	< 0.2 U	2.9 T	< 20 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	38.3	55.8	< 0.2 U	< 2 U	< 5 U
LS-MH46N	6/13/2012	L46N120613M	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	25.3	32.9	< 0.2 U	< 2 U	< 5 U
LS-PS2A	4/4/2012	LP2A120404M	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	2.4 T	5.87	< 0.2 U	< 2 U	< 5 U
LS-PS2A	5/3/2012	LP2A120503M	< 0.2 U	< 0.2 U	< 20 U	2 T	< 0.2 U	< 0.2 U	< 0.2 U	3.5 T	< 0.2 U	< 2 U	< 5 U	
LS-PS2A	6/13/2012	LP2A120613M	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	4.03	< 0.2 U	< 2 U	< 5 U	
VOA TRIP BLANK	6/12/2012	VTRP120613B	< 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	< 2 U	< 5 U	
VOA TRIP BLANK	4/3/2012	VTRP120404C	< 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	< 2 U	< 5 U	
VOA TRIP BLANK	4/3/2012	VTRP120404B	< 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	< 2 U	< 5 U	
VOA TRIP BLANK	5/2/2012	VTRP120502C	< 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	< 2 U	< 5 U	
VOA TRIP BLANK	5/2/2012	VTRP120503B	< 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	< 2 U	< 5 U	
VOA TRIP BLANK	6/11/2012	VTRP120613C	< 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	< 2 U	< 5 U	

Environmental Monitoring Data

Data Collected from April 1, 2012 to June 30, 2012
 Cedar Hills Landfill --- Leachate VOA Analytical Data
 Contact Person --- Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	Methylene	o-Xylene	Propionitrile	Styrene	Tetrachloro-	Toluene	trans-1,2-	trans-1,3-	trans-1,4-	Trichloro-	Trichloro-	Vinyl	Vinyl
			Chloride	(ug/L)	(ug/L)	(ug/L)	ethene	(ug/L)	Dichloro-	Dichloro-	Dichloro-2-	butene	ethene	Acetate	Chloride
			75-09-2	95-47-6	107-12-0	100-42-5	127-18-4	108-88-3	156-60-5	10061-02-6	110-57-6	79-01-6	75-69-4	108-05-4	75-01-4
LS-API	4/4/2012	LAPI120404M	15.9	2.2 T	< 60 U	< 0.2 U	< 0.2 U	14.6	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	0.17 T
LS-API	5/3/2012	LAPI120503M	25.6	3.8 T	< 60 U	< 0.2 U	< 0.2 U	22.9	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	0.16 T
LS-API	6/13/2012	LAPI120613M	14.6	2.5 T	< 60 U	< 0.2 U	< 0.2 U	11.9	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	0.2 T
LS-LEPS	4/4/2012	LEPS120404M	6.06	< 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	< 0.2 U	< 0.2 U	< 0.02 U
LS-LEPS	5/2/2012	LEPS120502M	8.64	< 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	< 0.2 U	< 0.2 U	< 0.02 U
LS-LEPS	6/13/2012	LEPS120613M	7.02	< 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	< 0.2 U	< 0.2 U	< 0.02 U
LS-MH46N	4/4/2012	L46N120404M	5.4	5.11	< 60 U	< 0.2 U	< 0.2 U	5.16	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	2.73
LS-MH46N	5/3/2012	L46N120503M	7.44	4.82	< 60 U	< 0.2 U	< 0.2 U	3.9 T	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	3.12
LS-MH46N	6/13/2012	L46N120613M	6.89	2.6 T	< 60 U	< 0.2 U	< 0.2 U	2.9 T	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	1.88
LS-PS2A	4/4/2012	LP2A120404M	6.24	2.4 T	< 60 U	< 0.2 U	< 0.2 U	8.79	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	0.13 T
LS-PS2A	5/3/2012	LP2A120503M	7.6	< 0.2 U	< 60 U	< 0.2 U	< 0.2 U	4.9	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	0.16 T
LS-PS2A	6/13/2012	LP2A120613M	7.43	< 0.2 U	< 60 U	< 0.2 U	< 0.2 U	6.79	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	0.16 T
VOA TRIP BLANK	6/12/2012	VTRP120613B	< 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	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	4/3/2012	VTRP120404C	< 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	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	4/3/2012	VTRP120404B	< 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	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	5/2/2012	VTRP120502C	< 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	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	5/2/2012	VTRP120503B	< 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	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	6/11/2012	VTRP120613C	< 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	< 0.2 U	< 0.2 U	< 0.02 U

Environmental Monitoring Data

Data Collected from April 1, 2012 to June 30, 2012

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

Contact Person --- Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	2,4,5-T ($\mu\text{g/L}$)	2,4,5-TP ($\mu\text{g/L}$)	2,4-D ($\mu\text{g/L}$)	4,4'-DDD ($\mu\text{g/L}$)	4,4'-DDE ($\mu\text{g/L}$)	4,4'-DDT ($\mu\text{g/L}$)	Aldrin ($\mu\text{g/L}$)	Alpha BHC ($\mu\text{g/L}$)	Alpha Chlordane ($\mu\text{g/L}$)	Aroclor 1016 ($\mu\text{g/L}$)	Aroclor 1221 ($\mu\text{g/L}$)	Aroclor 1232 ($\mu\text{g/L}$)
			93-76-5 ($\mu\text{g/L}$)	93-72-1 ($\mu\text{g/L}$)	94-75-7 ($\mu\text{g/L}$)	72-54-8 ($\mu\text{g/L}$)	72-55-9 ($\mu\text{g/L}$)	50-29-3 ($\mu\text{g/L}$)	309-00-2 ($\mu\text{g/L}$)	319-84-6 ($\mu\text{g/L}$)	57-74-9 ($\mu\text{g/L}$)	12674-11-2 ($\mu\text{g/L}$)	11104-28-2 ($\mu\text{g/L}$)	11141-16-5 ($\mu\text{g/L}$)
LS-API	4/4/2012	LAPI120404M	< 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	5/3/2012	LAPI120503M	< 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	6/13/2012	LAPI120613M	< 2 U	1.1 T	< 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	4/4/2012	LEPS120404M	< 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	5/2/2012	LEPS120502M	< 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	6/13/2012	LEPS120613M	< 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	4/4/2012	L46N120404M	< 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	5/3/2012	L46N120503M	< 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	6/13/2012	L46N120613M	< 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	4/4/2012	LP2A120404M	< 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	5/3/2012	LP2A120503M	< 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	6/13/2012	LP2A120613M	< 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 April 1, 2012 to June 30, 2012

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

Contact Person --- Senny Jimenez (206) 296-4411

Site	Date	Sample ID	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclors Total	Beta BHC	Delta BHC	Dieldrin	Dinoseb	Endo- sulfan I	Endo- sulfan II	Endo- sulfan Sulfate
			53469-21-9 ($\mu\text{g/L}$)	12672-29-6 ($\mu\text{g/L}$)	11097-69-1 ($\mu\text{g/L}$)	11096-82-5 ($\mu\text{g/L}$)	($\mu\text{g/L}$)	319-85-7 ($\mu\text{g/L}$)	319-86-8 ($\mu\text{g/L}$)	60-57-1 ($\mu\text{g/L}$)	88-85-7 ($\mu\text{g/L}$)	959-98-8 ($\mu\text{g/L}$)	33213-65-9 ($\mu\text{g/L}$)	1031-07-8 ($\mu\text{g/L}$)
LS-API	4/4/2012	LAPI120404M	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.025 U	< 0.025 U	< 0.1 U	< 0.1 U	< 1 U	< 0.1 U	< 0.1 U	< 0.5 U
LS-API	5/3/2012	LAPI120503M	0.12 T	< 0.01 U	< 0.01 U	< 0.01 U	0.12 T	< 0.025 U	< 0.1 U	< 0.1 U	< 1 U	< 0.1 U	< 0.1 U	< 0.5 U
LS-API	6/13/2012	LAPI120613M	0.23 T	< 0.01 U	< 0.01 U	< 0.01 U	0.23 T	< 0.025 U	< 0.1 U	< 0.1 U	< 1 U	< 0.1 U	< 0.1 U	< 0.5 U
LS-LEPS	4/4/2012	LEPS120404M	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.025 U	< 0.025 U	< 0.1 U	< 0.1 U	< 1 U	< 0.1 U	< 0.1 U	< 0.5 U
LS-LEPS	5/2/2012	LEPS120502M	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.025 U	< 0.025 U	< 0.1 U	< 0.1 U	< 1 U	< 0.1 U	< 0.1 U	< 0.5 U
LS-LEPS	6/13/2012	LEPS120613M	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.025 U	< 0.025 U	< 0.1 U	< 0.1 U	< 1 U	< 0.1 U	< 0.1 U	< 0.5 U
LS-MH46N	4/4/2012	L46N120404M	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.025 U	< 0.025 U	< 0.1 U	< 0.1 U	< 1 U	< 0.1 U	< 0.1 U	< 0.5 U
LS-MH46N	5/3/2012	L46N120503M	0.22 T	< 0.01 U	< 0.01 U	< 0.01 U	0.22 T	< 0.025 U	< 0.1 U	< 0.1 U	< 1 U	< 0.1 U	< 0.1 U	< 0.5 U
LS-MH46N	6/13/2012	L46N120613M	0.29 T	< 0.01 U	< 0.01 U	< 0.01 U	0.29 T	< 0.025 U	< 0.1 U	< 0.1 U	< 1 U	< 0.1 U	< 0.1 U	< 0.5 U
LS-PS2A	4/4/2012	LP2A120404M	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.025 U	< 0.025 U	< 0.1 U	< 0.1 U	< 1 U	< 0.1 U	< 0.1 U	< 0.5 U
LS-PS2A	5/3/2012	LP2A120503M	0.179	< 0.01 U	0.057 T	< 0.01 U	0.236	< 0.025 U	< 0.1 U	< 0.1 U	< 1 U	< 0.1 U	< 0.1 U	< 0.5 U
LS-PS2A	6/13/2012	LP2A120613M	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.025 U	< 0.025 U	< 0.1 U	< 0.1 U	< 1 U	< 0.1 U	< 0.1 U	< 0.5 U

Environmental Monitoring Data

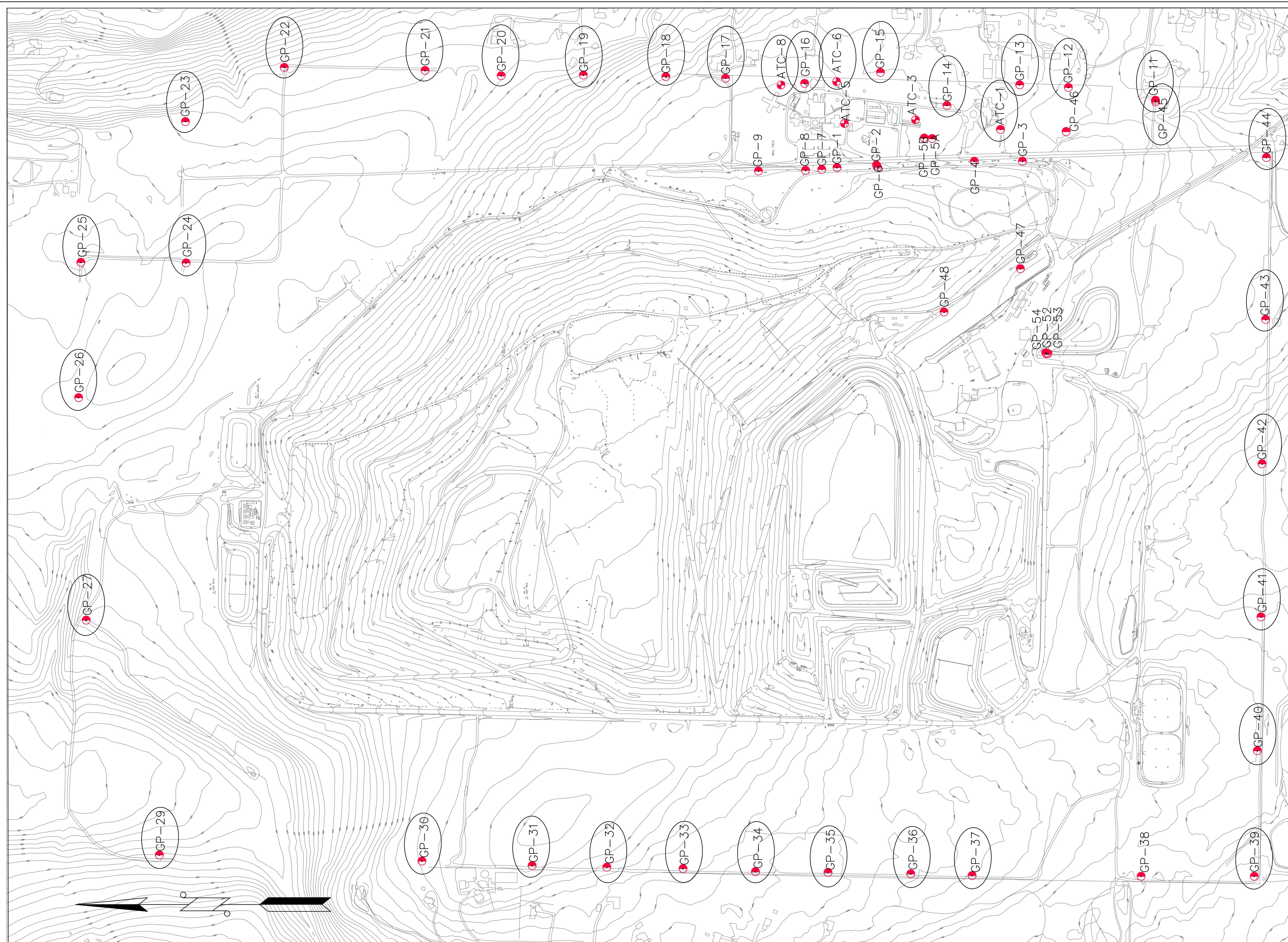
Data Collected from April 1, 2012 to June 30, 2012

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

Contact Person --- Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	Endrin (ug/L)	Endrin Aldehyde (ug/L)	Heptachlor (ug/L)	Heptachlor Epoxide (ug/L)	Isodrin (ug/L)	Lindane (ug/L)	Methoxy- chlor (ug/L)	Toxaphene (ug/L)
			72-20-8	7421-93-4	76-44-8	1024-57-3	465-73-6	58-89-9	72-43-5	8001-35-2
LS-API	4/4/2012	LAPI120404M	< 0.1 U	< 0.2 U	< 0.025 U	< 0.025 U	< 10 U	< 0.025 U	< 2 U	< 2.5 U
LS-API	5/3/2012	LAPI120503M	< 0.1 U	< 0.2 GU	< 0.025 U	< 0.025 U	< 10 U	< 0.025 U	< 2 U	< 2.5 U
LS-API	6/13/2012	LAPI120613M	< 0.1 U	< 0.2 U	< 0.025 U	< 0.025 U	< 10 U	< 0.025 U	< 2 U	< 2.5 U
LS-LEPS	4/4/2012	LEPS120404M	< 0.1 U	< 0.2 GU	< 0.025 U	< 0.025 U	< 10 U	< 0.025 U	< 2 U	< 2.5 U
LS-LEPS	5/2/2012	LEPS120502M	< 0.1 U	< 0.2 U	< 0.025 U	< 0.025 U	< 10 U	< 0.025 U	< 2 U	< 2.5 U
LS-LEPS	6/13/2012	LEPS120613M	< 0.1 U	< 0.2 U	< 0.025 U	< 0.025 U	< 10 U	< 0.025 U	< 2 U	< 2.5 U
LS-MH46N	4/4/2012	L46N120404M	< 0.1 U	< 0.2 U	< 0.025 U	< 0.025 U	< 10 U	< 0.025 U	< 2 U	< 2.5 U
LS-MH46N	5/3/2012	L46N120503M	< 0.1 U	< 0.2 U	< 0.025 U	< 0.025 U	< 10 U	< 0.025 U	< 2 U	< 2.5 U
LS-MH46N	6/13/2012	L46N120613M	< 0.1 U	< 0.2 GU	< 0.025 U	< 0.025 U	< 10 U	< 0.025 U	< 2 U	< 2.5 U
LS-PS2A	4/4/2012	LP2A120404M	< 0.1 U	< 0.2 U	< 0.025 U	< 0.025 U	< 10 U	< 0.025 U	< 2 U	< 2.5 U
LS-PS2A	5/3/2012	LP2A120503M	< 0.1 U	< 0.2 U	< 0.025 U	< 0.025 U	< 10 U	< 0.025 U	< 2 U	< 2.5 U
LS-PS2A	6/13/2012	LP2A120613M	< 0.1 U	< 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	GP-8 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	533.88	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	

S:\CAD\Cedarhill\gas-probe\loc_all-lfg-to2006_GasProbeOnly.dwg

LEGEND

- INTERIOR LGF MONITORING PROBES
- LFG MIGRATION MONITORING PROBES

DATE	REVISION	BY

**SECOND QUARTER
BUILDING MONITORING**

 King County	INSTRUMENT: Place check by instrument used :				WEATHER: Overcast / Drizzle	DATE: 04/24/12 TECH: JB		
	HEATH DetectoPak III (sn:8746-4)							
	Foxboro TVA 1000 FID/PID (sn: 7785301)							
ENVIS ID	BLDG #	DESCRIPTION	CH ₄ (ppm)	BAR PRESS (in.)	TIME	REMARKS		
GOC- 04/24/12	1	FRONT OFFICE	0	29.93	12:43pm			
GCR- 04/24/12	2	CONF ROOM	0		12:47pm			
GAO- 04/24/12	3	PAYROLL OFFICE	0		12:50pm			
GEO- 04/24/12	4	ENGR. OFFICE	0		12:52pm			
GLRC- 04/24/12	5	LUNCHROOM	0		12:55pm			
GSPC 04/24/12		SPOC	0		1:09pm			
GELO- 04/24/12 A	6A	DRY STORAGE	0		1:05pm			
GELO- 04/24/12 B	6B	ELECTRICIAN OFFICE	0		1:03pm			
GAP- 04/24/12		ACCOUNT PAYABLE	0		1:00pm			
GSO- 04/24/12 A	7A	SHOP OFFICE	0		1:15pm			
GPR- 04/24/12 B	7B	PARTS ROOM	0		1:13pm			
GMS- 04/24/12 C	7C	SHOP PIT AREA/BAY	0		1:11pm			
GTB- 04/24/12 D	7D	SHOP TIRE BAY	0		1:19pm			
GEW- 04/24/12 E	7E	EAST WELD SHOP	0		1:22pm			
GWW- 04/24/12 F	7F	WEST WELD SHOP	0		1:25pm			
GCS- 04/24/12	8	CARPENTER'S	0		1:29pm			
GSS- 04/24/12	9	WASTEWATER	0		1:31pm			
GSS- 04/24/12 B	9B	CARPENTER/STORAGE	0		1:33pm			
GSH- 04/24/12	10	SCALEHOUSE	0		12:40pm			
GB13- 04/24/12	13	WW COMPRESSOR	0		1:59pm			
GB16- 04/24/12	16	GENERATOR	0		1:45pm			
GB19- 04/24/12	19	LEPS (P.S.# 5)	0		1:49pm			
GB19- 04/24/12 B	19B	LEPS/H ₂ O ₂ ROOM	0		1:52pm			
GB20- 04/24/12	20	LEPS ELEC PANALS	0		1:53pm			
GB21- 04/24/12	21	STORAGE(OLD PS 1)	0		2:02pm			
GB22- 04/24/12	22	STORAGE/N FLARE	0		2:11pm			
GB23- 04/24/12	23	LFGAS	0		2:15pm			
GB24- 04/24/12	24	NE GENERATOR BLDG	0		2:08pm			
GBWW- 04/24/12	30	WOMEN BRK RM	0		1:07pm			
GPWT- 04/24/12	PW	PRESSURE WASH RM	0		1:36pm			
GBRR- 04/24/12	RR	TRUCKWASH RR W	0		1:38pm			
GBSS- 04/24/12	SS	TRUCKWASH RR E	0		1:39pm			
GBZZ- 04/24/12	29	MANAGERS TRAILER	0		12:57pm			
GBPT- 04/24/12		CCG FASTER	0		12:53pm			
GCLS- 04/24/12		CHLORINE SHED	0		1:42pm			

CEDAR HILLS REGIONAL LANDFILL

Landfill Gas Migration Probes

April 2012 Monitoring

Beginning Barometer: **29.97**
Ending Barometer: **30.01**
Ambient Temp: **49F**
Tech: **JB**

Probe ID	Date/Time	CH4 %vol	CO2 %vol	O2 %vol	Lower Explosive Limit %LEL	Static Pressure in INWC	Comments
ATC-01D	4/18/2012 9:53	0.0	0.1	20.3	0	0	
ATC-01S	4/18/2012 9:50	0.0	0.0	0.0	0	-5.53	
ATC-06D	4/18/2012 10:54	0.0	0.5	12.6	0	-0.02	
ATC-06S	4/18/2012 10:52	0.0	0.1	19.9	0	0.01	
ATC-08D	4/18/2012 11:04	0.0	0.2	18.9	0	-0.06	
ATC-08S	4/18/2012 11:02	0.0	2.0	15.6	0	0	
GP-11A	4/18/2012 9:41	0.0	0.8	18.9	0	-8.58	
GP-11B	4/18/2012 9:42	0.0	0.1	20.3	0	-0.02	
GP-11C	4/18/2012 9:44	0.0	0.1	20.3	0	-0.09	
GP-11D	4/18/2012 9:46	0.0	0.2	20.2	0	0.09	
GP-12A	4/18/2012 9:58	0.0	0.1	20.3	0	0	
GP-12B	4/18/2012 10:00	0.0	0.1	20.4	0	0	
GP-12C	4/18/2012 10:01	0.0	0.2	16.6	0	-17.41	
GP-12D	4/18/2012 10:03	0.0	0.2	20.2	0	-0.33	
GP-13A	4/18/2012 10:07	0.0	0.1	20.4	0	0	
GP-13B	4/18/2012 10:09	0.0	0.1	20.3	0	0.03	
GP-13C	4/18/2012 10:11	0.0	0.1	18.7	0	-0.01	
GP-13D	4/18/2012 10:12	0.0	0.1	20.3	0	-0.83	
GP-14A	4/18/2012 10:16	0.0	0.1	20.3	0	-0.95	
GP-14B	4/18/2012 10:18	0.0	0.1	20.4	0	-1.04	
GP-15A	4/18/2012 10:40	0.0	0.0	0.0	0	-5	NRH2O
GP-15C	4/18/2012 10:42	0.0	0.2	20.2	0	0	
GP-15D	4/18/2012 10:44	0.0	1.2	14.1	0	-2.54	
GP-16A	4/18/2012 10:57	0.0	0.2	19.7	0	0.04	
GP-16B	4/18/2012 10:58	0.0	0.1	20.1	0	-1.41	
GP-16C	4/18/2012 11:00	0.0	0.1	20.1	0	-0.86	
GP-17A	4/18/2012 11:53	0.0	0.0	0.0	2	-8.77	NRH2O
GP-17B	4/18/2012 11:55	0.0	0.9	16.7	0	0	
GP-17C	4/18/2012 11:56	0.0	0.1	20.1	0	-1.07	
GP-18A	4/18/2012 11:59	0.0	0.0	0.0	0	-3.63	NRH2O
GP-18B	4/18/2012 12:01	0.0	0.4	11.3	0	0	
GP-18C	4/18/2012 12:03	0.0	0.9	17.2	0	-0.97	
GP-19A	4/18/2012 12:05	0.0	0.1	20.2	0	0	
GP-19B	4/18/2012 12:07	0.0	0.7	14.7	0	0	
GP-19C	4/18/2012 12:08	0.0	0.1	20.2	0	-0.03	
GP-20A	4/18/2012 12:11	0.0	0.1	20.3	0	0	
GP-20B	4/18/2012 12:12	0.0	0.3	18.2	0	0	
GP-20C	4/18/2012 12:15	0.0	0.2	6.8	0	0	
GP-21A	4/18/2012 12:18	0.0	0.1	19.9	0	-3.45	
GP-21B	4/18/2012 12:19	0.0	0.1	8.9	0	0.01	
GP-21C	4/18/2012 12:23	0.0	0.0	0.0	0	-0.44	NRH2O
GP-22A	4/18/2012 12:24	0.0	0.0	0.0	0	0	NRCONSTT
GP-22B	4/18/2012 12:25	0.0	0.0	0.0	0	0	NRCONST
GP-22C	4/18/2012 12:25	0.0	0.0	0.0	0	0	NRCONST
GP-23A	4/18/2012 12:29	0.0	0.1	20.2	0	0	
GP-23B	4/18/2012 12:30	0.0	0.1	20.3	0	0	
GP-23C	4/18/2012 12:32	0.0	0.1	20.3	0	0	
GP-24A	4/18/2012 12:35	0.0	3.8	11.1	0	0	
GP-24B	4/18/2012 12:36	0.0	0.6	18.4	0	0	
GP-025	4/18/2012 12:39	0.0	2.8	13.8	0	0.01	
GP-026	4/18/2012 12:42	0.0	1.1	17.0	0	0.02	
GP-027	4/18/2012 12:45	0.0	8.2	8.5	0	0	
GP-29A	4/18/2012 12:50	0.0	0.6	19.5	0	0	
GP-29B	4/18/2012 12:51	0.0	0.6	20.0	0	0.01	

CEDAR HILLS REGIONAL LANDFILL

Landfill Gas Migration Probes

April 2012 Monitoring

Beginning Barometer: **29.97**
Ending Barometer: **30.01**
Ambient Temp: **49F**
Tech: **JB**

Probe ID	Date/Time	CH4 %vol	CO2 %vol	O2 %vol	Lower Explosive Limit %LEL	Static Pressure in INWC	Comments
GP-30A	4/18/2012 7:13	0.0	1.8	18.3	0	0.21	
GP-30B	4/18/2012 7:15	0.0	0.5	19.9	0	-1.61	
GP-31A	4/18/2012 7:18	0.0	0.0	0.0	0	-9.55	
GP-31B	4/18/2012 7:20	0.0	0.2	17.1	0	0.88	
GP-31C	4/18/2012 7:22	0.0	0.1	20.7	0	0	
GP-32A	4/18/2012 7:40	0.0	0.6	20.2	0	0	
GP-32B	4/18/2012 7:42	0.0	0.3	20.5	0	0.01	
GP-32C	4/18/2012 7:44	0.0	0.4	20.5	0	0.03	
GP-33A	4/18/2012 7:46	0.0	0.1	20.9	0	0	
GP-33B	4/18/2012 7:48	0.0	0.1	20.9	0	0	
GP-33C	4/18/2012 7:50	0.0	0.1	20.9	0	-1.97	
GP-34A	4/18/2012 7:53	0.0	0.0	0.0	0	-0.04	
GP-34B	4/18/2012 7:54	0.0	0.2	20.8	0	0	
GP-34C	4/18/2012 7:56	0.0	0.1	20.6	0	-0.72	
GP-35A	4/18/2012 7:58	0.0	0.1	20.9	0	0	
GP-35B	4/18/2012 7:59	0.0	0.1	21.0	0	0	
GP-35C	4/18/2012 8:01	0.0	0.1	20.9	0	-0.03	
GP-36A	4/18/2012 8:03	0.0	0.2	17.4	0	-0.09	
GP-36B	4/18/2012 8:05	0.0	0.0	0.0	0	-12.21	
GP-36C	4/18/2012 8:07	0.0	0.4	8.7	0	0.48	
GP-37A	4/18/2012 8:10	0.0	0.0	0.0	0	0.56	
GP-37B	4/18/2012 8:12	0.0	0.2	19.9	0	-7.43	
GP-37C	4/18/2012 8:13	0.0	0.6	1.6	0	0.53	
GP-039	4/18/2012 13:31	0.0	1.3	17.5	0	-0.06	
GP-040	4/18/2012 13:34	0.0	0.1	17.1	0	0	
GP-41A	4/18/2012 13:37	0.0	0.1	20.0	0	0	
GP-41B	4/18/2012 13:38	0.0	0.1	20.0	0	0	
GP-41C	4/18/2012 13:40	0.0	0.1	19.9	0	0	
GP-42A	4/18/2012 13:43	0.0	0.0	0.0	0	-0.09	
GP-42B	4/18/2012 13:45	0.0	0.3	19.6	0	-0.21	
GP-43A	4/18/2012 13:49	0.0	0.2	19.6	0	-0.07	
GP-43B	4/18/2012 13:51	0.0	0.1	19.9	0	-0.01	
GP-43C	4/18/2012 13:52	0.0	0.1	19.9	0	0	
GP-44A	4/18/2012 13:56	0.0	0.1	20.0	0	0	
GP-44B	4/18/2012 13:58	0.0	0.1	19.6	0	0.04	
GP-44C	4/18/2012 14:00	0.0	0.1	20.1	0	0	
GP-45D	4/18/2012 9:39	0.0	0.1	20.3	0	-0.3	
GP-45I	4/18/2012 9:37	0.0	0.1	20.3	0	0	
GP-45S	4/18/2012 9:36	0.0	0.1	20.3	0	0	

CEDAR HILLS REGIONAL LANDFILL
Landfill Gas Migration Probes
May 2012 Monitoring

Beginning Barometer: **29.94**
Ending Barometer: **29.84**
Ambient Temp: **59F**
Tech: **JB**

Probe ID	Date/Time	CH4	CO2	O2	Lower Explosive Limit %LEL	Static Pressure in INWC	Comments
		%vol	%vol	%vol			
ATC-01D	5/24/2012 10:00	0.0	0.1	20.7	0	0	
ATC-01S	5/24/2012 9:58	0.0	0.0	0.0	0	0	
ATC-06D	5/24/2012 10:50	0.0	0.7	8.4	0	0.16	
ATC-06S	5/24/2012 10:48	0.0	0.0	20.7	0	-0.01	
ATC-08D	5/24/2012 10:55	0.0	0.3	19.2	0	0.12	
ATC-08S	5/24/2012 10:53	0.0	2.9	14.0	0	0	
GP-11A	5/24/2012 9:47	0.0	0.5	19.7	0	0.7	
GP-11B	5/24/2012 9:48	0.0	0.5	13.7	0	0.9	
GP-11C	5/24/2012 9:50	0.0	0.1	11.6	0	0.9	
GP-11D	5/24/2012 9:52	0.0	0.2	20.6	0	0.25	
GP-12A	5/24/2012 10:05	0.0	0.1	20.7	0	0	
GP-12B	5/24/2012 10:07	0.0	0.0	20.9	0	0	
GP-12C	5/24/2012 10:09	0.0	0.1	17.6	0	-12.48	
GP-12D	5/24/2012 10:10	0.0	0.3	16.3	0	0.72	
GP-13A	5/24/2012 10:13	0.0	0.0	20.8	0	0.02	
GP-13B	5/24/2012 10:16	0.0	0.0	20.8	0	0.02	
GP-13C	5/24/2012 10:17	0.0	0.0	19.8	0	0	
GP-13D	5/24/2012 10:19	0.0	0.3	18.1	0	0.87	
GP-14A	5/24/2012 10:23	0.0	0.0	21.0	0	0.9	
GP-14B	5/24/2012 10:25	0.0	1.7	15.9	0	0.76	
GP-15A	5/24/2012 10:36	0.0	0.0	0.0	0	-11.88	NRH20
GP-15C	5/24/2012 10:38	0.0	0.1	20.8	0	0.04	
GP-15D	5/24/2012 10:39	0.0	2.9	3.7	0	-2.58	
GP-16A	5/24/2012 10:57	0.0	0.1	20.8	0	0.02	
GP-16B	5/24/2012 10:59	0.0	0.3	19.5	0	2.33	
GP-16C	5/24/2012 11:01	0.0	0.3	19.4	0	1.12	
GP-17A	5/24/2012 12:17	0.0	0.0	0.0	32	0.71	NRH20
GP-17B	5/24/2012 12:19	0.0	0.8	17.0	0	0.01	
GP-17C	5/24/2012 12:21	0.0	0.1	18.3	0	1.04	
GP-18A	5/24/2012 12:24	0.0	0.1	20.2	0	-0.05	
GP-18B	5/24/2012 12:26	0.0	0.3	11.8	0	0	
GP-18C	5/24/2012 12:27	0.0	1.5	12.9	0	1.37	
GP-19A	5/24/2012 12:30	0.0	0.0	20.4	0	0	
GP-19B	5/24/2012 12:32	0.0	0.6	15.0	0	0.02	
GP-19C	5/24/2012 12:34	0.0	0.0	20.2	0	0.12	
GP-20A	5/24/2012 12:36	0.0	0.0	20.5	0	0	
GP-20B	5/24/2012 12:38	0.0	0.2	15.6	0	0.05	
GP-20C	5/24/2012 12:40	0.0	0.2	17.2	0	0	
GP-21A	5/24/2012 12:43	0.0	0.0	20.5	0	-0.1	
GP-21B	5/24/2012 12:45	0.0	0.0	9.0	0	0	
GP-21C	5/24/2012 12:47	0.0	0.0	0.0	0	-0.13	NRH20
GP-22A	5/24/2012 12:48	0.3	0.0	0.0	6	0	NRCONST
GP-22B	5/24/2012 12:48	0.0	0.0	0.0	0	0	NRCONST
GP-22C	5/24/2012 12:48	0.0	0.0	0.0	0	0	NRCONST
GP-23A	5/24/2012 12:52	0.0	0.0	20.8	0	0	
GP-23B	5/24/2012 12:54	0.0	0.0	20.9	0	0	
GP-23C	5/24/2012 12:56	0.0	0.0	21.0	0	0	
GP-24A	5/24/2012 13:05	0.0	4.3	11.6	0	0	
GP-24B	5/24/2012 13:06	0.0	0.6	19.6	0	0	
GP-025	5/24/2012 8:57	0.0	1.1	15.1	0	0.02	
GP-026	5/24/2012 13:16	0.0	3.3	14.4	0	0	
GP-027	5/24/2012 13:19	0.0	0.9	19.7	0	0.02	
GP-29A	5/24/2012 13:26	0.0	1.0	19.8	0	0	
GP-29B	5/24/2012 13:28	0.0	0.6	20.5	0	0	

CEDAR HILLS REGIONAL LANDFILL
Landfill Gas Migration Probes
May 2012 Monitoring

Beginning Barometer: **29.94**
Ending Barometer: **29.84**
Ambient Temp: **59F**
Tech: **JB**

Probe ID	Date/Time	CH4	CO2	O2	Lower Explosive Limit %LEL	Static Pressure in INWC	Comments
		%vol	%vol	%vol	%LEL	in INWC	
GP-30A	--	--	--	--	--	--	No Reading
GP-30B	5/24/2012 7:20	0.0	1.5	17.9	0	-8.45	
GP-31A	5/24/2012 7:24	0.0	0.0	0.0	0	-0.03	NRH20
GP-31B	5/24/2012 7:26	0.0	0.2	17.1	0	0.73	
GP-31C	5/24/2012 7:28	0.0	1.3	15.7	0	0	
GP-32A	5/24/2012 7:31	0.0	0.7	20.6	0	0.01	
GP-32B	5/24/2012 7:33	0.0	0.3	20.7	0	0	
GP-32C	5/24/2012 7:35	0.0	0.3	20.8	0	0	
GP-33A	5/24/2012 7:37	0.0	2.3	16.9	0	0	
GP-33B	5/24/2012 7:41	0.0	0.0	21.0	0	-0.02	
GP-33C	5/24/2012 7:43	0.0	0.2	20.3	0	-2.43	
GP-34A	5/24/2012 7:46	0.0	0.0	0.0	0	0	NRH20
GP-34B	5/24/2012 7:48	0.0	0.3	20.9	0	0.05	
GP-34C	5/24/2012 7:50	0.0	0.1	20.0	0	0.09	
GP-35A	5/24/2012 7:52	0.0	0.1	20.9	0	0	
GP-35B	5/24/2012 7:54	0.0	0.0	21.0	0	0	
GP-35C	5/24/2012 7:56	0.0	0.1	21.0	0	0.01	
GP-36A	5/24/2012 7:58	0.0	0.2	17.7	0	0.43	
GP-36B	5/24/2012 8:00	0.0	0.0	0.0	0	0	NRH20
GP-36C	5/24/2012 8:02	0.0	0.3	9.0	0	1.29	
GP-37A	5/24/2012 8:06	0.0	0.0	0.0	0	0	NRH20
GP-37B	5/24/2012 8:08	0.0	0.4	17.9	0	-6.6	
GP-37C	5/24/2012 8:10	0.0	0.6	1.4	0	1.14	
GP-039	5/24/2012 9:16	0.0	0.2	20.7	0	0	
GP-040	5/24/2012 13:38	0.0	1.4	17.8	0	0	
GP-41A	5/24/2012 13:43	0.0	0.0	20.7	0	0	
GP-41B	5/24/2012 13:45	0.0	0.0	20.7	0	-0.01	
GP-41C	5/24/2012 13:47	0.0	0.0	20.9	0	0	
GP-42A	5/24/2012 13:50	0.0	0.0	0.0	0	0	NRH20
GP-42B	5/24/2012 13:52	0.0	0.7	16.2	0	1.2	
GP-43A	5/24/2012 13:55	0.0	0.1	20.5	0	0	
GP-43B	5/24/2012 13:56	0.0	0.0	20.6	0	-0.01	
GP-43C	5/24/2012 13:58	0.0	0.1	16.3	0	0.06	
GP-44A	5/24/2012 14:02	0.0	0.0	20.8	0	0	
GP-44B	5/24/2012 14:04	0.0	0.5	13.9	0	2.36	
GP-44C	5/24/2012 14:05	0.0	0.0	20.3	0	0	
GP-45D	5/24/2012 9:44	0.0	0.1	19.6	0	0.7	
GP-45I	5/24/2012 9:43	0.0	0.0	18.6	0	0.01	
GP-45S	5/24/2012 9:40	0.0	0.0	20.6	0	0	

CEDAR HILLS REGIONAL LANDFILL
Landfill Gas Migration Probes
June 2012 Monitoring

Beginning Barometer: **29.94**

Ending Barometer: **29.83**

Ambient Temp: **78F**

Tech: **Dye**

Probe ID	Date/Time	CH4	CO2	O2	Lower Explosive Limit %LEL	Static Pressure in INWC	Comments
		%vol	%vol	%vol			
ATC-01D	6/21/2012 13:40	0.0	0.0	20.5	0	0	
ATC-01S	6/21/2012 13:38	0.0	0.0	20.7	0	0.02	
ATC-06D	6/21/2012 15:02	0.0	0.5	10.9	0	0.23	
ATC-06S	6/21/2012 15:00	0.0	0.0	20.6	0	0	
ATC-08D	6/21/2012 14:51	0.0	0.4	17.8	0	0.1	
ATC-08S	6/21/2012 14:49	0.0	3.6	14.3	0	0	
GP-11A	6/21/2012 15:24	0.0	0.5	19.6	0	-0.02	
GP-11B	6/21/2012 15:25	0.0	0.2	16.7	0	1.52	
GP-11C	6/21/2012 15:27	0.0	0.1	12.4	0	1.44	
GP-11D	6/21/2012 15:28	0.0	0.1	20.5	0	0.07	
GP-12A	6/21/2012 13:47	0.0	0.0	20.8	0	0	
GP-12B	6/21/2012 13:49	0.0	0.0	20.7	0	0	
GP-12C	6/21/2012 13:51	0.0	0.1	18.7	0	0.42	
GP-12D	6/21/2012 13:53	0.0	0.2	20.3	0	2.56	
GP-13A	6/21/2012 13:57	0.0	0.0	20.7	0	0	
GP-13B	6/21/2012 13:59	0.0	0.0	20.6	0	-0.02	
GP-13C	6/21/2012 14:01	0.0	0.1	11.8	0	0.02	
GP-13D	6/21/2012 14:03	0.0	0.4	16.0	0	1.8	
GP-14A	6/21/2012 15:18	0.0	0.0	19.7	0	1.97	
GP-14B	6/21/2012 15:19	0.0	1.4	16.3	0	1.79	
GP-15A	6/21/2012 14:39	0.0	0.1	20.5	0	-0.01	
GP-15C	6/21/2012 14:36	0.0	2.1	7.5	0	1.97	
GP-15D	6/21/2012 14:37	0.0	0.1	20.2	0	-3.64	
GP-16A	6/21/2012 14:54	0.0	0.3	20.1	0	-0.01	
GP-16B	6/21/2012 14:56	0.0	0.1	20.5	0	0.57	
GP-16C	6/21/2012 14:57	0.0	0.5	16.6	0	2.17	
GP-17A	6/21/2012 11:25	0.0	0.0	0.0	0	-6.62	
GP-17B	6/21/2012 11:23	0.0	0.6	17.2	0	0	
GP-17C	6/21/2012 11:24	0.0	0.0	20.1	0	1.29	
GP-18A	6/21/2012 11:29	0.0	0.0	20.5	0	-0.03	
GP-18B	6/21/2012 11:30	0.0	0.2	12.8	0	0	
GP-18C	6/21/2012 11:32	0.0	1.1	14.1	0	1.54	NR-Const.
GP-19A	6/21/2012 11:36	0.0	0.0	20.6	0	0	NR-Const.
GP-19B	6/21/2012 11:37	0.0	0.4	15.8	0	0	NR-Const.
GP-19C	6/21/2012 11:39	0.0	0.0	20.9	0	0.11	
GP-20A	6/21/2012 11:43	0.0	0.0	21.0	0	0	
GP-20B	6/21/2012 11:44	0.0	0.1	17.3	0	0	
GP-20C	6/21/2012 11:46	0.0	0.0	20.9	0	0	
GP-21A	6/21/2012 11:49	0.0	0.0	21.2	0	0	
GP-21B	6/21/2012 11:51	0.0	0.0	9.5	0	0	
GP-21C	6/21/2012 11:52	0.0	0.0	0.0	0	-0.04	
GP-22A	6/21/2012 11:54	0.0	0.0	0.0	0	0	
GP-22B	6/21/2012 11:54	0.0	0.0	0.0	0	0	
GP-22C	6/21/2012 11:54	0.0	0.0	0.0	0	0	
GP-23A	6/21/2012 11:59	0.0	0.0	21.0	0	-0.66	
GP-23B	6/21/2012 12:01	0.0	0.0	21.0	0	0	
GP-23C	--	--	--	--	--	--	No Reading
GP-24A	6/21/2012 12:06	0.0	3.9	10.3	0	0.01	
GP-24B	6/21/2012 12:08	0.0	0.6	18.8	0	0.01	
GP-025	6/21/2012 12:11	0.0	3.4	13.1	0	0	
GP-026	6/21/2012 12:14	0.0	0.7	19.8	0	0.04	
GP-027	6/21/2012 15:43	0.0	9.1	7.2	0	0.01	
GP-29A	6/21/2012 15:48	0.0	0.9	19.8	0	0	
GP-29B	6/21/2012 15:50	0.0	0.5	20.5	0	0	

CEDAR HILLS REGIONAL LANDFILL
Landfill Gas Migration Probes
June 2012 Monitoring

Beginning Barometer: **29.94**

Ending Barometer: **29.83**

Ambient Temp: **78F**

Tech: **Dye**

Probe ID	Date/Time	CH4	CO2	O2	Lower Explosive Limit %LEL	Static Pressure in INWC	Comments
		%vol	%vol	%vol			
GP-30A	6/21/2012 8:05	0.0	2.8	16.1	0	-0.41	
GP-30B	6/21/2012 8:07	0.0	0.2	20.2	0	-1.35	
GP-31A	6/21/2012 8:10	0.0	0.2	20.3	0	-1.47	
GP-31B	6/21/2012 8:12	0.0	0.2	16.6	0	0.34	
GP-31C	6/21/2012 8:14	0.0	1.2	14.9	0	0	
GP-32A	6/21/2012 8:16	0.0	0.8	19.9	0	0	
GP-32B	6/21/2012 8:18	0.0	0.5	20.2	0	0	
GP-32C	6/21/2012 8:20	0.0	0.2	20.4	0	0	
GP-33A	6/21/2012 8:23	0.0	2.5	16.6	0	0	NR-H2O
GP-33B	6/21/2012 8:25	0.0	0.1	20.5	0	-0.01	
GP-33C	6/21/2012 8:27	0.0	0.7	9.1	0	-2.58	NR-H2O
GP-34A	6/21/2012 8:29	0.0	0.0	0.0	0	-0.05	
GP-34B	6/21/2012 8:31	0.0	0.3	20.1	0	0	
GP-34C	6/21/2012 8:33	0.0	0.1	7.1	0	0.27	
GP-35A	6/21/2012 8:36	0.0	0.1	20.3	0	0	
GP-35B	6/21/2012 8:38	0.0	0.0	20.6	0	0	
GP-35C	6/21/2012 8:40	0.0	0.1	20.8	0	0	NR-H2O
GP-36A	6/21/2012 8:45	0.0	0.2	19.1	0	0.28	
GP-36B	6/21/2012 8:46	0.0	0.0	0.0	0	-0.01	
GP-36C	6/21/2012 8:49	0.0	0.3	7.8	0	1.68	
GP-37A	6/21/2012 8:52	0.0	0.0	0.0	0	0.01	
GP-37B	6/21/2012 8:54	0.0	0.1	20.5	0	-0.15	
GP-37C	6/21/2012 8:56	0.0	0.5	2.8	0	1.57	
GP-039	6/21/2012 9:15	0.0	1.6	17.4	0	0.02	
GP-040	6/21/2012 9:19	0.0	0.0	16.4	0	0	
GP-41A	6/21/2012 9:24	0.0	0.0	20.6	0	0	
GP-41B	6/21/2012 9:25	0.0	0.0	20.6	0	0	
GP-41C	6/21/2012 9:27	0.0	0.0	20.7	0	0	
GP-42A	6/21/2012 9:31	0.0	0.0	0.0	0	0.04	
GP-42B	6/21/2012 9:33	0.0	0.5	17.5	0	0.75	
GP-43A	6/21/2012 9:37	0.0	0.0	20.4	0	-0.01	
GP-43B	6/21/2012 9:38	0.0	0.0	20.4	0	0	
GP-43C	6/21/2012 9:40	0.0	0.1	19.1	0	0.05	
GP-44A	6/21/2012 9:44	0.0	0.0	20.5	0	0.01	
GP-44B	6/21/2012 9:46	0.0	0.4	14.9	0	0.59	
GP-44C	6/21/2012 9:47	0.0	0.0	20.1	0	0	
GP-45D	6/21/2012 15:34	0.0	0.0	20.2	0	1.1	
GP-45I	6/21/2012 15:32	0.0	0.0	17.0	0	0.04	
GP-45S	6/21/2012 15:31	0.0	0.0	20.9	0	0	NR-H2O

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 APRIL , 2012

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	8.4	21.2	21.7	23.8	23.6	20.6	23.5	13.0	12.6	12.2	10.2	8.2	8.9	8.1	5.7	9.5	8.7	4.6	5.9	3.6	5.6	6.8	7.4	7.5	11.7
2	6.7	7.3	7.1	6.1	5.6	5.6	4.9	6.5	7.9	9.9	12.0	13.0	11.5	9.4	9.7	12.0	9.6	10.9	13.4	15.4	16.4	18.1	17.9	18.8	10.6
3	17.4	15.9	17.4	17.5	15.7	7.7	7.2	6.3	2.1	14.0	15.8	12.0	13.0	12.3	10.9	10.1	9.4	5.0	5.6	3.8	5.3	5.1	5.8	4.9	10.0
4	2.8	1.8	1.5	2.8	3.1	1.0	2.6	3.5	5.5	5.8	5.0	4.0	4.0	5.3	4.3	6.9	8.3	9.0	8.2	5.5	3.6	3.3	4.8	4.4	4.4
5	2.8	1.7	2.3	4.1	4.9	3.1	2.7	2.8	3.5	2.6	2.8	6.5	9.3	5.3	7.5	9.6	6.3	5.4	5.1	5.3	4.5	3.6	3.8	4.2	4.6
6	2.8	2.7	3.8	4.7	5.8	3.9	4.1	5.5	6.2	6.8	5.8	5.1	5.7	4.6	5.8	4.8	4.0	3.0	5.9	6.6	5.0	2.7	3.2	1.8	4.6
7	2.2	2.0	4.0	1.8	4.5	5.3	5.5	3.3	2.0	2.7	6.7	8.6	9.1	12.9	15.0	12.0	12.7	11.7	10.4	10.6	9.9	11.9	14.1	15.6	8.1
8	13.7	12.4	12.1	9.7	12.3	14.6	15.4	14.8	13.1	16.2	13.5	10.2	14.1	11.4	10.6	12.3	12.6	12.0	12.2	13.6	10.2	11.6	11.5	8.8	12.4
9	5.8	4.8	5.7	4.6	4.5	3.5	2.7	6.2	2.8	2.8	3.7	6.0	6.7	9.7	11.2	10.3	7.4	4.6	4.7	3.5	9.6	8.1	10.1	9.9	6.2
10	9.4	10.2	11.4	10.2	5.5	3.3	3.9	2.6	3.6	5.8	7.5	8.7	8.5	10.2	9.5	6.6	3.3	2.3	7.7	9.6	5.8	4.7	4.9	2.1	6.6
11	3.4	2.9	4.3	2.3	3.2	1.9	2.1	1.7	1.4	3.5	4.5	5.4	7.7	7.1	6.1	8.5	7.9	5.7	6.2	5.7	6.1	4.3	4.3	3.4	4.6
12	4.2	4.0	4.4	3.2	3.4	2.6	3.5	2.6	1.9	1.9	5.2	18.7	5.2	4.0	10.0	4.4	2.5	2.5	3.1	2.2	1.8	3.0	2.3	2.5	4.1
13	1.7	2.8	4.1	3.7	4.9	3.5	3.7	3.3	3.0	8.6	11.0	12.2	12.0	10.2	12.5	11.5	11.2	9.3	7.8	5.6	2.8	2.7	2.0	2.9	6.4
14	1.4	1.5	1.9	3.2	3.1	3.0	3.6	5.5	4.0	5.0	5.2	6.4	11.9	10.3	8.9	7.2	9.4	6.8	7.1	8.5	7.3	7.1	6.4	6.3	5.9
15	9.2	6.6	6.7	6.5	6.3	6.4	5.9	5.5	5.5	5.3	4.1	4.0	5.0	7.2	8.3	5.6	5.7	3.2	1.8	1.9	2.9	3.0	5.1	6.5	5.3
16	4.1	2.9	5.5	11.2	10.4	9.5	8.8	9.9	11.9	15.7	17.4	16.6	18.2	18.1	17.9	20.6	15.2	14.9	10.9	9.1	7.2	8.5	7.0	7.1	11.6
17	6.6	5.4	3.7	3.4	4.2	3.7	1.5	2.8	3.3	3.7	4.1	3.3	4.1	5.1	6.6	5.9	4.0	3.1	2.2	3.9	4.2	4.0	3.4	5.4	4.1
18	5.4	5.9	7.9	11.3	10.5	8.8	6.4	10.4	8.2	11.8	11.9	12.0	11.1	9.3	10.2	13.4	7.9	9.1	5.7	4.9	7.2	7.8	7.5	4.7	8.7
19	4.0	4.6	3.5	3.7	3.8	3.0	1.9	3.2	5.0	6.1	5.1	8.2	10.1	6.6	8.8	5.4	8.4	8.9	8.4	6.4	7.2	9.9	14.3	14.7	6.7
20	13.9	14.0	16.4	11.2	8.0	3.8	4.1	2.7	3.5	5.8	5.8	3.5	1.9	2.9	3.1	2.6	2.3	2.0	4.2	1.4	2.8	2.7	3.7	3.5	5.2
21	4.7	4.7	5.4	4.2	3.2	4.3	2.3	1.2	2.0	4.0	3.9	6.3	3.4	4.0	6.6	8.2	7.6	5.1	4.9	6.4	5.1	8.9	8.6	5.3	5.0
22	6.4	4.2	1.9	4.0	3.5	1.2	2.2	1.8	2.0	2.2	2.1	3.9	6.3	7.9	6.4	6.1	6.9	4.3	4.3	7.0	9.9	13.1	13.0	10.5	5.5
23	8.7	6.7	3.5	2.1	4.7	2.4	1.9	2.2	1.7	2.6	6.3	8.6	8.1	8.2	9.7	8.2	7.2	9.0	5.8	8.2	9.9	10.7	9.7	9.1	6.5
24	7.1	4.0	3.7	5.1	6.3	6.5	6.9	8.2	6.5	7.8	6.4	6.4	5.3	5.1	4.3	5.1	4.5	5.0	6.6	4.9	5.0	4.2	1.9	3.1	5.4
25	1.6	2.7	3.3	2.0	3.2	2.4	2.3	4.4	6.2	3.6	2.4	2.4	2.0	3.8	4.4	3.1	3.2	12.2	4.7	6.1	4.9	11.2	6.6	1.4	4.2
26	2.4	4.2	4.8	4.8	4.6	3.9	7.1	9.7	5.5	9.3	11.2	10.6	11.9	11.1	8.1	12.9	13.9	12.2	11.9	8.5	7.4	6.7	7.9	7.3	8.2
27	8.3	9.1	6.2	7.6	8.0	5.6	5.2	7.5	11.6	13.9	14.0	11.2	10.2	7.5	7.2	8.4	10.9	12.0	8.7	5.1	4.0	4.9	5.7	5.6	8.3
28	4.6	3.8	4.0	4.3	3.2	3.9	2.4	2.5	3.5	3.8	4.2	5.3	5.6	5.8	6.7	4.6	4.1	2.7	5.8	5.6	1.0	2.6	3.7	1.7	4.0
29	3.9	3.8	3.7	2.9	2.5	3.7	2.1	3.5	2.6	3.3	3.5	2.1	2.2	2.1	1.8	3.9	2.9	3.7	3.9	4.2	5.8	5.6	3.8	9.4	3.6
30	8.4	4.4	4.1	5.1	4.9	7.7	9.2	15.9	18.6	15.7	14.7	18.1	15.8	17.0	18.9	16.1	18.5	17.9	18.7	17.8	15.6	16.3	17.9	16.8	13.9

MONTHLY AVERAGE = 6.88

WIND DIRECTION FOR CEDAR HILLS LANDFILL
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF APRIL , 2012

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	165.	210.	194.	190.	197.	199.	211.	200.	180.	190.	216.	229.	239.	197.	120.	158.	157.	132.	182.	151.	163.	160.	157.	159.	181.
2	148.	152.	148.	148.	143.	143.	164.	131.	154.	138.	130.	132.	136.	147.	156.	172.	151.	128.	123.	122.	119.	118.	122.	122.	139.
3	130.	137.	131.	130.	134.	220.	294.	287.	347.	226.	224.	180.	159.	159.	165.	188.	193.	210.	166.	187.	148.	130.	163.	168.	186.
4	151.	202.	178.	179.	195.	178.	209.	184.	199.	228.	216.	232.	269.	262.	262.	264.	287.	283.	276.	249.	246.	249.	250.	266.	230.
5	257.	213.	168.	185.	65.	71.	134.	127.	136.	101.	106.	280.	27.	19.	330.	295.	301.	296.	285.	139.	133.	128.	132.	147.	170.
6	126.	133.	143.	154.	150.	106.	141.	158.	180.	220.	241.	207.	220.	201.	152.	153.	88.	102.	158.	159.	216.	124.	116.	85.	156.
7	110.	79.	54.	114.	42.	33.	24.	22.	314.	15.	92.	96.	91.	79.	65.	90.	91.	81.	91.	107.	113.	116.	124.	124.	90.
8	123.	110.	116.	114.	113.	116.	116.	118.	111.	116.	109.	112.	120.	100.	101.	113.	107.	109.	106.	111.	107.	122.	117.	120.	113.
9	133.	168.	126.	196.	173.	178.	192.	204.	196.	208.	239.	272.	281.	290.	283.	284.	291.	328.	349.	354.	34.	31.	21.	32.	203.
10	34.	26.	26.	36.	79.	63.	60.	41.	322.	170.	172.	184.	195.	236.	275.	251.	286.	308.	277.	251.	210.	193.	216.	182.	170.
11	198.	321.	252.	186.	170.	116.	119.	204.	17.	229.	254.	227.	244.	231.	193.	177.	156.	134.	117.	122.	129.	139.	148.	159.	177.
12	176.	111.	141.	97.	74.	99.	114.	81.	50.	113.	210.	218.	94.	115.	253.	299.	87.	126.	136.	61.	32.	92.	63.	83.	122.
13	215.	40.	29.	31.	25.	27.	3.	36.	14.	1.	15.	21.	19.	6.	360.	344.	324.	351.	336.	323.	53.	49.	80.	153.	119.
14	99.	146.	130.	166.	165.	161.	148.	218.	236.	243.	218.	231.	278.	258.	230.	243.	263.	284.	260.	266.	240.	227.	222.	211.	214.
15	192.	166.	148.	146.	149.	147.	140.	172.	176.	213.	216.	218.	216.	274.	276.	242.	231.	266.	13.	56.	77.	131.	161.	194.	176.
16	135.	96.	121.	126.	136.	142.	136.	162.	192.	217.	218.	245.	228.	237.	242.	233.	228.	230.	228.	220.	208.	196.	166.	152.	187.
17	149.	147.	140.	124.	133.	131.	123.	151.	198.	217.	166.	182.	217.	205.	233.	160.	278.	276.	91.	103.	116.	115.	110.	155.	163.
18	157.	119.	115.	126.	127.	131.	185.	196.	151.	174.	194.	225.	227.	218.	242.	251.	248.	231.	214.	244.	227.	224.	210.	161.	192.
19	134.	142.	116.	114.	124.	109.	99.	121.	145.	149.	149.	163.	172.	187.	161.	170.	144.	144.	145.	151.	160.	203.	224.	219.	152.
20	214.	218.	237.	239.	191.	155.	160.	137.	64.	118.	120.	83.	95.	75.	307.	253.	55.	113.	171.	305.	20.	29.	35.	63.	144.
21	40.	40.	30.	35.	11.	26.	21.	344.	284.	298.	325.	278.	225.	291.	288.	283.	293.	312.	359.	22.	20.	30.	29.	29.	163.
22	34.	26.	25.	37.	29.	23.	4.	48.	204.	244.	241.	255.	271.	283.	285.	294.	295.	324.	337.	18.	23.	25.	21.	23.	140.
23	32.	35.	35.	20.	18.	27.	11.	210.	264.	247.	264.	269.	281.	285.	288.	308.	354.	315.	354.	6.	19.	19.	22.	30.	155.
24	35.	23.	68.	160.	225.	180.	193.	190.	180.	181.	180.	181.	141.	124.	162.	128.	112.	135.	154.	135.	109.	135.	144.	199.	145.
25	120.	242.	270.	83.	80.	100.	46.	87.	110.	108.	112.	326.	19.	61.	62.	67.	120.	272.	150.	132.	153.	278.	282.	126.	142.
26	129.	120.	127.	129.	124.	142.	223.	240.	180.	161.	175.	198.	186.	173.	156.	215.	208.	226.	242.	184.	142.	149.	161.	157.	173.
27	167.	179.	161.	161.	159.	145.	137.	151.	204.	218.	220.	240.	228.	237.	237.	251.	258.	223.	248.	215.	137.	146.	142.	141.	192.
28	124.	122.	133.	130.	164.	151.	137.	156.	195.	178.	244.	221.	202.	248.	273.	269.	232.	239.	254.	273.	89.	235.	271.	245.	199.
29	193.	197.	213.	224.	246.	265.	302.	258.	259.	267.	234.	207.	124.	124.	247.	257.	230.	118.	141.	141.	232.	229.	247.	266.	218.
30	247.	214.	227.	177.	134.	134.	163.	201.	203.	202.	203.	222.	228.	232.	229.	224.	216.	221.	214.	205.	187.	187.	192.	196.	202.

MONTHLY AVERAGE = 167.10

SIGMA THETA FOR CEDAR HILLS LANDFILL
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF APRIL , 2012

IN DEGREES

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	12.0	11.1	8.2	9.1	9.9	11.1	9.2	11.3	15.5	11.3	10.4	16.9	19.1	12.6	20.0	18.8	13.6	8.1	13.0	9.9	9.3	7.5	6.1	8.7	11.8
2	9.6	7.4	7.2	11.1	9.6	15.7	23.2	15.2	20.5	12.4	12.3	14.3	16.0	24.9	19.6	14.4	12.8	11.4	11.1	11.9	11.4	11.5	11.8	11.7	13.6
3	10.9	11.6	11.2	10.8	11.8	20.3	5.0	14.6	41.7	13.6	11.3	11.4	10.4	10.6	11.8	12.8	12.4	17.4	23.5	18.8	6.4	11.5	13.0	8.7	13.8
4	25.6	50.1	11.3	14.7	7.9	48.8	8.0	9.4	9.4	11.9	14.6	25.3	60.9	19.8	50.4	17.6	10.1	9.9	7.1	8.1	7.9	9.4	12.6	11.9	19.3
5	17.5	17.0	24.1	7.6	43.2	10.7	16.9	19.7	22.8	19.6	39.2	40.7	10.9	29.9	18.8	12.1	14.0	26.0	10.4	19.0	9.5	7.0	9.1	10.6	19.0
6	11.2	10.0	6.7	11.6	13.4	8.4	8.4	8.3	12.7	15.2	17.5	16.5	22.6	37.5	26.3	25.4	18.1	13.0	16.5	12.3	10.7	29.6	7.7	37.1	16.5
7	15.7	18.3	22.8	33.2	19.1	7.9	6.3	16.2	63.4	41.0	34.2	22.7	30.5	22.0	16.5	20.7	18.4	17.0	15.1	12.5	13.4	11.3	13.0	12.9	21.0
8	12.7	14.9	12.6	17.6	14.9	15.4	14.7	14.1	14.9	15.3	16.8	20.0	16.9	19.6	18.3	15.3	16.9	15.3	15.3	12.4	13.6	12.3	12.5	15.0	15.3
9	23.0	29.9	12.2	12.4	12.7	12.0	10.4	8.3	20.8	30.3	35.1	31.3	22.1	14.1	12.2	11.8	11.0	11.6	17.4	31.8	7.4	14.8	10.5	11.8	17.3
10	10.0	9.4	9.3	10.5	15.4	17.3	17.0	15.9	20.3	21.1	17.3	15.7	20.9	15.2	16.0	14.8	26.4	15.5	7.1	10.3	9.3	7.0	8.3	36.9	15.3
11	17.4	30.4	20.5	22.2	9.0	11.1	11.9	29.8	20.4	19.0	13.4	8.0	9.9	9.8	13.0	9.4	9.5	9.2	8.6	8.0	8.8	9.9	7.8	9.3	13.6
12	10.5	16.9	12.3	5.8	5.7	21.6	17.7	48.1	48.6	45.4	28.7	34.5	15.4	14.7	22.6	33.3	41.1	38.4	21.0	17.5	32.1	22.7	35.6	35.5	26.1
13	45.4	16.6	8.7	10.9	10.6	42.8	23.9	16.6	25.4	14.2	12.4	12.2	14.0	18.6	15.7	13.4	13.0	15.1	12.5	10.5	38.6	27.0	37.6	23.1	20.0
14	41.5	21.7	10.7	16.4	13.3	16.1	13.2	9.0	12.1	20.7	35.4	24.9	18.7	17.6	20.2	23.0	16.1	14.6	7.7	7.5	12.1	7.7	7.6	10.7	16.6
15	9.2	11.0	9.0	10.8	8.2	9.7	13.7	18.2	21.5	29.2	36.0	53.9	37.5	50.8	22.2	36.2	26.8	12.3	15.5	14.1	9.7	12.4	10.5	24.0	20.9
16	18.4	11.6	17.5	10.1	10.2	9.9	9.0	10.1	12.0	10.4	10.3	10.6	9.9	11.9	12.7	10.6	10.2	11.3	11.3	8.1	9.1	9.6	7.9	8.4	10.9
17	9.8	7.2	8.0	5.9	6.8	6.8	18.1	20.5	18.2	20.4	17.4	34.5	18.9	31.2	17.1	21.8	16.6	14.6	21.4	8.3	10.5	9.0	22.5	23.7	16.2
18	18.0	9.2	10.5	10.8	10.4	9.9	23.9	10.9	11.8	11.3	19.2	14.6	20.7	19.4	22.1	12.5	19.2	10.6	12.3	8.9	6.2	8.5	5.9	13.1	13.3
19	6.2	7.3	6.7	9.8	10.1	15.4	29.0	23.4	14.8	11.2	18.4	21.0	17.6	12.4	7.6	13.0	10.4	9.2	13.5	9.1	12.6	11.4	7.4	7.6	12.7
20	8.6	11.1	8.9	10.5	15.2	15.7	11.7	13.5	16.0	12.8	11.9	16.3	34.0	32.4	35.9	34.8	26.5	20.0	10.4	15.9	3.7	11.5	12.9	12.9	16.8
21	6.9	9.4	7.7	9.3	13.9	13.1	46.0	48.9	46.1	27.2	35.5	18.2	53.8	40.3	18.1	13.7	10.8	15.6	12.4	9.2	18.2	10.0	8.8	9.9	21.0
22	8.9	11.0	46.7	10.8	9.1	11.8	13.2	19.8	40.4	37.5	36.8	31.3	19.0	16.6	18.5	19.7	14.9	26.2	21.1	16.5	8.6	8.5	9.0	8.2	19.3
23	8.1	10.4	7.6	20.0	7.8	39.2	23.2	24.8	38.1	27.7	14.2	12.3	15.0	16.1	11.4	18.2	17.5	11.3	17.3	14.6	10.2	12.5	11.9	8.8	16.6
24	8.8	12.6	12.8	13.9	10.7	13.8	10.5	8.2	11.9	10.5	12.8	12.2	12.8	14.0	34.3	17.2	17.0	13.8	10.7	11.2	11.2	13.8	19.2	26.1	14.2
25	36.8	26.6	17.5	10.6	13.2	9.0	25.1	14.9	9.4	19.6	27.1	35.5	28.7	19.5	12.9	17.1	52.7	11.9	35.4	10.1	18.1	23.6	13.3	19.7	21.2
26	26.7	9.7	9.1	9.3	8.6	20.4	18.5	9.7	15.4	13.5	13.2	15.8	10.3	12.8	15.9	28.7	20.4	9.8	8.9	9.8	10.6	9.8	8.7	9.0	13.5
27	8.3	9.4	10.1	7.4	7.4	10.2	8.6	13.1	12.0	10.3	10.7	14.1	14.9	23.5	16.1	17.9	12.2	8.6	8.6	12.8	9.3	7.6	8.2	9.9	11.3
28	9.7	7.0	8.3	8.2	10.4	9.5	16.1	35.4	25.9	43.0	22.0	41.6	24.7	24.7	16.5	28.8	17.5	26.3	7.2	6.6	27.8	20.2	7.4	24.4	19.5
29	9.4	10.4	7.8	8.4	9.2	10.1	21.5	8.7	14.7	11.2	16.6	26.6	35.8	42.2	37.2	29.9	25.3	14.3	6.6	6.8	16.6	10.4	7.9	9.1	16.5
30	12.8	16.4	21.8	15.4	11.4	10.6	10.2	10.7	9.3	10.1	12.3	9.2	11.8	9.5	10.6	12.3	11.1	11.1	11.1	9.8	10.0	12.3	10.6	9.9	11.7

MONTHLY AVERAGE = 16.50

MAX. 10 SEC GUST FOR CEDAR HILLS LANDFILL
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF APRIL , 2012

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	13.7	36.7	32.6	35.1	39.7	37.1	35.0	23.9	19.7	21.4	16.9	17.7	20.9	16.5	12.0	20.1	19.0	6.9	11.2	6.7	8.4	10.4	10.5	10.1	39.7
2	10.1	11.3	10.0	8.2	8.6	9.0	8.0	14.0	14.4	14.2	18.6	21.9	20.0	15.3	20.5	18.5	20.9	19.4	21.0	23.0	26.0	27.0	26.3	28.8	28.8
3	25.2	24.0	30.1	27.3	24.1	17.4	10.3	10.1	9.7	32.4	28.4	17.5	19.4	17.2	16.4	16.4	14.6	11.5	12.1	9.3	8.1	8.2	9.2	6.5	32.4
4	6.9	3.4	3.6	4.1	5.1	3.0	4.5	5.2	8.4	9.4	8.2	8.7	10.5	9.1	10.8	11.3	12.5	15.9	11.3	8.2	6.6	5.2	5.2	7.8	15.9
5	4.9	3.5	5.1	5.9	10.6	9.6	5.8	5.9	6.6	5.3	6.9	12.3	15.0	9.0	12.6	14.2	12.0	8.9	7.8	8.3	8.0	5.3	6.4	6.2	15.0
6	4.9	4.7	5.2	8.3	8.4	7.8	6.1	7.8	9.4	12.3	13.0	9.4	12.2	9.2	10.4	8.3	6.8	5.0	11.3	12.9	10.1	4.8	4.6	3.6	13.0
7	3.5	4.6	6.1	4.2	7.5	7.8	7.6	6.6	4.7	6.2	15.3	15.4	20.4	23.9	25.4	20.9	22.0	20.9	17.4	17.9	20.9	20.6	22.3	25.5	25.5
8	24.7	22.6	18.2	20.2	21.0	26.1	27.5	27.1	25.3	27.0	24.8	19.4	25.5	21.7	17.8	22.1	22.6	19.4	21.0	23.8	18.9	19.5	18.6	16.2	27.5
9	10.6	11.9	12.9	7.2	7.9	6.1	7.2	8.3	5.4	5.8	10.8	11.8	12.9	15.2	15.2	15.0	10.7	7.7	8.5	8.2	14.8	15.2	16.6	15.4	16.6
10	13.8	15.4	17.0	15.4	11.1	8.1	8.2	5.6	11.3	12.0	11.5	14.8	14.4	18.0	14.9	12.0	7.2	4.3	12.0	15.4	8.4	7.5	8.0	4.4	18.0
11	7.7	6.1	7.3	4.1	5.4	3.9	3.6	3.7	3.1	7.0	6.3	7.6	15.1	11.9	9.5	12.2	12.0	8.4	8.8	9.0	8.9	6.7	7.0	5.7	15.1
12	7.7	8.3	6.2	4.6	5.0	5.5	5.3	4.5	4.5	6.0	13.5	41.8	10.6	7.3	23.6	11.0	8.0	6.6	6.0	3.8	3.6	4.4	4.8	4.6	41.8
13	3.6	4.2	6.7	6.7	8.9	7.6	8.2	5.9	5.9	15.1	17.6	19.4	18.4	18.8	21.2	18.4	16.3	15.9	12.1	10.7	6.1	5.7	4.4	4.8	21.2
14	4.6	2.6	4.1	4.8	4.5	5.4	6.6	6.9	8.1	8.9	11.8	12.6	18.8	17.3	17.1	15.1	14.9	11.4	11.0	13.5	12.8	10.0	9.2	12.3	18.8
15	13.5	8.9	9.7	9.8	8.8	9.8	8.4	8.5	9.1	9.6	9.6	9.1	11.0	16.2	16.5	10.8	12.0	6.7	3.2	3.4	4.2	7.0	8.9	9.6	16.5
16	6.0	4.8	15.9	16.2	16.5	13.6	13.9	15.4	23.6	25.9	26.9	26.4	27.2	27.7	29.8	32.8	27.0	22.3	18.4	14.4	11.9	12.0	10.8	10.1	32.8
17	11.2	8.6	5.7	5.2	6.0	5.0	3.2	4.4	5.3	6.9	7.3	7.4	8.4	13.9	15.7	10.2	5.7	4.4	4.5	5.8	6.1	5.9	5.9	10.3	15.7
18	8.4	9.2	14.1	17.8	16.6	12.6	14.6	17.2	12.2	19.3	20.7	18.9	21.0	16.2	19.9	18.4	16.4	17.0	10.1	9.7	11.3	12.1	11.6	8.8	21.0
19	5.4	6.8	4.9	5.7	6.6	4.4	3.2	6.9	7.7	9.0	8.6	15.0	15.7	10.0	13.2	9.6	12.3	12.8	13.7	9.8	11.6	21.1	20.7	24.0	24.0
20	24.6	21.6	26.4	21.0	15.0	10.7	6.4	5.5	6.6	8.6	11.2	6.3	4.4	7.1	7.6	5.7	5.3	3.9	5.9	3.4	4.1	4.8	7.3	5.5	26.4
21	6.9	7.6	7.7	6.5	5.6	7.7	4.3	3.6	5.8	8.1	10.0	10.6	7.3	7.7	11.3	12.4	11.7	8.3	11.2	11.2	11.9	12.9	13.1	11.3	13.1
22	10.0	6.9	5.0	5.8	6.2	2.5	5.3	4.7	4.6	4.5	5.6	8.0	10.3	12.5	12.2	11.0	10.8	7.5	9.3	11.4	15.7	20.9	18.9	15.5	20.9
23	13.7	12.0	5.4	4.3	8.6	4.3	4.8	3.9	4.0	6.0	11.3	13.3	12.3	12.2	16.5	14.1	12.3	13.3	14.0	13.4	19.2	16.3	16.5	13.1	19.2
24	11.7	8.9	7.5	7.8	8.7	12.1	10.9	12.9	9.7	11.8	9.7	9.6	8.7	7.9	9.4	8.3	7.3	8.0	11.0	8.0	8.1	7.5	4.7	6.2	12.9
25	4.1	5.8	5.7	3.5	5.6	6.3	4.6	9.8	10.4	8.0	5.6	5.8	4.4	7.5	7.4	8.9	7.5	34.8	13.7	9.1	10.1	20.0	15.0	3.9	34.8
26	7.4	6.8	7.5	7.8	7.0	7.7	14.2	14.7	9.4	16.1	15.7	17.6	17.0	17.3	13.3	22.2	30.3	17.8	21.5	16.8	10.9	10.8	12.0	10.4	30.3
27	11.6	12.8	9.3	12.0	10.9	8.6	7.5	11.5	19.1	21.8	20.3	19.0	16.9	14.7	14.9	14.6	20.6	20.6	14.0	9.4	6.1	7.1	7.9	8.3	21.8
28	6.9	5.4	5.6	6.0	4.7	5.6	4.2	6.8	7.9	9.6	9.2	10.3	11.7	10.0	10.4	9.0	7.3	4.9	9.1	9.1	3.6	7.2	7.7	3.5	11.7
29	5.9	7.0	5.5	3.9	5.4	6.1	3.9	6.3	6.5	5.3	5.8	5.4	6.9	5.4	5.1	7.6	6.8	6.9	6.0	6.0	11.0	9.2	6.9	20.2	20.2
30	14.4	8.0	8.6	8.6	10.0	14.0	16.2	27.6	27.2	25.7	22.0	32.3	30.9	28.4	32.0	33.3	28.9	35.2	30.6	30.5	22.7	26.2	28.2	25.9	35.2

MONTHLY MAXIMUM = 41.78

2 M TEMPERATURE FOR CEDAR HILLS LANDFILL
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF APRIL , 2012

IN DEGREES C

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	5.5	4.7	4.0	3.7	4.1	4.4	4.2	3.4	4.2	4.9	4.7	5.2	5.2	4.7	5.1	6.0	5.1	4.8	5.5	5.0	5.0	5.1	5.0	5.0	4.8
2	4.9	5.0	5.1	5.3	5.2	5.0	4.3	5.6	7.6	9.3	10.9	12.6	14.4	15.4	15.6	15.5	14.9	14.1	13.1	12.4	12.1	11.8	11.7	11.5	10.1
3	11.4	11.3	11.5	11.6	11.6	10.7	9.3	9.4	10.0	9.8	5.2	4.4	3.5	4.1	5.3	6.5	7.0	6.3	5.1	3.8	3.4	3.4	3.8	3.6	7.2
4	3.5	3.6	2.9	2.8	2.8	2.7	2.7	2.8	3.3	3.5	4.4	5.9	7.3	8.0	9.1	9.0	8.4	7.5	6.1	5.3	4.9	4.6	4.5	4.2	5.0
5	3.9	3.7	3.3	2.9	2.3	1.5	1.5	2.0	2.8	3.4	5.4	4.6	5.3	6.7	7.4	6.7	7.1	7.3	6.2	4.6	3.8	3.8	3.6	3.7	4.3
6	3.4	3.2	3.1	3.0	2.3	1.8	2.4	3.1	3.8	4.9	4.4	5.8	7.2	7.6	7.5	7.8	7.9	8.1	7.8	6.6	6.1	5.1	4.3	3.4	5.0
7	2.8	2.6	1.2	1.5	0.7	-0.2	0.8	2.6	6.3	8.7	11.3	12.2	13.0	13.5	13.6	13.9	13.6	12.8	11.8	11.3	11.0	11.3	11.7	11.8	8.3
8	11.6	11.7	11.7	11.7	11.6	11.7	12.0	12.4	13.1	14.5	15.5	16.4	17.2	17.9	18.2	18.3	18.1	17.4	16.9	16.2	15.8	15.0	14.7	14.8	14.8
9	14.4	13.7	12.9	12.1	10.9	10.3	9.3	9.1	12.0	14.1	15.9	16.9	17.6	18.1	18.4	18.3	17.9	17.2	16.8	16.0	14.3	14.2	13.2	12.0	14.4
10	10.6	9.7	9.2	9.2	8.0	8.3	7.7	8.6	9.6	11.2	12.9	14.7	16.2	17.0	16.4	16.2	16.4	16.0	15.2	13.8	12.9	12.3	11.9	11.2	12.3
11	10.6	10.0	9.4	9.1	8.6	8.4	8.6	8.9	9.0	8.9	8.6	8.4	8.4	8.7	9.0	8.8	8.6	8.3	7.8	7.7	7.9	8.1	8.0	7.9	8.6
12	7.7	7.1	6.9	6.7	6.3	5.8	6.2	7.6	9.6	12.1	13.4	9.9	7.2	9.0	8.5	8.6	9.6	9.7	9.1	7.7	6.7	5.8	5.3	4.7	8.0
13	4.8	4.0	3.1	2.8	1.3	1.5	2.7	3.1	5.2	8.5	10.3	11.0	12.3	13.4	13.3	13.3	12.9	12.5	11.4	10.2	9.7	9.0	8.5	7.3	8.0
14	5.6	5.5	5.9	4.9	3.9	4.1	5.4	5.6	8.2	9.5	10.8	12.0	12.2	12.6	13.4	13.4	13.8	13.5	12.4	11.3	10.3	9.3	8.6	7.9	9.2
15	7.0	6.4	6.2	6.2	6.2	6.3	6.8	7.5	8.2	9.0	10.2	11.8	13.1	14.0	14.2	14.8	14.8	14.1	13.6	12.6	11.8	11.4	11.0	10.5	10.3
16	9.2	8.2	8.0	8.3	8.6	8.8	9.3	10.5	10.9	11.1	11.2	10.6	11.8	11.9	11.6	11.1	10.6	10.0	8.8	8.1	7.6	7.0	5.9	5.2	9.3
17	5.1	4.9	5.1	5.1	5.2	5.3	5.5	6.2	6.8	7.5	7.9	8.7	9.1	9.4	8.7	8.4	6.9	6.5	6.1	6.0	6.1	6.3	5.8	6.7	6.6
18	6.7	6.2	6.2	6.5	6.7	7.3	7.3	6.9	7.1	8.4	9.6	10.4	11.2	11.6	11.8	11.5	11.3	11.0	10.4	9.9	9.5	8.9	8.5	7.6	8.9
19	6.8	6.6	6.5	6.3	5.4	5.1	5.9	8.0	9.4	10.6	11.6	12.5	12.9	12.8	11.4	9.9	9.7	9.7	9.8	9.6	10.0	10.5	10.7	10.5	9.3
20	10.4	10.1	9.6	8.4	7.2	6.5	6.4	6.3	6.4	6.7	7.5	8.8	10.1	10.4	10.8	11.0	10.7	9.9	9.5	8.4	7.9	7.3	7.2	8.5	
21	6.3	5.6	5.4	5.6	5.2	5.1	5.8	8.5	10.6	11.9	13.6	14.8	16.4	17.7	18.7	18.8	19.1	18.7	17.7	16.3	14.5	12.8	11.3	10.4	12.1
22	9.9	9.7	9.1	8.6	8.5	9.4	9.4	10.5	13.0	15.1	17.4	19.3	20.7	21.4	22.1	22.6	22.5	21.8	20.2	17.9	16.4	15.6	14.5	13.3	15.4
23	12.5	11.4	11.4	11.9	10.1	10.1	11.0	12.7	14.5	16.3	17.5	18.5	19.6	20.8	21.4	21.3	20.9	20.2	18.8	17.2	15.8	14.7	14.3	13.3	15.7
24	12.3	11.6	11.1	11.4	11.2	10.7	10.7	10.9	11.0	11.2	11.2	10.9	10.4	10.5	11.2	11.7	12.4	12.7	12.1	11.0	10.9	11.3	11.4	11.7	11.3
25	11.4	11.7	11.2	11.0	10.9	10.8	10.8	10.9	11.7	12.5	13.6	14.2	13.6	13.6	13.9	14.9	16.1	13.3	12.1	12.0	11.9	10.2	8.9	8.7	12.1
26	8.6	8.5	8.6	8.7	8.7	8.9	8.4	7.3	7.2	7.3	7.9	8.5	7.9	8.6	9.7	11.2	9.4	8.9	7.9	6.1	5.5	5.3	5.3	5.2	7.9
27	5.2	5.4	5.2	5.2	5.3	5.3	5.6	6.7	7.5	8.1	9.4	9.3	10.4	11.1	11.6	11.6	11.3	10.4	8.8	8.1	7.4	7.1	7.0	7.0	7.9
28	6.9	6.8	7.1	7.1	7.3	7.3	8.0	9.8	10.4	11.6	12.3	13.4	13.8	13.9	14.0	14.2	14.2	14.1	13.6	13.1	12.7	12.6	12.0	11.6	11.2
29	11.1	10.4	10.0	9.8	9.8	9.6	9.7	9.9	10.1	10.2	10.5	11.3	12.2	13.4	14.0	13.8	13.6	13.1	12.4	12.0	11.8	11.2	10.1	9.1	11.2
30	7.5	7.3	7.2	7.2	7.3	7.8	8.2	8.7	9.0	9.3	10.1	10.6	9.7	9.5	10.5	10.7	9.8	9.4	8.6	7.7	7.2	6.7	6.5	6.3	8.5

MONTHLY AVERAGE = 9.54

BAROMETRIC PRESSURE FOR CEDAR HILLS LANDFILL
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF APRIL , 2012

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	22.2	22.1	22.2	22.1	22.0	21.8	21.7	21.8	22.0	21.9	22.2	22.5	22.4	22.4	22.2	22.1	22.5	22.6	22.3	22.1	22.1	22.0	21.9	21.9	22.1
2	21.8	21.8	21.7	21.6	21.6	21.7	21.7	21.7	21.5	21.1	21.9	22.5	22.8	23.2	23.5	24.0	24.2	24.2	24.2	24.2	24.2	24.2	24.3	24.4	22.8
3	24.4	24.5	24.5	24.5	24.6	24.7	24.8	24.8	24.7	24.8	25.0	25.4	25.2	25.0	24.8	24.6	24.4	24.8	24.7	24.6	24.4	24.4	24.2	24.0	23.9
4	23.9	23.9	23.7	23.8	23.7	23.6	23.6	23.6	23.8	24.0	24.1	23.5	23.8	23.9	24.4	24.3	25.0	24.8	24.6	24.6	24.4	24.2	24.0	23.9	24.1
5	23.9	23.8	23.8	23.7	23.7	23.7	23.6	23.5	23.6	23.8	23.6	23.7	24.4	24.1	23.8	24.4	24.6	24.5	24.5	24.3	24.2	24.0	23.8	23.6	23.9
6	23.5	23.5	23.5	23.4	23.3	23.4	23.2	23.1	23.3	23.5	23.6	23.9	23.5	23.8	24.2	24.1	24.2	24.4	24.2	24.3	24.0	23.8	23.9	23.7	23.7
7	23.5	23.2	23.0	22.9	22.8	22.6	22.5	22.3	22.6	22.8	23.3	24.0	24.2	24.5	24.7	25.0	25.1	25.3	25.4	25.3	25.2	25.2	25.1	25.1	24.0
8	25.2	25.3	25.3	25.4	25.4	25.4	25.4	25.6	25.7	25.8	25.8	25.9	25.9	26.0	26.1	26.2	26.3	26.5	26.6	26.5	26.6	26.7	26.7	26.0	26.0
9	26.7	26.7	26.7	26.8	26.8	26.8	26.8	26.8	26.9	26.9	26.6	26.5	26.5	26.5	26.5	26.6	26.6	26.8	26.7	26.7	26.7	26.7	26.7	26.7	26.7
10	26.8	26.8	26.8	26.8	26.8	26.8	26.7	26.8	26.9	26.9	26.8	26.6	26.6	26.6	26.6	26.7	26.8	26.8	26.7	26.7	26.8	26.8	26.8	26.8	26.8
11	26.8	26.8	26.8	26.8	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.9	26.9	26.9	26.9	26.9	26.9	26.7	26.7	26.7	26.6	26.6	26.6	26.8
12	26.5	26.5	26.5	26.5	26.5	26.5	26.4	26.4	26.4	26.6	26.4	26.4	26.8	26.9	26.8	26.8	26.7	26.6	26.6	26.6	26.5	26.5	26.4	26.3	26.5
13	26.2	26.1	26.1	26.0	26.0	25.9	25.8	25.8	26.3	26.4	26.4	26.4	26.4	26.4	26.3	26.4	26.6	26.6	26.7	26.8	26.6	26.6	26.5	26.5	26.3
14	26.4	26.4	26.2	26.1	26.1	26.0	25.9	25.9	26.4	26.4	26.3	26.4	26.4	26.5	26.5	26.5	26.5	26.6	26.7	26.7	26.6	26.6	26.5	26.5	26.4
15	26.5	26.5	26.4	26.4	26.3	26.3	26.3	26.4	26.4	26.5	26.5	26.5	26.4	26.2	26.3	26.5	26.5	26.7	26.7	26.6	26.6	26.6	26.5	26.5	26.5
16	26.5	26.5	26.5	26.4	26.3	26.3	26.3	26.2	26.4	26.5	26.5	26.5	26.5	26.4	26.6	26.5	26.7	26.8	26.8	26.8	26.6	26.6	26.5	26.5	26.5
17	26.3	26.2	26.2	26.1	26.1	26.1	26.0	26.1	26.4	26.5	26.5	26.5	26.6	26.5	26.7	26.7	26.8	26.7	26.5	26.4	26.3	26.2	26.2	26.2	26.4
18	26.1	26.1	26.1	26.1	26.0	26.0	26.0	26.0	26.0	26.2	26.4	26.3	26.2	26.1	26.1	26.2	26.3	26.5	26.5	26.6	26.4	26.4	26.3	26.3	26.2
19	26.3	26.3	26.2	26.2	26.1	26.0	25.9	26.0	26.1	26.2	26.3	26.1	26.2	26.4	26.5	26.6	26.4	26.3	26.3	26.2	26.2	26.1	26.1	26.1	26.2
20	26.1	26.0	26.0	26.0	26.1	26.0	26.0	25.9	25.9	26.0	26.2	26.1	25.9	25.9	26.0	26.1	26.2	26.2	26.2	26.1	26.1	26.0	25.9	26.0	26.0
21	25.8	25.8	25.8	25.7	25.7	25.7	25.6	25.8	25.5	25.6	25.8	25.9	25.9	25.8	25.9	26.1	26.2	26.2	26.3	26.3	26.3	26.3	26.3	25.9	25.9
22	26.2	26.1	26.1	26.1	26.1	26.0	26.0	25.9	25.8	25.7	25.7	25.8	25.9	25.9	26.0	26.0	26.1	26.1	26.2	26.3	26.4	26.5	26.4	26.4	26.1
23	26.4	26.4	26.4	26.3	26.2	26.3	26.2	26.1	26.1	25.9	26.0	26.2	26.3	26.2	26.2	26.3	26.3	26.5	26.5	26.6	26.6	26.6	26.6	26.5	26.3
24	26.5	26.5	26.5	26.5	26.4	26.4	26.4	26.4	26.5	26.5	26.5	26.7	26.7	26.7	26.7	26.6	26.5	26.4	26.5	26.5	26.4	26.4	26.3	26.5	26.5
25	26.3	26.3	26.3	26.3	26.2	26.2	26.2	26.3	26.4	26.4	26.3	26.3	26.4	26.4	26.5	26.4	26.2	26.1	26.4	26.3	26.3	26.2	26.3	26.3	26.3
26	26.2	26.1	26.1	26.0	26.0	26.0	25.9	26.0	26.1	26.2	26.2	26.2	26.2	26.3	26.0	26.1	26.1	26.5	26.5	26.3	26.2	26.0	25.9	25.8	26.1
27	25.8	25.7	25.7	25.6	25.6	25.5	25.5	25.6	25.8	26.0	25.9	25.9	26.1	25.9	25.8	26.2	26.2	26.3	26.2	26.2	26.1	26.0	25.9	25.9	25.9
28	25.8	25.7	25.7	25.6	25.6	25.6	25.6	25.7	25.5	25.8	25.7	26.0	26.1	26.1	26.4	26.3	26.3	26.4	26.3	26.2	26.2	26.1	26.1	26.1	26.0
29	26.1	26.1	26.1	26.0	26.0	26.0	26.0	26.1	26.1	26.2	26.2	26.0	25.8	25.9	26.0	26.3	26.2	26.2	26.1	26.1	26.0	26.0	26.1	26.1	26.1
30	26.1	26.1	26.0	25.9	25.8	25.8	25.7	25.7	25.8	25.9	26.0	26.0	26.0	26.2	26.1	25.8	26.0	26.1	26.2	26.0	25.9	25.8	25.7	25.7	25.9

MONTHLY AVERAGE = 25.65

PRECIPITATION FOR CEDAR HILLS LANDFILL
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF APRIL , 2012

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	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.04	0.01	0.03	0.05	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18	
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.13	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	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	0.02	
5	0.00	0.00	0.00	0.00	0.10	0.04	0.04	0.01	0.02	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.26	
6	0.01	0.01	0.00	0.01	0.06	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	0.10	
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	
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	
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	
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	0.00	
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.04	0.03	0.03	0.02	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.18
12	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	
13	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	0.00	0.00	0.00	0.00	0.01	
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
16	0.02	0.03	0.03	0.07	0.06	0.06	0.04	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	0.32	
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	0.02	0.02	0.00	0.00	0.00	0.00	0.01	0.00	0.05
18	0.01	0.04	0.01	0.02	0.00	0.00	0.01	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	
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	0.02	0.12	0.10	0.07	0.03	0.06	0.09	0.07	0.05	0.06	0.00	0.67	
20	0.08	0.02	0.03	0.04	0.01	0.09	0.11	0.13	0.08	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	0.60	
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	
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	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	0.01	0.07	0.01	0.01	0.00	0.00	0.00	0.10	
25	0.00	0.00	0.00	0.02	0.03	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.02	0.00	0.00	0.03	0.05	0.03	0.01	0.05	0.07	0.06	0.00	0.45	
26	0.11	0.05	0.03	0.01	0.00	0.01	0.02	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.02	0.00	0.01	0.00	0.00	0.00	0.29	
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	0.01	0.00	0.01	
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
29	0.00	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.09	0.18	
30	0.10	0.10	0.09	0.03	0.02	0.02	0.00	0.00	0.00	0.01	0.17	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.58	

MONTHLY TOTAL = 4.46

WIND SPEED/DIRECTION CEDAR HILLS LANDFILL
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF APRIL , 2012

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

WIND SPEED FOR CEDAR HILLS LANDFILL
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF MAY , 2012

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	15.3	13.9	14.5	14.1	15.6	16.4	15.9	17.6	15.7	14.1	11.8	12.2	14.0	13.1	8.3	11.3	7.4	10.9	8.3	6.7	6.4	6.6	7.2	6.6	11.8
2	7.8	6.9	7.5	7.1	5.3	5.0	4.8	4.2	6.4	6.3	5.2	3.3	2.9	3.9	4.2	3.7	3.9	3.1	2.2	2.2	3.2	1.8	2.3	2.1	4.4
3	3.2	3.4	4.2	4.1	0.6	1.8	3.4	3.6	3.4	2.2	3.7	5.0	0.8	0.2	1.3	2.5	4.2	7.8	8.6	10.5	14.7	10.8	10.6	10.4	5.0
4	10.2	9.1	7.6	7.5	7.6	6.4	7.3	8.0	9.5	10.4	6.9	10.1	11.5	12.3	10.9	7.4	6.2	3.5	5.3	4.5	3.8	3.9	7.9	7.9	7.7
5	7.1	7.8	8.1	6.8	6.3	4.5	5.1	4.2	6.0	7.1	6.6	6.1	4.1	6.1	4.2	5.8	5.3	4.1	4.3	4.2	2.1	1.8	2.8	1.8	5.1
6	3.0	2.5	1.9	2.3	1.3	2.5	1.3	2.8	2.7	5.7	9.3	8.5	5.8	8.3	9.4	10.2	6.6	6.3	7.5	4.7	6.3	6.8	6.7	6.3	5.4
7	4.0	4.0	3.9	3.1	2.6	4.1	1.6	1.5	2.6	3.2	4.8	5.1	4.8	7.1	7.7	9.0	5.1	5.6	8.4	3.4	2.9	4.1	2.9	2.2	4.3
8	2.8	4.1	7.4	6.3	5.8	3.4	4.5	3.5	3.9	4.6	6.8	5.8	10.0	8.5	8.1	8.4	8.4	9.0	11.8	12.9	16.0	10.9	7.3	7.8	7.4
9	9.2	10.2	6.5	3.3	4.3	5.1	5.2	5.0	4.3	4.1	8.1	9.3	8.9	6.6	9.6	12.1	14.2	16.3	19.3	16.3	8.4	7.5	9.7	5.3	8.7
10	3.7	4.9	2.9	3.7	4.1	2.1	2.8	2.9	4.2	6.5	6.1	7.3	6.2	8.5	8.5	10.2	12.2	9.9	7.7	7.3	5.6	5.5	13.3	11.0	6.5
11	4.4	4.3	7.2	3.1	1.5	2.0	1.4	2.0	2.5	7.9	9.4	7.0	8.3	8.5	9.1	8.7	10.0	9.1	6.0	7.5	8.8	11.7	9.3	6.0	6.5
12	8.2	5.9	3.3	5.4	6.5	3.6	1.5	1.4	2.2	3.0	3.5	5.3	7.7	8.4	8.6	10.2	10.6	7.8	7.1	6.4	8.8	9.8	9.7	6.1	6.3
13	6.4	5.1	5.0	5.2	3.5	4.5	3.7	2.3	2.1	2.9	5.5	10.6	11.3	11.1	12.3	11.2	9.2	6.3	4.7	5.5	10.2	13.3	15.9	9.8	7.4
14	9.6	5.9	5.0	5.2	5.4	5.1	1.9	1.9	2.4	3.4	3.4	6.6	7.8	9.0	6.1	7.7	8.7	9.3	7.4	5.9	6.8	12.5	7.5	3.9	6.2
15	3.1	6.8	5.6	3.3	4.2	5.4	4.0	3.1	4.6	5.5	7.0	5.4	6.0	7.5	9.7	11.9	10.5	8.9	6.5	10.8	11.7	15.8	17.2	21.8	8.2
16	18.2	13.7	5.2	6.7	3.6	3.4	5.0	5.1	5.3	3.9	5.5	9.6	10.2	11.1	10.4	9.6	5.1	6.4	8.9	9.6	8.1	6.1	6.1	6.9	7.7
17	4.4	6.4	6.1	5.5	5.3	5.5	6.0	5.2	5.9	6.0	5.2	5.0	7.1	7.6	8.2	6.2	6.7	7.7	7.6	6.4	5.0	3.5	2.9	4.9	5.8
18	7.2	6.7	7.1	6.7	6.8	6.8	6.2	5.5	7.2	5.8	6.2	5.7	5.0	4.1	4.8	4.7	5.2	5.5	2.8	2.5	2.4	4.3	5.5	4.1	5.4
19	3.4	2.8	3.5	4.7	1.6	0.7	1.2	2.1	2.5	3.7	6.3	6.4	6.6	7.3	5.2	5.4	5.0	2.3	3.5	2.9	2.8	2.1	2.4	3.6	3.7
20	4.9	3.8	4.4	4.1	4.0	4.4	3.7	2.8	5.6	2.6	3.6	2.3	3.2	5.7	5.9	5.5	3.7	3.4	2.4	2.8	3.5	2.0	2.4	3.8	
21	1.3	1.9	2.3	3.2	6.0	3.0	3.0	4.8	7.1	5.4	2.6	3.8	5.6	8.9	6.5	11.4	10.5	11.6	14.5	14.2	10.8	10.3	8.1	10.8	7.0
22	10.2	8.5	6.8	7.1	7.2	12.0	9.0	6.7	9.4	9.9	7.3	3.6	4.0	2.7	3.2	5.6	11.8	9.4	4.6	11.2	12.7	10.8	8.6	11.0	8.0
23	13.7	15.6	13.7	12.4	10.7	10.1	11.4	10.9	11.1	12.8	12.8	11.0	10.7	10.3	10.7	8.5	12.4	10.9	12.6	10.9	11.0	6.9	8.8	7.3	11.1
24	6.8	5.5	5.1	5.1	5.0	4.4	3.4	2.0	2.3	4.9	2.2	5.1	5.9	6.8	6.3	7.6	9.2	8.2	8.3	7.3	4.1	7.1	6.2	6.8	5.6
25	5.0	3.4	5.1	3.9	2.4	2.3	3.4	4.0	7.6	7.4	6.9	8.0	8.9	10.5	7.5	3.9	7.1	4.9	7.5	3.3	1.6	3.6	1.6	4.8	5.2
26	2.3	3.3	2.7	4.0	3.8	3.3	3.2	4.1	3.5	4.2	6.8	8.5	8.0	9.1	10.5	10.9	11.4	11.2	12.1	11.7	7.8	7.3	7.5	9.2	6.9
27	8.1	8.0	7.5	5.3	5.1	6.3	8.9	9.8	10.7	8.8	9.4	8.0	8.8	8.0	7.1	7.6	8.4	7.7	6.5	6.0	7.6	6.7	4.4	7.5	
28	3.0	3.4	2.8	1.6	2.3	3.1	4.6	5.5	5.4	8.6	8.3	9.6	8.1	5.1	3.2	9.8	8.6	6.4	5.1	4.1	2.5	3.7	2.8	3.1	5.0
29	3.7	2.2	4.4	2.8	3.0	2.2	1.7	2.6	3.0	3.9	4.0	4.3	3.8	3.7	3.8	3.5	4.9	7.0	6.4	4.0	2.4	1.4	1.4	2.2	3.4
30	2.7	3.3	3.3	4.1	4.3	4.0	3.0	2.9	2.9	2.4	3.0	2.6	4.2	3.6	4.6	4.1	7.2	5.1	4.1	5.5	5.5	4.0	4.1	2.3	3.9
31	1.9	4.4	2.6	3.2	5.7	5.1	4.0	5.1	5.8	6.4	7.9	6.3	4.2	2.6	3.5	2.8	2.7	2.6	2.8	3.4	1.4	1.5	1.9	1.4	3.7

MONTHLY AVERAGE = 6.28

WIND DIRECTION FOR CEDAR HILLS LANDFILL
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF MAY , 2012

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	198.	196.	193.	192.	195.	198.	194.	202.	201.	205.	206.	193.	209.	215.	191.	187.	142.	152.	158.	159.	141.	151.	166.	167.	184.
2	192.	198.	191.	183.	155.	137.	146.	168.	181.	191.	184.	154.	169.	175.	178.	183.	215.	228.	230.	45.	70.	109.	295.	189.	174.
3	26.	23.	8.	2.	236.	26.	4.	2.	267.	259.	31.	25.	169.	181.	102.	99.	121.	235.	292.	239.	216.	190.	185.	174.	130.
4	167.	154.	154.	157.	152.	142.	148.	152.	191.	201.	206.	227.	236.	251.	341.	357.	336.	15.	38.	302.	61.	176.	184.	168.	188.
5	164.	188.	204.	192.	186.	165.	167.	148.	176.	208.	228.	210.	242.	222.	246.	241.	11.	52.	320.	286.	353.	119.	116.	106.	189.
6	144.	140.	108.	72.	101.	201.	64.	356.	326.	12.	21.	18.	324.	310.	295.	284.	308.	332.	311.	12.	33.	38.	39.	57.	163.
7	53.	45.	34.	20.	2.	30.	48.	291.	350.	326.	280.	283.	279.	281.	285.	290.	347.	322.	294.	0.	53.	98.	197.	78.	179.
8	109.	123.	165.	174.	193.	212.	185.	201.	189.	202.	202.	245.	269.	238.	261.	290.	311.	355.	19.	16.	21.	32.	30.	23.	169.
9	21.	34.	50.	89.	87.	199.	304.	233.	250.	268.	280.	259.	263.	269.	14.	23.	22.	27.	29.	35.	24.	20.	25.	41.	119.
10	50.	55.	162.	201.	202.	111.	172.	186.	319.	32.	352.	4.	337.	349.	324.	18.	323.	326.	320.	332.	11.	37.	31.	31.	178.
11	101.	65.	34.	90.	78.	66.	79.	58.	355.	27.	24.	320.	309.	329.	11.	359.	357.	346.	329.	16.	22.	23.	32.	24.	144.
12	40.	23.	21.	31.	21.	7.	83.	13.	33.	21.	348.	1.	313.	360.	11.	313.	315.	330.	346.	13.	31.	38.	35.	38.	116.
13	26.	17.	32.	28.	356.	34.	52.	37.	352.	23.	307.	22.	17.	6.	6.	356.	351.	334.	337.	15.	28.	23.	11.	13.	116.
14	33.	27.	28.	28.	41.	25.	29.	45.	274.	319.	328.	275.	273.	270.	296.	303.	301.	310.	310.	352.	26.	20.	22.	69.	167.
15	74.	173.	186.	214.	179.	183.	183.	196.	256.	270.	276.	289.	262.	277.	320.	339.	344.	347.	345.	12.	32.	30.	30.	26.	202.
16	26.	32.	45.	47.	86.	100.	160.	157.	192.	217.	258.	270.	231.	240.	263.	278.	290.	290.	256.	243.	247.	242.	222.	210.	192.
17	195.	172.	154.	143.	133.	146.	153.	146.	185.	227.	226.	231.	237.	270.	270.	315.	298.	238.	250.	231.	164.	148.	149.	206.	
18	159.	142.	140.	137.	142.	145.	145.	162.	202.	180.	183.	204.	200.	174.	204.	224.	266.	285.	298.	353.	20.	40.	50.	71.	172.
19	85.	108.	131.	99.	77.	156.	12.	242.	292.	313.	280.	277.	264.	250.	256.	278.	291.	309.	10.	2.	28.	57.	116.	167.	171.
20	144.	160.	178.	172.	123.	188.	182.	143.	200.	186.	209.	184.	151.	180.	205.	229.	150.	320.	320.	348.	38.	350.	328.	336.	209.
21	193.	151.	173.	204.	112.	159.	160.	168.	186.	180.	116.	129.	171.	151.	177.	201.	224.	240.	237.	228.	190.	198.	238.	181.	
22	239.	207.	171.	171.	187.	205.	170.	159.	174.	212.	202.	136.	88.	83.	160.	108.	165.	177.	196.	197.	189.	196.	191.	207.	175.
23	211.	217.	224.	221.	195.	188.	193.	194.	189.	200.	186.	190.	192.	181.	177.	190.	200.	215.	234.	240.	244.	235.	190.	162.	203.
24	164.	157.	146.	141.	136.	96.	36.	41.	49.	238.	346.	349.	310.	338.	336.	5.	347.	347.	337.	323.	305.	6.	7.	6.	190.
25	5.	40.	355.	10.	29.	97.	53.	39.	22.	352.	350.	335.	356.	345.	40.	3.	228.	134.	197.	132.	75.	146.	136.	190.	153.
26	152.	162.	181.	187.	210.	153.	149.	195.	224.	241.	255.	280.	284.	279.	281.	291.	256.	244.	253.	252.	251.	205.	173.	170.	222.
27	172.	173.	173.	174.	158.	174.	205.	210.	213.	240.	242.	235.	247.	239.	255.	246.	247.	232.	268.	258.	250.	228.	234.	245.	222.
28	243.	273.	260.	244.	177.	116.	146.	170.	216.	238.	238.	222.	232.	240.	204.	260.	245.	215.	167.	147.	123.	37.	41.	311.	198.
29	233.	199.	200.	186.	176.	217.	123.	162.	226.	227.	233.	197.	230.	260.	269.	313.	241.	243.	247.	242.	350.	81.	106.	172.	214.
30	181.	151.	160.	154.	148.	167.	163.	184.	206.	216.	290.	180.	226.	200.	242.	253.	303.	334.	348.	323.	27.	66.	221.	53.	200.
31	179.	195.	173.	142.	177.	157.	135.	131.	161.	183.	208.	240.	277.	358.	335.	12.	37.	57.	325.	12.	26.	90.	205.	133.	164.

MONTHLY AVERAGE = 177.11

SIGMA THETA FOR CEDAR HILLS LANDFILL
 METEOROLOGICAL MONITORING SYSTEM FOR
 THE MONTH OF MAY , 2012

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	11.6	11.6	11.1	11.0	9.1	8.4	9.0	10.8	10.4	10.7	17.0	15.6	16.2	12.9	16.9	17.0	11.1	9.7	9.4	11.1	9.1	8.8	9.3	10.9	11.6
2	9.1	10.4	7.8	10.5	8.4	8.7	10.0	27.0	13.4	17.8	29.0	46.7	51.8	45.3	40.6	22.7	24.0	18.5	6.1	19.9	11.5	28.7	30.0	60.4	23.3
3	57.0	45.2	9.0	22.1	12.0	10.8	11.6	19.2	13.4	40.3	12.2	11.5	40.3	16.0	62.0	25.0	14.3	24.4	16.1	16.6	9.7	10.1	10.4	8.2	21.6
4	8.4	7.8	8.3	7.1	8.0	9.3	8.2	11.4	11.9	13.1	25.4	27.7	15.4	17.5	18.2	24.3	18.9	20.2	14.7	36.5	15.7	38.9	8.6	6.9	15.9
5	8.6	9.6	10.5	9.1	9.3	12.2	13.8	16.8	21.4	18.5	16.8	45.9	52.6	18.6	55.4	25.1	22.1	17.3	21.3	5.4	19.8	14.2	9.6	10.9	19.4
6	7.4	8.8	11.4	5.8	12.3	12.3	23.9	23.7	39.8	37.3	15.9	21.3	29.0	24.5	17.4	11.4	19.9	25.7	12.2	26.1	9.9	7.9	10.3	10.9	17.7
7	13.4	9.3	8.3	12.0	14.5	8.3	37.5	49.3	29.9	27.4	34.8	32.9	19.7	19.0	18.4	14.4	19.6	16.8	5.3	18.4	19.0	22.0	20.1	23.9	20.6
8	29.2	10.1	12.9	10.9	11.7	11.5	11.4	26.8	33.2	24.8	22.7	47.8	17.6	19.9	24.1	16.1	13.2	15.1	12.1	12.7	12.0	18.9	35.3	21.3	19.6
9	11.4	9.1	20.4	31.5	38.5	42.7	29.3	9.7	12.9	37.4	24.5	18.8	21.1	42.2	14.8	15.4	12.0	11.0	10.2	12.1	43.1	23.6	13.5	16.3	21.7
10	42.0	24.1	30.3	17.9	18.9	9.6	18.0	19.0	40.7	40.4	28.4	26.6	38.9	25.5	23.9	28.7	11.3	18.2	10.4	8.1	18.6	16.1	8.9	12.1	22.4
11	33.7	30.3	14.4	18.7	25.3	23.1	30.2	49.8	43.8	14.6	12.6	21.4	16.8	28.6	21.9	17.5	14.5	14.6	17.4	13.0	11.1	8.7	8.6	10.2	20.9
12	7.7	8.3	13.5	7.9	6.1	20.0	48.3	57.9	32.8	19.2	38.1	36.3	30.8	20.9	16.9	15.4	11.4	16.5	15.6	15.6	9.2	7.6	7.5	10.3	19.7
13	7.1	7.3	11.3	7.6	23.0	9.0	14.1	15.6	33.6	37.4	31.9	11.6	11.7	14.3	13.1	16.3	16.6	20.8	24.4	25.6	11.1	8.1	6.0	11.5	16.2
14	9.0	8.1	8.5	6.5	8.0	7.5	14.5	23.1	37.4	52.2	50.3	14.0	15.6	12.5	51.7	20.1	10.3	7.3	8.6	18.1	12.4	8.0	7.2	31.2	18.4
15	19.0	12.0	7.0	9.1	7.6	6.0	15.1	24.8	25.8	18.6	14.6	25.1	25.5	17.1	23.9	22.0	17.9	18.8	16.9	14.8	14.5	12.8	11.7	10.9	16.3
16	13.3	17.7	60.9	33.3	41.0	28.2	13.1	15.7	24.5	38.0	36.0	19.7	24.8	20.2	18.0	21.3	37.9	12.3	8.6	7.7	9.2	16.5	10.9	7.7	22.4
17	11.8	6.6	7.4	6.7	6.6	7.7	14.9	16.0	22.9	26.8	30.2	45.0	36.3	28.5	20.8	53.0	27.8	9.6	22.9	31.4	49.3	33.0	21.2	13.7	22.9
18	11.0	8.4	8.4	9.6	8.2	8.7	10.0	16.6	15.4	14.1	19.1	30.4	30.6	37.8	50.0	31.6	23.4	13.4	11.4	9.8	16.2	10.8	8.8	14.4	17.4
19	14.4	12.5	8.6	7.1	18.8	28.9	45.9	56.2	50.0	39.1	27.3	30.9	23.2	18.9	32.3	21.5	17.7	29.1	15.3	13.6	8.8	9.7	7.2	21.8	23.3
20	7.2	16.3	16.2	14.1	25.1	22.1	24.5	21.7	10.3	49.1	17.3	33.0	21.8	13.0	14.4	12.3	16.3	28.4	10.5	18.2	11.6	12.3	37.6	21.9	19.8
21	34.0	40.3	18.7	25.9	25.4	36.2	20.8	18.5	12.1	12.9	32.2	13.7	13.1	13.8	12.4	13.6	13.8	11.0	8.4	8.8	12.0	9.9	11.4	12.7	18.0
22	10.5	10.5	11.5	9.9	8.7	11.7	11.1	15.6	13.2	10.6	14.0	24.6	21.3	25.3	29.8	16.6	12.2	13.1	19.5	14.1	11.0	9.2	12.0	8.9	14.4
23	9.8	10.0	10.8	10.2	11.6	12.0	10.0	10.7	10.5	10.2	9.9	10.6	10.6	13.6	17.4	15.1	18.2	13.7	9.4	8.5	9.7	14.8	8.8	8.7	11.4
24	11.1	8.6	7.8	8.8	9.6	11.2	6.0	11.4	61.8	21.7	52.7	32.6	25.1	29.8	30.5	19.3	17.1	17.8	17.8	18.3	44.2	18.9	15.1	18.1	21.5
25	30.7	24.5	13.2	19.6	49.1	40.9	17.9	16.2	14.2	18.3	25.1	23.2	22.1	18.0	31.6	32.8	23.0	48.4	13.5	12.5	13.9	22.5	30.3	10.0	23.8
26	4.3	8.2	16.8	4.7	6.1	14.2	18.2	14.9	25.1	31.6	24.3	20.4	21.0	20.4	17.1	14.3	13.6	10.5	8.8	8.1	8.4	9.0	9.1	10.8	14.2
27	11.0	11.3	11.1	9.8	8.4	9.5	11.5	12.0	11.6	14.7	14.1	19.9	16.9	22.5	20.1	19.0	20.8	16.2	10.6	7.5	8.1	9.0	11.4	6.0	13.0
28	9.1	8.6	8.7	9.0	33.5	37.7	13.4	13.6	16.4	14.4	15.3	13.7	19.3	18.1	34.0	33.0	11.3	12.9	11.9	13.5	16.2	14.1	9.6	18.6	16.9
29	8.8	20.4	7.9	10.5	7.8	15.5	27.5	29.3	30.6	39.2	30.6	28.4	39.9	35.5	46.4	55.7	40.0	10.6	10.0	5.6	13.0	10.3	3.7	20.6	22.8
30	10.8	11.9	18.0	7.9	8.9	7.0	8.0	15.8	19.4	60.4	40.8	64.4	35.3	62.9	39.0	58.6	10.1	23.5	20.0	8.4	8.5	21.5	45.6	11.7	25.8
31	36.8	11.7	11.9	10.2	8.3	11.2	12.0	11.7	12.9	15.4	13.6	15.4	17.2	59.6	22.3	33.1	26.2	11.7	27.8	12.8	9.7	21.6	25.5	20.8	19.1

MONTHLY AVERAGE = 19.10

MAX. 10 SEC GUST FOR CEDAR HILLS LANDFILL
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF MAY , 2012

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	23.3	22.0	21.9	20.3	21.8	24.0	23.2	26.0	24.5	22.2	20.3	20.7	21.2	25.0	14.6	24.9	12.1	16.3	16.9	11.1	9.1	10.2	10.6	9.3	26.0
2	11.8	11.9	10.8	10.8	8.1	8.0	9.2	7.8	12.2	11.1	9.5	8.9	7.3	9.6	9.4	8.8	8.1	5.4	4.8	4.6	6.1	3.6	6.2	6.5	12.2
3	8.2	7.1	7.5	8.1	3.1	4.2	5.7	6.5	5.6	5.2	6.4	8.1	3.7	3.6	5.9	5.8	6.8	14.6	16.3	22.2	25.6	20.0	14.8	14.1	25.6
4	15.3	14.1	11.2	10.5	12.0	10.4	10.8	12.2	16.3	17.1	21.3	16.0	18.6	22.7	20.1	14.5	10.5	7.1	11.9	9.3	7.0	7.2	12.5	11.5	22.7
5	11.2	12.7	15.9	10.0	9.2	7.6	8.2	8.2	11.8	12.4	11.1	11.3	11.6	12.8	9.9	10.8	9.0	6.4	8.2	6.8	4.1	3.9	5.1	3.2	15.9
6	4.3	4.4	3.6	4.0	3.0	3.9	4.3	5.4	5.6	13.4	16.3	15.0	13.0	15.2	16.1	15.3	12.4	10.6	11.0	11.0	10.5	11.2	11.4	9.8	16.3
7	7.3	6.0	5.1	5.9	4.3	6.2	3.6	4.6	5.2	6.5	9.1	10.5	9.3	11.8	13.6	14.8	9.5	11.5	12.1	8.0	4.7	6.9	5.2	4.6	14.8
8	5.7	6.4	10.1	8.1	8.0	6.5	7.4	7.7	8.0	8.1	11.0	12.6	15.4	15.6	14.3	15.9	14.0	14.0	17.8	25.2	24.2	21.9	18.4	16.0	25.2
9	14.3	17.0	14.7	11.3	11.5	8.7	11.7	7.8	7.6	10.6	14.5	14.0	15.9	14.7	15.7	21.2	23.7	24.0	28.3	26.4	24.3	17.1	17.5	11.2	28.3
10	12.3	10.2	5.1	6.2	5.9	3.4	4.7	5.4	12.6	13.6	14.8	13.7	15.0	14.1	16.7	19.5	20.4	16.6	13.1	11.7	10.7	14.8	20.4	20.1	20.4
11	12.5	10.5	13.2	7.9	3.7	3.9	3.1	6.2	6.6	13.1	15.1	14.4	13.1	14.9	14.7	13.8	15.5	15.6	14.1	13.2	14.5	17.1	13.1	13.6	17.1
12	12.7	9.9	7.2	8.4	10.5	7.1	4.3	4.0	4.9	5.7	8.7	9.8	13.4	14.2	16.1	15.3	15.1	12.6	12.2	11.9	13.4	14.0	14.2	10.2	16.1
13	9.4	10.3	7.6	8.2	5.7	7.0	4.2	5.1	5.6	10.9	16.8	17.8	18.1	19.0	18.6	17.0	11.7	9.8	11.2	15.3	19.3	22.9	18.2	22.9	
14	16.0	13.3	7.9	8.0	7.8	6.9	5.3	4.3	5.1	8.3	8.9	11.3	13.5	13.4	12.1	11.7	11.8	11.2	10.6	17.9	18.0	14.4	7.3	18.0	
15	5.9	9.8	8.7	4.4	5.9	6.8	5.7	6.1	7.8	8.8	11.7	9.1	11.0	13.4	18.7	20.0	17.9	15.6	13.5	17.1	23.0	26.2	28.2	33.5	33.5
16	29.5	26.4	14.7	18.7	10.5	7.3	8.3	7.9	9.4	8.8	11.6	15.4	17.5	19.2	19.0	19.8	10.7	11.5	12.5	12.8	12.6	11.2	8.8	9.2	29.5
17	7.3	8.9	8.5	7.8	7.8	8.3	11.2	9.8	12.7	10.1	10.0	11.7	13.8	13.9	13.1	13.1	10.9	10.4	12.0	13.6	10.7	8.1	9.7	12.2	13.9
18	12.6	9.6	10.5	9.6	10.2	9.6	10.0	8.5	13.2	10.4	10.4	10.2	11.0	9.6	10.1	14.2	9.4	8.4	6.5	4.2	4.1	7.5	8.9	7.0	14.2
19	7.0	4.3	4.7	6.1	4.5	2.2	3.2	5.2	6.3	8.3	11.5	12.1	11.0	11.8	10.7	9.4	8.9	5.6	6.4	4.1	4.7	3.9	3.7	6.8	12.1
20	7.2	5.2	7.9	7.3	7.8	7.7	6.4	5.7	8.5	5.7	6.3	5.2	6.9	10.4	10.0	10.0	5.9	6.5	5.6	5.2	4.1	5.9	4.3	6.1	10.4
21	3.0	3.6	6.7	7.3	9.2	7.4	6.6	8.0	13.4	10.4	5.5	6.4	9.7	15.7	9.9	23.9	26.5	19.3	20.7	22.6	17.8	17.5	14.7	20.0	26.5
22	17.9	15.7	13.3	10.4	10.4	20.6	14.3	11.1	16.2	15.1	14.6	6.4	8.4	5.5	6.8	10.2	20.6	17.9	12.7	18.2	29.0	18.4	13.3	20.5	29.0
23	20.0	23.6	22.4	19.7	16.6	16.7	16.7	19.0	16.3	19.8	19.7	18.3	17.5	20.6	16.4	14.5	25.2	18.0	18.9	17.9	18.8	12.5	13.0	9.4	25.2
24	11.1	9.2	7.5	7.8	7.7	7.1	4.4	4.1	6.1	9.6	6.7	9.0	11.2	12.6	12.2	12.4	16.7	16.1	13.4	14.2	9.4	12.9	11.6	14.6	16.7
25	16.9	13.5	8.8	6.6	6.3	5.7	7.8	9.9	12.1	13.6	13.1	13.1	13.5	18.3	15.1	13.6	12.0	8.6	11.3	7.4	2.5	7.2	3.1	6.9	18.3
26	5.0	4.8	5.4	5.4	5.4	5.2	5.5	6.6	7.9	9.2	13.7	14.0	13.9	15.0	17.7	17.2	18.1	18.0	17.5	18.3	13.4	11.3	12.8	15.8	18.3
27	12.0	11.7	11.8	7.5	7.2	10.8	13.7	14.9	18.3	13.7	17.0	16.5	15.0	13.6	13.7	13.7	14.7	14.5	12.4	11.5	13.1	9.6	10.4	6.8	18.3
28	4.6	5.5	4.7	3.5	4.3	6.0	7.3	9.7	10.5	20.9	13.4	16.4	16.8	8.2	6.8	16.6	15.7	12.1	7.3	7.2	5.4	7.8	5.1	7.6	20.9
29	7.3	3.7	7.7	5.0	4.6	4.4	4.4	5.3	5.7	9.9	9.3	10.7	10.9	7.9	8.5	8.6	9.4	12.0	8.9	5.3	4.3	3.5	3.5	4.2	12.0
30	4.6	5.6	5.2	6.5	6.2	5.7	5.2	5.3	5.2	7.2	10.8	8.7	8.3	10.2	10.9	11.2	8.9	7.1	7.5	9.5	8.2	7.3	4.3	11.2	
31	4.0	6.2	4.9	6.3	8.4	7.3	6.4	8.9	9.1	14.0	15.7	12.3	8.3	6.2	6.7	5.0	5.3	4.1	4.9	5.2	3.8	3.5	3.0	5.0	15.7

MONTHLY MAXIMUM = 33.45

2 M TEMPERATURE FOR CEDAR HILLS LANDFILL
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF MAY , 2012

IN DEGREES C

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	6.3	6.1	6.0	5.8	5.8	5.5	5.8	6.3	6.9	7.5	8.5	8.6	8.7	7.9	7.7	6.9	6.9	6.4	5.6	5.1	4.4	4.3	4.3	4.3	6.3
2	4.7	4.7	4.7	4.5	4.3	4.3	4.6	5.7	6.5	7.5	8.3	9.2	10.0	10.7	11.3	11.4	11.4	11.1	10.8	9.7	8.9	8.8	8.1	7.7	7.9
3	7.1	6.8	6.5	6.2	6.3	6.0	6.2	6.9	7.6	8.3	8.5	9.1	9.7	10.0	9.9	10.0	9.4	9.2	8.1	7.9	7.8	7.3	7.0	6.3	7.8
4	6.0	5.7	5.5	5.1	5.0	5.2	5.7	6.4	7.4	8.1	7.5	9.0	10.0	10.4	8.9	9.3	8.7	7.3	6.6	6.3	5.5	5.9	5.8	5.0	6.9
5	4.7	5.1	5.2	5.0	5.1	5.1	5.4	5.9	6.9	7.8	8.2	9.5	10.2	10.8	11.6	11.3	11.4	11.2	10.9	9.7	8.8	7.5	6.8	6.7	7.9
6	6.5	6.2	5.8	5.2	5.0	4.3	6.5	7.5	9.7	11.4	12.3	13.4	14.4	15.5	16.0	16.3	16.7	16.2	14.7	13.6	12.1	10.9	9.9	9.3	10.8
7	9.1	8.0	7.5	7.6	6.9	6.2	8.6	11.6	13.1	15.2	16.7	18.8	20.2	21.4	21.9	21.8	21.7	21.6	19.8	19.3	17.6	16.1	14.9	14.2	15.0
8	13.3	12.7	12.1	11.0	10.7	10.6	10.9	12.1	13.5	14.9	15.9	16.3	16.8	17.0	17.3	17.2	16.5	15.1	12.6	10.9	9.7	9.0	8.5	8.1	13.0
9	7.1	6.3	6.1	6.4	6.4	5.7	5.4	5.6	6.6	8.0	8.5	9.3	10.5	11.4	10.5	9.4	8.9	8.5	7.5	6.6	6.3	6.3	6.0	5.7	7.5
10	5.8	5.3	4.8	4.5	4.1	3.4	4.4	5.6	7.8	8.5	8.9	9.8	10.2	11.3	11.7	11.8	11.8	11.3	10.4	8.7	7.9	6.5	6.5	6.2	7.8
11	5.7	5.3	5.2	3.7	3.6	3.3	5.8	7.5	9.5	11.1	12.4	14.1	15.5	16.5	16.8	17.4	17.1	16.7	15.9	14.2	12.9	11.9	10.6	9.4	10.9
12	8.3	8.2	8.0	6.6	6.3	7.1	8.7	11.1	14.1	16.1	18.6	20.4	22.0	23.1	23.8	24.0	23.5	23.0	22.2	19.7	17.6	16.5	15.6	14.4	15.8
13	13.1	12.9	11.3	10.9	12.2	10.2	12.0	15.2	17.5	19.2	21.0	22.4	23.5	24.4	24.5	24.7	24.5	24.1	23.1	21.3	19.5	18.4	17.6	16.1	18.3
14	14.6	13.4	12.4	12.0	11.5	11.4	14.6	16.7	18.1	19.8	21.4	22.7	23.9	24.7	25.8	26.1	25.7	25.0	23.4	22.2	19.9	19.6	17.4	16.2	19.1
15	15.8	14.1	12.3	11.6	10.9	10.5	11.4	13.0	14.8	16.2	17.2	18.7	19.9	21.2	22.5	22.5	22.1	21.3	20.5	18.2	16.1	16.0	15.5	14.2	16.5
16	13.7	13.6	12.9	12.7	12.8	10.8	11.4	12.1	13.3	14.7	16.1	16.6	17.1	17.1	17.8	18.1	17.7	17.1	16.2	14.8	13.5	12.3	11.7	10.6	14.4
17	9.5	7.6	6.5	6.0	5.7	6.2	6.8	7.4	8.4	10.0	11.6	13.0	14.2	15.0	15.4	16.0	15.6	14.6	12.8	11.8	10.4	9.2	8.6	8.4	10.4
18	7.3	6.4	6.2	6.1	6.2	6.4	6.9	7.6	8.2	8.6	9.2	10.0	10.5	11.5	12.8	13.6	13.4	13.2	12.7	11.7	10.2	9.0	7.9	7.4	9.3
19	7.1	7.0	6.8	5.9	5.8	6.1	8.0	9.7	11.4	13.1	14.5	15.7	16.5	17.0	17.5	17.6	17.1	17.0	16.3	15.9	15.0	14.5	13.9	12.7	12.6
20	12.8	12.8	11.9	11.6	11.5	11.3	12.1	12.8	12.7	12.3	12.0	12.7	13.7	14.1	14.3	14.1	13.9	13.4	13.1	12.8	12.5	12.3	12.4	12.1	12.7
21	12.1	12.0	12.1	12.0	11.9	12.5	12.3	12.7	13.1	13.0	13.4	13.6	13.8	14.5	14.7	14.7	14.5	13.2	13.1	11.8	11.2	10.9	10.4	9.4	12.6
22	9.1	8.8	8.7	8.6	8.6	8.3	8.4	9.3	10.1	9.8	9.4	9.8	10.2	10.0	10.0	10.7	11.4	10.6	10.7	10.6	10.2	9.2	9.1	9.0	9.6
23	9.2	9.1	8.8	8.5	7.7	7.7	7.8	7.9	8.4	8.9	9.2	9.4	10.0	10.7	10.7	10.6	11.4	11.8	11.2	10.3	9.8	9.1	8.3	7.7	9.4
24	7.6	7.4	7.2	7.2	7.0	7.2	7.7	8.6	9.9	9.7	11.1	12.0	12.8	13.6	14.4	14.6	14.6	14.1	13.6	12.4	11.4	11.2	10.3	9.8	10.6
25	9.4	8.6	8.6	8.7	8.7	8.4	9.8	11.1	11.5	13.4	15.0	16.6	17.8	18.3	17.4	18.3	18.6	16.8	16.4	15.2	14.4	13.1	12.1	11.0	13.3
26	10.9	10.3	9.5	9.6	9.5	9.9	11.6	12.6	14.4	16.0	17.2	18.4	19.7	20.5	21.1	21.4	20.9	20.5	19.2	16.1	12.9	12.0	10.9	10.6	14.8
27	10.8	10.8	10.7	10.7	10.5	10.8	11.3	11.8	12.4	12.6	13.2	13.7	14.2	15.0	15.3	15.6	16.0	15.5	15.0	13.9	13.1	12.6	12.1	11.6	12.9
28	11.2	10.8	10.6	10.6	10.4	10.2	10.3	10.6	11.3	10.2	11.9	12.5	13.2	13.2	13.6	13.0	12.5	12.6	11.7	10.4	10.2	9.3	8.9	9.1	11.2
29	9.2	8.8	8.6	8.2	7.9	7.9	8.8	9.5	10.3	11.1	12.0	12.9	13.5	13.5	14.0	14.5	15.0	14.6	13.7	12.8	11.9	11.2	10.5	10.1	11.3
30	9.7	9.2	9.5	9.4	9.3	9.9	10.3	11.0	12.0	13.5	13.9	14.8	16.1	17.2	18.0	18.5	17.6	17.2	16.8	15.9	14.8	13.7	13.6	12.4	13.5
31	12.8	12.8	12.5	12.0	11.9	11.7	11.8	12.1	12.9	13.7	14.4	14.4	14.5	15.3	15.7	16.1	16.6	16.5	16.4	15.7	15.3	14.9	15.1	14.6	14.2

MONTHLY AVERAGE = 11.76

BAROMETRIC PRESSURE FOR CEDAR HILLS LANDFILL
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF MAY , 2012

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	25.6	25.6	25.6	25.5	25.4	25.3	25.3	25.5	25.7	25.8	25.8	25.7	26.0	25.8	26.4	26.0	26.2	26.1	25.9	25.8	25.6	25.6	25.4	25.3	25.7	
2	25.3	25.3	25.2	25.2	25.2	25.2	25.1	25.2	25.4	25.6	25.3	25.0	25.5	25.6	25.8	25.8	26.0	26.1	26.0	25.9	25.9	25.8	25.7	25.6	25.5	
3	25.6	25.6	25.5	25.5	25.4	25.4	25.3	25.4	25.6	25.7	25.6	25.8	25.7	25.7	25.8	25.8	25.8	25.8	25.6	25.6	25.5	25.4	25.4	25.3	25.6	
4	25.3	25.2	25.1	25.0	25.0	24.9	24.9	24.9	25.0	25.2	25.3	25.3	25.6	25.3	25.5	25.6	25.8	25.7	26.0	25.8	25.7	25.5	25.4	25.3	25.2	25.4
5	25.2	25.0	24.9	24.9	24.9	24.8	25.0	25.2	25.1	25.3	25.3	25.5	25.4	25.2	25.6	25.4	25.8	25.8	25.8	25.8	25.8	25.7	25.6	25.4	25.3	
6	25.3	25.1	25.1	25.0	24.9	24.8	24.7	24.8	24.9	25.0	25.4	25.5	25.5	25.7	25.8	25.8	25.8	25.8	26.0	26.0	26.0	26.0	25.9	25.9	25.4	
7	25.7	25.7	25.6	25.5	25.4	25.4	25.3	24.9	25.0	25.3	25.4	25.5	25.6	25.5	25.7	25.8	25.9	26.0	26.1	26.2	26.2	26.2	26.1	25.7	25.7	
8	26.1	26.0	26.0	26.0	25.9	25.9	25.8	25.8	25.8	25.9	26.0	26.0	26.2	26.1	26.3	26.3	26.5	26.5	26.5	26.5	26.4	26.3	26.1	26.1	26.1	
9	26.3	26.3	26.1	26.0	25.9	25.9	26.0	26.0	26.2	26.0	26.1	26.2	26.3	26.1	26.2	26.7	26.6	26.7	26.7	26.4	26.3	26.2	26.1	26.0	26.2	
10	26.0	25.9	25.9	25.8	25.6	25.6	25.6	25.7	25.9	25.9	26.1	26.2	26.3	26.5	26.2	26.4	26.4	26.6	26.6	26.6	26.6	26.5	26.3	26.1	26.1	
11	26.1	26.1	26.0	25.9	25.9	25.7	25.5	25.7	26.1	26.1	26.3	26.3	26.2	26.2	26.3	26.5	26.5	26.6	26.7	26.7	26.8	26.7	26.7	26.7	26.3	
12	26.7	26.6	26.5	26.5	26.4	26.4	26.3	26.2	26.4	26.3	26.3	26.3	26.4	26.4	26.4	26.5	26.6	26.6	26.7	26.8	26.9	27.0	27.0	26.5		
13	27.0	27.0	27.0	26.9	26.8	26.8	26.8	26.8	26.6	26.5	26.5	26.5	26.6	26.6	26.7	26.8	26.8	26.9	27.0	27.0	27.1	27.2	27.2	27.3	26.9	
14	27.3	27.3	27.4	27.4	27.3	27.3	27.2	27.1	27.0	26.9	26.9	26.8	26.9	26.9	26.9	27.0	27.1	27.1	27.1	27.3	27.4	27.3	27.5	27.1		
15	27.5	27.5	27.5	27.5	27.5	27.4	27.4	27.4	27.3	27.2	27.2	27.1	27.1	27.1	27.1	27.2	27.3	27.4	27.4	27.5	27.5	27.6	27.6	27.4		
16	27.7	27.7	27.7	27.7	27.7	27.6	27.7	27.8	27.7	27.6	27.5	27.5	27.5	27.5	27.6	27.6	27.6	27.7	27.8	27.7	27.8	27.8	27.8	27.7		
17	27.8	27.8	27.8	27.7	27.6	27.5	27.5	27.8	27.9	27.9	27.8	27.7	27.7	27.7	27.6	27.7	27.6	27.8	27.8	27.8	27.9	27.9	27.8	27.7		
18	27.8	27.7	27.7	27.6	27.6	27.5	27.5	27.7	27.9	28.0	27.9	27.9	27.8	27.8	27.8	27.7	27.7	27.9	27.9	27.8	27.8	27.8	27.7	27.8		
19	27.6	27.6	27.5	27.5	27.4	27.3	27.3	27.6	27.7	27.7	27.6	27.6	27.6	27.5	27.5	27.6	27.7	27.7	27.7	27.7	27.8	27.8	27.8	27.6		
20	27.8	27.7	27.7	27.8	27.7	27.7	27.8	27.9	27.9	28.0	27.9	27.9	27.9	27.9	27.9	27.9	27.7	27.7	27.7	27.7	27.7	27.7	27.7	27.8		
21	27.6	27.6	27.6	27.6	27.6	27.5	27.5	27.6	27.7	27.7	27.7	27.6	27.2	27.2	26.9	26.7	26.5	26.0	26.0	25.6	25.3	25.0	24.6	24.2		
22	24.3	23.9	23.5	23.2	23.0	22.7	22.6	22.7	22.3	23.0	23.2	22.9	22.6	22.8	23.3	23.2	23.0	23.4	22.9	22.5	22.3	22.0	21.9	21.7	22.9	
23	21.6	21.3	21.1	20.9	20.8	20.6	20.5	20.4	20.5	20.5	20.6	20.6	21.0	20.7	20.8	21.4	21.1	20.9	21.1	21.4	21.1	20.9	20.8	20.6		
24	20.3	20.1	20.0	19.8	19.7	19.6	19.5	19.5	19.5	19.3	19.8	19.4	20.3	21.4	21.5	21.7	22.7	22.3	22.6	22.2	22.5	21.8	21.1	21.1	20.7	
25	20.7	20.5	20.4	20.0	19.8	19.6	19.5	19.1	19.1	19.3	19.4	20.1	20.8	20.8	21.8	24.2	21.1	22.2	22.3	22.3	22.5	22.0	21.4	21.1	20.8	
26	20.8	20.6	20.2	19.9	19.8	19.6	19.1	19.1	19.3	19.5	20.1	21.1	21.3	21.0	21.5	21.9	22.1	22.4	22.8	23.2	23.4	22.9	21.9	21.2	21.0	
27	20.6	20.2	20.0	19.8	19.6	19.5	19.3	19.1	19.0	18.9	18.9	19.0	19.0	19.3	19.1	19.8	20.0	20.4	21.2	21.1	20.5	20.0	19.7	19.4	19.7	
28	19.3	19.3	19.2	19.0	18.8	18.8	18.7	18.7	18.7	18.6	18.8	18.6	18.6	18.6	18.9	19.1	18.8	19.9	19.5	19.1	19.3	19.2	18.9	18.7	18.5	
29	18.3	18.3	18.2	18.2	18.1	18.1	18.0	18.2	18.3	18.4	18.5	18.8	19.2	19.5	19.6	19.7	20.5	20.9	20.7	20.3	19.9	19.6	19.2	19.0		
30	18.9	18.8	18.7	18.5	18.4	18.3	18.2	18.3	18.2	18.3	18.4	18.5	18.5	18.6	18.9	19.7	20.3	21.0	20.8	20.4	20.1	20.3	19.8	19.4	19.1	
31	19.2	19.0	18.9	18.8	18.7	18.6	18.5	18.4	18.4	18.4	18.5	18.5	18.4	18.4	18.4	18.4	18.4	18.6	18.9	19.0	18.8	18.6	18.5	18.6	18.6	

MONTHLY AVERAGE = 24.47

PRECIPITATION FOR CEDAR HILLS LANDFILL
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF MAY , 2012

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.01	0.00	0.01	0.00	0.01	0.00	0.06	
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3	0.01	0.01	0.02	0.01	0.02	0.02	0.01	0.01	0.03	0.03	0.01	0.07	0.07	0.06	0.04	0.08	0.12	0.16	0.04	0.00	0.00	0.00	0.00	0.84	
4	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	0.03	0.00	0.09	0.00	0.00	0.00	0.00	0.13	
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	
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	
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	
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	
9	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	0.00	0.03	
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	0.00	
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	0.00	0.00	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	
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	0.00	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.03	0.08	
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	
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	
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.04	0.03	0.01	0.02	0.01	0.03	0.03	0.05	0.06	0.03	0.00	0.01	0.00	0.00	0.35	
21	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.08	0.04	0.07	0.06	0.07	0.11	0.03	0.01	0.01	0.06	0.05	0.00	0.01	0.00	0.00	0.01	0.03	0.69
22	0.02	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.02	0.02	0.01	0.03	0.07	0.00	0.00	0.02	0.02	0.01	0.01	0.01	0.01	0.02	0.29	
23	0.01	0.00	0.00	0.00	0.02	0.00	0.01	0.00	0.01	0.01	0.02	0.01	0.00	0.09	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.23
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	
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	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
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	0.00	0.00	0.00	
28	0.00	0.00	0.00	0.00	0.01	0.00	0.02	0.01	0.02	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	0.07	
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	0.00	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
31	0.00	0.00	0.00	0.04	0.13	0.08	0.07	0.05	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	0.38	

MONTHLY TOTAL = 3.16

WIND SPEED/DIRECTION CEDAR HILLS LANDFILL
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF MAY , 2012

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

WIND SPEED FOR CEDAR HILLS LANDFILL
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF JUNE , 2012

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	4.2	4.2	3.0	4.7	2.5	3.9	8.5	8.4	7.9	4.8	12.6	12.7	11.4	9.5	7.7	7.5	6.0	6.3	5.4	5.3	4.3	4.2	5.0	3.9	6.4
2	5.5	3.7	4.0	2.4	2.4	3.6	4.8	4.9	5.4	5.1	6.5	8.4	9.1	13.9	14.0	12.5	10.6	8.6	9.9	10.0	7.8	7.1	5.9	3.6	7.1
3	4.0	3.2	3.9	3.9	3.0	3.8	4.4	4.8	5.4	3.7	4.8	6.3	4.5	3.0	3.4	3.8	3.0	2.0	3.3	3.4	3.2	3.3	6.3	8.2	4.1
4	11.9	13.3	6.9	8.2	8.6	5.1	7.4	3.9	2.2	3.2	5.2	7.5	5.0	3.2	3.5	4.9	4.7	4.8	4.5	3.8	3.7	5.1	4.7	4.4	5.7
5	3.8	3.6	4.6	9.4	9.2	9.9	9.4	9.9	8.3	8.7	9.0	5.8	3.2	4.1	3.1	4.1	3.7	6.8	10.2	5.8	6.3	4.1	2.8	3.8	6.2
6	4.8	6.3	6.7	6.5	5.2	4.5	3.4	5.7	9.1	10.1	10.3	9.1	8.6	7.9	8.6	7.3	8.2	4.4	2.7	3.4	3.1	4.7	3.9	3.9	6.2
7	5.2	5.6	3.6	5.4	5.8	7.1	8.9	8.9	10.3	8.9	14.1	13.8	9.7	15.1	12.8	14.0	10.1	8.5	5.6	6.7	5.9	5.5	4.5	4.0	8.3
8	3.1	4.5	3.0	4.2	4.8	5.6	5.2	6.8	9.1	6.3	3.7	5.6	6.3	6.1	5.9	7.4	3.7	5.1	4.6	3.7	3.3	3.9	3.5	2.6	4.9
9	2.8	3.2	3.1	3.4	6.3	7.1	6.9	5.5	7.5	7.4	6.8	8.6	7.4	6.2	6.0	10.9	12.4	10.1	10.5	10.6	11.3	7.7	11.1	10.4	7.6
10	7.6	6.4	4.9	4.0	4.4	5.1	5.8	4.9	5.3	6.4	4.1	3.1	4.0	4.2	6.5	6.1	6.2	6.7	4.1	6.4	4.9	4.9	5.8	3.9	5.2
11	1.3	2.7	2.4	1.0	0.6	2.3	1.5	1.9	2.7	5.4	6.2	7.0	6.5	8.5	6.3	5.9	5.9	7.0	3.8	2.5	1.2	1.7	3.9	4.6	3.9
12	4.0	4.0	4.2	4.3	3.9	4.8	3.8	4.9	5.9	5.2	2.6	4.5	5.1	4.1	2.6	3.8	6.3	5.8	8.0	8.9	12.4	8.7	12.1	14.4	6.0
13	12.2	11.6	9.8	9.1	6.0	7.2	11.9	13.0	11.8	10.0	9.6	8.5	6.0	5.7	5.4	6.0	3.0	4.0	2.5	3.8	6.4	7.3	4.4	7.8	7.6
14	7.7	9.9	7.8	5.8	4.0	3.3	2.0	4.8	4.8	4.3	4.6	6.0	4.3	3.3	4.4	3.9	5.7	6.8	6.9	7.7	6.1	6.0	6.2	6.5	5.5
15	6.4	2.9	3.6	4.7	2.3	0.6	1.7	1.7	2.1	3.0	5.7	4.8	4.3	6.0	6.9	4.8	2.5	2.7	1.2	1.5	2.3	4.4	4.0	5.3	3.6
16	3.3	6.6	5.9	5.5	5.9	4.1	3.9	4.5	5.5	4.8	8.1	7.9	10.2	10.7	6.9	4.1	7.9	8.4	7.0	6.3	6.0	6.4	8.9	11.6	6.7
17	13.1	11.1	11.7	8.7	6.9	4.9	6.4	6.9	5.8	2.3	4.3	14.2	13.7	18.7	14.5	15.8	16.6	14.3	14.0	10.6	13.3	13.3	11.7	10.4	11.0
18	11.3	10.1	8.7	11.5	7.1	8.5	5.3	5.4	4.6	3.7	6.0	4.8	6.3	7.6	4.6	7.1	5.5	3.4	4.0	3.5	6.7	6.2	7.7	9.0	6.6
19	8.5	7.8	6.7	7.6	7.4	5.7	5.5	4.4	3.8	4.1	2.8	3.7	3.9	3.0	2.6	4.9	4.4	6.0	6.7	7.0	5.6	3.1	3.4	1.2	5.0
20	1.8	2.4	3.7	4.1	2.2	3.2	2.6	2.6	3.0	7.5	6.2	6.3	9.2	9.7	10.2	10.1	7.8	7.9	6.8	5.2	5.5	7.4	9.9	7.9	6.0
21	5.6	5.4	2.5	1.7	1.1	2.1	2.3	2.9	3.8	1.9	3.8	6.6	6.9	6.5	7.0	7.4	6.5	4.9	4.4	3.6	5.1	4.1	3.3	4.3	
22	5.3	3.6	4.5	2.3	2.4	4.5	6.0	5.4	6.1	5.6	4.2	4.1	1.5	2.0	5.0	6.1	4.1	2.6	2.7	3.7	3.0	0.6	4.1	2.5	3.8
23	2.6	1.4	2.0	4.8	2.3	2.2	2.1	2.4	4.2	5.8	8.6	16.2	16.6	9.6	8.9	3.1	3.5	2.2	1.2	1.7	3.0	3.3	2.0	2.3	4.7
24	6.4	5.1	2.8	2.0	0.7	3.0	2.9	3.4	3.2	3.6	2.9	1.8	3.4	5.9	4.2	6.2	4.2	6.2	7.7	3.4	1.0	1.0	1.6	2.2	3.5
25	3.6	7.4	6.4	5.0	2.8	3.4	2.8	1.1	2.2	2.4	3.4	5.0	7.6	5.0	4.4	2.5	1.7	2.0	6.2	3.0	4.7	3.6	2.4	4.4	3.9
26	5.8	4.4	3.9	3.9	5.8	7.1	7.7	7.2	6.5	5.3	2.4	2.6	3.3	3.3	3.2	10.8	12.1	8.3	12.2	10.3	8.9	2.2	2.3	2.2	5.9
27	4.0	5.6	4.1	4.3	2.7	2.3	3.5	2.6	2.6	2.6	4.3	3.5	4.8	4.8	6.9	9.4	9.4	7.8	5.7	4.0	2.8	5.2	4.9	2.7	4.6
28	0.4	2.2	0.4	3.3	3.5	3.7	4.8	3.7	3.2	4.7	6.8	7.6	10.8	9.2	6.5	7.3	6.2	6.8	5.6	5.1	4.2	2.0	1.2	2.5	4.6
29	2.5	2.2	2.3	1.7	2.9	2.1	3.2	2.7	2.4	3.1	4.2	2.2	1.7	2.3	3.0	3.1	3.6	6.3	4.9	2.8	3.8	6.4	5.2	4.3	3.3
30	3.1	3.4	2.2	2.1	1.2	2.4	2.4	3.6	4.7	4.1	2.7	3.2	3.9	4.6	3.5	4.1	3.9	6.3	4.3	7.8	7.8	6.2	4.5	3.8	4.0

MONTHLY AVERAGE = 5.54

WIND DIRECTION FOR CEDAR HILLS LANDFILL
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF JUNE , 2012

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	128.	156.	192.	152.	92.	138.	178.	182.	166.	159.	218.	234.	240.	246.	206.	242.	235.	261.	246.	247.	350.	3.	11.	36.	180.
2	122.	283.	328.	318.	211.	157.	200.	222.	242.	216.	180.	203.	223.	242.	250.	245.	228.	223.	238.	244.	252.	243.	240.	265.	232.
3	262.	233.	201.	166.	136.	140.	139.	147.	177.	204.	191.	191.	192.	253.	228.	231.	312.	294.	22.	38.	22.	351.	33.	26.	175.
4	30.	17.	16.	25.	22.	15.	31.	31.	45.	45.	19.	319.	29.	62.	42.	25.	23.	359.	339.	10.	336.	343.	355.	352.	120.
5	1.	218.	223.	194.	174.	154.	152.	164.	176.	177.	206.	230.	290.	70.	78.	48.	322.	29.	23.	40.	32.	30.	29.	162.	134.
6	156.	151.	156.	162.	146.	158.	174.	196.	223.	224.	230.	233.	216.	239.	228.	224.	185.	112.	99.	81.	91.	97.	88.	168.	
7	113.	95.	108.	163.	120.	105.	126.	170.	126.	124.	123.	122.	139.	236.	233.	246.	235.	215.	154.	216.	150.	148.	130.	150.	156.
8	157.	181.	204.	133.	143.	131.	142.	176.	187.	203.	287.	347.	287.	218.	128.	165.	138.	154.	154.	134.	151.	127.	156.	128.	176.
9	127.	159.	171.	170.	204.	194.	192.	170.	167.	164.	152.	174.	182.	209.	203.	254.	247.	232.	229.	226.	221.	223.	208.	197.	195.
10	178.	164.	149.	119.	113.	124.	166.	184.	185.	219.	197.	240.	268.	295.	313.	291.	302.	293.	313.	307.	4.	35.	33.	53.	189.
11	69.	45.	58.	43.	300.	174.	92.	187.	222.	270.	277.	286.	280.	268.	262.	261.	272.	241.	248.	294.	49.	76.	57.	111.	185.
12	141.	139.	176.	207.	168.	176.	155.	164.	204.	178.	136.	155.	142.	145.	176.	153.	179.	173.	202.	209.	233.	210.	198.	206.	176.
13	196.	196.	178.	175.	166.	183.	209.	213.	213.	239.	209.	211.	216.	211.	228.	224.	305.	342.	10.	25.	29.	30.	39.	22.	170.
14	20.	22.	22.	30.	25.	44.	108.	217.	200.	164.	175.	202.	226.	246.	280.	271.	295.	336.	20.	21.	29.	21.	33.	33.	127.
15	32.	0.	61.	67.	42.	60.	339.	264.	332.	298.	285.	253.	279.	267.	269.	257.	295.	34.	97.	204.	113.	131.	174.	181.	
16	108.	149.	155.	150.	173.	159.	140.	134.	204.	163.	165.	189.	219.	226.	201.	154.	237.	251.	168.	146.	155.	140.	163.	196.	173.
17	229.	233.	235.	250.	267.	246.	195.	188.	193.	266.	199.	242.	246.	233.	237.	234.	229.	216.	230.	244.	245.	236.	216.	198.	229.
18	201.	196.	180.	193.	226.	216.	267.	15.	10.	20.	32.	46.	26.	23.	52.	150.	116.	62.	30.	33.	237.	237.	209.	173.	123.
19	173.	172.	152.	151.	157.	150.	150.	127.	128.	124.	102.	318.	22.	32.	249.	257.	303.	269.	306.	302.	325.	24.	34.	12.	168.
20	179.	68.	26.	57.	27.	19.	23.	340.	356.	26.	16.	323.	298.	289.	302.	310.	340.	344.	10.	26.	21.	24.	29.	35.	145.
21	39.	44.	51.	22.	70.	37.	159.	184.	211.	230.	221.	283.	304.	281.	288.	268.	285.	294.	304.	325.	33.	47.	41.	154.	174.
22	194.	173.	170.	156.	176.	160.	193.	161.	155.	160.	147.	100.	110.	2.	308.	300.	315.	298.	329.	29.	28.	149.	230.	130.	174.
23	110.	188.	169.	156.	112.	138.	295.	324.	298.	301.	281.	230.	200.	172.	180.	179.	245.	345.	62.	318.	25.	25.	48.	66.	186.
24	31.	33.	38.	20.	347.	170.	162.	142.	201.	213.	186.	180.	270.	270.	260.	226.	208.	246.	286.	330.	320.	152.	107.	45.	185.
25	37.	29.	33.	21.	31.	70.	192.	35.	230.	262.	271.	258.	251.	258.	277.	263.	125.	97.	234.	225.	202.	162.	200.	132.	162.
26	124.	120.	159.	161.	176.	182.	180.	163.	174.	182.	99.	75.	104.	44.	50.	244.	236.	225.	235.	229.	226.	165.	170.	136.	161.
27	142.	142.	168.	142.	105.	150.	151.	244.	247.	223.	309.	278.	288.	284.	300.	291.	294.	314.	1.	25.	31.	47.	108.	185.	
28	81.	116.	92.	173.	171.	162.	164.	178.	228.	258.	266.	280.	272.	262.	265.	244.	253.	263.	270.	270.	281.	260.	321.	252.	224.
29	22.	116.	122.	147.	176.	185.	138.	61.	43.	139.	159.	124.	62.	58.	207.	210.	237.	274.	273.	269.	279.	264.	251.	227.	169.
30	186.	184.	230.	249.	305.	304.	249.	119.	158.	210.	211.	273.	279.	284.	262.	257.	225.	224.	213.	248.	245.	232.	217.	247.	234.

MONTHLY AVERAGE = 175.22

SIGMA THETA FOR CEDAR HILLS LANDFILL
 METEOROLOGICAL MONITORING SYSTEM FOR
 THE MONTH OF JUNE , 2012

IN DEGREES

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	13.9	13.8	18.4	14.1	34.8	53.5	10.2	10.2	11.6	17.8	12.1	10.1	11.5	12.4	15.8	17.0	12.8	9.4	15.7	10.2	44.9	22.4	49.0	19.1	19.2
2	16.4	27.9	15.7	23.1	21.8	12.7	14.3	16.6	12.2	17.8	18.6	14.6	14.1	13.4	13.9	12.0	10.3	23.0	10.9	7.3	10.3	8.8	11.4	10.2	14.9
3	5.3	11.4	9.6	6.9	9.9	7.4	11.9	12.5	17.8	38.2	24.0	23.9	26.8	56.4	37.0	43.5	20.8	49.5	18.0	9.6	11.6	17.2	16.1	12.7	20.7
4	8.1	8.1	11.5	10.2	28.0	43.9	14.3	38.4	19.4	25.8	34.0	22.6	57.8	36.5	33.6	13.8	15.3	13.6	20.3	10.6	16.8	11.8	22.7	25.5	22.6
5	39.5	13.2	13.5	9.2	10.6	11.3	10.5	12.6	17.5	17.0	9.1	15.4	29.9	12.8	19.2	46.7	33.1	13.4	14.0	12.2	13.7	18.3	9.3	30.5	18.0
6	10.0	10.8	7.3	7.4	9.7	13.2	19.5	11.9	13.6	14.7	13.5	14.1	20.7	17.0	14.7	11.6	10.9	23.9	12.4	7.1	11.2	4.9	6.3	14.3	12.5
7	10.1	15.6	29.0	23.4	17.2	16.1	12.3	15.1	11.0	11.8	10.8	10.8	13.1	22.5	10.3	10.3	12.3	10.2	20.0	22.2	7.9	9.8	9.0	12.1	14.3
8	25.8	11.3	13.0	12.3	11.4	8.2	11.4	12.7	13.7	21.8	55.3	22.5	30.0	24.1	21.5	20.8	20.0	15.9	14.5	10.4	14.7	9.4	9.2	13.5	17.6
9	7.9	8.4	10.5	15.2	9.8	11.1	10.2	13.7	13.8	11.8	16.6	11.2	17.7	19.8	19.1	9.8	9.4	8.7	9.9	10.4	10.1	9.7	9.7	8.5	11.8
10	10.5	10.9	9.5	21.7	18.6	29.4	12.5	23.0	17.7	17.1	34.2	57.9	45.3	33.6	25.0	28.4	18.5	15.7	21.5	12.9	18.2	13.2	7.6	13.3	21.5
11	39.8	11.7	12.5	46.2	33.0	25.5	35.8	46.4	31.7	22.3	20.7	21.1	21.3	20.6	23.6	22.3	12.0	10.5	8.3	24.0	29.4	36.8	33.3	15.0	25.2
12	11.9	7.1	10.4	5.4	12.4	9.1	10.4	13.7	11.3	18.0	22.8	18.5	14.3	25.4	17.5	13.9	11.9	13.5	8.9	8.0	7.8	13.4	9.6	9.5	12.7
13	12.8	11.8	12.9	13.3	14.3	13.2	12.8	10.0	11.6	11.5	11.6	11.0	22.0	13.8	21.4	18.6	46.1	33.9	16.7	8.3	8.2	8.6	15.0	9.9	15.3
14	9.0	9.3	8.2	9.3	7.0	12.0	29.3	11.7	12.4	22.6	28.0	20.7	44.0	37.9	53.4	40.7	35.5	15.3	8.9	8.4	9.1	10.6	8.2	7.3	19.1
15	7.3	24.0	9.6	10.4	8.8	62.0	27.6	48.6	62.9	54.0	33.1	33.9	36.9	25.8	21.6	24.0	24.7	9.2	15.0	12.6	7.6	5.7	14.1	20.4	25.0
16	24.8	7.0	7.0	7.5	8.5	9.2	11.7	11.2	17.6	15.5	15.2	16.1	12.3	10.6	18.8	18.7	12.7	12.1	14.3	10.9	9.3	10.3	9.5	10.3	12.5
17	9.7	8.9	8.4	11.0	10.9	16.5	10.8	8.6	9.5	33.7	29.4	10.5	13.5	11.0	13.1	12.4	8.1	10.2	9.7	8.3	8.1	9.6	10.3	7.5	12.1
18	10.4	9.4	11.5	8.1	29.5	13.8	16.1	20.8	22.1	34.2	11.3	19.7	16.1	9.0	15.9	13.9	16.9	15.0	10.1	23.8	33.3	9.1	10.2	7.5	16.2
19	7.5	8.0	6.6	7.8	7.2	7.8	8.2	10.4	18.3	17.9	29.3	51.7	20.9	48.0	51.9	51.9	22.8	18.2	10.4	4.1	10.9	19.6	9.1	5.2	18.9
20	31.3	39.5	8.4	8.7	7.5	7.3	12.8	31.8	46.8	14.5	33.4	21.0	15.8	12.8	17.0	15.9	20.5	14.9	12.8	12.9	13.5	9.2	9.2	8.5	17.7
21	11.4	9.4	8.5	6.3	27.9	17.3	22.4	27.0	36.7	30.1	38.1	28.8	21.3	18.9	14.4	18.0	12.8	8.3	6.1	11.8	14.6	15.3	10.2	19.8	18.1
22	5.0	14.4	11.7	14.5	11.2	10.1	9.1	10.6	8.9	10.9	10.9	12.6	15.6	31.8	13.7	10.0	17.5	26.3	22.8	11.1	12.7	10.2	9.8	17.9	13.7
23	9.3	11.7	7.3	9.6	17.3	43.6	16.5	23.5	14.3	17.5	11.4	11.0	10.4	12.4	10.7	19.6	33.2	18.4	15.5	8.7	10.3	10.7	43.7	27.0	17.2
24	10.8	11.4	12.2	9.7	44.2	14.7	34.2	18.0	14.3	20.3	35.6	56.3	51.0	21.4	50.8	20.6	19.2	13.4	9.5	14.5	41.3	21.4	12.6	9.0	23.6
25	11.0	9.1	10.4	16.2	45.6	25.4	41.6	18.7	31.0	26.6	35.9	26.6	35.9	21.8	19.2	30.7	22.7	20.0	16.1	20.9	11.0	11.2	24.0	9.4	22.5
26	9.4	10.5	16.2	7.7	9.2	7.8	8.5	9.8	10.6	12.5	15.3	12.3	23.0	12.3	12.0	43.8	11.8	17.2	12.1	6.9	10.9	14.7	15.2	14.6	13.5
27	8.7	5.7	10.3	12.1	9.5	10.4	17.2	29.8	30.7	52.1	33.9	43.7	33.2	42.5	21.3	16.2	11.7	11.9	11.4	11.7	19.0	9.1	8.2	16.6	19.9
28	18.3	10.7	14.8	21.6	15.9	11.5	9.8	15.3	19.9	20.5	16.0	14.9	16.6	16.5	12.8	13.0	11.7	9.0	9.2	10.1	8.8	22.8	23.6	25.4	15.4
29	36.3	23.7	22.5	17.8	19.0	18.5	15.0	13.8	14.0	19.8	20.9	22.1	35.1	22.3	35.5	34.2	25.3	10.6	9.5	7.5	7.6	8.9	10.7	19.0	
30	9.0	9.6	17.0	18.7	24.1	12.9	26.1	13.0	20.8	13.6	23.7	13.0	26.5	18.4	25.1	22.5	17.6	9.9	16.6	9.1	8.5	8.6	9.3	12.7	16.1

MONTHLY AVERAGE = 17.57

MAX. 10 SEC GUST FOR CEDAR HILLS LANDFILL
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF JUNE , 2012

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	8.1	7.3	4.8	6.9	6.6	9.4	12.9	13.1	14.0	9.2	21.5	21.3	17.2	14.5	12.0	14.7	12.7	10.5	9.2	8.2	8.6	8.2	11.1	9.1	21.5
2	8.6	6.0	5.6	5.6	4.8	6.7	8.1	9.4	9.6	9.8	12.4	15.0	17.2	24.6	21.4	19.1	18.5	15.8	15.1	14.4	12.1	11.0	9.9	7.1	24.6
3	6.2	5.3	5.9	6.0	5.4	5.6	6.5	9.1	8.8	7.5	10.5	10.1	10.9	8.6	7.8	9.8	7.7	5.2	6.3	5.1	4.8	7.4	10.4	14.1	14.1
4	17.5	18.4	15.4	12.9	15.4	12.4	16.1	10.8	4.9	6.9	10.9	12.1	10.6	7.2	6.9	8.7	9.0	8.4	9.4	9.1	5.8	10.1	9.0	10.2	18.4
5	9.8	6.9	10.6	14.4	13.5	15.0	13.1	15.3	15.6	16.2	13.7	12.7	6.2	6.3	5.6	9.1	10.5	12.6	19.9	11.0	10.0	8.8	5.6	7.2	19.9
6	7.0	9.7	9.4	10.5	9.1	6.8	6.7	8.9	15.3	15.5	16.4	15.5	16.0	14.5	13.8	12.4	11.9	8.5	5.2	4.8	5.6	6.1	5.7	6.0	16.4
7	8.2	10.9	7.2	10.1	8.5	14.5	16.1	13.5	15.8	15.0	21.5	20.5	17.2	41.1	25.0	23.0	14.7	13.4	13.2	16.3	9.2	8.2	7.4	6.1	41.1
8	6.4	9.0	5.7	6.1	7.2	8.9	8.3	11.3	13.8	12.0	8.9	14.5	13.1	13.1	14.0	11.9	8.5	8.1	7.6	6.0	6.2	6.6	7.5	4.9	14.5
9	5.0	5.9	4.4	6.2	9.5	10.2	11.4	7.4	12.7	10.9	10.6	13.6	13.1	13.9	12.9	17.5	19.7	17.0	17.7	17.3	20.0	15.4	17.2	15.5	20.0
10	14.2	12.4	7.9	6.6	8.5	8.1	8.1	7.6	8.9	9.9	11.3	7.8	10.6	11.6	12.6	10.6	11.2	12.4	10.7	9.2	9.1	7.9	9.7	7.8	14.2
11	4.2	4.5	4.1	2.5	2.6	3.4	3.2	4.8	7.2	10.0	10.6	12.5	12.0	13.7	11.2	11.2	10.9	10.4	7.4	4.0	4.2	4.6	7.1	8.3	13.7
12	6.0	6.0	6.1	5.7	5.4	7.2	5.9	6.7	8.5	9.8	5.8	8.4	8.4	9.5	5.2	7.6	11.4	11.2	12.8	15.1	19.4	20.8	20.1	21.7	21.7
13	20.9	19.1	17.8	13.8	10.5	13.3	23.2	19.5	18.6	15.6	16.4	13.2	9.7	8.4	10.1	11.9	7.4	7.0	4.7	5.7	10.9	11.5	12.2	12.6	23.2
14	12.6	13.1	12.0	10.6	9.8	5.9	5.9	7.3	7.5	8.2	8.8	11.1	9.3	7.8	10.6	8.7	12.1	11.2	10.2	12.3	10.2	12.4	10.2	9.6	13.1
15	9.1	7.1	6.9	7.3	4.5	2.3	3.4	4.4	5.0	8.7	12.8	9.8	11.7	12.9	12.4	8.2	6.3	5.0	2.7	3.3	4.4	6.1	8.8	10.6	12.9
16	7.5	10.3	9.9	8.1	8.0	7.0	6.1	7.3	11.2	7.6	13.6	14.0	19.1	19.1	12.5	7.5	18.6	13.4	10.5	10.6	8.8	11.3	17.8	18.1	19.1
17	22.7	19.1	20.5	14.8	12.6	10.4	8.8	9.3	8.6	5.9	11.0	24.9	21.8	29.4	22.8	23.8	24.0	22.9	21.0	17.8	20.3	25.4	20.3	14.2	29.4
18	17.7	15.7	14.1	16.8	17.5	16.8	9.7	11.2	10.2	9.6	10.0	9.9	11.6	12.1	11.4	12.6	11.2	5.0	7.2	7.3	12.0	10.4	12.8	12.8	17.7
19	11.7	12.4	9.9	11.0	10.1	8.3	9.2	8.1	6.6	6.9	7.1	9.4	7.6	6.6	6.9	8.9	7.4	9.7	10.3	9.8	8.0	7.8	5.7	4.6	12.4
20	4.3	4.4	4.9	6.1	4.4	5.4	4.1	7.6	7.8	12.4	10.7	11.5	14.3	15.6	14.8	15.1	14.5	15.3	11.2	9.6	10.1	12.7	14.5	11.6	15.6
21	9.7	9.8	4.0	2.9	3.2	3.5	4.3	5.8	6.1	7.8	28.5	9.9	12.7	13.6	10.2	13.1	11.2	9.2	7.1	6.9	7.9	8.8	8.3	6.0	28.5
22	6.6	6.1	6.9	5.2	4.0	9.7	9.3	8.4	9.4	8.6	6.5	7.0	4.2	4.4	8.1	9.8	6.5	7.1	7.1	6.2	6.1	4.7	5.9	6.3	9.8
23	4.5	2.9	6.5	7.2	5.0	5.4	4.9	4.9	8.1	10.0	12.3	28.7	28.7	14.9	17.9	6.3	11.6	7.1	3.7	3.9	4.6	5.4	3.8	4.6	28.7
24	10.4	11.6	5.6	3.4	3.1	9.4	9.6	6.1	6.3	6.9	6.6	5.1	8.8	10.5	10.1	10.8	8.5	16.8	11.6	7.4	3.5	3.3	3.6	3.5	16.8
25	8.4	11.3	10.8	9.2	7.0	7.7	6.0	2.7	5.0	7.5	7.7	8.6	13.9	13.1	8.1	5.6	4.6	3.8	9.5	8.0	8.5	5.7	6.2	8.1	13.9
26	8.6	7.0	7.3	6.5	8.0	10.0	11.0	11.8	9.4	8.4	4.6	6.9	7.2	7.1	5.8	18.5	21.7	15.4	17.6	16.9	13.1	4.0	5.0	4.6	21.7
27	6.7	8.2	5.3	6.2	4.5	4.3	6.0	4.7	6.1	6.4	8.6	9.3	9.8	9.8	12.1	14.7	13.1	11.3	8.8	7.6	7.6	8.9	7.1	6.1	14.7
28	2.8	4.2	3.1	6.2	5.8	5.9	7.4	6.3	5.9	8.8	12.1	11.8	15.4	17.0	10.6	13.2	9.4	11.8	9.7	8.9	8.6	5.4	5.8	4.1	17.0
29	5.2	4.4	5.9	5.2	8.1	5.0	5.5	5.0	3.7	7.9	7.0	5.8	5.2	6.0	8.4	7.5	8.1	9.5	7.3	5.6	8.3	10.4	7.3	7.5	10.4
30	5.0	4.8	3.6	4.9	2.6	4.4	5.8	7.6	8.4	8.0	6.2	6.3	9.2	9.8	7.3	9.1	9.5	11.9	9.1	12.2	12.5	12.9	7.5	7.1	12.9

MONTHLY MAXIMUM = 41.14

2 M TEMPERATURE FOR CEDAR HILLS LANDFILL
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF JUNE , 2012

IN DEGREES C

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	14.1	14.4	14.5	14.1	14.2	14.4	14.8	15.5	16.4	17.3	17.1	16.8	16.3	16.2	16.5	17.3	17.6	16.9	15.8	15.0	14.1	13.2	11.9	11.6	15.3	
2	11.5	11.7	11.5	11.5	11.5	11.6	11.9	12.1	11.8	12.5	13.3	14.3	15.5	15.9	16.3	15.9	14.8	14.4	13.9	13.1	12.2	11.4	10.7	10.1	12.9	
3	9.7	9.4	9.2	8.4	8.1	8.4	8.7	9.1	9.6	10.5	11.7	12.3	12.7	13.4	14.1	15.1	14.4	14.7	14.2	13.4	12.6	12.2	11.0	10.3	11.4	
4	9.5	9.1	8.9	7.6	7.2	7.3	7.4	8.0	8.6	9.1	9.2	9.9	10.2	10.2	10.7	10.7	10.9	10.9	10.7	10.5	10.3	9.8	9.8	9.8	9.4	
5	9.3	9.2	8.8	8.3	7.8	7.3	6.8	7.3	7.7	8.0	8.7	9.3	9.9	10.3	10.7	11.2	11.2	9.8	8.9	8.5	8.2	7.8	7.5	7.8	8.8	
6	7.2	7.0	6.6	6.1	5.7	6.7	7.3	8.2	10.1	10.9	11.6	12.0	13.2	13.6	13.9	13.6	13.6	13.4	13.2	12.5	11.3	10.2	9.6	9.8	10.3	
7	9.5	9.8	10.2	10.8	9.2	8.8	9.9	9.7	10.3	10.7	11.6	12.4	14.0	11.8	12.0	12.0	12.3	12.4	11.4	9.6	9.0	8.9	8.8	9.1	10.6	
8	8.8	8.4	8.2	7.5	7.1	7.2	8.0	8.9	9.5	10.3	10.0	10.2	11.4	10.4	11.1	9.9	8.4	9.1	9.7	8.9	8.7	8.1	8.1	7.8	9.0	
9	7.8	7.8	7.9	7.8	7.8	7.7	7.8	8.1	9.1	9.7	10.8	11.7	12.9	13.5	13.7	13.9	13.9	13.5	13.0	12.3	11.7	11.0	10.6	10.2	10.6	
10	9.8	9.4	9.0	8.8	8.6	9.1	9.8	10.2	10.8	11.4	12.6	13.8	14.7	16.1	16.1	16.9	17.0	17.0	16.1	14.4	14.1	12.5	11.5	10.8	12.5	
11	10.9	9.4	9.9	9.8	9.5	10.3	12.3	13.9	14.9	16.5	17.9	18.9	19.9	20.8	21.4	21.9	21.6	21.1	20.6	20.0	18.7	17.6	16.4	15.4	16.2	
12	14.7	14.3	14.3	13.8	13.0	13.2	13.9	13.9	13.9	12.8	12.9	13.6	13.8	14.4	14.8	15.2	15.0	14.7	14.9	14.7	14.0	13.4	13.2	12.8	14.0	
13	12.4	12.0	11.4	11.1	10.7	10.8	10.9	11.1	11.9	11.5	11.8	12.1	12.6	12.8	13.7	14.1	14.3	14.1	13.5	12.7	11.4	10.4	10.3	9.8	12.0	
14	9.4	9.1	9.0	8.8	8.7	8.7	9.0	9.2	9.6	10.4	11.6	12.4	12.7	13.6	14.1	14.6	14.2	12.9	12.4	12.1	11.8	11.6	10.5	9.9	11.1	
15	9.4	9.2	8.1	8.3	8.4	9.4	10.8	12.6	14.3	15.8	17.1	18.0	19.2	20.1	20.5	20.9	20.8	20.1	20.2	19.4	18.2	17.9	17.0	16.3	15.5	
16	15.7	15.6	15.4	15.4	15.4	15.6	15.8	16.5	16.1	16.9	19.1	20.0	20.2	20.3	19.6	18.5	18.7	17.3	16.7	16.6	16.4	16.2	16.4	16.3	17.1	
17	15.9	15.3	14.8	14.3	13.6	13.3	13.1	13.3	14.1	14.5	15.4	16.5	16.6	16.3	16.0	16.3	15.3	14.0	13.5	13.0	12.3	11.8	11.4	11.0	14.2	
18	10.6	10.0	9.7	9.8	9.9	9.7	9.5	9.1	9.4	10.3	10.8	11.9	12.1	12.1	13.0	13.3	11.9	11.7	11.3	11.2	12.0	11.7	11.2	10.4	10.9	
19	10.0	9.7	9.4	9.2	9.0	8.9	9.2	9.5	10.2	10.9	11.7	12.0	12.2	14.5	15.2	17.0	16.8	17.0	16.7	15.2	13.7	13.1	12.1	11.8	12.3	
20	11.3	10.2	9.3	9.2	9.7	10.1	11.4	13.4	15.3	16.8	18.4	19.7	20.7	21.4	21.5	21.6	22.0	21.3	20.7	19.6	18.1	16.5	15.9	14.8	16.2	
21	14.0	13.6	13.5	13.2	12.8	12.4	14.2	15.4	16.9	18.2	19.1	30.7	12.1	21.1	21.5	21.9	21.6	20.6	19.6	18.5	17.5	16.0	15.2	14.4	17.2	
22	13.6	13.2	12.5	11.9	12.3	12.4	12.1	12.2	12.4	12.1	11.5	11.3	11.6	11.7	11.8	11.6	11.6	11.8	11.8	11.6	11.4	11.4	11.2	11.9		
23	11.0	11.4	11.2	11.2	11.2	11.4	12.0	12.0	12.7	13.5	13.8	14.2	11.7	10.3	11.1	10.8	11.4	11.9	12.6	13.2	12.6	10.6	9.7	9.7	8.9	11.6
24	8.4	8.6	8.2	7.7	7.7	7.6	7.7	8.3	9.1	10.5	13.2	15.1	16.0	16.2	17.0	17.0	16.7	17.0	15.6	15.3	14.2	12.9	11.7	11.3	12.2	
25	10.3	9.4	9.0	9.1	8.2	7.9	9.0	10.0	10.6	12.0	13.9	14.7	15.9	15.5	15.5	16.0	16.3	15.8	14.7	13.4	12.7	12.0	11.8	11.2	12.3	
26	10.6	10.5	10.8	10.5	10.5	10.4	10.3	10.3	10.5	11.0	11.2	12.0	13.0	12.9	13.9	15.6	16.1	15.8	16.0	14.8	13.6	12.6	11.8	11.2	12.3	
27	10.6	10.3	9.2	9.0	8.6	9.6	10.9	13.1	14.2	15.4	16.7	17.8	18.8	19.8	20.4	20.5	20.4	20.4	19.4	19.3	17.9	15.9	14.8	15.0	15.3	
28	14.4	14.0	13.9	12.7	12.7	12.6	14.0	15.7	17.6	19.1	20.0	21.0	21.2	20.5	19.7	19.4	18.9	17.8	16.9	16.2	15.8	15.4	14.6	14.6	16.6	
29	13.7	13.9	14.6	15.0	15.2	15.1	14.4	14.0	14.7	15.7	16.0	16.6	17.5	18.7	20.3	20.6	20.6	19.7	19.0	18.5	17.9	16.9	16.3	15.4	16.7	
30	14.7	14.5	14.4	14.4	14.3	14.5	14.6	15.6	16.6	17.1	18.0	17.7	17.3	18.1	18.0	17.8	17.7	17.9	18.0	17.6	16.4	15.4	15.1	14.5	16.3	

MONTHLY AVERAGE = 13.09

BAROMETRIC PRESSURE FOR CEDAR HILLS LANDFILL
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF JUNE , 2012

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	18.4	18.4	18.3	18.2	18.2	18.1	18.1	18.2	18.2	18.2	18.4	18.6	18.6	18.7	18.6	18.5	18.6	18.9	18.8	18.7	18.6	18.6	18.5	18.4			
2	18.3	18.1	18.0	17.9	17.9	17.8	17.8	17.9	17.9	17.9	18.0	17.9	17.9	18.0	18.3	18.3	19.1	19.1	18.8	18.6	18.5	18.4	18.2	18.1	18.2		
3	18.0	17.9	17.8	17.7	17.6	17.5	17.5	17.5	17.6	17.6	17.7	17.9	18.0	18.0	18.2	18.8	19.2	19.4	19.2	18.9	18.6	18.5	18.2				
4	18.3	18.1	18.0	17.9	17.9	17.7	17.6	17.6	17.5	17.6	17.6	17.6	17.6	17.6	17.7	17.7	17.7	17.8	17.7	17.7	17.6	17.6	17.5	17.7			
5	17.5	17.4	17.4	17.4	17.3	17.3	17.2	17.2	17.1	17.2	17.2	17.3	17.3	17.4	17.4	17.5	17.5	17.6	17.7	17.6	17.5	17.4	17.3	17.3	17.4		
6	17.2	17.1	17.0	17.0	16.9	16.8	16.9	16.9	17.1	17.3	17.4	17.5	17.6	17.7	17.8	17.9	17.9	18.1	18.1	18.3	18.5	18.4	18.0	17.9	17.6		
7	17.6	17.5	17.4	17.3	17.4	17.4	17.2	17.2	17.3	17.3	17.3	17.4	17.4	17.6	17.7	17.7	17.8	17.7	17.8	17.9	18.0	17.8	17.6	17.5	17.5		
8	17.4	17.4	17.3	17.2	17.2	17.1	17.1	17.2	17.2	17.3	17.6	17.4	17.7	17.6	17.9	18.2	18.2	18.1	17.9	18.0	18.0	17.8	17.6	17.5	17.6		
9	17.4	17.3	17.2	17.2	17.2	17.1	17.1	17.1	17.2	17.2	17.3	17.4	17.4	17.5	17.7	17.8	17.8	17.9	17.8	17.8	17.8	17.7	17.6	17.6	17.5		
10	17.5	17.4	17.4	17.3	17.3	17.2	17.2	17.3	17.4	17.5	17.6	17.4	17.4	17.5	17.5	18.2	18.4	18.7	19.1	19.5	19.6	19.0	18.8	18.4	17.9		
11	18.2	18.0	17.9	17.7	17.6	17.5	17.5	17.5	17.7	17.8	18.1	18.3	18.6	18.6	19.1	19.3	19.5	20.1	20.0	20.0	19.8	19.6	19.3	19.2	18.6		
12	19.1	18.8	18.6	18.4	18.3	18.2	18.1	18.0	18.1	18.1	18.5	18.3	18.4	18.4	18.5	18.3	18.4	18.4	18.3	18.2	18.2	18.1	18.0	18.3			
13	17.9	17.9	17.9	17.8	17.7	17.6	17.4	17.5	17.5	17.6	17.7	17.7	17.7	17.7	17.7	17.6	17.8	17.8	18.1	18.1	18.2	17.8	17.6	17.8	17.8		
14	17.6	17.5	17.4	17.3	17.2	17.1	17.1	17.1	17.1	17.2	17.2	17.3	17.4	17.5	17.5	17.5	17.8	18.4	18.4	18.1	17.9	17.8	17.7	17.6	17.5		
15	17.5	17.4	17.4	17.3	17.1	17.1	17.1	17.1	17.3	17.4	17.5	17.7	18.0	18.2	18.4	18.9	19.0	19.4	19.4	19.6	19.9	19.7	19.4	19.0	18.9		
16	18.7	18.5	18.4	18.2	18.1	18.0	18.0	17.9	17.9	18.2	18.0	17.9	17.9	18.0	18.3	18.4	18.5	18.7	18.7	18.5	18.3	18.2	18.0	18.2	18.0		
17	18.1	18.0	17.9	17.9	17.9	17.9	17.8	17.7	17.6	17.6	17.6	17.6	17.7	17.7	17.8	17.8	18.0	18.2	18.4	18.0	18.0	17.9	17.8	17.7	17.9		
18	17.7	17.6	17.5	17.4	17.3	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.4	17.4	17.4	17.4	17.9	18.0	17.7	17.6	17.5	17.4	17.3	17.3	17.4		
19	17.3	17.2	17.1	17.1	17.1	17.0	17.0	16.9	16.9	17.0	17.0	17.1	17.1	17.4	17.2	17.5	17.7	17.8	18.4	18.3	19.0	19.6	19.1	18.7	18.4		
20	18.2	18.1	18.0	17.8	17.6	17.5	17.4	17.5	17.5	17.6	17.8	17.9	18.2	18.5	18.8	19.3	19.4	19.9	20.3	20.2	20.2	20.2	20.0	19.6	19.2	18.6	
21	19.1	18.8	18.7	18.6	18.4	18.3	18.0	17.9	17.9	18.0	18.2	24.9	25.9	26.4	26.2	25.9	25.7	25.6	25.7	25.5	25.4	25.4	25.2	25.2	22.3		
22	25.0	24.9	24.8	24.7	24.5	24.2	24.1	24.3	24.4	24.5	24.5	24.5	24.4	24.4	24.2	24.2	23.9	23.7	23.6	23.5	23.4	23.2	23.1	23.0	22.9	24.1	
23	22.8	22.6	22.5	22.4	22.3	22.1	21.9	21.8	21.8	21.4	21.4	22.4	23.0	22.5	21.8	21.7	21.5	21.1	22.1	22.2	22.9	22.6	21.8	21.0	22.1		
24	21.0	20.6	20.4	20.4	20.3	20.1	20.1	19.9	19.9	19.3	19.0	19.3	20.6	21.8	22.3	22.4	22.5	22.6	22.9	22.6	23.0	23.1	22.6	22.2	21.2		
25	21.9	21.8	21.5	21.2	21.1	20.9	20.7	20.1	19.9	19.8	19.4	19.9	20.5	21.0	22.0	21.5	20.8	21.3	22.0	21.8	21.9	21.6	21.2	21.0	21.0		
26	20.9	20.7	20.6	20.5	20.4	20.4	20.4	20.4	20.4	20.3	20.3	19.8	20.2	20.5	20.2	20.5	20.9	21.3	21.6	22.1	21.8	21.9	21.7	20.8			
27	21.4	21.3	21.0	21.1	20.8	20.6	20.0	20.5	20.3	20.8	21.2	21.9	22.1	22.4	22.9	23.1	23.2	23.2	23.4	23.5	23.6	23.7	23.5	23.0	22.0		
28	22.6	22.6	22.5	22.4	22.2	21.9	21.0	21.2	20.0	20.5	21.5	22.3	22.5	23.0	23.8	23.3	23.3	23.3	23.3	23.1	22.7	22.5	22.3	22.4	22.3		
29	22.1	22.2	21.9	21.8	21.7	21.7	21.6	21.9	21.9	21.4	21.7	21.6	21.9	21.8	21.3	22.2	22.9	23.2	23.6	23.2	23.0	22.8	22.7	22.6	22.2		
30	22.7	22.5	22.3	22.2	22.1	22.0	21.8	21.9	21.4	21.9	20.8	21.8	22.8	22.1	22.8	22.7	23.0	22.7	22.8	22.2	22.9	23.0	22.7	22.5	22.3		

MONTHLY AVERAGE = 19.29

PRECIPITATION FOR CEDAR HILLS LANDFILL
 METEOROLOGICAL MONITORING SYSTEM FOR
 THE MONTH OF JUNE , 2012

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	0.04	0.00	0.00	0.04	0.03	0.02	0.02	0.00	0.00	0.07	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.00	0.29	
2	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	
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	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	0.04	0.02	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.10	
5	0.00	0.01	0.11	0.12	0.10	0.10	0.08	0.09	0.16	0.15	0.06	0.02	0.02	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	1.03
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	0.00	0.00
7	0.00	0.00	0.00	0.01	0.08	0.07	0.08	0.07	0.04	0.02	0.03	0.00	0.01	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.53
8	0.01	0.02	0.03	0.02	0.06	0.00	0.00	0.00	0.05	0.01	0.02	0.00	0.02	0.00	0.02	0.09	0.00	0.00	0.00	0.03	0.01	0.00	0.00	0.00	0.39		
9	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	0.00	0.00	0.00	0.00	0.01	
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	0.00	0.00	0.00	
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	0.00	0.02	0.00	0.01	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	
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	0.00	
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	0.00	0.00	0.00	0.02	0.01	0.02	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.06	
17	0.00	0.00	0.00	0.00	0.03	0.04	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	0.00	0.00	0.00	0.00	0.10	
18	0.01	0.00	0.01	0.00	0.00	0.08	0.04	0.11	0.02	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	0.28	
19	0.00	0.00	0.00	0.00	0.00	0.01	0.01	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	0.03	
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.02	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.33	
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.11	0.12	0.03	0.06	0.13	0.13	0.11	0.01	0.02	0.01	0.02	0.02	0.07	0.06	0.00	0.62	
23	0.01	0.00	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.20	0.00	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	
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	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	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	
26	0.00	0.00	0.01	0.00	0.01	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	0.03	
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	0.00	0.00	0.00	0.00	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
29	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	0.00	0.01	0.00	0.02	
30	0.03	0.03	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.02	0.01	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	0.12	

MONTHLY TOTAL = 4.95

WIND SPEED/DIRECTION CEDAR HILLS LANDFILL
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF JUNE , 2012

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

MONTH June
YEAR 2012

LOCATION Cedar Hills

DAY	°F MAXIMUM TEMPERATURE	°F MINIMUM TEMPERATURE	RAIN IN INCHES
1			
2	71	46	.70
3	64	48	.02
4	62	38	.92
5	62	44	.65
6	54	42	.44
7	62	46	.32
8	60	46	.37
9	58	48	.36
10	60	48	.02
11	68	48	Ø
12	76	56	0
13	62	50	.04
14	60	46	0
15	66	44	0
16	76	44	0
17	74	56	.10
18	66	50	.08
19	60	48	.30
20	68	46	.05
21	74	52	Ø
22	76	54	Ø
23	58	52	.98
24	62	44	.57
25	68	44	.02
26	66	52	.04
27	68	46	.03
28	74	44	.02
29	76	54	.02
30	76	54	.10
31			

NOTE: ALL READINGS SHOULD BE TAKEN AT 9:00 A.M. EACH DAY.

MONTH MAYLOCATION Cedar HillsYEAR 2012

DAY	MAXIMUM TEMPERATURE °F	MINIMUM TEMPERATURE °F	RAIN IN INCHES
1		11	
2	55	40	.28
3	54	39	.25
4	57	40	.30
5	56	38	.22
6	60	42	.01
7	63	40	.01
8	74	40	Ø
9	68	42	.04
10	58	40	.02
11	58	36	Ø
12	64	42	Ø
13	76	58	Ø
14	78	52	Ø
15	83	51	Ø
16	81	52	Ø
17	81	52	Ø
18	82	39	.08
19	68	52	Ø
20			
21			
22	62	48	1.12
23	56	48	.32
24	56	44	.16
25	60	46	TRACE
26	68	46	.16
27	74	52	Ø
28	66	54	.03
29	61	44	.08
30	60	44	.03
31	61	47	.05

NOTE: ALL READINGS SHOULD BE TAKEN AT 9:00 A.M. EACH DAY.

MONTH AprilLOCATION Cedar HillsYEAR 2012

DAY	MAXIMUM TEMPERATURE °F	MINIMUM TEMPERATURE °F	RAIN IN INCHES
1	48	36	.17
2	44	38	.22
3	46	37	.25
4	42	35	.23
5	38	38	.26
6	37	38	.23
7	61	30	.02
8	60	44	Ø
9	62	48	Ø
10	68	44	Ø
11	64	48	Ø
12	50	40	.24
13	58	34	.11
14	58	36	Ø
15	60	44	Ø
16	62	46	.33
17	62	40	.02
18	59	40	.19
19	62	39	.01
20	58	39	
21	58	37	.15
22	65	40	.01
23	73	40	.Ø
24	74	40	Ø
25	56	52	.18
26	62	46	.61
27	56	40	.08
28	58	44	.02
29	64	52	.04
30	62	44	.56
31			

NOTE: ALL READINGS SHOULD BE TAKEN AT 9:00 A.M. EACH DAY.

APPENDIX D

Area 5 Top Deck Report

CEDAR HILLS REGIONAL LANDFILL

AREA 5 TOP DECK

QUARTERLY MONITORING REPORT

Second Quarter 2012



Department of Natural Resources and Parks
Solid Waste Division

August 2012



Printed on recycled paper

Contents

I.	LEACHATE MONITORING	2
II.	SURFACE MONITORING.....	4
III.	STORMWATER MONITORING.....	6
IV.	RESULTS.....	7
V.	CONCLUSION.....	11

Tables and Figures

Table 1	Site-wide Leachate Production	3
Table 2	Area 5 Surface Survey Data.....	5
Table 3	Area 5 Settlement.....	6
Table 4	Water Quality Criteria/Benchmarks	7
Table 5	Area 5 Top Deck Stormwater Quality Monitoring Data	10
Table 6	Leachate Pond Inflow Monitoring Data	10
Figure 1	Area 5 Settlement Monitoring Locations	Figures
Figure 2	Area 5 Top Deck Stormwater Monitoring Locations.....	Figures

Appendices

Inspection Reports	Appendix A
Gas Monitoring Reports.....	Appendix B
Analytical Test Results	Appendix C

**AREA 5 TOP DECK MONITORING
QUARTERLY REPORT**

SECOND QUARTER 2012

This report provides the quarterly performance analysis of the interim soil cover system over Area 5 of 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, which is to provide a barrier between stormwater runoff and the underlying waste. Monitoring of stormwater, leachate and the top deck surface is conducted and reported on a quarterly basis 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 calculation 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 effort to assess 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 (MG/yr)	Surface Area of Refuse Areas (acres)	Refuse In Place (lb)	Precipi- tation (in/yr)	Flow (gal/Acre/yr)	Flow (gal/Acre/in)	Flow (gal/lb/yr)	Flow (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	119.32	353.12*	53,882,060,841	33.47	337,902	10,096	0.0022	0.00007

2012: Precipitation, leachate and refuse in place through 06/30/12

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

II. SURFACE MONITORING

KCSWD provided a plan for surface monitoring for the top deck of Area 5. This monitoring plan is composed of three parts: landfill gas inspections, leachate seep inspections and 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

Serpentine walks are conducted across Area 5 top deck area and its side slopes on a quarterly basis (see Appendix B: *Plot of GPS Generated Track Lines*). This report contains the second quarter's Serpentine Surface Monitoring Data that was generated from June 19th to June 27th, 2012.

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

Also, throughout the second quarter Engineering Services Section (ESS) staff performed monthly Landfill Facility Site Inspections. The only actions suggested pertained to fixing a damaged culvert in area H2, otherwise no issues were observed. The ESS Inspections are also included in Appendix A.

During this quarter, three Health Department Inspection Reports mentioned Area 5. The first report was logged on April 13th, when it was noted that some wind-blown plastic material was present. Otherwise the report noted no issues. The second reporting occurred on June 8th when it was stated that the majority of debris that was mentioned in the first report had been removed. The third and final report of the quarter occurred on June 25th and it was observed that all debris had been removed, and noted no collection of water in areas of settlement or detected release of landfill gas. Overall, there were no violations pertaining to Area 5 observed or detected during Health Department Inspections in the second quarter. All Health Department Inspection Reports are attached in Appendix A.

Leachate Seep Inspections

Visual inspections for leachate seeps are conducted by KCSWD operations personnel in conjunction with the surface emissions monitoring. No indications of leachate seeps were recorded during the quarter by either SWD or Health Department 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 in Area 5 on January 23, 2012. The survey data is given in Table 2, and the settlement at each point is given in Table 3, which demonstrates that the refuse settlement (feet/month) continues to slowly decrease with time, as expected. No erosion has been observed.

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 the King County Council on Dec. 6, 2010.

TABLE 2
AREA 5 SURFACE SURVEY DATA

Station	Date	Elevation	Station	Date	Elevation
A5SM-1	10/4/2005	699.18	A5SM-2 (cont.)	4/6/2011	765.86
	2/1/2006	697.7		8/8/2011	765.34
	6/27/2006	696.51		1/23/2012	764.53
	2/14/2007	694.53	A5SM-3	2/14/2007	786.4
	7/24/2007	693.34		4/20/2007	786.25
	2/29/2008	691.77		7/24/2007	785.68
	7/29/2008	691.26		2/29/2008	784.87
	11/24/2008	690.61		7/29/2008	784.31
	4/6/2009	690.16		11/24/2008	783.76
	7/9/2009	689.77		4/6/2009	783.35
	12/22/2009	689.13		7/9/2009	783.05
	3/1/2010	688.77		12/22/2009	782.44
	8/2/2010	688.6		3/1/2010	782.08
	12/21/2010	688.1		8/2/2010	781.78
	4/6/2011	687.83		12/21/2010	781.25
	8/8/2011	687.46		4/6/2011	780.94
	1/23/2012	687.19		8/8/2011	780.66
A5SM-2	10/4/2005	785.17	PMX20074	1/23/2012	780.26
	2/1/2006	782.52		8/16/2007	781.56
	6/27/2006	780.48		2/29/2008	780.1
	4/20/2007	776.95		7/29/2008	779.13
	7/24/2007	775.63		11/24/2008	778.21
	2/29/2008	773.44		4/6/2009	777.41
	7/29/2008	772.2		7/9/2009	776.99
	11/24/2008	771.29		12/22/2009	776.1
	4/6/2009	770.35		3/1/2010	775.81
	7/9/2009	769.79		8/2/2010	775.29
	12/22/2009	768.6		12/21/2010	774.79
	3/1/2010	768.05		4/6/2011	774.42
	8/2/2010	767.28		8/8/2011	774.19
	12/21/2010	766.53		1/23/2012	773.79

TABLE 3						
AREA 5 SETTLEMENT (FEET)						
Settlement Point	DATE					
	6/06 - 7/07	7/07 - 7/08	7/08 - 7/09	7/09 - 8/10	8/10 - 8/11	8/11 - 1/12
A5SM-1	3.17	2.08	1.49	1.17	1.14	0.27
A5SM-2	4.85	3.43	2.41	2.51	1.94	0.81
A5SM-3	N/A	1.37	1.26	1.27	1.12	0.4
PMX2007-4	N/A	2.43	2.14	1.7	1.1	0.4
Average Settlement	4.01	2.33	1.83	1.66	1.33	0.47
Average Settlement (Feet/Month)	0.31	0.19	0.15	0.13	0.11	0.09

III. STORMWATER MONITORING

Collection of Stormwater Samples

Samples of Area 5 top deck stormwater were collected at monitoring stations SW-A5TD1, SW-A5TD2, SW-A5TD4, SW-A5TD6, 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 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 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 of interest 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 constituents of fertilizers used during hydroseeding. The stormwater quality results are also screened against existing surface water quality criteria WAC 173-201A, EPA 440/5-86-001 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

IV. RESULTS

Field measurements and analytical results from 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: *Analytical Test Results*.

The following is a parameter by parameter discussion of Top Deck monitoring results. For each parameter, its importance in evaluating surface water, comparison to non-contaminated 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 6.68 to 7.68 standard pH units, with all samples within the benchmark range of 5.0 to 9.0. The pH at surface water station S-1 ranged from a low of 6.28 in April to a high of 6.61 in May. The pH of the three leachate aeration pond inflow (LAPI) samples averaged 7.8 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 29 to 240 $\mu\text{mhos}/\text{cm}$. The average conductance at station SW-S1 was 52.5 $\mu\text{mhos}/\text{cm}$, and the leachate pond inflow averaged 3,383 $\mu\text{mhos}/\text{cm}$. 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 10.2 to 12.1°C, all readings being below the WAC-173 criterion. Station SW-S1 averaged 10.8 °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 7.71 to 53.2 NTU during the second quarter. Station SW-S1 had turbidity ranging from 0.51 NTU in April to 1.85 NTU in May. Leachate turbidity is not measured.

The Industrial Stormwater General Permit has a benchmark of 25 NTU; which was exceeded on two out of the four top deck samples. These were SW-A5TD4 on April 16th, 2012 with a value of 41.3 NTU, and SW-A5TD6 on April 18th, 2012 with a value of 53.2 NTU.

The water quality criteria established by WAC 173 states that turbidity must be less than 10 NTU above background, if the background turbidity is less than 50 NTU. The background samples taken at stations SW-W1 and SW-W2 in the second quarter averaged 1.77 NTU in April, 1.70 NTU in May and 4.11 NTU in June. Therefore, both of the above samples that exceeded the Industrial Stormwater General Permit also exceeded WAC 173, with the addition of the sample taken at SW-A5TD1 on April 16th, 2012 that had turbidity of 20.4 NTU.

Since turbidity is a stronger indicator of sediment mixing rather than waste contamination, it is likely that these exceedances were caused by soil runoff due to high intensity rainstorms in the hours before collection of the samples. It should be noted that all exceedances occurred on the same two days of sampling and on both of these days all of the rainfall recorded for the day (0.31 inches on April 16th and 0.12 inches on April 18th) had fallen just before the samples were taken. Additionally, on the day before each sample was taken, little to no rain had fallen, which allows for sediment to be easily mobilized in the surface water stream.

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

Top deck samples ranged from 20.5 to 57.3 mg/L and station SW-S1 ranged from 5.3 to 16.2 mg/L. The average COD level for the leachate aeration pond inflow was 3,070 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 8.48 to 23.3 mg/L. Station SW-S1 TOC results averaged 4.8 mg/L and the TOC levels for the leachate aeration pond inflow averaged 778 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 off water borne organisms or decay of organic matter, including a potential contribution from landfill gas (LFG).

Top deck samples ranged from 11.8 to 83.4 mg/L as CaCO₃. Station SW-S1 values averaged 19 mg/L as CaCO₃, and the average alkalinity level for the leachate aeration pond inflow was 2,577 mg/L as CaCO₃ 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 1.55 mg/L to 3.84 mg/L. Station SW-S1 had an average chloride concentration of 2.27 mg/L. The average chloride level for LAPI was 573.3 mg/L.

Sulfate - Sulfate (SO₄²⁻) 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. Potable water should not exceed 250 mg/L of sulfate.

Top deck samples ranged in concentrations of 0.405 to 31 mg/L. Station SW-S1 had a sulfate concentration average of 1.6 mg/L. Sulfate concentrations at LAPI averaged 37.4 mg/L.

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 (Fe₂O₃). 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 0.044 to 0.651 mg/L. Total iron ranged from 0.353 to 3.52 mg/L.

The average concentration of total iron at station SW-S1 was 0.094 mg/L, while the concentrations at the leachate aeration pond inflow averaged 17.1 mg/L.

The EPA surface water criterion for total iron is 1.0 mg/L; therefore, two out of the four top deck samples exceeded the surface water criterion for total iron this quarter. These were SW-A5TD4 on April 16th, 2012 with a concentration of 1.76 mg/L and SW-A5TD6 on April 18th, 2012 with a concentration of 3.52 mg/L.

Similar to turbidity, total iron contamination is often associated with soil mixing in a water stream. Because the iron exceedances occurred in the same samples as the turbidity exceedances, it is likely that the iron spikes are due to the increased concentration of soil runoff in the surface water stream due to the high intensity rainstorms.

TABLE 5													
AREA 5 TOP DECK STORMWATER MONITORING DATA													
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 CaCO ₃	mg/L	mg/L	mg/L	mg/L
SW-A5TP1	4/16/2012	STD11204 16-	7.68	240	10.2	20.4	23	9.98	83.4	2.6	31	0.073	0.955
SW-A5TP2	4/26/2012	STD21204 26-	6.68	29	12.1	7.71	40.6	14.4	11.8	<0.1U	0.405	0.094	0.353
SW-A5TP4	4/16/2012	STD41204 16-	6.69	51	10.7	41.3	20.5	8.48	14.9	1.55	4.07	0.044T	1.76
SW-A5TP6	4/18/2012	STD61204 18-	7.38	140	10.6	53.2	57.3	23.3	54.4	3.84	4.02	0.651	3.52
SW-S1	4/17/2012	SS1-120417Q	6.28	51	8.2	0.51	5.6T	4.41	16.7	2.14	2.15	0.01T	0.0792
SW-S1	4/26/2012	SS1-120426M	6.52	47	10.9	0.99	16.2	5.31	18.2	2.13	1.98	0.013T	0.12
SW-S1	5/22/2012	SS1-120522M	6.61	50	11.8	1.85	5.3T	4.83	20.4	2.6	1.3	0.03T	0.049T
SW-S1	6/18/2012	SS1-120618M	6.55	62	12.3	0.96	10.8	4.66	20.7	2.21	0.814	0.037T	0.082

U = UNDETECTED\ANALYTE CONCENTRATION < MDL.

T = ESTIMATED. LESS THAN RDL BUT GREATER THAN MDL.

TABLE 6											
LEACHATE POND INFLOW MONITORING DATA											
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 CaCO ₃	mg/L	mg/L	mg/L
LS-API	4/4/2012	LAPI120404M	7.65	5300	4.2	1340	336	1250	269	23	9.38
LS-API	5/3/2012	LAPI120503M	7.93	3350	7.3	3680	1220	3110	690	45.3	21.6
LS-API	6/13/2012	LAPI120613M	7.81	1500	10.4	4190	1350 S	3370	761	43.9	20.4

S = SAMPLING HANDLING ERRORS

NOTE: LEACHATE IS NOT ANALYZED FOR DISSOLVED IRON.

V. CONCLUSION

During the second quarter of 2012, there were exceedances of the surface water quality criterion for both turbidity and total iron. Turbidity levels exceeded the standards of the Industrial Stormwater General Permit in two samples: an exceedance of 16.3 NTU at station #4 on April 16th and an exceedance of 28.2 NTU at station #6 on April 18th. There were three exceedances of the WAC 173 limits for turbidity during the quarter: at stations #4 and #6 as mentioned above, with the addition of station #1 on April 16th. The total iron exceedances occurred on April 16th at station #4 and on April 18th at station #6, exceeding the EPA surface water criterion by 0.76 and 2.52 mg/L, respectively.

It is concluded that the cause of these exceedances is the heavy rainstorms, which liberate soils and carry particles along with the high flow through the drainage channels where the samples were collected. These channels would then transport this runoff to stormwater ponds or other on-site surface water treatment devices that would allow the soil to settle out of the water before the water leaves the site.

These exceedance results are similar to the previous two quarters of Area 5 Top Deck Monitoring, which indicates no major change in surface flow quality due to contamination from the underlying waste.

FIGURES



LEGEND:

○ ACTIVE MONITORING STATION

Figure 1. Area 5 Settlement Monitoring Locations

DATE	REVISION	BY



KING COUNTY DEPARTMENT OF
NATURAL RESOURCES AND PARKS
SOLID WASTE DIVISION

CEDAR HILLS REGIONAL LANDFILL
SETTLEMENT MONITORING LOCATIONS

APPROVED VOD DATE JUNE 2010
RECOMMENDED DATE
DESIGNED X00.J00XX DRAWN TDP
PROJECT NO. SURVEY NO. SHEET 1 OF 1

AREA 5 TOP DECK STORMWATER MONITORING STATION	
STATION NUMBER	STATION DESCRIPTION
SW-AST01	NORTHEAST PORTION OF AREA 5 TOP DECK WHERE RUNOFF FROM THE NORTH SLOPE IS DRAINED INTO A TEMPORARY 12-INCH CULVERT. SAMPLING TO BE PERFORMED AT THE OUTLET OF THE CULVERT.
SW-AST02	NORTH SLOPE OF AREA 5 WHERE RUNOFF FROM THE NORTH SLOPE IS DRAINED INTO A TEMPORARY 12-INCH CULVERT. SAMPLING TO BE PERFORMED AT THE OUTLET OF THE CULVERT.
SW-AST03	WEST OF THE AREA 5 TOP DECK, WITHIN THE OUTLET END OF A TEMPORARY 12-INCH PIPE, THE TEMPORARY 12-INCH PIPE IS IN PLACE BECAUSE THE EXISTING 12-INCH PIPE HAS NOT YET BEEN LINED. IT CURRENTLY HAVE COVER SOIL. ONCE THE COVER SOIL IS IN PLACE THE PIPE WILL BE REMOVED AND THE SAMPLE LOCATION WILL NO LONGER BE MONITORED.
SW-AST04	CENTER OF THE WEST PORTION OF AREA 5 TOP DECK. SW DITCH DRAINS INTO THE "VALLEY" RUNNING EAST TO THE INLET OF THE SW DITCH LINED WITH CEM.
SW-AST05	THE OUTLET END OF A TEMPORARY 12-INCH PIPE THAT CONVEYS RUNOFF FROM THE SOUTHWEST CORNER OF THE AREA 5 TOP DECK. THE TEMPORARY 12-INCH PIPE IS IN PLACE BECAUSE THE SOUTH SLOPES GEOMEMBRANE DOES NOT CURRENTLY HAVE COVER SOIL. ONCE THE COVER SOIL IS IN PLACE THE PIPE WILL BE REMOVED AND THE SAMPLE LOCATION WILL NO LONGER BE MONITORED. THE SW DITCH LINED WITH CEM WILL NO LONGER CONDUIT RUNOFF FROM THE AREA 5 TOP DECK.
SW-AST06	WEST OF AREA 5 TOP DECK, WITHIN THE OUTLET END OF A TEMPORARY 12-INCH PIPE, THE SW DITCH LINED WITH CEM RECEIVES TOP DECK FLOW FROM TWO SW DITCHES THAT INTERSECT AT THE SAMPLE LOCATION.

STATIONS SW-AST03 AND SW-AST05 WERE TEMPORARY STORMWATER MONITORING STATIONS THAT CEASED TO EXIST AS OF JULY 16, 2007.

LEGEND:



STORMWATER MONITORING STATION



Figure 2. Top Deck Stormwater Monitoring Locations

Area 5 Top Deck
Stormwater Monitoring Stations

Cedar Hills Regional Landfill
Area 5 Stage 4 Final Closure
King County, Washington

FIGURE 2

APPENDIX A: INSPECTION REPORTS

Work Order Task List

Repair Code: PMS BS

Equipment: CHARE5E - AREA 5 EAST - APRIL

Work Order: 0000009580

Complete?	Step	Tasks	OK	Adjust	Repair	Replace	Comments
	1	Gas- Monthly Header PM Area 5 East	/				
	2	Gas- Ck collection field pipe integrity	/				
	3	Gas- Ck collection field pipe alignment	/				
	4	Gas- Ck for damage @ possible stress pts	/				
	5	Gas- Ck for damage at vertical pipes	/				
	6	Gas- Ck for damage at flare stations	/				
	7	Gas- Ck for damage at well heads	/				
	8	Gas- Note any deficiencies	/				

4-11-12

CHCKNG TOP OF AREA 5 - w/ TVA. 2 HRS.

Work Order Report - WO# 0000009580

3/27/2012 11:27:13 AM

WO Company: Gas King County Landfill Gas

WO Department: 7572 Waste Water, LF Gas

WO Shop: Gas Landfill Gas

Equipment: CHAREA5E License: na

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

TECHNICIAN COPY

**WO#: 0000009580**

Date In: 03/27/2012 11:26

Date Out: 00:00

WO Status: A Last WO#: 0000009543
 WO Priority: Last WO Date: 03/02/2012
 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

Cedar Hills Area 5 East

Fuel Cap2: 0.000

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD
----------	---------	-----------	----------	--------	-----

PM SERVICE

Type	Cycle	Next Due	Description
S	0 - MONTHS	03/28/2012	Scheduled Inspection
W	W - WEEKS	04/16/2012	Weekly Inspection

WARRANTY INFORMATION

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

REPAIRS

RTY	Description	Status	MID	Est. Labor	Shop
PMS BS	PM Service PMS per list Billable Scheduled, Target	0	761	<i>[Signature]</i>	0.00000 Gas

NOTES

Work Order Task List

Repair Code: PMS BS

Equipment: CHARE5E - AREA 5 EAST - MAY

Work Order: 0000009696

Complete?	Step	Tasks	OK	Adjust	Repair	Replace	Comments
	1	Gas- Monthly Header PM Area 5 East	/				
	2	Gas- Ck collection field pipe integrity	/				
	3	Gas- Ck collection field pipe alignment	/				
	4	Gas- Ck for damage @ possible stress pts	/				
	5	Gas- Ck for damage at vertical pipes	/				
	6	Gas- Ck for damage at flare stations	/				
	7	Gas- Ck for damage at well heads	/				
	8	Gas- Note any deficiencies	/				

50 mins}

WO Company: Gas King County Landfill Gas

WO Department: 7572 Waste Water, LF Gas

WO Shop: Gas Landfill Gas

Equipment: CHAREA5E License: na

TECHNICIAN COPY



WO#: 0000009696

Date In: 05/01/2012 08:54

Date Out: 00:00

WO Status: A Last WO#: 0000009670

WO Priority: Last WO Date: 03/28/2012

Track DownTime: Y Operator: WG

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 Cedar Hills Area 5 East
 Fuel Cap2: 0.000

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD
----------	---------	-----------	----------	--------	-----

PM SERVICE

Type	Cycle	Next Due	Description
S	0 - MONTHS	05/28/2012	Scheduled Inspection
W	W - WEEKS	05/14/2012	Weekly Inspection

WARRANTY INFORMATION

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

REPAIRS

RTY	Description	Status	MID	Est. Labor	Shop
PMS BS	PM Service PMS per list Billable Scheduled, Target	0	762 763 11	0.00000	Gas

NOTES

Work Order Task List

Repair Code: PMS BS

Equipment: CHAREASE - AREA 5 EAST - JUNE

Work Order: 0000009836

Complete?	Step	Tasks	OK	Adjust	Repair	Replace	Comments
6/18	1	Gas- Monthly Header PM Area 5 East	/				
	2	Gas- Ck collection field pipe integrity	/				
	3	Gas- Ck collection field pipe alignment	/				
	4	Gas- Ck for damage @ possible stress pts	/				
	5	Gas- Ck for damage at vertical pipes	/				
	6	Gas- Ck for damage at flare stations	/				
	7	Gas- Ck for damage at well heads	/				
	8	Gas- Note any deficiencies					

30 min.

Work Order Report - WO# 0000009836

6/1/2012 2:08:40 PM

WO Company: Gas King County Landfill Gas

WO Department: 7572 Waste Water, LF Gas

WO Shop: Gas Landfill Gas

Equipment: CHAREA5E License: na

Location: 20

Color:

Year: 2006

Serial: na

Make: UD

Engine:

Model: UD

Class: ZZZZZZZGS: Landfill Gas - not classified

TECHNICIAN COPY

**WO#: 0000009836**

Date In: 06/01/2012 14:08

Date Promised: 06/02/2012 14:08

Date Out: 00:00

WO Status: A Last WO#: 0000009772

WO Priority: Last WO Date: 05/01/2012

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

Cedar Hills Area 5 East

Fuel Cap2: 0.000

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD
----------	---------	-----------	----------	--------	-----

PM SERVICE

Type	Cycle	Next Due	Description
S	0 - MONTHS	06/28/2012	Scheduled Inspection
W	W - WEEKS	06/11/2012	Weekly Inspection

WARRANTY INFORMATION

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

REPAIRS

RTY	Description	Status	MID	Est. Labor	Shop
PMS BS	PM Service PMS per list Billable Scheduled, Target	0	764	<i>JB</i>	0.00000, Gas

NOTES

Work Order Task List

Repair Code: PMS BS

Equipment: CHAREASW - AREA 5 WEST - APRIL

Work Order: 0000009581

Complete?	Step	Tasks	OK	Adjust	Repair	Replace	Comments
	1	Gas- Monthly Header PM Area 5 West	/				
	2	Gas- Ck collection field pipe integrity	/				
	3	Gas- Ck collection field pipe alignment	/				
	4	Gas- Ck for damage @ possible stress pts	/				
	5	Gas- Ck for damage at vertical pipes	/				
	6	Gas- Ck for damage at flare stations	/				
	7	Gas- Ck for damage at well heads	/				
	8	Gas- Note any deficiencies	/				

4-4-12

1 HK

WO Company: Gas King County Landfill Gas

WO Department: 7572 Waste Water, LF Gas

WO Shop: Gas Landfill Gas

Equipment: CHAREA5W License: na

Location: 20

Color:

Year: 2006

Serial: na

Make: UD

Engine:

Model: UD

Class: ZZZZZZZGS: Landfill Gas - not classified

TECHNICIAN COPY

**WO#: 0000009581**

Date In: 03/27/2012 11:27

Date Out: 00:00

WO Status: A Last WO#: 0000009544

WO Priority: Last WO Date: 03/02/2012

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

Cedar Hills Area 5 West

Fuel Cap2: 0.000

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD
----------	---------	-----------	----------	--------	-----

PM SERVICE

Type	Cycle	Next Due	Description
S	0 - MONTHS	03/28/2012	Scheduled Inspection
W	W - WEEKS	04/16/2012	Weekly Inspection

WARRANTY INFORMATION

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

REPAIRS

RTY	Description	Status	MID	Est. Labor	Shop
PMS BS	PM Service PMS per list Billable Scheduled, Target	0	761	<i>[Signature]</i>	0.00000 Gas

NOTES

Work Order Task List

Repair Code: PMS BS

Equipment: CHAREASW - AREA 5 WEST - MAY

Work Order: 0000009697

Complete?	Step	Tasks	OK	Adjust	Repair	Replace	Comments
<i>S/BO</i>	1	Gas- Monthly Header PM Area 5 West	/				
	2	Gas- Ck collection field pipe integrity	/				
	3	Gas- Ck collection field pipe alignment	/				
	4	Gas- Ck for damage @ possible stress pts	/				
	5	Gas- Ck for damage at vertical pipes	/				
	6	Gas- Ck for damage at flare stations	/				
	7	Gas- Ck for damage at well heads	/				
	8	Gas- Note any deficiencies	/				

~30 mins

WO Company: Gas King County Landfill Gas

WO Department: 7572 Waste Water, LF Gas

WO Shop: Gas Landfill Gas

Equipment: CHAREA5W License: na

Location: 20

Color:

Year: 2006

Serial: na

Make: UD

Engine:

Model: UD

Class: ZZZZZZZGS: Landfill Gas - not classified

TECHNICIAN COPY

**WO#: 0000009697**

Date In: 05/01/2012 08:55

Date Out: 00:00

WO Status: A Last WO#: 0000009671

WO Priority: Last WO Date: 03/28/2012

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

Cedar Hills Area 5 West

Fuel Cap2: 0.000

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD
----------	---------	-----------	----------	--------	-----

PM SERVICE

Type	Cycle	Next Due	Description
S	0 - MONTHS	05/28/2012	Scheduled Inspection
W	W - WEEKS	05/14/2012	Weekly Inspection

WARRANTY INFORMATION

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

REPAIRS

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

NOTES

Work Order Task List

Repair Code: PMS BS

Equipment: CHAREA5W - AREA 5 WEST - JUNE

Work Order: 0000009835

Complete?	Step	Tasks	OK	Adjust	Repair	Replace	Comments
6/18	1	Gas- Monthly Header PM Area 5 West	/				
	2	Gas- Ck collection field pipe integrity	/				
	3	Gas- Ck collection field pipe alignment	/				
	4	Gas- Ck for damage @ possible stress pts	/				
	5	Gas- Ck for damage at vertical pipes	/				
	6	Gas- Ck for damage at flare stations	/				
	7	Gas- Ck for damage at well heads	/				
	8	Gas- Note any deficiencies	/				

30 min.

WO Company: Gas King County Landfill Gas

WO Department: 7572 Waste Water, LF Gas

WO Shop: Gas Landfill Gas

Equipment: CHAREA5W License: na

Location: 20
 Year: 2006
 Make: UD
 Model: UD
 Class: ZZZZZZZGS: Landfill Gas - not classified

Color:
 Serial: na
 Engine:

TECHNICIAN COPY

**WO#: 0000009835**

Date In: 06/01/2012 14:07

Date Promised: 06/02/2012 14:07

Date Out: 00:00

WO Status: A Last WO#: 0000009773
 WO Priority: Last WO Date: 05/01/2012
 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

Cedar Hills Area 5 West

Fuel Cap2: 0.000

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD
----------	---------	-----------	----------	--------	-----

PM SERVICE

Type	Cycle	Next Due	Description
S	0 - MONTHS	06/28/2012	Scheduled Inspection
W	W - WEEKS	06/11/2012	Weekly Inspection

WARRANTY INFORMATION

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

REPAIRS

RTY	Description	Status	MID	Est. Labor	Shop
PMS BS	PM Service PMS per list Billable Scheduled, Target	0	764	JB	0.00000 Gas

NOTES

APRIL 2012 - PREVENTATIVE MAINTENANCE
 For CHAREA4, CHAREA5, CHAREA6, CHAREAS23, CHCENTRALPIT,
 CHEMH, CHSEPA, CHSSWA, CHSWMH (9)

PMG BS (GAS SYSTEM)

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 (SURFACE WATER COLLECTION SYSTEM)

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 (COVER SYSTEM)

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: 4-26-12

WO Company: Gas King County Landfill Gas

WO Department: 7572 Waste Water, LF Gas

WO Shop: Gas Landfill Gas

Equipment: CH AREA5 License: na

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

TECHNICIAN COPY

**WO#: 0000009634**

Date In: 03/27/2012 15:00

Date Out: 00:00

WO Status: A Last WO#: 0000009507

WO Priority: Last WO Date: 03/02/2012

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
G	0 - MONTHS	03/10/2012	Gas System
T	0 - MONTHS	03/10/2012	Stormwater
V	0 - MONTHS	03/10/2012	Cover System

WARRANTY INFORMATION

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

REPAIRS

RTY	Description	Status	MID	Est. Labor	Shop
PMG BS	PM Service PM Gas System Billable Scheduled, Target	0	764	0.00000	Gas
PMT BS	PM Service PM Stormwater Billable Scheduled, Target	0	764	0.00000	Gas
PMV BS	PM Service PM Cover System Billable Scheduled, Target	0	764	0.00000	Gas

NOTES

MAY 2012 – PREVENTATIVE MAINTENANCE

For CHAREA4, CHAREA5, CHAREA6, CHAREAS23, CHCENTRALPIT,
CHEMH, CHSEPA, CHSSWA, CHSWMH (9)

PMG BS (GAS SYSTEM)

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 (SURFACE WATER COLLECTION SYSTEM)

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 (COVER SYSTEM)

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: 5-22-12

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

TECHNICIAN COPY

**WO#: 0000009762**

Date In: 05/01/2012 11:50

Date Out: 00:00

WO Status: A Last WO#:0000009634
 WO Priority: Last WO Date: 03/27/2012
 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
G	0 - MONTHS	05/10/2012	Gas System
T	0 - MONTHS	05/10/2012	Stormwater
V	0 - MONTHS	05/10/2012	Cover System

WARRANTY INFORMATION

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

REPAIRS

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

NOTES

JUNE 2012 - PREVENTATIVE MAINTENANCE

For CHAREA4, CHAREA5, CHAREA6, CHAREAS23, CHCENTRALPIT,
CHEMH, CHSEPA, CHSSWA, CHSWMH (9)

PMG BS (GAS SYSTEM)

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 (SURFACE WATER COLLECTION SYSTEM)

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 (COVER SYSTEM)

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: 6-12-12

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

TECHNICIAN COPY

**WO#: 0000009889**

Date In: 06/04/2012 09:12

Date Promised: 06/05/2012 09:12

Date Out: 00:00

WO Status: A Last WO#: 0000009762
 WO Priority: Last WO Date: 05/01/2012
 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
G	0 - MONTHS	06/10/2012	Gas System
T	0 - MONTHS	06/10/2012	Stormwater
V	0 - MONTHS	06/10/2012	Cover System

WARRANTY INFORMATION

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

REPAIRS

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

NOTES

ENGINEERING SERVICES SECTION

Landfill Facility Site Inspections

Type - Permit Compliance

 Inspected By: MIKE MCNEIL

 Telephone: 206-296-0485

 Location: CEDAR HILLS

 Ambient Temperature (°F) 50° Weather Condition: PARTLY CLOUDY

 Inspector's Signature: Mike McNeil

 Date: 4/19/2012

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. Asbestos Pit	/	
5. Odor	/		5. Collection System	/		5. Perimeter Fences	/	
6. Flare Stations	/		a. Collection Pipes	/		6. Vegetation	/	
7. Air Compressors	/		b. Force mains	/		7. Landfill Cover	/	
8. H ₂ S Scrubbers	/		c. Manholes	/		8. Drain Rock	/	
			d. Cleanouts	/		9. Air Quality	/	
D. Stormwater System			6. Generators	/		10. Stockpiles	/	
1. Ponds	/		7. Extraction Wells	/		11. Vectors	/	
2. CB / Control Structures	/		8. Valve / Cleanout	/		12. Compaction	/	
3. Pipes / Culverts	/		9. Groundwater Extraction Wells	/		13. Litter	/	
4. Trash Racks	/		E. Roadway System			14. Dust Control	/	
5. Ditches	/		1. Road Sweeping	/		F. Cover System / ESC		
6. Runoff Control Berms	/		2. Access Roads	/	✓	1. Vegetation	/	
7. General	/		3. Road Erosion	/		2. Refuse	/	
G. Operations			4. Road Pavement	/		3. Cover Erosion	/	
1. Records Obtain / Review	/		5. Striping	/		4. Hay Bales, Silt Fences, Filter Fabric, etc.	/	

Action Code	Area Code(s) Area Map	Status F P	State Reason	Date Corrective Action Implemented
				Date Corrective Action Implemented
D-3	BUFF	H-1 ✓	DAMAGED CULVERT & STANDING WATER	
E-2	BUFF	H-3 ✓	TREES OVER FENCE	

Area Codes (for Cedar Hills)

East Main Hill = EMH

Area 2/3 = A2/3

Aeration Ponds = AP

Area 5 = A5

Southwest Main Hill = SWMH

Area 4 = A4

So. Solid Waste Area = SSWA

Area 6 = A6

Southeast Pit Area = SEPA

Stockpile = SP

North Flare Station = NFS

Central Pit = CP

Status Codes

F = Fair

P = Poor

ENGINEERING SERVICES SECTION

Landfill Facility Site Inspections

Type – Permit Compliance

 Inspected By: Stevn Larry

Telephone: (206) 296-8453

 Location: Cedar Hills

 Ambient Temperature (°F) 60

 Weather Condition: Clear, Warm

 Inspector's Signature: Stevn Larry

 Date: May 14th 2012

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. Asbestos Pit	X	
5. Odor	X		5. Collection System	X		5. Perimeter Fences	X	
6. Flare Stations	X		a. Collection Pipes	X		6. Vegetation	X	
7. Air Compressors	X		b. Force mains	X		7. Landfill Cover	X	
8. H ₂ S Scrubbers	X		c. Manholes	X		8. Drain Rock	X	
			d. Cleanouts	X		9. Air Quality	X	
D. Stormwater System			6. Generators	X		10. Stockpiles	X	
1. Ponds	X		7. Extraction Wells	X		11. Vectors	X	
2. CB / Control Structures	X		8. Valve / Cleanout	X		12. Compaction	X	
3. Pipes / Culverts	X		9. Groundwater Extraction Wells	X		13. Litter	X	
4. Trash Racks	X					14. Dust Control	X	
5. Ditches	X		E. Roadway System					
6. Runoff Control Berms	X		1. Road Sweeping	X		F. Cover System / ESC		
7. General	X		2. Access Roads	X		1. Vegetation	X	
			3. Road Erosion	X		2. Refuse	X	
G. Operations			4. Road Pavement	X		3. Cover Erosion	X	
1. Records Obtain / Review			5. Striping	X		4. Hay Bales, Silt Fences, Filter Fabric, etc.	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	A5	H (3&4)		X		Strong compost odors along south fence line. Overall air quality is fair on active face and good in closed areas and buffers with the exception of the south property line.	
2	C5	H 5		X		Damaged loose fence materials along south prop. line.	
3	D1	G2		X		South storm water pond has high silt content in outlet flow.	

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		
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

Action to be Completed:	Suggested Remedy:
Category number:	Suggested Remedy: Over all, the site looks good, nothing to report other than minor maintenance improvements. Also noted was a culvert inlet that was damaged by mowing around area H2, just northwest of aeration pond. The inlet is still functioning and replacement is not needed.
Category number:	Suggested Remedy:
Category number:	Suggested Remedy:
Category number:	Suggested Remedy:

ENGINEERING SERVICES SECTION

Landfill Facility Site Inspections

Type - Permit Compliance
Inspected By: MIKE MC EWENTelephone: 206-296-0485Location: CEDAR HILLS Ambient Temperature (°F) 60 Weather Condition: OCASTInspector's Signature: Nicholas D. McEwen Date: 6/25/12

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. Asbestos Pit		
5. Odor			5. Collection System			5. Perimeter Fences	✓	
6. Flare Stations			a. Collection Pipes			6. Vegetation		
7. Air Compressors			b. Force mains			7. Landfill Cover		
8. H ₂ S Scrubbers			c. Manholes			8. Drain Rock		
			d. Cleanouts			9. Air Quality		
D. Stormwater System			6. Generators			10. Stockpiles		
1. Ponds			7. Extraction Wells			11. Vectors		
2. CB / Control Structures			8. Valve / Cleanout			12. Compaction		
3. Pipes / Culverts			9. Groundwater Extraction Wells			13. Litter		
4. Trash Racks						14. Dust Control		
5. Ditches			E. Roadway System					
6. Runoff Control Berms			1. Road Sweeping			F. Cover System / ESC		
7. General			2. Access Roads			1. Vegetation		
			3. Road Erosion		✓	2. Refuse		
G. Operations			4. Road Pavement			3. Cover Erosion		
1. Records Obtain / Review			5. Striping			4. Hay Bales, Silt Fences, Filter Fabric, etc.		

Action Code	Area Code(s)	Status	State Reason				Date Corrective Action Implemented
	Area Map	F P					
OTHER	SHOP G 4		✓	ACCESS BLOCKED TO MW-77			
OTHER	LEPS H 2		✓	ACCESS BLOCKED TO MW-44			
E 3	BUFF H 1		✓	SAME PONDING IN ROAD			
C 5	BUFF H 5		✓	ATTACH FABRIC TO POSTS			
C 5	" C 6		✓	FABRIC SLUMPING			
C 6	" B 1		✓	TREE ACROSS ROAD			

Area Codes (for Cedar Hills)

East Main Hill = EMH

Area 2/3 = A2/3

Aeration Ponds = AP

Area 5 = A5

Southwest Main Hill = SWMH

Area 4 = A4

So. Solid Waste Area = SSWA

Area 6 = A6

Southeast Pit Area = SEPA

Stockpile = SP

North Flare Station = NFS

Central Pit = CP

Status Codes

F = Fair

P = Poor

Category number:	Suggested Remedy:
------------------	-------------------

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

A

B

C

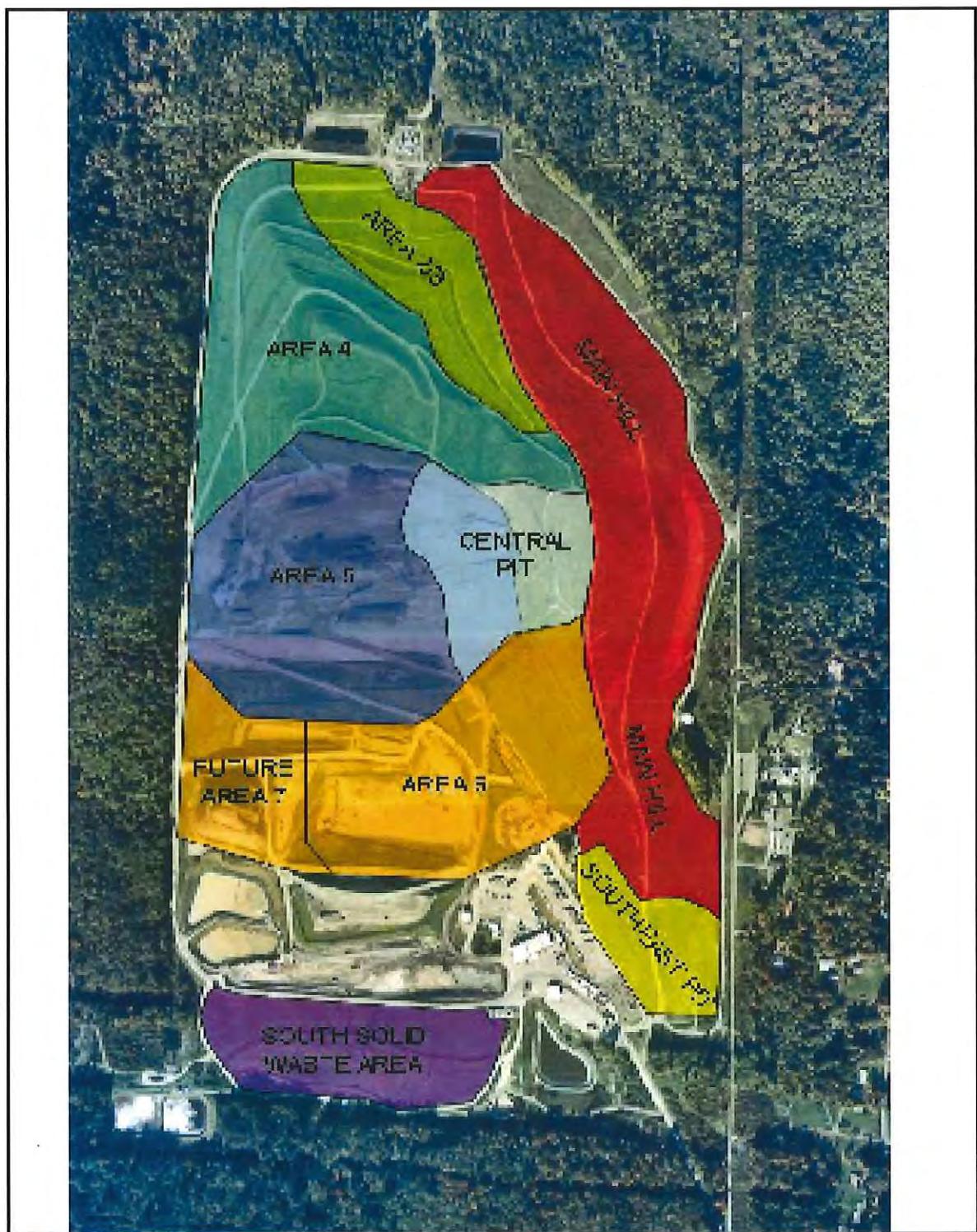
D

E

F

G

H



Inspection Survey Report
Solid Waste Program



Public Health - Seattle & King County
Environmental Hazards Section 206-205-4394
401 Fifth Avenue, Suite 1100 • Seattle, WA 98104

Page _____ of _____

Business Name	Operator	Phone			
<i>Cedar Hills Regional Landfill KC SWD</i>		(206) 296-4490			
Address	City	ZIP			
<i>16645 228th Ave. SE Maple Valley</i>		<i>98038</i>			
Time In					
15:11					
EHS	Date	General Health Record ID	P/E	Activity Time	Travel Time
D A Y	04/13/12	PRSR 0015736	1006	54 m	113 m

Violation Number	Violation Description	Correction Date	Service
			126 <input type="checkbox"/> Fld PI Rvw
			127 <input type="checkbox"/> Pre-Operat
			128 <input checked="" type="checkbox"/> Routine
			129 <input type="checkbox"/> Return
			130 <input type="checkbox"/> Complaint
			131 <input type="checkbox"/> Comp Rtn
			<input type="checkbox"/>

Comments / Observations	Results
<i>Good Line parking - appears well maintained</i>	01 <input checked="" type="checkbox"/> Satisfactory
<i>Leachate Lagoons - No odors detected</i>	02 <input type="checkbox"/> Unsatisfactory
<i>Vactor Waste Drying Pad - No build up of solid material present. No vectors observed</i>	07 <input type="checkbox"/> In Compliance
<i>Area 7 - Side slopes appear to have better coverage of surface debris. No bird population of concern</i>	08 <input type="checkbox"/> Not in Compliance
<i>Area 5 - (West portion) - some wind blown plastic materials present (Advise pick-up to avoid violation build up)</i>	22 <input type="checkbox"/> Not Access
<i>Area 6 - No problems noted or observed.</i>	<input type="checkbox"/>
	Action
	00 <input checked="" type="checkbox"/> Not Applicable
	04 <input type="checkbox"/> Suspend
	07 <input type="checkbox"/> Approved
	08 <input type="checkbox"/> App w/ Cond
	26 <input type="checkbox"/> Return Visit
	27 <input type="checkbox"/> Phone Follow
	<input type="checkbox"/>
	Misc
	<input type="checkbox"/> Photos Taken
	Weather
	<input checked="" type="checkbox"/> Sunny
	<input type="checkbox"/> Cloudy
	<input type="checkbox"/> Partially Cloudy
	<input type="checkbox"/> Showers
	<input type="checkbox"/> Rain
	<input type="checkbox"/> Wind
	<input type="checkbox"/> Snow

Person in Charge

Judy Heinen

Health Authority

Ed Davis

Based on an inspection this day, the above listed violations must be corrected by the next routine inspection or such period of time as may be specified in writing by the health officer. Failure to comply with this notice may result in immediate suspension of your permit and/or assessment of civil penalties. An opportunity for an appeal of the findings of an inspection report will be provided if a written request is filed with the health officer within ten (10) days of the date of the suspension or inspection. The complete list of inspection items is contained on the back of this form.

Inspection Survey Report
Solid Waste Program



Public Health - Seattle & King County
Environmental Hazards Section 206-205-4394
401 Fifth Avenue, Suite 1100 • Seattle, WA 98104

Page 1 of 1

Business Name <i>Cedar Hills Regional Landfill</i>	Operator <i>KingCo. Solid Waste</i>	Phone <i>(206) 296-4490</i>
Address <i>16645 - 228th Ave. SE</i>	City <i>Maple Valley</i>	ZIP <i>98038</i>
		Time In <i>10:26</i>

EHS	Date DAV 060812	General Health Record ID PR/SR 0015736	P/E 1006	Activity Time 60 m	Travel Time 55 m
-----	----------------------------------	--	--------------------	------------------------------	----------------------------

Violation Number	Violation Description	Correction Date	Service
	No violations not observed		126 <input type="checkbox"/> Fld Pl Rvw 127 <input type="checkbox"/> Pre-Operat 128 <input checked="" type="checkbox"/> Routine 129 <input type="checkbox"/> Return 130 <input type="checkbox"/> Complaint 131 <input type="checkbox"/> Comp Rtn

Comments / Observations

Beachate Leppons! No evidence of problems

Vector Waste Drying Pad = Very little solid waste residual observed

Area 6 - Surface water flowing into control system - as intended. Some patchy areas of higher grass observed - mowing is needed once weather improves

Area 5 - Majority of wind blown debris previously noted has been removed.

Mowing Activities - Evidence of on-going mowing on east portions of landfill. Continues efforts to reduce height of high grass on the entire site

Note: All wind blown debris previously noted near west perimeter road appears to have been removed - good

Person in Charge <i>Tatia Ray</i>	Health Authority <i>Ed Davis</i>
--------------------------------------	-------------------------------------

Based on an inspection this day, the above listed violations must be corrected by the next routine inspection or such period of time as may be specified in writing by the health officer. Failure to comply with this notice may result in immediate suspension of your permit and/or assessment of civil penalties. An opportunity for an appeal of the findings of an inspection report will be provided if a written request is filed with the health officer within ten (10) days of the date of the suspension or inspection. The complete list of inspection items is contained on the back of this form.

Inspection Survey Report
Solid Waste Program



Public Health - Seattle & King County
Environmental Hazards Section 206-205-4394
401 Fifth Avenue, Suite 1100 • Seattle, WA 98104

Page 1 of 1

Business Name	Operator	Phone			
<i>Cedar Hills Regional Landfill KC S.W.D.</i>		(206) 296-4490			
Address	City	ZIP			
16645 228 th Ave. SE	Maple Valley	98038			
EHS	Date	General Health Record ID	P/E	Activity Time	Travel Time
DAV	06/25/12	PR 0015786	1006	85 m	118 m

Violation Number	Violation Description	Correction Date	Service
	<i>No violations observed or detected</i>		126 <input type="checkbox"/> Fld PI Rvw 127 <input type="checkbox"/> Pre-Operat 128 <input checked="" type="checkbox"/> Routine 129 <input type="checkbox"/> Return 130 <input type="checkbox"/> Complaint 131 <input type="checkbox"/> Comp Rtn <input type="checkbox"/>
			Results
			01 <input checked="" type="checkbox"/> Satisfactory 02 <input type="checkbox"/> Unsatisfactory 07 <input type="checkbox"/> In Compliance 08 <input type="checkbox"/> Not in Compliance 22 <input type="checkbox"/> Not Access <input type="checkbox"/>
			Action
			00 <input checked="" type="checkbox"/> Not Applicable 04 <input type="checkbox"/> Suspend 07 <input type="checkbox"/> Approved 08 <input type="checkbox"/> App w/ Cond 26 <input type="checkbox"/> Return Visit 27 <input type="checkbox"/> Phone Follow <input type="checkbox"/>
			Misc
			<input type="checkbox"/> Photos Taken
			Weather
			<input checked="" type="checkbox"/> Sunny <input type="checkbox"/> Cloudy <input checked="" type="checkbox"/> Partly Cloudy <input type="checkbox"/> Showers <input type="checkbox"/> Rain <input type="checkbox"/> Wind <input type="checkbox"/> Snow

Comments / Observations

Good Limp Parking - No indications of debris or poor maintenance

Locate latrines - No problems noted.

Vector Wetter drying pad - inspect this shortly after ~~cleaning~~

Area 5 - Bird control level appears to be adequate.

Area 5 - Wind blown debris has been removed as

previously requested. No ~~land~~ release of landfill gas detected. No collection of water noted in areas of settlement.

Area 10 - No problems observed of landfill gas detected

Flame out

East slopes of landfill - continue to aggressively move ~~soil~~ areas of high vegetation as needed.

Overall - all conditions indicate maintenance appears to be a key operational component at the site.

Person in Charge

Judy Jay

Health Authority

Pat Davis

Based on an inspection this day, the above listed violations must be corrected by the next routine inspection or such period of time as may be specified in writing by the health officer. Failure to comply with this notice may result in immediate suspension of your permit and/or assessment of civil penalties. An opportunity for an appeal of the findings of an inspection report will be provided if a written request is filed with the health officer within ten (10) days of the date of the suspension or inspection. The complete list of inspection items is contained on the back of this form.

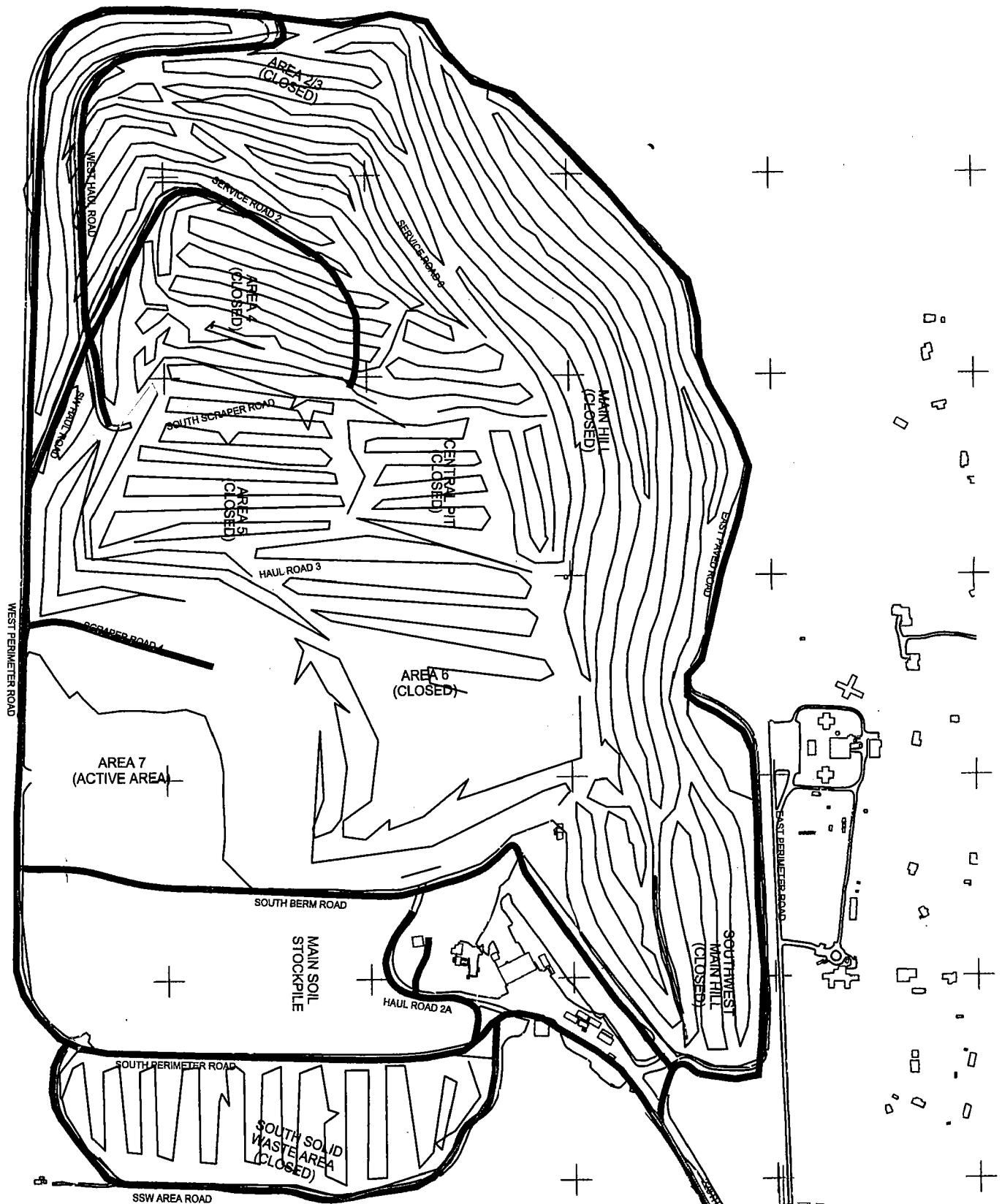
APPENDIX B: GAS MONITORING REPORTS

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

JUNE 2012

Scale 1"=600'

N 175,000 +
 N 174,000 +
 N 173,000 +
 N 172,000 +
 N 171,000 +
 N 170,000 +
 N 169,000 +
 N 168,000 +
 N 167,000 +
 E 1,697,000 +
 E 1,698,000 +
 E 1,699,000 +
 E 1,700,000 +
 E 1,701,000 +
 E 1,702,000 +
 E 1,703,000 +



CEDAR HILLS REGIONAL LANDFILL

SCALE: 1" = 600'
 CONTOUR INTERVALS 5FT.
 DATE OF PHOTOGRAPHY: 01-17-00

KING COUNTY DEPARTMENT OF NATURAL RESOURCES	
KING COUNTY AND PARKS	
Christie True, Director	
SOLID WASTE DIVISION	
CEDAR HILLS QUARTERLY	
GAS EMISSIONS MONITORING	
APPROVED	DATE
RECOMMENDED	DATE
DESIGNED	DATE
DRAWN	DATE
SUPERVISED	DATE
BY	

REASON
DATE

DNRP / King County Solid Waste Serpentine Surface Monitoring Data

Landfill Site: CEDAR HILLS

Date: 6-19-12

Cal. Time: 7:00 AM

Technician: D. Bell

Surveyor M. McEWEN

Calibration :

Test Instrument used: Tensiload

Cal. Gas Lot No: 20328

Cal Gas Used:

CH_4 4912 ppm

O₂ Ambient

Barometric Pressure	Time
Start 30.04	7:00 AM
Stop 30.04	12:00 PM.

90% response time in seconds:

1 6 seconds

2 6 seconds

3 6 seconds

avg. 6 seconds

Weather Conditions: OVERCAST / RAIN

Wind Speed &

Direction (out of): 3 mPit SK

DNRP / King County Solid Waste Serpentine Surface Monitoring Data

Landfill Site: Cedare Hills

Date: 6-19-12

Cal. Time: 12:00 Pm

Technician: D. Bell

Surveyor M. McGraw)

Calibration :

Test Instrument used: TVA 1000

Cal. Gas Lot No: 70328

Cal Gas Used:

CH_4 4/9/e Pm

O₂ Ambient

Barometric Pressure	Time
Start 30.06	12:00pm
Stop 30.08	5:00pm

90% response time in seconds:

1 6 seconds

2 6 seconds

3 6 seconds

avg. 6 seconds

Weather Conditions: Forecast

Wind Speed &

Direction (out of): 6 mph SW

Northing (UTM #)

Easting (10 T #)

Time

Comments

DNRP / King County Solid Waste Serpentine Surface Monitoring Data

Landfill Site: CEDAR HILLS

Date: 6-20-12

Cal. Time: 30.12

Technician: D. BULL

Calibration :

Test Instrument used: TGA 1000

Surveyor M. McLEWEN

Cal. Gas Lot No: 20328

Cal Gas Used:

Barometric Pressure	Time
Start 30.12	7:00 AM
Stop 30.00	12:00 PM.

90% response time in seconds:

1 60 seconds

2 6 seconds

3 6 seconds

avg. 6 seconds

Weather Conditions: Sunny.

Wind Speed & /

Direction (out of): 4 mph N W

DNRP / King County Solid Waste Serpentine Surface Monitoring Data

Landfill Site: Cedars Hills

Date: 10-20-12

Cal. Time: 12:30 PM

Technician: D. Buz

Surveyor M. McLAUGHLIN

Calibration :

Test Instrument used: Tvin 1000

Cal. Gas Lot No: 20328

Cal Gas Used:

CH_4 496 $\text{CH}_4 \text{ ppm}$

O₂ Ambiente

Barometric Pressure	Time
Start 30.00	12:30pm
Stop 29.95	5:15pm

90% response time in seconds:

1 6 seconds

$$2 \frac{1}{6} \text{ seconds}$$

3 6 seconds

avg. 6 seconds

Weather Conditions: Partly Cloudy

Wind Speed &

Direction (out of): 11 mph W

Northing (UTM #)

Easting (10 T #)

Time

Comments

DNRP / King County Solid Waste Serpentine Surface Monitoring Data

Landfill Site: Cedar Hills

Date: 4-21-12

Cal. Time: 7:00 Am

Technician: D. Bell

Calibration :

Test Instrument used: TVA 1000

Surveyor m. mcllwain

Cal. Gas Lot No: 20328

Cal Gas Used:

CH_4 496 ppm

O₂ Ambient

Barometric Pressure	Time
Start 29.96.	7:00AM
Stop 29.90	12:00PM

90% response time in seconds:

1 4 seconds
 2 6 seconds
 3 6 seconds
 avg. 12 seconds

Weather Conditions: Partly Cloudy

Wind Speed &

Direction (out of): Z mph SW

Northing (UTM #)

Easting (10 T #)

Time

Comments

DNRP / King County Solid Waste Serpentine Surface Monitoring Data

Landfill Site: CEDAR HILLS

Date: 6-21-12

Cal. Time: 12:30 PM

Technician: D. Rizzi

Surveyor m. mckinney

Calibration :

Test Instrument used: TVA 1000

Cal. Gas Lot No: 20328

Cal Gas Used:

CH_4 496 ppm
 O_2 Ambient

Barometric Pressure	Time
Start 29.90	12:30 pm
Stop 29.82	5:00 pm

90% response time in seconds:

1	<u>6</u>	seconds
2	<u>6</u>	seconds
3	<u>6</u>	seconds
avg.	<u>6</u>	seconds

Weather Conditions: Partly Cloudy

Wind Speed &

Direction (out of): 7 mph NW

DNRP / King County Solid Waste Serpentine Surface Monitoring Data

Landfill Site: CEDAR HILLS

Date: 6-25-12

Cal. Time: 7:00AM

Technician: D. Bill

Surveyor M. McLEWEN

Calibration :

Test Instrument used: TVA 1000

Cal. Gas Lot No: 20328

Used: CH₄ 4916 ppm
O₂ Ambient

Barometric Pressure	Time
Start 30.00	7:00 AM
Stop 30.00	12:30 PM

90% response time in seconds:

1	<u>1p</u>	seconds
2	<u>4</u>	seconds
3	<u>4p</u>	seconds
avg.	<u>6</u>	seconds

Weather Conditions: Mostly cloudy

Wind Speed &

Direction (out of): 3 mph SW

DNRP / King County Solid Waste Serpentine Surface Monitoring Data

Landfill Site: Cedar Hills

Date: 10-25-12

Cal. Time: 1:00pm

Technician: D. force

Surveyor M. Hansen

Calibration :

Test Instrument used: TGA 1000

Cal. Gas Lot No: 20328

Cal Gas Used:

CH_4 *4510 ppm*

O₂ Ambient

Barometric Pressure	Time
Start 30.00	1:00pm
Stop 29.99	5:00pm

90% response time in seconds:

1 6 seconds

2 6 seconds

3 6 seconds

avg. 6 seconds

Weather Conditions: Mostly Cloudy

Wind Speed &

Direction (out of): Z mph W

Northing (UTM #)

Easting (10 T #)

Time

Comments

DNRP / King County Solid Waste Serpentine Surface Monitoring Data

Landfill Site: CEDAR HILLS

Date: 6-26-1

Cal. Time: 7:00 AM

Technician: D. BELL

Surveyor m. mclewen

Calibration :

Test Instrument used: TVA 1000

Cal. Gas Lot No: 20328

Cal Gas Used:

CH₄ 496 ppm

O₂ Ambient

Barometric Pressure	Time
Start 29.98	7:00 AM
Stop 30.00	12:00 PM

90% response time in seconds:

1 6 seconds

2 1_o seconds

3 4 seconds

avg. \downarrow_e seconds

Weather Conditions: OVerCAST / RAIN

Wind Speed &

Direction (out of): 7 mph SW

DNRP / King County Solid Waste Serpentine Surface Monitoring Data

Landfill Site: Cedar Hills

Date: 4-21-17

Cal. Time: 12:45 pm

Technician: D. Bly

Surveyor M. McSweeney

Calibration :

Test Instrument used: TGA | 800

Cal. Gas Lot No: 20328

Cal Gas Used:

CH₄ H₂O →

O₂ Ambient

Barometric Pressure	Time
Start 30.00	12:45 pm
Stop 30.02	4:40 pm

90% response time in seconds:

1 *b* seconds

2 *f* seconds

3 6 seconds

avg. 6 seconds

Weather Conditions: Forecast

Wind Speed &

DNRP / King County Solid Waste Serpentine Surface Monitoring Data

Landfill Site: CEDAR HILLS

Date: 6-27-12

Cal. Time: 7:00 AM

Technician: D. Bley

Surveyor M. McSwain

Calibration :

Test Instrument used: TvA 1000

Cal. Gas Lot No: 20328

Cal Gas Used:

CH_4 49₁₀ PP_m

O₂ Ambient

Barometric Pressure	Time
Start 30.08	7:00 AM
Stop 30.08	10:00 AM

90% response time in seconds:

1 6 seconds

2 6 seconds

3 6 seconds

avg. 6 seconds

Weather Conditions: Sunny

Wind Speed &

Direction (out of): 2 my ph 55

Work Order Report - WO# 0000009813

6/1/2012 8:11:57 AM

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

TECHNICIAN COPY

**WO#: 0000009813**

Date In: 06/01/2012 08:11

Date Promised: 06/02/2012 08:11

Date Out: 00:00

WO Status: A Last WO#: 0000009749

WO Priority: Last WO Date: 05/01/2012

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	Cedar Hills
Fuel Cap2: 0.000	

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD
----------	---------	-----------	----------	--------	-----

PM SERVICE

Type	Cycle	Next Due	Description
Q	0 - MONTHS	06/06/2012	Quarterly Inspection
X	0 - MONTHS	06/10/2012	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	761	<i>DWJ</i>	0.00000

NOTES

Work Order Task List

Repair Code: PMQ BS

Equipment: Cedar Hills

Work Order: 0000009813

Complete?	Step	Tasks	OK	Adjust	Repair	Replace	Comments
	1.	Gas- Ck liner integrity- Serpentine walk	<input checked="" type="checkbox"/>				

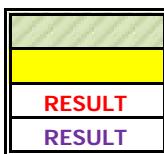
6-19-12 To 6-27-12

53 hrs

APPENDIX C: ANALYTICAL TEST RESULTS

ANALYTICAL TEST RESULTS

Location	Date	Sample ID	ALK. TOT'L	COD	CHLORIDE	IRON	IRON	SULFATE	TOC	FIELD TESTS			
			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	COND (F)	PH (F)	TURB	TEMP	
			N	N	N	D	T	N	N	umhos/cm	pH units	ntu	deg. C
SW-S1	4/17/2012	SS1-120417Q	16.7	5.6T	2.14	0.01T	0.0792	2.15	4.41	51	6.28	0.51	8.2
SW-S1	4/26/2012	SS1-120426M	18.2	16.2	2.13	0.013T	0.12	1.98	5.31	47	6.52	0.99	10.9
SW-S1	5/22/2012	SS1-120522M	20.4	5.3T	2.6	0.03T	0.049T	1.3	4.83	50	6.61	1.85	11.8
SW-S1	6/18/2012	SS1-120618M	20.7	10.8	2.21	0.037T	0.082	0.814	4.66	62	6.55	0.96	12.3
SW-TD1	4/16/2012	STD1120416-	83.4	23	2.6	0.0734	0.955	31	9.98	240	7.68	20.4	10.2
SW-TD2	4/26/2012	STD2120426-	11.8	40.6	<0.1U	0.0938	0.353	0.405	14.4	29	6.68	7.71	12.1
SW-TD4	4/16/2012	STD4120416-	14.9	20.5	1.55	0.044T	1.76	4.07	8.48	51	6.69	41.3	10.7
SW-TD6	4/18/2012	STD6120418-	54.4	57.3	3.84	0.651	3.52	4.02	23.3	140	7.38	53.2	10.6



DUPLICATE SAMPLE TEST RESULTS
 EXCEEDED INDUSTRIAL STORMWATER GENERAL PERMIT BENCHMARK
 EXCEEDED WAC 173
 EXCEEDED EPA LIMITS

Location	Date	Sample ID	ALK. TOT'L	COD	CHLORIDE	IRON DISS.	IRON TOT'L	SULFATE	TOC	COND (F)	PH (F)	TURB	TEMP
			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	umhos/cm	pH units	ntu	deg c	
LS-API	4/4/2012	LAPI120404M	1250	1340	269	N/A	9.38	23	336	5300	7.65	N/A	4.2
LS-API	5/3/2012	LAPI120503M	3110	3680	690	N/A	21.6	45.3	1220	3350	7.93	N/A	7.3
LS-API	6/13/2012	LAPI120613M	3370	4190	761	N/A	20.4	43.9	1350 S	1500	7.81	N/A	10.4
LS-API	MATHAMATICAL AVERAGE		2576.7	3070.0	573.3	N/A	17.1	37.4	778.0	3383.3	7.8	N/A	7.3

